UNIVERGE SV9500

FP95-114 V4

Peripheral Equipment Description (Multi-Line Telephone)

NWD-165798-001
ISSUE 4.0

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UNIVERGE SV9500
Peripheral Equipment Description
(Multi-Line Telephone)

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CHAPTER 1
INTRODUCTION

1. General

This manual provides the procedures on how to configure and connect Multi-Line Telephones.

2. How to Follow This Manual

The contents of this manual are:

CHAPTER		DESCRIPTION
1	INTRODUCTION	This chapter explains the configuration of this manual.
2	DIGITAL TERMINAL	This chapter explains the overview, installation procedures, data assignment, startup procedures, and operation and maintenance procedures for Digital Multi-Line Telephones.
3	IP STATION	This chapter explains the overview, installation procedures, data assignment, startup procedures, and operation and maintenance procedures for IP stations (IP and SIP Multi-Line Telephones).
4	OPTIONAL EQUIPMENT FOR MULTI-LINE TELEPHONE	This chapter explains optional equipment used for Multi-line Telephones.
APPENDIX A	POWER OVER ETHERNET SPECIFICATIONS FOR TERMINALS	This appendix explains Power Over Ethernet Specifications for terminals.
APPENDIX B	POWER CONSUMPTION FOR DT800/DT700 SERIES TERMINALS	This appendix explains power consumption of the DT800/DT700 Series terminals.

3. Terminals Related to This Manual

This manual explains especially about the following terminals.

- Digital Terminal
  DT400 Series
  DT300 Series
  Dterm Series *i*
- IP Station
  DT800 Series
  DT700 Series
  DtermIP (SIP)/DtermIP (Proprietary Protocol)
  DtermIP INASET
  IP Enabled Dterm
- Optional Equipment For Multi-line Telephone
  DSS Console
  Wireless Headset
  16LD LCD Add-on Module (16LD ADM)

CHAPTER 2
DIGITAL TERMINAL

1. General

1.1 Kind of Digital Terminal

Three types of Digital terminals are available. Features most commonly used in daily operation and functions required by the user are provided by the dedicated buttons/lamp. How to connect a Digital terminal is described below.

Note: The maximum distance between the PIR and a Digital terminal is 850 meters (2,789 feet). Be sure to prepare a wire which is smaller number than 24 AWG standards (this means thicker than 0.5 mm) for the installation cable.

DT400 Series, DT300 Series, Dterm Series *i*



DT400 Series*



DT300 Series*

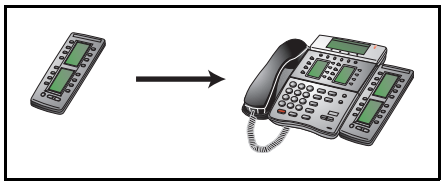


Dterm Series *i* **
Note 1

Note: *: This figure shows a 24-button terminal as an example.
**: This figure shows a 32-button terminal as an example.

Note 1: Add-on module is available to mount on Dterm Series i. See DtermIP section for further details on ADM specifications and installation.

Example: Attaching ADM to Dterm Series i DESI–LESS 16LD Phone



1.1.1 DT400 Series

DT400 Series refers to the following terminals.

DT400 Series			Number of Line/Feature Keys
DT400 Series	DT430	8–button type (DESI–LESS)	32 (8x4)
		24–button type	24
		12–button type	12
	DT410	6–button type	6
		2–button type without LCD	2

1.1.2 DT300 Series

DT300 Series refers to the following terminals.

DT300 Series			Number of Line/Feature Keys
DT300 Series	DT330	8–button type (DESI–LESS)	32 (8x4)
		24–button type with 8LK Unit	32 (24+8)
		24–button type	24
		12–button type with PSA Unit	12
		12–button type	12
		12–button type Cordless Terminal	12 **Note 1**
	DT310	2–button type without LCD	2
		6–button type	6
		12–button type without LCD * * *Available in North America only.*	12

Note 1: For more details, refer to 2.3.1 DT330 (12BT) in Precautions section.

1.1.3 Dterm Series *i*

Dterm Series *i* refers to the following terminals.

Dterm Series *i*		Number of Line/Feature Keys
Dterm Series *i*	4-button Type	4
	8-button Type without LCD	8
	8-button Type	8
	DTR-8D-1R (8-button Type for Russia)	8
	16-button Type	16
	DTR-16D-1R (16-button Type for Russia)	16
	32-button Type	32
	DTR-32D-1R (32-button Type for Russia)	32
	Dterm Series *i* (16LD Unit)	16

2. Precautions

2.1 Common Condition

(1) The digit number of Soft key displayed on the LCD can be changed by system data (ASYDL/ASYDN System Data 1, Index 1258, Bit 2).

Note: When this System Data is changed, initialize the corresponding ELC card.

2.2 When Using DT400 Series

(1) Smart Device integration (terminal cooperation with a mobile phone using Bluetooth adapter) is available for DT400 Series (DT430). For the details, see (6) Precautions for Smart Device Integration: in Precautions section on Chapter 3.

Note: Not available for the terminals accommodated in UG50.

(2) When the time display pattern is changed, initialize the corresponding ELC card.

2.3 When Using DT300 Series

2.3.1 DT330 (12BT)

(1) The following shows service conditions specific to Cordless Terminal (DT330 (12BT)).

- Cordless Terminal (DT330 (12BT)) is available when CH-16ELCA (since SP-4035 16ELCA PROG-A Issue 1) and PA-16ELCN-A (since SP-4034 16ELCN-A PROG-B Issue1) are used.
- By replacing a DT330 handset cradle with the Bluetooth Handset (BCH-LD) as a side option, a DT330 can be used as a Cordless Terminal. For details, refer to the operation manual of the terminal.
- The Bluetooth Handset does not have the Redial key. If you want to use the redial function, assign the function to a Feature key between 1 and 8 by using AKYD FKY=8 (Last Number Called -D [L-6D]). *
  * When pressing the Redial key on the Bluetooth Handset, the call is originated from the speakerphone on the DT330 Base Unit. (The same effect as the key of DT330 Base Unit is pressed). To call with the Bluetooth Handset, press the Call key.
- When a call arrives while the terminal is in another call, the ringer of the DT330 Base Unit is enabled but the ringer of the Bluetooth Handset is disabled.
  When Off Hook Ringing** is set to the terminal, the ringer of the DT330 Base Unit is also disabled.
  ** Off Hook Ringing cannot be set to the Bluetooth Handset.
- While the DT330 Base Unit displays the Menu of Bluetooth setting ([Setting] → [Side Option] → [Bluetooth]), the ringer of the DT330 Base Unit is disabled.
- While the Bluetooth Handset displays the setting menus, the ringer of the Bluetooth Handset is disabled.
- By pressing the Transfer key on the Bluetooth Handset in an idle mode, the DT330 Base Unit is returned to an idle mode, which is a behavior equivalent of pressing the Exit key.

- During the following status of the DT330 Base Unit, to avoid a conflict between the DT330 Base Unit and the Bluetooth Handset, “Base Unit in Use” is displayed on the Bluetooth Handset.

  - Displaying the Menu
  - Displaying the Help
  - Displaying the Call History
  - Displaying the Phone Book

- When using the features such as CALL FORWARDING - BUSY LINE/CALL FORWARDING - DON'T ANSWER/CALL FORWARDING - ALL CALLS, the Bluetooth Handset can display up to 4 digits of the telephone number.

- Bluetooth®, wireless service used by Cordless Terminal (DT330 (12BT)), uses 2.4 GHz frequency. Thus, Bluetooth® interferes other devices that also uses 2.4 GHz frequency. This interference may cause interruptions or noises during a call.To avoid these failure, install the Cordless Terminal (DT330 (12BT)) at the following distance away from the devices.

Note: The installation condition for the DT Series with Bluetooth adapter is equivalent to the Cordless Terminal (DT330 (12BT)).

Cordless Terminal (DT330 (12BT))	WLAN Access Point (Note 1)		Microwave oven (Note 3), Medical equipment, RFID, Other Bluetooth devices (Note 4)	Devices connected to CS/ZT
	IEEE802.11b (Note 2) /11g	IEEE802.11a		
More than 1 meter (3.28 feet) (Note 5)	More than 3 meters (9.84 feet)	More than 1 meter (3.28 feet)	More than 3 meters (9.84 feet)	More than 1 meter (3.28 feet)

Note 1: When more than 4 access points are installed in the same floor, interruptions or noises occur during a call. Because the interference may also occur even if less than 4 access points are installed, detect the radio wave and verify the operation before installing the Cordless Terminal (DT330(12BT)).

Note 2: When IEEE802.11b is used, it is recommended that the frequency of WLAN access point be set to 14ch.

Note 3: Install Cordless Terminal (DT330 (12BT)) at more than 5 meters (16.4 feet) away from the Microwave oven for business use.

Note 4: Install Cordless Terminal (DT330 (12BT)) at more than 3 meters (9.84 feet) away from other devices that use 2.4 GHz frequency.

Note 5: When the Bluetooth Handset is used far from the DT330 Base Unit, output power increases. Then, when DT330 Base Unit is installed at one meter away from each other, Cordless Terminals (DT330 (12BT)) may interfere with each other. Approximately up to 16 Cordless Terminals (DT330 (12BT)) can be installed in the same area. When the Bluetooth Handset is used more than 30 meters (98.4 feet) away from the DT330 Base Unit, approximately up to 10 Cordless Terminals (DT330 (12BT)) can be installed.

- When using the Bluetooth Handset, be sure to initialize the configuration data to the factory default setting. To initialize the configuration data, follow procedures below.

STEP 1: When the Bluetooth Handset is in a standby status, press “HOLD”, “TRF”, “*”, and “#” in sequence.

STEP 2: When configuration menu for the Bluetooth Handset is displayed on LCD, use cursor key for “Up” and “Down” to select “Factory Value”, and press “OK”.

Note: After initialization, be sure not to change the configuration data.

3. Installation Procedure

3.1 How to Connect Digital Terminal

STEP 1: Run the cables between each Digital terminal and its modular block (jack), and between the modular blocks and the MDF. (Protect the cables by using cable ducts, etc.)

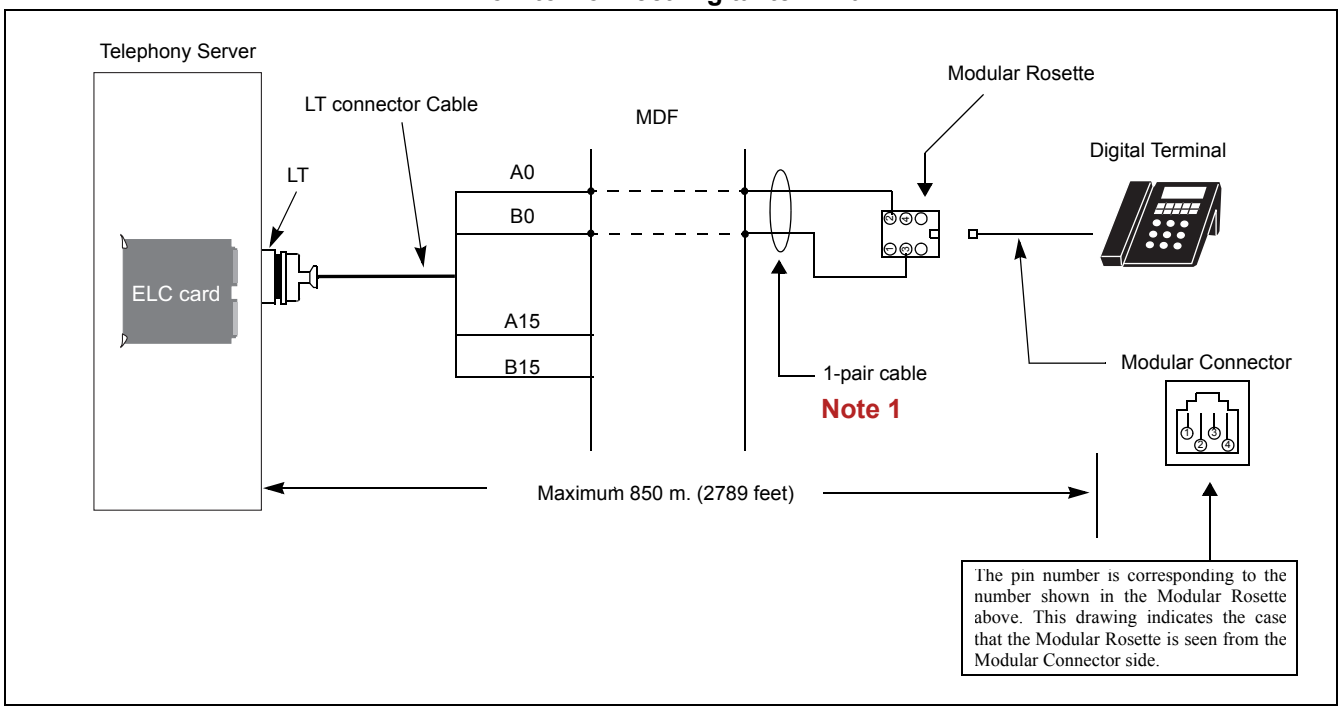
STEP 2: Install an ELC circuit card into a proper slot of PIR for connecting Digital terminals. For more information about ELC circuit card, refer to Circuit Card Description. When the Digital terminal is connected to a vacant port of the existing ELC card, this step is not necessary.

STEP 3: Terminate the installation cables to the MDF and the modular blocks.

STEP 4: Check the terminal locations on the MDF. To identify the lead names and the lead's terminal locations, refer to LT Connector Lead Accommodation of the circuit card in Circuit Card Description.

STEP 5: Provide the necessary cross connection on the MDF referring to the following figure.

How to Connect Digital terminal



Note 1: Be sure to use 2-wire cable (1-pair cable). If using 4-wire cable (2-pair cable), connect the wire to No.2 and No.3, and disconnect from No.1 and No.4, on the modular rosette.

Note: For connection on UG50, refer to the "1. WHAT IS UG50?" in the CHAPTER 1 on Peripheral Equipment Description (UG50) manual.

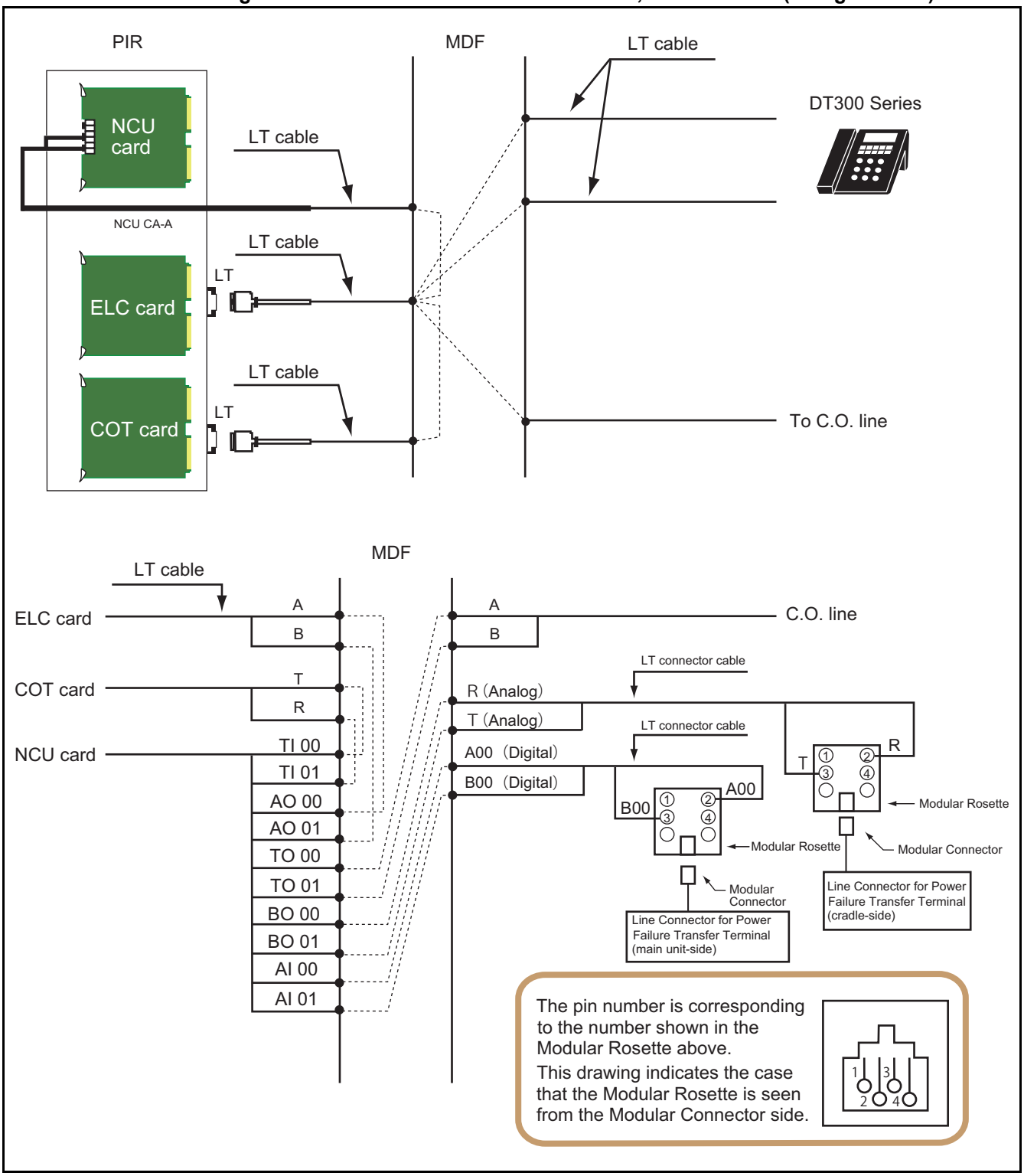
3.1.1 Connection Diagram for Digital Terminal as Power Failure Transfer Terminal

The following are connection diagrams which enable DT300 Series to be used as Power Failure Transfer Terminals.You need to determine whether PB or DP is used for the analog line beforehand.

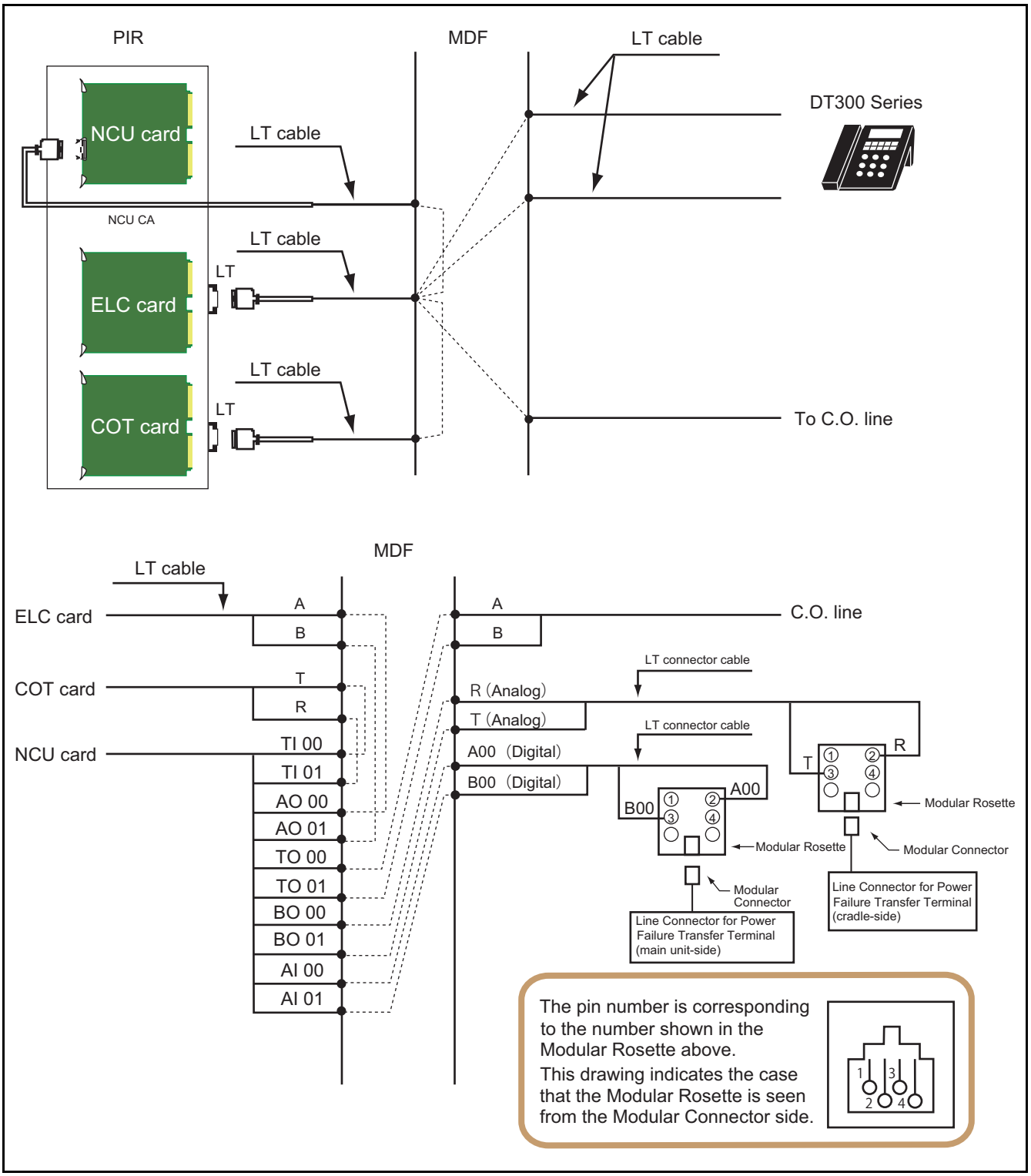
Note: Notice the following:

- The default setting for dial type is PB. When using DP, see How to Switch the Dial Type.
- NCU card (CH-M01, PA-M69-A, or PA-M69-B) is required.
- Accommodation of connector leads is depending on LENS of the circuit card.

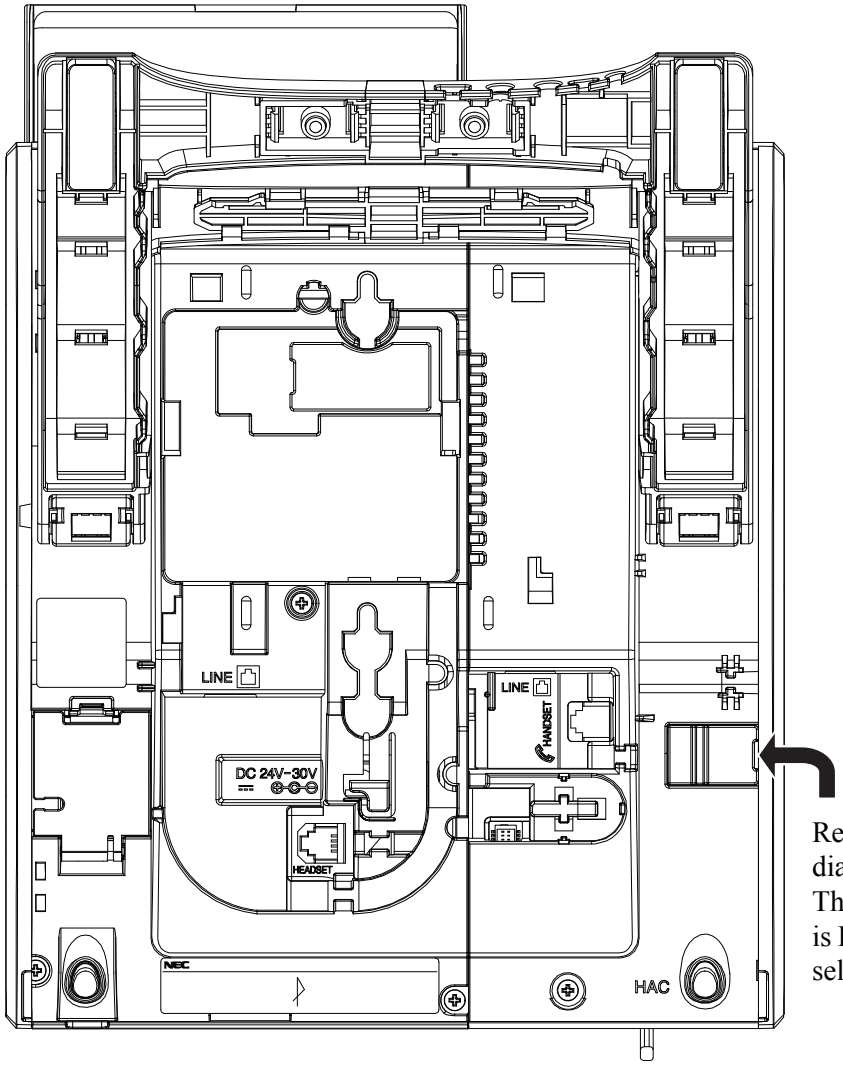
Connection Diagram for Power Failure Transfer Terminal; DT300 Series (Using CH-M01)



Connection Diagram for Power Failure Transfer Terminal; DT300 Series (Using PA-M69-A or PA-M69-B)



How to Switch the Dial Type



Remove a rubber cover. Select the dial type using DP/PB switch. The default setting of the switch is PB. DP is only for 10 pps when selected.

3.2 Wall Mounting of DT400/DT300 Series

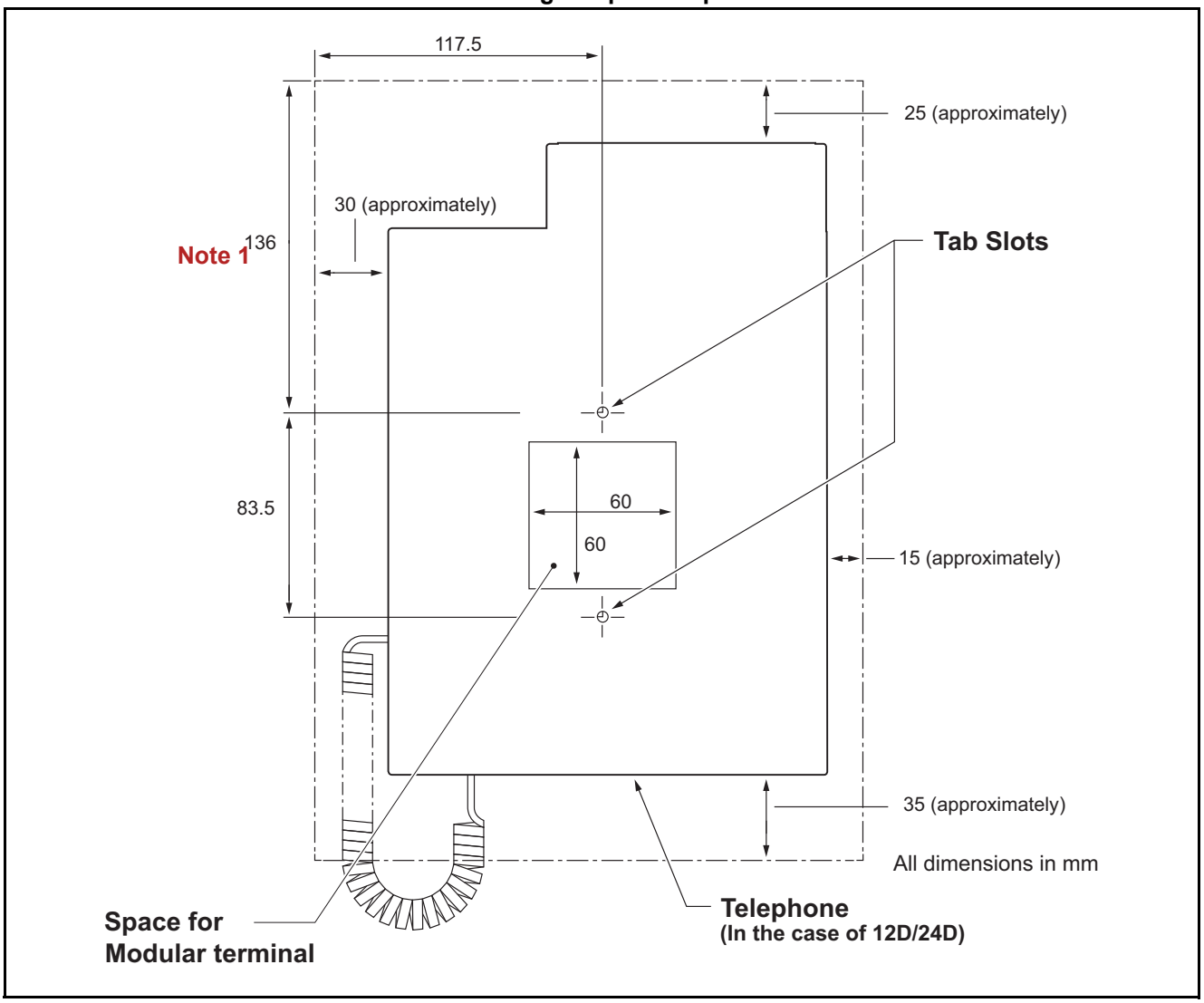
A wall mount unit (WM-L UNIT) is used to mount DT400/DT300 Series telephones on the wall. This unit connects to the back side of the telephone.

Note: DT830/DT700 Series are also the same procedure.

WARNING: Be careful not to drop the telephone set while mounting it on the wall. It can cause injury. Make sure the telephone set is firmly mounted on the wall to prevent the telephone set from falling out. It can cause injury.

To mount the telephone set on the wall, the following space is required.
Do not mount the telephone on the wall made of materials such as gypsum board. The location needs to be considered whether the wall bears the weight of telephone and maintains stability even during operations.

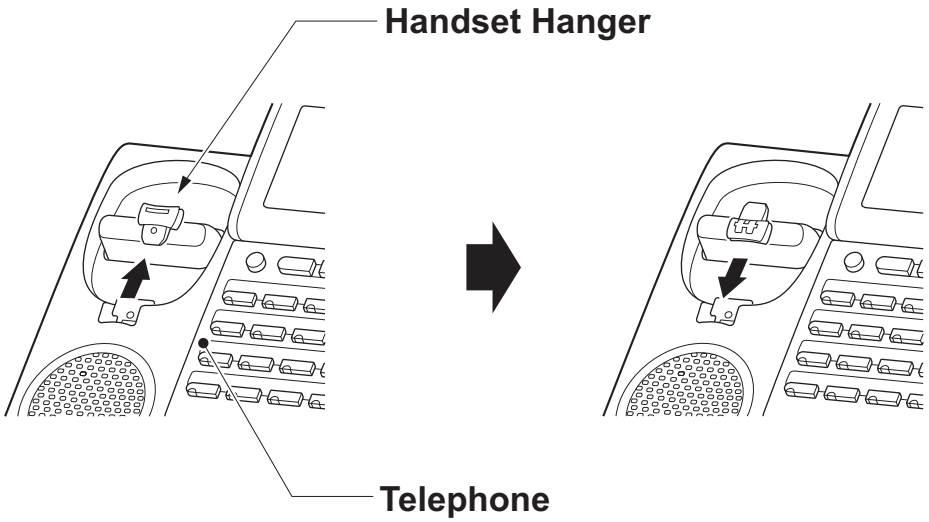
Mounting Telephone Space



Note 1: DT830 (CG)/DT730 (CG): 156 mm

To mount the telephone set on the wall, use the following procedure.

STEP 1: Mount the hanger of the handset upside down.
Remove the hanger from the handset once. Turn it upside down and then insert the hanger until you hear it clicks.

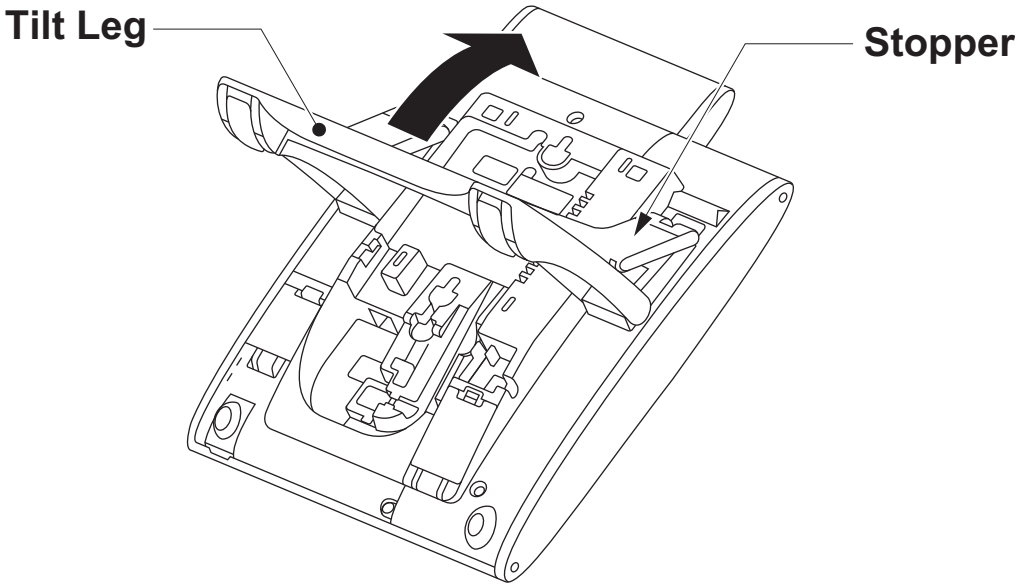


STEP 2: Turn the telephone set upside down and widen the tilt leg.

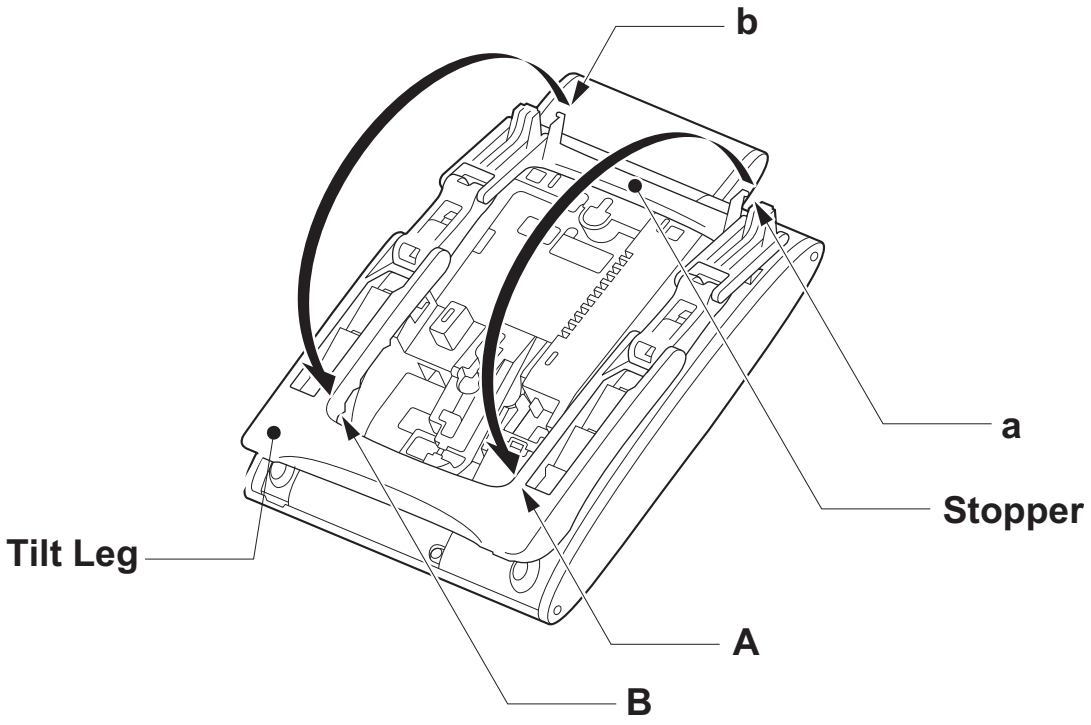
[1] Turn the telephone set upside down.

[2] Lower the tilt leg to first level.

[3] While lifting the center of the stopper, adjust the tilt leg in the direction of the arrow until you hear it clicks.



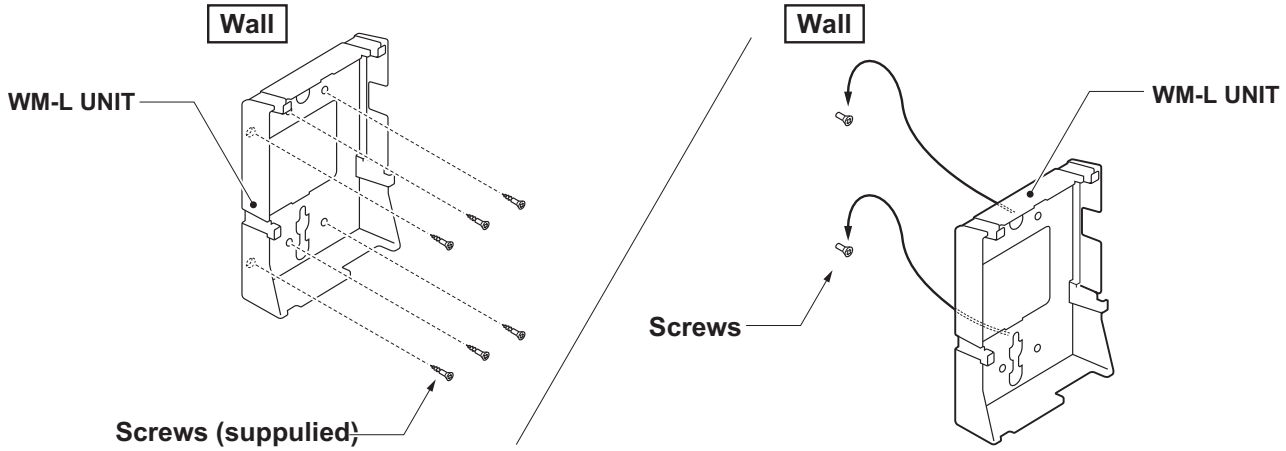
[4] Remove the indicated portions (a and b) of the stopper from grooves (A and B) on the tilt leg and then widen the tilt leg.



STEP 3: Attach WM-L UNIT to the wall directly or the wall plate.

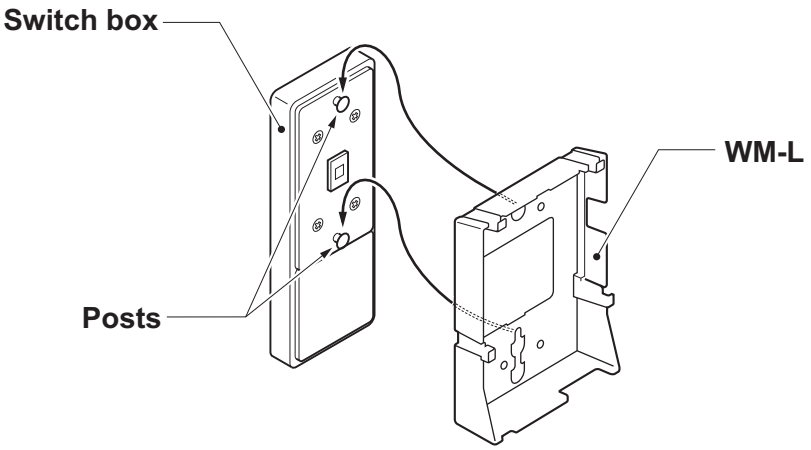
- When attaching WM-L UNIT to the wall directly:

  Secure WM-L UNIT with the six screws (included with the telephone set) or hang WM-L UNIT on the wall with the two screws (purchased separately) inserted into the wall.



- When attaching WM-L UNIT to the wall plate:

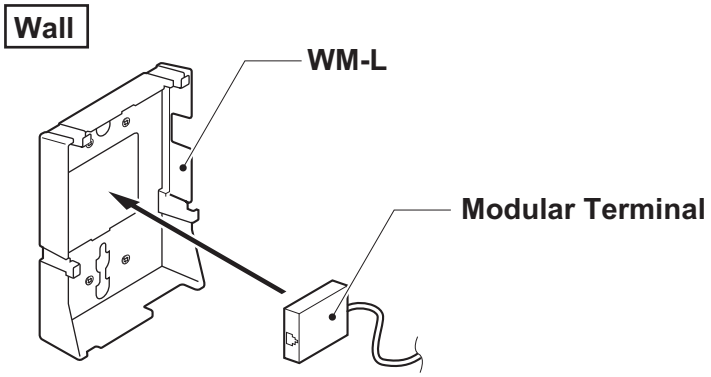
  Attach WM-L UNIT to the posts on the wall plate as shown in the figure below.



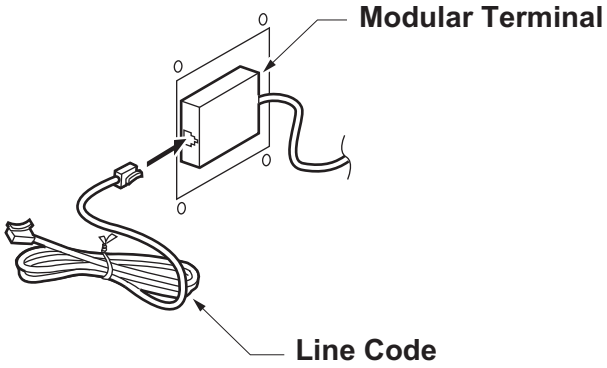
The remainder of the procedure varies between DT400/DT300 Series and DT800/DT700 Series.

- In the case of DT400/DT300 Series: Go to the next step.
- In the case of DT830/DT700 Series: Go to Step 8 after the LAN cable is connected to the telephone. For the procedure how to connect LAN cable, refer to 3.1.1 DT830 Series/DT700 Series Cabling .

STEP 4: Attach the modular terminal to the wall as shown in the following figure. If the modular connector is attached directly on the wall or the wall plate is used instead of modular terminal, skip this step.

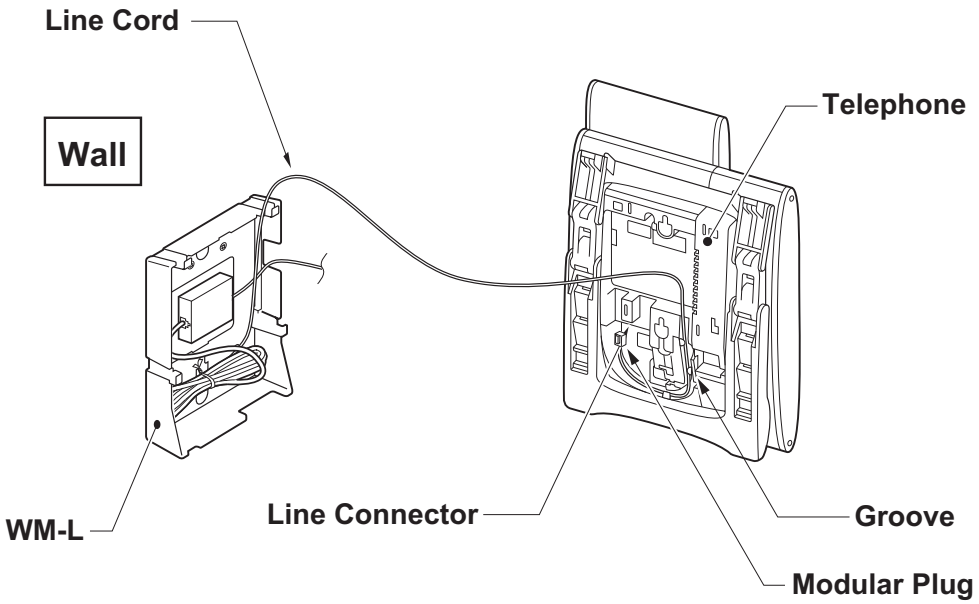


STEP 5: Insert the line cord plug (included with the telephone set) into the modular connector.



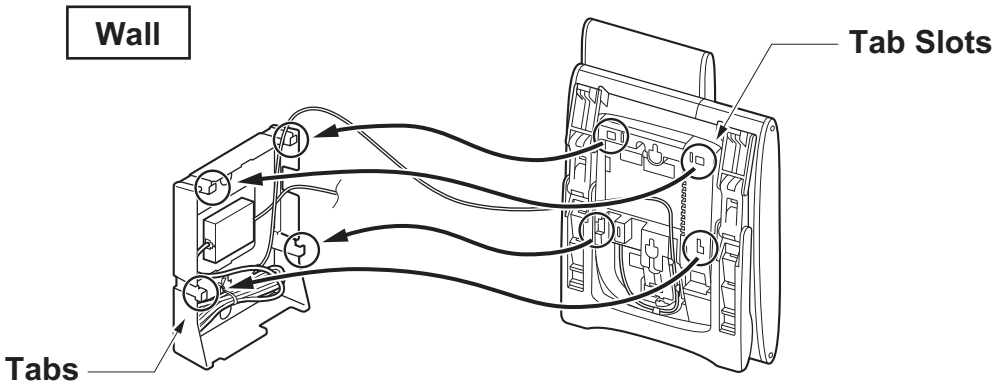
STEP 6: Insert the line cord plug into the LINE connector on the back of the telephone until you hear it clicks. Wrap the excess cord and secure it with a tie wrap.

STEP 7: Thread the coiled cord through the groove on the back of the telephone as shown in the figure below.



STEP 8: Insert the four tabs on WM-L UNIT in the tab slots on the back of the telephone.

Tuck the excess cord into WM-L UNIT.



3.3 Cable Connection Diagram and Maximum Length

Power supply from the Telephony Server (Without arrestor)

	DT400 Series/DT300 Series/Dterm Series *i*
ϕ 0.4	600 m
ϕ 0.5	850 m **Note 1**, **Note 2**
ϕ 0.65	1400 m
ϕ 0.9	1800 m

Note 1: For DT410/DT310, maximum distance of power supply is 1200m.

Note 2: For DT430/DT330, maximum distance of power supply is 900m.

Local power supply

	DT400 Series/DT300 Series/Dterm Series *i*
ϕ 0.4	700 m
ϕ 0.5	1200 m
ϕ 0.65	1800 m
ϕ 0.9	1800 m

Note: Cordless Terminal (DT330 (12BT)) is available only for Local power supply.

Note: When using the Bluetooth Handset with DT330, be sure to use the designated AC adapter (AC-L UNIT/AC-Z UNIT/AC-2R UNIT).

Note: When connecting the AC power plug into the power outlet, be sure to insert the AC adapter plug to the connector for AC adapter on the back of the telephone beforehand.

CHAPTER 3
IP STATION

1. General

1.1 Kind of IP Station

1.1.1 DT800 Series



DT800 Series

DT800 Series has a lineup of terminals with 6 to 24 Line/Feature keys. Each Line/Feature key can be used as a Line key, DSS key, SPD key or Feature key. Terminal with 4–line LCD displays various information on the LCD.

DT800 Series			Number of Line/Feature Keys
DT800 Series	DT830G	12–button type (12DG)	12
		12–button type with Color Display (12CG)	12
		24–button type (24DG)	24
		24–button type with Color Display (24CG)	24
	DT830	8–button type (DESI–LESS)	32 (8x4) (virtual)
		24–button type	24
		12–button type	12
	DT820 Note 1	8–button type (DESI–LESS)	8/16 (virtual)/32 (virtual)
		6-button type	6

Note 1: In DT820, there are various models depending on the market. For details, see "Model lineup of DT820 Series".

- Model lineup of DT820 Series

DT820		Number of Line/ Feature Keys	Market Countries
ITY-8LDX-1	8/16/32 button type (DESI-less) **Note 2**	8/16 (virtual)/ 32 (virtual) **Note 3**	North America
	8–button type (DESI-less)	8	EMEA, Asia
ITY-32LDG-1	32–button type (DESI-less) supporting Gigabit Ethernet (1000BASE-T)	32 (8x4) (virtual)	EMEA, Asia
ITY-6D-1	6-button type **Note 2**	6	North America
	6-button type	6	EMEA, Asia
ITY-6DG-1	6-button type supporting Gigabit Ethernet (1000BASE-T)	6	EMEA, Asia, Australia

Note 2: The availability of Gigabit Ethernet can be set by the terminal license setting.

Note 3: The number of programmable keys can be set by the terminal license setting.

- DESI–LESS Terminal (DT830/DT820)



DT830 DESI–LESS is enabled to display information assigned to a total of 32 Line/ Feature keys (virtual) on its LCD. Each Line/Feature key can be used as a Line key, Direct Station Selection (DSS) key, Speed Dialing (SPD) key or Feature key. A 4–line LCD displays various information as well.

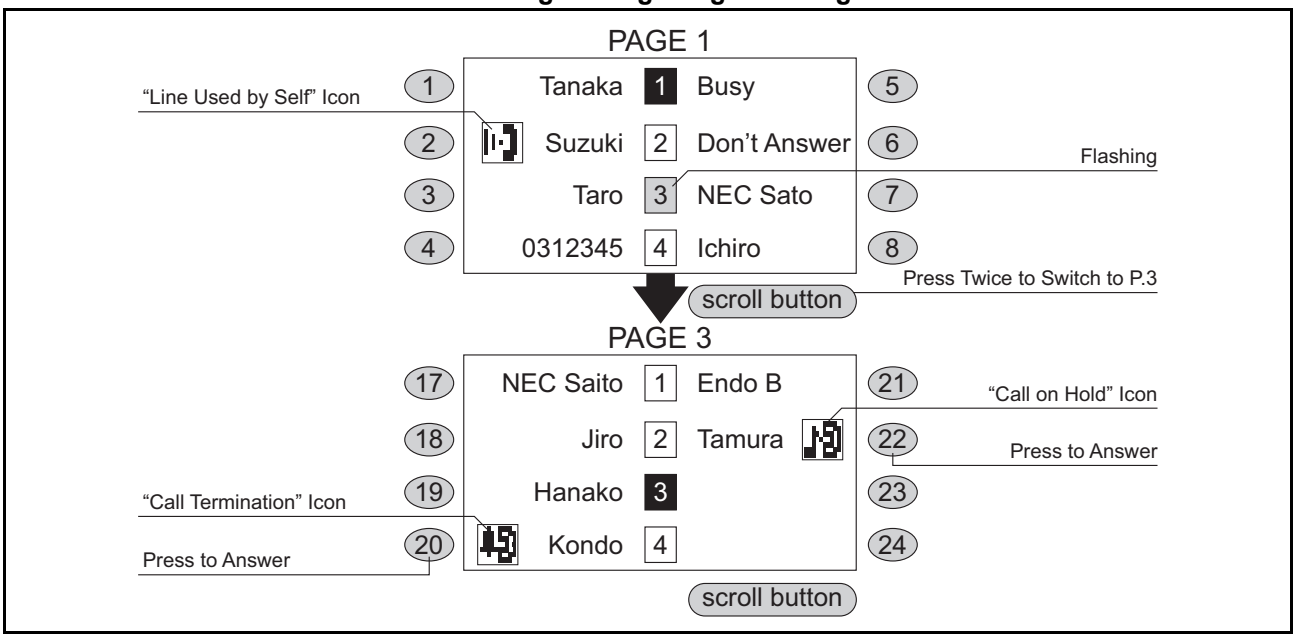
On the LCD, the pages are represented as page icons. The icon's various backgrounds display information regarding events happening on that particular page. For details, see the following table.

Icon Note 4	Page	Line/Feature Key Number	Icon Background
1	1	1/2/3/4/5/6/7/8	Black background indicates a currently displayed page.
2	2	9/10/11/12/13/14/15/16	White background indicates a page without any event happening.
3	3	17/18/19/20/21/22/23/24	Flashing indicates a page where an event is happening, such as call termination to a Line key or call back.
4	4	25/26/27/28/29/30/31/32	White background indicates a page without any event happening.

Note 4: For DT820, the icons are displayed and the scroll button is available for 16 button type and 32 button type only.

A set of eight Line/Feature key information can be developed over four pages. By using the page scroll button, the user can manually turn through pages one to four.

Turning Through Page 1 to Page 3



1.1.2 DT700 Series



DT700 Series

DT700 Series has a lineup of terminals with 2 to 32 Line/Feature keys. Each Line/Feature key can be used as a Line key, DSS key, SPD key or Feature key. Terminal with 3–line/4–line LCD displays various information on the LCD.

DT700 Series			Number of Line/Feature Keys
DT700 Series	DT750	Color LCD display type	32 (8x4) (virtual)
	DT730	8–button type (DESI–LESS)	32 (8x4) (virtual)
		24–button type with 8LK Unit	32 (24+8)
		24–button type	24
		12–button type with PSA Unit	12
		12–button type	12
	DT730G	12–button type (12DG)	12
		12–button type with Color Display (12CG)	12
		24–button type (24DG)	24
		24–button type with Color Display (24CG)	24
	DT710	8–button type (DESI–LESS)	8 (virtual)
		6–button type	6
		2–button type without LCD	2
	DT770	Cradle type	2

- DESI–LESS Terminal (DT730)



DT730
DESI–LESS

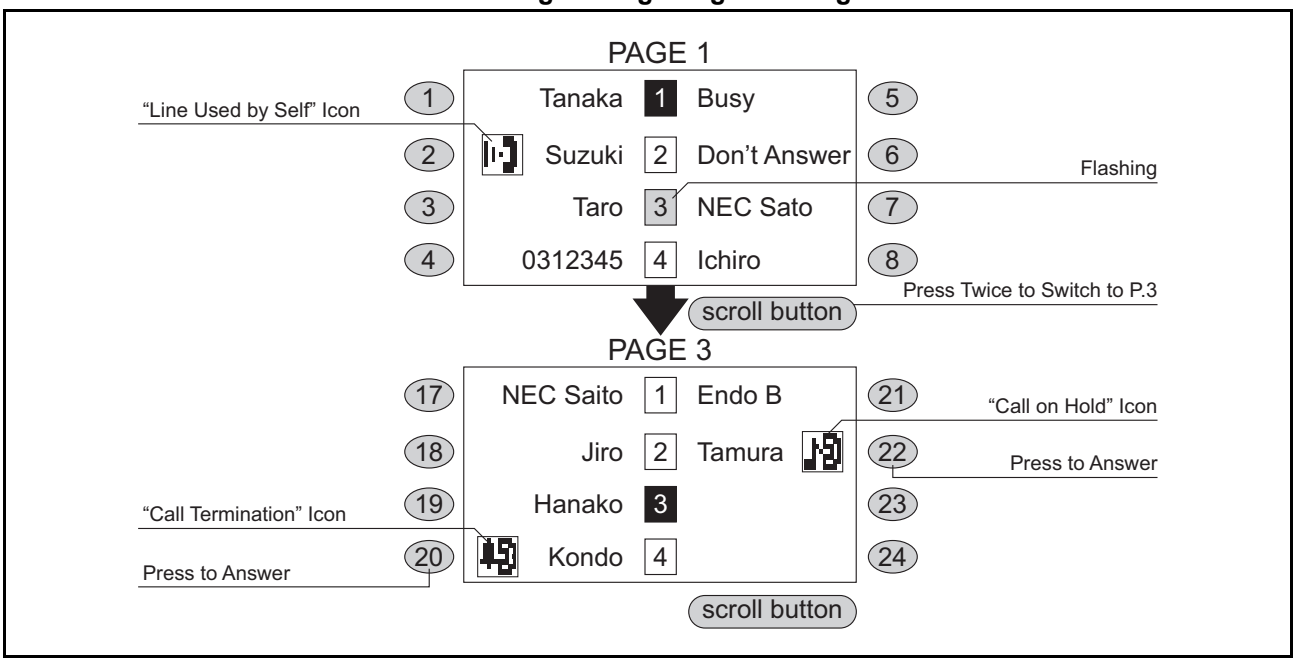
DT730 DESI–LESS is enabled to display information assigned to a total of 32 Line/Feature keys (virtual) on its LCD. Each Line/Feature key can be used as a Line key, Direct Station Selection (DSS) key, Speed Dialing (SPD) key or Feature key. A 4–line LCD displays various information as well.

On the LCD, the pages are represented as page icons. The icon's various backgrounds display information regarding events happening on that particular page. For details, see the following table.

Icon	Page	Line/Feature Key Number	Icon Background
1	1	1/2/3/4/5/6/7/8	Black background indicates a currently displayed page.
2	2	9/10/11/12/13/14/15/16	White background indicates a page without any event happening.
3	3	17/18/19/20/21/22/23/24	Flashing indicates a page where an event is happening, such as call termination to a Line key or call back.
4	4	25/26/27/28/29/30/31/32	White background indicates a page without any event happening.

A set of eight Line/Feature key information can be developed over four pages. By using the page scroll button, the user can manually turn through pages one to four.

Turning Through Page 1 to Page 3



1.1.3 DtermIP (SIP)/DtermIP (Proprietary Protocol)



DtermIP

DtermIP has lineup of terminals with 4 to 32 Line/Feature keys. Each Line/Feature key can be used as a line key, DSS key, SPD key or Feature key. Terminal with 3–line LCD displays various information on the LCD.

- DESI–LESS Terminal

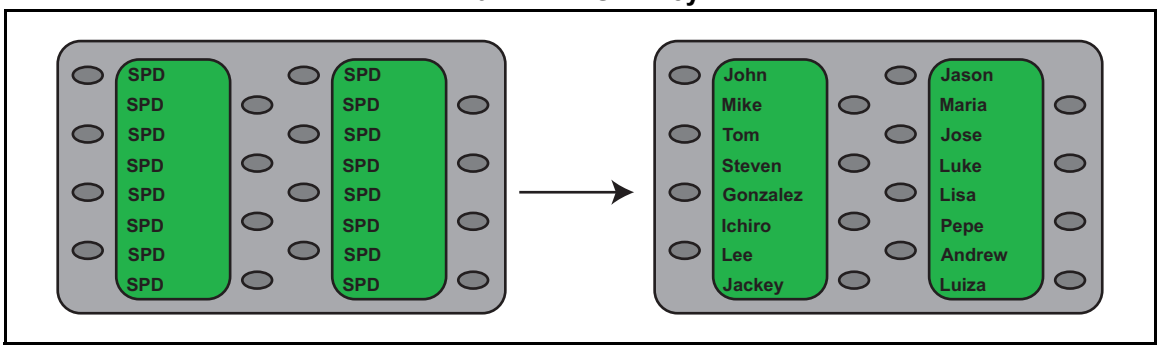


DtermIP with 16LD LCD

DESI–LESS 16LD DtermIP is equipped with 16 Line/Feature keys with information display function. Each Line/Feature key can be used as a line key, DSS key, SPD key or Feature key. The function of each key can be displayed on the corresponding LCD. A 3–line LCD displays various information as well.

When using a Line/Feature key as Speed dialing (SPD) key, terminal is available to display desired characters on the LCD.

16LD LCD SPD key



Basic Data Programming on the system side will be the same as the previous assignment of SPD dial key for DESI–LESS terminal. The name data itself needs to be assigned on the terminal side (each button and name information will be related on terminal side); but it is required to assign a designated key (either onto a Line/Feature key or Soft key) to start name data assignment on the terminal.

Data Assignment method and Service Conditions for DESI–LESS (including SPD dial) Feature key is explained in *[D–169] DESI–LESS Terminal* section of **Data Programming Manual – Business**.

How to assign names on each key from the terminal operation will be explained in the DTERM SERIES *i*/DTERM IP USER'S GUIDE.

Note: Name assignment needs to be performed on a DESI–LESS terminal only when using the LCD as Speed dialing (SPD) key.

Note: Assigned data are displayed on the LCD only. It is not displayed on the terminal's 3–line LCD.

1.1.4 DtermIP INASET



DtermIP INASET

The high-end terminal of NEC, DtermIP INASET is equipped with large LCD and provides voice mail indication, online directories, and other expanded functions configured in addition to the features provided to DtermIP.

Note: DtermIP INASET is equipped with the virtual Line/Feature key.

The following shows the series of DtermIP INASET:

- INASET Classic
- INASET 240G
- INASET 320C
- INASET 320G
- INASET 320C (XML version)

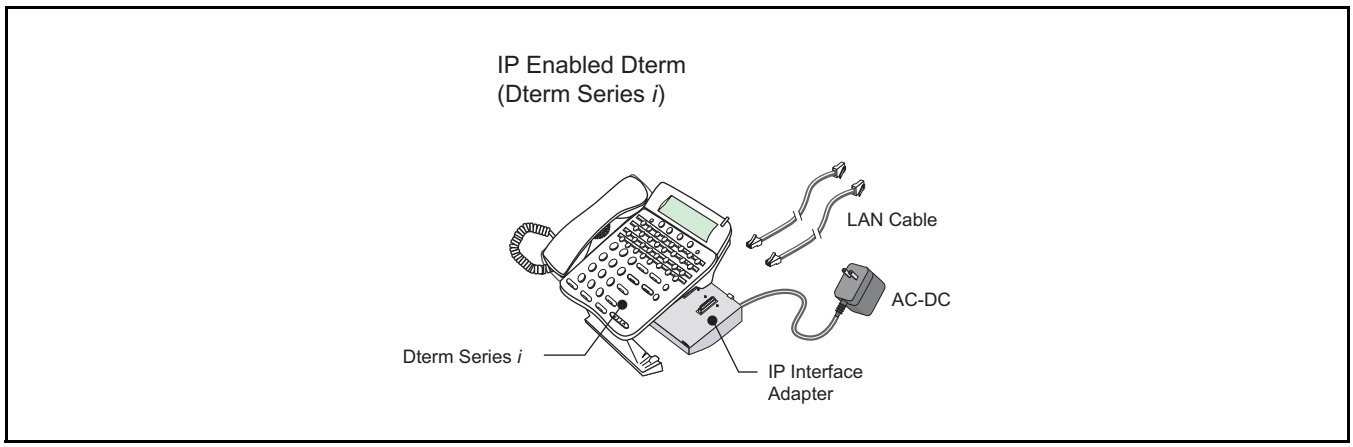
1.1.5 IP Enabled Dterm

1.1.5.1 General

IP Enabled Dterm is a Dterm that is equipped with IP interface adapter (OPTION). Available Dterm is Dterm Series i. By using IP interface adapter, Dterm can be used as an IP terminal. The following hardware is used:

- Dterm Series i
- IP Interface Adapter
- AC Power Adapter

IP Enabled Dterm



1.1.5.2 Installation Procedure

Follow the procedure below to install the IP Enabled Dterm.

STEP 1: Attach the IP Interface Adapter to the Dterm. (Refer to 1.1.5.3 How to Install IP Interface Adapter.)

STEP 2: Prepare LAN cable (10BASE-T/100BASE-TX straight-through) for connecting the IP Enabled Dterm to network device such as PoE Switch.

STEP 3: Connect the IP Enabled Dterm to the network device using the LAN cable.

STEP 4: Connect a PC to the IP Enabled Dterm if required.

STEP 5: Connect the AC/DC adapter to the IP Enabled Dterm. (When powered HUB (PoE switch) is used, skip this step. For more information about the powered HUB (PoE switch), refer to APPENDIX B.)

STEP 6: Set the configuration data of the IP Enabled Dterm. (See Appendix for configuration data setting.)

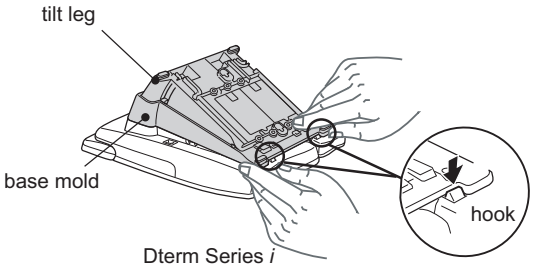
1.1.5.3 How to Install IP Interface Adapter

This section explains how to install IP Interface Adapter.

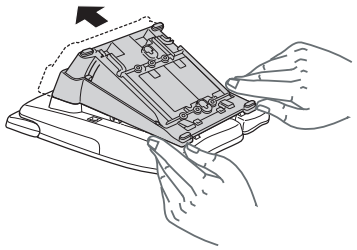
How to Install IP Interface Adapter (Dterm Series *i*)

Caution: BEFRORE STARTING THE INSTALL, REMOVE THE LINE CORD AND THE AC ADAPTER FROM THE Dterm MAIN UNIT.

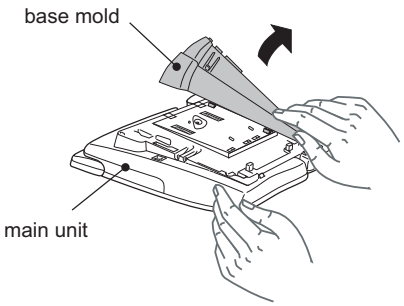
(1) Press the two hooks of the base mold.



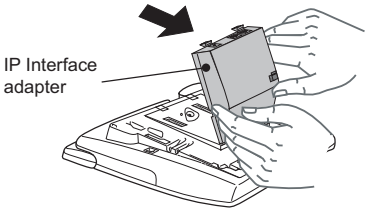
(2) Slide the base mold to forward by pressing the hooks.



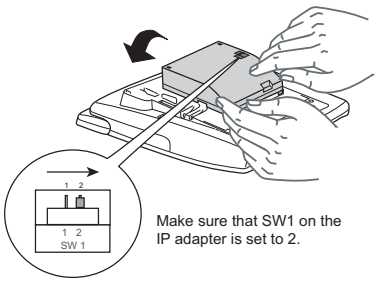
(3) Remove the base mold from the main unit.



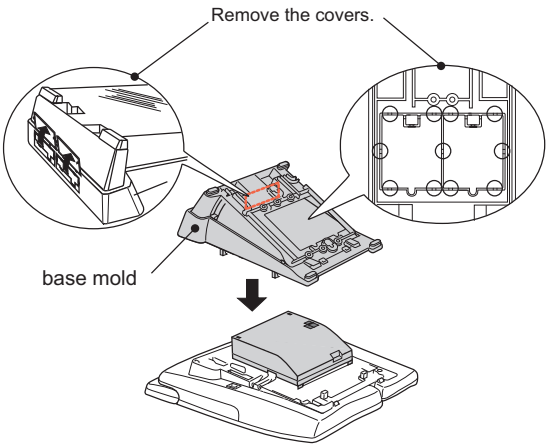
(4) Insert the lower hooks of the adapter to the unit.



(5) Insert the upper hooks to the main unit so that the adapter may be firmly locked.



(6) Mount the base mold again on to the unit.



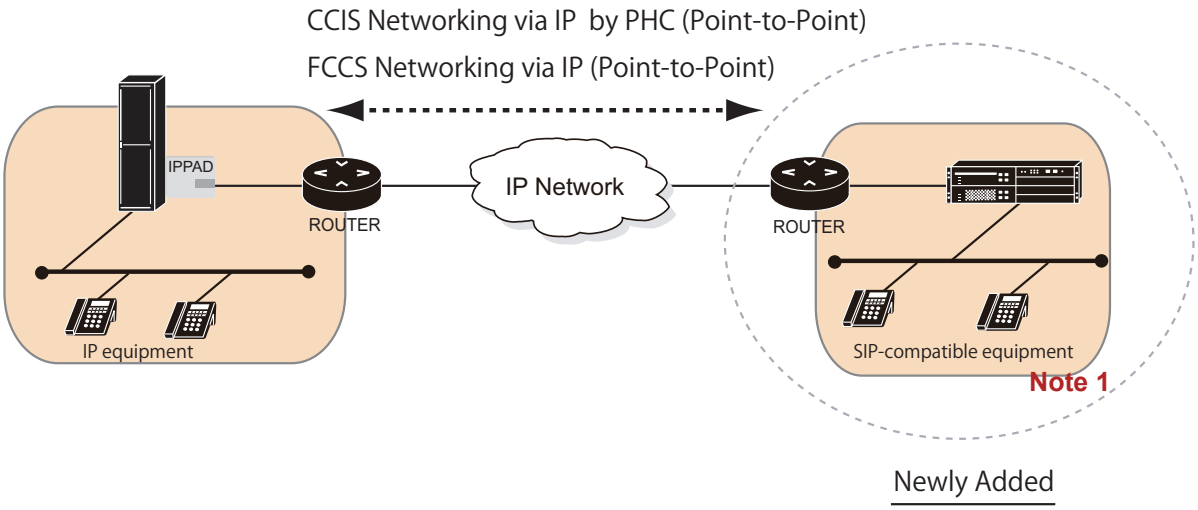
Note: When the IP Enabled Dterm is connected to “Catalyst PRW series of CISCO/POWER PATCH PANEL of CISCO,” leave the switch to the default (2). Otherwise set it to 1.

2. Precautions

2.1 Common Condition

(1) Precautions in Accommodating SIP Terminals.

Accommodating SIP-compatible equipment (**Note 1**) into the existing network shared with the Telephony Server, the version of IP equipment accommodated in the system might cause a failure in connection with SIP-compatible equipment. To avoid this failure, you need to check to see if the corresponding versions are installed in the equipment (**Note 2**). If the versions are inappropriate, you have to upgrade them to the applicable firmware.



Note 1: For more information on SIP-compatible equipment, see “Quick Reference Sheet” of “Introduction”.

Note 2: In the case of using FCCS Networking via IP by PHC (Point-to-Point) or CCIS Networking via IP (Point-to-Point), you need to check the IP equipment used as the connected destination.

If the version installed in the equipment is older than the required version, you need to upgrade it to the proper version. Note that all of the IP equipment other than devices mentioned below is compatible since the first release.

Type	Items	Product Name	Corresponding Firmware Version	Remarks
IP terminals	IP Enabled Dterm	IP-R Unit/IP-RA Unit	1.52	
Softphone **Note 3**	DtermSP30	DtermSP30-AE (Version 2)	Unavailable	**Note 4**
		DtermSP30-CE (Version 4)		
		DtermSP30-FE (Version 7)	7.0.0.5	
Analog MC	Analog 2MC	SN8029 MC2A-A	Unavailable	**Note 5**

Type	Items	Product Name	Corresponding Firmware Version	Remarks
IPPAD	IPPAD PKG	SPA-32IPPAD	7	
		SPA-32IPPAD-B	8	
		SPA-32IPPAD-C	6	

Note 3: In FCCS Networking via IP or CCIS Networking via IP, use HE or later.

Note 4: Upgrading the firmware to DtermSP30-FE (Version 7.0.0.5 or later) enables the device to make a connection with SIP-compatible equipment.

Note 5: Upgrading the firmware SP-3629 to SP-3753 enables the device to make a connection with SIP-compatible equipment.

(2) When Switching from Dual Configuration to Single Configuration:

IP terminal may fail to log in to the system since the information of the stopped system will remain right after switching from dual configuration to single configuration. Therefore, wait for two minutes before logging in.

Note 6: Wait for two minutes before logging in also when stopping one system in dual configuration.

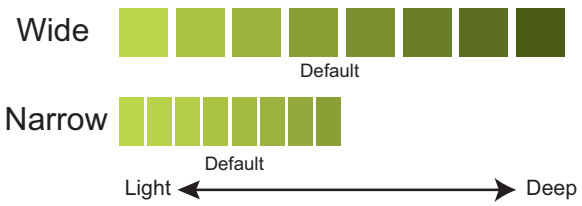
Note 7: DT710 (2-button/12-button type) cannot use the login mode.

(3) Control of the LCD contrast can be switched between wide and narrow, as illustrated below:

Note: This feature is available for:
- DT830 Series
- DT730/DT710 DESI-Less: Firmware version 5.0.0.0 or later
- DT730G: Firmware version 1.0.0.0 or later

Note: Change will take effect after rebooting the terminal.

Adjustment Range of LCD.



(4) When using the following terminals, user can change the Home screen background and font color.

- DT830G (DT830 (12/24CG))
- DT700 Series (DT730 (12/24CG))
- DT700 Series (DT750) with firmware version 3.0.0.0 or later **Note 8**

Note 8: Changing a font color is available only for Time Display/Feature Information Display area.There are 16 different color variations and you can check those from the Configuration Menu.

(5) Only the call termination on My Line enables illumination and displaying phonebook for incoming call. Information, such as number and internal/external call, is managed by each terminal according to notifications from the system.

(6) Precautions for Smart Device Integration:

The terminal cooperation with a mobile phone provided with Bluetooth functions is applicable by connecting Bluetooth Connection Adapter (BCA-Z UNIT) with the terminal.

Note: Available for DT830 Series and DT430 Series only.

Note: For the connection method between the terminal and mobile phone, see the manual attached to the Bluetooth adapter.

- When using the mobile phone collaboration feature, assign FKY=195 (Connect (Smart Device)) and FKY=196 (Path (Smart Device)) with the AKYD command. Otherwise, the Bluetooth adapter cannot work.
- When the system data (ASYDL, SYS1, Index 1258, Bit 1) has been changed to enable/disable the terminal cooperation with a mobile phone, restart the terminal after 30 seconds.
- The lines busy with mobile phone network appear idle state from the Telephony Server.
- When instructions for resetting a terminal are sent while the terminal is working in collaboration with a mobile phone, the terminal is reset.
- No operation from the terminal side can make a call to the mobile phone network.
- To use the Security mode feature, the following the conditions must be met.

  (a) When working in collaboration with a mobile phone, the terminal cannot be placed in the Security mode with the Security key. In that case, use IP Phone Manager or Telephony Server to enable the Security mode.

  (b) When the terminal is placed in Security mode, the Bluetooth feature will be OFF even if the terminal is in busy/idle state. After that, the terminal mode switches to the Wired Telephone Mode.

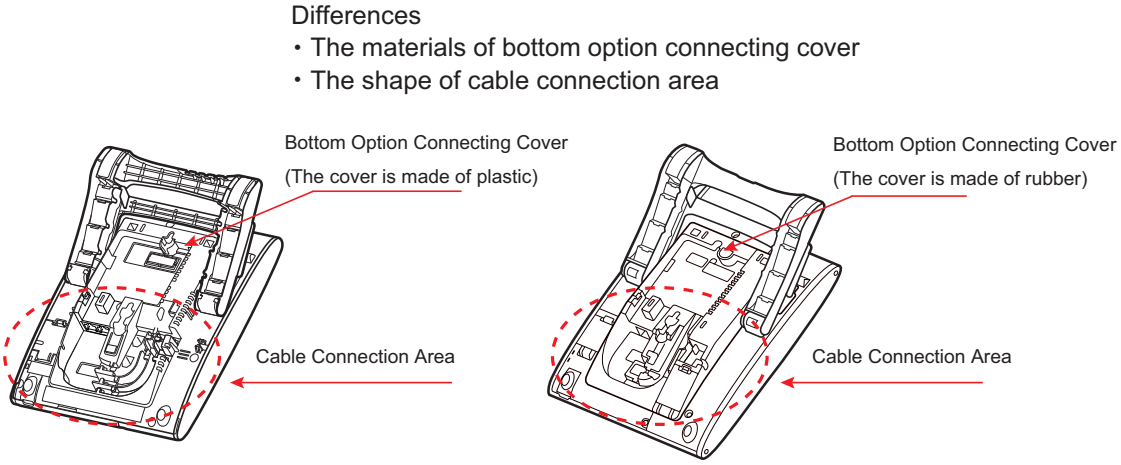
  (c) When the Security mode is canceled, the Bluetooth feature will be ON. However, the terminal mode will be the Wired Telephone Mode.

  (d) When using Emergency Call, you can use the feature of the terminal in collaboration with a mobile phone until the terminal is placed in Security mode.

2.2 DT800 Series

(1) For the following DT830 models, the appearance of the reverse side will vary depending on production date.

- ITZ-24D-2
- ITZ-12D-2



(2) Users can activate screen saver. For the operating procedures, refer to the user's guide of the relevant terminal.

(3) The digit number of Soft key displayed on the LCD can be changed by system data (ASYDL/ASYDN, SYS1, Index 1258, Bit 2).

Note: When this System Data is changed, restart the terminal.

(4) For firmware version 4.0.0.0 or later, the LED brightness of digit keys can be reduced to half by the System Data (ASYDL/ASYDN, SYS1, Index 1258, Bit 7=1).

Note: When the terminal is operating with power save mode enabling [T-69] Terminal Power Save Mode, this feature will cannot be used.

2.3 DT700 Series

(1) When the terminal is DT700 Series equipped with firmware version 2.2.0.0 or later, terminal users can activate screen saver. For the operating procedures, refer to the user's guide of the relevant terminal.

(2) For DT710 (8-button type (DESI-LESS)):

- To switch over Line/Feature key information display area and main menu, press "scroll" key.
- When CALLER ID DISPLAY - SUB LINE [C-204] is invalid, DESI-Less screen is not switched to the Home screen by an incoming call to sub-line. DESI-Less screen can be switched to the Home screen by answering the call or line-pre-selection. And when CALLER ID DISPLAY - SUB LINE [C-204] is valid, or the terminal receives a call in sub-line during line-pre-selection, DESI-Less screen can be switched to the Home screen.
- When using SOFT PHONE WIRED PHONE HANDSET [S-147], DESI-Less screen is not switched to the Home screen by the operation of Softphone.
- DESI-Less screen is not switched to the Home screen by the operation of Softphone by an incoming call from Automatic/Manual Intercom [A-30].

(3) For DT750

- When the terminal is DT750 equipped with firmware version 2.2.0.0 or later, terminal users can adjust the location of touch-sensitive panel. For the operating procedures, refer to the user's guide of the relevant terminal.

3. Installation Procedure

3.1 How to Connect IP Stations

3.1.1 DT830 Series/DT700 Series Cabling

To connect DT830/DT830G/DT700 Series (DT730/DT730G/DT710) to the network device such as HUB, PoE Switch through the LAN cable, use the following procedure. Prepare LAN cables (10BASE-T/100BASE-T/TX straight-through) for connecting the telephone to network device.

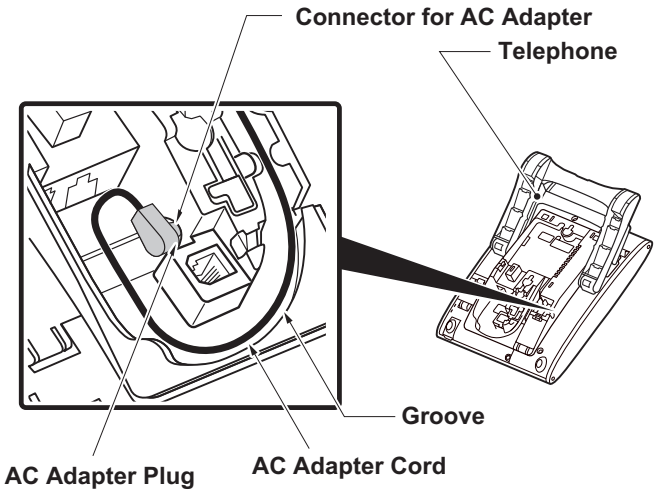
[1] DT830G/DT700 Series

STEP 1: When AC adapter (AC-L UNIT/AC-Z UNIT/AC-2R UNIT) is used to supply power to a telephone, insert the AC adapter plug to the connector for AC adapter on the back of the telephone.

Note: The insertion and removal of the AC adapter plug must be made with LAN cables disconnected from the telephone.

Note: When connecting the AC power plug into the power outlet, be sure to insert the AC adapter plug to the connector for AC adapter on the back of the telephone beforehand.

STEP 2: Thread the AC adapter through the groove on the back of the telephone.

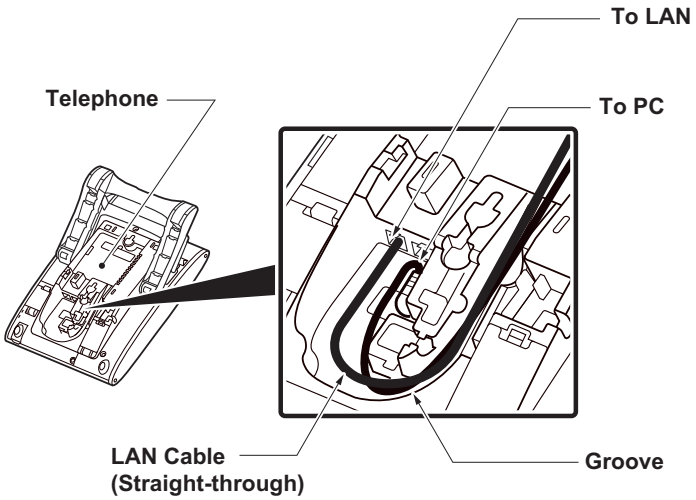


STEP 3: Connect the telephone to the network device using a LAN cable.

When you connect the telephone to a PC, connect them through a connector on the back of the telephone using a LAN cable.

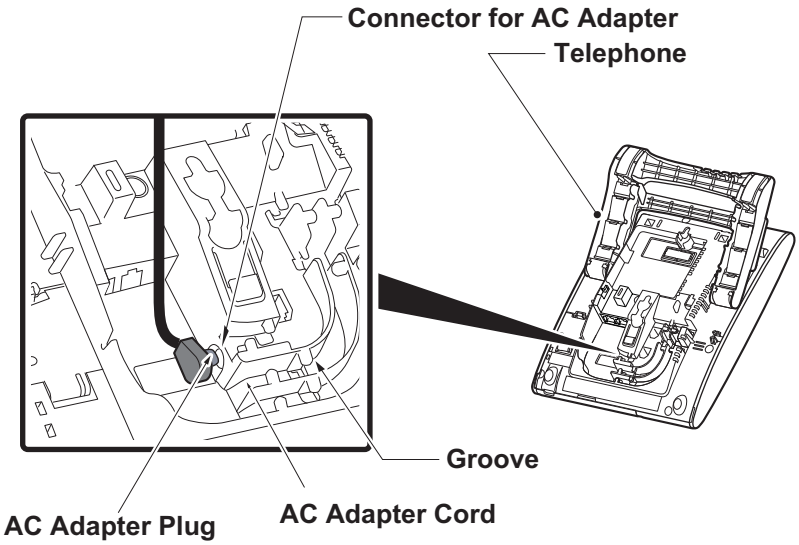
Note: When using the PC port with a local power supply, depending on the connector housing form of LAN cable, the LAN cable may not be connected to the PC port because of an intervention between the LAN cable and the AC adapter plug. In that case, remove the protection cover of the LAN cable, or use the LAN cable with a thin connector form.

STEP 4: Thread the LAN cable through the groove on the back of the telephone.



[2] DT830

STEP 1: When AC adapter (AC-L UNIT/AC-Z UNIT/AC-2R UNIT) is used to supply power to a telephone, insert AC adapter plug into the connector of AC adapter on the back of telephone.



STEP 2: Fix the AC adapter cord through the groove on the back of telephone.

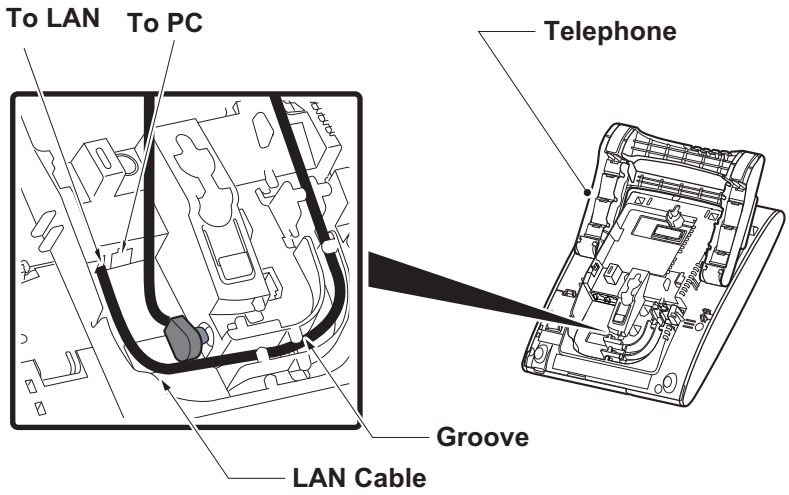
STEP 3: Connect the telephone to the network device using a LAN cable.

When you connect the telephone to a PC, connect them through a connector on the back of the telephone using a LAN cable.

Note: When using the PC port with a local power supply, depending on the connector housing form of LAN cable, the LAN cable may not be connected to the PC port because of an intervention between the LAN cable and the AC adapter plug. In that case, remove the protection cover of the LAN cable, or use the LAN cable with a thin connector form.

Note: When connecting the AC power plug into the power outlet, be sure to insert the AC adapter plug to the connector for AC adapter on the back of the telephone beforehand.

STEP 4: Fix the LAN cable through the groove on the back of the telephone.



3.1.2 DT820 Series Cabling

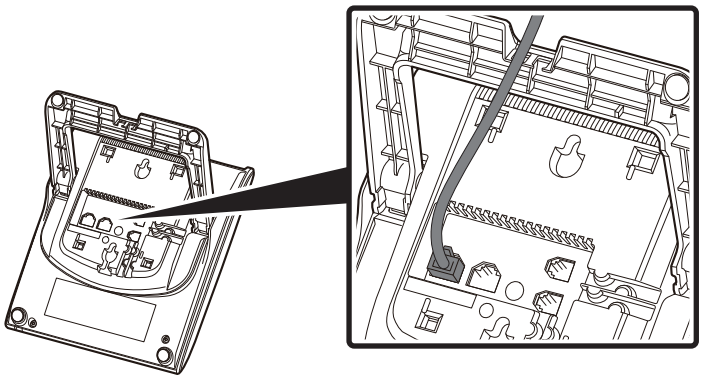
To connect DT820 Series to PoE Switch through the LAN cable, use the following procedure. Prepare LAN cables (10BASE-T/100BASE-T/TX/1000BASE-T straight-through) for connecting the telephone to network device.

STEP 1: Connect the telephone to the network device using a LAN cable.

When you connect the telephone to a PC, connect them through a connector on the back of the telephone using a LAN cable.

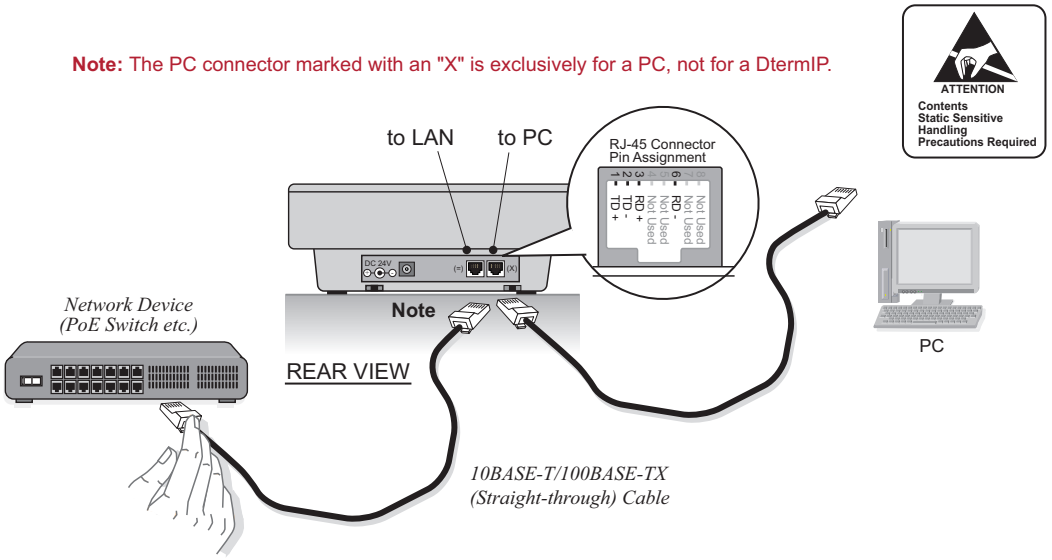
Note: The availability of 1000BASE-T depends on the terminal license setting (for North America) or terminal model (for EMEA/Asia/Australia).

STEP 2: Thread the LAN cable on the back of the telephone.



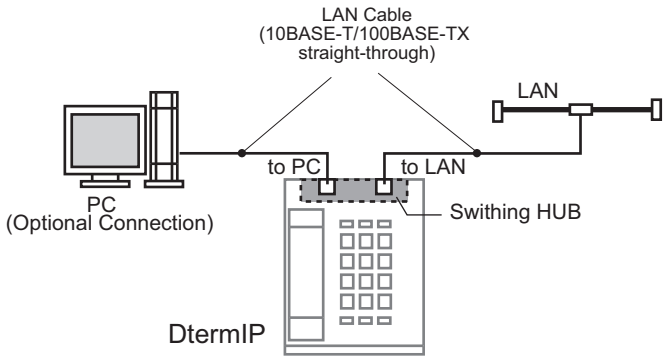
3.1.3 DtermIP Cabling

Note: The PC connector marked with an "X" is exclusively for a PC, not for a DtermIP.



3.2 How to Connect PC Port

Follow the procedure below to install the DtermIP.



STEP 1: Make sure that AC/DC adapter is not connected to the DtermIP. (When powered HUB (PoE switch) is used, skip this step.)

STEP 2: Prepare LAN cable (10BASE-T/100BASE-TX/1000BASE-T straight-through) for connecting the DtermIP to network device such as HUB, PoE Switch.

STEP 3: Connect the DtermIP to the network device using the LAN cable.

STEP 4: Connect a PC to the DtermIP if required.

STEP 5: Connect the AC/DC adapter to the terminal. (When powered HUB (PoE switch) is used, skip this step. For more information about the powered HUB (PoE switch), refer to APPENDIX B.)

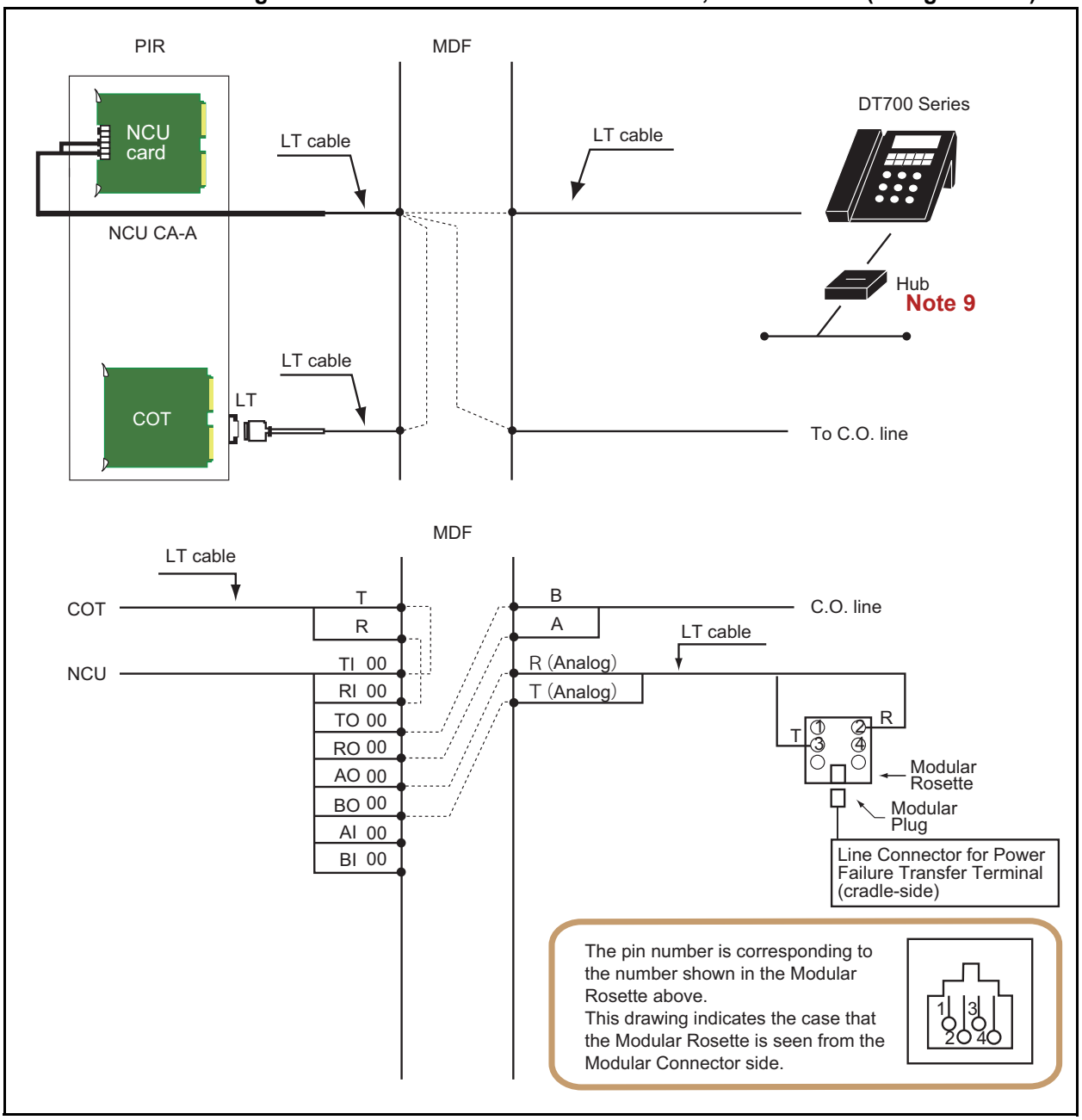
STEP 6: Set the configuration data of the terminal. (See Chapter 4 Configuration Setup.)

3.3 Connection Diagram of DT700 Series as Power Failure Transfer Terminal

The following is connection diagram which enables DT700 Series (DT730) to be used as a Power Failure Transfer Terminal. You need to determine whether PB or DP is used for the analog line beforehand.

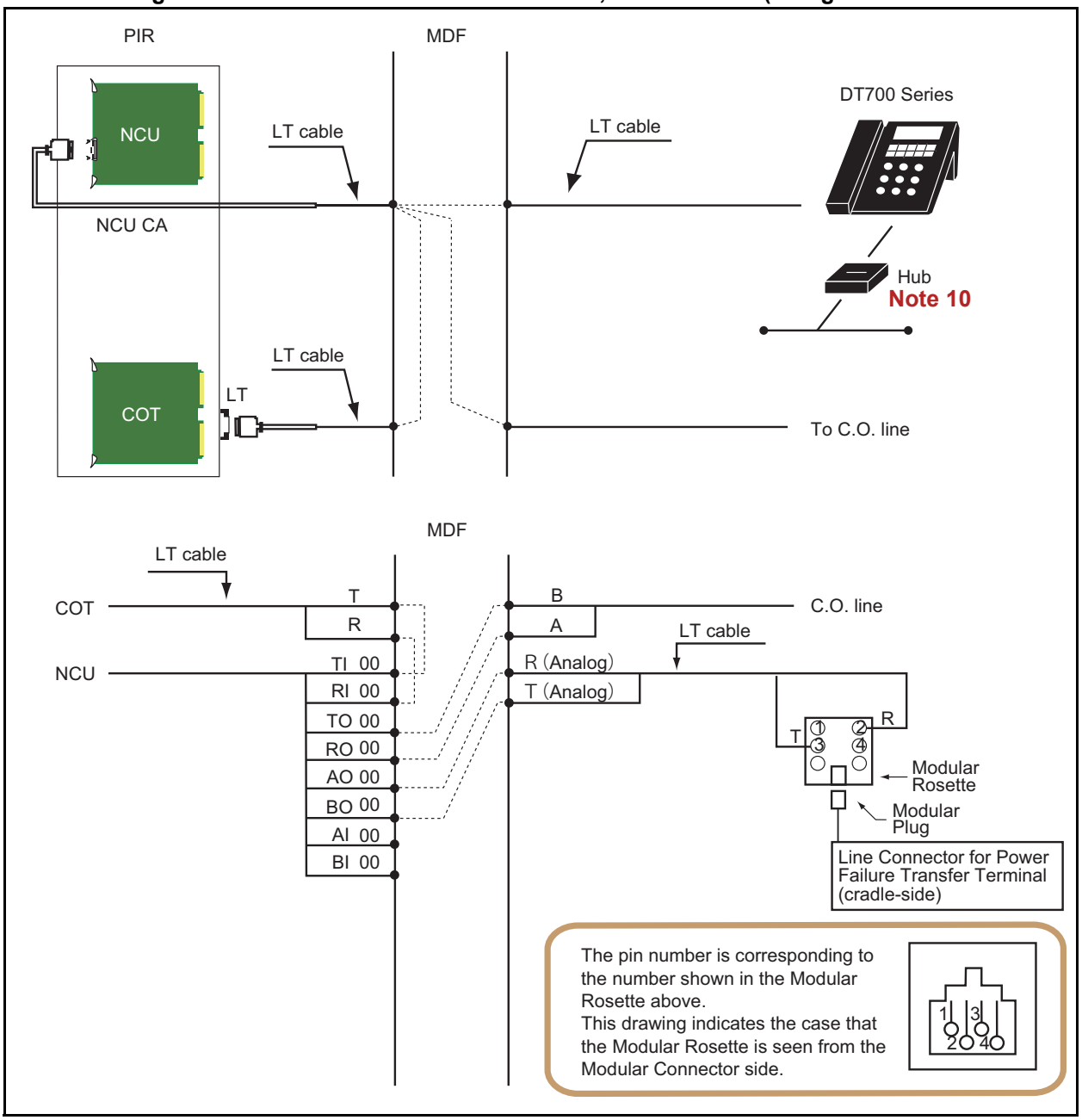
Note: NCU card (CH-M01, PA-M69-A, or PA-M69-B) is required.

Connection Diagram for Power Failure Transfer Terminal; DT700 Series (Using CH-M01)



Note 9: When a powered Hub (PoE switch) is not used, AC adapter needs to be connected to the terminal.

Connection Diagram for Power Failure Transfer Terminal; DT700 Series (Using PA-M69-A or PA-M69-B)



Note 10: When a powered Hub (PoE switch) is not used, AC adapter needs to be connected to the terminal.

3.4 Wall Mounting

3.4.1 When Using DT830 Series/DT700 Series

A wall mount unit (WM-L UNIT) is used to mount DT830 Series/DT700 Series telephones on the wall. This unit connects to the back side of the telephone such as DT400 Series/DT300 Series. For details, refer to 3.2 Wall Mounting of DT400/DT300 Series in Chapter 2.

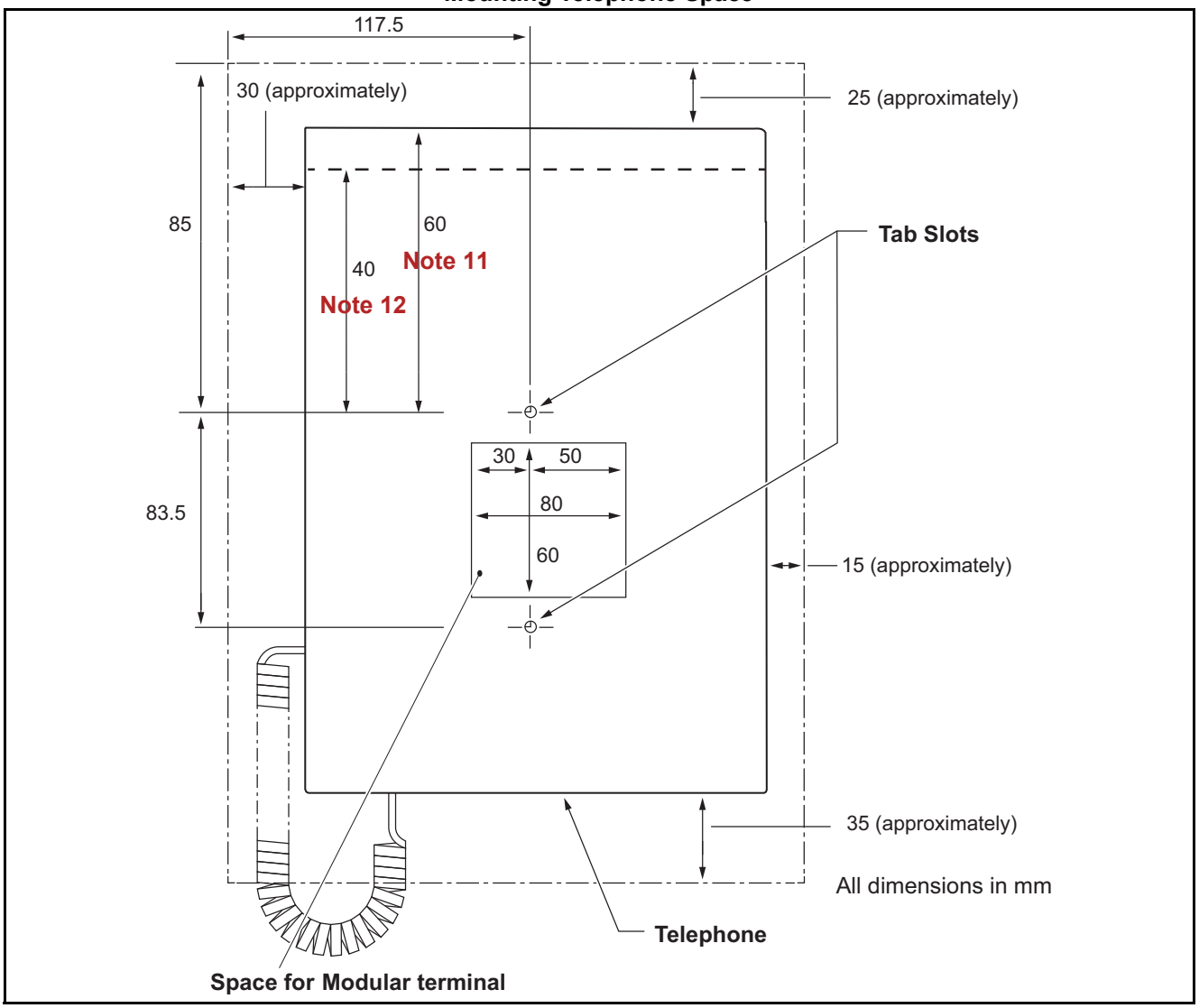
3.4.2 When Using DT820 Series

A wall mount unit (IP4WW-WALL MOUNT UNIT) is used to mount DT820 Series telephones on the wall. This unit connects to the back side of the telephone.

WARNING: Be careful not to drop the telephone set while mounting it on the wall.
Make sure the telephone set is firmly mounted on the wall to prevent the telephone set from falling out. It can cause injury.

To mount the telephone set on the wall, the following space is required.
Do not mount the telephone on the wall made of materials such as gypsum board. The location needs to be considered whether the wall bears the weight of telephone and maintains stability even during operations.

Mounting Telephone Space



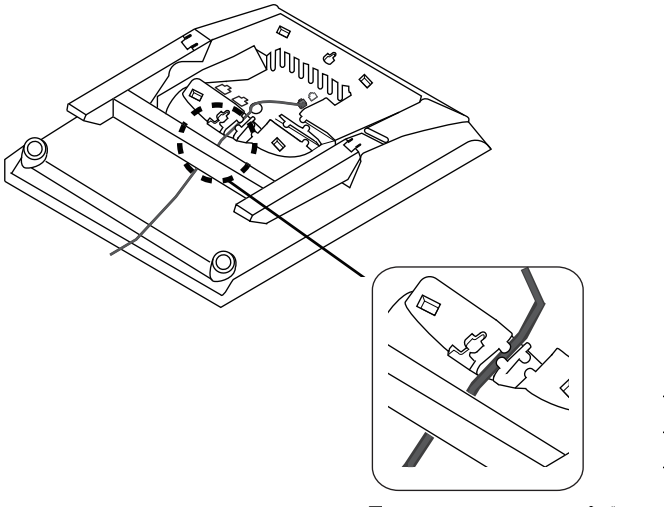
Note 11: The length for DESI-less type.

Note 12: The length for 6-button type.

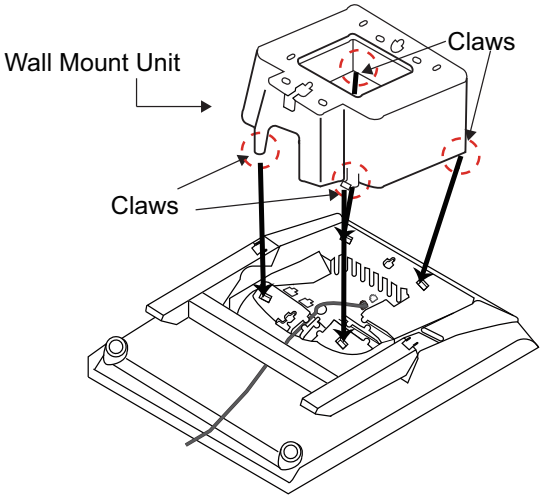
To mount the telephone set on the wall, use the following procedure.

STEP 1: Remove the handset cord from the terminal.

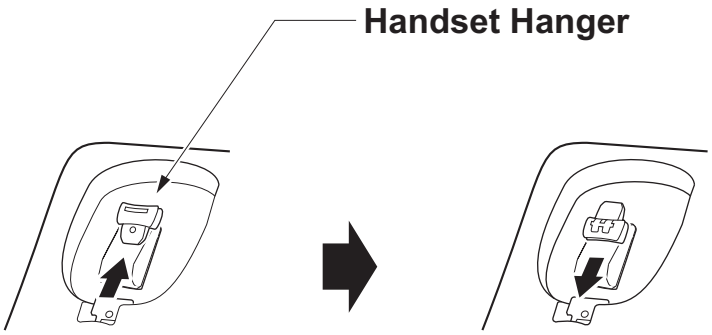
STEP 2: Connect the handset cord and pass it into the terminal and put down the leg as shown below.



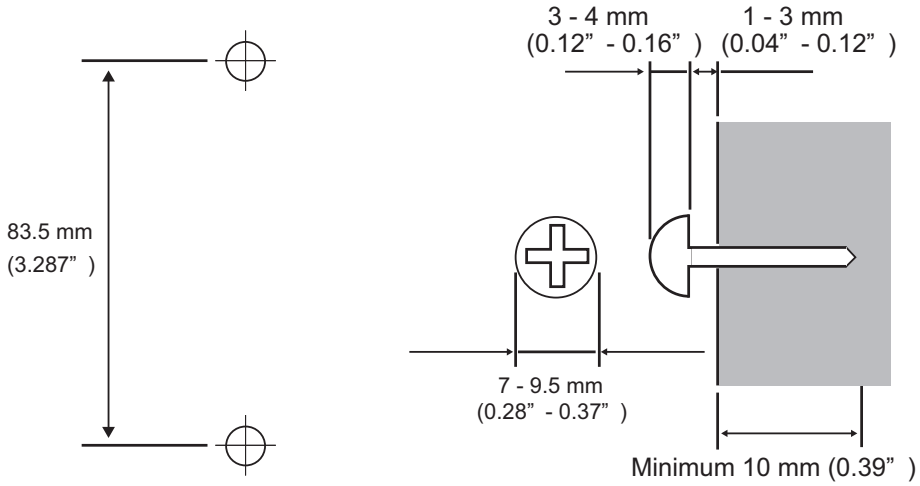
STEP 3: Attach the IP4WW-WALL MOUNT UNIT to the bottom side of the terminal as shown.



STEP 4: Remove the hanger from the handset once. Turn it upside down and then insert the hanger until you hear it clicks.



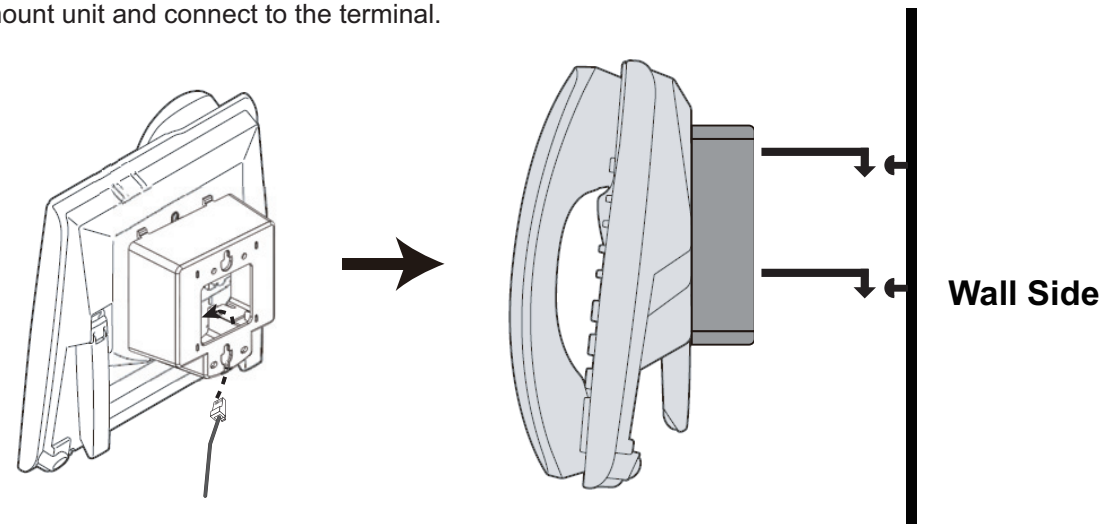
STEP 5: Install two screws into a wall. Leave a gap of about 3 mm (0.12 in) between the screw head and the wall.



STEP 6: Follow the procedures below to install the telephone on the wall.

(1) Pass the LAN Cable through the bottom part of wall mount unit and connect to the terminal.

(2) Mount the telephone on the wall.



4. Configuration Setup

This section explains the setup procedure of configuration data following each terminal:

- DT830 Series
- DT820 Series
- DT700 Series
- DtermIP/IP Enabled Dterm
- DtermIP (SIP)

4.1 DT830 Series

4.1.1 How to Start Configuration Setting

There are two ways to set the terminal configuration. The methods of terminal configuration are as follows.

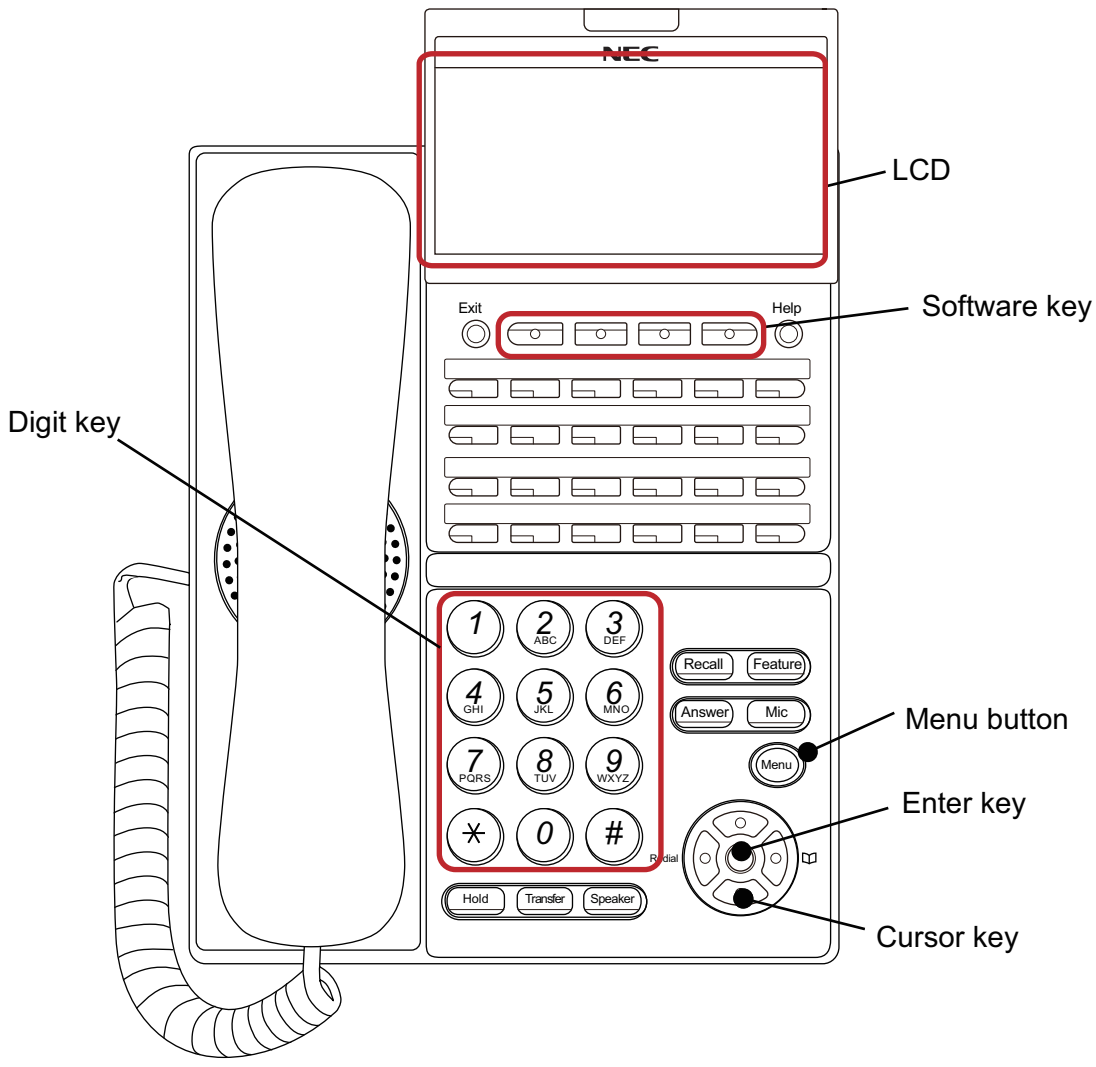
- 4.1.1.1 Configuration Setup on Terminal
- 4.1.1.2 Configuration Setup by Web Programming

4.1.1.1 Configuration Setup on Terminal

This section explains the operation procedure to start configuration settings on terminal.

Note: For the operation procedure to start configuration settings of Web Programming, see 4.1.1.2 Configuration Setup by Web Programming.

DT830 Overview



Note: DT830 (24-button Type) is used as an example.

<Startup Procedure>

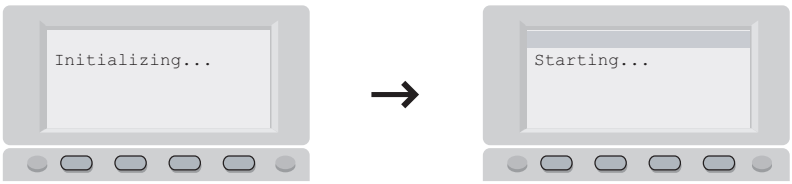
This section explains the procedure from turning ON the power to getting [Menu] and [Config] menus on the LCD.

[1] Power On

STEP 1: Power ON

Plug in the LAN cable to the LAN port.

STEP 2: The following will be displayed on the LCD shortly after turning the power on.



STEP 3: After the above is displayed, when 802.1X Supplicant is enabled, the following will be displayed on the LCD.



Note : When this setting is disabled, it will be not displayed. Skip this procedure.

STEP 4: After the above is displayed, when LLDP setting is enabled, the following will be displayed on the LCD.



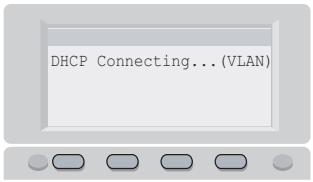
Note : When this setting is disabled, it will be not displayed. Skip this procedure.

STEP 5: After the above is displayed, when DHCP mode is enabled, the following will be displayed on the LCD.

[When VLAN mode is disabled]



[When VLAN mode is enabled]

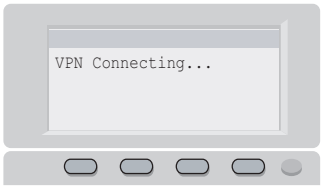


Note : When this setting is disabled, it will be not displayed. Skip this procedure.

A

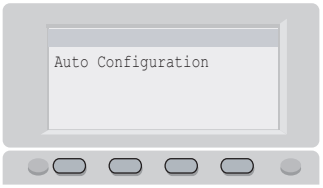
A

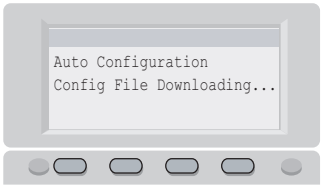
STEP 6: After the above is displayed, when VPN mode is enabled,
the following will be displayed on the LCD.

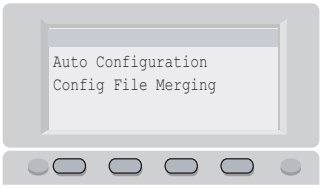


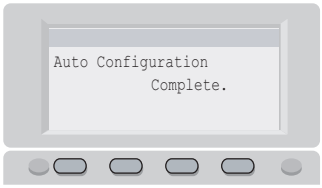
Note : When this setting is disabled, it will be not displayed. Skip this procedure.

STEP 7: After the above is displayed, when Auto config is enabled,
the followings will be displayed on the LCD.









Note : When this setting is disabled, it will be not displayed. Skip this procedure.

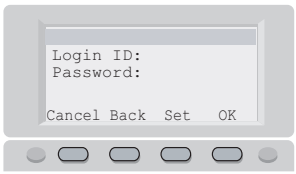
STEP 8: After the above is displayed, the following will be displayed on the LCD.



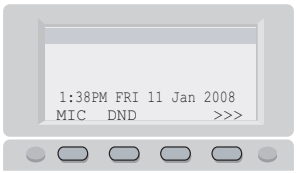
B

B

STEP 9: For login mode, the LCD displays login screen. Enter Login ID and press Set, and then enter Password. After that, press the software key for "OK."



STEP 10: After a while, LCD displays date and time.



DT830 Series (Standard LCD)
Without Home URL

Note : When you select [Setting]→[Display] → [Time Format] → [Automatic] from the configuration menu, a time display pattern can be changed with the system data (ASYDL System Data 1, Index1249).

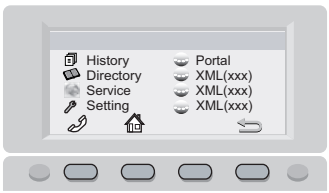
Note : When the system data is changed, restart the terminal.

END

[2] User Menu: [Menu]

While the LCD displays date and time (STEP 5 on the previous page), press the "Menu" key (**Note 13**) on the terminal to open [Menu] screen for user's menu.

User Menu



DT830 (Standard LCD)
Firmware version 3.0.0.0 or later **Note 13**
DT830G (Standard LCD)
Firmware version 3.0.0.0 or later **Note 13**

Note 13: "Portal" is displayed as follows depending on the Home URL setting.

- When Home URL is not registered, this menu name is displayed as "Phone". Then, phone icon is not displayed.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. As an example, application name is displayed as "Portal" in this manual.

[3] Administrator Menu: [Config]

The LCD can be switched to [Config] for administrator's menu either before login or after login.

(a) Switch to [Config] menu before login

STEP 1: While the LCD indicating "Connecting..." after turning on the power (STEP 3 on the previous page), press the "Menu" + "0" keys.
For ACD terminals with Key Pads, press "Release"→"Hold"→ "*"→ "#".

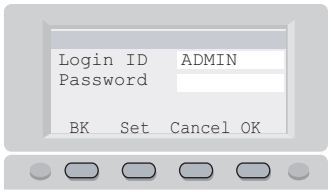


Terminals with Menu button: "Menu"+"0"

ACD terminals with Key Pads: "Release" "Hold" "*" "#"

Note: For details of Key Pads for ACD terminals, refer to manuals attached to Key Pads.

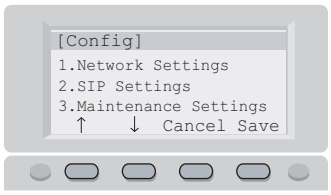
STEP 2: The LCD displays password entry screen. Enter User Name and Password, and then press the software key for "OK."



Note: Default value
Login ID: ADMIN
Password: 6633222

*Be sure to change the default password.
See 4.1.2.25 Password Change.

STEP 3: After a while, [Config] menu is displayed.



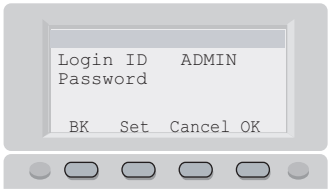
END

(b) Switch to [Config] menu after login

STEP 1: On [Menu] screen, select the following menu for each terminal type.

DT830 Series : "0" key

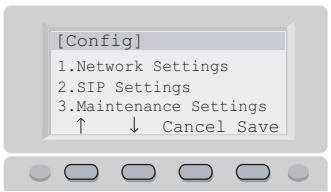
STEP 2: The LCD displays password entry screen for administrator's menu.



1. Enter User Name, and press the software key for "SET."
2. Enter Password, and press the software key for "OK."

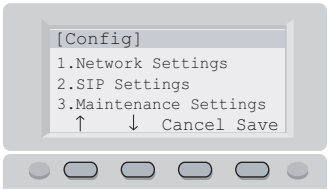
Note: Default value
User Name: ADMIN
Password: 6633222
*Be sure to change the default password.
See 4.1.2.25 Password Change.

STEP 3: After a while, [Config] menu is displayed.



END

Administrator Menu



DT830 Series (Standard LCD)

Note: To exit [Config] menu, press the software key for “Cancel” or “Save.” When you exist [Config] menu, the terminal restarts and returns to “Initializing...” display (STEP 2 in [1] Power On).

<Operations>

Follow the operations below to select the menu/parameter and to go forward/back the screen.

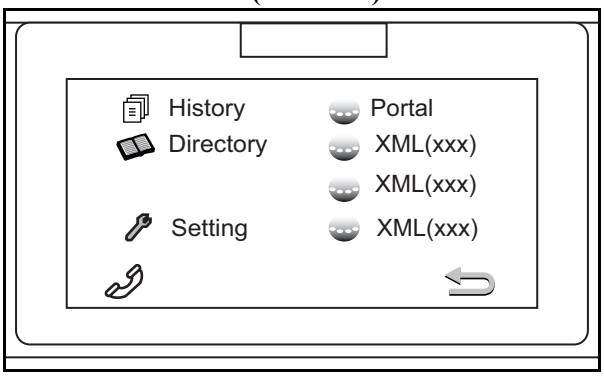
- Digit key - - - - - - - - Pressing the digit key corresponding to the menu number moves on to the next screen.

  Note: Only use the digit key "0" to open Config menu on the menu window.

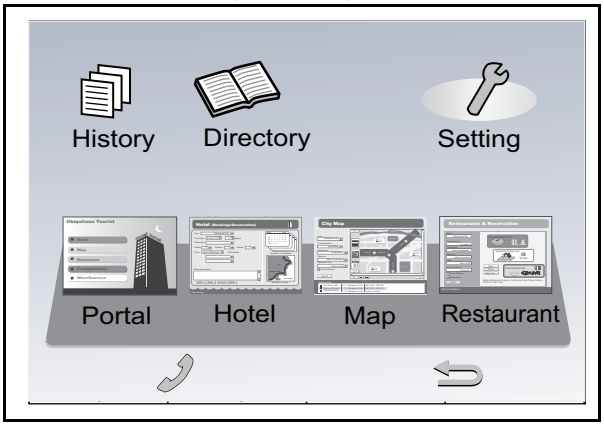
- Cursor key - - - - - - - Press the cursor key to select the target menu/parameter on the list. Then press the ENTER key or the software key for "OK" to move on to the next screen.

- UP ↑ and DOWN ↓ on Software key- - - Press the software key for "↑" and "↓" to select the target menu/parameter on the list. Then press the ENTER key or the software key for "OK" to move on to the next screen.

DT830/DT830G (12/24DG) <Standard LCD>



DT830G (12/24CG) <Color LCD>



[How to Enter Characters on Configuration Menu]

By key operation, users can input alphanumeric characters and symbols on the LCD for such as user ID and password entry. See the tables below for available characters and symbols.

Pressing the "*" key switches the character table in the order of Bg (uppercase) → Sm (lowercase) → Num (numbers).

FW 3.0.0.0 or later
English: Bg (Upper case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	\	1	?	!	@	:	;						
2	A	B	C	2											
3	D	E	F	3											
4	G	H	I	4											
5	J	K	L	5											
6	M	N	O	6											
7	P	Q	R	S	7										
8	T	U	V	8											
9	W	X	Y	Z	9										
0	(space)	0													
#	*	#	.	/	:	~	!	@	$	%	^	&	(	)	'
	Six teen	Seven teen	Eigh teen	Nine teen	Twenty	Twenty one	Twenty two	Twenty three	Twenty four	Twenty five	Twenty six	Twenty seven	Twenty eight	Twenty nine	Thirty
1										;					
2															
3															
4															
5															
6															
7															
8															
9															
0															
#	?	_	+	-	=	[	]	{	}	<	>	,	;	\	

(a) English: Sm (Lower case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	\	1	?	!	@	:	;						
2	a	b	c	2											
3	d	e	f	3											
4	g	h	i	4											
5	j	k	l	5											
6	m	n	o	6											
7	p	q	r	s	7										
8	t	u	v	8											
9	w	x	y	z	9										
0	(space)	0													
#	*	#	.	/	:	~	!	@	$	%	^	&	(	)	'
	Six teen	Seven teen	Eigh teen	Nine teen	Twenty	Twenty one	Twenty two	Twenty three	Twenty four	Twenty five	Twenty six	Twenty seven	Twenty eight	Twenty nine	Thirty
1										;					
2															
3															
4															
5															
6															
7															
8															
9															
0															
#	?	_	+	-	=	[	]	{	}	<	>	,	;	\	

(b) Turkish: Bg (Upper case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡		
2	A	B	C	Ç													
3	D	E	F														
4	G	Ğ	H	I	İ												
5	J	K	L														
6	M	N	O	Ö													
7	P	R	S	Ş													
8	T	U	Ü	V													
9	Y	Z															
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(c) Turkish: Sm (Lower case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡		
2	a	b	c	ç													
3	d	e	f														
4	g	ğ	h	ı	i												
5	j	k	l														
6	m	n	o	ö													
7	p	r	s	ş													
8	t	u	ü	v													
9	y	z															
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(d) Russian: Bg (Upper case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡		
2	А	Б	В	Г													
3	Д	Е	Ё	Ж	З												
4	И	Й	К	Л													
5	М	Н	О	П													
6	Р	С	Т	У													
7	Ф	Х	Ц	Ч													
8	Ш	Щ	Ъ	Ы	Ь												
9	Э	Ю	Я														
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(e) Russian: Sm (Lower case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡		
2	а	б	в	г													
3	д	е	ё	ж	з												
4	и	й	к	л													
5	м	н	о	п													
6	р	с	т	у													
7	ф	х	ц	ч													
8	ш	щ	ъ	ы	ь												
9	э	ю	я														
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(f) Others (EMEA): Bg (Upper case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	–	%	&	/	(	)	=	¿	¡		
2	A	B	C	À	Á	Â	Ã	Ä	Å	Æ	Ç						
3	D	E	F	È	É	Ê	Ë										
4	G	H	I	Ì	Í	Î	Ï										
5	J	K	L														
6	M	N	O	Ñ	Ò	Ó	Ô	Õ	Ö	Œ	Ø						
7	P	Q	R	S	ß												
8	T	U	V	Ù	Ú	Û	Ü										
9	W	X	Y	Z													
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(g) Others (EMEA): Sm (Lower case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	–	%	&	/	(	)	=	¿	¡		
2	a	b	c	à	á	â	ã	ä	å	æ	ç						
3	d	e	f	è	é	ê	ë										
4	g	h	i	ì	í	î	ï										
5	j	k	l														
6	m	n	o	ñ	ò	ó	ô	õ	ö	œ	ø						
7	p	q	r	s	ß												
8	t	u	v	ù	ú	û	ü										
9	w	x	y	z													
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

[Function menu on Software key]

See the table below for the function menus allocated for the software keys in configuration settings.

SOFTWARE KEY DISPLAY	FEATURE
Common for all the menus	
↑	Scroll the focused line (highlighted line) up
↓	Scroll the focused line (highlighted line) down
OK	Confirm the entered/selected menu and move on to the next hierarchy
Back	Return to one menu hierarchy up without confirming the setting
Exec	Execute the setting with the entered/selected value
BK	Delete the entered character
Set	Move on to the next setting
Call History/Phonebook related	
Detail	Display detailed data
Option	Display optional menu
Call	Originate a call to the displayed number
Prev	Return to the previous setting
Next	Move on to the next setting
[Config] for administrator's menu	
Save	Save the settings
Exit	Return to one menu hierarchy up
Cancel	Return to one menu hierarchy up without confirming the entered/selected value
IP/URI	Switch FQDN and IP address entry
Online Monitoring related	
Retry	Return to Ping menu

4.1.1.2 Configuration Setup by Web Programming

Web Programming is an application for assigning the terminal configuration data via maintenance console using Web browser. This section explains how to start and operate Web Programming.

<Startup Procedure>

STEP 1: Open Web browser on the maintenance PC and enter the IP address of the target terminal.

Note: Make sure that "4. Security Settings" → "1. Web Programming" → "2. Enable" is set on the [Config] menu of the terminal.

STEP 2: Login window for Web Programming is displayed. Enter the User ID and the password. "ADMIN" and "6633222" are set as the default value for User ID and password respectively. Be sure to change the default password.

Note: For details, see 4.1.2.25 Password Change.

<Operations>

STEP 1: Setting menu is listed on the left field of the window. Select the target setting menu.

Note: The message waiting lamp of Cradle Phone blinks in yellow while logging in to Web Programming.

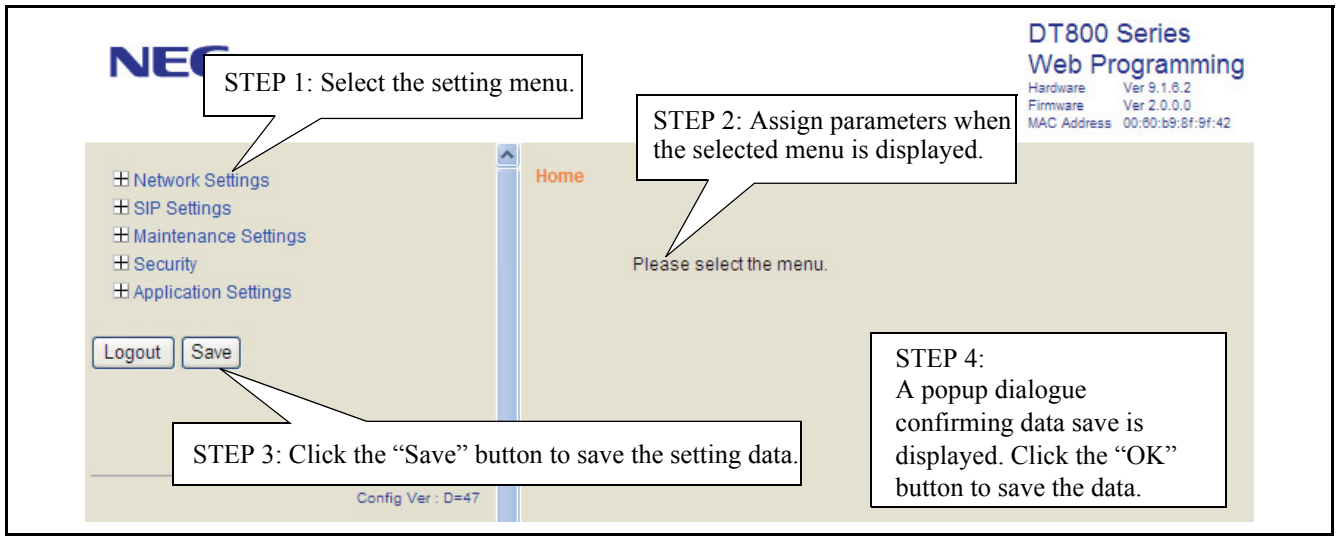
STEP 2: Setting parameters are displayed on the right frame of the window. Enter the parameters and then click the **OK** button.

STEP 3: After assigning all the menus, click the **Save** button on the bottom left of the window to save the assigned data.

STEP 4: A popup dialogue confirming data save is displayed. Click the "OK" button to save the data. The terminal is rebooted when "OK" button is clicked.

Note: A popup dialogue confirming data save or rebooting the terminal is displayed when "Logout" button is clicked during the terminal's login state.

Note: The terminal name, hardware version and firmware version displayed on the upper right corner of the screen may differ depending on the terminal model used.



4.1.2 Configuration Data Setting Procedure

This section explains the setting procedure of each configuration menu. The explanation covers the procedure for [1] Configuration Setting on Terminal and [2] Configuration Setting by Web Programming.

LCD varies depending on the terminal type and the setting condition. The explanation for the configuration setting procedure in the following sections goes with Standard LCD of DT830/DT830G and digit key operation.

	DT830G (Color LCD)	DT830/DT830G (Standard LCD)
Maximum number of lines displayed on LCD	6 lines **Note 14**	3 lines **Note 14**
Operation	Digit key	
	Cursor key	
	Software key for "↑" and "↓"	

Note 14: The maximum number of lines means the available number on condition that default value is applied to font size setting.

Note: Refer to the operation manual of each terminal for the setting procedure using cursor key and software key.

4.1.2.1 IP Address of DT830 Series and SIP server

This menu assigns the IP address of terminal (only for without DHCP configuration) and the IP address (or FQDN) of SIP server. **Note 15**
Assignment procedure depends on the system configuration. Select from the following three methods (**Note 16**) for configuration assignment.

Note 15: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server where DT830 are registered.

Note 16: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

TYPE 1: With DHCP Server (SIP Server's IP Address is Pre-assigned by DHCP Server)

DHCP server is connected to the network. DT830 terminal starts up and operates by obtaining own IP address and subnet mask, IP address (or FQDN) of SIP server, and router (default gateway) address via the DHCP server.
IP address assignment is not required on the configuration settings of DT830 since SIP server's IP address (or FQDN) is obtained via the DHCP server.

TYPE 2: With DHCP Server (SIP Server's IP Address is Not Assigned by DHCP Server)

DHCP server is connected to the network. DT830 terminal starts up and operates by obtaining own IP address, subnet mask, and router (default gateway) address via the DHCP server.
SIP server's IP address (or FQDN) is the only item necessary to be assigned on the configuration settings of DT830.

TYPE 3: Without DHCP Server

DHCP is in either of the following status; 1) DHCP server is not connected to the network or 2) the system is activated in a way that does not use the DHCP server.
It is necessary to assign the below in the DT830 configuration settings:

- DT830 terminal's IP address and subnet mask
- SIP server's IP address (or FQDN)
- Router (default gateway) address

[Setting Procedure]

STEP 1: Start up DT830

Turn on the power via PoE feeding or optional AC adapter.

STEP 2: Initialize data

1. On the administrator's menu [Config], select "3. Maintenance Settings."
2. On [Maintenance] menu, select "3. Data Clear."
3. On [Data Clear] menu, select "1. Factory Value."
4. On [Factory Value] menu, press the software key "OK."

STEP 3: Assign configuration data on [Network Settings] menu

Depending on the system configuration, assign the following network data.

Type 1: With DHCP Server (SIP Server's IP Address is Pre-assigned by DHCP Server)

- Set DHCP to "Enable."
- When necessary, assign IP address for DNS server.

Type 2: With DHCP Server (SIP Server's IP Address is Not Assigned by DHCP Server)

- Set DHCP to "Enable."
- Assign IP address (or FQDN) for the primary SIP server.
- Assign IP address for second, third, fourth SIP server. (Perform this assignment only when backup SIP server is prepared in the network.)
- When necessary, assign IP address for DNS server.

Type 3: Without DHCP Server

- Set DHCP to “Disable.”
- Assign IP address (or FQDN) for the primary SIP server.
- Assign IP address for second, third, fourth SIP server. (Perform this assignment only when backup SIP server is prepared in the network.)
- When necessary, assign IP address for DNS server.
- Assign IP address for DT830 terminal.
- Assign the Default Gateway address.
- Assign Subnet Mask.

STEP 4: Save settings

On [Config] screen, press the software key “Save” to save the settings.

STEP 5: Restart DT830 terminal

<Type 1 - System with DHCP Server (SIP Server’s IP Address Is Pre-assigned by DHCP Server)>

This section explains the procedure of DT830 data assignment for a system with DHCP server and SIP server’s IP address (or FQDN) is preassigned on the DHCP server. The procedure assumes that the DHCP server notifies IP address of DT830, router (default gateway), subnet mask, and SIP server address (or FQDN).

Telephony Server’s IP address (or FQDN) must be pre-assigned to DHCP Options in the following ways.

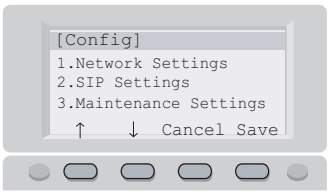
For DT830, select Option according to the following priorities:

1st priority is option 162.
If there is no option 162, 2nd priority is option 120.
If there is no option 120, 3rd priority is terminal local settings.

Caution: *Observe the following while assigning the configuration data:*
• Do Not Turn OFF the power of the DT830, SIP server, DHCP server.
• Do Not Unplug or Plug the LAN cable connecting to the DT830, SIP server, DHCP.
• Do Not Turn OFF the power of the HUB connecting to the DT830, SIP server, DHCP.

[1] Configuration Settings on Terminal

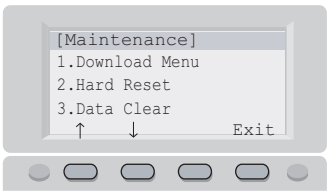
STEP 1: On [Config] main menu, select "3. Maintenance Settings."



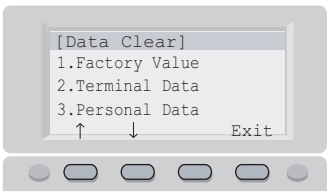
Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

Note: For login mode, LoginID and Password entry is required here.

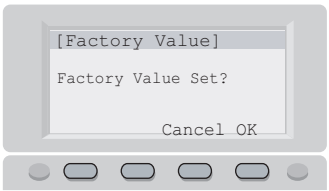
STEP 2: On [Maintenance] menu, select "3. Data Clear."



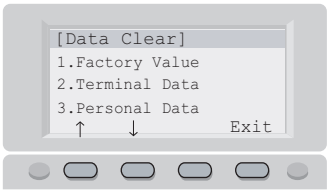
STEP 3: On [Data Clear] menu, select "1. Factory Value."



STEP 4: On [Factory Value] screen, press the software key for "OK" to confirm.



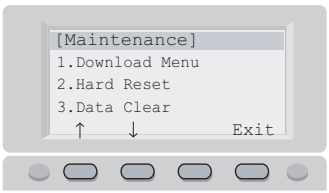
STEP 5: All the parameters return to factory default settings. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



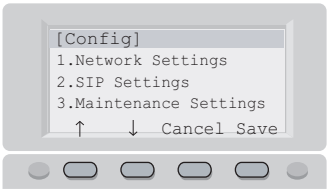
A

A

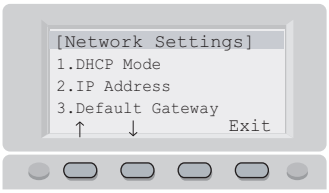
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



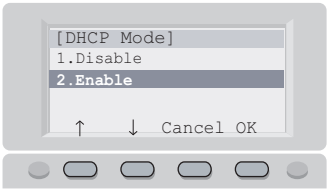
STEP 7: On [Config] menu, select "1. Network Settings."



STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



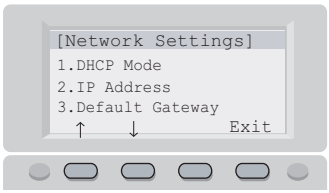
STEP 9: On [DHCP Mode] screen, verify that "2. Enable" is flashing, and then press the software key for "OK."



B

B

STEP 10: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When SIP server's IP address is assigned via DHCP server:

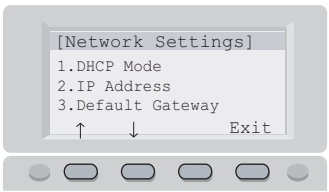
On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 14**

FQDN

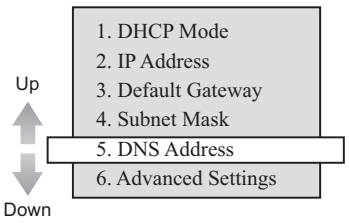
When SIP server is specified by FQDN via DHCP server:

If DHCP option 162 (information for Telephony Server which DT830 connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:
-Obtain DNS server's IP address from the DHCP server.
-Assign DNS Server's IP address on DT830 [Config] settings. ➡ **Go to STEP 11**
When not necessary to assign DNS server's IP address on configuration settings, ➡ **Go to STEP 14**

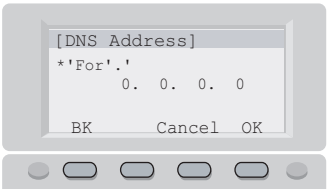
STEP 11: On [Network Settings] menu, select "5. DNS Address."



Network Settngs Menu List



STEP 12: On [DNS Address] screen, assign the DNS server's IP address using the number button.

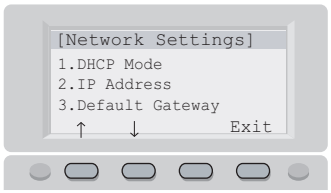


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

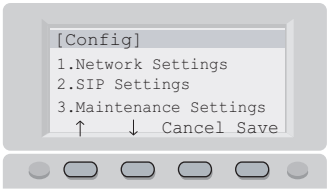
C

C

STEP 13: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



STEP 14: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for DT830.



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Settings by Web Programming

STEP 1: Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "2. Enable" radio button (DHCP is enabled). Click the "OK" button.

STEP 5: Depending on the way to specify SIP server, perform either of the following:
a. When SIP server is specified by IP address via DHCP: → Go to STEP 8.
b. When SIP server is specified by FQDN via DHCP: → Go to STEP 6.

If DHCP option 162 (information of SIP server which DT830 connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:
- Obtain DNS server's IP address from the DHCP server.
- Assign DNS server's IP address on DT830 configuration settings.

- When not necessary to assign DNS server's IP address on configuration settings, go to STEP 8.

STEP 6: Select [Network Settings] → [DNS Address].

STEP 7: Enter the IP address of DNS server. Click the "OK" button.

STEP 8: Click the "Save" button. After setting is complete, SIP server begins setup for DT830.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to 4.1.4 Error Messages for details on error messages.

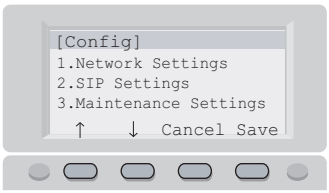
<Type 2 - System with DHCP Server (SIP Server's IP Address Is Not Assigned by DHCP Server)>

This section explains the procedure of DT830 data assignment for a system with DHCP server and SIP server's IP address (or FQDN) is NOT assigned on the DHCP server yet. SIP server's IP address (or FQDN) is the only item necessary to be assigned on the configuration settings of DT830.

Caution: *Observe the following while assigning the configuration data:*
- *Do Not Turn OFF the power of the DT830, SIP server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DT830, SIP server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT830, SIP server, DHCP.*

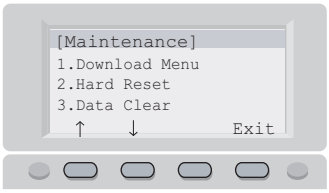
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select "3. Maintenance Settings."

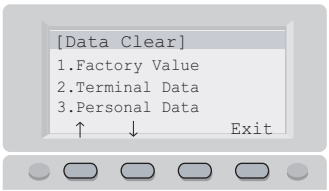


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

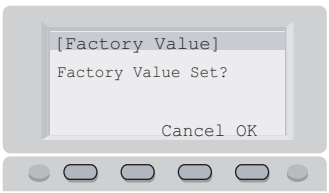
STEP 2: On [Maintenance] menu, select "3. Data Clear."



STEP 3: On [Data Clear] menu, select "1. Factory Value."



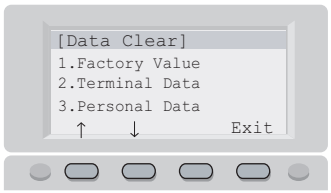
STEP 4: On [Factory Value] screen, press the software key for "OK."



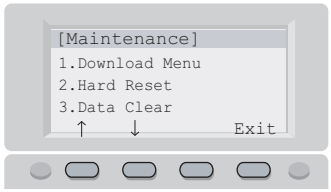
A

A

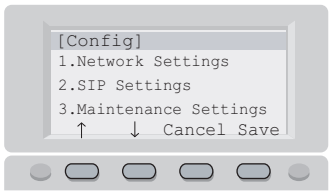
STEP 5: All the parameters return to factory default setting. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



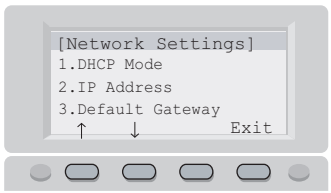
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



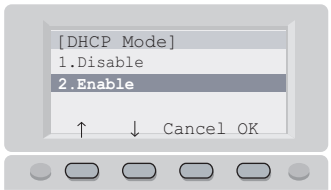
STEP 7: On [Config] menu, select "1. Network Settings."



STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



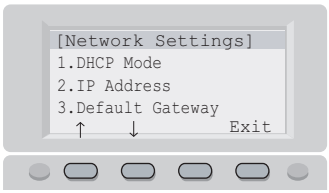
STEP 9: On [DHCP Mode] screen, verify that "2. Enable" is flashing, and then press the software key for "OK."



B

B

STEP 10: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When SIP server's IP address is assigned via DHCP server:

On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 14**

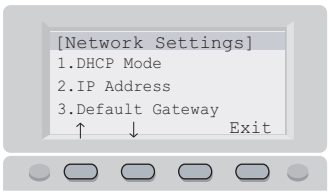
FQDN

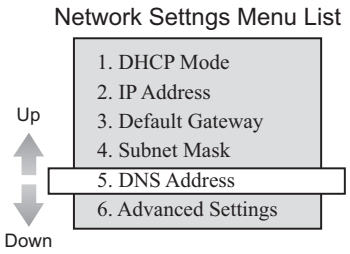
When SIP server is specified by FQDN via DHCP server:

It is necessary to perform either of the following:
-Obtain DNS server's IP address from the DHCP server.
-Assign DNS Server's IP address on DT830 [Config] settings. ➡ **Go to STEP 11**

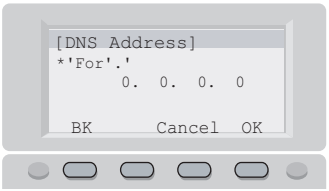
When not necessary to assign DNS server's IP address on configuration setting, ➡ **Go to STEP 14**

STEP 11: On [Network Settings] menu, select "5. DNS Address."





STEP 12: On [DNS Address] screen, assign the DNS server's IP address using the number button.

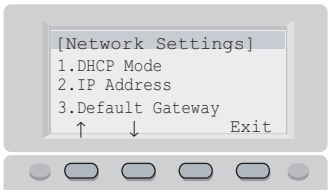


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

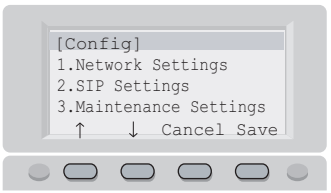
C

C

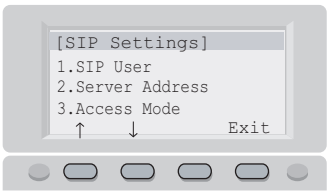
STEP 13: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



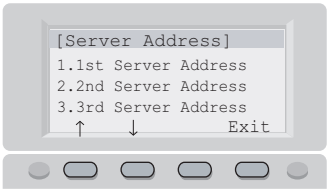
STEP 14: On [Config] menu, select "2. SIP Settings."



STEP 15: On [SIP Settings] menu, select "2. Server Address."



STEP 16: On [Server Address] menu, select "1. 1st Server Address."



D

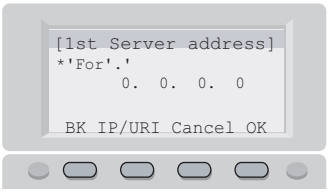
D

STEP 17: The LCD displays the [1st Server Address] setting screen.

Depending on the way to specify SIP server; by IP address or FQDN, perform either of the following:

IP address

When specifying the SIP server by IP address:



Assign the IP address of SIP server using digit keys.
Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

FQDN

When specifying the SIP server by FQDN:

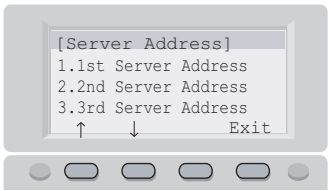


Press the software key for "IP/URI" to switch the mode to URI entry.

Assign fully qualified domain name of SIP server using digit keys. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _ (underscore) are valid in a domain name (maximum 128 characters).
Press the software key for "OK" when all settings are complete.

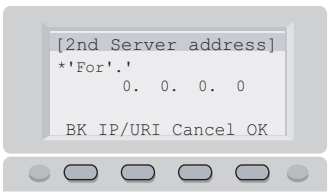
Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

STEP 18: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server addresses.



- Select "2" to assign the second SIP server
- Select "3" to assign the third SIP server
- Select "4" to assign the fourth SIP server

STEP 19: The LCD displays each of the [Server Address] setting screen.

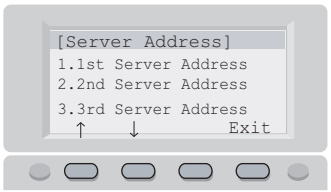


As in STEP 17, specify the SIP server by IP address or FQDN.
Press the software key for "OK" when all settings are complete and return to [Server Address] menu.

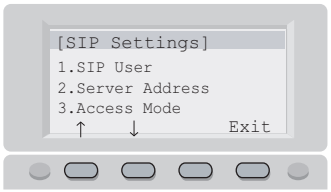
E

E

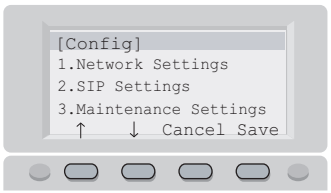
STEP 20: On [Server Address] menu, press the software key for "Exit" to return to [SIP Settings] menu.



STEP 21: On [SIP Settings] menu, press the software key for "Exit" to return to [Config] menu.



STEP 22: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for DT830.



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Settings by Web Programming

STEP 1: Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "2. Enable" radio button (DHCP is enabled). Click the "OK" button.

STEP 5: Depending on the way to specify SIP server, perform either of the following:

a. When SIP server is specified by IP address via DHCP: → Go to STEP 8.

b. When SIP server is specified by FQDN via DHCP: → Go to STEP 6.

If DHCP option 162 (information of SIP server which DT830 connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:

- Obtain DNS server's IP address from the DHCP server.
- Assign DNS server's IP address on DT830 configuration settings.

- When not necessary to assign DNS server's IP address on configuration settings, go to STEP 8.

STEP 6: Select [Network Settings] → [DNS Address].

STEP 7: Enter the IP address of DNS server. Click the "OK" button.

STEP 8: Select [SIP Settings] → [Server Address URI] → [1st Server Address].

a. To specify SIP server by IP address:

Assign the IP address of SIP server, and then click the "OK" button. **Note 17**

b. To specify SIP server by FQDN:

Assign fully qualified domain name of SIP server, and then click the "OK" button. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) are valid in a domain name (maximum 128 characters).

Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

Note 17: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

STEP 9: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server.
- Click [2nd Server Address] to assign the second SIP server.
- Click [3rd Server Address] to assign the third SIP server.
- Click [4th Server Address] to assign the fourth SIP server.

STEP 10: As in STEP 8, specify the SIP server by IP address or FQDN. Click the "OK" button after assigning the data.

STEP 11: Click the "Save" button. After all settings are complete, SIP server begins setup for DT830.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to 4.1.4 Error Messages for details on error messages.

<Type 3 - System without DHCP Server>

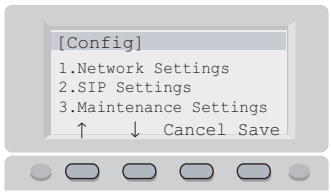
This section explains the procedure of DT830 data assignment for a system without DHCP server; DHCP server is not connected to the network or the system is activated in a way that does not use DHCP server.
The followings are necessary to assign in the DT830 configuration setting:

- DT830 terminal's IP address and Subnet mask
- Router (default gateway) address
- SIP server's IP address (or FQDN)

Caution: *Observe the following while assigning the configuration data:*
• Do Not Turn OFF the power of the DT830, SIP server, DHCP server.
• Do Not Unplug or Plug the LAN cable connecting to the DT830, SIP server, DHCP.
• Do Not Turn OFF the power of the HUB connecting to the DT830, SIP server, DHCP.

[1] Configuration Settings on Terminal

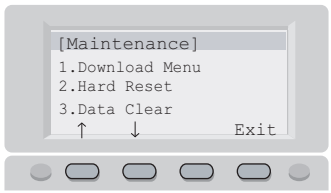
STEP 1: On [Config] main menu, select "3. Maintenance Settings."



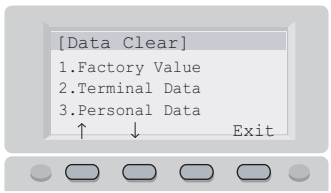
Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

Note: For login mode, LoginID and Password entry is required here.

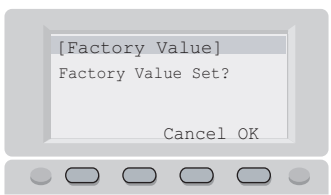
STEP 2: On [Maintenance] menu, select "3. Data Clear."



STEP 3: On [Data Clear] menu, select "1. Factory Value."



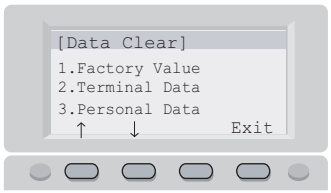
STEP 4: On [Factory Value] screen, press the software key for "OK."



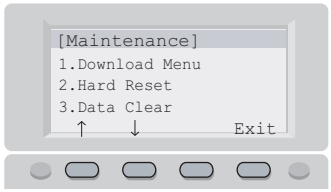
A

A

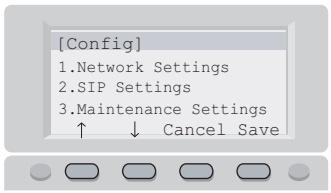
STEP 5: All the parameters return to factory default settings. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



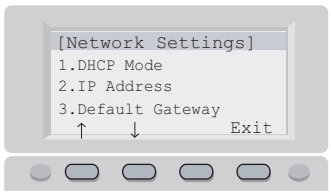
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



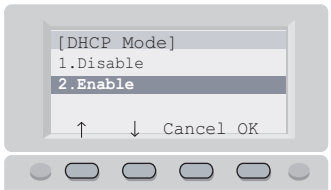
STEP 7: On [Config] menu, select "1. Network Settings."



STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



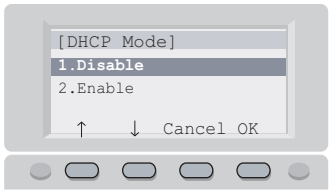
STEP 9: On [DHCP Mode] screen, "2. Enable" is flashing.



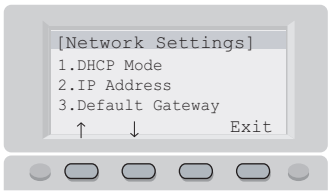
B

B

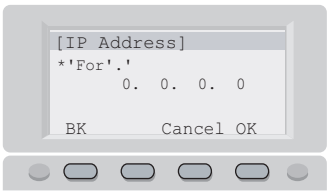
STEP 10: Select "1." and verify that "1. Disabled" line is flashing. Then press the software key for "OK."



STEP 11: The LCD displays [Network Settings] menu. Select "2. IP Address" to display [IP Address] menu.

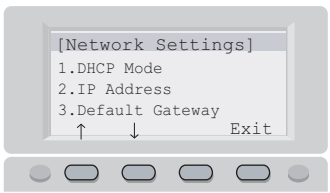


STEP 12: On [IP Address] setting screen, assign the IP address of DT830 terminal using number keys.

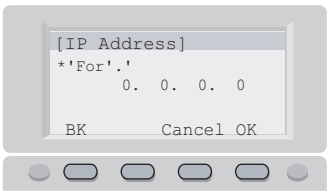


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 13: The LCD displays [Network Settings] menu. Select "3. Default Gateway" to display [Default Gateway] menu.



STEP 14: On [Default Gateway] setting screen, assign the IP address of DT830 terminal using digit keys.

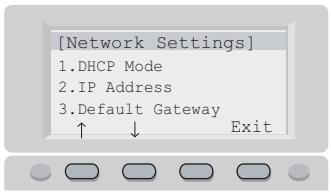


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

C

C

STEP 15: The LCD displays [Network Settings] menu. Select "4. Subnet Mask."



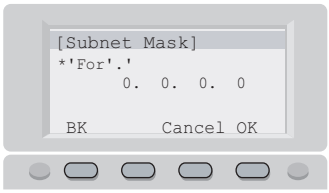
Network Settngs Menu List

Up

Down

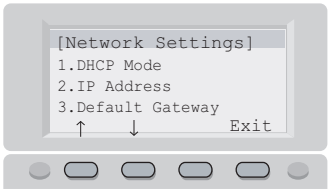
1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

STEP 16: The LCD displays [Subnet Mask] setting screen. Assign subnet mask using digit keys.



Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 17: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When IP address is used to specify SIP server:

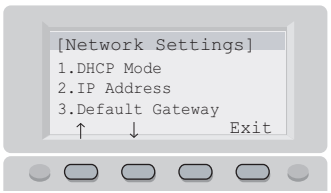
On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 22**

FQDN

When FQDN is used to specify SIP server:

Assign DNS Server's IP address on DT830 [Config] settings. ➡ **Go to STEP 18**

STEP 18: On [Network Settings] menu, select "5. DNS Address."



Network Settngs Menu List

Up

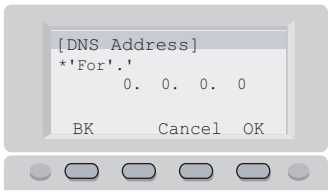
Down

1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

D

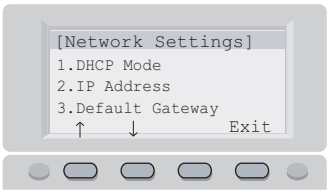
D

STEP 19: On [DNS Address] screen, assign the DNS server's IP address using the number button.

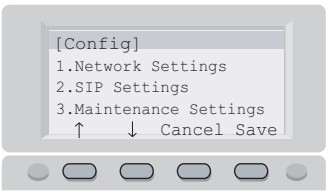


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

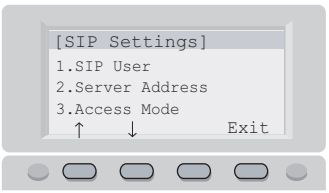
STEP 20: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



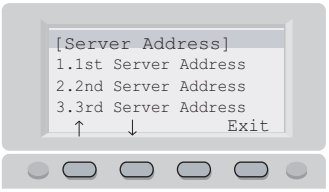
STEP 21: On [Config] menu, select "2. SIP Settings."



STEP 22: On [SIP Settings] menu, select "2. Server Address."



STEP 23: On [Server Address] menu, select "1. 1st Server Address."



E

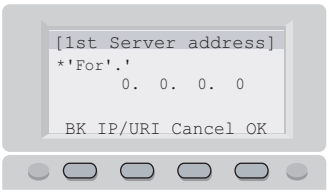
E

STEP 24: The LCD displays the [1st Server Address] setting screen.

Depending on the way to specify SIP server; by IP address or FQDN, perform either of the following:

IP address

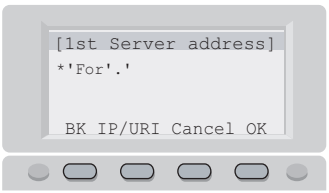
When specifying the SIP server by IP address:



Assign the IP address of SIP server using digit keys.
Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

FQDN

When specifying the SIP server by FQDN:

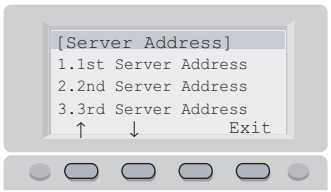


Press the software key for "IP/URI" to switch the mode to URI entry.

Assign fully qualified domain name of SIP server using digit keys. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _ (underscore) are valid in a domain name (maximum 128 characters).
Press the software key for "OK" when all settings are complete.

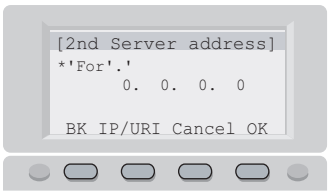
Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

STEP 25: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server addresses.



- Select "2" to assign the second SIP server
- Select "3" to assign the third SIP server
- Select "4" to assign the fourth SIP server

STEP 26: The LCD displays each of the [Server Address] setting screen.



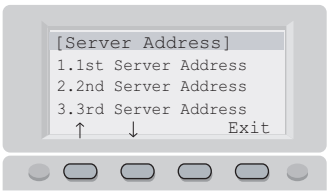
As in STEP 24, specify the SIP server by IP address or FQDN.

Press the software key for "OK" when all settings are complete and return to [Server Address] menu.

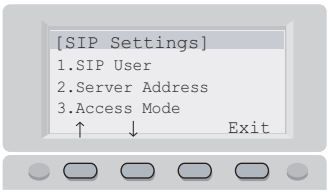
F

F

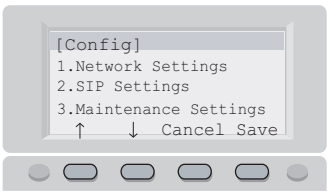
STEP 27: On [Server Address] menu, press the software key for "Exit" to return to [SIP Settings] menu.



STEP 28: On [SIP Settings] menu, press the software key for "Exit" to return to [Config] menu.



STEP 29: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for DT830 Series.



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Settings by Web Programming

STEP 1: Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "1. Disable" radio button (DHCP is disabled). Click the "OK" button.

STEP 5: Select [Network Settings] → [IP Address].

STEP 6: Enter the IP address of the DT830 terminal. Click the "OK" button.

STEP 7: Select [Network Settings] → [Default Gateway].

STEP 8: Enter the IP address of default gateway (router). Click the "OK" button.

STEP 9: Select [Network Settings] → [Subnet Mask].

STEP 10:Enter subnet mask. Click the "OK" button.

STEP 11:Depending on the way to specify SIP server, perform either of the following:

a. When SIP server is specified by IP address: → Go to STEP 14.

b. When SIP server is specified by FQDN: → Go to STEP 12.

Note: Assign DNS server's IP address on DT830 configuration settings.

STEP 12:Select [Network Settings] → [DNS Address].

STEP 13:Enter the IP address of DNS server. Click the "OK" button.

STEP 14:Select [SIP Settings] → [Server Address & URI] → [1st Server Address].

a. To specify SIP server by IP address:

Assign the IP address of SIP server, and then click the "OK" button. **Note 18**

b. To specify SIP server by FQDN:

Assign fully qualified domain name of SIP server, and then click the "OK" button. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) are valid in a domain name (maximum 128 characters).

Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

Note 18: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

STEP 15:If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server.

- Click [2nd Server Address] to assign the second SIP server.
- Click [3rd Server Address] to assign the third SIP server.
- Click [4th Server Address] to assign the fourth SIP server.

STEP 16:As in STEP 8, specify the SIP server by IP address or FQDN. Click the "OK" button after assigning the data.

STEP 17:Click the "Save" button. After all settings are complete, SIP server begins setup for DT830.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to 4.1.4 Error Messages for details on error messages.

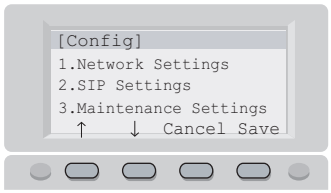
4.1.2.2 PC Port Remote Control

To use PC Port Remote Control feature assigned by PCPro programming, the following setting is also required on DT830 terminal side.

Note: Refer to “PC Port Remote Control” in Operations and Maintenance Manual for the data assignment on the Telephony Server.

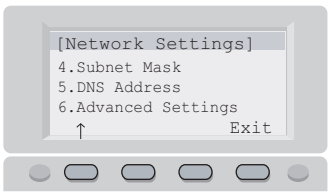
[1] Configuration Settings on Terminal

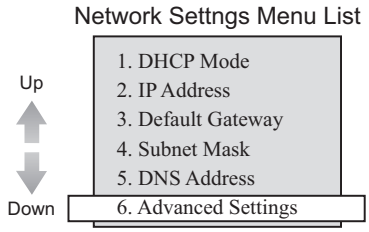
STEP 1: On [Config] menu, select "1. Network Settings."



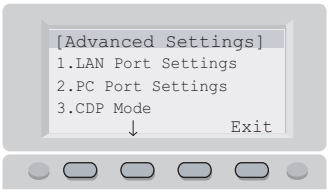
Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

STEP 2: The LCD displays [Network Settings] menu. Select "6. Advanced Settings."





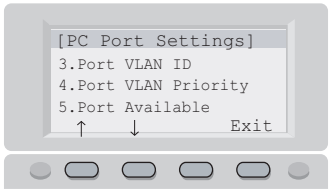
STEP 3: On [Advanced Settings] menu, select "2. PC Port Settings."

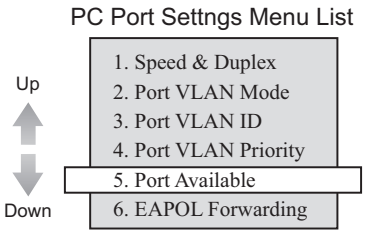


A

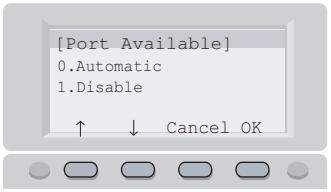
A

STEP 4: On [PC Port Settings] menu, select "5. Port Available."





STEP 5: The LCD displays [Port Available] setting screen.



Perform either of the following:

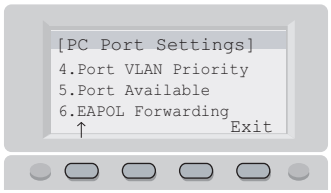
a.) When automatically setting the DT830 terminal's PC port status following the setting on PCPro:

1. Select "0. Automatic."
2. "0. Automatic" flashes.
3. Press the software key for "OK."

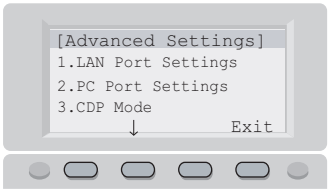
b.) When disabling the DT830 terminal's PC port without following the setting on PCPro:

1. Select "1. Disable."
2. "1. Disable" flashes.
3. Press the software key for "OK."

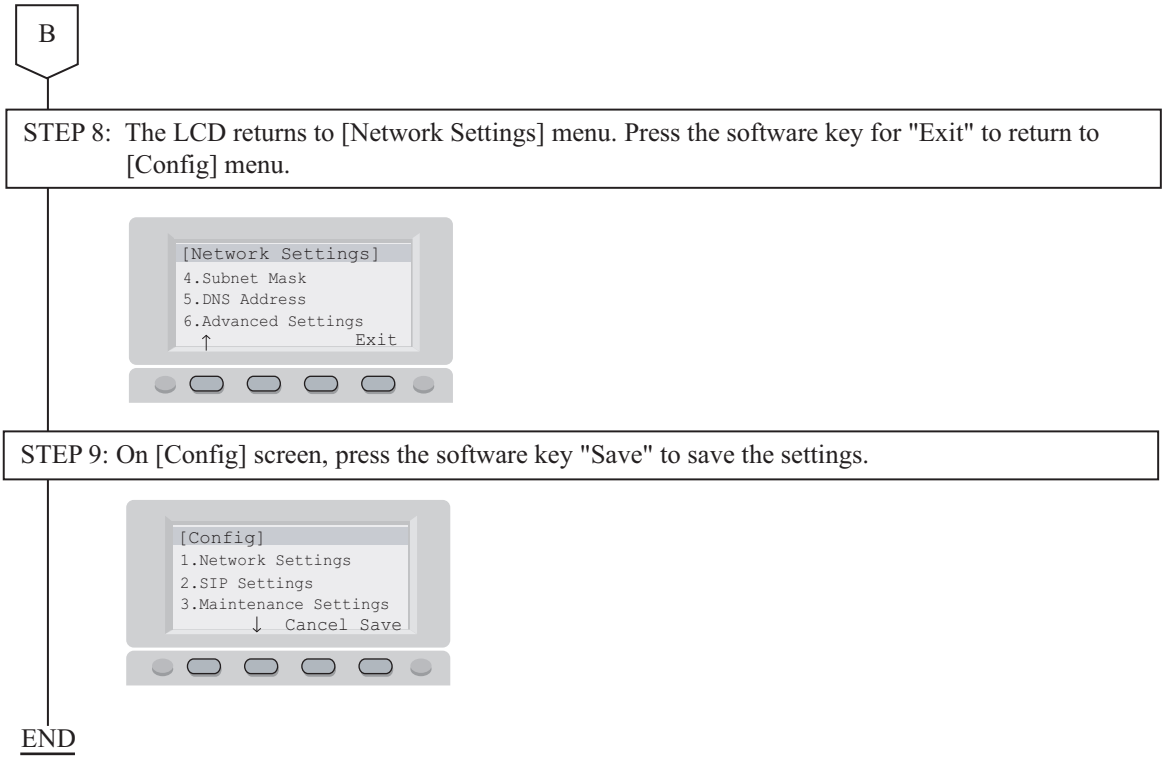
STEP 6: The LCD returns to [PC Port Settings] menu. Press the software key for "Exit."



STEP 7: The LCD returns to [Advanced Settings] menu. Press the software key for "Exit."



B



[2] Configuration Setting by Web Programming

STEP 1:Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port Available].

STEP 2: Select the [Port Available] parameter, and click the “OK” button.

1. Automatic:
   Automatically sets the DT830 terminal’s PC port status following the setting on PCPro
2. Disable:
   Disable the DT830 terminal’s PC port without following the setting on PCPro

STEP 3: Click the “Save” button.

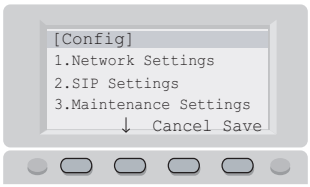
4.1.2.3 Type of Service (ToS)

ToS value can be changed on DT830 terminal.

Note: During operation, ToS value assigned by the Telephony Server is enabled. It is unnecessary to assign ToS value on the DT830 terminal side.

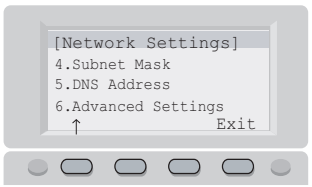
[1] Configuration Setting on Terminal

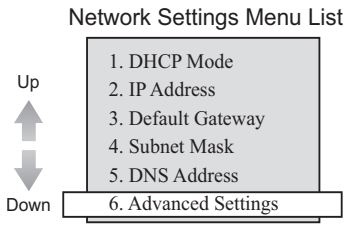
STEP 1: On [Config] menu, select “1. Network Settings.”



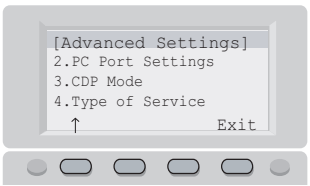
Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

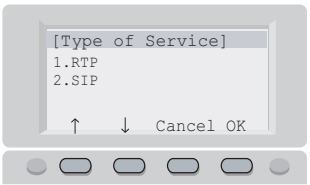




STEP 3: On [Advanced Settings] menu, select “4. Type of Service.”



STEP 4: The LCD displays [Type of Service] setting screen.



Select the packet type for setting ToS.

1. RTP
2. SIP

STEP 5: ToS value setting screen for the selected packet type (RTP in this example) is displayed.



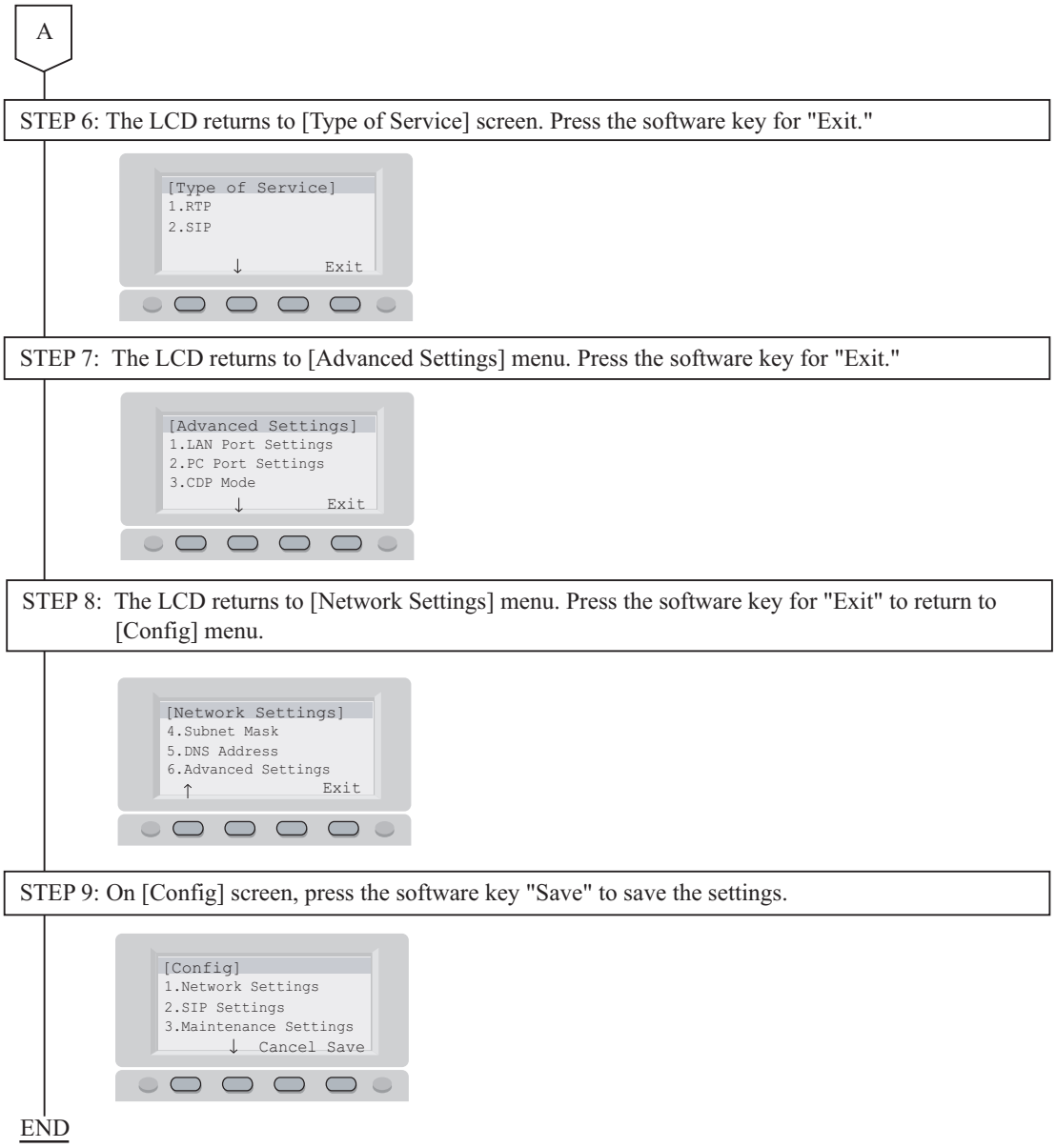
Enter any Hex value using the number key and then press “OK”.

Example: When entering “0B (Hex)”

1. Press the number button “0” once.
2. Press the number button “2” three times
   (The value changes “2” > “A” > “B.”)

Press the software key for “BK” to delete the entered value.

A



[2] Configuration Settings by Web Programming

STEP 1: Select [Network Settings] → [Advance Settings] → [Type of Service].

STEP 2: Select the packet type for setting the ToS value.

RTP: Click “RTP” to change the ToS value for sending RTP packet.

SIP: Click “SIP” to change the ToS value for SIP packet.

STEP 3: Enter any Hex value to the text box. Click the “OK” button.

STEP 4: Click the “Save” button.

4.1.2.4 LLDP and LLDP-MED

This section explains how to assign data for Link Layer Discovery Protocol (LLDP) and LLDP-Media Endpoint Discovery (LLDP-MED) on DT830 terminals.

DT830 supports LLDP, a standard Neighbor Discovery protocol, and can exchange information about themselves with adjacent network nodes such as IP/SIP terminals and other LLDP-capable devices. It also automatically performs some network settings upon receiving LLDP packets.

With LLDP Mode enabled, DT830 begins to transmit and receive LLDP packets after startup. It transmits LLDP packets from the LAN port at periodic intervals defined by LLDP Packet Transmission Interval (**Note 19**, **Note 20**, **Note 21**), and holds the latest available LLDP packet received on the LAN port (**Note 22**). When the LLDP Auto Setting Mode is enabled, it performs self-configuration based on the information learned from the received LLDP packet.

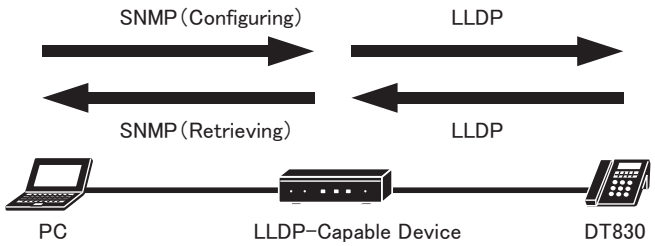
Note 19: LLDP packets are also transmitted in the following cases that LLDP packet contents to be advertised are changed.
- The Reception Waiting Time (RX Waiting Time) has timed out.
- IP address is allocated via DHCP
- ToS value is defined by the Telephony Server.

Note 20: When DT830 transmits LLDP packets within LLDP Packet Transmission Interval, it sets LLDP Packet Transmission Interval based on the transmitted LLDP packet in the last time and transmits packets with the interval.

Note 21: LLDP packets are not transmitted from the PC port except when the LLDP Transparent Mode is enabled.

Note 22: LLDP packets will be discarded in the following cases where:
- LLDP packets are received on the PC port except when LLDP Transparent Mode is enabled.
- LLDP packets are received from network devices other than switches (IP/SIP terminal, PC, for example).
- LLDP packets whose LLDP-MED Capabilities TLV/LLDP-MED Device Type are not Connectivity Device Definition (04H).

Layer Discovery Protocol



LLDP Fast Start

DT830 usually transmits LLDP packets at the interval (30 seconds by default) specified by LLDP Packet Transmission Interval (Transmit Interval). However, this may cause slow MED device configuration due to the detection delay. In order to prompt neighbor devices to transmit an LLDP packet and renew the existing network information, DT830 can consecutively transmit one LLDP packet per second for a limited time, reducing the time it takes for automatic LLDP configuration. This feature, called "LLDP Fast Start," is activated immediately after DT830 starts transmitting an LLDP packet or when the link has been established on the LAN port, and transmits LLDP packets at intervals of one second for the duration of the LLDP Fast Start Count. After completion of the count, the transmission interval for LLDP packets returns to the value set for LLDP Packet Transmission Interval (Transmit Interval).

LLDP Auto Setting Mode

DT830 can automatically set the voice network policies based on the information from received LLDP packets. When the LLDP Auto Setting Mode is enabled, after starting LLDP packet transmission and reception, DT830 automatically sets network policies by using the valid LLDP packet received within the time specified by the Reception Waiting Time (RX Waiting Time).

LLDP Transparent Mode

DT830 can forward LLDP data between its LAN and PC ports. This provides the above-mentioned LLDP Auto Setting for a PC connected to the PC port of a DT830 terminal like those terminals adjacent to an LLDP capable switch.

When this Transparent Mode is enabled, DT830 transmits LLDP packets received on the LAN port to the PC port and vice versa.

Note: When the Transparent Mode is enabled, DT830 exchanges information with the LLDP-capable device connected to the PC port, as well as with the one connected to the LAN port.

<Service Conditions>

(1) DT830 supports the following protocol and standard:

- IEEE802.1AB
- ANSI/TIA-1057 LLDP-MED (LLDP for media endpoint discovery)
  LLDP-MED endpoint device class: “Class III (Communication Devices)”

(2) DT830 supports the following switches:

- NEC QX-S3200-PW Series Ver. 3.2.10 or higher
- Cisco Catalyst 3560 Series IOS Release 12.2 or higher

(3) Settings for LLDP and LLDP-MED features will be only valid after restarting the DT830 terminal.

(4) Transmission and reception of LLDP packets is performed after IEEE802.1X authentication.

(5) Settings for LLDP and LLDP-MED features are reset to default settings by clearing data (initialization, terminal settings data).

(6) The following settings can be configured by the AutoConfig feature:

- LLDP Mode
- Auto Setting Mode
- RX Waiting Time
- Transmit Interval
- Hold Multiplier
- Fast Start Count
- Transparent Mode

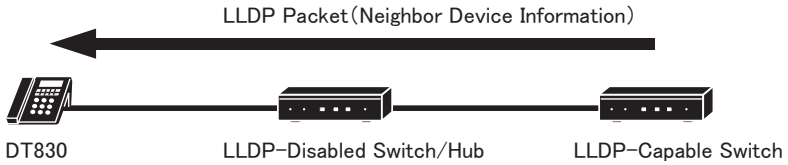
(7) Regardless of the settings for the LLDP Mode, LLDP Transparent Mode is performed based on the settings for the LLDP Transparent Mode.

(8) When the LLDP and the LLDP Auto Setting Modes are enabled, it may take some time to receive LLDP data (15 seconds by default) before DT830 starts up.

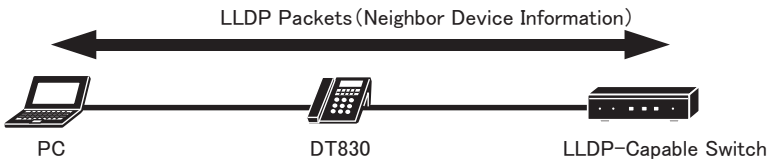
(9) VLAN IDs cannot be assigned automatically to the PC port of DT830 by using the LLDP Auto Setting Mode.

(10) The LLDP Auto Setting Mode will override the AutoConfig feature. Thus, even if performing the AutoConfig may involve changes in the settings common to both of them, the settings made by the LLDP Auto Setting will not be changed by the AutoConfig.

(11) Non-LLDP-capable switches and hubs relay LLDP packets. Switches that are LLDP-capable also relay LLDP packets if they are set to relay LLDP packets. When such an LLDP-disabled device is located between LLDP-capable devices and DT830, the DT830 will assume that LLDP information provided by the LLDP-capable device is the information about the one directly connected to itself.



(12) When the LLDP Transparent Mode is enabled, DT830 forwards LLDP packets between the LAN and PC ports. In this case, the LLDP-capable device (switch) will recognize the DT830 terminal and the PC connected to the terminal as its neighbor.



(13) The table below shows advertised LLDP Type Length Values:

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
Chassis ID TLV	chassis ID subtype	Chassis ID subtype	0x05 (Network address)
	chassis ID	Chassis ID	IP address Before DHCP assignment; "0.0.0.0" After DHCP assignment; the assigned address
Port ID TLV	port ID subtype	Port ID subtype	0x03 (MAC address)
	port ID	Port ID	MAC address
Time To Live TLV	time to live	Length of time the LLDP data will be valid	LLDP packet transmission interval×LLDP time to live
Port Description TLV	port description	Port description	"LAN Port"
System Name TLV	system name	System name	"NEC IP Phone"
System Description TLV	system description	System description	"DT830"

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
System Capabilities TLV	system capabilities	Supported LAN capabilities (repeater hubs, routers, IP phones, for example)	0x00 0x24 (Telephone, Bridge)
	enabled capabilities	Enabled LAN capabilities (repeater hubs, routers, IP phones, for example)	0x00 0x24 (Telephone, Bridge)
Management Address TLV			Not advertised
IEEE802.1 Extensions			
Port VLAN ID TLV			Not advertised
Port And Protocol VLAN ID TLV			Not advertised
VLAN Name TLV			Not advertised
Protocol Identity TLV			Not advertised
IEEE802.3 Extensions			
MAC/PHY Configuration/ Status TLV	auto-negotiation support/ status	Auto-negotiation support/ status	0x02 (When Speed&duplex on the LAN port is set to automatic) 0x01 (When Speed&duplex on the LAN port is set to other than automatic)
	PMD auto-negotiation advertised capability	PMD auto-negotiation advertised capability (Other than DT830G)	0x00 0x36 (10BASE-T half duplex mode, 10BASE-T full duplex mode, 100BASE-TX half duplex mode, 100BASE-TX full duplex mode)
		PMD auto-negotiation advertised capability (for DT830G)	0xC0 0x36 (10BASE-T half/full duplex mode, 100BASE-TX half/ full duplex mode, 1000BASE-T half/full duplex mode)
	operational MAU type	Operational MAU type	Speed&duplex during transmission 0x00 0x02 (10BASE-T half duplex) 0x00 0x04 (10BASE-T full duplex) 0x00 0x10 (100BASE-TX half duplex) 0x00 0x20 (100BASE-TX full duplex)

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
Power Via MDI TLV	MDI power support		Not advertised
	PSE power pair		
	power class		
Link Aggregation TLV	aggregation status	Link aggregation status	Not advertised
	aggregated port ID	Link aggregated port ID	
Maximum Frame Size TLV	maximum 802.3 frame size	Maximum 802.3 frame size	Not advertised
LLDP-MED Extensions			
LLDP-MED Capabilities TLV	LLDP-MED Capabilities	LLDP-MED capabilities	0x00 0x33 (Capabilities, network policy, power via MDI (PD), inventory management)
	LLDP-MED Device Type	LLDP-MED device type	0x03 (Endpoint class III)
Network Policy TLV [1]	Application Type	Application type to which the network policy applies	1 (Voice)
	U	Flag to indicate whether the information is known or unknown in the network policy request	In the LLDP Auto Setting Mode; 1 (Unknown) Otherwise; 0 (Defined)
	T	Flag to indicate whether the VLAN is tagged or untagged	LAN port VLAN is disabled; 0 (untagged VLAN) LAN port VLAN is enabled; 1 (tagged VLAN)
	X	(Not used)	0
	VLAN ID	VLAN ID	LAN port VLAN ID (When VLAN is disabled; 0)
	L2 Priority	Layer 2 priority	LAN port VLAN priority (When VLAN is disabled; 0)
	DSCP Value	DSCP value	Set value for RTP ToS

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
Network Policy TLV [2] Note 23	Application Type	Application type to which the network policy applies	2 (Voice Signaling)
	U	Flag to indicate whether the information is known or unknown in the network policy request	In the LLDP Auto Setting Mode; 1 (Unknown) In case other than the above; 0 (Defined)
	T	Flag to indicate whether the VLAN is tagged or untagged	LAN port VLAN is disabled; 0 (untagged VLAN) LAN port VLAN is enabled; 1 (tagged VLAN)
	X	(Not used)	0
	VLAN ID	VLAN ID	LAN port VLAN ID (When VLAN is disabled; 0)
	L2 Priority	Layer 2 priority	LAN port VLAN priority (When VLAN is disabled; 0)
	DSCP Value	DSCP value	Set value for SIP ToS
Location Identification TLV	Location Data Format	Location ID format	Not advertised
	Location ID	Location ID	
Extended Power-Via-MDI TLV	Power Type	Power supply or demand side	0x1(PD Device)
	Power Source	Power state Supply side: Main or auxiliary power Demand side: PoE or local power supply	0x0 (Unknown)
	Power Priority	Power supply priority	0x0 (Unknown)
	Power Value	Supply side: Minimum power available to supply Demand side: Maximum consumed power	63 (DT830) 63 (DT830 DESI-less) 110 (DT830G)
Hardware Revision TLV	Hardware Revision	Hardware version	Hardware version
Firmware Revision TLV	Firmware Revision	Firmware version	Firmware version
Software Revision TLV	Software Revision	Software version	“-”
Serial Number TLV	Serial Number	Serial number	“-”
Manufacturer Name	Manufacturer Name	Manufacturer name	“NEC”
Model Name	Model Name	Model name	“DT830” “DT830 (8LD)” “DT830 (8LDG)” “DT830CG” “DT830DG”

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
Asset ID	Asset ID	Asset ID (Property ID)	Asset ID

Note 23: If DSCP Value (set value for SIP ToS) of Network Policy [2] is equal to that of Network Policy [1] (set value for RTP ToS), the TLV will not be advertised.

(14) The table below shows received LLDP Type Length Values:

Note: Only the LLDP packets received on the LAN port are valid. (LLDP packets received on the PC port are not valid.)

Received LLDP TLV

TLV	Description	Received Data	
		Availability	Online Monitoring
Basic management			
Chassis ID TLV	Chassis ID	Receivable	Viewed (Info only: IP Address, MAC Address)
Port ID TLV	Port ID	Receivable	Viewed (Info only)
Time To Live TLV	Length of time the LLDP data will be valid	Receivable	Not viewed
Port Description TLV	Port description	Receivable	Viewed
System Name TLV	System name	Receivable	Viewed
System Description TLV	System description	Receivable	Viewed
System Capabilities TLV	Supported/enabled LAN capabilities	Receivable	Not viewed
Management Address TLV		Receivable	Not viewed
IEEE802.1 Extensions			
Port VLAN ID TLV		Receivable	Not viewed
Port And Protocol VLAN ID TLV		Receivable	Not viewed
VLAN Name TLV		Receivable	Not viewed
Protocol Identity TLV		Receivable	Not viewed
IEEE802.3 Extensions			
MAC/PHY Configuration/ Status TLV	I/F capability/status/type	Receivable	Viewed (auto-negotiation support/status, operational MAU type only)
Power Via MDI TLV		Receivable	Not viewed
Link Aggregation TLV	Link aggregation port ID/ status	Receivable	Not viewed

Received LLDP TLV

TLV	Description	Received Data	
		Availability	Online Monitoring
Maximum Frame Size TLV	Maximum frame size	Receivable	Not viewed
LLDP-MED Extension			
LLDP-MED Capabilities TLV	LLDP-MED capabilities/ device type	Receivable	Not viewed
Network Policy TLV	Network policy	Receivable	Viewed (Voice, VoiceSignaling, Unknown only)
Location Identification TLV	Location identification	Receivable	Viewed (Civic Address, ECS ELIN only)
Extended Power-Via-MDI TLV	Power information	Receivable	Not viewed
Hardware Revision TLV	Hardware version	Receivable	Not viewed
Firmware Revision TLV	Firmware version	Receivable	Not viewed
Software Revision TLV	Software version	Receivable	Not viewed
Serial Number TLV	Serial number	Receivable	Not viewed
Manufacturer Name	Manufacturer name	Receivable	Viewed
Model Name	Model name	Receivable	Viewed
Asset ID	Asset ID (Property ID)	Receivable	Viewed

[Conditions for LLDP Auto Setting]

(1) To enable the LLDP Auto Setting Mode, an LLDP packet needs to contain a Network Policy TLV with Unknown Policy Flag (U) set to "0." If more than one Network Policy TLV is contained in a LLDP packet, all of their Unknown Policy Flag (U) must be "0."

(2) Both LLDP and LLDP Auto Setting Modes need to be enabled.

(3) DT830 will wait until it receives a valid LLDP packet for the LLDP Auto Setting or the Reception Waiting Time (RX Waiting Time) has timed out. In the latter case, the LLDP Auto Setting will not be performed. When receiving an LLDP packet with partially valid data, DT830 will continue waiting until it receives the one having all valid information for the LLDP Auto Setting. If no LLDP packets containing all valid data are received within the Reception Waiting Time (RX Waiting Time), the LLDP Auto Setting will be made by using LLDP packets with partially valid data.

Criteria for the LLDP Auto Setting

Received LLDP Packet	Waiting for Valid LLDP Packet (RX Waiting Time)	Auto Setting
Packet containing all valid data	Ends	Performed
Packet containing partially valid data	Continues	Performed by using only valid data after the Reception Waiting Time (RX Waiting Time) is expired
Packet containing no valid data	Continues	Not performed

(4) The following settings can be automatically configured by the LLDP Auto Setting:

- LAN port configuration/VLAN ID
- LAN port configuration/VLAN priority
- TOS mode/RTP
- TOS mode/SIP

(5) The LLDP Auto Setting is performed for each setting.

(6) The configuration data assigned to DT830 terminal is used until the LLDP data configured by the LLDP Auto Setting is applied.

(7) For setting items with invalid data, the LLDP Auto Setting is not performed.

(8) The priority order of the Layer 2 configuration is as follows:

1. Telephony Server definition
2. LLDP Auto Setting
3. Configuration data assignment of DT830 terminal

Note: Settings with lower priority are overridden by higher priority settings.

(9) Modification in the network configuration of the adjacent LLDP-capable device will cause changes in the LLDP information received by DT830, but this will not activate the LLDP Auto Setting. If you need to modify the configuration data of DT830, change the settings on the terminal or restart it.

(10) Changes in the configuration of the adjacent LLDP-capable device can disconnect communication between the DT830 terminal and the Telephony Server. In this case, DT830 automatically restarts.

(11) Settings data configured by the LLDP Auto Setting is not stored in the flash memory, and will be lost by turning the power off and on, or doing a hard or soft reset. In this case, perform the LLDP Auto Setting again.

(12) The AutoConfig is implemented for the settings configured by the Configuration data assignment of DT830 terminal after an IP address is allocated via DHCP, and then the DT830 terminal is reset. For this reason, AutoConfig setting has a priority equal to that of the Configuration data assignment.

(13) Conditions for LAN port configuration/VLAN ID

To configure VLAN ID, DT830 needs to receive an LLDP packet containing one or more Network Policy TLVs. VLAN ID is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for VLAN ID Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0

Note: For TLV definition, refer to the relevant manuals.

Note: This TLV definition will affect all types of packets (such as SIP, RTP, and HTTP) handled by DT830.

(14) Conditions for LAN port configuration/VLAN priority

To configure VLAN priority, DT830 needs to receive an LLDP packet containing one or more Network Policy TLVs. VLAN priority is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for VLAN Priority Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0

Note: For TLV definition, refer to the relevant manuals.

Note: This TLV definition will affect all types of packets (such as SIP, RTP, and HTTP) handled by DT830.

(15) Conditions for ToS mode/RTP

To configure ToS mode/RTP, DT830 needs to receive an LLDP packet containing one or more Network Policy TLVs. ToS mode/RTP is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for ToS Mode/RTP Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0
Tagged Flag (T)	Not Applicable

Note: For TLV definition, refer to the relevant manuals.

(16) Conditions for ToS mode/SIP

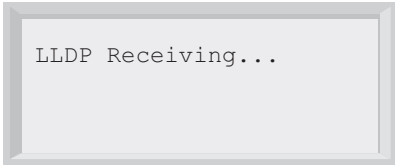
To configure ToS mode/SIP, DT830 needs to receive an LLDP packet containing one or more Network Policy TLVs. ToS mode/SIP is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for ToS Mode/SIP Configuration

Priority	TLV Element	Condition
Primary	Application Type	Voice Signaling (2)
	Unknown Policy Flag (U)	0
	Tagged Flag (T)	Not Applicable
Secondary	Application Type	Voice (1)
	Unknown Policy Flag (U)	0
	Tagged Flag (T)	Not Applicable

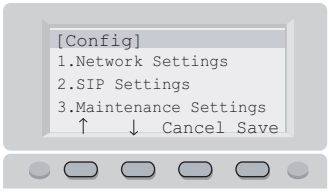
Note: For TLV definition, refer to the relevant manuals.

(17) The LCD displays the following message during the LLDP Auto Setting, including LLDP packet reception.

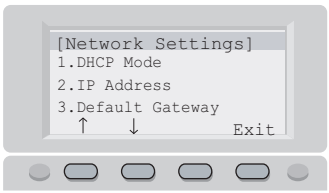


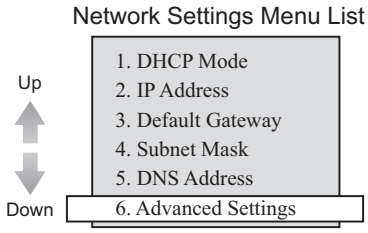
<How to Enable LLDP and LLDP-MED>

STEP 1: On [Config] menu, select “1. Network Settings.”

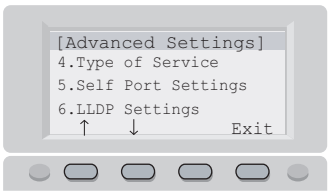


STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

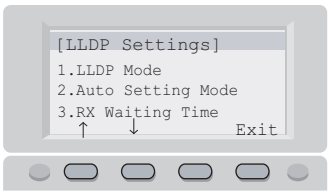




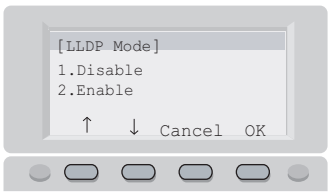
STEP 3: On [Advanced Settings] menu, select “6. LLDP Settings.”



STEP 4: The LCD displays [LLDP Settings] screen. Select “1. LLDP Mode.”



STEP 5: The LCD displays [LLDP Mode] screen.



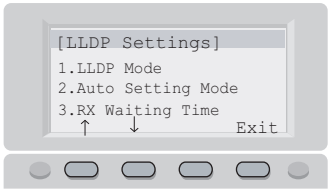
- Press the digit key “2” to transmit/receive LLDP packets.
- Press the digit key “1” not to transmit/receive LLDP packets.
- Press the software key for “OK” when the [LLDP Mode] setting is complete.

Note: “2. Enable” is set by default.

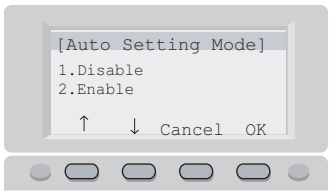
A

A

STEP 6: The LCD displays [LLDP Settings] screen.



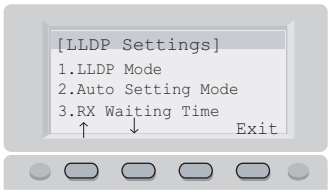
STEP 7: On [LLDP Settings] menu, select "2. Auto Setting Mode."



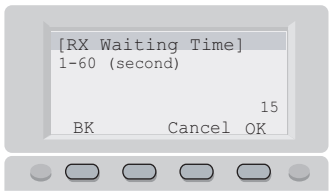
- Press the digit key "2" to enable the Auto Setting Mode.
- Press the digit key "1" to disable the Auto Setting Mode.
- Press the software key for "OK" when the [Auto Setting Mode] setting is complete.

Note:
- "2. Enable" is set by default.
- This data is valid when the LLDP mode is enabled.

STEP 8: The LCD displays [LLDP Settings] screen. Select "3. RX Waiting Time."



STEP 9: The LCD displays [RX Waiting Time] menu.



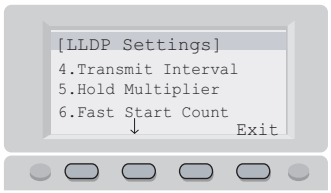
- Set the RX Waiting Time using digit keys.
- You can set 1- 60 (default time: 15) seconds.
- Press the software key for "BK" to delete the RX Waiting Time.
- Press the software key for "OK" when the [RX Waiting Time] settings is complete.

Note: This data is valid when the LLDP mode and Auto Setting Mode are enabled.

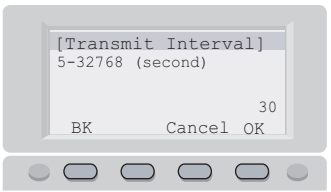
B

B

STEP 10: The LCD displays [LLDP Settings] menu. Select “4. Transmit Interval.”



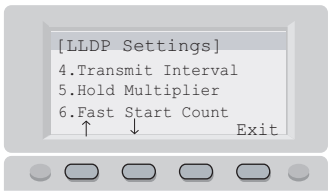
STEP 11: The LCD displays [Transmit Interval] setting screen.



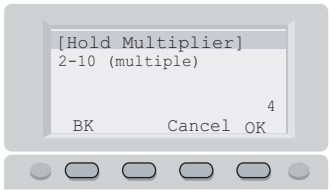
- Set intervals to transmit LLDP packets using digit keys.
- You can set 5-32768 (default interval: 30) seconds.
- Press the software key for “BK” to delete the transmitting interval.
- Press the software key for “OK” when the [Transmit Interval] setting is complete.

Note: This data is valid when the LLDP mode is enabled.

STEP 12: The LCD displays [LLDP Settings] menu. Select “5. Hold Multiplier.”



STEP 13: The LCD displays [Hold Multiplier] setting screen.



- Set the time to live for the LLDP data using Digit Keys.
- The time to live will be determined by multiplying [Transmit Interval] value by the [Hold Multiplier] value.
- You can set 2-10 (default multiplier: 4) times.
- Press the software key for “BK” to delete the [Hold Multiplier] value.
- Press the software key for “OK” when the [Hold Multiplier] settings is complete.

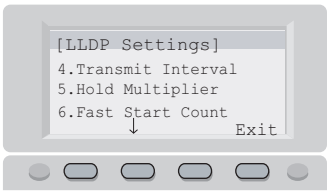
Note: This data is valid when the LLDP mode is enabled.

Note: When the value obtained by multiplying [Transmit Interval] value by the [Hold Multiplier] value exceeds 65535 seconds, the time to live for the LLDP data will be 65535 seconds.

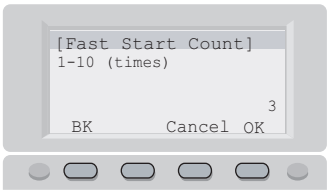
C

C

STEP 14: The LCD displays [LLDP Settings] menu. Select “6. Fast Start Count.”



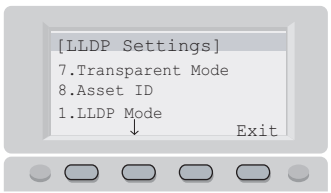
STEP 15: The LCD displays [Fast Start Count] setting screen.



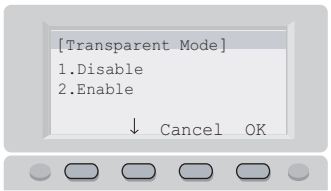
- Set the number of times to transmit LLDP packets at one-second intervals after DT830 Series starts up using digit keys.
- You can set 1-10 (default count: 3) times.
- Press the software key for “BK” to delete the number.
- Press the software key for “OK” when the [Fast Start Count] settings is complete.

Note: This data is valid when the LLDP mode is enabled.

STEP 16: The LCD displays [LLDP Settings] menu. Select “7. Transparent Mode.”



STEP 17: The LCD displays [Transparent Mode] setting screen.



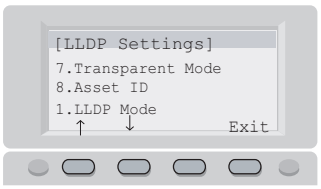
- Press the digit key “2” to enable the Transparent Mode.
- Press the digit key “1” to disable the Transparent Mode.
- Press the software key for “OK” when the [LLDP Mode] setting is complete.

Note: “2. Enable” is set by default.

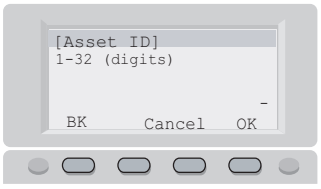
D

D

STEP 18: The LCD displays [LLDP Settings] menu. Select “8. Asset ID.”



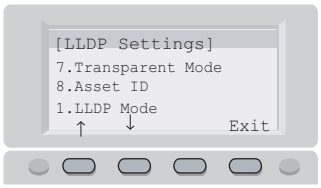
STEP 19: The LCD displays [Asset ID] setting screen.



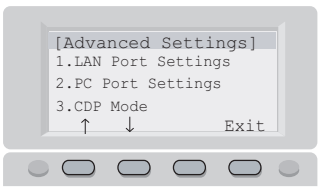
- Set the Asset ID using digit keys for the LLDP packet to be transmitted.
- You can set 1-32 digits of alphanumeric characters for the Asset ID. See [How to Enter Characters on Configuration Menu] for how to enter characters.
- Press the software key for “BK” to delete the Asset ID.
- Press the software key for “OK” when the [Asset ID] settings is complete.

Note: This data is valid when the LLDP mode is enabled.
Note: You can finish this setting by pressing the software key for “OK” without entering digits because of the software specification. In this case, the default data “-” will be set automatically .

STEP 20: The LCD displays [LLDP Settings] menu. Press the software key for “Exit.”



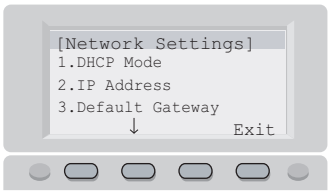
STEP 21: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



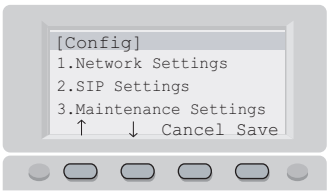
E

E

STEP 22: The LCD returns to [Network Settings] menu. Press the software key for “Exit”.



STEP 23: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

4.1.2.5 Spare/Backup IP

This section explains data assignment of Spare/Backup IP.

Even if DT830 fails to obtain an IP address from DHCP server, the DT830 can connect to the Telephony Server using Spare/Backup IP address.

Either of the following will be used as a substitute IP address depending on a substitute IP address mode assigned.

- Spare IP:IP address set by the Configuration Setting
- Backup IP:IP address obtained from DHCP last time

Spare IP

- If you set the following information by the Configuration Settings when substitute IP address mode is Spare IP, DT830 can use the following information as the substitute information while DHCP is out of service.
- IP Address
- Subnet Mask
- Default Gateway
- DNS Server Address
- 2nd - 4th Server Address
- 2nd - 4th Server Port

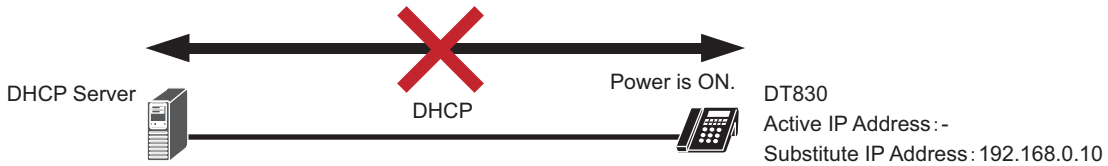
Note: It is mandatory to set IP address and Subnet Mask.

Operation with Spare IP

[1] The power of DT830 is OFF. A substitute IP address is set by Configuration Menu in advance.



[2] The power of DT830 is turned ON. DT830 fails to obtain an IP address because of communication failure.



[3] DT830 starts operating with a substitute IP address.



Backup IP

If you set the following information when substitute IP address mode is Backup IP, DT830 can save the following information which has been obtained from the DHCP server in advance so that DT830 can use the information as the substitute information if the DHCP server becomes out of service in the next time.

- IP Address
- Subnet Mask (obtained through DHCP option 1)
- Default Gateway (obtained through DHCP option 3)
- DNS Server Address (obtained through DHCP option 6)
- 2nd - 4th Server Address (obtained through DHCP option 120)
- 2nd - 4th Server Port (obtained through Vendor-class-identifier option 168)

Operation with Backup IP

[1] The power of DT830 is OFF.



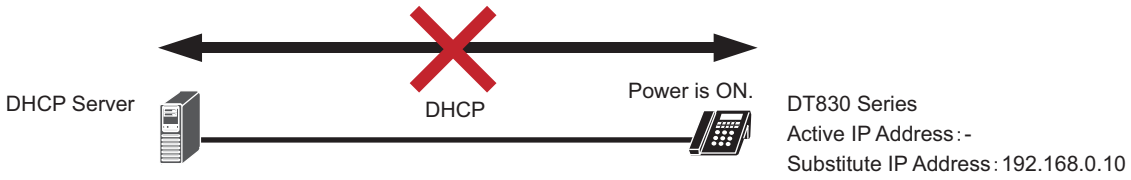
[2] The power of DT830 is turned ON. DT830 obtains an IP address from the DHCP server. DT830 operates with the obtained IP address. The obtained IP address is set for the configuration at the same time.



[3] The obtained IP address is saved as a substitute IP address in the configuration even after DT830 is turned OFF.



[4] The power of DT830 is turned ON. DT830 fails to obtain an IP address because of communication failure.



[5] DT830 starts operating with a substitute IP address.



<Service Conditions>

(1) To use the Spare IP/Backup IP function, DHCP Mode needs to be enabled.

(2) IP address (ACT) of the Telephony Server needs to be assigned to DT830.

(3) Spare IP and Backup IP share substitute IP address information in the Configuration Settings. Even if the substitute IP address mode has been changed, DT830 maintains the substitute IP address information such as IP address, Subnet Mask, Default Gateway, DNS Server Address, 2nd - 4th Server Address, and 2nd - 4th Server Port.

(4) Even when the substitute IP address mode is Backup IP address, you can set the information above by Configuration Settings manually, but the information will be overwritten when DT830 obtains the new information from the DHCP server again.

(5) When DT830 uses the substitute IP address, DT830 attempts to connect to the 2nd Server without connecting to the 1st Server. When the 2nd Server does not answer or an error occurs, DT830 attempts to connect to the next server. DT830 keeps using the substitute IP address without obtaining an IP address from the DHCP server.

(6) When DT830 fails to connect to all of the 2nd - 4th servers, an error occurs. Then DT830 performs retry to obtain an IP address from the DHCP server. If DT830 obtains an IP address successfully, DT830 attempts to connect to the 1st server without using the substitute IP address.

(7) DT830 uses the following Configuration data when the substitute IP address is in service. DT830 determines the setting data type on a group basis. When the setting data is included to the same group, the same setting data type, Configuration (substitute) or Configuration, will be used.

Configuration data (substitute) : Configuration data in [0. Config] - [1. Network Settings] - [6. Advanced Settings] - [7.Spare IP Settings] - [2.Network Settings]/[3.SIP Settings]

Configuration data : Configuration data in [0. Config] - [1. Network Settings]/[2. SIP Settings]

Priority Order of Setting Data Type While Using Substitute IP Address

Group	Group A	Group B	Group C	Group D	Group E
Setting Data / Priority Order	IP Address Subnet Mask	Default Gateway	DNS Server Address	2nd/3rd/4th Server Address	2nd/3rd/4th Server Port
Primary	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)

Note: When no higher priority data is set in the configuration, the lower priority data will be used without using the default data. When no data exists in all the groups, the default data of the lowest priority will be used.

(8) Even if the DHCP server allows DT830 to obtain IP address, DT830 does not obtain the IP address automatically. Restart the DT830 (by manual operation, operation from the Telephony Server or turn OFF and ON the DT830).

(9) If the DHCP server recovers while using a substitute IP address, the DHCP server may distribute the duplicated IP address of the substitute IP address which DT830 uses. Also network failure occurs if the DHCP server distributes the duplicated IP address of the substitute IP address which DT830 uses over the networks.

(10) The Spare IP/Backup IP function will become active after restarting DT830.

(11) The Spare IP/Backup IP function will become active after DT830 data clear (Initialization, Station Data Clear).

(12) Even when DT830 fails to connect to the Telephony Sever, the DT830 can save the substitute IP address information in Backup IP mode at the time it obtains an IP address from the DHCP server.

(13) A substitute IP address may inhibit DT830 from connecting to the Telephony Server if the substitute IP address duplicates other IP addresses used for the equipment in the network.

(14) AutoConfig will not be activated while a substitute IP address is in service.

(15) When AutoConfig Mode is in service, the operation mode of Spare IP/Backup IP will become the default data by initialization. In the case of Backup IP, the IP address obtained from the DHCP server last time will be maintained.

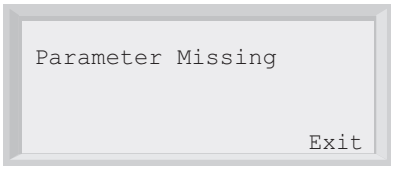
(16) The obtained data from the DHCP server last time for Backup IP will be deleted when DT830 data clear (Initialization, Station Data Clear) is performed. In the factory setting, DT830 does not have the data required for Backup IP so that Backup IP is not activated.

(17) When a substitute IP address is in service, functions except telephone functions, XML application for example, may not operate normally.

(18) Backup data is a target of [4. Setting] - [3. Data Backup/Restore] in the configuration menu.

(19) When the substitute IP address mode is Backup IP, DT830 saves an IP address obtained from the DHCP server in the Flash Memory. If the power of DT830 is turned OFF while saving the IP address in the Flash Memory, DT830 may not start up.

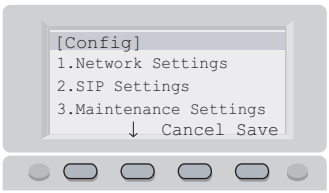
(20) When the substitute IP address is out of service, the LCD displays the following error message. DT830 retries to obtain the IP address from the DHCP server when the certain period of time has elapsed since the LCD displays the error, or a user of DT830 presses the software key for “Exit.” Configuration setting is available even when the LCD displays the error message.



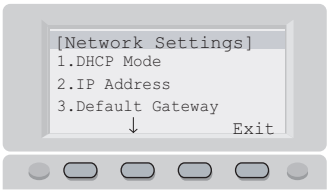
(21) When the substitute IP address mode is Backup IP, only IP addresses that are obtained through DHCP option 120 can be saved as 2nd - 4th Server Addresses. IP addresses obtained through DHCP option 162 are recognized as used for Location Diversity [L-55], and cannot be saved.

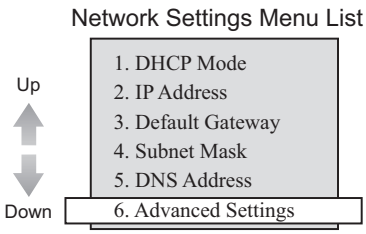
<How to Set the Substitute IP Address>

STEP 1: On [Config] menu, select “1. Network Settings.”

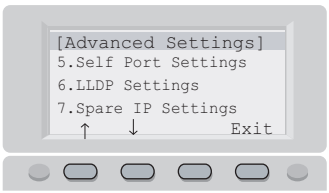


STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

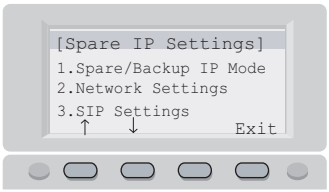




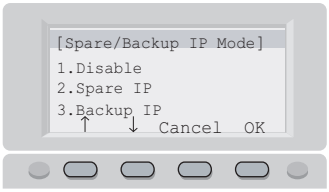
STEP 3: On [Advanced Settings] menu, select “7. Spare IP Settings.”



STEP 4: The LCD displays [Spare IP Settings] screen. Select “1. Spare/Backup IP Mode.”



STEP 5: The LCD displays [Spare/Backup IP Mode] screen.



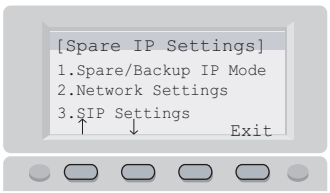
A

- Press the digit key “1” to disable the Spare/Backup IP.
- Press the digit key “2” to use the Spare IP.
- Press the digit key “3” to use the Backup IP.
- Press the software key for “OK” when the [Spare/Backup IP Mode] setting is complete.

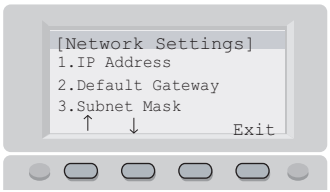
Note: This data is valid when the Spare/Backup IP is disabled.

A

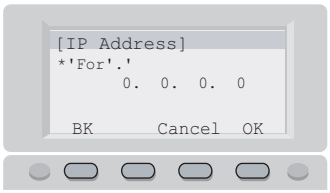
STEP 6: The LCD displays [Spare IP Settings] menu. Select “2. Network Settings.”



STEP 7: The LCD displays [Network Settings] menu.



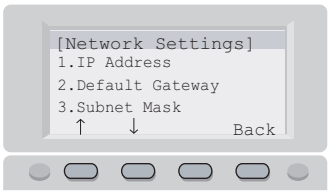
STEP 8: On [Network Settings] menu, select “1. IP Address.” Assign the IP address using the digit keys.



- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [IP Address] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained IP address if DT800 Series obtains an IP address from DHCP server.

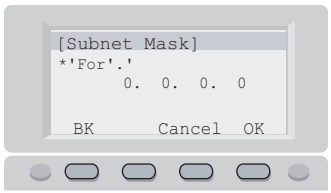
STEP 9: The LCD displays [Network Settings] menu.



B

B

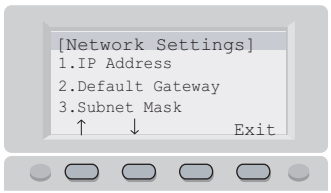
STEP 10: On [Network Settings] menu, select “3. Subnet Mask.” Assign the Subnet Mask using the digit keys.



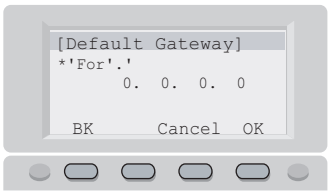
- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [Subnet Mask] setting is complete.

Note: When Backup IP is in service, this data will be also overwritten by obtained Subnet Mask if DT800 Series obtains an IP address from DHCP server.

STEP 11: The LCD displays [Network Settings] menu.



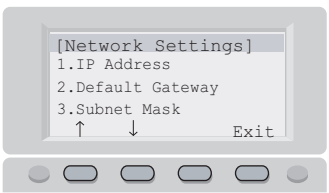
STEP 12: On [Network Settings] menu, select “2.Default Gateway.” Assign the Default Gateway address using the digit keys.



- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [Default Gateway] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained Default Gateway address if DT830 obtains an IP address from DHCP server. If obtained data does not have a Default Gateway address, the existing data is maintained.

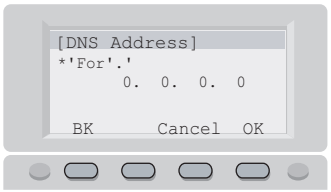
STEP 13: The LCD displays [Network Settings] menu.



C

C

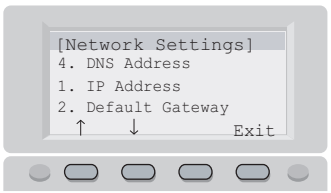
STEP 14: On [Network Settings] menu, select “4. DNS Address.” Assign the DNS address using digit keys.



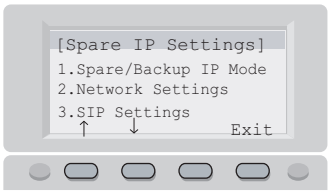
- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [DNS Address] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained DNS address if DT830 obtains an IP address from DHCP server. If obtained data does not have a DNS address, the existing data is maintained.

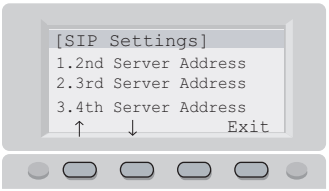
STEP 15: The LCD displays [Network Settings] menu.



STEP 16: On [Network Settings] menu, press software key for “Exit” to go back to [Spare IP Settings] menu.



STEP 17: On [Spare IP Settings] menu, select “3. SIP Settings.”



- Press the digit key “1” to Set the 2nd Server IP Address.
- Press the digit key “2” to Set the 3rd Server IP Address.
- Press the digit key “3” to Set the 4th Server IP Address.

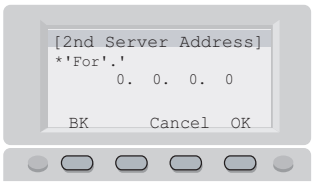
- Press the digit key “4” to Set the 2nd Server port number.
- Press the digit key “5” to Set the 3rd Server port number.
- Press the digit key “6” to Set the 4th Server port number.

D

D

STEP 18: The LCD displays the selected [Server Address] or [Server Port] setting screen.

- Setting 2nd - 4th Server Address

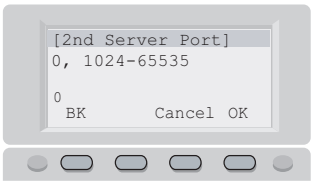


- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when all settings are complete.

Note: The figure shows an example when “1. 2nd Server Address” is selected in [SIP Settings] menu.

Note: When Backup IP is in service, this data will be overwritten by obtained SIP Server address if DT830 obtains an IP address from DHCP server. If obtained data does not have a SIP Server address, the existing data is maintained.

- Setting 2nd - 4th Server Port

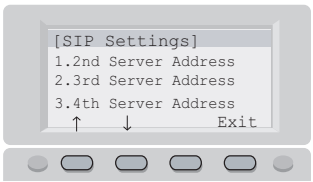


- Use digit keys.
- It is possible to enter 0 or values between 1024-65535.
- Default value is 0.
- Press the software key for “OK” when all settings are complete.

Note: The figure shows an example when “4. 2nd Server Port” is selected in [SIP Settings] menu.

Note: When Backup IP is in service, this data will be overwritten by obtained SIP Server port number if DT830 obtains an IP address from DHCP server. If obtained data does not have a SIP Server port number, the existing data is maintained.

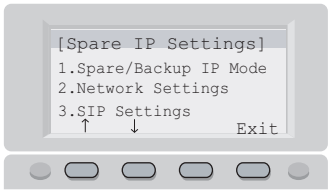
STEP 19: The LCD displays [SIP Settings] menu.



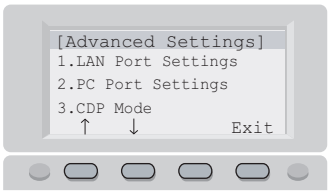
E

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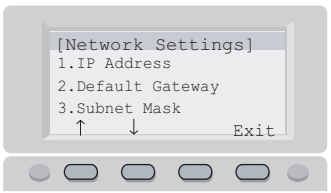
STEP 20: The LCD returns to [Spare IP Settings] menu. Press the software key for “Exit.”



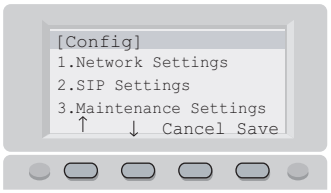
STEP 21: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



STEP 23: The LCD returns to [Network Settings] menu. Press the software key for “Exit”.



STEP 24: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



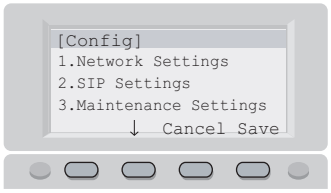
END

4.1.2.6 Digest Authentication

This menu assigns User ID and password for Digest Authentication.

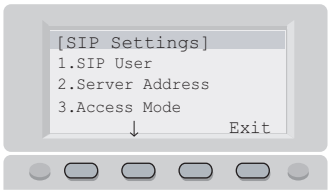
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”

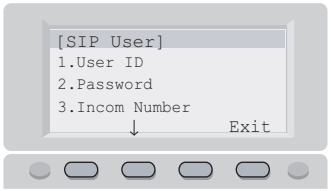


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

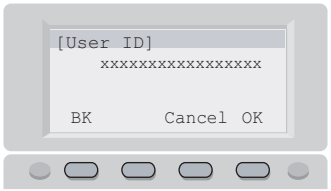
STEP 2: The LCD displays [SIP Settings] menu. Select “1. SIP User.”



STEP 3: On [SIP User] menu, select “1. User ID.”



STEP 4: The LCD displays [User ID] setting screen.

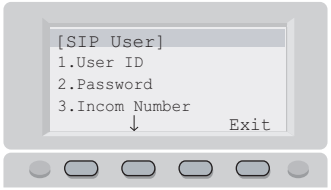


Enter User ID using the digit keys.

-Use digit keys 0-9, * and #.
-Press the software key for “BK” to delete entered value.

Press the software key for “OK” when all settings are complete.

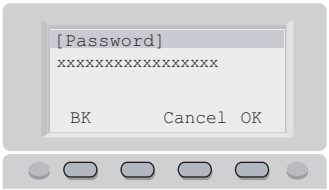
STEP 5: The LCD returns to [SIP User] menu. Select “2. Password.”



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STEP 6: The LCD displays [Password] screen.



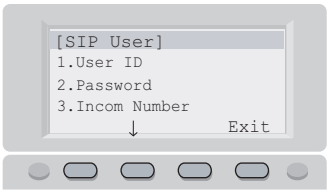
Enter Password for the User ID using the digit keys.

-Use digit keys 0-9, * and #.
-Press the software key for “BK” to delete entered value.

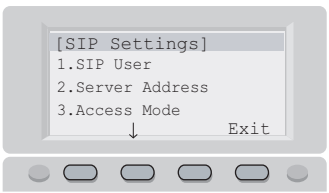
Press the software key for “OK” when all settings are complete.

Note: The terminal will not display the entered value as numbers, but will instead display them as asterisks (*).

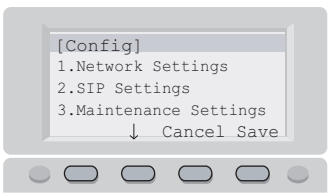
STEP 7: The LCD returns to [SIP User] menu. Press the software key for “Exit.”



STEP 8: The LCD returns to [SIP Settings] menu. Press the software key for “Exit” to return to [Config] menu.



STEP 9: On [Config] screen, press the software key “Save” to save the settings.



END

[2] Configuration Settings by Web Programming

STEP 1: Select [SIP Settings] → [User] → [User ID].

STEP 2: Enter User ID using the digit keys, and then click the “OK” button.
0-9, *, # are available (maximum 32 characters).

STEP 3: Select [SIP Settings] → [User] → [Password].

STEP 4: Enter password for the User ID using the digit keys, and then click the “OK” button.
0-9, *, # are available (maximum 24 characters). **Note 24**

Note 24: The terminal will not display the entered value as numbers. Instead, they will be displayed as asterisks (*).

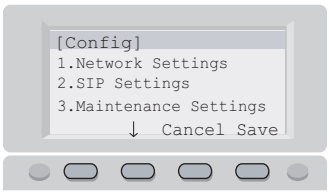
STEP 5: Click the “Save” button.

4.1.2.7 Port Number

This section explains how to change the port number used to send packets from DT830 to SIP server.

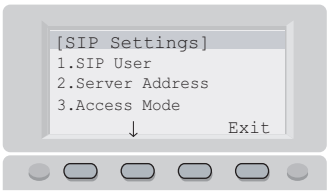
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”

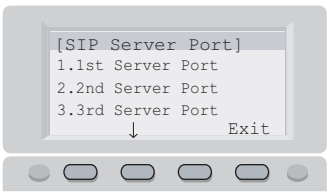


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

STEP 2: The LCD displays [SIP Settings] menu. Select “4. SIP Server Port.”



STEP 3: The LCD displays [SIP Server Port] menu.



Perform one of the following:

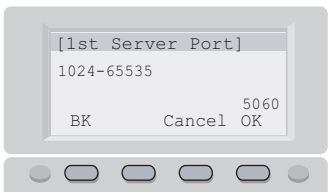
a.) Press 1. to change the port number of 1st SIP server used to send packets.

b.) Press 2. to change the port number of 2nd SIP server used to send packets.

c.) Press 3. to change the port number of 3rd SIP server used to send packets.

d.) Press 4. to change the port number of 4th SIP server used to send packets.

STEP 4: The LCD displays the chosen [Server Port] setting screen. (The user chose the 1st Server Port in this example.

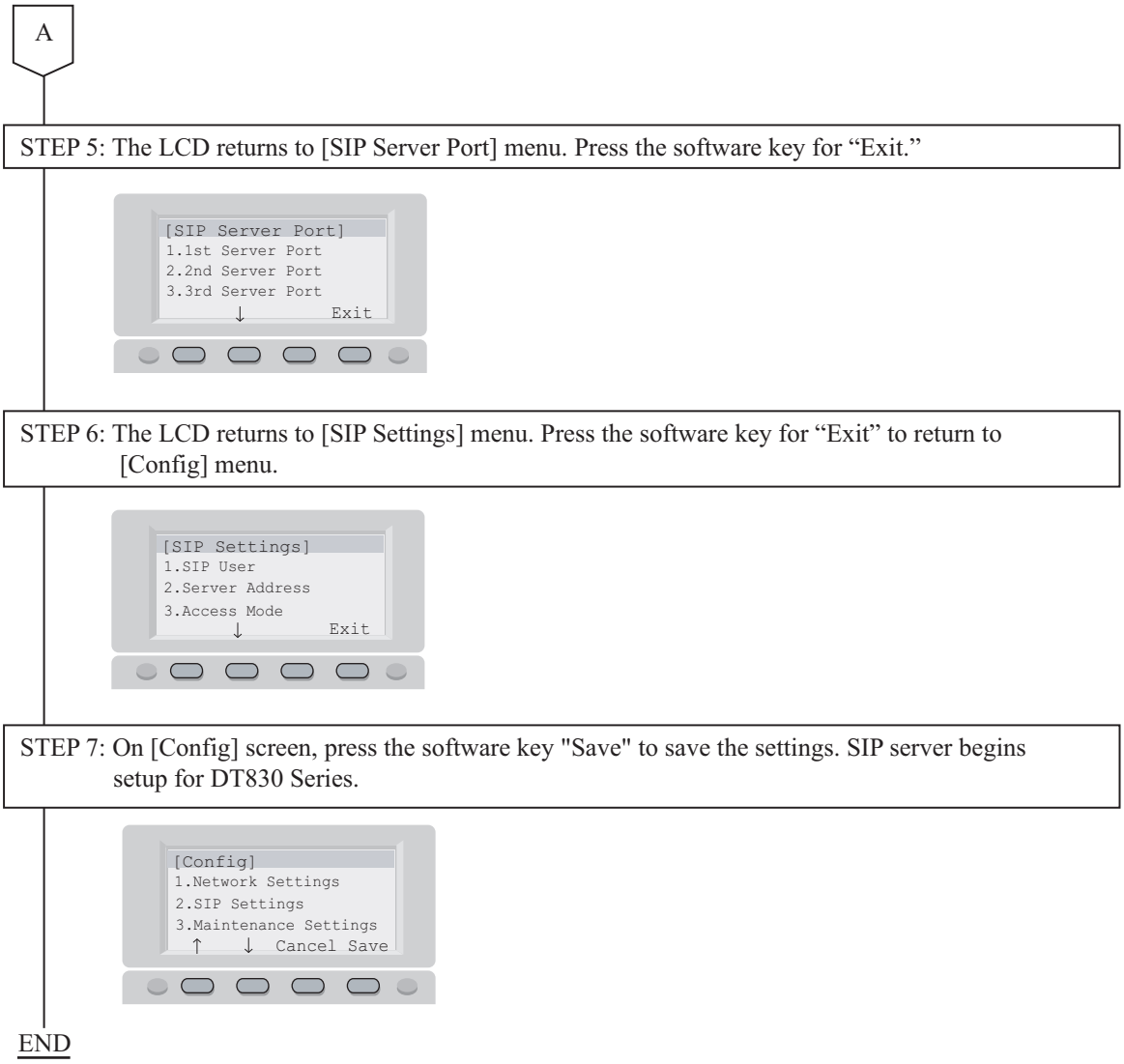


Enter User ID using the digit keys.

-Use digit keys.
-It is possible to enter values between 1024-65535.
-Default value is 5060.

Press the software key for “OK” when all settings are complete.

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[2] Configuration Settings by Web Programming

STEP 1: Select [SIP Settings] → [SIP Server Port].

STEP 2: Choose which SIP server’s port number to change.

- Choose 1. to change the port number of 1st SIP server used to send packets.
- Choose 2. to change the port number of 2nd SIP server used to send packets.
- Choose 3. to change the port number of 3rd SIP server used to send packets.
- Choose 4. to change the port number of 4th SIP server used to send packets.

STEP 3: Enter the Port number using digit keys. Then click the “OK” button.

- It is possible to enter values between 1024-65535.
- Initial value is 5060.

STEP 4: Click the “Save” button. After all settings are complete, SIP server begins setup for DT830.

4.1.2.8 Area ID

DT830 terminal can adjust its tone patterns for different areas (countries) that it is used in. The user must assign the Area ID to make this possible. This section explains the areas where DT830 usage is possible and the procedure to change the Area ID.

[1] Configuration Settings on Terminal

[Countries (Areas) Where DT830 Usage is Available] **Note 25**

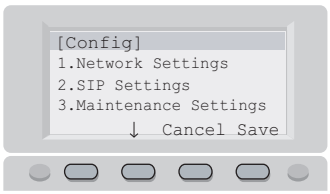
[Area ID/Country]
0. Automatic (Telephony Server side setting is applied when Automatic is selected.)
1. Japan
2. America (Canada and North America)
3. Australia
4. Others
5. Hong Kong
6. Malaysia
7. Singapore
8. Mexico
9. Taiwan
10. New Zealand
11. Korea
12. Brazil
13. China
14. Thailand
15. Thailand (EGAT)
16. Sri Lanka
17. Germany
18. Italy
19. Netherlands
20. Catalonia (Not used)
21. Denmark
22. Sweden
23. Poland
24. Czech
25. Norway
26. France
27. Portugal
28. Spain
29. Austria
30. Belgium
31. UK

[Countries (Areas) Where DT830 Usage is Available] **Note 25**

[Area ID/Country]
32. Greece
33. Switzerland
34. South Africa
35. Brazil (NECU)

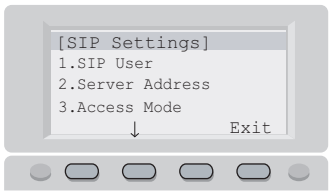
Note 25: Initial factory settings is “0. Automatic.” In other settings, the terminal side settings has priority.

STEP 1: On [Config] menu, select “2. SIP Settings.”

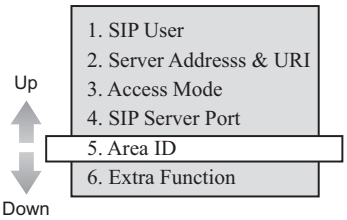


Note: For other operations, "↑" and "↓" of software key and cursor key are also available.

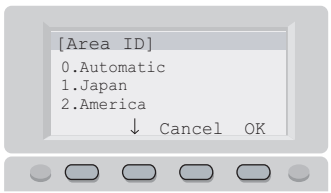
STEP 2: The LCD displays [SIP Settings] menu. Select “5. Area ID.”



SIP Settngs Menu List



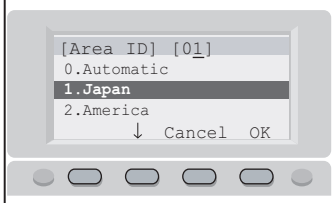
STEP 3: The LCD displays [Area ID] menu.



Enter Area ID using the digit keys.

-Use digit keys 0-9.
-LCD will display entering field upper right of the LCD.
-Enter 2-digit values.

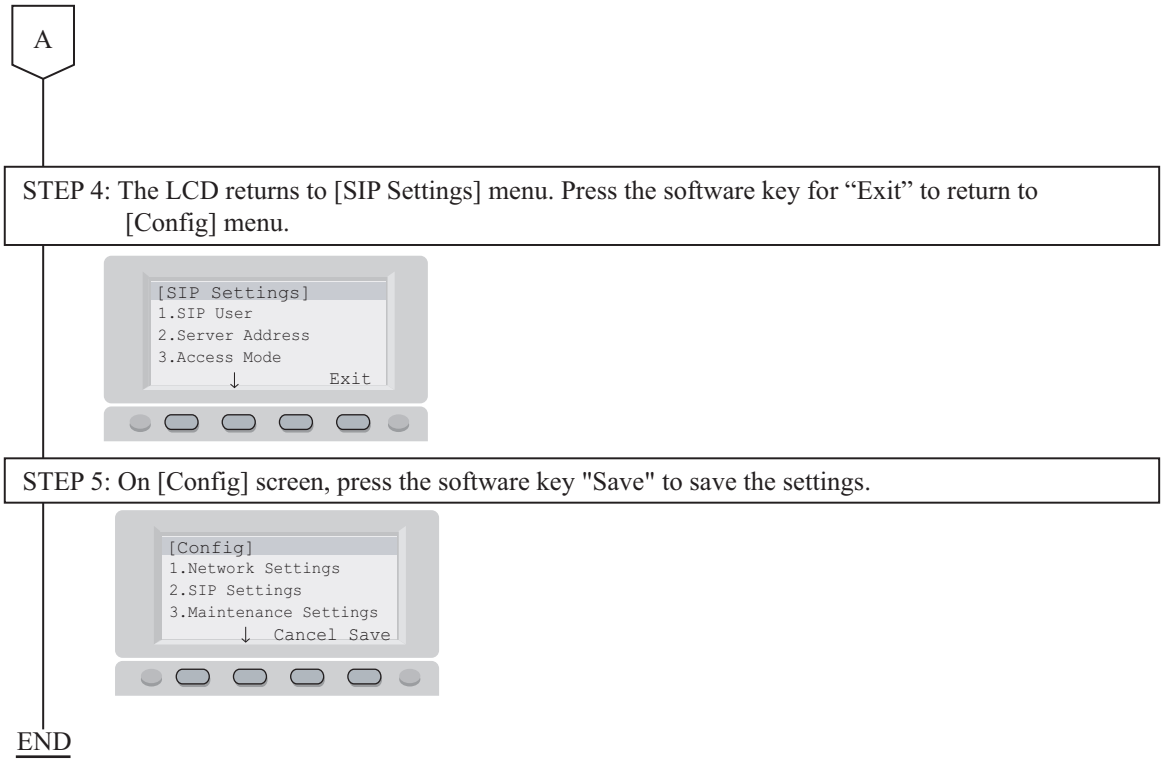
Example



When selecting [1. Japan]:

1) Enter "0" and "1."
2) Entering Field displays "01."
3) "1. Japan" display flashes.
4) Press software key for "OK."

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[2] Configuration Settings by Web Programming

STEP 1: Select [SIP Settings] → [Area ID].

STEP 2: Enter the Area ID using digit keys. Then click the “OK” button.

[Countries (Areas) Where DT830 Usage is Available]

[Area ID/Country]
0. Automatic (Telephony Server side setting is applied when Automatic is selected.)
1. Japan
2. America (Canada and North America)
3. Australia
4. Others
5. Hong Kong
6. Malaysia
7. Singapore
8. Mexico
9. Taiwan
10. New Zealand
11. Korea
12. Brazil

[Countries (Areas) Where DT830 Usage is Available]

[Area ID/Country]
13. China
14. Thailand
15. Thailand (EGAT)
16. Sri Lanka
17. Germany
18. Italy
19. Netherlands
20. Catalonia (Not used)
21. Denmark
22. Sweden
23. Poland
24. Czech
25. Norway
26. France
27. Portugal
28. Spain
29. Austria
30. Belgium
31. UK
32. Greece
33. Switzerland
34. South Africa
35. Brazil (NECU)

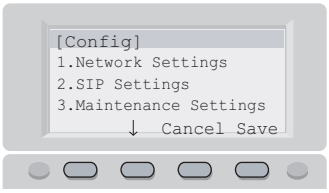
STEP 3: Click the “Save” button.

4.1.2.9 Keeping Call

User can assign data to retain an ongoing call when the network between DT830 and the Telephony Server is disconnected by a failure.

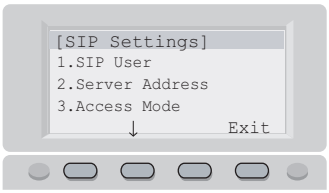
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”

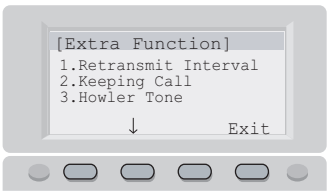


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

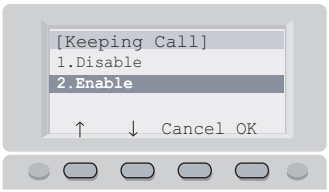
STEP 2: The LCD displays [SIP Settings] menu. Select “6. Extra Function.”



STEP 3: The LCD displays [Extra Function] menu. Select “2. Keeping Call” to display the [Keeping Cal] menu.

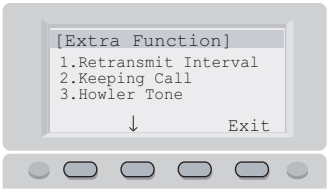


STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”

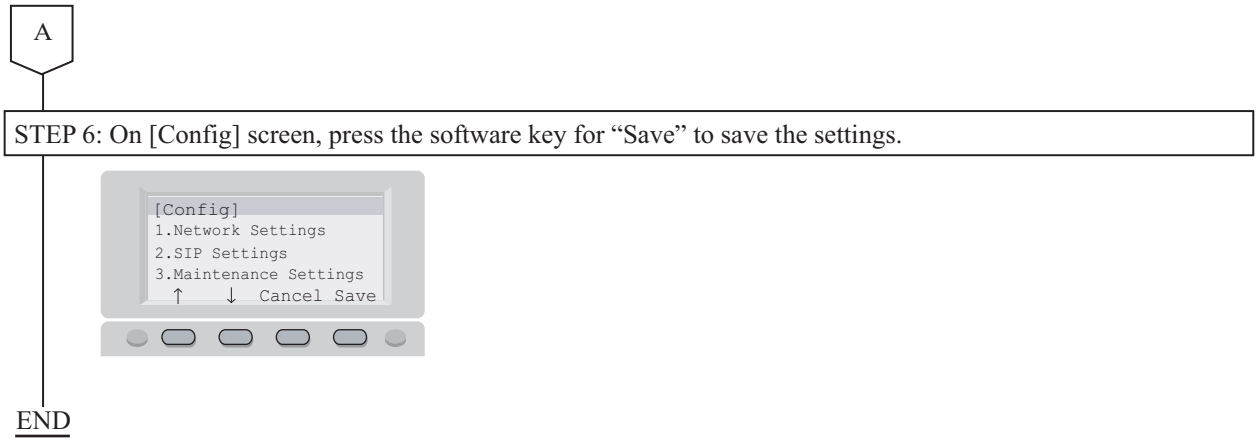


Note: When "2. Disable" is selected, an ongoing call through the handset will be kept until the appropriate terminal goes off-hook. An ongoing call through the headset or hands-free operation will be disconnected when the system detects the failure the system does not response to any information of terminal key operation.

STEP 5: The LCD returns to [Extra Function] menu. Press the software key for “Exit” to return to [Config] menu.



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[2] Configuration Setting by Web Programming

STEP 1: Select [SIP Settings] → [Extra Function] → [Keeping Call].

STEP 2: Select “2. Enable” radio button (Keeping Call is enabled).

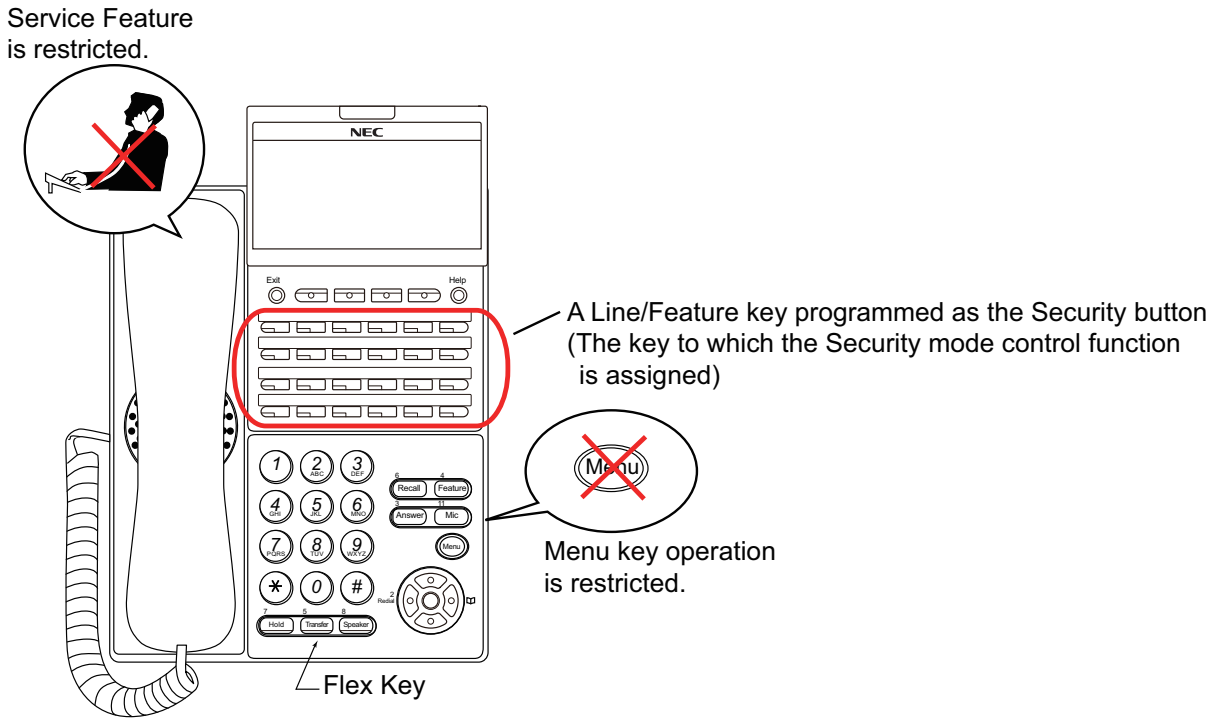
STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

4.1.2.10 Security Mode

Pressing the "Security" button on DT830 terminal starts up Security mode, which can restrict the Telephony Server provided service features and any configuration menu operation following the "Menu" key.

Note: To use this feature, specify FKY=197 (Security) by using the AKYD command.



[Service Conditions]

(1) Once the Security mode gets started, users cannot operate "Menu" button. In addition, the Telephony Server provided service features (excepting Emergency Call) and call origination/termination (**Note 26**) are all restricted on the terminal.

Note 26: Details for restriction on call origination/termination:
- Call origination (including Sub Line's call origination) is restricted.
- The terminal in Security mode rings for incoming call though it cannot answer the call (including Sub Line's call termination).

(2) To make Security mode disabled, release password is required. When the terminal user does not remember the assigned Security password, the restriction can be released by administrator's menu [Config] → [3.Maintenance Settings Data] → [3.Data Clear] → [1.Factory Value]. Note that all the data including phonebook data on the terminal is cleared and gets back to factory default.

(3) When a terminal restarts for some reason during Security mode is in service, Security mode is not canceled.

(4) If the user fails three times in a row to type the correct password to deactivate the Security mode, he/she user cannot cancel Security mode for 10 minutes. This state is called “cancel locked.” When cancel-locked terminal restarts for some reason, Security mode is not canceled.

(5) It is possible to make a call using VOICE CALL [V-2] to a party in the Security mode. When a called party activates the Security mode with the MIC left ON, the called party can converse with a calling party though terminal operation is restricted.

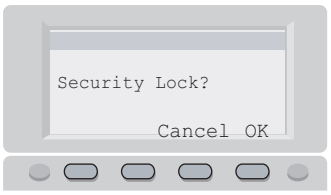
(6) It is possible to make a call to a party in the Security mode, but the called party cannot respond because the terminal is locked. The terminal needs to release the Security mode to respond to the call.

<How to Start/Release Security Mode>

[1] Start Security Mode

STEP 1: Press the feature key assigned as “Security” button.

STEP 2: When the LCD asks “Security Lock?”, press the software key for “OK.”



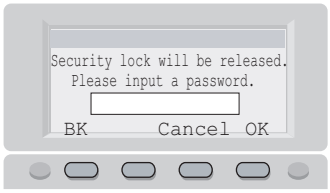
STEP 3: Security mode is in service. Security LED lights and screen saver starts.

END

[2] Release Security Mode

STEP 1: While the Security Mode is in service (while the LCD displaying screen saver), press any key on the terminal. Password entry box appears for releasing Security mode.

STEP 2: Enter the password and then press the software key for "OK."



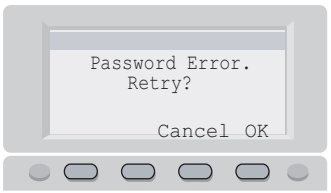
Note: Enter password of the terminal or Admin Password to release the Security lock. To change the password, refer to 4.1.2.25 Password Change.
Default value of each password:

- Password of the terminal: 0000
- Administrator Password: 6633222

STEP 3: Security LED turns OFF and the terminal exits Security mode.

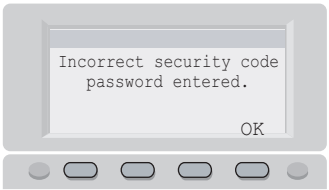
Note: The following explains the case when an error occurs in password entry.

- The LCD displays "Security Violation" below for a password entry error.



- Pressing the software key for "Cancel" will start the screen saver and the Security mode continues.
- Pressing the software key for "OK" will return to the password entry screen.

- When the fails three times in a row to type the correct password, the LCD displays "Security Violation" below.



- Pressing the software key for "OK" will start the screen saver and the Security mode continues.
- After the 10-minute lockout period has expired, the user can display the password entry screen again by pressing a key on the terminal.

END

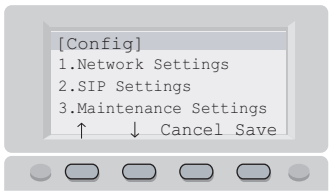
<SIP Terminal Authentication and VoIP Encryption>

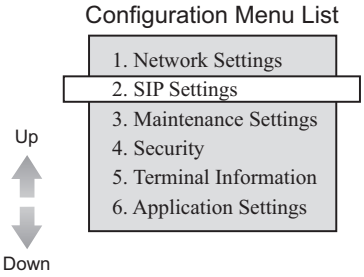
While the Security Mode is in service, terminal users can set data for SIP Terminal Authentication and VoIP Encryption.

[1] Configuration Settings on Terminal

Note: Refer to SIP Terminal Authentication [S-152] and VoIP Encryption [V-27] for the Telephony Server side data assignment.

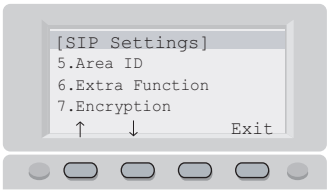
STEP 1: On [Config] menu, select "2. SIP Settings."





Note: For other operations,"↑" and "↓" of software key and cursor key are also available. Refer to <Operations> for more details.

STEP 2: The LCD displays [SIP Settings] menu. Select "7. Encryption."



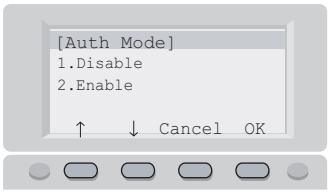
STEP 3: On [Encryption] menu, select "1. Authentication Mode."



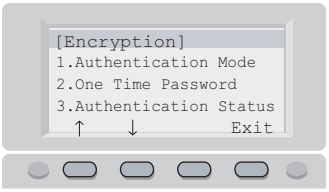
A

A

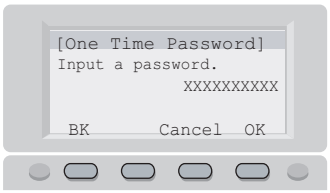
STEP 4: On [Auth Mode] menu, select “2. Enable”, then press the software key for “OK.”



STEP 5: The LCD displays [Encryption] menu.



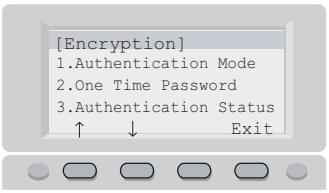
STEP 6: On [Encryption] menu, select “2. One Time Password.” The LCD displays [One Time Password] screen.



- Enter the password for User ID [up to 10 digits (“0-9”, “*”, “#”)].
- On the screen, the password will be displayed with “*”.
- To delete the entered value, press the software key for “BK.”
- Press the software key for “OK” when password entry is finished.

Note: Enter the same One Time Password as the password assigned to the Telephony Server.

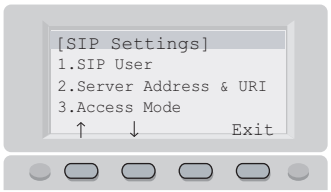
STEP 7: The LCD displays [Encryption] menu.



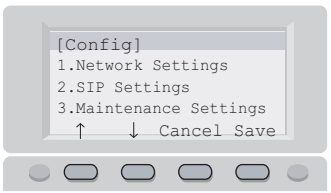
B

B

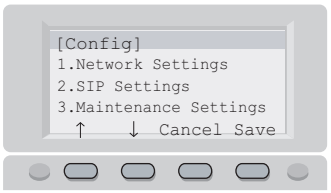
STEP 8: On [Encryption] menu, press the software key for “Exit.” The LCD displays [SIP Settings] menu.



STEP 9: On [SIP Settings] menu, press the software key for “Exit.” The LCD displays [Config] menu.



STEP 10: On [Config] screen, press the software key “Save” to save the settings.



END

[2] Configuration Setting by Web Programming

STEP 1: Select [SIP Settings] → [Encryption] → [Authentication Mode].

STEP 2: Select the [Enable] parameter, and click the “OK” button.

STEP 3: Select [SIP Settings] → [Encryption] → [One Time Password].

STEP 4: Enter the One Time Password [up to 10 digits (“0-9”, “*”, “#”)].

Note: On the screen, the password will be displayed with “*”.

Note: Enter the same One Time Password as the password assigned to the Telephony Server.

STEP 5: Click the “Save” button.

<Emergency Call>

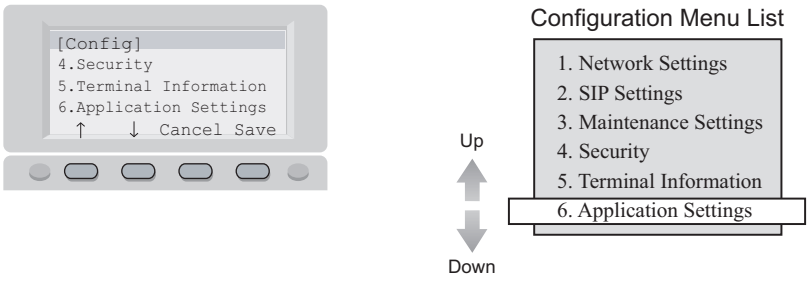
While the Security Mode is in service, terminal user can originate an emergency call to pre-assigned number by handset's off-hook operation on emergency menu.

Note: For DT830/DT830G, if Security Lock is not set after originating an Emergency Call, Security Lock will be set after 60 minutes from releasing Security Mode.

[1] Emergency Call Number Assignment

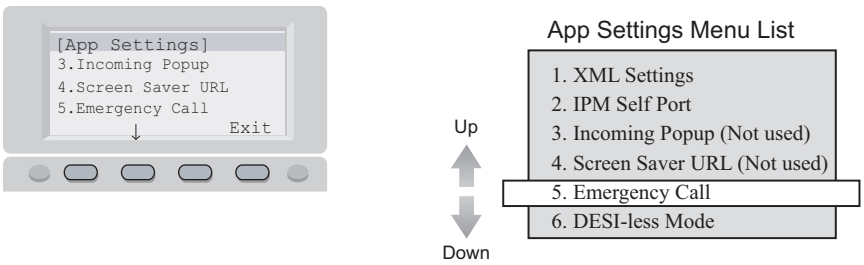
Register the destination number for emergency call on configuration menu of terminal. Up to three destinations can be assigned.

STEP 1: On [Config] menu, select "6. Application Settings."

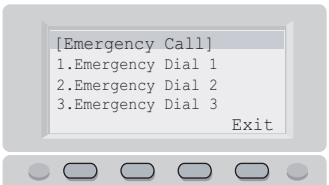


Note: For other operations,"↑" and "↓" of software key and cursor key are also available. Refer to <Operations> for more details.

STEP 2: The LCD displays [App Settings] menu. Select "5. Emergency Call."



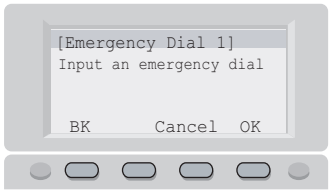
STEP 3: On [Emergency Call] menu, select "1. Emergency Dial 1"



A

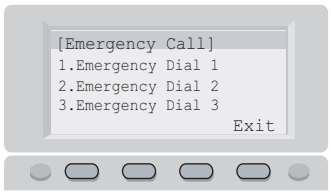
A

STEP 4: Enter the destination number for Emergency Call, and then press the software key for “OK.”

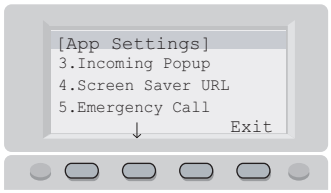


Note: This is an example for assigning the destination number for Emergency Dial 1. Perform these steps to Emergency Dial 2 and 3 in the same way if required.

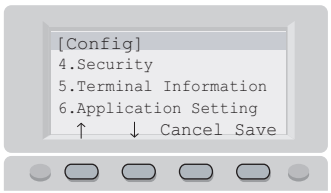
STEP 5: The LCD displays [Emergency Call] menu. Press the software key for “Exit.”



STEP 6: The LCD returns to [App Settings] menu. Press the software key for “Exit” to return to [Config] menu.



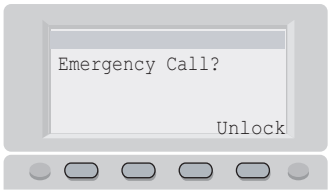
STEP 7: On [Config] menu, press the software key for “Save” to save the settings.



END

[2] Emergency Call Origination

STEP 1: While the Security Mode is in service (while the LCD displaying screen saver), go off-hook the handset to display Emergency Call menu.

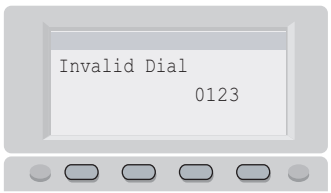


Note:

- Off-hook operation by other than handset cannot display Emergency Call menu. Password entry box for releasing Security mode appears as the other keys are pressed.
- Pressing the software key for “Unlock” on Emergency Call menu displays password entry box for releasing Security mode.
- When no emergency number is assigned, Emergency Call menu is not displayed. Password entry box for releasing Security mode appears instead.

STEP 2: Dial an emergency number using digit keys (0-9, *, #). The user can originate emergency call only to the previously assigned emergency number.

- When the dialed number corresponds to the assigned emergency number, Security mode is released and the call origination is established.
- When the dialed number does not correspond to the assigned emergency number, the LCD shows the message below. Then the LCD returns to Emergency Call menu after a few seconds.



STEP 3: After the call, place the handset on-hook. The LCD turns to time display. (Security mode is released.)

Note: When failed in originating an emergency call, Security mode is not released with on-hook operation.

END

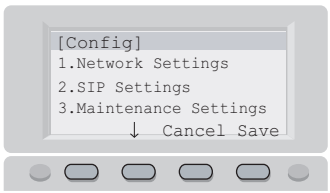
4.1.2.11 Side Tone

User can assign Sidetone Volume on DT830 terminal.

Note: Sidetone volume set by system takes priority over this setting.

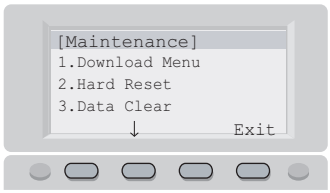
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select "3. Maintenance Settings."

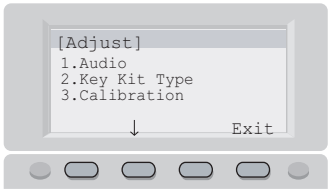


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

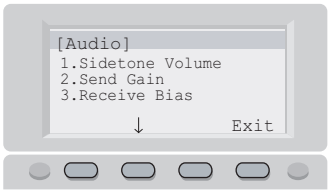
STEP 2: On [Maintenance] menu, select "4. Adjust" to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select "1. Audio."



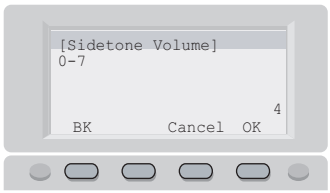
STEP 4: On [Audio] menu, select "1. Sidetone Volume."



A

A

STEP 5: On [Side Tone] menu, use digit keys to assign Sidetone Volume.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.

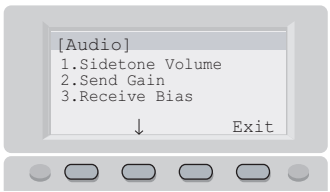


-Use digit keys 0-7.
-Press the software key for “BK” to delete entered value.

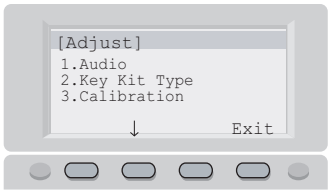
Assigned Value	Sidetone Volume Value (dB)
0	-54 (minimum value)
1	-48
2	-42
3	-36
4	-30 (initial value)
5	-24
6	-18
7	-12 (maximum value)

Note : Sidetone volume set by system takes priority over this setting.

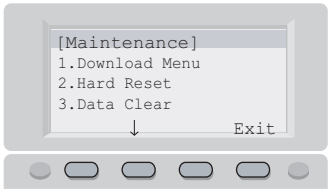
STEP 6: On [Audio] menu, press the software key for “Exit” to display [Adjust] menu.



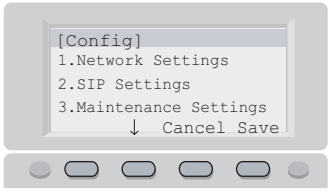
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Sidetone Volume].

STEP 2: Enter Sidetone Volume using number buttons 0-7. **Note 27**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

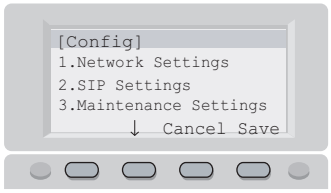
Note 27: For details on Sidetone Volume value, see [1] Configuration Settings on Terminal–STEP 5.

4.1.2.12 Handset Send Gain

User can assign Handset Send Volume on DT830 terminal. When the Telephony Server assigns Handset Send volume, it will have priority over the terminal side settings.

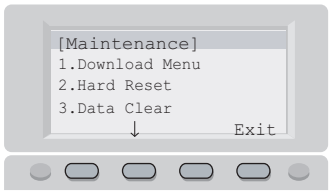
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

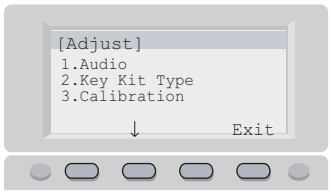


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

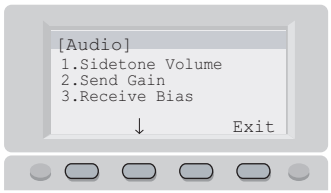
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Audio.”



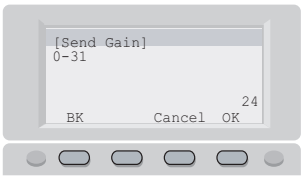
STEP 4: On [Audio] menu, select “2. Send Gain.”



A

A

STEP 5: On [Send Gain] menu, use digit keys to assign Handset volume.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.

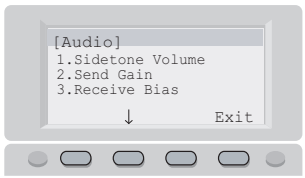


-Use digit keys 0-31.
-Press the software key for “BK” to delete entered value.

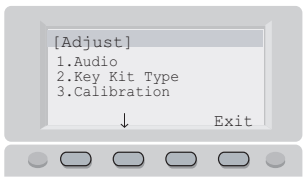
Assigned Value	Handset Volume
0	(Minimum Volume)
~	~
22	
23	
24	(Initial Value)
25	
26	
27	
28	
29	
30	
31	(Maximum Volume)

Note : Sidetone volume set by system takes priority over this setting.
Note : Volume becomes 2 dB higher/lower in each change of Assigned Value.

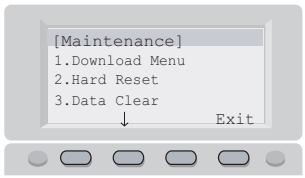
STEP 6: On [Audio] menu, press the software key for “Exit” to display [Adjust] menu.



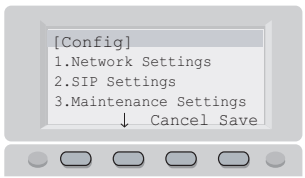
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Send Gain].

STEP 2: Enter Handset Send Volume using number buttons 0-31. **Note 28**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

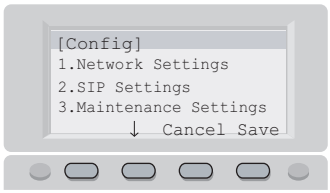
Note 28: For details on Handset Send Gain Value, see [1] Configuration Settings on Terminal–STEP 5.

4.1.2.13 Handset Receive Bias

User can assign Handset Receive Volume on DT830 terminal.

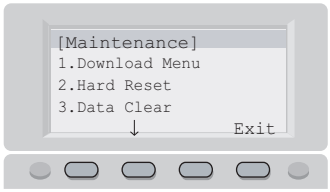
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

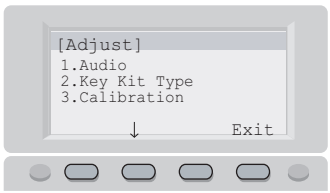


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

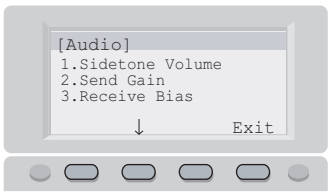
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Audio.”



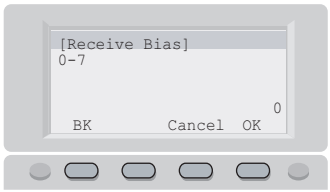
STEP 4: On [Audio] menu, select “3. Receive Bias.”



A

A

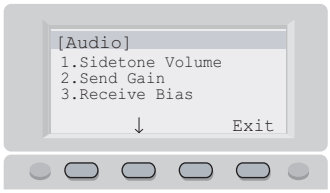
STEP 5: On [Receive Bias] menu, use digit keys to assign Handset Receive Volume.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.



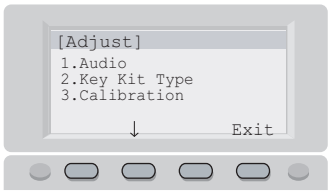
-Use digit keys 0-7.
-Press the software key for “BK” to delete entered value.

Assigned Value	Receive Bias Value (dB)
7	-6 (minimum value)
6	-4
5	-2
4	0
3	6
2	4
1	2
0	0 (initial value)

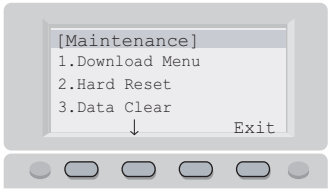
STEP 6: On [Audio] menu, press the software key for “Exit” to display [Adjust] menu.



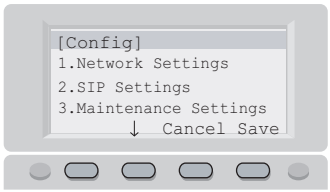
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Receive Bias].

STEP 2: Enter Handset Receive Volume using number buttons 0-7. **Note 29**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

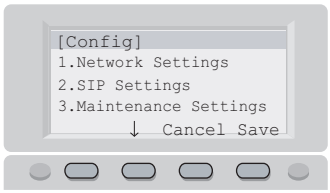
Note 29: For details on Handset Receive Bias Value, see [1] Configuration Settings on Terminal–STEP 5.

4.1.2.14 Handset Receive Gain

User can assign Handset Receive Volume on DT830 terminal. When the Telephony Server assigns Handset Receive volume, it will have priority over the terminal tone settings.

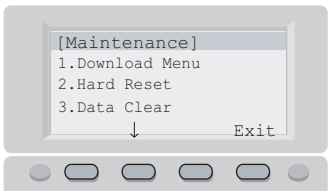
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

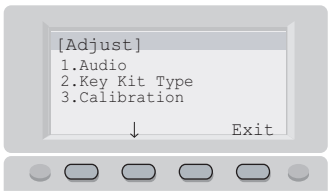


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

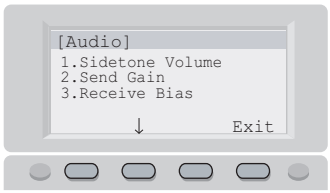
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Audio.”



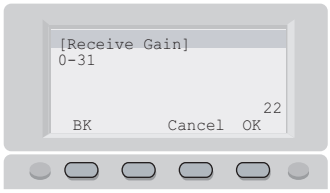
STEP 4: On [Audio] menu, select “4. Receive Gain.”



A

A

STEP 5: On [Receive Gain] menu, use digit keys to assign Handset Receive Gain.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.



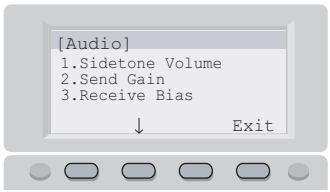
- Use digit keys 0–31.
- Press the software key for “BK” to delete entered value.

Note: Sidetone volume set by system takes priority over this setting.

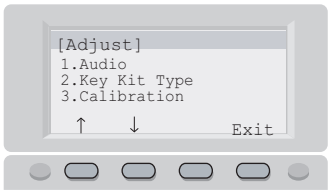
Assigned Value	Handset Volume
0	(Minimum Volume)
~	~
16	
17	
18	
19	
20	
21	
22	(Initial Value)
23	
24	
~	
31	(Maximum Volume)

Note: Volume becomes 2 dB higher/lower in each change of Assigned Value.

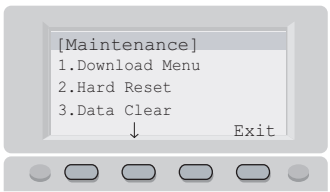
STEP 6: On [Audio] menu, press the software key for “Exit” to display [Adjust] menu.



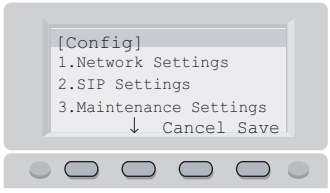
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1: Select [Maintenance] → [Adjust] → [Audio] → [Receive Gain].

STEP 2: Enter Handset Receive Gain using number buttons 0-31. **Note 30**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

Note 30: For details on Handset Receive Gain Value, see [1] Configuration Settings on Terminal–STEP 5.

4.1.2.15 IEEE802.1X Authentication

This section explains how to assign data for IEEE 802.1X authentication for DT830.

DT830 supports the User Name and Password-based IEEE 802.1X (EAP-MD5) authentication method and digital certificate-based IEEE 802.1X (EAP-TLS) authentication method. When a PC with supplicant feature available is connected to the DT830 PC port, EAP packet can be forwarded from that PC via DT830 (EAP Forwarding Feature).

There are four connection patterns.

PATTERN 1:

- Hardware is not connected to DT830 terminal's PC port.
- To authenticate with EAP-TLS, download CA certificate and client certificate, and select the certificate to be used.
- User enables DT830 terminal's 802.1X Supplicant feature.
- DT830 operates by connecting to a switch corresponding to authentication.
- If unauthorized hardware is connected to the PC port after authentication process is completed, unauthorized access to the network will occur. To prevent this from happening, we recommend that the users perform either of the following:
  - Perform preventive measures on authentication switch side
  - Disable PC Port in DT830 Configuration menu

PATTERN 2:

- Hardware without Supplicant feature is connected to DT830 terminal's PC port.
- User enables DT830 terminal's 802.1X Supplicant feature.
- DT830 operates by connecting to a switch corresponding to authentication.
- Regarding the PC connected to DT830 terminal:
  To register the PC's MAC Address as authorized hardware, the following are required on the authentication switch side:
  - Multi–Host Authentication Feature
  - MAC Address Authentication Feature
- When separating audio and data network by attaching different VLAN ID to the packets from the PC and the packets from the DT830:
  - Multi–Host Authentication Feature corresponding to Tag VLAN is required on authentication switch side.

PATTERN 3:

- Hardware with Supplicant feature is connected to DT830 terminal's PC port.
- To authenticate with EAP-TLS, download CA certificate and client certificate, and select the certificate to be used.
- User enables DT830 terminal's 802.1X Supplicant feature.
- DT830 operates by connecting to a switch corresponding to authentication.
- When separating Audio and Data Network by attaching different VLAN ID to the packets from the PC and the packets from the DT830, respectively:
  - Multi–Host Authentication Feature corresponding to Tag VLAN is required on authentication switch side.

PATTERN 4:

- Hardware with Supplicant feature is connected to DT830 terminal's PC port.
- User disables DT830 terminal's 802.1X Supplicant feature.
- DT830 operates by connecting to a switch corresponding to authentication.
- Authentication packet (EAP packet) from the PC is sent, via DT830, to the switch corresponding to authentication.
- Regarding the PC connected to DT830 terminal:
  To register the PC's MAC Address as authorized hardware, the following are required on the authentication switch side:
  - Multi–Host Authentication Feature
  - MAC Address Authentication Feature
- When separating Audio and Data Network by attaching different VLAN ID to the packets from the PC and the packets from the DT830:
  - Multi–Host Authentication Feature corresponding to VLAN Tag is required on authentication switch side.

Note:

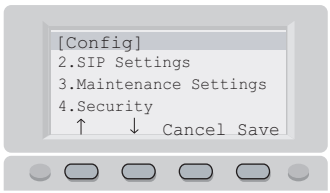
- Hardware with Supplicant feature with the following Operating System (OS) installed is available for connection to DT830 terminal:
  - Microsoft® Windows® 10
  - Microsoft® Windows® 8.1
  - Microsoft® Windows® 7
  - Microsoft® Windows® Vista
- User can choose whether to attach VLAN Tag to the EAPOL packet from DT830. See <Supplicant Feature Data Assignment> for details.
- When using DT830/DT830G, if PC port link down is detected, the terminal requests to clear an authentication status of terminal which is connected to PC port to authentication switch. By clearing the authentication status, you can protect the terminal against unauthorized accesses. For details of the settings, refer to "<Supplicant Feature Data Assignment>".

<Supplicant Feature Data Assignment>

This section explains the data assignment when using 802.1X authentication for DT830.

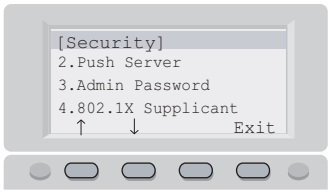
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “4. Security.”

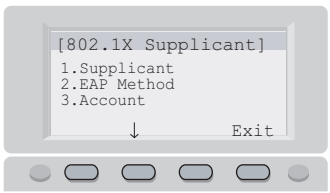


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

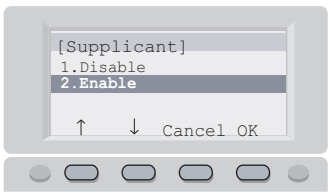
STEP 2: On [Security] menu, select “4. 802.1X Supplicant” to display the [802.1X Supplicant] menu.



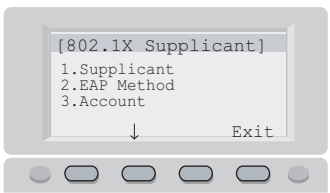
STEP 3: On [802.1X Supplicant] menu, select “1. Supplicant” to display the [Supplicant] menu.



STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



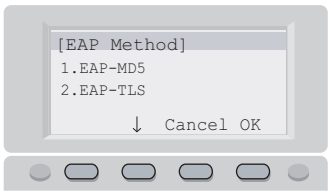
STEP 5: The LCD returns to [802.1X Supplicant] menu. Select “2. EAP Method” to display the [Account] menu.



A

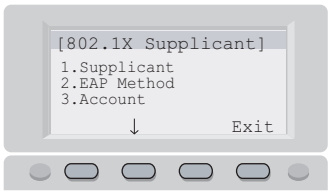
A

STEP 6: On [EAP Method] menu, select “1.EAP-MD5” or “2.EAP-TLS”, and then press software key for “OK.”

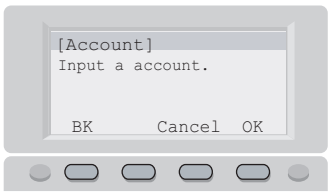


Note: For using EAP-TLS authentication feature, be sure to install the certificate issued by the autnehtication office. For the details of the certificate setting, see “Certificate Management”.

STEP 7: The LCD returns to [802.1X Supplicant] menu. Select “3. Account” to display the [Account] menu.

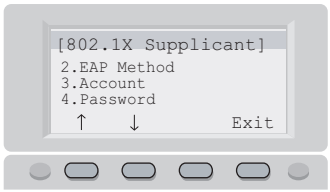


STEP 8: On [Account] menu, use digit keys to assign the User ID for authentication.



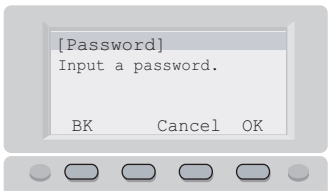
- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 9: The LCD returns to [802.1X Supplicant] menu. Select “4. Password” to display the [Password] menu.



- When EAP-TLS is selected on STEP 6, this setting is not required. ➡ **Go to STEP 11**

STEP 10: On [Password] menu, use digit keys to assign the Password for EAP–MD5 authentication.

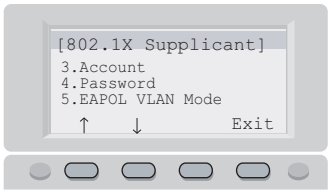


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

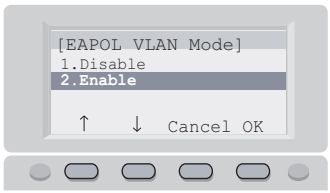
B

B

STEP 11: The LCD returns to [802.1X Supplicant] menu. Select “5” to display the [EAPOL VLAN Mode] menu.



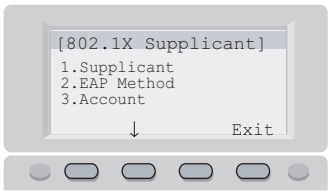
STEP 12: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



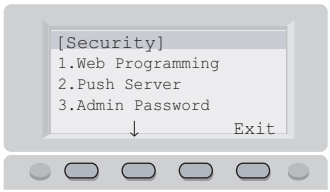
Note: When the user selects “2. Enable” in “EAPOL VLAN Mode,” VLAN tag will be attached according to the following data settings:

- “VLAN Mode”
- “VLAN ID”
- “VLAN Priority”

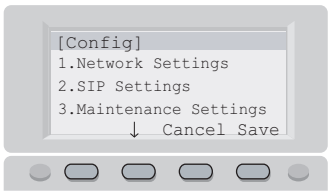
STEP 13: The LCD returns to [802.1X Supplicant] menu. Press the software key for “Exit.”



STEP 14: The LCD returns to [Security] menu. Press the software key for “Exit” to return to the [Config] menu.



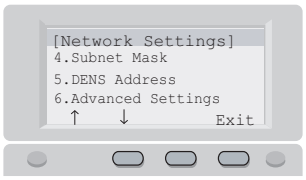
STEP 15: The LCD returns to [Config] menu. Select “1” to display the [Network Settings] menu.

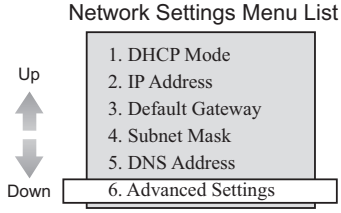


C

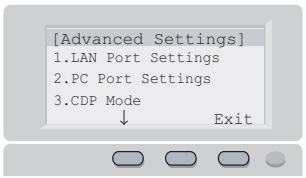
C

STEP 16: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

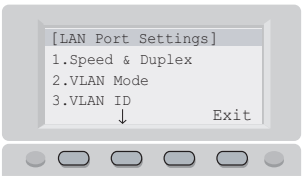




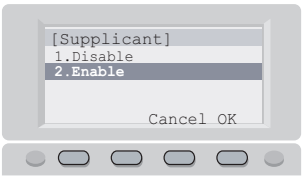
STEP 17: On [Advanced Settings] menu, select “1. LAN Port Settings.”



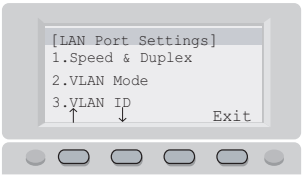
STEP 18: The LCD displays [LAN Port Settings] screen. Select “2” to display the [VLAN Mode] menu.



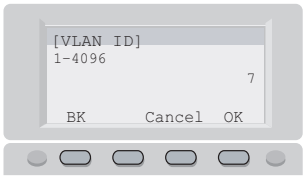
STEP 19: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



STEP 20: The LCD returns to [LAN Port Settings] screen. Select “3” to display the [VLAN ID] menu.



STEP 21: The LCD displays [VLAN ID] menu. Use digit keys to assign VLAN ID.

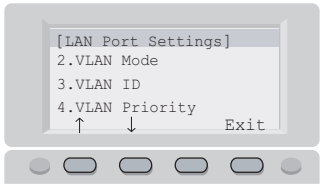


- VLAN ID value must be between 1–4094.
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

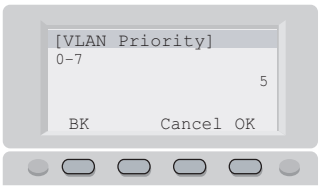
D

D

STEP 22: The LCD displays [LAN Port Settings] screen. Select “4” to display the [VLAN Priority] menu.

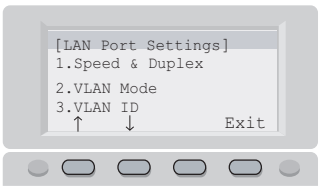


STEP 23: The LCD displays [VLAN Priority] menu. Use digit keys to assign VLAN ID.

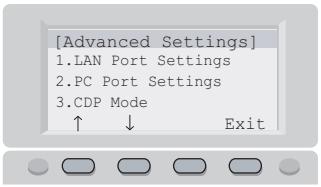


- VLAN Priority value must be between 0–7.
- Press the software key for “OK” when all settings are complete.

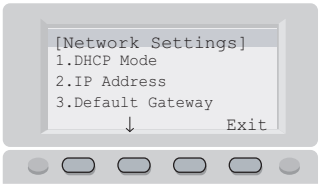
STEP 24: The LCD returns to [LAN Port Settings] screen. Press the software key for “Exit” to return to [Advanced Settings] menu.



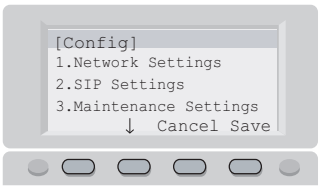
STEP 25: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



STEP 26: The LCD returns to [Network Settings] menu. Press the software key for “Exit.”



STEP 27: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Security] → [802.1X Supplicant] → [Supplicant].

STEP 2: Select “2. Enable.” Click the “OK” button.

STEP 3: Select [Security] → [802.1X Supplicant] → [EAP Method].

STEP 4: Select the type of EAP Method.

STEP 5: Select [Security] → [802.1X Supplicant] → [Account].

STEP 6: Enter User ID for authentication. Then click the “OK” button.
For User ID, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen) or _(underscore) (maximum 32 characters).

- When EAP-TLS is selected, go to STEP 9.

STEP 7: Select [Security] → [802.1X Supplicant] → [Password].

STEP 8: Enter Password for EAP–MD5 authentication. Then click the “OK” button.
For Password, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 32 characters).

STEP 9: Select [Security] → [802.1X Supplicant] → [EAP VLAN Mode].

STEP 10:Select “2. Enable” (VLAN tag is attached to EAP packet). Click the “OK” button. **Note 31**

STEP 11:Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN Mode].

STEP 12:Select “2. Enable.” Click the “OK” button.

STEP 13:Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN ID].

STEP 14:Enter VLAN ID. The value must be within 1–4094. Click the “OK” button.

STEP 15:Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN Priority].

STEP 16:Enter VLAN Priority. The value must be within 0–7. Click the “OK” button.

STEP 17:Click the “Save” button.

Note 31: When the user selects “2. Enable” in “EAP VLAN Mode,” VLAN tag will be attached according to the following data settings:

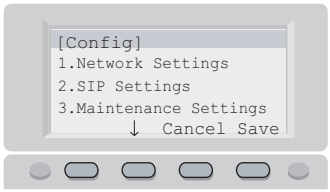
- VLAN Mode
- VLAN ID
- VLAN Priority

<Using Supplicant Mode>

This section explains the procedure to connect a PC with supplicant feature to the PC port of DT830.

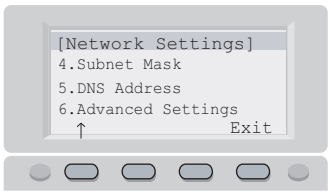
[1] Configuration Setting on Terminal

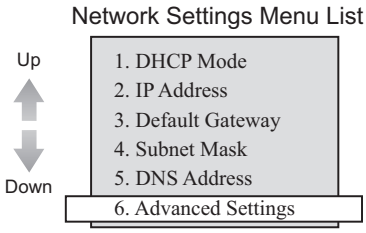
STEP 1: On [Config] menu, select “1. Network Settings.”



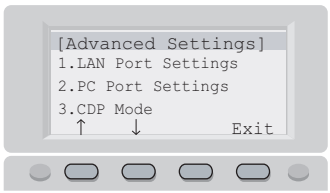
Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

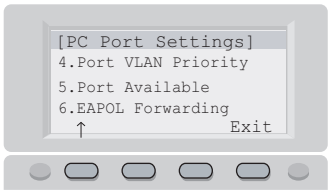




STEP 3: On [Advanced Settings] menu, select “2. PC Port Settings.”



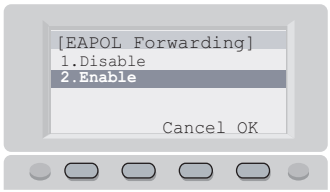
STEP 4: The LCD displays [PC Port Settings] menu. Select “6. EAPOL Forwarding.”



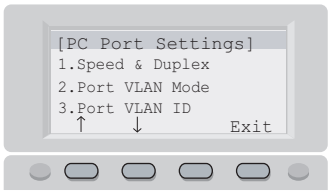
A

A

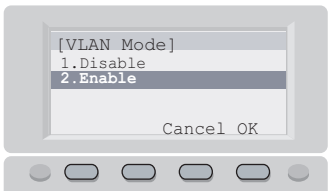
STEP 5: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



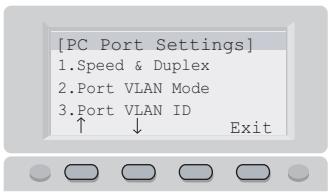
STEP 6: The LCD returns to [PC Port Settings] menu. Select “2. Port VLAN Mode.”



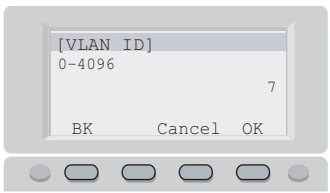
STEP 7: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



STEP 8: The LCD returns to [PC Port Settings] menu. Select “3. Port VLAN ID.”



STEP 9: The LCD displays [VLAN ID] menu. Use digit keys to assign VLAN ID.

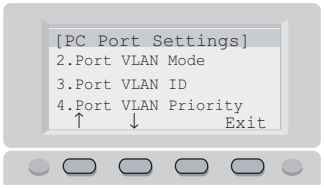


- VLAN ID value must be between 0–4094.
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

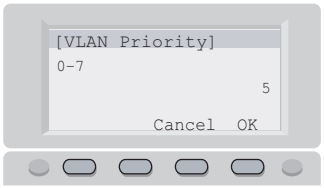
B

B

STEP 10: The LCD returns to [PC Port Settings] menu. Select “4. Port VLAN Priority.”

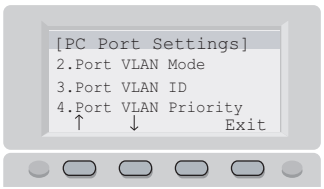


STEP 11: The LCD displays [VLAN Priority] menu. Use digit keys to assign VLAN ID.

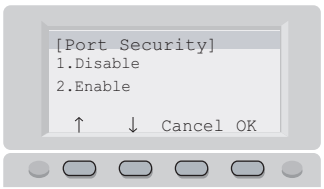


- VLAN Priority value must be between 0–7.
- Press the software key for “OK” when all settings are complete.

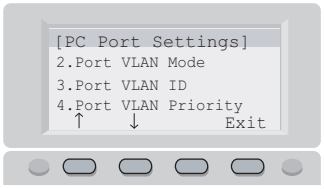
STEP 12: The LCD returns to [PC Port Settings] menu. Select “7. Port Security.”



STEP 13: The LCD displays [Port Security] menu. Select “2. Enable” and press the software key for “OK.”



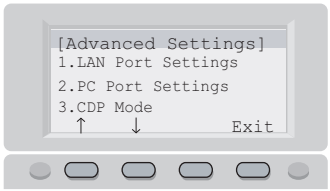
STEP 14: The LCD displays [PC Port Settings] menu. Press the software key for “Exit.”



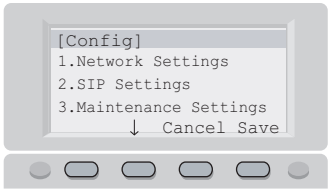
C

C

STEP 15: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



STEP 16: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [EAPOL Forward].

STEP 2: Select “2. Enable.” This enables the EAPOL packet forwarding feature. Click the “OK” button.

STEP 3: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN Mode].

STEP 4: Select “2. Enable.” This enables VLAN. Click the “OK” button.

STEP 5: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN ID].

STEP 6: Enter VLAN ID. The ID value must be between 0–4094. Then click the “OK” button.

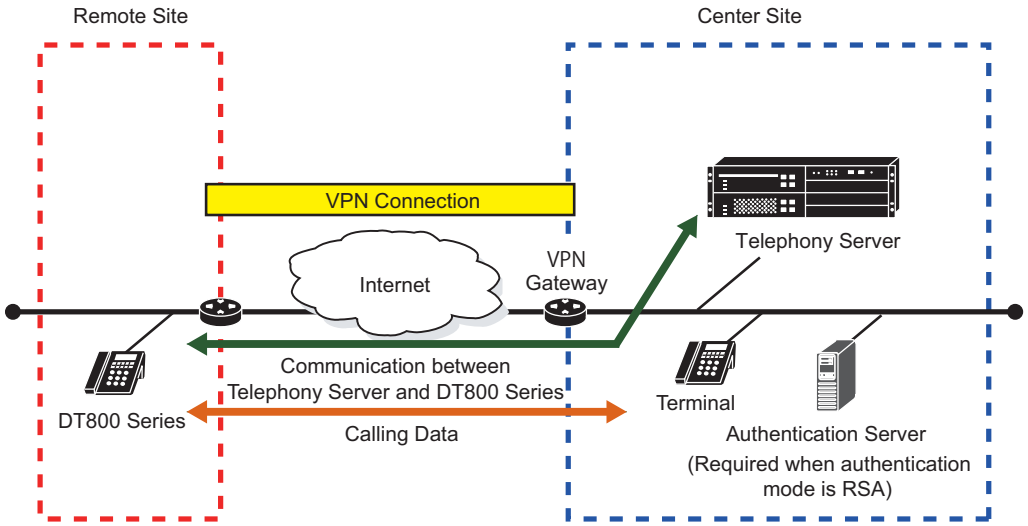
STEP 7: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN Priority].

STEP 8: Enter VLAN ID. The ID value must be between 0–7. Then click the “OK” button.

STEP 9: Click the “Save” button.

4.1.2.16 VPN Client

This section explains the assignment procedure of VPN client feature.



Note: This feature is not supported for North America and China.

Note: This setting is available for the terminal firmware version 5.0.0.0.

Note: When this feature is enabled, the following options are not supported.

- Recording Unit (ADA)
- Bluetooth Connection Adapter (BCA)
- Line Feature Key Unit (8LK)
- 60 Button DSS Console (DCZ-60-2)
- APN-91 cable connection wireless headset (WT100, Voyager Legend CS)

Note: The packet from the device connected to the PC port of DT800 Series cannot be transmitted to the center site.

Note: The packet from the center site cannot be transmitted to the device connected to the PC port of DT800 Series.

Note: The following features are not available at the same time as the VPN client feature.
- BGM
- RTP Streaming
- Streaming Music On Hold
- Multicast Paging

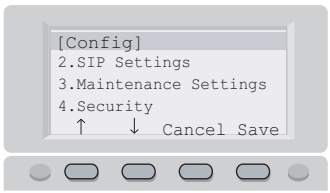
Specifications for using VPN client feature

Item	Descriptions
IPsec	Mode: Transport mode
	NAT: IPsec NAT traversal (on the NAT environment)
Key Exchange Protocol	IKEv1 or IKEv2 (IKEv1: Aggressive mode)
	Authentication method: PSK or RSA **Note 32**
	DH Group: Group 5 (1536 bit)
Cryptographic Algorithm	AES (128 bit)
Authentication Algorithm	SHA-2 (256 bit)
L2TPv2	PPP Authentication method: CHAP

Note 32: RSA authentication method is supported for IKEv2 only.

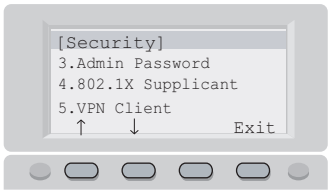
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “4. Security.”

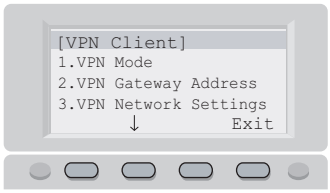


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

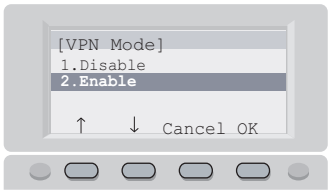
STEP 2: On [Security] menu, select “5. VPN Client” to display the [VPN Client] menu.



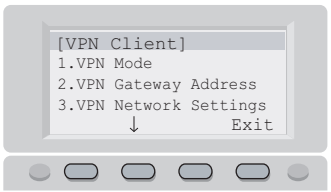
STEP 3: On [VPN Client] menu, select “1. VPN Mode” to display the [VPN Mode] menu.



STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



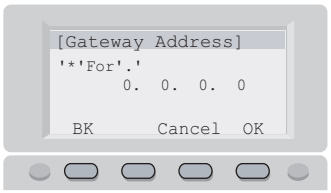
STEP 5: The LCD returns to [VPN Client] menu. Select “2. VPN Gateway Address” to display the [Gateway Address] menu.



A

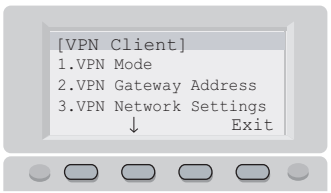
A

STEP 6: On [Gateway Address] menu, assign the Gateway address using the number button.



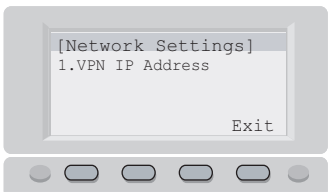
Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 7: The LCD returns to [VPN Client] menu. Select “3. VPN Network Settings” to display the [Network Settings] menu.

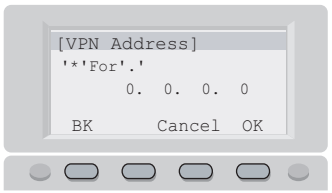


Note: If VPN IP address has already been provided from VPN gateway, VPN IP address setting is not requred. Then, go to STEP 11.

STEP 8: On [Network Settings] menu, select “1. VPN IP Address” to display the [VPN Address] menu.

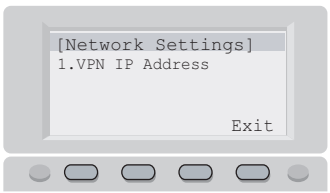


STEP 9: On [VPN Address] menu, assign the VPN address using the number button.



Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

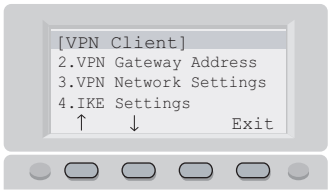
STEP 10: The LCD returns to [Network Settings] menu. Press the software key for "Exit" to return to [VPN Client] menu.



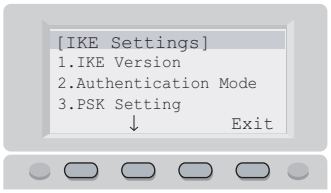
B

B

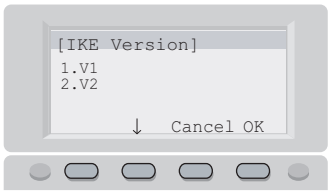
STEP 11: The LCD returns to [VPN Client] menu. Select “4. IKE Settings” to display the [IKE Settings] menu.



STEP 12: On [IKE Settings] menu, Select “1. IKE Version” to display the [IKE Version] menu.

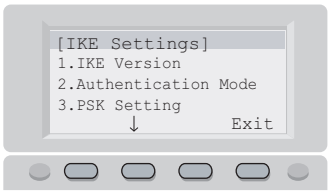


STEP 13: On [IKE Version] menu, select “1.V1” or “2.V2”, and then press software key for “OK.”

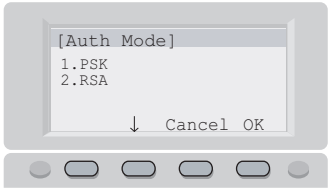


Note: For authentication mode,
IKE version V1 supports PSK only.

STEP 14: The LCD returns to [IKE Settings] menu, Select “2. Authentication Mode” to display the [Auth Mode] menu.



STEP 15: On [Auth Mode] menu, select “1.PSK” or “2.RSA”, and then press software key for “OK.”

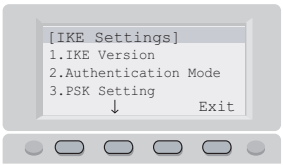


Note: For using RSA authentication feature,
be sure to install the certificate issued by
the autnehtication office.

C

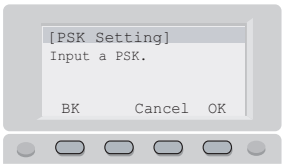
C

STEP 16: The LCD returns to [IKE Settings] menu. Select “3.PSK Setting” to display the [PSK Setting] menu.



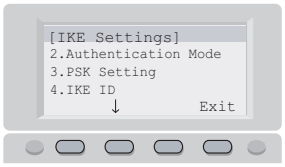
Note: When “2.RSA” is selected, go to STEP 18.
This setting is not required.

STEP 17: On [PSK Setting] menu, use digit keys to assign the PSK.

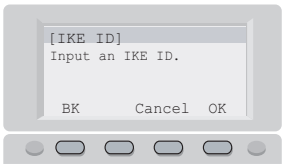


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 18: The LCD displays [IKE Settings] menu. Select “4. IKE ID” to display the [IKE ID] menu.



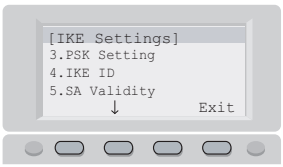
STEP 19: On [IKE ID] menu, use digit keys to assign the IKE ID.



- User may enter the following characters:
  0-9, A-Z, a-z, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

Note: Be sure not to use the character “*”, the network may perceives the IKE ID as IPv6 address. Also, when you input IPv4 address for this setting such as “*.*.*.*”, you cannot access the center site when connecting VPN on the NAT environment.

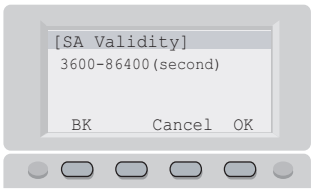
STEP 20: The LCD displays [IKE Settings] screen. Select “5” to display the [SA Validity] menu.



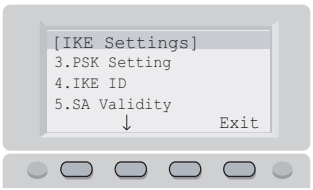
D

D

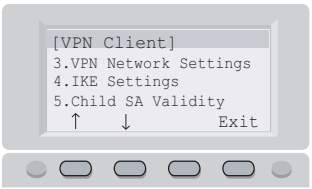
STEP 21: On [SA Validity] menu, use digit keys to enter the validity for SA when IPsec connection established. Then, press the software key for OK.



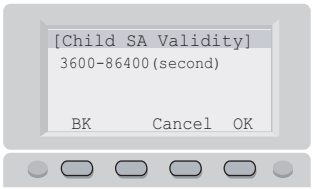
STEP 22: The LCD displays [IKE Settings] screen. Press the software key for "Exit" to return to [VPN Client] menu.



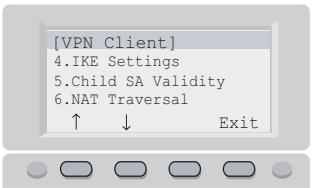
STEP 23: The LCD returns to [VPN Client] menu. Select “5. Child SA Validity” to display the [Child SA Validity] menu.



STEP 24: On [Child SA Validity] menu, use digit keys to enter the validity for Child SA when IPsec connection established. Then, press the software key for OK.



STEP 25: The LCD returns to [VPN Client] menu. Select “6. NAT Traversal” to display the [NAT Traversal] menu.

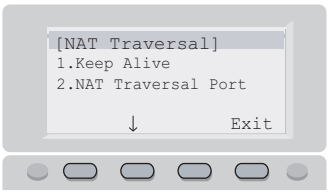


Note: When the network is not in NAT environment, this setting is not required. Then, go to STEP 31.

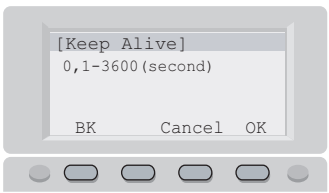
E

E

STEP 26: On [NAT Traversal] menu, Select “1. Keep Alive” to display the [Keep Alive] menu.

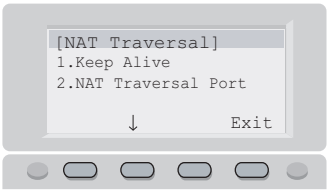


STEP 27: On [Keep Alive] menu, use digit keys to enter the keep alive for IPsec NAT Traversal.
Then, press the software key for OK.

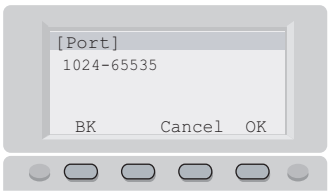


Note: When you input “0”, this setting will be disabled.

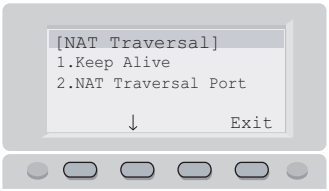
STEP 28: The LCD returns to [NAT Traversal] menu. Select “2. NAT Traversal Port” to display the [Port] menu.



STEP 29: On [Port] menu, use digit keys to enter the NAT traversal port number.
Then, press the software key for OK.



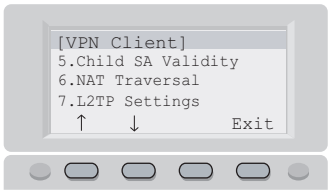
STEP 30: The LCD returns to [NAT Traversal] menu. Press the software key for "Exit" to return to [VPN Client] menu.



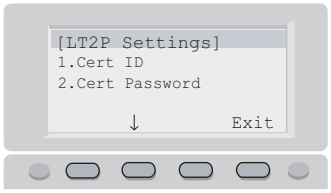
F

F

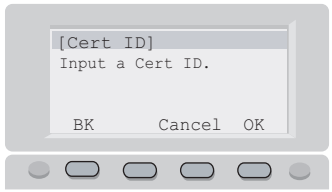
STEP 31: The LCD returns to [VPN Client] menu. Select “7. L2TP Settings” to display the [L2TP Settings] menu.



STEP 32: On [L2TP Setting] menu, Select “1. Cert ID” to display the [Cert ID] menu.

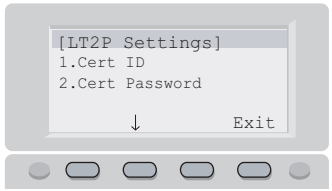


STEP 33: On [Cert ID] menu, use digit keys to assign the certification ID. Then, press the software key for OK.

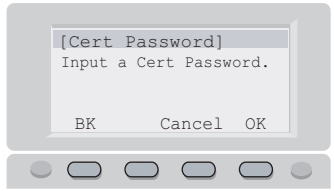


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 34: The LCD returns to [L2TP Setting] menu. Select “2. Cert Password” to display the [Cert Password] menu.



STEP 35: On [Cert Password] menu, use digit keys to assign the certification password. Then, press the software key for OK.

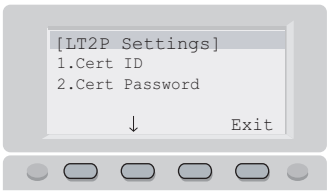


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

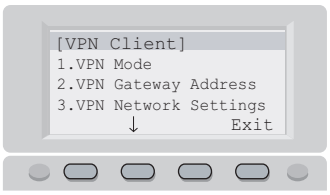
G

G

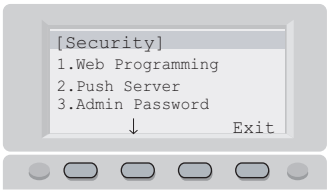
STEP 36: The LCD returns to [L2TP Settings] menu. Press the software key for "Exit" to return to [VPN Client] menu.



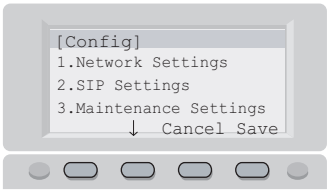
STEP 37: The LCD returns to [VPN Client] menu. Press the software key for "Exit" to return to [Security] menu.



STEP 38: The LCD returns to [Security] menu. Press the software key for "Exit" to return to [Config] menu.



STEP 39: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Security] → [VPN Client] → [VPN Mode].

STEP 2: Select "2. Enable." Click the "OK" button.

STEP 3: Select [VPN Client] → [VPN Gateway Address].

STEP 4: Enter the IP address of VPN Gateway. Then click the "OK" button.

STEP 5: Select [VPN Client] → [VPN Network Settings] → [VPN IP Address].

Note: If VPN IP address has already been provided from VPN gateway, VPN IP address setting is not required. Then, go to STEP 7.

STEP 6: Enter the IP address of VPN. Then click the "OK" button.

STEP 7: Select [VPN Client] → [IKE Settings].

STEP 8: Select [IKE Settings] → [IKE Version]. **Note 33**
- When you specify V1, click "V1". Then, click the "OK" button.
- When you specify V2, click "V2". Then, click the "OK" button.

Note 33: For authentication mode, IKE version V1 supports PSK only.

STEP 9: Select [IKE Settings] → [Authentication Mode].
- When you specify PSK, click "PSK". Then, click the "OK" button.
- When you specify RSA click "RSA". Then, click the "OK" button.

STEP 10:Select [IKE Settings] → [PSK Setting].

Note: When RSA is specified, this setting is not required. Go to STEP 12.

STEP 11:Enter PSK. Then click the "OK" button.
For PSK, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 64 characters).

STEP 12:Select [IKE Settings] → [IKE ID].

STEP 13:Enter IKE ID. Then click the "OK" button.
For IKE ID, use 0-9, A-Z, a-z, #, . (period), - (hyphen), and _(underscore) (maximum 127 characters).

STEP 14:Select [VPN Client] → [IKE Settings] → [SA Validity].

STEP 15:Enter SA Validity (3600-86400 seconds). Then click the "OK" button.

STEP 16:Select [VPN Client] → [Child SA Validity].

STEP 17:Enter Child SA Validity (3600-86400 seconds). Then click the "OK" button.

STEP 18:Select [VPN Client] → [NAT Traversal] → [Keep Alive].

Note: When the network is not in NAT environment, this setting is not required. Go to STEP 22.

STEP 19:Enter the keep alive for IPsec NAT traversal (0, 1-3600 seconds). Then click the "OK" button.

STEP 20:Select [NAT Traversal] → [NAT Traversal Port].

STEP 21:Enter the port number of NAT Traversal (1024-65535). Then click the “OK” button.

STEP 22:Select [VPN Client] → [L2TP Settings] → [Cert ID].

STEP 23:Enter Cert ID. Then click the “OK” button.
For Cert ID, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 127 characters).

STEP 24:Select [VPN Client] → [L2TP Settings] → [Cert Password].

STEP 25:Enter Cert Password. Then click the “OK” button.
For Cert Password, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 127 characters).

STEP 26:Click the “Save” button.

4.1.2.17 Certificate Management

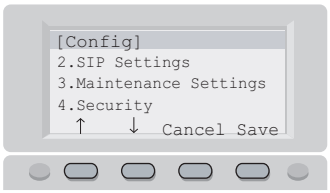
This section explains the setting of certificate for the terminal. Before using certificate, be sure to set the followings on the terminal configuration menu.

1. Set the PKCS password from [0. Config] - [4. Security] - [8. Certificate] - [1. Install] - [1. PKCS#12 Password.]
2. Download the certificate file from [0. Config] - [3. Maintenance Settings] - [1. Download Menu] - [1. Download Files] - [5. Certificate]
3. Select the certificate file from [0. Config] - [4. Security] - [8. Certificate] - [2. Select].

[1] Configuration Setting on Terminal

(a) The procedures to set PKCS#12 password and validity data of the certificate.

STEP 1: On [Config] main menu, select “4. Security.”

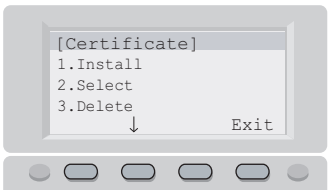


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

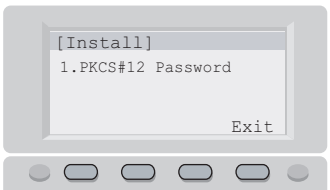
STEP 2: On [Security] menu, select “8. Certificate” to display the [Certificate] menu.



STEP 3: On [Certificate] menu, select “1. Install” to display the [Install] menu.



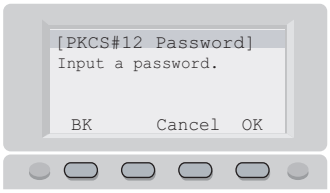
STEP 4: On [Install] menu, select “1. PKCS#12 Password” to display the [PKCS#12 Password] menu.



A

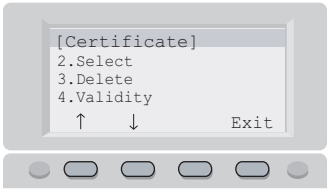
A

STEP 5: On [PKCS#12 Password] menu, use digit keys to assign the the password.

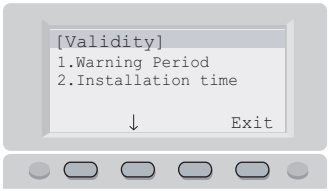


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 6: The LCD returns to [Certificate] menu. Select “4. Validity” to display the [Validity] menu.



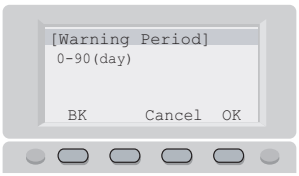
STEP 7: On [Validity] menu, select “1. Warning Period” to display the [Warning Period] menu.



B

B

STEP 8: On [Warning Period] menu, use digit keys to enter the warning period.
Then, press the software key for OK.

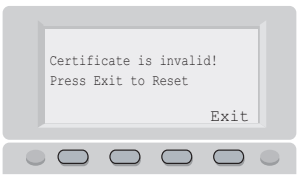


Note: When you input “0”, this setting will be disabled.

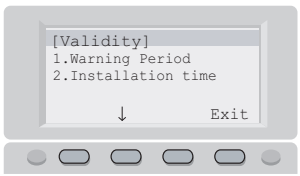
When the expiration of certificate is closer, the following message is displayed.
This message is an example when "Warning Period" is assigned to "7".



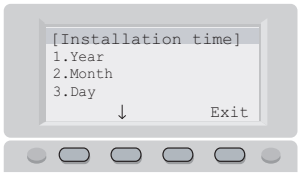
When the certificate is expired, the following message is displayed.



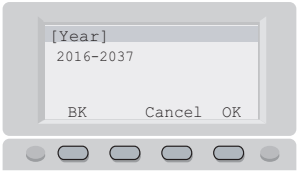
STEP 9: The LCD returns to [Validity] menu. select “2. Installation time” to display the [Installation time] menu.



STEP 10: On [Installation time] menu, select “1. Year” to display the [Year] menu.



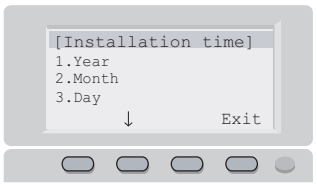
STEP 11: On [Year] menu, use digit keys to enter the year when you install the certificate.
Then, press the software key for OK.



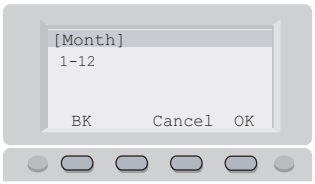
C

C

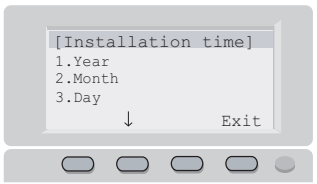
STEP 12: The LCD returns to [Installation time] menu, select “2. Month” to display the [Month] menu.



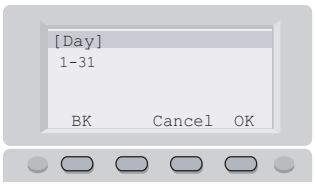
STEP 13: On [Month] menu, use digit keys to enter the month when you install the certificate.
Then, press the software key for OK.



STEP 14: The LCD returns to [Installation time] menu, select “3. Day” to display the [Day] menu.



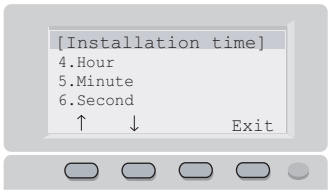
STEP 15: On [Day] menu, use digit keys to enter the day when you install the certificate.
Then, press the software key for OK.



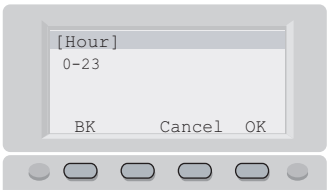
D

D

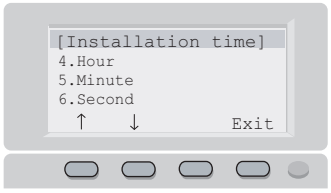
STEP 16: The LCD returns to [Installation time] menu, select “4. Hour” to display the [Hour] menu.



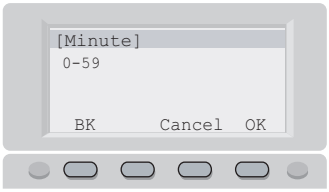
STEP 17: On [Hour] menu, use digit keys to enter the hour when you install the certificate.
Then, press the software key for OK.



STEP 18: The LCD returns to [Installation time] menu, select “5. Minute” to display the [Minute] menu.



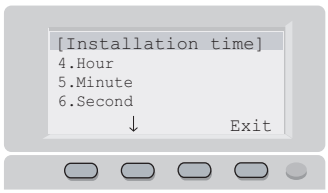
STEP 19: On [Minute] menu, use digit keys to enter the minute when you install the certificate.
Then, press the software key for OK.



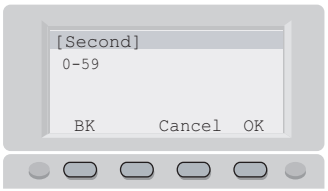
E

E

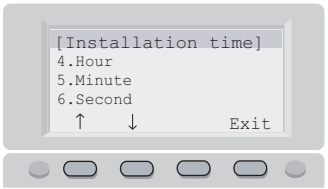
STEP 20: The LCD returns to [Installation time] menu, select “6. Second” to display the [Second] menu.



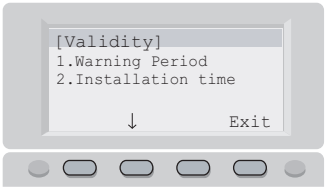
STEP 21: On [Second] menu, use digit keys to enter the second when you install the certificate.
Then, press the software key for OK.



STEP 22: The LCD returns to [Installation time] menu, press the software key for "Exit" to return to [Validity] menu.



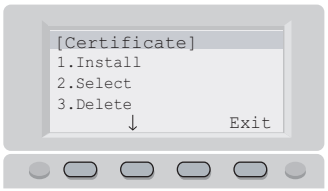
STEP 23: The LCD returns to [Validity] menu. Press the software key for "Exit" to return to [Certificate] menu.



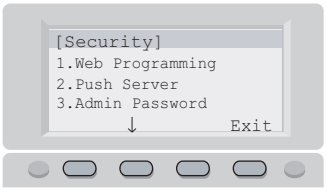
F

F

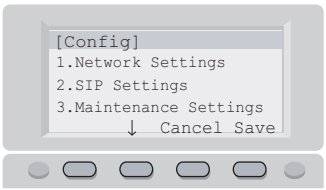
STEP 24: The LCD returns to [Certificate] menu. Press the software key for "Exit" to return to [Security] menu.



STEP 25: The LCD returns to [Security] menu. Press the software key for "Exit" to return to [Config] menu.



STEP 26: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



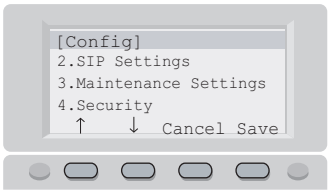
END

(b) The procedures to download the certificate

For the details of downloading procedure of the certificate, see “File Downloading”.

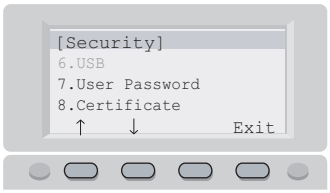
(c) The procedures to select the certificate

STEP 1: On [Config] main menu, select “4. Security.”

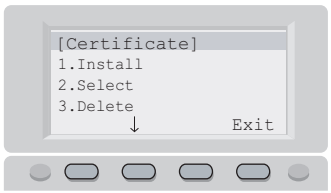


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

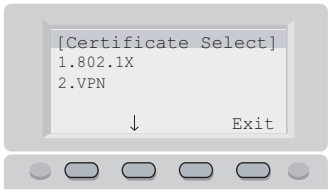
STEP 2: On [Security] menu, select “8. Certificate” to display the [Certificate] menu.



STEP 3: On [Certificate] menu. Select “2. Select” to display the [Certificate Select] menu.



STEP 4: On [Certificate Select] menu, select “1.802.1X” or “2.VPN”.

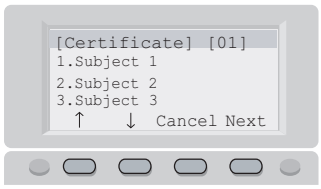


- When the client certificate is specified for 802.1x (EAP-TLS) client, select “1.802.1x”
- When the client certificate is specified for VPN client, select “2.VPN”

A

A

STEP 5: [Certificate] menu is displayed. use digit keys to specify the certificate installed on the terminal.

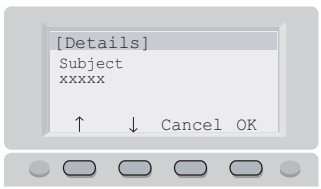


For example, to set "1. Subject 1",
1) Enter "0" and "1."
2) Entering field displays "01."
3) "1.Subject 1" line is focused.
4) Press the software key for "Next."

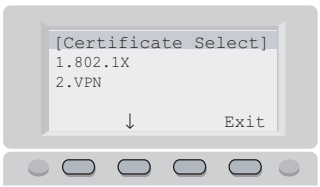
Note: Certificate can be selected in the 15 certificates.

STEP 6: On [Details] menu, verify the information described in the certificate using "↑" and "↓" of software key or cursor key, and press the software key “OK”. The information for the certificate is as follows.

- Subject
- Issuer
- Validity (Not before)
- Validity (Not After)
- Serial Number

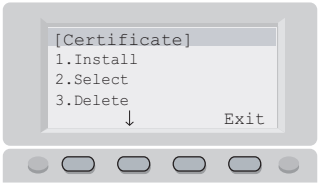


STEP 7: On [Certificate Select] menu, press the software key for "Exit" to return to [Certificate] menu.



Note: For North America and China, “2. VPN” cannot be chosen.

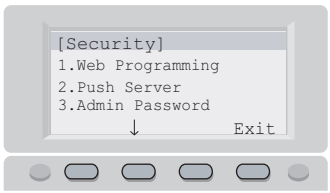
STEP 8: The LCD returns to [Certificate] menu. Press the software key for "Exit" to return to [Security] menu.



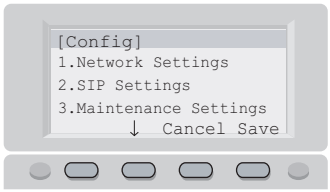
B

B

STEP 9: The LCD returns to [Security] menu. Press the software key for "Exit" to return to [Config] menu.



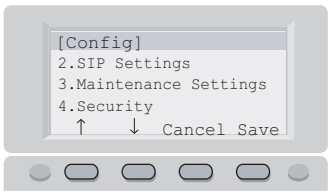
STEP 10: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

(d) The procedure to delete the certificate.

STEP 1: On [Config] main menu, select “4. Security.”

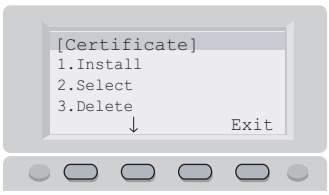


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

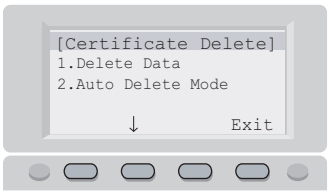
STEP 2: On [Security] menu, select “8. Certificate” to display the [Certificate] menu.



STEP 3: The LCD returns to [Certificate] menu. Select “3. Delete” to display the [Certificate Delete] menu.



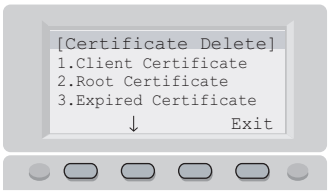
STEP 4: On [Certificate Delete] menu, select “1. Delete Data” or “2.Auto Delete Mode”.



- When you delete the certificate manually,
select “1. Delete Data” ➡ **Go to STEP 5**

- When you delete the expired certificate automatically,
select “2. Auto Delete Mode” ➡ **Go to STEP 11**

STEP 5: On [Delete Data] menu, select a type of certificate data to delete.
Followings are the type of certificate data.

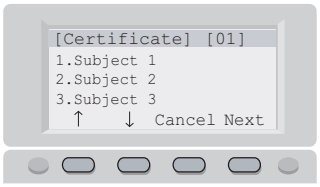


- When you delete the client certificate,
select “1. Client Certificate.” ➡ **Go to STEP 6**
- When you delete the root certificate,
select “2. Root Certificate.” ➡ **Go to STEP 6**
- When you delete the expired certificate,
select “3. Expired Certificate.” ➡ **Go to STEP 9**
- When you delete the all certificate files,
select “4. All Certificate.” ➡ **Go to STEP 10**

A

A

STEP 6: [Certificate] menu is displayed. use digit keys to specify the certificate data to deleted from the terminal.

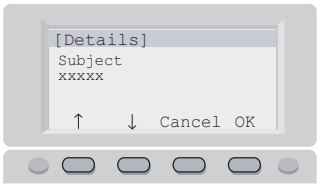


For example, to set "1. Subject 1",
1) Enter "0" and "1."
2) Entering field displays "01."
3) "1.Subject 1" line is focused.
4) Press the software key for "Next."

Note: One certificate can be deleted in the 15 certificates.

STEP 7: On [Details] menu, verify the information described in the certificate using "↑" and "↓" of software key or cursor key, and press the software key "OK". The information for the certificate is as follows.

- Subject
- Issuer
- Validity (Not before)
- Validity (Not After)
- Serial Number

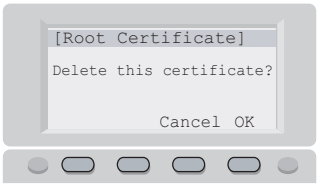


STEP 8: On the confirmation screen, press the software key for "OK". Then, go to STEP 12.

[Confirmation Screen of Client Certificate]



[Confirmation Screen of Root Certificate]



STEP 9: On [Expired Certificates] screen, press the software key for "OK". Then, go to STEP 12.



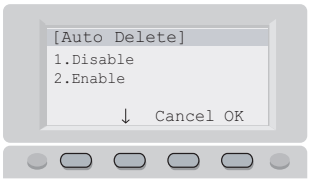
B

B

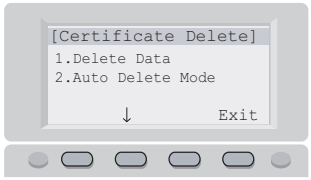
STEP 10: On [All Certificates] screen, press the software key for “OK”. Then, go to STEP 12.



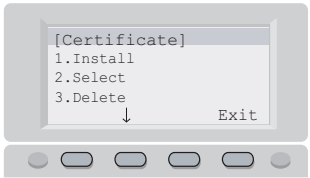
STEP 11: On [Auto Delete] menu, select “2. Enable” and press the software key for “OK”. Then, go to STEP 12.



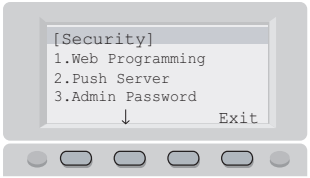
STEP 12: The LCD returns to [Certificate Delete] menu. Press the software key for "Exit" to return to [Certificate] menu.



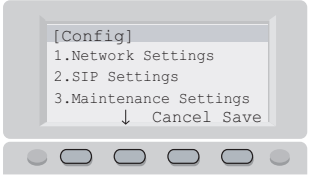
STEP 13: The LCD returns to [Certificate] menu. Press the software key for "Exit" to return to [Security] menu.



STEP 14: The LCD returns to [Security] menu. Press the software key for "Exit" to return to [Config] menu.



STEP 15: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

(a) The procedures to set PKCS#12 password and validity data of the certificate

STEP 1:Select [Security] → [Certificate] → [Install] → [PKCS#12 Password].

STEP 2: Enter PKCS#12 Password. Then click the "OK" button.
For Cert Password, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 16 characters).

STEP 3: Select [Certificate] → [Validity] → [Warning Period].

STEP 4: Enter the warning period. Then click the "OK" button.

STEP 5: Select [Certificate] → [Validity] → [Installation time] → [Year].

STEP 6: Enter the installed year for certificate. Then click the "OK" button.

STEP 7: Select [Certificate] → [Validity] → [Installation time] → [Month].

STEP 8: Enter the installed month for certificate. Then click the "OK" button.

STEP 9: Select [Certificate] → [Validity] → [Installation time] → [Day].

STEP 10:Enter the installed day for certificate. Then click the "OK" button.

STEP 11:Select [Certificate] → [Validity] → [Installation time] → [Hour].

STEP 12:Enter the installed hour for certificate. Then click the "OK" button.

STEP 13:Select [Certificate] → [Validity] → [Installation time] → [Minute].

STEP 14:Enter the installed minute for certificate. Then click the "OK" button.

STEP 15:Select [Certificate] → [Validity] → [Installation time] → [Second].

STEP 16:Enter the installed second for certificate. Then click the "OK" button.

STEP 17:Click the "Save" button.

(b) The procedures to download the certificate

For the details of downloading procedure of the certificate, see "File Downloading".

(c) The procedures to select the certificate

STEP 1: Select [Security] → [Certificate] → [Select].
- When you specify 802.1x (EAP-TLS), click "802.1x".
- When you specify VPN, click "VPN".

Note: For North America and China, VPN cannot be specified.

STEP 2: Select the certificate installed on the terminal and verify the detail. Then, click the "OK" button.

STEP 3: Click the "Save" button.

(d) The procedures to delete the certificate

STEP 1: Select [Security] → [Certificate] → [Delete].
- When you delete a certificate data automatically, select [Auto Delete Mode] and go to STEP 3.

STEP 2: Select [Delete Data], and select the certificate to delete from the terminal and verify the detail. Then, click the “OK” button.

STEP 3: Select [Enable], and click the “OK” button.

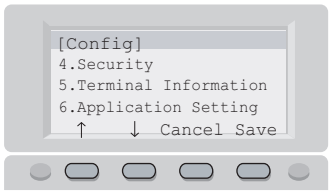
STEP 4: Click the “Save” button.

4.1.2.18 Corporate Phonebook

This section explains how to specify Corporate Phonebook. Referring to the following procedure, assign the URL of the target phonebook. After the setting is completed, Corporate Phonebook is listed on the terminal's Directory menu.

[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select "6. Application Settings."



Configuration Menu List

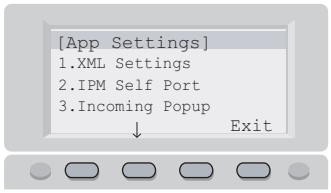
Up

Down

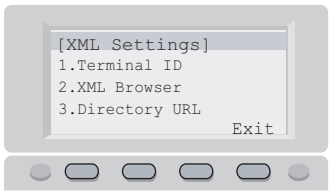
1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings
Special

Note: For other operations, "↑" and "↓" of software key and cursor key are also available.

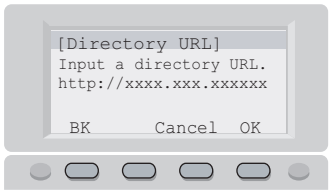
STEP 2: The LCD displays [App Settings] menu. Select "1. XML Settings."



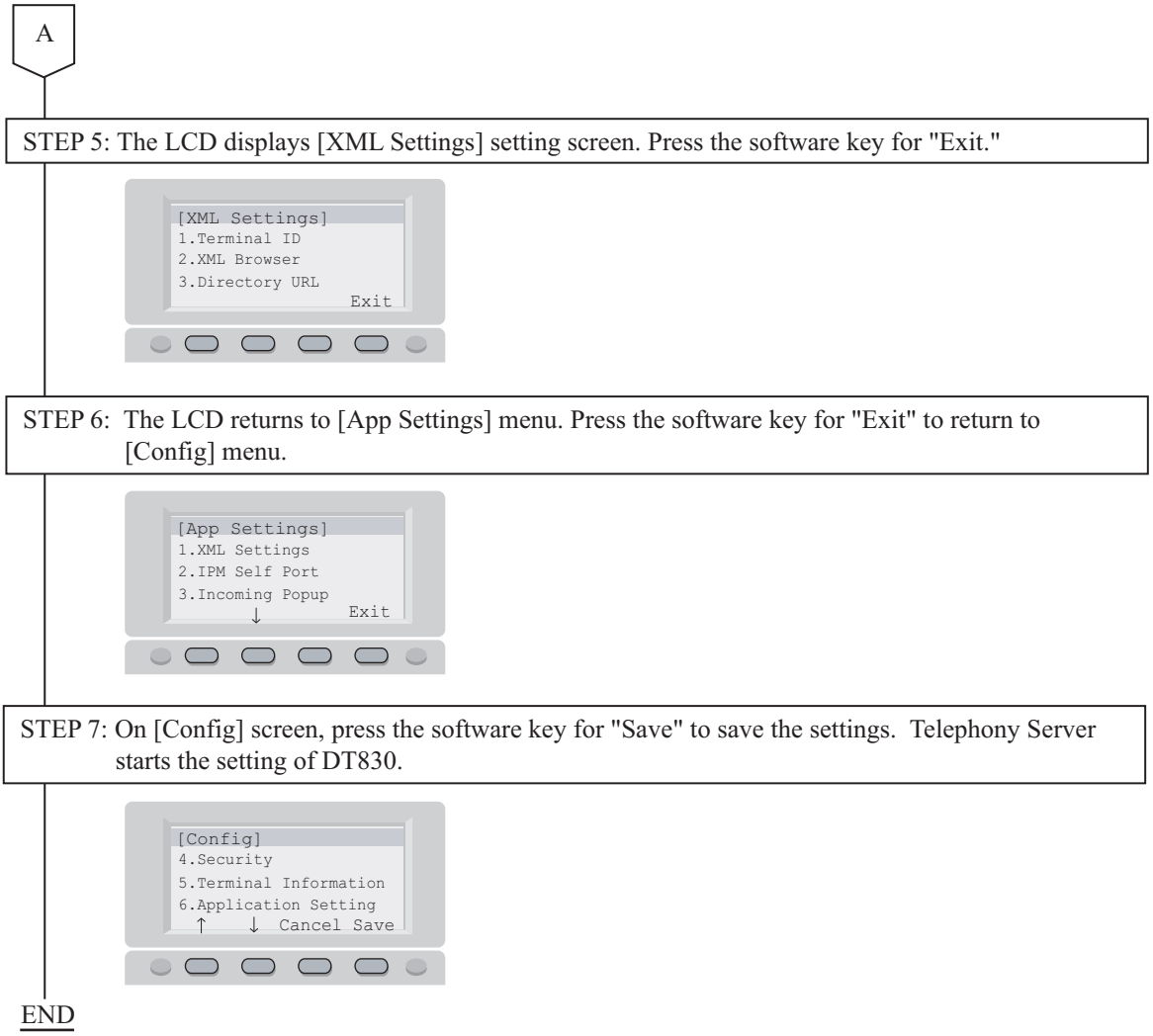
STEP 3: On [XML Settings] menu, select "3. Directory URL".



STEP 4: On [Directory URL] screen, enter the URL of Corporate Phonebook, and press the software key for "OK."



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[2] Configuration Settings by Web Programming

STEP 1: Select [Application Settings] → [XML Settings] → [Directory URL].

STEP 2: Enter the URL of Corporate Phonebook, and click the “OK” button.

STEP 3: Click the “Save” button.

4.1.2.19 USB Call Recording

For DT830G, you can record the voice call data to the USB memory. The recorded voice call data can be played later. As the recording methods, you can choose from 2 types of recording method (Automatic recording start/ Manual recording start). When the recording starts, the recording confirmation tone will be sent to the target party at the interval of 15 seconds. However, the recording confirmation tone can also be disabled. For the recording data, the tone of recording start is saved in the USB memory to check the timing of recording start or restart from recording pause while the recorded voice is played.

Note: The tone of recording start is not heard during a telephone conversation.

Note: For the details of terminal operation while recording the call or playing the recorded voice, see DT830G USER'S GUIDE.

<Service Conditions>

(1) This feature is available only for DT830G (equipped with USB port) with firmware versions 3.0.0.0 or later.

(2) When you record the voice call data with manual operation, assign FKY=194 (Record (USB)) with AKYD or AKYD_T command.

(3) For format types of USB memory, be sure to use the USB memory (USB 2.0 or later) which has been formatted as FAT or FAT32. The other USB devices (hard disk with USB connector or card reader with USB connector etc.) are not available.

(4) The codecs for the recording data are linear PCM (8kHz/16kHz) only.

(5) Record (USB) key cannot be assigned to the 8LK Unit and DSS Console.

(6) To save the voice recording data, make a recording area in the USB memory. The following are the conditions for recording area.

- Recording area must be created on the PC by administrator.
- Recording area is created in the TrueCrypt file format. Then, name the file as "RecordingArea", and locate this file on the root directory of the USB memory.
- The recording data is saved on the directory of "RecPOST/RecVoice/", which is created in the recording area.
- The maximum recordable time depends on the storage capacity of recording area.
- NEC recommends that the capacity of recording area be more than 200 MB (50 minutes recordable by linear PCM (16kHz)), and that the maximum memory size of recording data be 4G (when you format the USB memory with FAT32)/1G (when you format the USB memory with FAT).
- Up to 3999 recording files can be saved.
- For changing the password of recording area, the administrator needs to change the password of recording administrator on the PC first. After that, change the password of recording administrator on the terminal and connect the USB memory to the terminal.

(7) Be sure not to remove the USB device while the telephone conversation is being recorded or played back. It may cause corruption of the USB memory or recorded files.

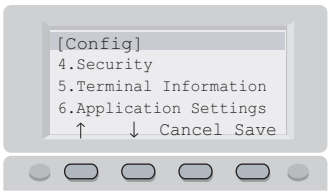
(8) When the password of recording administrator is common to the terminals, you can use the USB memory which contains the recording data on the other terminals. Therefore, if you allow the terminal users to play the recorded data, create and manage the password of recording administrator for each user.

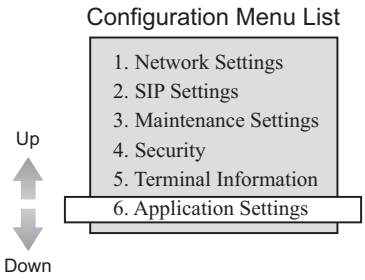
(9) If you do not use this feature, assign the System Data (ASYDL/ASYDN, SYS1, Index 1258, Bit 0 = 1).

(10) If you make a call to another line by going off-hook while talking to the target party, the recording data is displayed as a file on the recording list. However, if you make a call to another line by pressing the line key while talking to the target party, depending on the timing of terminal operation, the recording data may be displayed as separated files on the recording list.

[1] Configuration Settings on Terminal

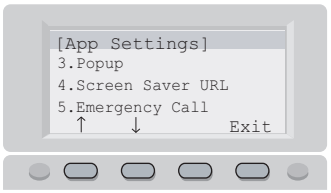
STEP 1: On [Config] menu, select “6. Application Settings.”

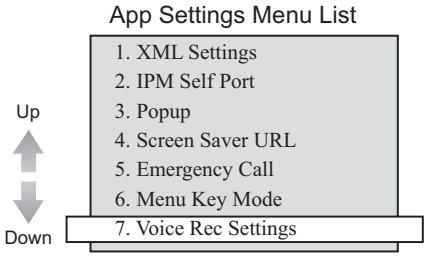




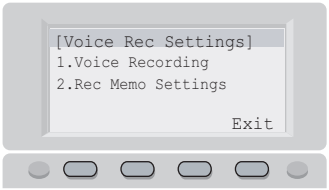
Note: For other operations,“↑” and “↓” of software key and cursor key are also available. Refer to <Operations> for more details.

STEP 2: The LCD displays [App Settings] menu. Select “7. Voice Rec Settings.”





STEP 3: On [Voice Rec Settings] menu, select “1. Voice Recording.”



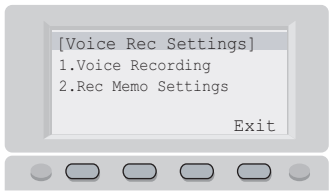
STEP 4: On [Voice Recording] menu, select “0. Automatic.”



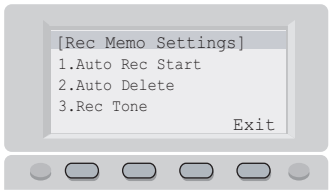
A

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STEP 5: On [Voice Rec Settings] menu, select “2. Rec Memo Settings.”

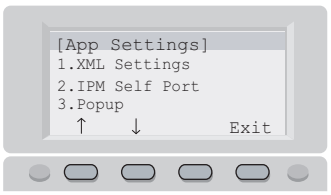


STEP 6: [Rec Memo Settings] menu is displayed.

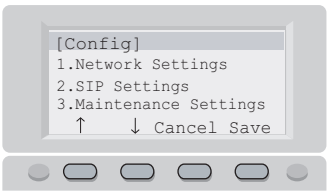


STEP 7: According to the purpose of utilization, configure the various settings.

STEP 8: Press “Exit” to display [App Settings] menu.



STEP 9: Press “Exit” to display [Config] menu.



STEP 10: On [Config] menu, press “Save” Soft key to save the data. And exit [Config] menu.

END

[2] Configuration Setup by Web Programming

STEP 1: Select [App Settings] → [Voice Rec Settings] → [Voice Recording].

STEP 2: Select “0. Automatic.” And click the “OK” button.

STEP 3: Select [App Settings] → [Voice Rec Settings]→ [Rec Memo Settings].

STEP 4: According to the purpose of utilization, configure the various settings.

STEP 5: Click “Save” button.

4.1.2.20 Ringing Tone

User can change the ringing tone settings on DT830 terminal.

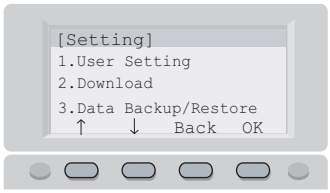
[1] Configuration Settings on Terminal

STEP 1: Go to [Menu] main menu. Select “4. Setting.”

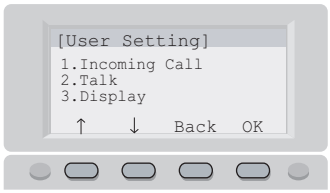


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

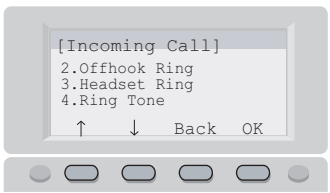
STEP 2: On [Setting] menu, select “1. User Setting.”



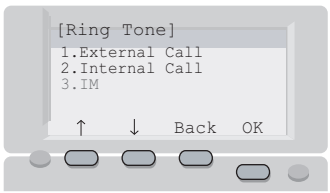
STEP 3: On [User Setting] menu, select “1. Incoming Call.”



STEP 4: On [Incoming Call] menu, select “4. Ring Tone.”



STEP 5: LCD displays the [Ring Tone] menu. Select “2. Internal Call.”



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See the following table for details on Ring Tone settings.

Ring Tone Settings

Value	Display Name	1st Frequency [Hz]	2nd Frequency [Hz]	Tone Kind
0	Automatic **Note 34**	520	660	16 Hz modulation
1	Tone Type 1			16 Hz modulation
2	Tone Type 2			8 Hz modulation
3	Tone Type 3	1400	1100	Door Phone
4	Tone Type 4	1100		No modulation
5	Tone Type 5	540		No modulation
6	Tone Type 6	1100	1400	16 Hz modulation
7	Tone Type 7	660	760	16 Hz modulation
8	Tone Type 8	1100		Envelope
9	Tone Type 9	-		Door Phone Melody
10	Tone Type 10	-		Melody 1
11	Tone Type 11	-		Melody 2
12	Tone Type 12	-		Melody 3
13	Tone Type 13	-		Melody 4
14	Tone Type 14	-		Melody 5
15	Download 1	-		
16	Download 2	-		
17	Download 3	-		

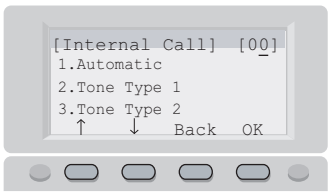
Note 34: Default is Tone Type 1 when directions from the Telephony Server do not exist.

Note: Ringing Tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone take priority over the settings in this section. The priority order is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Settings” - 2.Ringing Tone
- 3rd Priority: Ringing tone settings by “5. Settings” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone (setting in this section)

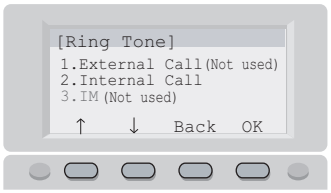
A

STEP 6: LCD displays [Internal Call] menu. The LCD will display the following.



Step 1. Currently selected Ring Tone will ring.
Step 2. Currently selected Ring Tone Value will flash.
Step 3. Use number buttons to assign a Ring Tone (value is between 1–17).
Step 4. Newly assigned Ring Tone will ring.
Step 5. Press the software key for “OK” when all settings are complete.

STEP 7: LCD returns to the [Ring Tone] menu. Pressing the software key for "Back" will return to the upper menu.



END

4.1.2.21 RTP Alarm

User can disable or enable RTP Alarm on DT830 terminal.

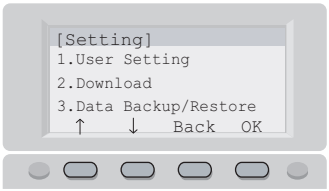
[1] Configuration Setting on Terminal

STEP 1: Go to [Menu] main menu. Select “4. Setting.”

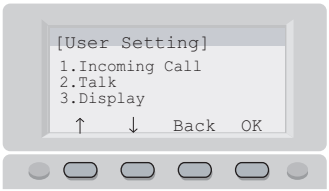


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

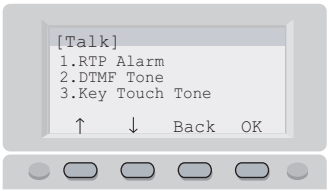
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



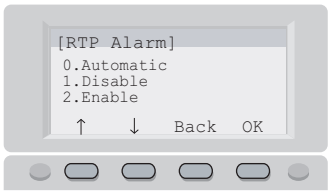
STEP 4: On [Talk] menu, select “1. RTP Alarm.”



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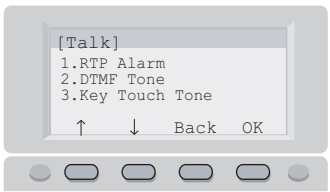
A

STEP 5: LCD displays the [RTP Alarm] menu. Select one from Automatic, Disable or Enable using digit keys.
"0. Automatic" will be flashing before any selection is made, since "0" is assigned by default.
Press the software key for "OK" when done.



LCD Display	Assignment Conditions
0. Automatic	- Follows the settings assigned to system. - Settings assigned to system has priority. - RTP Alarm is Enabled only when settings assigned by system do not exist.
1. Disable	- Does not follow the setting assigned by system. - Settings assigned to terminal has priority. - RTP Alarm is Disabled.
2. Enable	- Does not follow the settings assigned by system. - Settings assigned to terminal has priority. - RTP Alarm is Enabled.

STEP 6: LCD returns to [Talk] menu. Pressing the software key for "Back" will return to uppder menu.



END

4.1.2.22 DTMF Tone

User can disable or enable DTMF Tone on DT830 terminal.

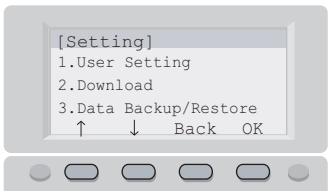
[1] Configuration Settings on Terminal

STEP 1: Go to [Menu] main menu. Select “4. Setting.”

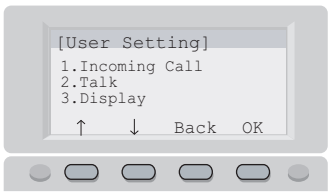


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

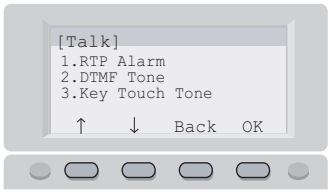
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



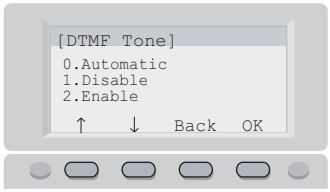
STEP 4: On [Talk] menu, select “2. DTMF Tone.”



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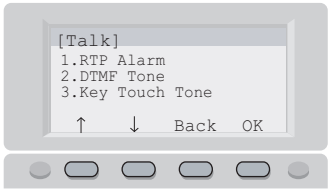
A

STEP 5: LCD displays the [DTMF Tone] menu. Select either Automatic, Disable or Enable using digit keys.
"0. Automatic" will be flashing before any selection is made, since "0" is assigned by default.
Press the software key for "OK" when done.



LCD Display	Assignment Conditions
0. Automatic	- Follows the settings assigned to system. - Settings assigned to system has priority. - DTMF Tone is Enabled only when settings assigned by system do not exist.
1. Disable	- Does not follow the setting assigned by system. - Settings assigned to terminal has priority. - DTMF Tone is Disabled.
2. Enable	- Does not follow the settings assigned by system. - Settings assigned to terminal has priority. - DTMF Tone is Enabled.

STEP 6: LCD returns to [Talk] menu. Pressing the software key for "Back" will return to the upper menu.



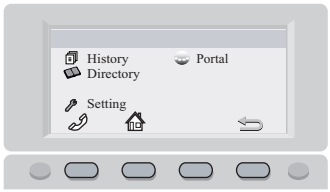
END

4.1.2.23 Hold Music

You can select the default hold music (minuet) or downloaded hold music that are heard from the terminal when held by the calling party while talking.

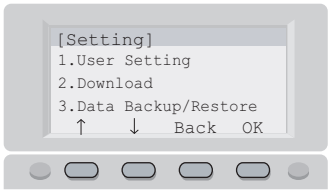
Note: To use a downloaded hold music, it needs to be downloaded in advance. For how to download the hold music, refer to 4.1.2.26 File Downloading.

STEP 1: Go to [Menu] main menu. Select “4. Setting.”

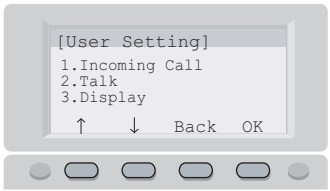


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

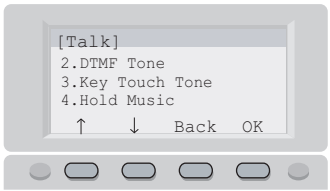
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



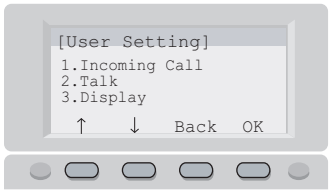
STEP 4: On [Talk] menu, select “4.Hold Music.”



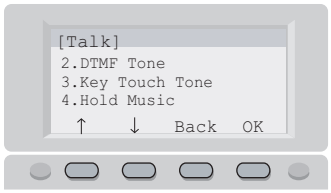
A

A

STEP 5: On [Hold Music] menu, select either "1. Default (Minuet)" or "2. Download" by digit key, and then press the software key for "OK."



STEP 6: The LCD displays "Talk" menu. Presings the software key for "Back" will return to "User Setting" menu.



END

4.1.2.24 Language

By changing the language on the configuration menu of the terminal, time display and the setting menu on the terminal can be displayed by the language of each country. The following describes the languages supported by the terminal, and the procedure to set them.

LCD	Description
0.Automatic Note 35	Telephony Server side's language setting is applied.
1.日本語	Japanese
2.NEC English	NEC English
3.NEC Português	NEC Portuguese
4.NEC Español	NEC Spanish
5.NEC Français	NEC French
6.Deutsch	German
7.ITALIANO	Italian
8.Nederlands	Dutch
9.Norsk	Norwegian
10.Dansk	Danish
11.Svensk	Swedish
12.Ελληνικά	Greek
13.English	English
14.Português	Portuguese
15.Español	Spanish
16.Français	French
17.Русский	Russian
18.Türk	Turkish
19.Român	Romania
20. Polski	Polish
21. Català	Catalan
22.한국어	Korean
23.中文(簡体字) Note 36	Simplified Chinese
24.中文(繁体字) Note 36	Traditional Chinese

Note: If "Language Pack" files are not downloaded, the parameters of downloaded languages are not displayed.

Note 35: When you select [Setting] → [Display] → [Time Format] → [Automatic] from the configuration menu, the language of time display cannot be changed.

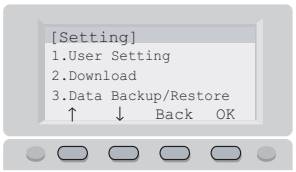
Note 36: This language is available since FP95-113 V3, and terminal firmware version 4.0.0.0 or later.

STEP 1: Go to [Menu] main menu. Select “4. Setting.”

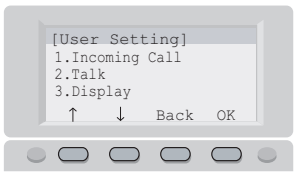


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

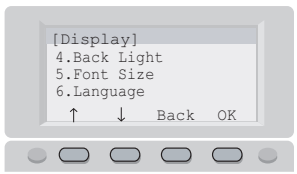
STEP 2: On [Setting] menu, select “1. User Setting.”



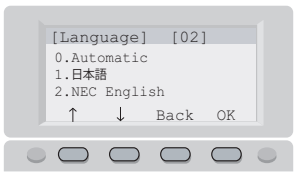
STEP 3: On [User Setting] menu, select “3. Display.”



STEP 4: On [Display] menu, select “6. Language.”

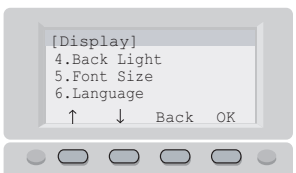


STEP 5: On [Language] menu, select the language by pressing the digit key, and then press the software key for "OK."



For example, to set "2. NEC English",
1) Enter "0" and "2."
2) Entering field displays "02."
3) "2. NEC English" line is focusted.
4) Press the software key for "OK."

STEP 6: The LCD displays "Display" menu. Presings the software key for "Back" will return to "User Setting" menu.



END

4.1.2.25 Password Change

In this section, the user can change the password for DT830 terminal's local data assignment and Admin Password for Administrator Menu login. **Note 37**, **Note 38**

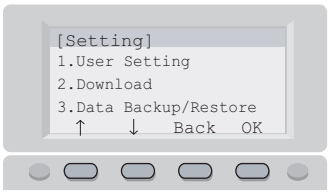
Note 37: The password for terminal authentication assigned in this section is also used for releasing Security mode.
- Password for terminal authentication
- Admin Password

Note 38: Cautions in changing the password are as follows.
- When the terminal user forgets the assigned Admin Password for Administrator Menu login or the password for terminal authentication to assign DT830 terminal's local data and to release Security mode, configure initialization by using IP phone manager. In this case, note that all the data including configuration settings and phonebook data on the terminal are cleared and get back to factory default. For IP phone manager, see the IP phone manager's operation manual.
- When the terminal user forgets the assigned Security password, the restriction can be released by administrator's menu [Config] → [3.Maintenance Settings Data] → [3.Data Clear] → [1.Factory Value]. Note that all the data including phonebook data on the terminal is cleared and gets back to factory default.
- For the firmware version 3.0.0.0 or later, the terminal user can set expiration date of the assigned password. For the method, refer to "(c) Password expiration date".

[1] Configuration Setting on Terminal

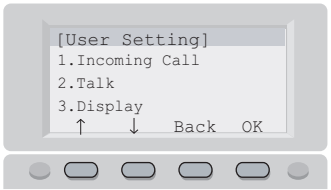
(a) Password for terminal authentication

STEP 1: Go to [Setting] menu. Select “1. User Setting.”

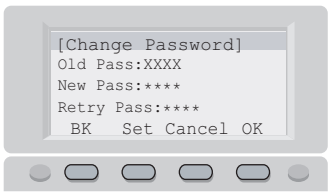


Note: For other operations, "↑" and "↓" of software key, cursor key.

STEP 2: On [User Setting] menu, select “4. Change Password.”



STEP 3: On [Change Password] menu, enter “Old Pass” and “New Pass.” Then, press the software key for OK.



Note: Default value: Password: 0000

*Be sure to change the default password.

A

A

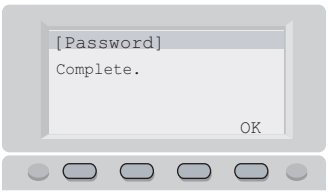
STEP 4: The LCD will display either of the following:

Error



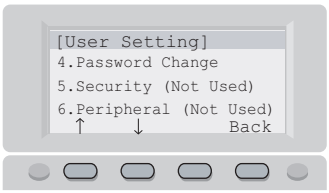
1. Press the software key for OK.
2. Return to Step 3.

Complete

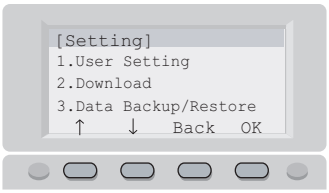


1. Press the software key for OK.
2. Proceed to Step 5.

STEP 5: The LCD returns to [User Setting] menu. Press the software key for “Back.”



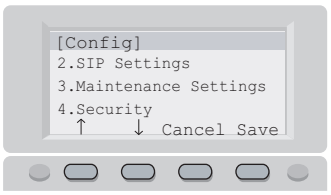
STEP 6: The LCD returns to [Setting] menu. Press the software key for “OK” to save settings.



END

(b) Admin Password

STEP 1: On [Config] menu, select “4. Security.”



Config Menu List

Up

Down

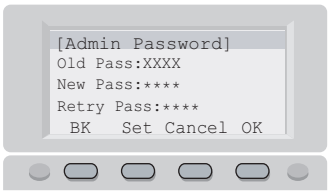
1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings
#. Special

Note: For other operations, "↑" and "↓" of software key, cursor key.

STEP 2: The LCD displays [Security] menu. Select “3. Admin Password.”



STEP 3: On [Admin Password] menu, enter “Old Pass” and “New Pass.” Then, press the software key for OK.



Note: Default value: Password: 6633222

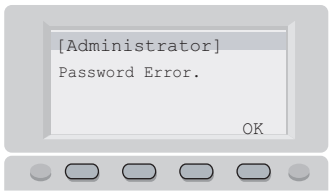
*Be sure to change the default password.

A

A

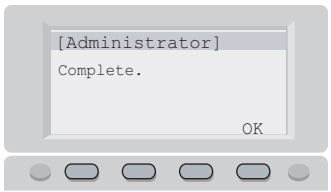
STEP 4: The LCD will display either of the following:

Error



1. Press the software key for OK.
2. Return to Step 3.

Complete

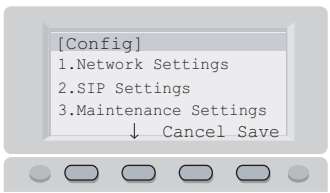


1. Press the software key for OK.
2. Proceed to Step 5.

STEP 5: The LCD returns to [Security] menu. Press the software key for “Exit.”



STEP 6: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.

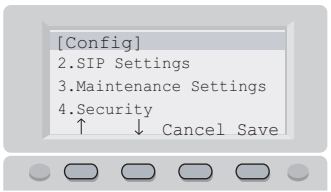


END

(c) Password expiration date

Note: Password expiration date settings is available for the firmware version FW3.0.0.0. or later.

STEP 1: On [Config] menu, select “4. Security.”



Config Menu List

Up

Down

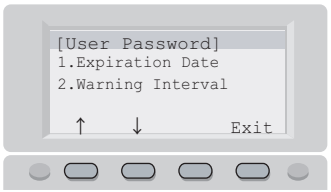
1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings
#. Special

Note: For other operations, "↑" and "↓" of software key, cursor key.

STEP 2: The LCD displays [Security] menu. Select “7. User Password.”



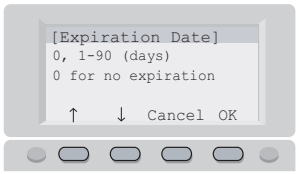
STEP 3: On [User Password] menu, select “1. Expiration Date”.



A

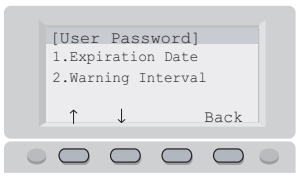
A

STEP 4: On [Expiration Date] menu, enter the expiration. Then, press the software key for OK.



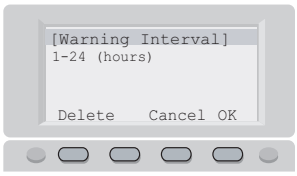
Note: 1 - 90 days are available for the expiration.
The password isn't expired by setting zero.

STEP 5: The LCD displays [User Password]. Select "2. Warning Interval."



Note: When no expiration is set for the user password, the terminal user need not set warning interval.

STEP 6: On [Warning Interval] menu, enter the warning interval. Then, press the software key for OK.



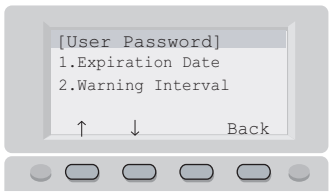


Note: When the password is expired, the warning shown in the figure is displayed while the terminal is in the idle state. Pressing the software key for OK deletes the warning and restores the time screen, but the warning is displayed repeatedly based on the assigned waring interval.

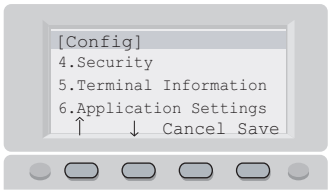
B

B

STEP 7: The LCD returns to [User Password] menu. Press the software key for “Back” to return to [Config] menu.



STEP 8: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

4.1.2.26 File Downloading

This section explains how to update program and how to download Music-on-Hold file on DT830 terminal using configuration menu. FTP/TFTP server is required for file downloading.

Download files in this feature are as follows:

- Download file

TYPE			DEFAULT FILE NAME	Description
Data for terminal user	Music-on-Hold file (**Note 39**)		MOH.wav	Melody file for Music-On-Hold.
	Ringing Tone file (**Note 39**)		Melody1.wav ~ Melody3.wav	Melody file for ringing.
	Phonebook file		Directory.csv	Terminal Phonebook file. **Note 41**
	Wall Paper file		WallPaper.bmp	Wall paper file. **Note 42**
Data for maintenance personnel	Configuration file		config.tgz	Terminal configuration settings file.
	Boot & Program file	DT830	itzisipv.tgz	Files are used for firmware update.
		DT830G (12/24DG)	itzisipvg.tgz	
		DT830G (12/24CG)	itzisipvc.tgz	
	Voice file		voice.tgz	Voice data file.
	Language Pack file (**Note 40**)		LangPack.tgz	Language pack file.
	Certificate (**Note 43**)	Client Certificate	clientcert.p12	Client certificate file.
		Root Certificate	rootcert.der	Root certificate file.

Note 39: File with the up to 32 seconds long replay can be downloaded.

Note 40: For more information about “Language Pack file”, see 4.1.2.27 Font Download Feature.

Note 41: To create the phonebook file, see 5.3 How to Create Terminal Phonebook File for DT800 Series/DT700 Series.

Note 42: Supported for DT830G (12/24CG) only.

Note 43: This feature is available for the terminal firmware version 5.0.0.0 or later.

<Before Downloading>

Before downloading the files on terminal, prepare the following:

- DT830 Series
- Device with FTP/TFTP server function (PC)
- HUB and LAN cable for connecting DT830 and FTP/TFTP server to network
- Download file

Note: After downloading, the parameters assigned on each configuration menu may return to factory default. Be sure to write down the assigned value before starting the downloading procedure.

Caution: *Observe the following while program downloading:*
- *Do Not Turn OFF the power of the DT830, the Telephony Server, and DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DT830, the Telephony Server, and DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT830, the Telephony Server, and DHCP.*

<Downloading Procedure>

Program downloading procedure is explained. Also program downloading specifying the file name is available.

[1] Configuration Settings on Terminal

STEP 1: Prepare download file on FTP/TFTP server.

- FTP server
  Place the files to be downloaded on the specified directory.
  ** "C:\InetPub\ftproot" is the default directory for Windows server.*
- TFTP server
  Place the files to be downloaded under the directory for download.

File type

→ (b) Configuration, Boot & Program, Voice, Translation file, Certificate file downloading ➡ **Go to STEP 21**

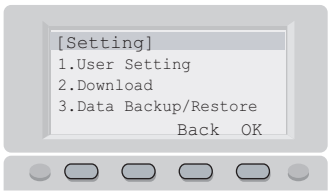
(a) Music on Hold, Ringing Tone, Phonebook and Wall Paper downloading

STEP 2: On the main menu [Menu] screen, select "4. Setting."

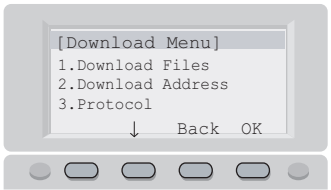


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

STEP 3: On [Setting] menu, select "2. Donwload."



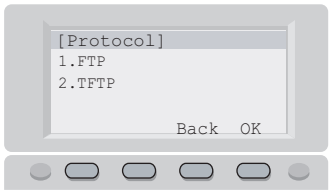
STEP 4: On [Download menu], select "3. Protocol."



A

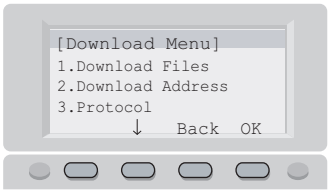
A

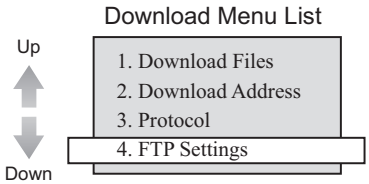
STEP 5: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP, and then press the software key for "OK."



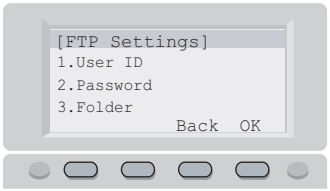
- When FTP is selected → **Go to STEP 6**
- When TFTP is selected → **Go to STEP 15**

STEP 6: The LCD displays [Download Menu]. Select "4. FTP Settings".

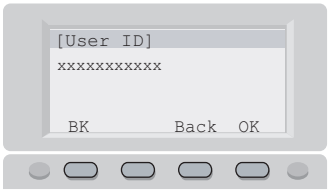




STEP 7: On [FTP Settings] menu, select "1. User ID".

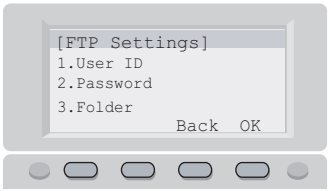


STEP 8: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."



Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

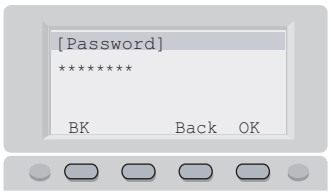
STEP 9: The LCD displays [FTP Settings] menu. Select "2. Password."



B

B

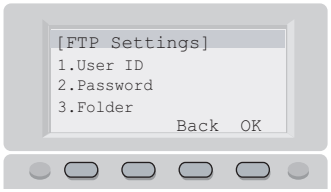
STEP 10: On [Password] screen, enter password by the digit keys, and then press the software key for "OK."



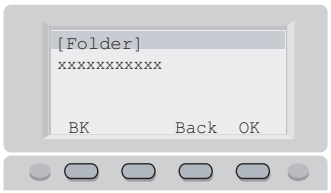
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Alphanumeric characters are available. "*" is displayed instead of the entered character.

STEP 11: The LCD displays [FTP Settings] menu. Select "3. Folder."



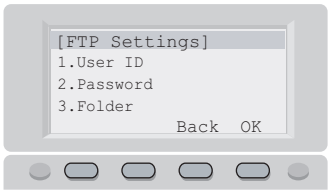
STEP 12: On [Folder] screen, enter the download file stored directory, and then press the software key for "OK."



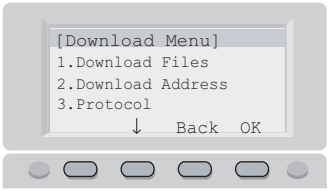
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Specify full-path directory; from the root directory to the target file on FTP server.

STEP 13: The LCD displays [FTP Settings] menu. Press the software key for "Back" to return to [Download Menu].



STEP 14: On [Download Menu], select "2. Download Address."



C

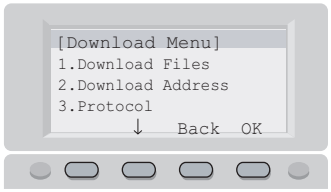
C

STEP 15: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.

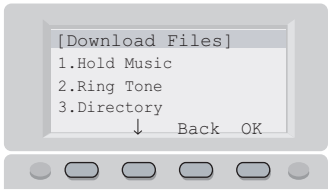


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 16: The LCD displays [Download Menu] screen. Select "1. Download Files."



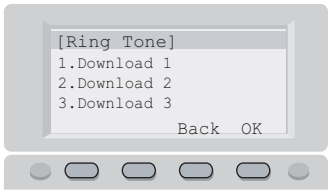
STEP 17: On [Download Files] menu, select the download file type and then press the software key for "OK."



- Music-on-Hold file, select "1. Hold Music" ➡ **Go to STEP 19**

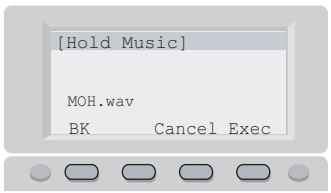
- Ringing Tone file, select "2. Ring Tone" ➡ **Go to STEP 18**

STEP 18: To download Ringing Tone file, [Ring Tone] menu is displayed. Select one of the menus by digit key, and then press the software key for "OK."



STEP 19: File name is displayed for each selected download file.

This is an example for selecting Music-on-Hold.



Default file names
- Music-on-Hold: MOH.wav
- Ringing Tone: Melody1.wav ~ Melody3.wav

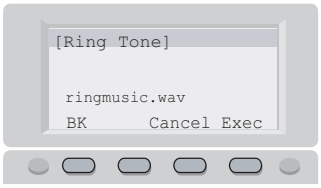
Change the download file name ➡ **Go to STEP 20**

Not change the download file name, chack the file name and press the software key for "Exec." ➡ **Go to STEP 41**

D

D

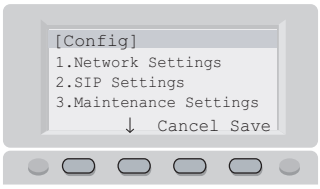
STEP 20: When you want to change the download file name, perform this step.



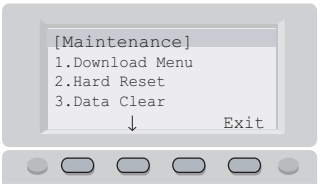
1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 41**

Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

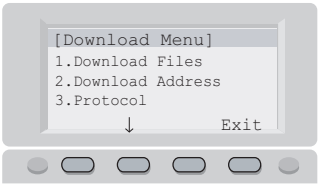
STEP 21: Following STEP 1 for (b) Configuration, Boot & Program, Voice, Language Pack, Certificate downloading on [Config] menu, select "3. Maintenance Settings."



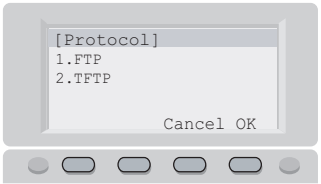
STEP 22: The LCD displays [Maintenance] menu. Select "1. Download Menu."



STEP 23: On [Download menu], select "3. Protocol."



STEP 24: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP", and then press the software key for "OK."

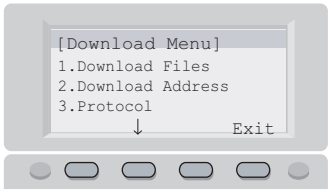


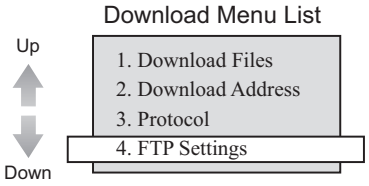
- When FTP is selected ➡ **Go to STEP 25**
- When TFTP is selected ➡ **Go to STEP 33**

E

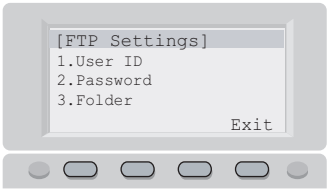
E

STEP 25: The LCD displays [Download Menu]. Select "4. FTP Settings".

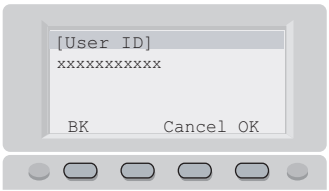




STEP 26: On [FTP Settings] menu, select "1. User ID".

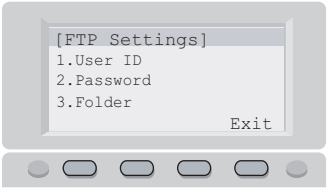


STEP 27: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."

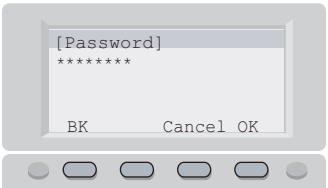


Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

STEP 28: The LCD displays [FTP Settings] menu. Select "2. Password."



STEP 29: On [Password] screen, enter password by the digit keys, and then press the software key for "OK."



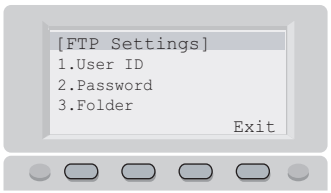
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Alphanumeric characters are available. "*" is displayed instead of the entered character.

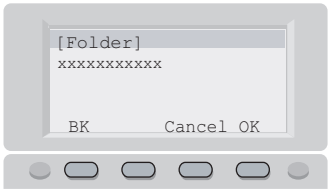
F

F

STEP 30: The LCD displays [FTP Settings] menu. Select "3. Folder."



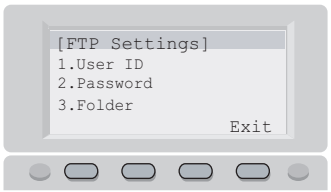
STEP 31: On [Folder] screen, enter the download file stored directory, and then press the software key for "OK."



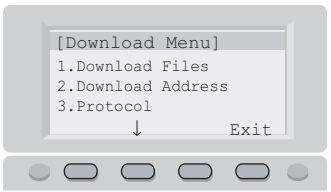
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Specify full-path directory; from the root directory to the target file on FTP server.

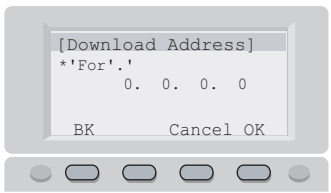
STEP 32: The LCD displays [FTP Settings] menu. Press the software key for "Exit" to return to [Download Menu].



STEP 33: On [Download Menu], select "2. Download Address."



STEP 34: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.

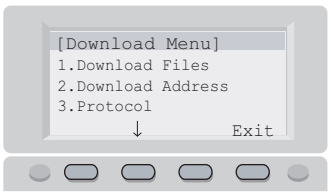


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

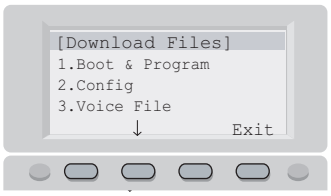
G

G

STEP 35: The LCD displays [Download Menu] screen. Select "1. Download Files."



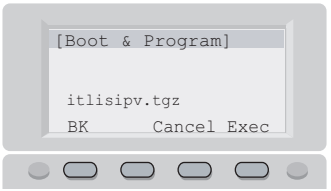
STEP 36: On [Download Files] menu, select the download file type and then press the software key for "OK."



- Boot & Program file, select "Boot & Program"
- Configuration file, select "Config"
- Voice file, select "Voice File"
- Translation data file, select "Language Pack"
- Certificate data file, select "Certificate"

STEP 37: File name is displayed for each selected download file.

This is an example for selecting Boot & Program file.

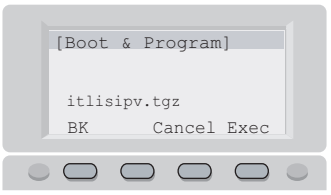


Change the download file name ➡ **Go to STEP 38**

Not change the download file name, chack the file name and press the software key for "Exec." ➡ **Go to STEP 39**

Note: See Download file on page 220 for the default file name of each type.

STEP 38: When you want to change the download file name, perform this step.



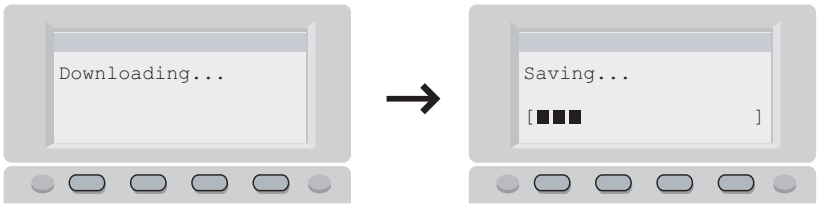
1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 39**

Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

H

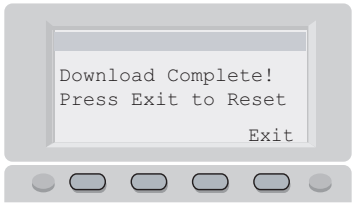
H

STEP 39: The terminal starts downloading. "Downloading..." flashes on the LCD.

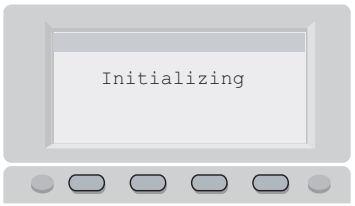


Note: Do not power off the terminal during the LCD displaying "Saving...". It may cause trouble in DT830 starting up.

STEP 40: The LCD displays the message below. Press the software key for "Exit" to restart the terminal.



STEP 41: DT830 restarts reading out the downloaded program.



END

Note: In the case of download failure, the LCD displays the message below.



The following table lists the points to be checked. Try downloading again.

CAUSE	COUNTERMEASURES
Target download file is not put in the directory specified by FTP/TFTP server.	*Place the download file on the directory where FTP/TFTP server specifies.*
File name differs between the file on the FTP/TFTP server and the file you try to download.	*Assign the same file name on the server and on the terminal.*
The IP address of FTP/TFTP server assigned on the configuration settings is wrong.	*Enter correct IP address of FTP/TFTP server.*
FTP/TFTP server or the network device (e.g. HUB) between the server and the terminal is not turned on.	*Turn the power on for the devices.*
LAN cable disconnection.	*Connect LAN cable to the terminal and FTP/TFTP server.*
Certificates are full	*Delete a certificate file which is not used.*
File format is not right!	*Confirm the expiration date and the format of certificate.*

When the LCD responses “Download Failed” message again even after some retry, the memory of the terminal may be damaged. Contact a maintenance personnel.

[2] Configuration Settings by Web Programming

STEP 1:Prepare download file on FTP/TFTP server. (See STEP 1 in [1] Configuration Settings on Terminal.)

STEP 2: Select [Maintenance] → [Download Menu] → [Download Files].

[Config] for Configuration file download
[Boot & Program] for Boot & Program file download
[Voice File] for voice file download
[Language Pack] for translation data file download
[Certificate] for certificate data file download

Note: For Web Programming, Music-on-Hold and Ringing-Tone and Wallpaper file can be downloaded only when logging in as the User Name "USER". Refer to [1] Configuration Settings on Terminal for these types of file downloading.

STEP 3: Enter the parameters below and then click the "OK" button. The terminal starts downloading.

[Protocol] : Select the protocol of the file server storing download file.
[Download Address] : Enter the IP address of FTP/TFTP server.
[folder] : Enter the folder name on which download file is stored.
[File name] : Enter target download file name. **Note 44**
[User ID] : Enter User ID.
[Password] : Enter password.

Note 44: See Download file on page 220 for the default file name of each type.

Note: The LCD displays the messages below:

STATE	*LCD*
While download is in progress	*Downloading...*
Succeeded in downloading	*Download Complete!* *Press Exit to Reset.*
Failed in downloading	*Download Failed!*

4.1.2.27 Font Download Feature

This feature enables a terminal to support various languages using fonts which are not included in the standard firmware. When using this feature, download the font data file called "Language Pack" from configuration menu or Web Programming.

<Service Conditions>

(1) After "Language Pack" is downloaded, the language is set as "Automatic". Therefore, from [Menu], select [4. Settings] → [1. User Setting] → [3. Display] → [6. Language] to display the language you want to use.

(2) When you download "Language Pack" newly, the previous data of "Language Pack" will be deleted.

(3) The download font is surely displayed in left-aligned.

(4) When language is set as the downloaded language, the text you can enter is English only.

<Before Downloading>

Before downloading the font data file, prepare the following:

- DT830
- Device with FTP/TFTP server function (PC)
- HUB and LAN cable for connecting DT830 and FTP/TFTP server to network
- Download file

TYPE	DEFAULT FILE NAME
Language Pack file	LangPack.tgz

Note: After downloading, the parameters assigned on each configuration menu may return to factory default. Be sure to write down the assigned value before starting downloading procedure.

Caution: *Observe the following while program downloading:*
• Do Not Turn OFF the power of the DT830, the Telephony Server, DHCP server.
• Do Not Unplug or Plug the LAN cable connecting to the DT830, the Telephony Server, DHCP.
• Do Not Turn OFF the power of the HUB connecting to the DT830, Telephony Server, DHCP.

<Downloading Procedure>

Following shows the procedure of program download. Also program download by specifying a file name is available.

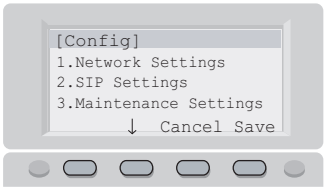
[1] Configuration Settings on Terminal

STEP 1: Prepare download file on FTP/TFTP server.

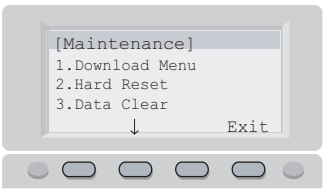
File type

- FTP server
  Place the files to be downloaded on the specified directory.
  ** "C:\InetPub\ftproot" is the default directory for Windows server.*
- TFTP server
  Place the files to be downloaded under the directory for download.

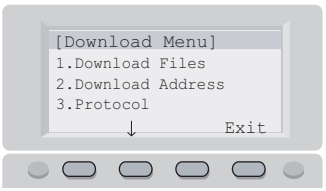
STEP 2: On [Config] menu, select "3. Maintenance."



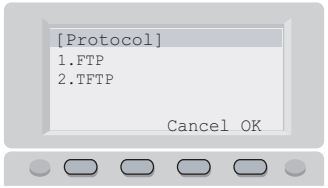
STEP 3: The LCD displays [Maintenance] menu. Select "1. Download Menu."



STEP 4: On [Download menu], select "3. Protocol."



STEP 5: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP", and then press the software key for "OK."

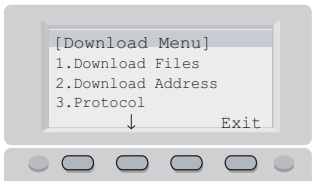


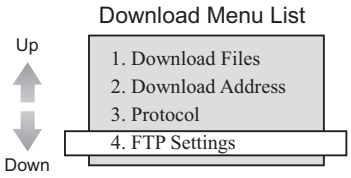
- When FTP is selected ➡ **Go to STEP 6**
- When TFTP is selected ➡ **Go to STEP 14**

A

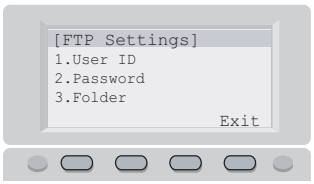
A

STEP 6: The LCD displays [Download Menu]. Select "4. FTP Settings".

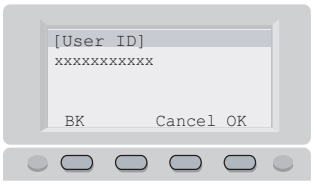




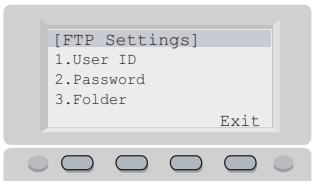
STEP 7: On [FTP Settings] menu, select "1. User ID".



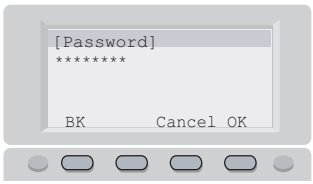
STEP 8: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."



STEP 9: The LCD displays [FTP Settings] menu. Select "2. Password."



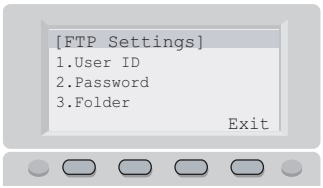
STEP 10: On [Password] screen, enter your password using the digit keys, and then press the software key for "OK."



B

B

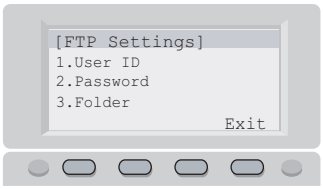
STEP 11: The LCD displays [FTP Settings] menu. Select "3. Folder."



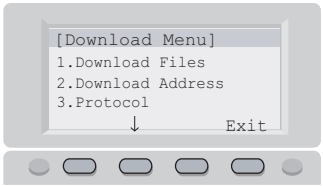
STEP 12: On [Folder] screen, enter the download file stored in the directory, and then press the software key for "OK."



STEP 13: The LCD displays [FTP Settings] menu. Press the software key for "Exit" to return to [Download Menu].



STEP 14: On [Download Menu], select "2. Download Address."



STEP 15: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.

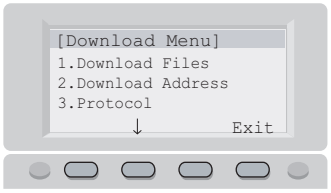


Use "*" to separate each byte.
Press the software key for "OK" when all settings are completed.

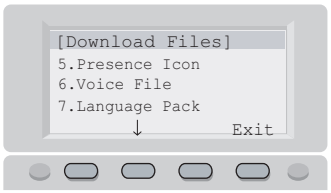
C

C

STEP 16: The LCD displays [Download Menu] screen. Select "1. Download Files."

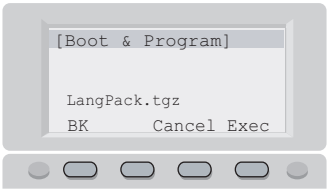


STEP 17: On [Download Files] menu, select "7. Language Pack" and then press the software key for "OK."



STEP 18: File name is displayed for each selected download file.

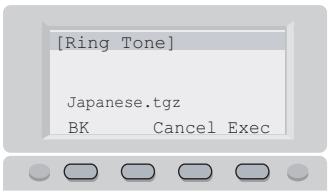
This is an example for selecting Boot & Program file.



Change the download file name ➡ **Go to STEP 19**

Not change the download file name, check the file name and press the software key for "Exec." ➡ **Go to STEP 20**

STEP 19: When you want to change the download file name, perform this step.

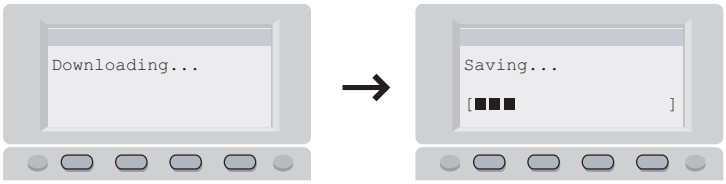


1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 20**

D

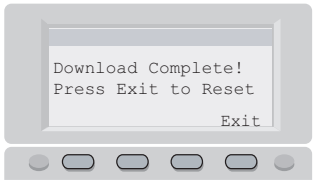
D

STEP 20: The terminal starts downloading. "Downloading..." flashes on the LCD.

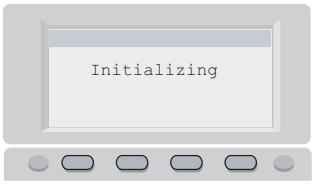


Note: Do not power off the terminal while the LCD is displaying "Saving...". It may cause trouble in DT830 starting up.

STEP 21: The LCD displays the message below. Press the software key for "Exit" to restart the terminal.



STEP 22: DT830 restarts reading out the downloaded program.



END

Note: The following table lists the points to be checked. Try downloading again.

CAUSE	COUNTERMEASURES
Target download file is not put in the directory specified by FTP/TFTP server.	*Place the download file on the directory where FTP/TFTP server specifies.*
File name differs between the file on the FTP/TFTP server and the file you try to download.	*Assign the same file name on the server and on the terminal.*
The IP address of FTP/TFTP server assigned on the configuration settings is wrong.	*Enter correct IP address of FTP/TFTP server.*
FTP/TFTP server or the network device (e.g. HUB) between the server and the terminal is not turned on.	*Turn the power on for the devices.*
LAN cable disconnection.	*Connect LAN cable to the terminal and FTP/TFTP server.*

When the LCD returns “Download Failed” messages even after some retry, the memory of the terminal may be damaged. Contact a maintenance personnel.

[2] Configuration Settings by Web Programming

STEP 1: Prepare download file on FTP/TFTP server. (See STEP 1 in [1] Configuration Settings on Terminal.)

STEP 2: Select [Maintenance] → [Download Menu] → [Download Files] → [Language Pack].

STEP 3: Enter the parameters below and then click the "OK" button. The terminal starts downloading.

[Protocol]	: Select the protocol of the file server storing download file.
[Download Address]	: Enter the IP address of FTP/TFTP server.
[folder]	: Enter the folder name on which download file is stored.
[File name]	: Enter target download file name. **Note 45**
[User ID]	: Enter User ID.
[Password]	: Enter password.

Note 45: See Download file on page 233 for the default file name of each type.

Note: The LCD displays the messages below:

STATE	*LCD*
While download is in progress	*Downloading...*
Succeeded in downloading	*Download Complete!* *Press Exit to Reset.*
Failed in downloading	*Download Failed!*

4.1.3 Configuration Menu List

4.1.3.1 DT830G Series Configuration Menu List (FW 5.0.0.0 or Later)

This section lists the configuration menu used for DT830G configuration settings. DT830G (12/24CG), and DT830G (12/24DG) columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The Config menu is not displayed on the menu window. To open the Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0. Config] - [6.Application Settings] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Missed **Note 1**	Lists the history of missed calls.	-	X	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X	X
4. Delete All	Deletes the call history completely.	-	X	X

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data settings.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Call	Originates a call to the number displayed on the history.	-	X	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X	X

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. New	Registers new number.	-	X	X
Category Set	Selects the group the new number registered to.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Sets the priority order of dialing number for call origination.	Disable	X	X
1. Disable				
2. Enable				
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag settings.)	-	X	X
2. Addition	Adds numbers to searched data.	-	X	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X	X
4. Delete One	Deletes one history displayed on the LCD.	-	X	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X	X

Note 2: This menu has the same function with “2. Directory” → “2. Edit.”

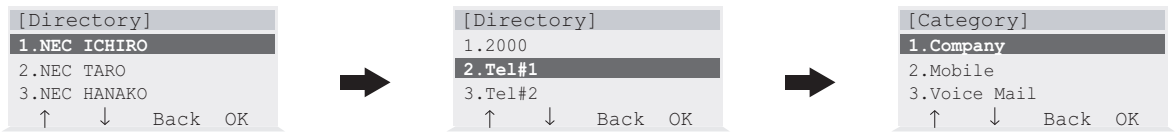
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1:This Directory Search menu has the same function with “2. Directory” → “1. Personal” → “1. Search.” On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2:Select the target data on the list, and then press the software key for “OK” to move on to LCD-2.

STEP 3:In the example below, from “2.Tel #2” to down on the list are vacant and new numbers can be added to. Select “2.Tel #2” and press the software key for “OK” to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu “2. Directory Add” → “1. New” for the subsequent procedure.

Note: This is an example for DT830G (Standard LCD).

2. Directory

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Personal	Displays Terminal Phonebook Note 7	-	X	X
1. Search	Searches Phonebook.	-	X	X
1. Group	Searches by specifying group.	-	X	X
1. Default	Searches through “Default” group.	-	X	X
2. Colleagues	Searches through “Colleagues” group.	-	X	X
3. VIPs	Searches through “VIPs” group.	-	X	X
4. Family	Searches through “Family” group.	-	X	X
5. Friends	Searches through “Friends” group.	-	X	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X	X
2. Name	Searches by entering a target name.	-	X	X
3. Tel Number	Searches by entering numbers.	-	X	X
4. Others	Searches by other search key.	-	X	X
1. Memory ID	Searches by entering Memory ID.	-	X	X
2. Category	Searches by selecting Category.	-	X	X
1. Company	Searches through “Company” category.	-	X	X
2. Mobile	Searches through “Mobile” category.	-	X	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X	X
4. Home	Searches through “Home” category.	-	X	X
5. Etc	Searches through “Etc” category.	-	X	X
3. Company	Searches by entering a company name.	-	X	X
4. Alphabet	Searches by alphabet order.	-	X	X
1. ABC	Searches by the name starting with A ~ Z.	-	X	X
2. DEF				
3. GHI				
4. JKL				
5. MNO				
6. PQRS				
7. TUV				
8. WXYZ				
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).			
#. All	Searches all.			
2. Edit	Edits the data in Terminal Phonebook.	-	X	X
1. Name	Registers name.	-	X	X
2. Group	Allocates group.	Default	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				

2. Directory (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable	X	X
1. Disable				
2. Enable				
7. Company Name	Registers company name.	-	X	X
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*			
2. Default	Applies default Ringing Tone on terminal.			
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.			
17. Download 1 ~ 19. Download 3				
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*			
2. Default	Applies default illumination for announcing call termination.			
3. Disable	Illumination is OFF.			
4. Red	Specifies color of lamp indication for incoming call termination.			
5. Green				
6. Yellow				
7. Blue				
8. Light Blue				
9. Purple				
10. White				
11. Rotation				
0. Memory ID	Registers memory ID.	-	X	X

2. Directory (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Group Settings	Sets groups.	-	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
1. Name	Registers group name.	-	X	X
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)	X	X
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)	X	X
4. Own Number	Displays own number (login number).	-	X	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-	X	X

Note 4: The priority order of Ringing tone settings is as follows.
- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Settings” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal’s configuration menu regardless of SFI: 246/SFI: 247 data settings.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by “0. Config” - “6. Application Settings” - “1.XML Settings” - “3. Directory URL. When XML application is assigned to directory URL, “3. Corporate” is displayed on the “Directory” menu.

3. Service

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Service Note 9	Starts up XML browser and Instant Message tool.	-	X	X
1. Service 1	Starts up XML browser.	-	X	X
2. Service 2		-	X	X
3. Service 3		-	X	X
4. Service 4		-	X	X

Note 9: Unavailable (not configured) services appear dimmed on the menu.

4. Setting

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Ring Volume	Not used.	-	N	N
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
3. Headset Ring Note 10	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.			
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
3. IM	Not used.	-	N	N
5. Illumination **Note 11**	Sets lamp indication pattern for incoming call termination.	-	X	X
1. External Call **Note 14**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
6. Headset Ring Volume	Not used	-	N	N
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key/touch-sensitive panel.	Automatic **Note 15**	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. No Tone	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
5. Prefix	Sets prefix number.	-	X	X
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X	X

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Display	Sets display related data.	-	X	X
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 18**	X	X
1. Calendar Format	Specifies the calendar display format.			
0. Automatic	Sets Automatic for calendar display format.			
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.			
2. Type 2				
3. Type 3				
4. Type 4				
5. Type 5				
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 16**	X	X
0. Automatic	Sets Automatic for time display.			
1. 12 hour Indication	Sets 12-hour display.			
2. 24 hour Indication	Sets 24-hour display.			
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			
3. Screen Saver	Sets Screen Saver related data.	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X
1. Disable	Screen Saver is not used.			
2. Enable	Screen Saver is used.			
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X
4. Back Light	Switches ON/OFF the backlight on DT830G (12/24DG).	Enable **Note 12**	-	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			
4. Back Light	Turns up/down the backlight on DT830G (12/24CG).	Level 2	X	-
1. Level 1 (Bright) - 4. Level 4 (Dark)	Select the bright level of backlight.			
5. Font Size	Switches the font size on configuration menu.	Standard	X	X
1. Standard (28 dots (12/24CG)/16 dots (12/24DG))	Selects Standard or Small of font size.			
2. Small (24 dots (12/24CG)/12 dots (12/24DG))				

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Language	Selects the language on date and time display.	Automatic **Note 18**	X	X
0. Automatic	Sets Automatic for language setting on date and time display.			
1. Japanese	Selected language is displayed on the LCD. The parameters of language are displayed as native language. For the details, refer to "4.1.2.24 Language".			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				
22. Korean				
23. Simplified Chinese **Note 19**			-	
24. Traditional Chinese **Note 19**				
7. Advanced	Sets other data for display.	-	X	X
1. Wallpaper	Sets the Home screen background.	Default	X	-
1. Default	Sets the default screen background.			
2. Download	Sets the download data file.			
2. Shortcut Icon	Not used.	-	N	N
3. Font Color	Sets the font color for Time Display/Feature Information Display area. * You can check the color while selecting.	Color 2	X	-
1~16. Color 1 ~ Color 16	Sets Font Color 1 ~ Font Color 16.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4.Turn Off Display	Sets the data when turning off the backlight of the display automatically.	-	X	-
1.Turn Off Display Mode	Sets whether Turn Off Display Mode is in service.	App Priority		
1.Disable	Disables Turn Off Display Mode.			
2.Enable	Enables Turn Off Display Mode.			
3.App Priority	Sets to depend on an application.			
2.Wait Time	Sets the time until turning off the display (1-999 min.).	180		
5.Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable	X	X
1.Disable	Disables Backlight Fade Control.			
2.Enable	Enables Backlight Fade Control.			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
5. Security	Not used.	-	N	N
6. Peripherals	Setting for using peripheral equipment of terminal.	-	X	X
1. USB Memory	Setting for safely removing USB memory from the terminal.			
1. Remove				
2. BCA Option	Setting for the configuration of BCA (Bluetooth Connection Adapter).	-		
1. BCA Connection Settings	Setting for the Bluetooth connection.	-		
1. Auto Connection	Sets whether Auto Connection is in service.	Enable		
1. Disable	Disables Auto Connection.			
2. Enable	Enables Auto Connection.			
2.Connection Cycle	Selects connection cycle of Auto Connection.	10 Seconds		
1. 3 Seconds	Connection cycle is 3 seconds.			
2. 10 Seconds	Connection cycle is 10 seconds.			
3. 1 Minutes	Connection cycle is 1 minute.			
4. 10 Minutes	Connection cycle is 10 minute.			
2. Interrupt Ringing	Sets whether Interrupt Ringing is in service.	Enable		
1. Disable	Disables Interrupt Ringing.			
2. Enable	Enables Interrupt Ringing.			
3. Smart Device Type	Sets the type of Smart Device.	Type 1		
1. Type 1	Sets the Smart Device type as Type 1.			
2. Type 2	Sets the Smart Device type as Type 2.			
4. Auto Path Switch	Sets whether Auto Path Switch is in service.	Enable		
1. Disable	Disables Auto Path Switch.			
2. Enable	Enables Auto Path Switch.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
5. Illumination	Sets lamp indication pattern for incoming call termination.	Blue	X	X
1. Disable	Specifies the color of lamp indication for incoming call termination.			
2. Red				
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
7. Usability	Set the operation of Help key while pop-up window is displayed.	-	X	X
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu	X	X
1.SubMenu	Set the Help key which displays sub menu		X	X
2.Popup Window	Set the Help key which displays pop-up window		X	X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, Phonebook, and Wallpaper.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	X
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X	X
4. Wallpaper	Downloads a file used for wallpaper.	WallPaper.bmp	X	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server’s direction discarding the terminal’s setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

Note 19: This language can be selected for FP95-113 V3 or later.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Network Settings	Sets network related data.	-	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X
1. Disable	DHCP is not used.			
2. Enable	DHCP is used.			
2. IP Address	Sets DT830G terminal’s IP address.	0.0.0.0	X	X
3. Default Gateway	Sets default router’s IP address.	0.0.0.0	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X
1. Disable	VLAN is not used.			
2. Enable	VLAN is used.			
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X
5. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2. PC Port Settings	Sets PC port.	-	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X
1. Disable	Port VLAN of PC port is not used.			
2. Enable	Port VLAN of PC port is used.			
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X
0. Automatic	Sets Automatic for PC port.			
1. Disable	PC port is not used.			
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X
1. Disable	Not forward EAPOL packet from PC port.			
2. Enable	Forwards EAPOL packet from PC port.			
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X
1. Disable	Not clear the authentication status.			
2. Enable	Clear the authentication status.			
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X
3. CDP Mode (Not used)	-	Disable	N	N
4. Type of Service	Sets ToS value.	-	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0		
2. SIP	Sets ToS value for SIP in Hex.	C0		
5.Self Port Settings	Sets each port for DT830G.	-	-	-
1.RTP Self Port	Sets RTP port for DT830G [1024-65520 (except 59986-60000)]. **Note 28**, **Note 29**	3462	X	X
2.SIP Self Port	Sets SIP port for DT830G [1024-65534]. **Note 29**	5060	X	X
6.LLDP Settings	Sets information related to LLDP.	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X
1. Disable	DT830G does not transmit/receive LLDP packets.			
2. Enable	DT830G transmits/receives LLDP packets.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X
1. Disable	DT830G does not perform data setting automatically when LLDP packets are received.			
2. Enable	DT830G performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830G receives LLDP packets (1-60 seconds).	15	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X
5.Hold Multiplier	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830G starts up (1-10 times).	3	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.			
2. Enable	Transparent Mode of LLDP packets is enabled.			
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- Note 27	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X
1. Disable	Both Spare and Backup IPs are disabled.			
2. Spare IP	Spare IP is enabled.			
3. Backup IP	Backup IP is enabled.			
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X
1. IP Address	Sets DT830G terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0		
2. Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0		
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0		
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0		
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X
8.TTL Settings	Setting for multicast TTL (Time To Live)	-	X	X
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	32	X	X
9.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable	X	X
1. Disable	Priority Queue is disabled.		X	X
2. Enable	Priority Queue is enabled.		X	X
2. SIP Settings	Sets SIP related data.	-	X	X
1. SIP User	Sets user data.	-	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X
2. Password	Sets password for digest authentication.	-	X	X
3. Extension Number	Not used.	-	N	N
4. Backup Logon	Not used.	-	N	N

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2. Server Address & URI	Sets IP address or URI of SIP server. **Note 20**, **Note 21**	-	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	0.0.0.0	X	X
2. 2nd Server Address				
3. 3rd Server Address				
4. 4th Server Address				
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th registrar server. **Note:** Do not set this parameter except when using Firewall NAT accommodating special SIP-NAT.	0.0.0.0	X	X
2. 2nd Register Address				
3. 3rd Register Address				
4. 4th Register Address				
3. Access Mode	Sets access mode for SIP server.	Normal	X	X
1. Normal	Normal access			
2. Remote	Remote access			
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.			
2. 2nd Server Port				
3. 3rd Server Port				
4. 4th Server Port				
5. Registrar Destination	Sets port for registrar server [1024-65535].			
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.			
2. 2nd Register Port				
3. 3rd Register Port				
4. 4th Register Port				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
5. Area ID	Sets the area (country) using DT830G.	Automatic	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.			
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.			
2. America (Canada and North America)				
3. Australia				
4. Others				
5. Hong Kong				
6. Malaysia				
7. Singapore				
8. Mexico				
9. Taiwan				
10. New Zealand				
11. Korea				
12. Brazil				
13. China				
14. Thailand				
15. Thailand (EGAT)				
16. Sri Lanka				
17. Germany				
18. Italy				
19. Netherlands				
20. Catalonia (Not used)				
21. Denmark				
22. Sweden				
23. Poland				
24. Czech				
25. Norway				
26. France				
27. Portugal				
28. Spain				
29. Austria				
30. Belgium				
31. UK				
32. Greece				
33. Switzerland				
34. South Africa				
35. Brazil (EMEA)				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).			
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).			
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X
1. Disable	Calls in progress are not held even when DT830G terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are held even when DT830G terminal detects communication failure with the Telephony Server.			
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disable	-	-
1. Disable	Howler tone sending is OFF.			
2. Enable	Howler tone sending is ON.			
4. Random Wait Time	Sets random wait time of when the connection between Telephony Server and terminal starts (5-3600 seconds).	5	X	X
5. Connect Wait Time	Sets the time to wait until the connection between Telephony Server and terminal is complete (30-300 seconds).	30	X	X
7. Encryption	Sets encryption data.	Disable	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X
1. Disable	Authentication is not used.			
2. Enable	Authentication is used.			
2. One Time Password	Sets One Time Password.	-	X	X
3. Authentication Status	Displays authentication status.	-	X	X
8. NAT Traversal **Note 24**	Not used.	-	N	N
1.NAT Traverse Mode	Not used.	Disable	N	N
1.Disable				
2.Dynamic				
3.Static				
2.Network Area Name	Not used.	-	N	N
3.WAN Settings	Not used.	-	N	N
1.WAN Mate IP Address				
2.WAN SIP Mate Port				
3.WAN Self IP Address				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Maintenance Settings	Sets maintenance related data.	-	X	X
1. Download Menu	Downloads specified file to DT830G.	-	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X
1. Boot & Program	Downloads boot and program.	12/24CG: itzisipvc.tgz 12/24DG: itzisipvg.tgz	X	X
2. Config	Downloads configuration file.	config.tgz	X	X
3. Voice File	Downloads voice file.	voice.tgz	X	X
4. Language Pack	Downloads translation data file.	LangPack.tgz	X	X
5. Certificate	Downloads certificate files.	-	X	X
1. Client Certificate	Downloads client certificate file.	clientcert.p12		
2. Root Certificate	Downloads root certificate file.	rootcert.der		
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
2. Hard Reset	Resets DT830G without data saving.	-	X	X
3. Data Clear	Initializes DT830G selecting the initialization mode.	-	X	X
1. Factory Value	Initializes DT830G to factory default.	-	X	X
2. Terminal Data	Clears terminal data on DT830G.	-	X	X
3. Personal Data	Clears personal data on DT830G.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X
1. Default Audio	Sets audio data.	-	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7]. *The setting of system data (ASYDL, SYS1, Index 1256, bit 4-7) has priority over this setting. Therefore, this setting is invalid.	4	X	X
2. Send Gain	Sets sending gain of handset/headset [0-31]. *The setting of system data (ASYD, SYS3, Index 13) has priority over this setting. Therefore, this setting is invalid.	24	X	X
3. Receive Bias	Sets receiving bias of handset/headset [0-7].	0	X	X
4. Receive Gain	Sets receiving gain of handset/headset [0-31]. *The setting of system data (ASYD, SYS3, Index 14) has priority over this setting. Therefore, this setting is invalid.	22	X	X
5. Talk Characteristics	Sets talk characteristics of handset.	-	X	X
1. Noise Suppression	Sets whether to enable the Noise Suppressor. (Set "1.Disable" in normal operation.)	Disable	X	X
1.Disable	Disables the Noise Suppressor.			
2.Enable	Enables the Noise Suppressor.			
2. Handsfree Mode	Sets a send gain mode of handsfree call.	Retro Mode	X	X
1. Retro Mode	Sets to Retro mode.			
2. New Mode	Sets to New mode.			
6. DTMF Send Level	Specfies the DTMF Send Level [0-48] (level 0 (maximum) ~ level 48 (minimum))	32	X	X
2. KeyKit Type	Sets additional button kit data.	-	X	X
1 ~ 2. Kit 1 ~ 2	Key 1 ~ 2 on button kit are used.	Kit 1	X	X
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-	X	X
1. Line 12	Sets to 12-line of DT830G.		X	X
2. Line 24	Sets to 24-line of DT830G.		X	X
3. Line 32	Not used.		N	N
4. Line 8			N	N
5. Line 6			N	N
6. Line 2			N	N
7. Line 0			N	N

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)	-	X
0. Area Contrast				
1. Wide				
2. Narrow				
4. BCA Audio	Setting for the acoustic type and audio of BCA.	-	X	X
1. Acoustic Type	Selects acoustic type.	Type 1		
1. Type 1 - 5. Type 5				
2. Handset TX Gain	Sets sending gain of handset [-15dB~15dB].	15		
3. Handset RX Gain	Sets receiving gain of handset [-18dB~18dB].	18		
4. HF TX Gain	Sets sending gain of hands free [-15dB~15dB].	15		
5. HF RX Gain	Sets receiving gain of hands free [-18dB~18dB].	18		
6. Noise Suppression	Setting for the Noise Suppressor.	-		
1. TX	Sets the Noise Suppression level for TX.	Disable		
2. RX	Sets the Noise Suppression level for RX.	Disable		
5. ADA Audio	Selects whether to enable the Echo Canceller during a conversation using ADA adapter (call recording adapter).	Disble	X	X
1. Echo Canceller				
1. Disable	Echo Canceller is not used.			
2. Enable (Not used)	Echo Canceller is used.			
6. EHS Cable	Selects whether to use the cable for wireless headset connection.	None	X	X
1. None	Wireless headset is not used (instead of it, wired headset is used).			
2. APN-91	Wireless headset is used.			
5. Auto config	Selects whether to use auto-config function.	Enable	X	X
1. Disable	Auto config is not used.			
2. Enable	Auto config is used.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Data Maintenance	Sets data maintenance related.	-	X	X
1. Backup	Executes data backup.	-	X	X
1. All Data	Executes backup for all the configuration settings and data.	AllData.tgz	X	X
2. Terminal Data	Executes backup for terminal settings and data.	TerminalData.tgz	X	X
3. Personal Data	Executes backup for personal settings and data.	PersonalData.tgz	X	X
2. Restore	Executes restoration.	-	X	X
1. All Data	Restores all the configuration settings and data.	AllData.tgz	X	X
2. Terminal Data	Restores terminal settings and data.	TerminalData.tgz	X	X
3. Personal Data	Restores personal settings and data.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7. Simple Test **Note 23**	Changes the terminal to test mode.	-	X	X
1. Call Test	Call Test	-	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X
6. Speaker Test	Tests the speaker.	-	X	X
1. Japan	A DT for Japan is heard in maximum volume.	-	X	X
2. America	A DT for North America is heard in maximum volume.	-	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X
4. Security	Sets security related data.	-	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X
1. Disable	Web Programming is disabled.			
2. Enable	Web Programming is enabled.			
2. Push Server	Sets XML's Push server related data.	-	X	X
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X	X
1. Disable	Access is disabled.			
2. Enable	Access is enabled.			
3. Enable (All Client) **Note 25**	Access is enabled. Select this item to set more than one XML's Push server.			
2. Client IP Address **Note 26**	IP address of XML's Push server.	0.0.0.0	X	X
1. Client 1	Sets IP address of 1st XML's Push server.			
2. Client 2	Sets IP address of 2nd XML's Push server.			
3. Client 3	Sets IP address of 3rd XML's Push server.			
4. Client 4	Sets IP address of 4th XML's Push server.			
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 29**	82	X	X
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X
1. Supplicant	Sets whether to use supplicant on DT830G.	Disable	X	X
1. Disable	Supplicant is disabled on DT830G.			
2. Enable	Supplicant is enabled on DT830G.			
2. EAP Method	Selects EAP-MD5 or EAP-TLS for the EAP Method.	EAP-MD5	X	X
1. EAP-MD5	EAP-MD5 is used.			
2. EAP-TLS	EAP-TLS is used.			
3. Account	Sets user ID for authentication.	-	X	X
4. Password	Sets password for authentication.	-	X	X
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X
1. Disable	VLAN tag is not added to EAP packet.			
2. Enable	VLAN tag is added to EAP packet.			
5. VPN Client **Note 33**	Sets VPN Client related parameter.	-	-	-
1. VPN Mode	Sets whether to enable VPN Mode.	Disable	X	X
1. Disable	VPN Mode is disabled.			
2. Enable	VPN Mode is enabled.			
2. VPN Gateway Address	Sets VPN Gateway address.	0.0.0.0	X	X
3. VPN Network Settings	Sets VPN network related data.	-	X	X
1. VPN IP Address	Sets VPN IP Address.	0.0.0.0		
4. IKE Settings	Sets IKE protocol related data.	-	X	X
1. IKE Version **Note 37**	Selects IKE protocol version.	V1		
1. V1 **Note 36**	IKE protocol version is specified to V1.			
2. V2	IKE protocol version is specified to V2.			
2. Authentication Mode	Selects authentication mode.	PSK		
1. PSK **Note 34**	Authentication mode is specified to PSK.			
2. RSA **Note 35**	Authentication mode is specified to RSA.			
3. PSK Setting	Sets the parameter of PSK (up to 64 characters).	-		
4. IKE ID	Sets the parameter of IKE ID (up to 127 characters).	-		
5. SA Validity	Sets the expiration of SA validity when the IPsec connection has been established (3600-86400 seconds).	86400		
5. Child SA Validity	Sets the expiration of Child SA validity when the IPsec connection has been established (3600-86400 seconds).	28800	X	X
6. NAT Traversal	Sets IPsec NAT traversal related data.	-	X	X
1. Keep Alive	Sets keepalive for NAT traversal (0, 1-3600 seconds). **Note 30**	20		
2. NAT Traversal Port	Sets port for NAT traversal (1024-65535).	4500		
7. L2TP Settings	Sets L2TP connection related data.	-	X	X
1. Cert ID	Sets certificate ID for L2TP (up to 127 characters).	-		
2. Cert Password	Sets certificate password for L2TP (up to 127 characters).	-		

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. USB	Sets USB related parameter.	-	X	X
1. Power	Sets whether to supply power to USB devices.	Enable	X	X
1. Disable	Power is not supplied to USB devices.			
2. Enable	Power is supplied to USB devices.			
7. User Password	Setting for User Password.	-	X	X
1. Expiration Date	Sets the expiration of user password (0-90 days). **Note 32**	0	X	X
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1	X	X
8. Certificate	Sets certificate related data.	-	X	X
1. Install	Sets install related data of certificate.	-		
1. PKCS#12 Password	Sets PKCS#12 password.			
2 Select	Selects the client certificate.	-	X	X
1. 802.1X	802.1X is selected as a client certificate. **Note 31**			
2. VPN **Note 33**	VPN connection is selected as a client certificate. **Note 31**			
3. Delete	Sets delete method of certificate.	-	X	X
1. Delete Data	Selects the type of certificate data to be deleted.	-		
1. Client Certificate	Deletes client certificate data.			
2. Root Certificate	Deletes root certificate data.			
3. Expired Certificates	Deletes expired certificate data.			
4. All Certificates	Deletes all certificates data.			
2. Auto Delete Mode	Sets whether to delete the certificate data automatically.	Disable	X	X
1. Disable	Certificate data is not deleted automatically.			
2. Enable	Certificate data is deleted automatically.			
4. Validity	Sets the expiration of certificate validity.	-	X	X
1. Warning Period	Sets the time to display the warning notice for the end of certificate validity (0-90 days). **Note 32**	7	X	X
2. Installation time	Sets the time of when the certificate is installed. This setting will be applied to authenticate a certificate until the time information from the Telephony Server is received.	-	X	X
1. Year	Year (2016-2037)	2016		
2. Month	Month (1-12)	1		
3. Day	Day (1-31)	1		
4. Hour	Hour (0-23)	0		
5. Minute	Minute (0-59)	0		
6. Second	Second (0-59)	0		
5. Terminal Information	Displays terminal information.	-	X	X
Hardware Version	Displays hardware version of DT830G.	-	X	X
MAC Address	Displays MAC address of DT830G.	-	X	X
Firmware Version	Displays firmware version of DT830G.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Application Settings	Sets application data.	-	X	X
1. XML Settings	Specifies XML browser function.	-	X	X
1. Terminal ID	Login number for accessing XML server.	0000	X	X
2. XML Browser	Sets XML browser related data.	-	X	X
1. Home URL **Note 22**	Sets the address of the contents to access when starting up XML browser.	-	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X
3. Directory URL	Sets URL of Corporate Phonebook.	-	X	X
4. Service URL	Sets URL of XML application.	-	X	X
1. 1st Service URL	URL of up to four XML applications can be specified.			
2. 2nd Service URL				
3. 3rd Service URL				
4. 4th Service URL				
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535]. **Note 29**	3530	X	X
3. Popup	Sets the popup window display.	-	X	X
1.Popup Mode	Sets the mode of the popup window display.	App Priority	X	X
1.Enable	Sets the popup window display enabled.			
2.App Priority	Sets to depend on a definition of XML tag for Popup window.			
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-	X	X
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-	X	X
Emergency Dial 1	Up to three destination numbers can be specified.			
Emergency Dial 2				
Emergency Dial 3				
6. Menu Key Mode	Changes to menu key mode.	Enable	X	X
1. Disable	Sets the menu key mode disabled.			
2. Enable	Sets the menu key mode enabled.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7. Voice Rec Settings	Setting for Voice Recording.	-	X	X
1. Voice Recording	Sets whether to use Voice Recording on the terminal.	Disable	X	X
0. Automatic	Enables Voice Recording.		X	X
1. Disable	Disables Voice Recording.		X	X
2. Rec Segments **Note 38**	Sets the pattern of call recording segment.	All Segments	X	X
1. All Segments	Records call progress tone and voice call.		X	X
2. Talk Segments	Records voice call only.		X	X
3. Auto Rec Start	Sets whether to use Auto Rec Start.	Enable	X	X
1. Disable	Disables Auto Rec Start.		X	X
2. Enable	Enables Auto Rec Start.		X	X
4. Rec Tone	Sets whether to generate a warning tone to indicate that a conversation is being recorded.	Enable	X	X
1. Disable	Disables to generate a warning tone to indicate that a conversation is being recorded.		X	X
2. Enable	Enables to generate a warning tone to indicate that a conversation is being recorded.		X	X
5. Rec Tone Level	Sets the recording tone level [0 (maximum) - 48dB (minimum)].	24	X	X
6. Rec Memo Settings	Sets the various configurations when using Voice Recording.	-	X	X
1. Auto Delete	Sets whether to delete the recording files automatically when the free space of USB memory is insufficient to use.	Enable	X	X
1. Disable	Disables Auto Delete.		X	X
2. Enable	Enables Auto Delete.		X	X
2. Rec Play Mode	Sets whether to play the recorded data.	Disable	X	X
1. Disable	Disables Rec Play Mode.		X	X
2. Enable	Enables Rec Play Mode.		X	X
3. Rec Admin Password	Sets the password for recording administrator. The password can be entered up to 32 digits.	6633222	X	X

Note 20: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830G terminal is registered.

Note 21: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 22: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details" of "Hold Fixation Mode."

Also, refer to the manual (4.1.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Setting] - [2.IPM Self Port].

Note 23: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 24: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 25: Be careful when you specify “3.Enable(All Client)” because security service are disabled for Push when “3.Enable(All Client)” is set.

Note 26: To use Photo Frame Application for DT830G (12/24CG), configure one of the four Push servers (1st to 4th Push servers) with the IP address for PhotoFrame.

Note 27: “-” is displayed in default settings.

Note 28: Odd numbered ports cannot be assigned.

Note 29: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

Note 30: When “0” is specified, this setting will be disabled.

Note 31: Up to 15 certificates can be selected.

Note 32: When “0” is specified, the warning indication will not be indicated.

Note 33: For North America and China, this setting is not available. Therefore, this setting cannot be selected on the terminal.

Note 34: IKE authentication is executed with “PSK” which has been assigned in [0.Config] - [4.Security] - [5.VPN Client] - [4.IKE Settings] - [3.PSK Setting].

Note 35: IKE authentication is executed with “RSA” which has been assigned in [0.Config] - [4.Security] - [8.Certificate] - [2.Select] - [2.VPN].

Note 36: For IKE version “V1”, the supported authentication mode is “PSK” only. Therefore, when “1. V1” is specified, be sure to specify “1. PSK” on “2. Authentication Mode”. When “2. RSA” is specified, a communication error occurs.

Note 37: The following table shows the supporting authentication mode and IKE version.

X: Available N: Not available

Authentication Mode	IKE Version	
	IKEv1	IKEv2
PSK	X	X
RSA	N	X

Note 38: For ACD mode, set “Talk Segments”.

4.1.3.2 DT830 Series Configuration Menu List (FW 5.0.0.0 or Later)

This section lists the configuration menu used for DT830 configuration settings.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The following menus are not displayed on the menu window: Tool, Call Func., Presence, Favorite and Config. To open Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0.Config] - [6.Application Settings] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default
1. Missed **Note 1**	Lists the history of missed calls.	-
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-
3. Incoming **Note 1**	Lists the history of incoming calls.	-
4. Delete All	Deletes the call history completely.	-

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data setting.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default
1. Call	Originates a call to the number displayed on the history.	-
2. Directory Add	Registers the number displayed on the history to Directory.	-
1. New	Registers new number.	-
Category Set	Selects the group the new number registered to.	Company
1. Company		
2. Mobile		
3. Voice Mail		
4. Home		
5. Others		
Priority Flag	Sets the priority order of dialing number for call origination.	Disable
1. Disable		
2. Enable		
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-
2. Addition	Adds numbers to searched data.	-
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-

Parameter	Description	Default
3. Prefix	Adds a prefix to the number displayed on the LCD.	-
4. Delete One	Deletes one history displayed on the LCD.	-
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-

Note 2: This menu has the same function with “2. Directory” →“2. Edit.”

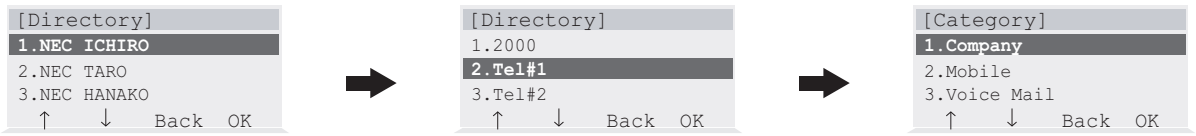
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1:This Directory Search menu has the same function with “2. Directory” → “1. Personal” → “1. Search.” On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2:Select the target data on the list, and then press the software key for “OK” to move on to LCD-2.

STEP 3:In the example below, from “2.Tel #2” to down on the list are vacant and new numbers can be added to. Select “2.Tel #2” and press the software key for “OK” to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu “2. Directory Add” → “1. New” for the subsequent procedure.

Note: This is an example for DT830 (Standard LCD).

2. Directory

Parameter	Description	Default
1. Personal	Displays Terminal Phonebook **Note 7**	-
1. Search	Searches Phonebook.	-
1. Group	Searches by specifying group.	-
1. Default	Searches through “Default” group.	-
2. Colleagues	Searches through “Colleagues” group.	-
3. VIPs	Searches through “VIPs” group.	-
4. Family	Searches through “Family” group.	-
5. Friends	Searches through “Friends” group.	-
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-
2. Name	Searches by entering a target name.	-
3. Tel Number	Searches by entering numbers.	-
4. Others	Searches by other search key.	-
1. Memory ID	Searches by entering Memory ID.	-
2. Category	Searches by selecting Category.	-
1. Company	Searches through “Company” category.	-
2. Mobile	Searches through “Mobile” category.	-
3. Voice Mail	Searches through “Voice Mail” category.	-
4. Home	Searches through “Home” category.	-
5. Etc	Searches through “Etc” category.	-
3. Company	Searches by entering a company name.	-
4. Alphabet	Searches by alphabet order.	-
1. ABC	Searches by the name starting with A ~ Z.	-
2. DEF		
3. GHI		
4. JKL		
5. MNO		
6. PQRS		
7. TUV		
8. WXYZ		
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).	
#. All	Searches all.	
2. Edit	Edits the data in Terminal Phonebook.	-
1. Name	Registers name.	-
2. Group	Allocates group.	Default
1. Default		
2. Colleagues		
3. VIPs		
4. Family		
5. Friends		
6. Group6 ~ 20. Group 20		

2. Directory (Continued)

Parameter	Description	Default
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company
1. Company		
2. Mobile		
3. Voice Mail		
4. Home		
5. Others		
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable
1. Disable		
2. Enable		
7. Company Name	Registers company name.	-
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*	
2. Default	Applies default Ringing Tone on terminal.	
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.	
17. Download 1 ~ 19. Download 3		
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	
2. Default	Applies default illumination for announcing call termination.	
3. Disable	Illumination is OFF.	
4. Red	Specifies color of lamp indication for incoming call termination.	
5. Green		
6. Yellow		
7. Blue		
8. Light Blue		
9. Purple		
10. White		
11. Rotation		
0. Memory ID	Registers memory ID.	-

2. Directory (Continued)

Parameter	Description	Default
3. Group Setting	Sets groups.	-
1. Default		
2. Colleagues		
3. VIPs		
4. Family		
5. Friends		
6. Group6 ~ 20. Group 20		
1. Name	Registers group name.	-
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)
4. Own Number	Displays own number (login number).	-
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-

Note 4: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal’s configuration menu regardless of SFI: 246/SFI: 247 data setting.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by “0.Config” - “6. Application Settings” - “1.XML Settings” - “3. Directory URL. When XML application is assigned to directory URL, “3. Corporate” is displayed on the “Directory” menu.

3. Service

Parameter	Description	Default
3. Service	Starts up XML browser and Instant Message tool.	-
1. Service **Note 9**	Starts up XML browser.	-

Note: Service menu is displayed only when the URL is set by “0.Config” - “6. Application Settings” - “1.XML Settings” - “4. Service URL”.

Note 9: At most 4 services are displayed on the menu. Even though “1. Service” isn’t displayed on the menu when only one URL is set, selection of “3. Service” starts up XML browser.

4. Setting

Parameter	Description	Default
1. User Setting	Sets user interface related.	-
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-
1. Ring Volume	Not used.	-
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable
1. Disable	Offhook ringing is OFF.	
2. Enable	Offhook ringing is ON.	
3. Headset Ring **Note 10**	Selects whether to use headset ringing.	Disable
1. Disable	Headset ringing is OFF.	
2. Enable	Headset ringing is ON.	

4. Setting (Continued)

Parameter	Description	Default
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.	
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
3. IM	Not used.	-
5. Illumination **Note 12**	Sets lamp indication pattern for incoming call termination.	-
1. External Call **Note 18**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic
1. Disable	Lamp indication is OFF.	
2. Red	Specifies the color of lamp indication for incoming call termination.	
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		

4. Setting (Continued)

Parameter	Description	Default
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic
1. Disable	Lamp indication is OFF.	
2. Red	Specifies the color of lamp indication for incoming call termination.	
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		
3. IM	Not used.	-
6. Headset Ring Volume	Not used	-
2. Talk	Sets call related data.	-
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic
0. Automatic	Applies RTP alarm setting on the Telephony Server.	
1. Disable	Alarm is OFF.	
2. Enable	Alarm is ON.	
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic
0. Automatic	Applies DTMF tone setting on the Telephony Server.	
1. Disable	DTMF tone is OFF.	
2. Enable	DTMF tone is ON.	
3. Key Touch Tone	Sets touch tone for pressing digit key.	Automatic **Note 15**
0. Automatic	Sets Automatic to key touch tone.	
1. No Tone	Sets key touch tone disabled.	
2. Tone	Sets key touch tone enabled.	
3. Voice	Enables the key touch tone by voice recognition.	
4. Hold Music	Sets Music-on-Hold.	Default
1. Default	Applies the default music (Minuet).	
2. Download	Applies the downloaded music.	
5. Prefix	Sets prefix number.	-
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-

4. Setting (Continued)

Parameter	Description	Default
3. Display	Sets display related data.	-
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 18**
1. Calendar Format	Specifies the calendar display format.	
0. Automatic	Sets Automatic for calendar display format.	
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.	
2. Type 2		
3. Type 3		
4. Type 4		
5. Type 5		
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 16**
0. Automatic	Sets Automatic for time display.	
1. 12 hour Indication	Sets 12-hour display.	
2. 24 hour Indication	Sets 24-hour display.	
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**
0. Automatic	Sets Automatic for volume gage display.	
1. Disable	Volume gage is not displayed.	
2. Enable	Volume gage is displayed.	
3. Screen Saver	Sets Screen Saver related data.	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable
1. Disable	Screen Saver is not used.	
2. Enable	Screen Saver is used.	
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120
4. Back Light	Switches ON/OFF the backlight on DT830.	Enable **Note 12**
1. Disable	Backlight is OFF.	
2. Enable	Backlight is ON.	
5. Font Size	Switches the font size on configuration menu.	Standard (16dot)
1. Standard (16dot)	Selects Standard or Small of font size.	
2. Small (12dot)		

4. Setting (Continued)

Parameter	Description	Default
6. Language	Selects the language on date and time display.	Automatic **Note 18**
0. Automatic	Sets Automatic for language setting on date and time display.	
1. Japanese	Selected language is displayed on the LCD. The parameters of language are displayed as native language. For the details, refer to "4.1.2.24 Language".	
2. NEC English		
3. NEC Portuguese		
4. NEC Spanish		
5. NEC French		
6. German		
7. Italian		
8. Dutch		
9. Norwegian		
10. Danish		
11. Swedish		
12. Greek		
13. English		
14. Portuguese		
15. Spanish		
16. French		
17. Russian		
18. Turkish		
19. Romania		
20. Polish		
21. Catalan		
22. Korean		
23. Simplified Chinese **Note 19**		
24. Traditional Chinese **Note 19**		
7. Advanced	Sets other data for display.	-
1..Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable
1.Disable	Disables Backlight Fade Control.	
2.Enable	Enables Backlight Fade Control.	
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000
5. Security	Not used.	-

4. Setting (Continued)

Parameter	Description	Default
6. Peripherals	Setting for using peripheral equipment of terminal.	-
1. USB Memory	Not used.	-
2. BCA Option	Setting for BCA (Bluetooth Connection Adapter).	-
1. BCA Connection Settings	Setting for Bluetooth connection.	-
1. Auto Connection	Selects whether to use Auto Connection.	Enable
1. Disable	Auto Connection is not used.	
2. Enable	Auto Connection is used.	
2. Connection Cycle	Sets Bluetooth connection cycle.	10 Seconds
1. 3 Seconds	Bluetooth connection cycle is 3 seconds.	
2. 10 Seconds	Bluetooth connection cycle is 10 seconds.	
3. 1 Minute	Bluetooth connection cycle is 1 minute.	
4. 10 Minutes	Bluetooth connection cycle is 10 minutes.	
2. Interrupt Ringing	Selects whether to use Interrupt Ringing.	Enable
1. Disable	Interrupt Ringing is OFF.	
2. Enable	Interrupt Ringing is ON.	
3. Smart Device Type	Setting for Smart Device Type.	Type 1
1. Type 1	Sets Smart Device Type for type 1.	
2. Type 2	Sets Smart Device Type for type 2.	
4. Auto Path Switch	Sets whether Auto Path Switch is in service.	Enable
1. Disable	Disables Auto Path Switch.	
2. Enable	Enables Auto Path Switch.	
5. Illumination	Sets lamp indication pattern for incoming call termination.	Enable
1. Disable	Specifies the color of lamp indication for incoming call termination.	Blue
2. Red		
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		
7. Usability	Set the operation of Help key while pop-up window is displayed.	-
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu
1.SubMenu	Set the Help key which displays sub menu	
2.Popup Window	Set the Help key which displays pop-up window	
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-

4. Setting (Continued)

Parameter	Description	Default
2. Download	Sets download related data.	-
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.	
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav
2. Download 2		Melody2.wav
3. Download 3		Melody3.wav
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
3. Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
4. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save the download file.	
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0
4. Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
5. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save backup file.	

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Settings” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

Note 19: This language can be selected for FP95-113 V3 or later.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default
1. Network Settings	Sets network related data.	-
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable
1. Disable	DHCP is not used.	
2. Enable	DHCP is used.	
2. IP Address	Sets DT830 terminal’s IP address.	0.0.0.0
3. Default Gateway	Sets default router’s IP address.	0.0.0.0
4. Subnet Mask	Sets subnet mask.	0.0.0.0
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0
6. Advanced Settings	Sets network expanded data.	-
1. LAN Port Settings	Sets LAN port.	-
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable
1. Disable	VLAN is not used.	
2. Enable	VLAN is used.	
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5
5. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable

0. Config

Parameter	Description	Default
2. PC Port Settings	Sets PC port.	-
1. Speed&Duplex	Sets communication speed of PC port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable
1. Disable	Port VLAN of PC port is not used.	
2. Enable	Port VLAN of PC port is used.	
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0
5. Port Available	Selects whether to use PC port.	Automatic
0. Automatic	Sets Automatic for PC port.	
1. Disable	PC port is not used.	
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable
1. Disable	Not forward EAPOL packet from PC port.	
2. Enable	Forwards EAPOL packet from PC port.	
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable
1. Disable	Not clear the authentication status.	
2. Enable	Clear the authentication status.	
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable
3. CDP Mode	Not used.	-
4. Type of Service	Sets ToS value.	-
1. RTP	Sets ToS value for RTP in Hex.	A0
2. SIP	Sets ToS value for SIP in Hex.	C0
5.Self Port Settings	Sets each port for DT830.	-
1.RTP Self Port	Sets RTP port for DT830 [1024-65520 (except 59986-60000)]. **Note 27**, **Note 28**	3462
2.SIP Self Port	Sets SIP port for DT830 [1024-65534]. **Note 28**	5060
6.LLDP Settings	Sets information related to LLDP.	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable
1. Disable	DT830 does not transmit/receive LLDP packets.	
2. Enable	DT830 transmits/receives LLDP packets.	

0. Config

Parameter	Description	Default
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable
1. Disable	DT830 does not perform data setting automatically when LLDP packets are received.	
2. Enable	DT830 performs data setting automatically when LLDP packets are received.	
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830 receives LLDP packets (1-60 seconds).	15
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30
5.Hold Multiplier **Note 29**	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830 starts up (1-10 times).	3
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable
1. Disable	Transparent Mode of LLDP packets is disabled.	
2. Enable	Transparent Mode of LLDP packets is enabled.	
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 26**

0. Config

Parameter	Description	Default
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable
1. Disable	Both Spare and Backup IPs are disabled.	
2. Spare IP	Spare IP is enabled.	
3. Backup IP	Backup IP is enabled.	
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-
1. IP Address	Sets DT830 terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0
2. Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-
1. 2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0
2. 3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0
3. 4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0
4. 2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0
5. 3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0
6. 4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0
8.TTL Settings	Setting for multicast TTL (Time To Live)	32
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	
9.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable
1. Disable	Priority Queue is disabled.	
2. Enable	Priority Queue is enabled.	
2. SIP Settings	Sets SIP related data.	-
1. SIP User	Sets user data.	-
1. User ID	Sets user ID for digest authentication.	-
2. Password	Sets password for digest authentication.	-
3. Extension Number	Not used.	-
4. Backup Logon	Not used.	-

0. Config

Parameter	Description	Default
2. Server Address & URI	Sets IP address or URI of SIP server. **Note 20**, **Note 21**	-
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	0.0.0.0
2. 2nd Server Address		
3. 3rd Server Address		
4. 4th Server Address		
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th registrar server. **Note:** Do not set this parameter except when using Firewall NAT accommodating special SIP-NAT.	0.0.0.0
2. 2nd Register Address		
3. 3rd Register Address		
4. 4th Register Address		
3. Access Mode	Sets access mode for SIP server.	Normal
1. Normal	Normal access	
2. Remote	Remote access	
4. SIP Server Port	Sets SIP server port [1024-65535].	5060
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.	
2. 2nd Server Port		
3. 3rd Server Port		
4. 4th Server Port		
5. Registrar Destination	Sets port for registrar server [1024-65535].	
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.	
2. 2nd Register Port		
3. 3rd Register Port		
4. 4th Register Port		

0. Config

Parameter	Description	Default
5. Area ID	Sets the area (country) using DT830.	Automatic
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.	
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.	
2. America (Canada and North America)		
3. Australia		
4. Others		
5. Hong Kong		
6. Malaysia		
7. Singapore		
8. Mexico		
9. Taiwan		
10. New Zealand		
11. Korea		
12. Brazil		
13. China		
14. Thailand		
15. Thailand (EGAT)		
16. Sri Lanka		
17. Germany		
18. Italy		
19. Netherlands		
20. Catalonia (Not used)		
21. Denmark		
22. Sweden		
23. Poland		
24. Czech		
25. Norway		
26. France		
27. Portugal		
28. Spain		
29. Austria		
30. Belgium		
31. UK		
32. Greece		
33. Switzerland		
34. South Africa		
35. Brazil (EMEA)		

0. Config

Parameter	Description	Default
6. Extra Function	Sets expanded data related to SIP packet.	-
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).	
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).	
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable
1. Disable	Calls in progress are not held even when DT830 terminal detects communication failure with the Telephony Server.	
2. Enable	Calls in progress are held even when DT830 terminal detects communication failure with the Telephony Server.	
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disable
1. Disable	Howler tone sending is OFF.	
2. Enable	Howler tone sending is ON.	
4. Random Wait Time	Sets random wait time of when the connection between Telephony Server and terminal starts (5-3600 seconds).	5
5. Connect Wait Time	Sets the time to wait until the connection between Telephony Server and terminal is complete (30-300 seconds).	30
7. Encryption	Sets encryption data.	Disable
1. Authentication Mode	Selects whether to use authentication.	
1. Disable	Authentication is not used.	
2. Enable	Authentication is used.	
2. One Time Password	Sets One Time Password.	-
3. Authentication Status	Displays authentication status.	-
8. NAT Traversal **Note 24**	Not used.	-
1.NAT Traverse Mode	Not used.	-
1.Disable		
2.Dynamic		
3.Static		
2.Network Area Name	Not used.	-
3.WAN Settings	Not used.	-
1.WAN Mate IP Address		
2.WAN SIP Mate Port		
3.WAN Self IP Address		

0. Config

Parameter	Description	Default
3. Maintenance Settings	Sets maintenance related data.	-
1. Download Menu	Downloads specified file to DT830.	-
1. Download Files	Specifies download file name for each file type.	-
1. Boot & Program	Downloads boot and program.	itzisipvg.tgz
2. Config	Downloads configuration file.	config.tgz
3. Voice File	Downloads voice file.	voice.tgz
4. Language Pack	Downloads translation data file.	LangPack.tgz
5. Certificate	Downloads certificate files.	-
1. Client Certificate	Downloads client certificate file.	clientcert.p12
2. Root Certificate	Downloads root certificate file.	rootcert.der
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
4. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-
2. Hard Reset	Resets DT830 without data saving.	-
3. Data Clear	Initializes DT830 selecting the initialization mode.	-
1. Factory Value	Initializes DT830 to factory default.	-
2. Terminal Data	Clears terminal data on DT830.	-
3. Personal Data	Clears personal data on DT830.	-

0. Config

Parameter	Description	Default
4. Adjust	Adjusts LCD, audio, and button kit.	-
1. Default Audio	Sets audio data.	-
1. Sidetone Volume	Sets Side Tone volume [0-7]. *The setting of system data (ASYDL, SYS1, Index 1256, bit 4-7) has priority over this setting. Therefore, this setting is invalid.	4
2. Send Gain	Sets sending gain of handset/headset [0-31]. *The setting of system data (ASYD, SYS3, Index 13) has priority over this setting. Therefore, this setting is invalid.	24
3. Receive Bias	Sets receiving bias of handset/headset [0-7].	0
4. Receive Gain	Sets receiving gain of handset/headset [0-31]. *The setting of system data (ASYD, SYS3, Index 14) has priority over this setting. Therefore, this setting is invalid.	22
5. Talk Characteristics	Sets talk characteristics of handset.	-
1.Noise Suppression	Sets whether to enable the Noise Suppressor. (Set “1.Disable” in normal operation.)	Disable
1. Disable	Disables the Noise Suppressor.	
2. Enable	Enables the Noise Suppressor.	
2. Handsfree Mode	Sets a send gain mode of handsfree call.	Retro mode
1. Retro Mode	Sets to Retro mode.	
2. New Mode	Sets to New mode.	
6. DTMF Send Level	Sets DTMF Send Level [0-48]. (level 0 (maximum) ~ level 48 (minimum))	32
2. KeyKit Type	Sets additional button kit data.	-
1 ~ 5. Kit 1 ~ 2, 8 ~ 10	Key 1 ~ 2, 8 ~ 10 on button kit are used.	Kit 1
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-
1. Line 12	Sets to 12-line of DT830.	
2. Line 24	Sets to 24-line of DT830.	
3. Line 32	Not used.	
4. Line 8	Sets to 8-line of DT830.	
5. Line 6	Not used.	
6. Line 2	Not used.	
7. Line 0	Not used.	

0. Config

Parameter	Description	Default
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)
0. Area Contrast		
1. Wide		
2. Narrow		
4. BCA Audio	Setting for the acoustic type and audio of BCA.	-
1. Acoustic Type	Selects acoustic type.	Type 1
1. Type 1 - 5. Type 5		
2. Handset TX Gain	Sets sending gain of handset [0dB~30dB].	15
3. Handset RX Gain	Sets receiving gain of handset [0dB~36dB].	18
4. HF TX Gain	Sets sending gain of hands free [0dB~30dB].	15
5. HF RX Gain	Sets receiving gain of hands free [0dB~36dB].	18
6. Noise Suppression	Setting for the Noise Suppressor.	-
1. TX	Sets the Noise Suppression level for TX.	Disable
2. RX	Sets the Noise Suppression level for RX.	Disable
5. ADA Audio	Selects whether to enable the Echo Canceller during a conversation using ADA adapter (call recording adapter).	Disable
1. Echo Canceller		
1. Disable	Echo Canceller is not disabled.	
2. Enable (Not used)	Echo Canceller is enabled.	
6. EHS Cable **Note 30**	Selects whether to use the cable for wireless headset connection.	None
1. None	Wireless headset is not used (instead of it, wired headset is used).	
2. APD-80	Wireless headset with APD-80 is used.	
3. APN-91	Wireless headset with APN-91 is used.	
5. Auto config	Selects whether to use auto-config function.	Enable
1. Disable	Auto config is not used.	
2. Enable	Auto config is used.	

0. Config

Parameter	Description	Default
6. Data Maintenance	Sets data maintenance related.	-
1. Backup	Executes data backup.	-
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz
2. Restore	Executes restoration.	-
1. All Data	Restores all the configuration setting and data.	AllData.tgz
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz
3. Personal Data	Restores personal setting and data.	PersonalData.tgz
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
5. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-

0. Config

Parameter	Description	Default
7. Simple Test **Note 23**	Changes the terminal to test mode.	-
1. Call Test	Call Test	-
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188
3. Key Test 1 (Random)	Tests to press the random button.	-
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-
5. Loop Back Test	Tests the voice loop back.	-
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-
6. Speaker Test	Tests the speaker.	-
1. Japan	A DT for Japan is heard in maximum volume.	-
2. America	A DT for North America is heard in maximum volume.	-
7. Receiver Test	Receiver Test for a handset	-
4. Security	Sets security related data.	-
1. Web Programming	Selects whether to use Web Programming.	Enable
1. Disable	Web Programming is disabled.	
2. Enable	Web Programming is enabled.	
2. Push Server	Sets XML's Push server related data.	-
1. Push Server Access	Sets whether to access XML's Push server.	Enable
1. Disable	Access is disabled.	
2. Enable	Access is enabled.	
3. Enable (All Client) **Note 25**	Access is enabled. Select this item to set more than one XML's Push server.	
2. Client IP Address	IP address of XML's Push server.	0.0.0.0
1. Client 1	Sets IP address of 1st XML's Push server.	
2. Client 2	Sets IP address of 2nd XML's Push server.	
3. Client 3	Sets IP address of 3rd XML's Push server.	
4. Client 4	Sets IP address of 4th XML's Push server.	
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 28**	82

0. Config

Parameter	Description	Default
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-
1. Supplicant	Sets whether to use supplicant on DT830.	Disable
1. Disable	Supplicant is disabled on DT830.	
2. Enable	Supplicant is enabled on DT830.	
2. EAP Method	Selects EAP-MD5 or EAP-TLS for the EAP Method.	EAP-MD5
1. EAP-MD5	EAP-MD5 is used.	
2. EAP-TLS	EAP-TLS is used.	
3. Account	Sets user ID for authentication.	-
4. Password	Sets password for authentication.	-
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable
1. Disable	VLAN tag is not added to EAP packet.	
2. Enable	VLAN tag is added to EAP packet.	
5. VPN Client **Note 34**	Sets VPN Client related parameter.	-
1. VPN Mode	Sets whether to enable VPN Mode.	Disable
1. Disable	VPN Mode is disabled.	
2. Enable	VPN Mode is enabled.	
2. VPN Gateway Address	Sets VPN Gateway address.	0.0.0.0
3. VPN Network Settings	Sets VPN network related data.	-
1. VPN IP Address	Sets VPN IP Address.	0.0.0.0
4. IKE Settings	Sets IKE protocol related data.	-
1. IKE Version **Note 38**	Selects IKE protocol version.	V1
1. V1 **Note 37**	V1 is used.	
2. V2	V2 is used.	
2. Authentication Mode	Selects authentication mode.	PSK
1. PSK **Note 35**	PSK is used.	
2. RSA **Note 36**	RSA is used.	
3. PSK Setting	Sets the parameter of PSK (up to 64 characters).	-
4. IKE ID	Sets the parameter of IKE ID (up to 127 characters).	-
5. SA Validity	Sets the expiration of SA validity when the IPsec connection has been established [3600-86400 seconds].	86400
5. Child SA Validity	Sets the expiration of Child SA validity when the IPsec connection has been established [3600-86400 seconds].	28800
6. NAT Traversal	Sets IPsec NAT traversal related data.	-
1. Keep Alive	Sets keepalive for NAT traversal [0, 1-3600 seconds]. **Note 31**	20
2. NAT Traversal Port	Sets port for NAT traversal [1024-65535].	4500
7. L2TP Settings	Sets L2TP connection related data.	-
1. Cert ID	Sets certificate ID for L2TP (up to 127 characters).	-
2. Cert Password	Sets certificate password for L2TP (up to 127 characters).	-

0. Config

Parameter	Description	Default
6. USB	Not used.	-
7. User Password	Setting for User Password.	-
1. Expiration Date	Sets the expiration of user password (0-90 days). **Note 33**	0
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1
8. Certificate	Sets certificate related data.	-
1. Install	Sets install related data of certificate.	-
1. PKCS#12 Password	Sets PKCS#12 password.	
2. Select	Selects the client certificate.	-
1. 802.1X	802.1X is selected as a client certificate. **Note 32**	
2. VPN **Note 34**	VPN connection is selected as a client certificate. **Note 32**	
3. Delete	Sets delete method of certificate.	-
1. Delete Data	Selects the type of certificate data to be deleted.	-
1. Client Certificate	Deletes client certificate data.	
2. Root Certificate	Deletes root certificate data.	
3. Expired Certificates	Deletes expired certificate data.	
4. All Certificates	Deletes all certificates data.	
2. Auto Delete Mode	Sets whether to delete the certificate data automatically.	Disable
1. Disable	Certificate data is not deleted automatically.	
2. Enable	Certificate data is deleted automatically.	
4. Validity	Sets the expiration of certificate validity.	-
1. Warning Period	Sets the time to display the warning notice for the end of certificate validity (0-90 days). **Note 33**	7
2. Installation time	Sets the time of when the certificate is installed. This setting will be applied to authenticate a certificate until the time information from the Telephony Server is received.	-
1. Year	Year [2016-2037]	2016
2. Month	Month [1-12]	1
3. Day	Day [1-31]	1
4. Hour	Hour [0-23]	0
5. Minute	Minute [0-59]	0
6. Second	Second [0-59]	0
5. Terminal Information	Displays terminal information.	-
Hardware Version	Displays hardware version of DT830.	-
MAC Address	Displays MAC address of DT830.	-
Firmware Version	Displays firmware version of DT830.	-

0. Config

Parameter	Description	Default
6. Application Settings	Sets application data.	-
1. XML Settings	Specifies XML browser function.	-
1. Terminal ID	Login number for accessing XML server.	0000
2. XML Browser	Sets XML browser related data.	-
1. Home URL **Note 22**	Sets the address of the contents to access when starting up XML browser.	-
2. Proxy Settings	Sets proxy server related data.	-
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080
3. Directory URL	Sets URL of Corporate Phonebook.	-
4. Service URL	Sets URL of XML application.	-
1. 1st Service URL	URL of up to four XML applications can be specified.	
2. 2nd Service URL		
3. 3rd Service URL		
4. 4th Service URL		
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 28**	3530
3. Popup	Sets the popup window display.	-
1.Popup Mode	Sets the mode of the popup window display.	App Priority
1.Enable	Sets the popup window display enabled.	
2.App Priority	Sets to depend on a definition of XML tag for Popup window.	
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-
Emergency Dial 1	Up to three destination numbers can be specified.	
Emergency Dial 2		
Emergency Dial 3		
6. Menu Key Mode	Changes to menu key mode.	Enable
1. Disable	Sets the menu key mode disabled.	
2. Enable	Sets the menu key mode enabled.	

Note 20: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830 terminal is registered.

Note 21: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 22: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details" of "Hold Fixation Mode."

Also, refer to the manual (4.1.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone

Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Settings] - [2.IPM Self Port].

Note 23: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 24: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 25: Be careful when you specify “3.Enable(All Client)” because security service are disabled for Push when “3.Enable(All Client)” is set.

Note 26: “-” is displayed in default settings.

Note 27: Odd numbered ports cannot be assigned.

Note 28: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

Note 29: LLDP time to live = LLDP packet transmission interval × the set value (65535 at most)

Note 30: The following table shows the usable headset type depending on the setting of “EHS Cable”.

Setting of EHS Cable	Usable Headsets (Cables)
None	HW510 (A10)/HW251 (A10)
APD-80	W710 (APD-80 cable (Savi 710))
APN-91	WT100 (APN-91)/Voyager Legend CS (APN-91)

Note 31: When “0” is specified, this setting will be disabled.

Note 32: Up to 15 certificates can be selected.

Note 33: When “0” is specified, the warning indication will not be indicated.

Note 34: For North America and China, this setting is not available. Therefore, this setting cannot be.selected on the terminal.

Note 35: IKE authentication is executed with “PSK” which has been assigned in [0.Config] - [4.Security] - [5.VPN Client] - [4.IKE Settings] - [3.PSK Setting].

Note 36: IKE authentication is executed with “RSA” which has been assigned in [0.Config] - [4.Security] - [8.Certificate] - [2.Select] - [2.VPN].

Note 37: For IKE version “V1”, the supported authentication mode is “PSK” only. Therefore, when “1. V1” is specified, be sure to specify “1. PSK” on “2. Authentication Mode”. When “2. RSA” is specified, a communication error occurs.

Note 38: The following table shows the supporting authentication mode and IKE version.

X: Available N: Not available

Authentication Mode	IKE Version	
	IKEv1	IKEv2
PSK	X	X
RSA	N	X

4.1.3.3 DT830G Series Configuration Menu List (FW 4.0.0.0 or Later)

This section lists the configuration menu used for DT830G configuration settings. DT830G (12/24CG), and DT830G (12/24DG) columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The Config menu is not displayed on the menu window. To open the Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0. Config] - [6.Application Settings] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Missed **Note 1**	Lists the history of missed calls.	-	X	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X	X
4. Delete All	Deletes the call history completely.	-	X	X

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data settings.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Call	Originates a call to the number displayed on the history.	-	X	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X	X

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. New	Registers new number.	-	X	X
Category Set	Selects the group the new number registered to.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Sets the priority order of dialing number for call origination.	Disable	X	X
1. Disable				
2. Enable				
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag settings.)	-	X	X
2. Addition	Adds numbers to searched data.	-	X	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X	X
4. Delete One	Deletes one history displayed on the LCD.	-	X	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X	X

Note 2: This menu has the same function with "2. Directory" → "2. Edit."

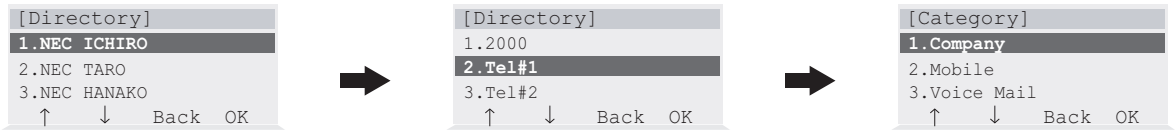
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1: This Directory Search menu has the same function with "2. Directory" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT830G (Standard LCD).

2. Directory

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Personal	Displays Terminal Phonebook Note 7	-	X	X
1. Search	Searches Phonebook.	-	X	X
1. Group	Searches by specifying group.	-	X	X
1. Default	Searches through “Default” group.	-	X	X
2. Colleagues	Searches through “Colleagues” group.	-	X	X
3. VIPs	Searches through “VIPs” group.	-	X	X
4. Family	Searches through “Family” group.	-	X	X
5. Friends	Searches through “Friends” group.	-	X	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X	X
2. Name	Searches by entering a target name.	-	X	X
3. Tel Number	Searches by entering numbers.	-	X	X
4. Others	Searches by other search key.	-	X	X
1. Memory ID	Searches by entering Memory ID.	-	X	X
2. Category	Searches by selecting Category.	-	X	X
1. Company	Searches through “Company” category.	-	X	X
2. Mobile	Searches through “Mobile” category.	-	X	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X	X
4. Home	Searches through “Home” category.	-	X	X
5. Etc	Searches through “Etc” category.	-	X	X
3. Company	Searches by entering a company name.	-	X	X
4. Alphabet	Searches by alphabet order.	-	X	X
1. ABC	Searches by the name starting with A ~ Z.	-	X	X
2. DEF				
3. GHI				
4. JKL				
5. MNO				
6. PQRS				
7. TUV				
8. WXYZ				
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).			
#. All	Searches all.			
2. Edit	Edits the data in Terminal Phonebook.	-	X	X
1. Name	Registers name.	-	X	X
2. Group	Allocates group.	Default	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				

2. Directory (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable	X	X
1. Disable				
2. Enable				
7. Company Name	Registers company name.	-	X	X
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*			
2. Default	Applies default Ringing Tone on terminal.			
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.			
17. Download 1 ~ 19. Download 3				
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*			
2. Default	Applies default illumination for announcing call termination.			
3. Disable	Illumination is OFF.			
4. Red	Specifies color of lamp indication for incoming call termination.			
5. Green				
6. Yellow				
7. Blue				
8. Light Blue				
9. Purple				
10. White				
11. Rotation				
0. Memory ID	Registers memory ID.	-	X	X

2. Directory (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Group Settings	Sets groups.	-	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
1. Name	Registers group name.	-	X	X
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)	X	X
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)	X	X
4. Own Number	Displays own number (login number).	-	X	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-	X	X

Note 4: The priority order of Ringing tone settings is as follows.
- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Settings” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal’s configuration menu regardless of SFI: 246/SFI: 247 data settings.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by “0. Config” - “6. Application Settings” - “1.XML Settings” - “3. Directory URL. When XML application is assigned to directory URL, “3. Corporate” is displayed on the “Directory” menu.

3. Service

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Service Note 9	Starts up XML browser and Instant Message tool.	-	X	X
1. Service 1	Starts up XML browser.	-	X	X
2. Service 2		-	X	X
3. Service 3		-	X	X
4. Service 4		-	X	X

Note 9: Unavailable (not configured) services appear dimmed on the menu.

4. Setting

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Ring Volume	Not used.	-	N	N
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
3. Headset Ring Note 10	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.			
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
3. IM	Not used.	-	N	N
5. Illumination **Note 11**	Sets lamp indication pattern for incoming call termination.	-	X	X
1. External Call **Note 14**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
6. Headset Ring Volume	Not used	-	N	N
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key/touch-sensitive panel.	Automatic **Note 15**	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. No Tone	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
5. Prefix	Sets prefix number.	-	X	X
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X	X

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Display	Sets display related data.	-	X	X
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 18**	X	X
1. Calendar Format	Specifies the calendar display format.			
0. Automatic	Sets Automatic for calendar display format.			
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.			
2. Type 2				
3. Type 3				
4. Type 4				
5. Type 5				
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 16**	X	X
0. Automatic	Sets Automatic for time display.			
1. 12 hour Indication	Sets 12-hour display.			
2. 24 hour Indication	Sets 24-hour display.			
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			
3. Screen Saver	Sets Screen Saver related data.	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X
1. Disable	Screen Saver is not used.			
2. Enable	Screen Saver is used.			
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X
4. Back Light	Switches ON/OFF the backlight on DT830G (12/24DG).	Enable **Note 12**	-	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			
4. Back Light	Turns up/down the backlight on DT830G (12/24CG).	Level 3	X	-
1. Level 1 (Bright) - 4. Level 4 (Dark)	Select the bright level of backlight.			
5. Font Size	Switches the font size on configuration menu.	Standard	X	X
1. Standard (28 dots (12/24CG)/16 dots (12/24DG))	Selects Standard or Small of font size.			
2. Small (24 dots (12/24CG)/12 dots (12/24DG))				

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Language	Selects the language on date and time display.	Automatic **Note 18**	X	X
0. Automatic	Sets Automatic for language setting on date and time display.			
1. Japanese	Selected language is displayed on the LCD. The parameters of language are displayed as native language. For the details, refer to "4.1.2.24 Language".			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				
22. Korean				
23. Simplified Chinese **Note 19**			-	
24. Traditional Chinese **Note 19**				
7. Advanced	Sets other data for display.	-	X	X
1. Wallpaper	Sets the Home screen background.	Default	X	-
1. Default	Sets the default screen background.			
2. Download	Sets the download data file.			
2. Shortcut Icon	Not used.	-	N	N
3. Font Color	Sets the font color for Time Display/Feature Information Display area. * You can check the color while selecting.	Color 2	X	-
1~16. Color 1 ~ Color 16	Sets Font Color 1 ~ Font Color 16.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4.Turn Off Display	Sets the data when turning off the backlight of the display automatically.	-	X	-
1.Turn Off Display Mode	Sets whether Turn Off Display Mode is in service.	App Priority		
1.Disable	Disables Turn Off Display Mode.			
2.Enable	Enables Turn Off Display Mode.			
3.App Priority	Sets to depend on an application.			
2.Wait Time	Sets the time until turning off the display (1-999 min.).	180		
5.Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable	X	X
1.Disable	Disables Backlight Fade Control.			
2.Enable	Enables Backlight Fade Control.			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
5. Security	Not used.	-	N	N
6. Peripherals	Setting for using peripheral equipment of terminal.	-	X	X
1. USB Memory	Setting for safely removing USB memory from the terminal.			
1. Remove				
2. BCA Option	Setting for the configuration of BCA (Bluetooth Connection Adapter).	-		
1. BCA Connection Settings	Setting for the Bluetooth connection.	-		
1. Auto Connection	Sets whether Auto Connection is in service.	Enable		
1. Disable	Disables Auto Connection.			
2. Enable	Enables Auto Connection.			
2.Connection Cycle	Selects connection cycle of Auto Connection.	10 Seconds		
1. 3 Seconds	Connection cycle is 3 seconds.			
2. 10 Seconds	Connection cycle is 10 seconds.			
3. 1 Minutes	Connection cycle is 1 minute.			
4. 10 Minutes	Connection cycle is 10 minute.			
2. Interrupt Ringing	Sets whether Interrupt Ringing is in service.	Enable		
1. Disable	Disables Interrupt Ringing.			
2. Enable	Enables Interrupt Ringing.			
3. Smart Device Type	Sets the type of Smart Device.	Type 1		
1. Type 1	Sets the Smart Device type as Type 1.			
2. Type 2	Sets the Smart Device type as Type 2.			
4. Auto Path Switch	Sets whether Auto Path Switch is in service.	Enable		
1. Disable	Disables Auto Path Switch.			
2. Enable	Enables Auto Path Switch.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
5. Illumination	Sets lamp indication pattern for incoming call termination.	Blue	X	X
1. Disable	Specifies the color of lamp indication for incoming call termination.			
2. Red				
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
7. Usability	Set the operation of Help key while pop-up window is displayed.	-	X	X
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu	X	X
1.SubMenu	Set the Help key which displays sub menu		X	X
2.Popup Window	Set the Help key which displays pop-up window		X	X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, Phonebook, and Wallpaper.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	X
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X	X
4. Wallpaper	Downloads a file used for wallpaper.	WallPaper.bmp	X	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server’s direction discarding the terminal’s setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

Note 19: This language can be selected for FP95-113 V3 or later.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Network Settings	Sets network related data.	-	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X
1. Disable	DHCP is not used.			
2. Enable	DHCP is used.			
2. IP Address	Sets DT830G terminal’s IP address.	0.0.0.0	X	X
3. Default Gateway	Sets default router’s IP address.	0.0.0.0	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X
1. Disable	VLAN is not used.			
2. Enable	VLAN is used.			
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X
5. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2. PC Port Settings	Sets PC port.	-	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X
1. Disable	Port VLAN of PC port is not used.			
2. Enable	Port VLAN of PC port is used.			
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X
0. Automatic	Sets Automatic for PC port.			
1. Disable	PC port is not used.			
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X
1. Disable	Not forward EAPOL packet from PC port.			
2. Enable	Forwards EAPOL packet from PC port.			
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X
1. Disable	Not clear the authentication status.			
2. Enable	Clear the authentication status.			
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X
3. CDP Mode (Not used)	-	Disable	N	N
4. Type of Service	Sets ToS value.	-	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0		
2. SIP	Sets ToS value for SIP in Hex.	C0		
5.Self Port Settings	Sets each port for DT830G.	-	-	-
1.RTP Self Port	Sets RTP port for DT830G [1024-65520 (except 59986-60000)]. **Note 28**, **Note 29**	3462	X	X
2.SIP Self Port	Sets SIP port for DT830G [1024-65534]. **Note 29**	5060	X	X
6.LLDP Settings	Sets information related to LLDP.	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X
1. Disable	DT830G does not transmit/receive LLDP packets.			
2. Enable	DT830G transmits/receives LLDP packets.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X
1. Disable	DT830G does not perform data setting automatically when LLDP packets are received.			
2. Enable	DT830G performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830G receives LLDP packets (1-60 seconds).	15	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X
5.Hold Multiplier	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830G starts up (1-10 times).	3	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.			
2. Enable	Transparent Mode of LLDP packets is enabled.			
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- Note 27	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X
1. Disable	Both Spare and Backup IPs are disabled.			
2. Spare IP	Spare IP is enabled.			
3. Backup IP	Backup IP is enabled.			
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X
1. IP Address	Sets DT830G terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0		
2. Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0		
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0		
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0		
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X
8.TTL Settings	Setting for multicast TTL (Time To Live)	-	X	X
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	32	X	X
9.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable	X	X
1. Disable	Priority Queue is disabled.		X	X
2. Enable	Priority Queue is enabled.		X	X
2. SIP Settings	Sets SIP related data.	-	X	X
1. SIP User	Sets user data.	-	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X
2. Password	Sets password for digest authentication.	-	X	X
3. Extension Number	Not used.	-	N	N
4. Backup Logon	Not used.	-	N	N

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2. Server Address	Sets IP address or URI of SIP server. **Note 20**, **Note 21**	-	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	0.0.0.0	X	X
2. 2nd Server Address				
3. 3rd Server Address				
4. 4th Server Address				
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	0.0.0.0	X	X
2. 2nd Register Address				
3. 3rd Register Address				
4. 4th Register Address				
3. Access Mode	Sets access mode for SIP server.	Normal	X	X
1. Normal	Normal access			
2. Remote	Remote access			
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.			
2. 2nd Server Port				
3. 3rd Server Port				
4. 4th Server Port				
5. Registrar Destination	Sets port for registrar server [1024-65535].			
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.			
2. 2nd Register Port				
3. 3rd Register Port				
4. 4th Register Port				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
5. Area ID	Sets the area (country) using DT830G.	Automatic	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.			
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.			
2. America (Canada and North America)				
3. Australia				
4. Others				
5. Hong Kong				
6. Malaysia				
7. Singapore				
8. Mexico				
9. Taiwan				
10. New Zealand				
11. Korea				
12. Brazil				
13. China				
14. Thailand				
15. Thailand (EGAT)				
16. Sri Lanka				
17. Germany				
18. Italy				
19. Netherlands				
20. Catalonia (Not used)				
21. Denmark				
22. Sweden				
23. Poland				
24. Czech				
25. Norway				
26. France				
27. Portugal				
28. Spain				
29. Austria				
30. Belgium				
31. UK				
32. Greece				
33. Switzerland				
34. South Africa				
35. Brazil (EMEA)				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).			
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).			
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X
1. Disable	Calls in progress are not held even when DT830G terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are held even when DT830G terminal detects communication failure with the Telephony Server.			
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disable	-	-
1. Disable	Howler tone sending is OFF.			
2. Enable	Howler tone sending is ON.			
7. Encryption	Sets encryption data.	Disable	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X
1. Disable	Authentication is not used.			
2. Enable	Authentication is used.			
2. One Time Password	Sets One Time Password.	-	X	X
3. Authentication Status	Displays authentication status.	-	X	X
8. NAT Traversal **Note 24**	Not used.	-	N	N
1.NAT Traverse Mode	Not used.	Disable	N	N
1.Disable				
2.Dynamic				
3.Static				
2.Network Area Name	Not used.	-	N	N
3.WAN Settings	Not used.	-	N	N
1.WAN Mate IP Address				
2.WAN SIP Mate Port				
3.WAN Self IP Address				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Maintenance Settings	Sets maintenance related data.	-	X	X
1. Download Menu	Downloads specified file to DT830G.	-	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X
1. Boot & Program	Downloads boot and program.	12/24CG: itzisipvc.tgz 12/24DG: itzisipvg.tgz	X	X
2. Config	Downloads configuration file.	config.tgz	X	X
3. Voice File	Downloads voice file.	voice.tgz	X	X
4. Language Pack	Downloads translation data file.	LangPack.tgz	X	X
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
2. Hard Reset	Resets DT830G without data saving.	-	X	X
3. Data Clear	Initializes DT830G selecting the initialization mode.	-	X	X
1. Factory Value	Initializes DT830G to factory default.	-	X	X
2. Terminal Data	Clears terminal data on DT830G.	-	X	X
3. Personal Data	Clears personal data on DT830G.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X
1. Default Audio	Sets audio data.	-	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7].	4	X	X
2. Send Gain	Sets sending gain of handset [0-31].	24	X	X
3. Receive Bias	Sets receiving bias of handset [0-7].	0	X	X
4. Receive Gain	Sets receiving gain of handset [0-31].	22	X	X
5. Talk Characteristics	Sets talk characteristics of handset.	-	X	X
1. Noise Suppression	Sets whether to enable the Noise Suppressor. (Set "1.Disable" in normal operation.)	Disable	X	X
1.Disable	Disables the Noise Suppressor.			
2.Enable	Enables the Noise Suppressor.			
2. Handsfree Mode	Sets handsfree mode of handset.	Retro Mode	X	X
1. Retro Mode	Sets to Retro mode.			
2. New Mode	Sets to New mode.			
6. DTMF Send Level	Specfies the DTMF Send Level [0-48] (level 0 (maximum) ~ level 48 (minimum))	32	X	X
2. KeyKit Type	Sets additional button kit data.	-	X	X
1 ~ 2. Kit 1 ~ 2	Key 1 ~ 2 on button kit are used.	Kit 1	X	X
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-	X	X
1. Line 12	Sets to 12-line of DT830G.		X	X
2. Line 24	Sets to 24-line of DT830G.		X	X
3. Line 32	Not used.		N	N
4. Line 8			N	N
5. Line 6			N	N
6. Line 2			N	N
7. Line 0			N	N

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)	-	X
0. Area Contrast				
1. Wide				
2. Narrow				
4. BCA Audio	Setting for the acoustic type and audio of BCA.	-	X	X
1. Acoustic Type	Selects acoustic type.	Type 1		
1. Type 1 - 5. Type 5				
2. Handset TX Gain	Sets sending gain of handset [-15dB~15dB].	15		
3. Handset RX Gain	Sets receiving gain of handset [-18dB~18dB].	18		
4. HF TX Gain	Sets sending gain of hands free [-15dB~15dB].	15		
5. HF RX Gain	Sets receiving gain of hands free [-18dB~18dB].	18		
6. Noise Suppression	Setting for the Noise Suppressor.	-		
1. TX	Sets the Noise Suppression level for TX.	Disable		
2. RX	Sets the Noise Suppression level for RX.	Disable		
5. ADA Audio	Selects whether to enable the Echo Canceller during a conversation using ADA adapter (call recording adapter).	Disble	X	X
1. Echo Canceller				
1. Disable	Echo Canceller is not used.			
2. Enable (Not used)	Echo Canceller is used.			
5. Auto config	Selects whether to use auto-config function.	Enable	X	X
1. Disable	Auto config is not used.			
2. Enable	Auto config is used.			
6. Data Maintenance	Sets data maintenance related.	-	X	X
1. Backup	Executes data backup.	-	X	X
1. All Data	Executes backup for all the configuration settings and data.	AllData.tgz	X	X
2. Terminal Data	Executes backup for terminal settings and data.	Terminal Data.tgz	X	X
3. Personal Data	Executes backup for personal settings and data.	PersonalData.tgz	X	X
2. Restore	Executes restoration.	-	X	X
1. All Data	Restores all the configuration settings and data.	AllData.tgz	X	X
2. Terminal Data	Restores terminal settings and data.	Terminal Data.tgz	X	X
3. Personal Data	Restores personal settings and data.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7. Simple Test **Note 23**	Changes the terminal to test mode.	-	X	X
1. Call Test	Call Test	-	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X
6. Speaker Test	Tests the speaker.	-	X	X
1. Japan	A DT for Japan is heard in maximum volume.	-	X	X
2. America	A DT for North America is heard in maximum volume.	-	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X
4. Security	Sets security related data.	-	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X
1. Disable	Web Programming is disabled.			
2. Enable	Web Programming is enabled.			
2. Push Server	Sets XML's Push server related data.	-	X	X
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X	X
1. Disable	Access is disabled.			
2. Enable	Access is enabled.			
3. Enable (All Client) **Note 25**	Access is enabled. Select this item to set more than one XML's Push server.			
2. Client IP Address **Note 26**	IP address of XML's Push server.	0.0.0.0	X	X
1. Client 1	Sets IP address of 1st XML's Push server.			
2. Client 2	Sets IP address of 2nd XML's Push server.			
3. Client 3	Sets IP address of 3rd XML's Push server.			
4. Client 4	Sets IP address of 4th XML's Push server.			
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 29**	82	X	X
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X
1. Supplicant	Sets whether to use supplicant on DT830G.	Disable	X	X
1. Disable	Supplicant is disabled on DT830G.			
2. Enable	Supplicant is enabled on DT830G.			
2. EAP Method	Not used.	-	-	-
3. Account	Sets user ID for EAP-MD5.	-	X	X
4. Password	Sets password for EAP-MD5.	-	X	X
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X
1. Disable	VLAN tag is not added to EAP packet.			
2. Enable	VLAN tag is added to EAP packet.			
5. VPN Client	Not used.	-	-	-
6 USB	Sets USB related parameter.	-	X	X
1 Power	Sets whether to supply power to USB devices.	Enable	X	X
1 Disable	Power is not supplied to USB devices.			
2 Enable	Power is supplied to USB devices.			
7 User Password	Setting for User Password.	-	X	X
1. Expiration Date	Sets the expiration of user password (0-90 days).	0	X	X
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1	X	X
5. Terminal Information	Displays terminal information.	-	X	X
Hardware Version	Displays hardware version of DT830G.	-	X	X
MAC Address	Displays MAC address of DT830G.	-	X	X
Firmware Version	Displays firmware version of DT830G.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Application Settings	Sets application data.	-	X	X
1. XML Settings	Specifies XML browser function.	-	X	X
1. Terminal ID	Login number for accessing XML server.	0000	X	X
2. XML Browser **Note 23**	Sets XML browser related data.	-	X	X
1. Home URL **Note 22**	Sets the address of the contents to access when starting up XML browser.	-	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X
3. Directory URL	Sets URL of Corporate Phonebook.	-	X	X
4. Service URL	Sets URL of XML application.	-	X	X
1. 1st Service URL	URL of up to four XML applications can be specified.			
2. 2nd Service URL				
3. 3rd Service URL				
4. 4th Service URL				
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535]. **Note 29**	3530	X	X
3. Popup	Sets the popup window display.	-	X	X
1.Popup Mode	Sets the mode of the popup window display.	App Priority	X	X
1.Enable	Sets the popup window display enabled.			
2.App Priority	Sets to depend on a definition of XML tag for Popup window.			
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-	X	X
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-	X	X
Emergency Dial 1	Up to three destination numbers can be specified.			
Emergency Dial 2				
Emergency Dial 3				
6. Menu Key Mode	Changes to menu key mode.	Enable	X	X
1. Disable	Sets the menu key mode disabled.			
2. Enable	Sets the menu key mode enabled.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7. Voice Rec Settings	Setting for Voice Recording.	-	X	X
1, Voice Recording	Sets whether to use Voice Recording on the terminal.	Disable	X	X
1. Automatic	Enables Voice Recording		X	X
2. Disable	Disables Voice Recording		X	X
2, Rec Memo Settings	Sets the various configurations when using Voice Recording.	-	X	X
1. Auto Rec Start	Sets whether to use Auto Rec Start.	Enable	X	X
1. Disable	Disables Auto Rec Start.		X	X
2. Enable	Enables Auto Rec Start.		X	X
2. Auto Delete	Sets whether to delete the recording files automatically when the free space of USB memory is insufficient to use.	Enable	X	X
1. Disable	Not deletes the recording files automatically.		X	X
2. Enable	Deletes the recording files automatically.		X	X
3. Rec Tone	Sets whether to ring Rec Tone.	Enable	X	X
1. Disable	Disables to ring Rec Tone.		X	X
2. Enable	Enables to ring Rec Tone.		X	X
4. Rec Tone Level	Sets the recording tone level [0-48].	24	X	X
5. Rec Play Mode	Sets whether to play the recorded data.	Disable	X	X
1. Disable	Disables to play the recorded data.		X	X
2. Enable	Enables to play the recorded data.		X	X
6. Rec Admin Password	Sets the password for recording administrator. The password can be entered up to 32 digits.	6633222	X	X

Note 20: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830G terminal is registered.

Note 21: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 22: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details" of "Hold Fixation Mode."

Also, refer to the manual (4.1.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Setting] - [2.IPM Self Port].

Note 23: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 24: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 25: Be careful when you specify "3.Enable(All Client)" because security service are disabled for Push when "3.Enable(All Client)" is set.

Note 26: To use Photo Frame Application for DT830G (12/24CG), configure one of the four Push servers (1st to 4th Push servers) with the IP address for PhotoFrame.

Note 27: "-" is displayed in default settings.

Note 28: Odd numbered ports cannot be assigned.

Note 29: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

4.1.3.4 DT830 Series Configuration Menu List (FW 4.0.0.0 or Later)

This section lists the configuration menu used for DT830 configuration settings.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The following menus are not displayed on the menu window: Tool, Call Func., Presence, Favorite and Config. To open Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0.Config] - [6.Application Settings] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default
1. Missed **Note 1**	Lists the history of missed calls.	-
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-
3. Incoming **Note 1**	Lists the history of incoming calls.	-
4. Delete All	Deletes the call history completely.	-

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data setting.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default
1. Call	Originates a call to the number displayed on the history.	-
2. Directory Add	Registers the number displayed on the history to Directory.	-
1. New	Registers new number.	-
Category Set	Selects the group the new number registered to.	Company
1. Company		
2. Mobile		
3. Voice Mail		
4. Home		
5. Others		
Priority Flag	Sets the priority order of dialing number for call origination.	Disable
1. Disable		
2. Enable		
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-
2. Addition	Adds numbers to searched data.	-
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-

Parameter	Description	Default
3. Prefix	Adds a prefix to the number displayed on the LCD.	-
4. Delete One	Deletes one history displayed on the LCD.	-
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-

Note 2: This menu has the same function with “2. Directory” →“2. Edit.”

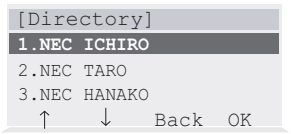
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1: This Directory Search menu has the same function with “2. Directory” → “1. Personal” → “1. Search.” On searching, data (name) are listed in alphanumeric order (see LCD-1).

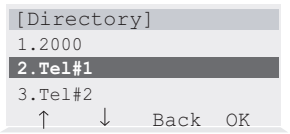
STEP 2: Select the target data on the list, and then press the software key for “OK” to move on to LCD-2.

STEP 3: In the example below, from “2.Tel #2” to down on the list are vacant and new numbers can be added to. Select “2.Tel #2” and press the software key for “OK” to move on to Category Set screen (LCD-3).

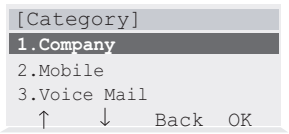
LCD-1



LCD-2



LCD-3



Note: Follow the sub menu “2. Directory Add” → “1. New” for the subsequent procedure.

Note: This is an example for DT830 (Standard LCD).

2. Directory

Parameter	Description	Default
1. Personal	Displays Terminal Phonebook **Note 7**	-
1. Search	Searches Phonebook.	-
1. Group	Searches by specifying group.	-
1. Default	Searches through “Default” group.	-
2. Colleagues	Searches through “Colleagues” group.	-
3. VIPs	Searches through “VIPs” group.	-
4. Family	Searches through “Family” group.	-
5. Friends	Searches through “Friends” group.	-
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-
2. Name	Searches by entering a target name.	-
3. Tel Number	Searches by entering numbers.	-
4. Others	Searches by other search key.	-
1. Memory ID	Searches by entering Memory ID.	-
2. Category	Searches by selecting Category.	-
1. Company	Searches through “Company” category.	-
2. Mobile	Searches through “Mobile” category.	-
3. Voice Mail	Searches through “Voice Mail” category.	-
4. Home	Searches through “Home” category.	-
5. Etc	Searches through “Etc” category.	-
3. Company	Searches by entering a company name.	-
4. Alphabet	Searches by alphabet order.	-
1. ABC	Searches by the name starting with A ~ Z.	-
2. DEF		
3. GHI		
4. JKL		
5. MNO		
6. PQRS		
7. TUV		
8. WXYZ		
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).	
#. All	Searches all.	
2. Edit	Edits the data in Terminal Phonebook.	-
1. Name	Registers name.	-
2. Group	Allocates group.	Default
1. Default		
2. Colleagues		
3. VIPs		
4. Family		
5. Friends		
6. Group6 ~ 20. Group 20		

2. Directory (Continued)

Parameter	Description	Default
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company
1. Company		
2. Mobile		
3. Voice Mail		
4. Home		
5. Others		
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable
1. Disable		
2. Enable		
7. Company Name	Registers company name.	-
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*	
2. Default	Applies default Ringing Tone on terminal.	
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.	
17. Download 1 ~ 19. Download 3		
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	
2. Default	Applies default illumination for announcing call termination.	
3. Disable	Illumination is OFF.	
4. Red	Specifies color of lamp indication for incoming call termination.	
5. Green		
6. Yellow		
7. Blue		
8. Light Blue		
9. Purple		
10. White		
11. Rotation		
0. Memory ID	Registers memory ID.	-

2. Directory (Continued)

Parameter	Description	Default
3. Group Setting	Sets groups.	-
1. Default		
2. Colleagues		
3. VIPs		
4. Family		
5. Friends		
6. Group6 ~ 20. Group 20		
1. Name	Registers group name.	-
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)
4. Own Number	Displays own number (login number).	-
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-

Note 4: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal’s configuration menu regardless of SFI: 246/SFI: 247 data setting.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by “0.Config” - “6. Application Settings” - “1.XML Settings” - “3. Directory URL. When XML application is assigned to directory URL, “3. Corporate” is displayed on the “Directory” menu.

3. Service

Parameter	Description	Default
3. Service	Starts up XML browser and Instant Message tool.	-
1. Service **Note 9**	Starts up XML browser.	-

Note: Service menu is displayed only when the URL is set by “0.Config” - “6. Application Settings” - “1.XML Settings” - “4. Service URL”.

Note 9: At most 4 services are displayed on the menu. Even though “1. Service” isn’t displayed on the menu when only one URL is set, selection of “3. Service” starts up XML browser.

4. Setting

Parameter	Description	Default
1. User Setting	Sets user interface related.	-
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-
1. Ring Volume	Not used.	-
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable
1. Disable	Offhook ringing is OFF.	
2. Enable	Offhook ringing is ON.	
3. Headset Ring **Note 10**	Selects whether to use headset ringing.	Disable
1. Disable	Headset ringing is OFF.	
2. Enable	Headset ringing is ON.	

4. Setting (Continued)

Parameter	Description	Default
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.	
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
3. IM	Not used.	-
5. Illumination **Note 12**	Sets lamp indication pattern for incoming call termination.	-
1. External Call **Note 18**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic
1. Disable	Lamp indication is OFF.	
2. Red	Specifies the color of lamp indication for incoming call termination.	
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		

4. Setting (Continued)

Parameter	Description	Default
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic
1. Disable	Lamp indication is OFF.	
2. Red	Specifies the color of lamp indication for incoming call termination.	
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		
3. IM	Not used.	-
6. Headset Ring Volume	Not used	-
2. Talk	Sets call related data.	-
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic
0. Automatic	Applies RTP alarm setting on the Telephony Server.	
1. Disable	Alarm is OFF.	
2. Enable	Alarm is ON.	
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic
0. Automatic	Applies DTMF tone setting on the Telephony Server.	
1. Disable	DTMF tone is OFF.	
2. Enable	DTMF tone is ON.	
3. Key Touch Tone	Sets touch tone for pressing digit key.	Automatic **Note 15**
0. Automatic	Sets Automatic to key touch tone.	
1. No Tone	Sets key touch tone disabled.	
2. Tone	Sets key touch tone enabled.	
3. Voice	Enables the key touch tone by voice recognition.	
4. Hold Music	Sets Music-on-Hold.	Default
1. Default	Applies the default music (Minuet).	
2. Download	Applies the downloaded music.	
5. Prefix	Sets prefix number.	-
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-

4. Setting (Continued)

Parameter	Description	Default
3. Display	Sets display related data.	-
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 18**
1. Calendar Format	Specifies the calendar display format.	
0. Automatic	Sets Automatic for calendar display format.	
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.	
2. Type 2		
3. Type 3		
4. Type 4		
5. Type 5		
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 16**
0. Automatic	Sets Automatic for time display.	
1. 12 hour Indication	Sets 12-hour display.	
2. 24 hour Indication	Sets 24-hour display.	
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**
0. Automatic	Sets Automatic for volume gage display.	
1. Disable	Volume gage is not displayed.	
2. Enable	Volume gage is displayed.	
3. Screen Saver	Sets Screen Saver related data.	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable
1. Disable	Screen Saver is not used.	
2. Enable	Screen Saver is used.	
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120
4. Back Light	Switches ON/OFF the backlight on DT830.	Enable **Note 12**
1. Disable	Backlight is OFF.	
2. Enable	Backlight is ON.	
5. Font Size	Switches the font size on configuration menu.	Standard (16dot)
1. Standard (16dot)	Selects Standard or Small of font size.	
2. Small (12dot)		

4. Setting (Continued)

Parameter	Description	Default
6. Language	Selects the language on date and time display.	Automatic **Note 18**
0. Automatic	Sets Automatic for language setting on date and time display.	
1. Japanese	Selected language is displayed on the LCD. The parameters of language are displayed as native language. For the details, refer to "4.1.2.24 Language".	
2. NEC English		
3. NEC Portuguese		
4. NEC Spanish		
5. NEC French		
6. German		
7. Italian		
8. Dutch		
9. Norwegian		
10. Danish		
11. Swedish		
12. Greek		
13. English		
14. Portuguese		
15. Spanish		
16. French		
17. Russian		
18. Turkish		
19. Romania		
20. Polish		
21. Catalan		
22. Korean		
23. Simplified Chinese **Note 19**		
24. Traditional Chinese **Note 19**		
7. Advanced	Sets other data for display.	-
1..Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable
1.Disable	Disables Backlight Fade Control.	
2.Enable	Enables Backlight Fade Control.	
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000
5. Security	Not used.	-

4. Setting (Continued)

Parameter	Description	Default
6. Peripherals	Setting for using peripheral equipment of terminal.	-
1. USB Memory	Not used.	-
2. BCA Option	Setting for BCA (Bluetooth Connection Adapter).	-
1. BCA Connection Settings	Setting for Bluetooth connection.	-
1. Auto Connection	Selects whether to use Auto Connection.	Enable
1. Disable	Auto Connection is not used.	
2. Enable	Auto Connection is used.	
2. Connection Cycle	Sets Bluetooth connection cycle.	10 Seconds
1. 3 Seconds	Bluetooth connection cycle is 3 seconds.	
2. 10 Seconds	Bluetooth connection cycle is 10 seconds.	
3. 1 Minute	Bluetooth connection cycle is 1 minute.	
4. 10 Minutes	Bluetooth connection cycle is 10 minutes.	
2. Interrupt Ringing	Selects whether to use Interrupt Ringing.	Enable
1. Disable	Interrupt Ringing is OFF.	
2. Enable	Interrupt Ringing is ON.	
3. Smart Device Type	Setting for Smart Device Type.	Type 1
1. Type 1	Sets Smart Device Type for type 1.	
2. Type 2	Sets Smart Device Type for type 2.	
4. Auto Path Switch	Sets whether Auto Path Switch is in service.	Enable
1. Disable	Disables Auto Path Switch.	
2. Enable	Enables Auto Path Switch.	
5. Illumination	Sets lamp indication pattern for incoming call termination.	Enable
1. Disable	Specifies the color of lamp indication for incoming call termination.	Blue
2. Red		
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		
7. Usability	Set the operation of Help key while pop-up window is displayed.	-
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu
1.SubMenu	Set the Help key which displays sub menu	
2.Popup Window	Set the Help key which displays pop-up window	
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-

4. Setting (Continued)

Parameter	Description	Default
2. Download	Sets download related data.	-
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.	
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav
2. Download 2		Melody2.wav
3. Download 3		Melody3.wav
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
3. Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
4. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save the download file.	
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0
4. Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
5. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save backup file.	

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Settings” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

Note 19: This language can be selected for FP95-113 V3 or later.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default
1. Network Settings	Sets network related data.	-
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable
1. Disable	DHCP is not used.	
2. Enable	DHCP is used.	
2. IP Address	Sets DT830 terminal’s IP address.	0.0.0.0
3. Default Gateway	Sets default router’s IP address.	0.0.0.0
4. Subnet Mask	Sets subnet mask.	0.0.0.0
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0
6. Advanced Settings	Sets network expanded data.	-
1. LAN Port Settings	Sets LAN port.	-
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable
1. Disable	VLAN is not used.	
2. Enable	VLAN is used.	
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5
5. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable

0. Config

Parameter	Description	Default
2. PC Port Settings	Sets PC port.	-
1. Speed&Duplex	Sets communication speed of PC port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable
1. Disable	Port VLAN of PC port is not used.	
2. Enable	Port VLAN of PC port is used.	
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0
5. Port Available	Selects whether to use PC port.	Automatic
0. Automatic	Sets Automatic for PC port.	
1. Disable	PC port is not used.	
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable
1. Disable	Not forward EAPOL packet from PC port.	
2. Enable	Forwards EAPOL packet from PC port.	
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable
1. Disable	Not clear the authentication status.	
2. Enable	Clear the authentication status.	
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable
3. CDP Mode	Not used.	-
4. Type of Service	Sets ToS value.	-
1. RTP	Sets ToS value for RTP in Hex.	A0
2. SIP	Sets ToS value for SIP in Hex.	C0
5.Self Port Settings	Sets each port for DT830.	-
1.RTP Self Port	Sets RTP port for DT830 [1024-65520 (except 59986-60000)]. **Note 28**, **Note 29**	3462
2.SIP Self Port	Sets SIP port for DT830 [1024-65534]. **Note 29**	5060
6.LLDP Settings	Sets information related to LLDP.	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable
1. Disable	DT830 does not transmit/receive LLDP packets.	
2. Enable	DT830 transmits/receives LLDP packets.	

0. Config

Parameter	Description	Default
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable
1. Disable	DT830 does not perform data setting automatically when LLDP packets are received.	
2. Enable	DT830 performs data setting automatically when LLDP packets are received.	
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830 receives LLDP packets (1-60 seconds).	15
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30
5.Hold Multiplier **Note 29**	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830 starts up (1-10 times).	3
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable
1. Disable	Transparent Mode of LLDP packets is disabled.	
2. Enable	Transparent Mode of LLDP packets is enabled.	
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 27**

0. Config

Parameter	Description	Default
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable
1. Disable	Both Spare and Backup IPs are disabled.	
2. Spare IP	Spare IP is enabled.	
3. Backup IP	Backup IP is enabled.	
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-
1. IP Address	Sets DT830 terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0
2. Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0
8.TTL Settings	Setting for multicast TTL (Time To Live)	32
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	
9.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable
1. Disable	Priority Queue is disabled.	
2. Enable	Priority Queue is enabled.	
2. SIP Settings	Sets SIP related data.	-
1. SIP User	Sets user data.	-
1. User ID	Sets user ID for digest authentication.	-
2. Password	Sets password for digest authentication.	-
3. Extension Number	Not used.	-
4. Backup Logon	Not used.	-

0. Config

Parameter	Description	Default
2. Server Address	Sets IP address or URI of SIP server. **Note 21**, **Note 22**	-
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	-
2. 2nd Server Address		
3. 3rd Server Address		
4. 4th Server Address		
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	-
2. 2nd Register Address		
3. 3rd Register Address		
4. 4th Register Address		
3. Access Mode	Sets access mode for SIP server.	Normal
1. Normal	Normal access	
2. Remote	Remote access	
4. SIP Server Port	Sets SIP server port [1024-65535].	5060
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.	
2. 2nd Server Port		
3. 3rd Server Port		
4. 4th Server Port		
5. Registrar Destination	Sets port for registrar server [1024-65535].	
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.	
2. 2nd Register Port		
3. 3rd Register Port		
4. 4th Register Port		

0. Config

Parameter	Description	Default
5. Area ID	Sets the area (country) using DT830.	Automatic
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.	
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.	
2. America (Canada and North America)		
3. Australia		
4. Others		
5. Hong Kong		
6. Malaysia		
7. Singapore		
8. Mexico		
9. Taiwan		
10. New Zealand		
11. Korea		
12. Brazil		
13. China		
14. Thailand		
15. Thailand (EGAT)		
16. Sri Lanka		
17. Germany		
18. Italy		
19. Netherlands		
20. Catalonia (Not used)		
21. Denmark		
22. Sweden		
23. Poland		
24. Czech		
25. Norway		
26. France		
27. Portugal		
28. Spain		
29. Austria		
30. Belgium		
31. UK		
32. Greece		
33. Switzerland		
34. South Africa		
35. Brazil (EMEA)		

0. Config

Parameter	Description	Default
6. Extra Function	Sets expanded data related to SIP packet.	-
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 500ms).	
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).	
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable
1. Disable	Calls in progress are not held even when DT830 terminal detects communication failure with the Telephony Server.	
2. Enable	Calls in progress are held even when DT830 terminal detects communication failure with the Telephony Server.	
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disable
1. Disable	Howler tone sending is OFF.	
2. Enable	Howler tone sending is ON.	
7. Encryption	Sets encryption data.	Disable
1. Authentication Mode	Selects whether to use authentication.	
1. Disable	Authentication is not used.	
2. Enable	Authentication is used.	
2. One Time Password	Sets One Time Password.	-
3. Authentication Status	Displays authentication status.	-
8. NAT Traversal **Note 25**	Not used.	-
1.NAT Traverse Mode	Not used.	-
1.Disable		
2.Dynamic		
3.Static		
2.Network Area Name	Not used.	-
3.WAN Settings	Not used.	-
1.WAN Mate IP Address		
2.WAN SIP Mate Port		
3.WAN Self IP Address		

0. Config

Parameter	Description	Default
3. Maintenance Settings	Sets maintenance related data.	-
1. Download Menu	Downloads specified file to DT830.	-
1. Download Files	Specifies download file name for each file type.	-
1. Boot & Program	Downloads boot and program.	itzisipvg.tgz
2. Config	Downloads configuration file.	config.tgz
3. Voice File	Downloads voice file.	voice.tgz
4. Language Pack	Downloads translation data file.	LangPack.tgz
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
4. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-
2. Hard Reset	Resets DT830 without data saving.	-

0. Config

Parameter	Description	Default
3. Data Clear	Initializes DT830 selecting the initialization mode.	-
1. Factory Value	Initializes DT830 to factory default.	-
2. Terminal Data	Clears terminal data on DT830.	-
3. Personal Data	Clears personal data on DT830.	-
4. Adjust	Adjusts LCD, audio, and button kit.	-
1. Default Audio	Sets audio data.	-
1. Sidetone Volume	Sets Side Tone volume [0-7].	4
2. Send Gain	Sets sending gain of handset [0-31].	24
3. Receive Bias	Sets receiving bias of handset [0-7].	0
4. Receive Gain	Sets receiving gain of handset [0-31].	22
5. Talk Characteristics	Sets talk characteristics of handset.	-
1.Noise Suppression	Sets whether to enable the Noise Suppressor. (Set “1.Disable” in normal operation.)	Disable
2. Handsfree Mode	Sets whether to enable the Handsfree Mode	Retro mode
6. DTMF Send Level	Sets DTMF Send Level [0-48]. (level 0 (maximum) ~ level 48 (minimum))	32
2. KeyKit Type	Sets additional button kit data.	-
1 ~ 5. Kit 1 ~ 2, 8 ~ 10 . **Note 28**, **Note 29**	Key 1 ~ 2, 8 ~ 10 on button kit are used.	Kit 1
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-
1. Line 12	Sets to 12-line of DT830.	
2. Line 24	Sets to 24-line of DT830.	
3. Line 32	Not used.	
4. Line 8	Sets to 8-line of DT830.	
5. Line 6	Not used.	
6. Line 2	Not used.	
7. Line 0	Not used.	

0. Config

Parameter	Description	Default
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)
0. Area Contrast		
1. Wide		
2. Narrow		
4. BCA Audio	Setting for the acoustic type and audio of BCA.	-
1. Acoustic Type	Selects acoustic type.	Type 1
1. Type 1 - 5. Type 5		
2. Handset TX Gain	Sets sending gain of handset [0dB~30dB].	15
3. Handset RX Gain	Sets receiving gain of handset [0dB~36dB].	18
4. HF TX Gain	Sets sending gain of hands free [0dB~30dB].	15
5. HF RX Gain	Sets receiving gain of hands free [0dB~36dB].	18
6. Noise Suppression	Setting for the Noise Suppressor.	-
1. TX	Sets the Noise Suppression level for TX.	Disable
2. RX	Sets the Noise Suppression level for RX.	Disable
5. ADA Audio	Selects whether to enable the Echo Canceller during a conversation using ADA adapter (call recording adapter).	Disable
1. Echo Canceller		
1. Disable	Echo Canceller is not disabled.	
2. Enable (Not used)	Echo Canceller is enabled.	
5. Auto config	Selects whether to use auto-config function.	Enable
1. Disable	Auto config is not used.	
2. Enable	Auto config is used.	
6. Data Maintenance	Sets data maintenance related.	-

0. Config

Parameter	Description	Default
1. Backup	Executes data backup.	-
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz
2. Restore	Executes restoration.	-
1. All Data	Restores all the configuration setting and data.	AllData.tgz
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz
3. Personal Data	Restores personal setting and data.	PersonalData.tgz
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
5. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-

0. Config

Parameter	Description	Default
7. Simple Test **Note 24**	Changes the terminal to test mode.	-
1. Call Test	Call Test	-
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188
3. Key Test 1 (Random)	Tests to press the random button.	-
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-
5. Loop Back Test	Tests the voice loop back.	-
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-
6. Speaker Test	Tests the speaker.	-
1. Japan	A DT for Japan is heard in maximum volume.	-
2. America	A DT for North America is heard in maximum volume.	-
7. Receiver Test	Receiver Test for a handset	-
4. Security	Sets security related data.	-
1. Web Programming	Selects whether to use Web Programming.	Enable
1. Disable	Web Programming is disabled.	
2. Enable	Web Programming is enabled.	
2. Push Server	Sets XML's Push server related data.	-
1. Push Server Access	Sets whether to access XML's Push server.	Enable
1. Disable	Access is disabled.	
2. Enable	Access is enabled.	
3. Enable (All Client) **Note 26**	Access is enabled. Select this item to set more than one XML's Push server.	
2. Client IP Address	IP address of XML's Push server.	0.0.0.0
1. Client 1	Sets IP address of 1st XML's Push server.	
2. Client 2	Sets IP address of 2nd XML's Push server.	
3. Client 3	Sets IP address of 3rd XML's Push server.	
4. Client 4	Sets IP address of 4th XML's Push server.	
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 29**	82
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222

0. Config

Parameter	Description	Default
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-
1. Supplicant	Sets whether to use supplicant on DT830.	Disable
1. Disable	Supplicant is disabled on DT830.	
2. Enable	Supplicant is enabled on DT830.	
2. EAP Method	Not used.	-
3. Account	Sets user ID for EAP-MD5.	-
4. Password	Sets password for EAP-MD5.	-
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable
1. Disable	VLAN tag is not added to EAP packet.	
2. Enable	VLAN tag is added to EAP packet.	
5. VPN Client	Not used.	-
6. USB	Not used.	-
7 User Password	Setting for User Password.	-
1. Expiration Date	Sets the expiration of user password (0-90 days).	0
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1
5. Terminal Information	Displays terminal information.	-
Hardware Version	Displays hardware version of DT830.	-
MAC Address	Displays MAC address of DT830.	-
Firmware Version	Displays firmware version of DT830.	-

0. Config

Parameter	Description	Default
6. Application Settings	Sets application data.	-
1. XML Settings	Specifies XML browser function.	-
1. Terminal ID	Login number for accessing XML server.	0000
2. XML Browser	Sets XML browser related data.	-
1. Home URL **Note 23**	Sets the address of the contents to access when starting up XML browser.	-
2. Proxy Settings	Sets proxy server related data.	-
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080
3. Directory URL	Sets URL of Corporate Phonebook.	-
4. Service URL	Sets URL of XML application.	-
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 29**	3530
3. Popup	Sets the popup window display.	-
1.Popup Mode	Sets the mode of the popup window display.	App Priority
1.Enable	Sets the popup window display enabled.	
2.App Priority	Sets to depend on a definition of XML tag for Popup window.	
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-
Emergency Dial 1	Up to three destination numbers can be specified.	
Emergency Dial 2		
Emergency Dial 3		
6. Menu Key Mode	Changes to menu key mode.	Enable
1. Disable	Sets the menu key mode disabled.	
2. Enable	Sets the menu key mode enabled.	

Note 20: “SIP server” used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830 terminal is registered.

Note 21: For IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

Note 22: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set “Hold Fixation Mode” to Hold Key to retrieve a held call. Refer to “Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details” of “Hold Fixation Mode.”

Also, refer to the manual (4.1.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Settings] - [2.IPM Self Port].

Note 23: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 24: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 25: Be careful when you specify “3.Enable(All Client)” because security service are disabled for Push when “3.Enable(All Client)” is set.

Note 26: “-” is displayed in default settings.

Note 27: Odd numbered ports cannot be assigned.

Note 28: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

Note 29: LLDP time to live = LLDP packet transmission interval × the set value (65535 at most)

4.1.3.5 DT830G Series Configuration Menu List (FW 3.0.3.0 or Later)

This section lists the configuration menu used for DT830G configuration settings. DT830G (12/24CG), and DT830G (12/24DG) columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The Config menu is not displayed on the menu window. To open the Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0. Config] - [6.Application Settings] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Missed **Note 1**	Lists the history of missed calls.	-	X	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X	X
4. Delete All	Deletes the call history completely.	-	X	X

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data settings.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Call	Originates a call to the number displayed on the history.	-	X	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X	X

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. New	Registers new number.	-	X	X
Category Set	Selects the group the new number registered to.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Sets the priority order of dialing number for call origination.	Disable	X	X
1. Disable				
2. Enable				
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag settings.)	-	X	X
2. Addition	Adds numbers to searched data.	-	X	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X	X
4. Delete One	Deletes one history displayed on the LCD.	-	X	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X	X

Note 2: This menu has the same function with "2. Directory" → "2. Edit."

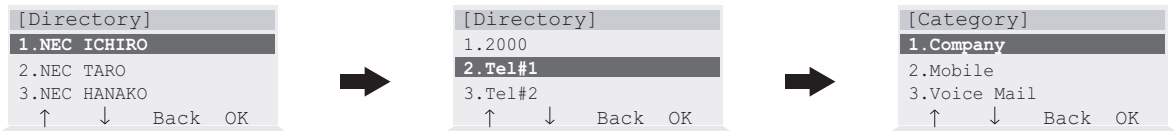
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1: This Directory Search menu has the same function with "2. Directory" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT830G (Standard LCD).

2. Directory

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Personal	Displays Terminal Phonebook Note 7	-	X	X
1. Search	Searches Phonebook.	-	X	X
1. Group	Searches by specifying group.	-	X	X
1. Default	Searches through “Default” group.	-	X	X
2. Colleagues	Searches through “Colleagues” group.	-	X	X
3. VIPs	Searches through “VIPs” group.	-	X	X
4. Family	Searches through “Family” group.	-	X	X
5. Friends	Searches through “Friends” group.	-	X	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X	X
2. Name	Searches by entering a target name.	-	X	X
3. Tel Number	Searches by entering numbers.	-	X	X
4. Others	Searches by other search key.	-	X	X
1. Memory ID	Searches by entering Memory ID.	-	X	X
2. Category	Searches by selecting Category.	-	X	X
1. Company	Searches through “Company” category.	-	X	X
2. Mobile	Searches through “Mobile” category.	-	X	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X	X
4. Home	Searches through “Home” category.	-	X	X
5. Etc	Searches through “Etc” category.	-	X	X
3. Company	Searches by entering a company name.	-	X	X
4. Alphabet	Searches by alphabet order.	-	X	X
1. ABC	Searches by the name starting with A ~ Z.	-	X	X
2. DEF				
3. GHI				
4. JKL				
5. MNO				
6. PQRS				
7. TUV				
8. WXYZ				
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).			
#. All	Searches all.			
2. Edit	Edits the data in Terminal Phonebook.	-	X	X
1. Name	Registers name.	-	X	X
2. Group	Allocates group.	Default	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				

2. Directory (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable	X	X
1. Disable				
2. Enable				
7. Company Name	Registers company name.	-	X	X
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*			
2. Default	Applies default Ringing Tone on terminal.			
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.			
17. Download 1 ~ 19. Download 3				
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*			
2. Default	Applies default illumination for announcing call termination.			
3. Disable	Illumination is OFF.			
4. Red	Specifies color of lamp indication for incoming call termination.			
5. Green				
6. Yellow				
7. Blue				
8. Light Blue				
9. Purple				
10. White				
11. Rotation				
0. Memory ID	Registers memory ID.	-	X	X

2. Directory (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Group Settings	Sets groups.	-	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
1. Name	Registers group name.	-	X	X
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)	X	X
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)	X	X
4. Own Number	Displays own number (login number).	-	X	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-	X	X

Note 4: The priority order of Ringing tone settings is as follows.
- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Settings” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal’s configuration menu regardless of SFI: 246/SFI: 247 data settings.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by “0. Config” - “6. Application Settings” - “1.XML Settings” - “3. Directory URL. When XML application is assigned to directory URL, “3. Corporate” is displayed on the “Directory” menu.

3. Service

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Service Note 9	Starts up XML browser and Instant Message tool.	-	X	X
1. Service 1	Starts up XML browser.	-	X	X
2. Service 2		-	X	X
3. Service 3		-	X	X
4. Service 4		-	X	X

Note 9: Unavailable (not configured) services appear dimmed on the menu.

4. Setting

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Ring Volume	Not used.	-	N	N
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
3. Headset Ring Note 10	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.			
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
3. IM	Not used.	-	N	N
5. Illumination **Note 11**	Sets lamp indication pattern for incoming call termination.	-	X	X
1. External Call **Note 14**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
6. Headset Ring Volume	Not used	-	N	N
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key/touch-sensitive panel.	Automatic **Note 15**	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. No Tone	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
5. Prefix	Sets prefix number.	-	X	X
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X	X

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Display	Sets display related data.	-	X	X
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 18**	X	X
1. Calendar Format	Specifies the calendar display format.			
0. Automatic	Sets Automatic for calendar display format.			
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.			
2. Type 2				
3. Type 3				
4. Type 4				
5. Type 5				
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 16**	X	X
0. Automatic	Sets Automatic for time display.			
1. 12 hour Indication	Sets 12-hour display.			
2. 24 hour Indication	Sets 24-hour display.			
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			
3. Screen Saver	Sets Screen Saver related data.	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X
1. Disable	Screen Saver is not used.			
2. Enable	Screen Saver is used.			
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X
4. Back Light	Switches ON/OFF the backlight on DT830G (12/24DG).	Enable **Note 12**	-	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			
4. Back Light	Turns up/down the backlight on DT830G (12/24CG).	Level 3	X	-
1. Level 1 (Bright) - 4. Level 4 (Dark)	Select the bright level of backlight.			
5. Font Size	Switches the font size on configuration menu.	Standard	X	X
1. Standard (28 dots (12/24CG)/16 dots (12/24DG))	Selects Standard or Small of font size.			
2. Small (24 dots (12/24CG)/12 dots (12/24DG))				

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Language	Selects the language on date and time display.	Automatic **Note 18**	X	X
0. Automatic	Sets Automatic for language setting on date and time display.			
1. Japanese	Selected language is displayed on date and time display.			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				
22. Korean				
7. Advanced	Sets other data for display.	-	X	X
1. Wallpaper	Sets the Home screen background.	Default	X	-
1. Default	Sets the default screen background.			
2. Download	Sets the download data file.			
2. Shortcut Icon	Not used.	-	N	N
3. Font Color	Sets the font color for Time Display/Feature Information Display area. * You can check the color while selecting.	Color 2	X	-
1~16. Color 1 ~ Color 16	Sets Font Color 1 ~ Font Color 16.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4.Turn Off Display	Sets the data when turning off the backlight of the display automatically.	-	X	-
1.Turn Off Display Mode	Sets whether Turn Off Display Mode is in service.	App Priority		
1.Disable	Disables Turn Off Display Mode.			
2.Enable	Enables Turn Off Display Mode.			
3.App Priority	Sets to depend on an application.			
2.Wait Time	Sets the time until turning off the display (1-999 min.).	180		
5.Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable	X	X
1.Disable	Disables Backlight Fade Control.			
2.Enable	Enables Backlight Fade Control.			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
5. Security	Not used.	-	N	N
6. Peripherals	Setting for using peripheral equipment of terminal.	-	X	X
1. USB Memory	Setting for safely removing USB memory from the terminal.			
1. Remove				
2. BCA Option	Setting for the configuration of BCA (Bluetooth Connection Adapter).	-		
1. BCA Connection Settings	Setting for the Bluetooth connection.	-		
1. Auto Connection	Sets whether Auto Connection is in service.	Enable		
1. Disable	Disables Auto Connection.			
2. Enable	Enables Auto Connection.			
2.Connection Cycle	Selects connection cycle of Auto Connection.	10 Seconds		
1. 3 Seconds	Connection cycle is 3 seconds.			
2. 10 Seconds	Connection cycle is 10 seconds.			
3. 1 Minutes	Connection cycle is 1 minute.			
4. 10 Minutes	Connection cycle is 10 minute.			
2. Interrupt Ringing	Sets whether Interrupt Ringing is in service.	Enable		
1. Disable	Disables Interrupt Ringing.			
2. Enable	Enables Interrupt Ringing.			
3. Smart Device Type	Sets the type of Smart Device.	Type 1		
1. Type 1	Sets the Smart Device type as Type 1.			
2. Type 2	Sets the Smart Device type as Type 2.			
4. Auto Path Switch	Sets whether Auto Path Switch is in service.	Enable		
1. Disable	Disables Auto Path Switch.			
2. Enable	Enables Auto Path Switch.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
5. Illumination	Sets lamp indication pattern for incoming call termination.	Blue	X	X
1. Disable	Specifies the color of lamp indication for incoming call termination.			
2. Red				
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
7. Usability	Set the operation of Help key while pop-up window is displayed.	-	X	X
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu	X	X
1.SubMenu	Set the Help key which displays sub menu		X	X
2.Popup Window	Set the Help key which displays pop-up window		X	X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, Phonebook, and Wallpaper.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	X
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X	X
4. Wallpaper	Downloads a file used for wallpaper.	WallPaper.bmp	X	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server’s direction discarding the terminal’s setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Network Settings	Sets network related data.	-	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X
1. Disable	DHCP is not used.			
2. Enable	DHCP is used.			
2. IP Address	Sets DT830G terminal’s IP address.	0.0.0.0	X	X
3. Default Gateway	Sets default router’s IP address.	0.0.0.0	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X
1. Disable	VLAN is not used.			
2. Enable	VLAN is used.			
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X
5. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X
2. PC Port Settings	Sets PC port.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X
1. Disable	Port VLAN of PC port is not used.			
2. Enable	Port VLAN of PC port is used.			
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X
0. Automatic	Sets Automatic for PC port.			
1. Disable	PC port is not used.			
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X
1. Disable	Not forward EAPOL packet from PC port.			
2. Enable	Forwards EAPOL packet from PC port.			
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X
1. Disable	Not clear the authentication status.			
2. Enable	Clear the authentication status.			
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X
3. CDP Mode (Not used)	-	Disable	N	N
4. Type of Service	Sets ToS value.	-	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0		
2. SIP	Sets ToS value for SIP in Hex.	C0		
5.Self Port Settings	Sets each port for DT830G.	-	-	-
1.RTP Self Port	Sets RTP port for DT830G [1024-65520 (except 59986-60000)]. **Note 27**, **Note 28**	3462	X	X
2.SIP Self Port	Sets SIP port for DT830G [1024-65534]. **Note 28**	5060	X	X
6.LLDP Settings	Sets information related to LLDP.	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X
1. Disable	DT830G does not transmit/receive LLDP packets.			
2. Enable	DT830G transmits/receives LLDP packets.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X
1. Disable	DT830G does not perform data setting automatically when LLDP packets are received.			
2. Enable	DT830G performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830G receives LLDP packets (1-60 seconds).	15	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X
5.Hold Multiplier	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830G starts up (1-10 times).	3	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.			
2. Enable	Transparent Mode of LLDP packets is enabled.			
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 26**	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X
1. Disable	Both Spare and Backup IPs are disabled.			
2. Spare IP	Spare IP is enabled.			
3. Backup IP	Backup IP is enabled.			
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X
1. IP Address	Sets DT830G terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0		
2. Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0		
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0		
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0		
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X
8.TTL Settings	Setting for multicast TTL (Time To Live)	-	X	X
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	32	X	X
9.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable	X	X
1. Disable	Priority Queue is disabled.		X	X
2. Enable	Priority Queue is enabled.		X	X
2. SIP Settings	Sets SIP related data.	-	X	X
1. SIP User	Sets user data.	-	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X
2. Password	Sets password for digest authentication.	-	X	X
3. Extension Number	Not used.	-	N	N
4. Backup Logon	Not used.	-	N	N

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2. Server Address	Sets IP address or URI of SIP server. **Note 19**, **Note 20**	-	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	0.0.0.0	X	X
2. 2nd Server Address				
3. 3rd Server Address				
4. 4th Server Address				
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	0.0.0.0	X	X
2. 2nd Register Address				
3. 3rd Register Address				
4. 4th Register Address				
3. Access Mode	Sets access mode for SIP server.	Normal	X	X
1. Normal	Normal access			
2. Remote	Remote access			
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.			
2. 2nd Server Port				
3. 3rd Server Port				
4. 4th Server Port				
5. Registrar Destination	Sets port for registrar server [1024-65535].			
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.			
2. 2nd Register Port				
3. 3rd Register Port				
4. 4th Register Port				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
5. Area ID	Sets the area (country) using DT830G.	Automatic	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.			
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.			
2. America (Canada and North America)				
3. Australia				
4. Others				
5. Hong Kong				
6. Malaysia				
7. Singapore				
8. Mexico				
9. Taiwan				
10. New Zealand				
11. Korea				
12. Brazil				
13. China				
14. Thailand				
15. Thailand (EGAT)				
16. Sri Lanka				
17. Germany				
18. Italy				
19. Netherlands				
20. Catalonia (Not used)				
21. Denmark				
22. Sweden				
23. Poland				
24. Czech				
25. Norway				
26. France				
27. Portugal				
28. Spain				
29. Austria				
30. Belgium				
31. UK				
32. Greece				
33. Switzerland				
34. South Africa				
35. Brazil (EMEA)				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).			
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).			
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X
1. Disable	Calls in progress are not held even when DT830G terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are held even when DT830G terminal detects communication failure with the Telephony Server.			
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disable	N	N
1. Disable	Howler tone sending is OFF.		N	N
2. Enable	Howler tone sending is ON.		N	N
7. Encryption	Sets encryption data.	Disable	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X
1. Disable	Authentication is not used.			
2. Enable	Authentication is used.			
2. One Time Password	Sets One Time Password.	-	X	X
3. Authentication Status	Displays authentication status.	-	X	X
8. NAT Traversal **Note 23**	Not used.	-	-	-
1.NAT Traverse Mode	Not used.	Disable	N	N
1.Disable				
2.Dynamic				
3.Static				
2.Network Area Name	Not used.	-	N	N
3.WAN Settings	Not used.	-	N	N
1.WAN Mate IP Address				
2.WAN SIP Mate Port				
3.WAN Self IP Address				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Maintenance Settings	Sets maintenance related data.	-	X	X
1. Download Menu	Downloads specified file to DT830G.	-	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X
1. Boot & Program	Downloads boot and program.	12/24CG: itzisipvc.tgz 12/24DG: itzisipvg.tgz	X	X
2. Config	Downloads configuration file.	config.tgz	X	X
3. Voice File	Downloads voice file.	voice.tgz	X	X
4. Language Pack	Downloads translation data file.	LangPack.tgz	X	X
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
2. Hard Reset	Resets DT830G without data saving.	-	X	X
3. Data Clear	Initializes DT830G selecting the initialization mode.	-	X	X
1. Factory Value	Initializes DT830G to factory default.	-	X	X
2. Terminal Data	Clears terminal data on DT830G.	-	X	X
3. Personal Data	Clears personal data on DT830G.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X
1. Default Audio	Sets audio data.	-	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7].	4	X	X
2. Send Gain	Sets sending gain of handset [0-31].	24	X	X
3. Receive Bias	Sets receiving bias of handset [0-7].	0	X	X
4. Receive Gain	Sets receiving gain of handset [0-31].	22	X	X
5. Characteristics	Sets talk characteristics of handset.	-	X	X
1. Noise Suppression	Sets whether to enable the Noise Suppressor. (Set "1.Disable" in normal operation.)	Disable	X	X
1.Disable	Disables the Noise Suppressor.			
2.Enable	Enables the Noise Suppressor.			
2. Handsfree Mode	Sets handsfree mode of handset.	Retro Mode	X	X
1. Retro Mode	Sets to Retro mode.			
2. New Mode	Sets to New mode.			
6. DTMF Send Level	Specfies the DTMF Send Level [0-48] (level 0 (maximum) ~ level 48 (minimum))	32	X	X
2. KeyKit Type	Sets additional button kit data.	-	X	X
1 ~ 2. Kit 1 ~ 2	Key 1 ~ 2 on button kit are used.	Kit 1	X	X
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-	X	X
1. Line 12	Sets to 12-line of DT830G.		X	X
2. Line 24	Sets to 24-line of DT830G.		X	X
3. Line 32	Not used.		N	N
4. Line 8			N	N
5. Line 6			N	N
6. Line 2			N	N
7. Line 0			N	N

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)	-	X
0. Area Contrast				
1. Wide				
2. Narrow				
4. BCA Audio	Setting for the acoustic type and audio of BCA.	-	X	X
1. Acoustic Type	Selects acoustic type.	Type 1		
1. Type 1 - 5. Type 5				
2. Handset TX Gain	Sets sending gain of handset [-15dB~15dB].	15		
3. Handset RX Gain	Sets receiving gain of handset [-18dB~18dB].	18		
4. HF TX Gain	Sets sending gain of hands free [-15dB~15dB].	15		
5. HF RX Gain	Sets receiving gain of hands free [-18dB~18dB].	18		
6. Noise Suppression	Setting for the Noise Suppressor.	-		
1. TX	Sets the Noise Suppression level for TX.	Disable		
2. RX	Sets the Noise Suppression level for RX.	Disable		
5. Auto config	Selects whether to use auto-config function.	Enable	X	X
1. Disable	Auto config is not used.			
2. Enable	Auto config is used.			
6. Data Maintenance	Sets data maintenance related.	-	X	X
1. Backup	Executes data backup.	-	X	X
1. All Data	Executes backup for all the configuration settings and data.	AllData.tgz	X	X
2. Terminal Data	Executes backup for terminal settings and data.	TerminalData.tgz	X	X
3. Personal Data	Executes backup for personal settings and data.	PersonalData.tgz	X	X
2. Restore	Executes restoration.	-	X	X
1. All Data	Restores all the configuration settings and data.	AllData.tgz	X	X
2. Terminal Data	Restores terminal settings and data.	TerminalData.tgz	X	X
3. Personal Data	Restores personal settings and data.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7. Simple Test **Note 22**	Changes the terminal to test mode.	-	X	X
1. Call Test	Call Test	-	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X
6. Speaker Test	Tests the speaker.	-	X	X
1. Japan	A DT for Japan is heard in maximum volume.	-	X	X
2. America	A DT for North America is heard in maximum volume.	-	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X
4. Security	Sets security related data.	-	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X
1. Disable	Web Programming is disabled.			
2. Enable	Web Programming is enabled.			
2. Push Server	Sets XML's Push server related data.	-	X	X
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X	X
1. Disable	Access is disabled.			
2. Enable	Access is enabled.			
3. Enable (All Client) **Note 24**	Access is enabled. Select this item to set more than one XML's Push server.			
2. Client IP Address **Note 25**	IP address of XML's Push server.	0.0.0.0	X	X
1. Client 1	Sets IP address of 1st XML's Push server.			
2. Client 2	Sets IP address of 2nd XML's Push server.			
3. Client 3	Sets IP address of 3rd XML's Push server.			
4. Client 4	Sets IP address of 4th XML's Push server.			
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 28**	82	X	X
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X
1. Supplicant	Sets whether to use supplicant on DT830G.	Disable	X	X
1. Disable	Supplicant is disabled on DT830G.			
2. Enable	Supplicant is enabled on DT830G.			
2. EAP Method	Not used.	-	N	N
3. Account	Sets user ID for EAP-MD5.	-	X	X
4. Password	Sets password for EAP-MD5.	-	X	X
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X
1. Disable	VLAN tag is not added to EAP packet.			
2. Enable	VLAN tag is added to EAP packet.			
5. VPN Client	Not used.	-	N	N
6 USB	Sets USB related parameter.	-	X	X
1 Power	Sets whether to supply power to USB devices.	Enable	X	X
1 Disable	Power is not supplied to USB devices.			
2 Enable	Power is supplied to USB devices.			
7 User Password	Setting for User Password.	-	X	X
1. Expiration Date	Sets the expiration of user password (0-90 days).	0	X	X
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1	X	X
5. Terminal Information	Displays terminal information.	-	X	X
Hardware Version	Displays hardware version of DT830G.	-	X	X
MAC Address	Displays MAC address of DT830G.	-	X	X
Firmware Version	Displays firmware version of DT830G.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Application Settings	Sets application data.	-	X	X
1. XML Settings	Specifies XML browser function.	-	X	X
1. Terminal ID	Login number for accessing XML server.	0000	X	X
2. XML Browser **Note 22**	Sets XML browser related data.	-	X	X
1. Home URL **Note 21**	Sets the address of the contents to access when starting up XML browser.	-	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X
3. Directory URL	Sets URL of Corporate Phonebook.	-	X	X
4. Service URL	Sets URL of XML application.	-	X	X
1. 1st Service URL	URL of up to four XML applications can be specified.			
2. 2nd Service URL				
3. 3rd Service URL				
4. 4th Service URL				
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535]. **Note 28**	3530	X	X
3. Popup	Sets the popup window display.	-	X	X
1.Popup Mode	Sets the mode of the popup window display.	App Priority	X	X
1.Enable	Sets the popup window display enabled.			
2.App Priority	Sets to depend on a definition of XML tag for Popup window.			
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-	X	X
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-	X	X
Emergency Dial 1	Up to three destination numbers can be specified.			
Emergency Dial 2				
Emergency Dial 3				
6. Menu Key Mode	Changes to menu key mode.	Enable	X	X
1. Disable	Sets the menu key mode disabled.			
2. Enable	Sets the menu key mode enabled.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7. Voice Rec Settings	Setting for Voice Recording.	-	X	X
1, Voice Recording	Sets whether to use Voice Recording on the terminal.	Disable	X	X
1. Automatic	Enables Voice Recording		X	X
2. Disable	Disables Voice Recording		X	X
2, Rec Memo Settings	Sets the various configurations when using Voice Recording.	-	X	X
1. Auto Rec Start	Sets whether to use Auto Rec Start.	Enable	X	X
1. Disable	Disables Auto Rec Start.		X	X
2. Enable	Enables Auto Rec Start.		X	X
2. Auto Delete	Sets whether to delete the recording files automatically when the free space of USB memory is insufficient to use.	Enable	X	X
1. Disable	Not deletes the recording files automatically.		X	X
2. Enable	Deletes the recording files automatically.		X	X
3. Rec Tone	Sets whether to ring Rec Tone.	Enable	X	X
1. Disable	Disables to ring Rec Tone.		X	X
2. Enable	Enables to ring Rec Tone.		X	X
4. Rec Tone Level	Sets the recording tone level [0-48].	24	X	X
5. Rec Play Mode	Sets whether to play the recorded data.	Disable	X	X
1. Disable	Disables to play the recorded data.		X	X
2. Enable	Enables to play the recorded data.		X	X
6. Rec Admin Password	Sets the password for recording administrator. The password can be entered up to 32 digits. * Be sure to change the default password.	6633222	X	X

Note 19: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830G terminal is registered.

Note 20: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 21: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details" of "Hold Fixation Mode."

Also, refer to the manual (4.1.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Setting] - [2.IPM Self Port].

Note 22: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 23: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 24: Be careful when you specify "3.Enable(All Client)" because security service are disabled for Push when "3.Enable(All Client)" is set.

Note 25: To use Photo Frame Application for DT830G (12/24CG), configure one of the four Push servers (1st to 4th Push servers) with the IP address for PhotoFrame.

Note 26: "-" is displayed in default settings.

Note 27: Odd numbered ports cannot be assigned.

Note 28: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

4.1.3.6 DT830 Series Configuration Menu List (FW 3.0.3.0 or Later)

This section lists the configuration menu used for DT830 configuration settings.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The following menus are not displayed on the menu window: Tool, Call Func., Presence, Favorite and Config. To open Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0.Config] - [6.Application Settings] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default
1. Missed **Note 1**	Lists the history of missed calls.	-
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-
3. Incoming **Note 1**	Lists the history of incoming calls.	-
4. Delete All	Deletes the call history completely.	-

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data setting.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default
1. Call	Originates a call to the number displayed on the history.	-
2. Directory Add	Registers the number displayed on the history to Directory.	-

Parameter	Description	Default
1. New	Registers new number.	-
Category Set	Selects the group the new number registered to.	Company
1. Company		
2. Mobile		
3. Voice Mail		
4. Home		
5. Others		
Priority Flag	Sets the priority order of dialing number for call origination.	Disable
1. Disable		
2. Enable		
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-
2. Addition	Adds numbers to searched data.	-
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-
3. Prefix	Adds a prefix to the number displayed on the LCD.	-
4. Delete One	Deletes one history displayed on the LCD.	-
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-

Note 2: This menu has the same function with "2. Directory" →"2. Edit."

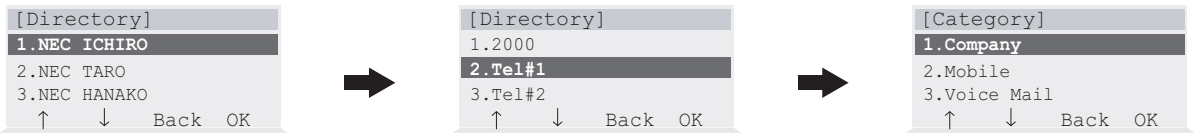
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1: This Directory Search menu has the same function with "2. Directory" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT830 (Standard LCD).

2. Directory

Parameter	Description	Default
1. Personal	Displays Terminal Phonebook **Note 7**	-
1. Search	Searches Phonebook.	-
1. Group	Searches by specifying group.	-
1. Default	Searches through “Default” group.	-
2. Colleagues	Searches through “Colleagues” group.	-
3. VIPs	Searches through “VIPs” group.	-
4. Family	Searches through “Family” group.	-
5. Friends	Searches through “Friends” group.	-
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-
2. Name	Searches by entering a target name.	-
3. Tel Number	Searches by entering numbers.	-
4. Others	Searches by other search key.	-
1. Memory ID	Searches by entering Memory ID.	-
2. Category	Searches by selecting Category.	-
1. Company	Searches through “Company” category.	-
2. Mobile	Searches through “Mobile” category.	-
3. Voice Mail	Searches through “Voice Mail” category.	-
4. Home	Searches through “Home” category.	-
5. Etc	Searches through “Etc” category.	-
3. Company	Searches by entering a company name.	-
4. Alphabet	Searches by alphabet order.	-
1. ABC	Searches by the name starting with A ~ Z.	-
2. DEF		
3. GHI		
4. JKL		
5. MNO		
6. PQRS		
7. TUV		
8. WXYZ		
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).	
#. All	Searches all.	
2. Edit	Edits the data in Terminal Phonebook.	-
1. Name	Registers name.	-
2. Group	Allocates group.	Default
1. Default		
2. Colleagues		
3. VIPs		
4. Family		
5. Friends		
6. Group6 ~ 20. Group 20		

2. Directory (Continued)

Parameter	Description	Default
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company
1. Company		
2. Mobile		
3. Voice Mail		
4. Home		
5. Others		
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable
1. Disable		
2. Enable		
7. Company Name	Registers company name.	-
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*	
2. Default	Applies default Ringing Tone on terminal.	
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.	
17. Download 1 ~ 19. Download 3		
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	
2. Default	Applies default illumination for announcing call termination.	
3. Disable	Illumination is OFF.	
4. Red	Specifies color of lamp indication for incoming call termination.	
5. Green		
6. Yellow		
7. Blue		
8. Light Blue		
9. Purple		
10. White		
11. Rotation		
0. Memory ID	Registers memory ID.	-

2. Directory (Continued)

Parameter	Description	Default
3. Group Setting	Sets groups.	-
1. Default		
2. Colleagues		
3. VIPs		
4. Family		
5. Friends		
6. Group6 ~ 20. Group 20		
1. Name	Registers group name.	-
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)
4. Own Number	Displays own number (login number).	-
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-

Note 4: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal’s configuration menu regardless of SFI: 246/SFI: 247 data setting.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by “0.Config” - “6. Application Settings” - “1.XML Settings” - “3. Directory URL. When XML application is assigned to directory URL, “3. Corporate” is displayed on the “Directory” menu.

3. Service

Parameter	Description	Default
3. Service	Starts up XML browser and Instant Message tool.	-
1. Service **Note 9**	Starts up XML browser.	-

Note: Service menu is displayed only when the URL is set by “0.Config” - “6. Application Settings” - “1.XML Settings” - “4. Service URL”.

Note 9: At most 4 services are displayed on the menu. Even though “1. Service” isn’t displayed on the menu when only one URL is set, selection of “3. Service” starts up XML browser.

4. Setting

Parameter	Description	Default
1. User Setting	Sets user interface related.	-
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-
1. Ring Volume	Not used.	-
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable
1. Disable	Offhook ringing is OFF.	
2. Enable	Offhook ringing is ON.	
3. Headset Ring **Note 10**	Selects whether to use headset ringing.	Disable
1. Disable	Headset ringing is OFF.	
2. Enable	Headset ringing is ON.	

4. Setting (Continued)

Parameter	Description	Default
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.	
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
3. IM	Not used.	-
5. Illumination **Note 12**	Sets lamp indication pattern for incoming call termination.	-
1. External Call **Note 18**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic
1. Disable	Lamp indication is OFF.	
2. Red	Specifies the color of lamp indication for incoming call termination.	
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		

4. Setting (Continued)

Parameter	Description	Default
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic
1. Disable	Lamp indication is OFF.	
2. Red	Specifies the color of lamp indication for incoming call termination.	
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		
3. IM	Not used.	-
6. Headset Ring Volume	Not used	-
2. Talk	Sets call related data.	-
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic
0. Automatic	Applies RTP alarm setting on the Telephony Server.	
1. Disable	Alarm is OFF.	
2. Enable	Alarm is ON.	
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic
0. Automatic	Applies DTMF tone setting on the Telephony Server.	
1. Disable	DTMF tone is OFF.	
2. Enable	DTMF tone is ON.	
3. Key Touch Tone	Sets touch tone for pressing digit key.	Automatic**Note 15**
0. Automatic	Sets Automatic to key touch tone.	
1. No Tone	Sets key touch tone disabled.	
2. Tone	Sets key touch tone enabled.	
3. Voice	Enables the key touch tone by voice recognition.	
4. Hold Music	Sets Music-on-Hold.	Default
1. Default	Applies the default music (Minuet).	
2. Download	Applies the downloaded music.	
5. Prefix	Sets prefix number.	-
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-

4. Setting (Continued)

Parameter	Description	Default
3. Display	Sets display related data.	-
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 18**
1. Calendar Format	Specifies the calendar display format.	
0. Automatic	Sets Automatic for calendar display format.	
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.	
2. Type 2		
3. Type 3		
4. Type 4		
5. Type 5		
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 16**
0. Automatic	Sets Automatic for time display.	
1. 12 hour Indication	Sets 12-hour display.	
2. 24 hour Indication	Sets 24-hour display.	
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**
0. Automatic	Sets Automatic for volume gage display.	
1. Disable	Volume gage is not displayed.	
2. Enable	Volume gage is displayed.	
3. Screen Saver	Sets Screen Saver related data.	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable
1. Disable	Screen Saver is not used.	
2. Enable	Screen Saver is used.	
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120
4. Back Light	Switches ON/OFF the backlight on DT830.	Enable **Note 12**
1. Disable	Backlight is OFF.	
2. Enable	Backlight is ON.	
5. Font Size	Switches the font size on configuration menu.	Standard (16dot)
1. Standard (16dot)	Selects Standard or Small of font size.	
2. Small (12dot)		

4. Setting (Continued)

Parameter	Description	Default
6. Language	Selects the language on date and time display.	Automatic **Note 18**
0. Automatic	Sets Automatic for language setting on date and time display.	
1. Japanese	Selected language is displayed on date and time display.	
2. NEC English		
3. NEC Portuguese		
4. NEC Spanish		
5. NEC French		
6. German		
7. Italian		
8. Dutch		
9. Norwegian		
10. Danish		
11. Swedish		
12. Greek		
13. English		
14. Portuguese		
15. Spanish		
16. French		
17. Russian		
18. Turkish		
19. Romania		
20. Polish		
21. Catalan		
22. Korean		
7. Advanced	Sets other data for display.	-
1..Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable
1.Disable	Disables Backlight Fade Control.	
2.Enable	Enables Backlight Fade Control.	
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000
5. Security	Not used.	-

4. Setting (Continued)

Parameter	Description	Default
6. Peripherals	Setting for using peripheral equipment of terminal.	-
1. USB Memory	Not used.	-
2. BCA Option	Setting for BCA (Bluetooth Connection Adapter).	-
1. BCA Connection Settings	Setting for Bluetooth connection.	-
1. Auto Connection	Selects whether to use Auto Connection.	Enable
1. Disable	Auto Connection is not used.	
2. Enable	Auto Connection is used.	
2. Connection Cycle	Sets Bluetooth connection cycle.	10 Seconds
1. 3 Seconds	Bluetooth connection cycle is 3 seconds.	
2. 10 Seconds	Bluetooth connection cycle is 10 seconds.	
3. 1 Minute	Bluetooth connection cycle is 1 minute.	
4. 10 Minutes	Bluetooth connection cycle is 10 minutes.	
2. Interrupt Ringing	Selects whether to use Interrupt Ringing.	Enable
1. Disable	Interrupt Ringing is OFF.	
2. Enable	Interrupt Ringing is ON.	
3. Smart Device Type	Setting for Smart Device Type.	Type 1
1. Type 1	Sets Smart Device Type for type 1.	
2. Type 2	Sets Smart Device Type for type 2.	
4. Auto Path Switch	Sets whether Auto Path Switch is in service.	Enable
1. Disable	Disables Auto Path Switch.	
2. Enable	Enables Auto Path Switch.	
5. Illumination	Sets lamp indication pattern for incoming call termination.	Enable
1. Disable	Specifies the color of lamp indication for incoming call termination.	Blue
2. Red		
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		
7. Usability	Set the operation of Help key while pop-up window is displayed.	-
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu
1.SubMenu	Set the Help key which displays sub menu	
2.Popup Window	Set the Help key which displays pop-up window	
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-

4. Setting (Continued)

Parameter	Description	Default
2. Download	Sets download related data.	-
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.	
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav
2. Download 2		Melody2.wav
3. Download 3		Melody3.wav
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
3. Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
4. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save the download file.	
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0
4. Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
5. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save backup file.	

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Settings” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default
1. Network Settings	Sets network related data.	-
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable
1. Disable	DHCP is not used.	
2. Enable	DHCP is used.	
2. IP Address	Sets DT830 terminal’s IP address.	0.0.0.0
3. Default Gateway	Sets default router’s IP address.	0.0.0.0
4. Subnet Mask	Sets subnet mask.	0.0.0.0
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0
6. Advanced Settings	Sets network expanded data.	-
1. LAN Port Settings	Sets LAN port.	-
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable
1. Disable	VLAN is not used.	
2. Enable	VLAN is used.	
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5
5. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable

0. Config

Parameter	Description	Default
2. PC Port Settings	Sets PC port.	-
1. Speed&Duplex	Sets communication speed of PC port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable
1. Disable	Port VLAN of PC port is not used.	
2. Enable	Port VLAN of PC port is used.	
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0
5. Port Available	Selects whether to use PC port.	Automatic
0. Automatic	Sets Automatic for PC port.	
1. Disable	PC port is not used.	
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable
1. Disable	Not forward EAPOL packet from PC port.	
2. Enable	Forwards EAPOL packet from PC port.	
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable
1. Disable	Not clear the authentication status.	
2. Enable	Clear the authentication status.	
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable
3. CDP Mode	Not used.	-
4. Type of Service	Sets ToS value.	-
1. RTP	Sets ToS value for RTP in Hex.	A0
2. SIP	Sets ToS value for SIP in Hex.	C0
5.Self Port Settings	Sets each port for DT830.	-
1.RTP Self Port	Sets RTP port for DT830 [1024-65520 (except 59986-60000)]. **Note 26**, **Note 27**	3462
2.SIP Self Port	Sets SIP port for DT830 [1024-65534]. **Note 27**	5060
6.LLDP Settings	Sets information related to LLDP.	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable
1. Disable	DT830 does not transmit/receive LLDP packets.	
2. Enable	DT830 transmits/receives LLDP packets.	

0. Config

Parameter	Description	Default
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable
1. Disable	DT830 does not perform data setting automatically when LLDP packets are received.	
2. Enable	DT830 performs data setting automatically when LLDP packets are received.	
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830 receives LLDP packets (1-60 seconds).	15
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30
5.Hold Multiplier **Note 28**	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830 starts up (1-10 times).	3
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable
1. Disable	Transparent Mode of LLDP packets is disabled.	
2. Enable	Transparent Mode of LLDP packets is enabled.	
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 25**

0. Config

Parameter	Description	Default
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable
1. Disable	Both Spare and Backup IPs are disabled.	
2. Spare IP	Spare IP is enabled.	
3. Backup IP	Backup IP is enabled.	
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-
1. IP Address	Sets DT830 terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0
2. Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0
8.TTL Settings	Setting for multicast TTL (Time To Live)	-
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	
9.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable
1. Disable	Priority Queue is disabled.	
2. Enable	Priority Queue is enabled.	
2. SIP Settings	Sets SIP related data.	-
1. SIP User	Sets user data.	-
1. User ID	Sets user ID for digest authentication.	-
2. Password	Sets password for digest authentication.	-
3. Extension Number	Not used.	-
4. Backup Logon	Not used.	-

0. Config

Parameter	Description	Default
2. Server Address	Sets IP address or URI of SIP server. **Note 19**, **Note 20**	-
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	-
2. 2nd Server Address		
3. 3rd Server Address		
4. 4th Server Address		
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	-
2. 2nd Register Address		
3. 3rd Register Address		
4. 4th Register Address		
3. Access Mode	Sets access mode for SIP server.	Normal
1. Normal	Normal access	
2. Remote	Remote access	
4. SIP Server Port	Sets SIP server port [1024-65535].	5060
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.	
2. 2nd Server Port		
3. 3rd Server Port		
4. 4th Server Port		
5. Registrar Destination	Sets port for registrar server [1024-65535].	
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.	
2. 2nd Register Port		
3. 3rd Register Port		
4. 4th Register Port		

0. Config

Parameter	Description	Default
5. Area ID	Sets the area (country) using DT830.	Automatic
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.	
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.	
2. America (Canada and North America)		
3. Australia		
4. Others		
5. Hong Kong		
6. Malaysia		
7. Singapore		
8. Mexico		
9. Taiwan		
10. New Zealand		
11. Korea		
12. Brazil		
13. China		
14. Thailand		
15. Thailand (EGAT)		
16. Sri Lanka		
17. Germany		
18. Italy		
19. Netherlands		
20. Catalonia (Not used)		
21. Denmark		
22. Sweden		
23. Poland		
24. Czech		
25. Norway		
26. France		
27. Portugal		
28. Spain		
29. Austria		
30. Belgium		
31. UK		
32. Greece		
33. Switzerland		
34. South Africa		
35. Brazil (EMEA)		

0. Config

Parameter	Description	Default
6. Extra Function	Sets expanded data related to SIP packet.	-
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).	
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).	
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable
1. Disable	Calls in progress are not held even when DT830 terminal detects communication failure with the Telephony Server.	
2. Enable	Calls in progress are held even when DT830 terminal detects communication failure with the Telephony Server.	
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disable
1. Disable	Howler tone sending is OFF.	
2. Enable	Howler tone sending is ON.	
7. Encryption	Sets encryption data.	Disable
1. Authentication Mode	Selects whether to use authentication.	
1. Disable	Authentication is not used.	
2. Enable	Authentication is used.	
2. One Time Password	Sets One Time Password.	-
3. Authentication Status	Displays authentication status.	-
8. NAT Traversal **Note 23**	Not used.	-
1.NAT Traverse Mode	Not used.	-
1.Disable		
2.Dynamic		
3.Static		
2.Network Area Name	Not used.	-
3.WAN Settings	Not used.	-
1.WAN Mate IP Address		
2.WAN SIP Mate Port		
3.WAN Self IP Address		

0. Config

Parameter	Description	Default
3. Maintenance Settings	Sets maintenance related data.	-
1. Download Menu	Downloads specified file to DT830.	-
1. Download Files	Specifies download file name for each file type.	-
1. Boot & Program	Downloads boot and program.	itzisipvg.tgz
2. Config	Downloads configuration file.	config.tgz
3. Voice File	Downloads voice file.	voice.tgz
4. Language Pack	Downloads translation data file.	LangPack.tgz
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
4. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-
2. Hard Reset	Resets DT830 without data saving.	-
3. Data Clear	Initializes DT830 selecting the initialization mode.	-
1. Factory Value	Initializes DT830 to factory default.	-
2. Terminal Data	Clears terminal data on DT830.	-
3. Personal Data	Clears personal data on DT830.	-
4. Adjust	Adjusts LCD, audio, and button kit.	-
1. Default Audio	Sets audio data.	-
1. Sidetone Volume	Sets Side Tone volume [0-7].	4
2. Send Gain	Sets sending gain of handset [0-31].	24
3. Receive Bias	Sets receiving bias of handset [0-7].	0
4. Receive Gain	Sets receiving gain of handset [0-31].	22
5. Characteristics	Sets talk characteristics of handset.	-
1.Noise Suppression	Sets whether to enable the Noise Suppressor. (Set "1.Disable" in normal operation.)	Disable
2. Handsfree Mode	Sets whether to enable the Handsfree Mode	Retro mode
6. DTMF Send Level	Sets DTMF Send Level [0-48]. (level 0 (maximum) ~ level 48 (minimum))	32
2. KeyKit Type	Sets additional button kit data.	-
1 ~ 5. Kit 1 ~ 2, 8 ~ 10 . **Note 26**, **Note 27**	Key 1 ~ 2, 8 ~ 10 on button kit are used.	Kit 1
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-
1. Line 12	Sets to 12-line of DT830.	
2. Line 24	Sets to 24-line of DT830.	
3. Line 32	Not used.	
4. Line 8	Sets to 8-line of DT830.	
5. Line 6	Not used.	
6. Line 2	Not used.	
7. Line 0	Not used.	

0. Config

Parameter	Description	Default
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)
0. Area Contrast		
1. Wide		
2. Narrow		
4. BCA Audio	Setting for the acoustic type and audio of BCA.	-
1. Acoustic Type	Selects acoustic type.	Type 1
1. Type 1 - 5. Type 5		
2. Handset TX Gain	Sets sending gain of handset [0dB~30dB].	15
3. Handset RX Gain	Sets receiving gain of handset [0dB~36dB].	18
4. HF TX Gain	Sets sending gain of hands free [0dB~30dB].	15
5. HF RX Gain	Sets receiving gain of hands free [0dB~36dB].	18
6. Noise Suppression	Setting for the Noise Suppressor.	-
1. TX	Sets the Noise Suppression level for TX.	Disable
2. RX	Sets the Noise Suppression level for RX.	Disable
5. Auto config	Selects whether to use auto-config function.	Enable
1. Disable	Auto config is not used.	
2. Enable	Auto config is used.	
6. Data Maintenance	Sets data maintenance related.	-
1. Backup	Executes data backup.	-
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz
2. Restore	Executes restoration.	-
1. All Data	Restores all the configuration setting and data.	AllData.tgz
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz
3. Personal Data	Restores personal setting and data.	PersonalData.tgz
3. Server Address	Sets IP address of the server that executes data backup/ restoration.	0.0.0.0
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
5. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-

0. Config

Parameter	Description	Default
7. Simple Test **Note 22**	Changes the terminal to test mode.	-
1. Call Test	Call Test	-
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188
3. Key Test 1 (Random)	Tests to press the random button.	-
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-
5. Loop Back Test	Tests the voice loop back.	-
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-
6. Speaker Test	Tests the speaker.	-
1. Japan	A DT for Japan is heard in maximum volume.	-
2. America	A DT for North America is heard in maximum volume.	-
7. Receiver Test	Receiver Test for a handset	-
4. Security	Sets security related data.	-
1. Web Programming	Selects whether to use Web Programming.	Enable
1. Disable	Web Programming is disabled.	
2. Enable	Web Programming is enabled.	
2. Push Server	Sets XML's Push server related data.	-
1. Push Server Access	Sets whether to access XML's Push server.	Enable
1. Disable	Access is disabled.	
2. Enable	Access is enabled.	
3. Enable (All Client) **Note 24**	Access is enabled. Select this item to set more than one XML's Push server.	
2. Client IP Address	IP address of XML's Push server.	0.0.0.0
1. Client 1	Sets IP address of 1st XML's Push server.	
2. Client 2	Sets IP address of 2nd XML's Push server.	
3. Client 3	Sets IP address of 3rd XML's Push server.	
4. Client 4	Sets IP address of 4th XML's Push server.	
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 27**	82
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222

0. Config

Parameter	Description	Default
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-
1. Supplicant	Sets whether to use supplicant on DT830.	Disable
1. Disable	Supplicant is disabled on DT830.	
2. Enable	Supplicant is enabled on DT830.	
2. EAP Method	Not used.	-
3. Account	Sets user ID for EAP-MD5.	-
4. Password	Sets password for EAP-MD5.	-
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable
1. Disable	VLAN tag is not added to EAP packet.	
2. Enable	VLAN tag is added to EAP packet.	
5. VPN Client	Not used.	-
6. USB	Not used.	-
7 User Password	Setting for User Password.	-
1. Expiration Date	Sets the expiration of user password (0-90 days).	0
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1
5. Terminal Information	Displays terminal information.	-
Hardware Version	Displays hardware version of DT830.	-
MAC Address	Displays MAC address of DT830.	-
Firmware Version	Displays firmware version of DT830.	-

0. Config

Parameter	Description	Default
6. Application Settings	Sets application data.	-
1. XML Settings	Specifies XML browser function.	-
1. Terminal ID	Login number for accessing XML server.	0000
2. XML Browser	Sets XML browser related data.	-
1. Home URL **Note 21**	Sets the address of the contents to access when starting up XML browser.	-
2. Proxy Settings	Sets proxy server related data.	-
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080
3. Directory URL	Sets URL of Corporate Phonebook.	-
4. Service URL	Sets URL of XML application.	-
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 27**	3530
3. Popup	Sets the popup window display.	-
1.Popup Mode	Sets the mode of the popup window display.	App Priority
1.Enable	Sets the popup window display enabled.	
2.App Priority	Sets to depend on a definition of XML tag for Popup window.	
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-
Emergency Dial 1	Up to three destination numbers can be specified.	
Emergency Dial 2		
Emergency Dial 3		
6. Menu Key Mode	Changes to menu key mode.	Enable
1. Disable	Sets the menu key mode disabled.	
2. Enable	Sets the menu key mode enabled.	

Note 19: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830 terminal is registered.

Note 20: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 21: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details" of "Hold Fixation Mode."

Also, refer to the manual (4.1.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Settings] - [2.IPM Self Port].

Note 22: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 23: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 24: Be careful when you specify “3.Enable(All Client)” because security service are disabled for Push when “3.Enable(All Client)” is set.

Note 25: “-” is displayed in default settings.

Note 26: Odd numbered ports cannot be assigned.

Note 27: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.
- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

Note 28: LLDP time to live = LLDP packet transmission interval × the set value (65535 at most)

Depending on the Home URL settings, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

4.1.3.7 DT830G Series Configuration Menu List (FW 3.0.0.0)

This section lists the configuration menu used for DT830G configuration settings. DT830G (12/24CG), and DT830G (12/24DG) columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The Config menu is not displayed on the menu window. To open the Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0. Config] - [6.Application Settings] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Missed **Note 1**	Lists the history of missed calls.	-	X	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X	X
4. Delete All	Deletes the call history completely.	-	X	X

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data settings.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Call	Originates a call to the number displayed on the history.	-	X	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X	X

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. New	Registers new number.	-	X	X
Category Set	Selects the group the new number registered to.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Sets the priority order of dialing number for call origination.	Disable	X	X
1. Disable				
2. Enable				
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag settings.)	-	X	X
2. Addition	Adds numbers to searched data.	-	X	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X	X
4. Delete One	Deletes one history displayed on the LCD.	-	X	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X	X

Note 2: This menu has the same function with "2. Directory" → "2. Edit."

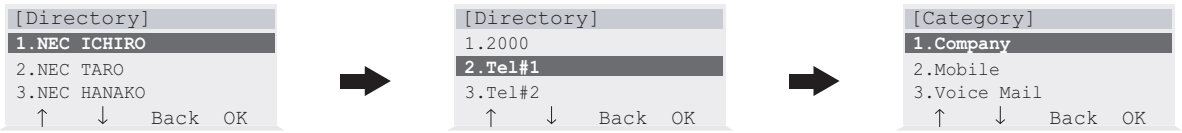
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1: This Directory Search menu has the same function with "2. Directory" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT830 (Standard LCD).

2. Directory

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Personal	Displays Terminal Phonebook Note 7	-	X	X
1. Search	Searches Phonebook.	-	X	X
1. Group	Searches by specifying group.	-	X	X
1. Default	Searches through “Default” group.	-	X	X
2. Colleagues	Searches through “Colleagues” group.	-	X	X
3. VIPs	Searches through “VIPs” group.	-	X	X
4. Family	Searches through “Family” group.	-	X	X
5. Friends	Searches through “Friends” group.	-	X	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X	X
2. Name	Searches by entering a target name.	-	X	X
3. Tel Number	Searches by entering numbers.	-	X	X
4. Others	Searches by other search key.	-	X	X
1. Memory ID	Searches by entering Memory ID.	-	X	X
2. Category	Searches by selecting Category.	-	X	X
1. Company	Searches through “Company” category.	-	X	X
2. Mobile	Searches through “Mobile” category.	-	X	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X	X
4. Home	Searches through “Home” category.	-	X	X
5. Etc	Searches through “Etc” category.	-	X	X
3. Company	Searches by entering a company name.	-	X	X
4. Alphabet	Searches by alphabet order.	-	X	X
1. ABC	Searches by the name starting with A ~ Z.	-	X	X
2. DEF				
3. GHI				
4. JKL				
5. MNO				
6. PQRS				
7. TUV				
8. WXYZ				
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).			
#. All	Searches all.			
2. Edit	Edits the data in Terminal Phonebook.	-	X	X
1. Name	Registers name.	-	X	X
2. Group	Allocates group.	Default	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				

2. Directory (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable	X	X
1. Disable				
2. Enable				
7. Company Name	Registers company name.	-	X	X
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*			
2. Default	Applies default Ringing Tone on terminal.			
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.			
17. Download 1 ~ 19. Download 3				
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*			
2. Default	Applies default illumination for announcing call termination.			
3. Disable	Illumination is OFF.			
4. Red	Specifies color of lamp indication for incoming call termination.			
5. Green				
6. Yellow				
7. Blue				
8. Light Blue				
9. Purple				
10. White				
11. Rotation				
0. Memory ID	Registers memory ID.	-	X	X

2. Directory (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Group Settings	Sets groups.	-	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
1. Name	Registers group name.	-	X	X
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)	X	X
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)	X	X
4. Own Number	Displays own number (login number).	-	X	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-	X	X

Note 4: The priority order of Ringing tone settings is as follows.
- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Settings” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal’s configuration menu regardless of SFI: 246/SFI: 247 data settings.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by “0. Config” - “6. Application Settings” - “1.XML Settings” - “3. Directory URL. When XML application is assigned to directory URL, “3. Corporate” is displayed on the “Directory” menu.

3. Service

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Service Note 9	Starts up XML browser and Instant Message tool.	-	X	X
1. Service 1	Starts up XML browser.	-	X	X
2. Service 2		-	X	X
3. Service 3		-	X	X
4. Service 4		-	X	X

Note 9: Unavailable (not configured) services appear dimmed on the menu.

4. Setting

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Ring Volume	Not used.	-	-	-
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
3. Headset Ring Note 10	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.			
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
3. IM	Not used.	-	-	-
5. Illumination **Note 11**	Sets lamp indication pattern for incoming call termination.	-	X	X
1. External Call **Note 14**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
6. Headset Ring Volume	Not used	-	-	-
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key/touch-sensitive panel.	Automatic **Note 15**	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. No Tone	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
5. Prefix	Sets prefix number.	-	X	X
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X	X

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Display	Sets display related data.	-	X	X
1. Time Format	Switches 12-hour/24-hour indication.	Automatic **Note 16**	X	X
0. Automatic	Applies the time indication on the Telephony Server.			
1. 12 hour Indication	12-hour indication			
2. 24 hour Indication	24-hour indication			
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			
3. Screen Saver	Sets Screen Saver related data.	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X
1. Disable	Screen Saver is not used.			
2. Enable	Screen Saver is used.			
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X
4. Back Light	Switches ON/OFF the backlight on DT830G (12/24DG).	Enable **Note 12**	-	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			
4. Back Light	Turns up/down the backlight on DT830G (12/24CG).	Level 3	X	-
1. Level 1 (Bright) - 4. Level 4 (Dark)	Select the bright level of backlight.			
5. Font Size	Switches the font size on configuration menu.	Standard	X	X
1. Standard (28 dots (12/24CG)/16 dots (12/24DG))	Selects Standard or Small of font size.			
2. Small (24 dots (12/24CG)/12 dots (12/24DG))				

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Language	Selects the language on date and time display.	Automatic Note 18	X	X
0. Automatic	Sets Automatic for language setting on date and time display.			
1. Japanese	Selected language is displayed on date and time display.			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				
22. Korean				
7. Advanced	Sets other data for display.	-	X	X
1. Wallpaper	Sets the Home screen background.	Default	X	-
1. Default	Sets the default screen background.			
2. Download	Sets the download data file.			
2. Shortcut Icon	Not used.	-	-	-
3. Font Color	Sets the font color for Time Display/Feature Information Display area. * You can check the color while selecting.	Color 2	X	-
1~16. Color 1 ~ Color 16	Sets Font Color 1 ~ Font Color 16.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4.Turn Off Display	Sets the data when turning off the backlight of the display automatically.	-	X	-
1.Turn Off Display Mode	Sets whether Turn Off Display Mode is in service.	App Priority		
1.Disable	Disables Turn Off Display Mode.			
2.Enable	Enables Turn Off Display Mode.			
3.App Priority	Sets to depend on an application.			
2.Wait Time	Sets the time until turning off the display (1-999 min.).	180		
5.Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable	X	X
1.Disable	Disables Backlight Fade Control.			
2.Enable	Enables Backlight Fade Control.			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
5. Security	Not used.	-	-	-
6. Peripherals	Setting for using peripheral equipment of terminal.	-	X	X
1. USB Memory	Setting for safely removing USB memory from the terminal.			
1. Remove				
2. BCA Option	Setting for the configuration of BCA (Bluetooth Connection Adapter).	-		
1. BCA Connection Settings	Setting for the Bluetooth connection.	-		
1. Auto Connection	Sets whether Auto Connection is in service.	Enable		
1. Disable	Disables Auto Connection.			
2. Enable	Enables Auto Connection.			
2.Connection Cycle	Selects connection cycle of Auto Connection.	10 Seconds		
1. 3 Seconds	Connection cycle is 3 seconds.			
2. 10 Seconds	Connection cycle is 10 seconds.			
3. 1 Minutes	Connection cycle is 1 minute.			
4. 10 Minutes	Connection cycle is 10 minute.			
2. Interrupt Ringing	Sets whether Interrupt Ringing is in service.	Enable		
1. Disable	Disables Interrupt Ringing.			
2. Enable	Enables Interrupt Ringing.			
3. Smart Device Type	Sets the type of Smart Device.	Type 1		
1. Type 1	Sets the Smart Device type as Type 1.			
2. Type 2	Sets the Smart Device type as Type 2.			
4. Auto Path Switch	Sets whether Auto Path Switch is in service.	Enable		
1. Disable	Disables Auto Path Switch.			
2. Enable	Enables Auto Path Switch.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
5. Illumination	Sets lamp indication pattern for incoming call termination.	Blue	X	X
1. Disable	Specifies the color of lamp indication for incoming call termination.			
2. Red				
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
7. Usability	Set the operation of Help key while pop-up window is displayed.	-	X	X
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu	X	X
1.SubMenu	Set the Help key which displays sub menu		X	X
2.Popup Window	Set the Help key which displays pop-up window		X	X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, Phonebook, and Wallpaper.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	X
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X	X
4. Wallpaper	Downloads a file used for wallpaper.	WallPaper.bmp	X	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			

4. Setting (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server’s direction discarding the terminal’s setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Network Settings	Sets network related data.	-	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X
1. Disable	DHCP is not used.			
2. Enable	DHCP is used.			
2. IP Address	Sets DT830 terminal’s IP address.	0.0.0.0	X	X
3. Default Gateway	Sets default router’s IP address.	0.0.0.0	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X
1. Disable	VLAN is not used.			
2. Enable	VLAN is used.			
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X
5. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2. PC Port Settings	Sets PC port.	-	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X
1. Disable	Port VLAN of PC port is not used.			
2. Enable	Port VLAN of PC port is used.			
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X
0. Automatic	Sets Automatic for PC port.			
1. Disable	PC port is not used.			
6. EAPOL	Select whether to forward EAPOL packet from PC port.	Disable	X	X
1. Disable	Not forward EAPOL packet from PC port.			
2. Enable	Forwards EAPOL packet from PC port.			
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X
1. Disable	Not clear the authentication status.			
2. Enable	Clear the authentication status.			
8. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X
3. CDP Mode (Not used)	-	Disable	-	-
4. Type of Service	Sets ToS value.	-	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0		
2. SIP	Sets ToS value for SIP in Hex.	C0		
5.Self Port Settings	Sets each port for DT830.	-	-	-
1.RTP Self Port	Sets RTP port for DT830 [1024-65520 (except 59986-60000)]. **Note 27**, **Note 28**	3462	X	X
2.SIP Self Port	Sets SIP port for DT830 [1024-65534]. **Note 28**	5060	X	X
6.LLDP Settings	Sets information related to LLDP.	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X
1. Disable	DT830 does not transmit/receive LLDP packets.			
2. Enable	DT830 transmits/receives LLDP packets.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X
1. Disable	DT830 does not perform data setting automatically when LLDP packets are received.			
2. Enable	DT830 performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830 receives LLDP packets (1-60 seconds).	15	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X
5.Hold Multiplier	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830 starts up (1-10 times).	3	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.			
2. Enable	Transparent Mode of LLDP packets is enabled.			
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- Note 26	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X
1. Disable	Both Spare and Backup IPs are disabled.			
2. Spare IP	Spare IP is enabled.			
3. Backup IP	Backup IP is enabled.			
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X
1. IP Address	Sets DT830 terminal's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
2. Default Gateway	Sets default router's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0		
4. DNS Address	Sets DNS server's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X
8.TTL Settings	Setting for multicast TTL (Time To Live)	-	X	X
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	32	X	X
9.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable	X	X
1. Disable	Priority Queue is disabled.		X	X
2. Enable	Priority Queue is enabled.		X	X
2. SIP Settings	Sets SIP related data.	-	X	X
1. SIP User	Sets user data.	-	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X
2. Password	Sets password for digest authentication.	-	X	X
3. Extension Number	Not used.	-	N	N
4. Backup Logon	Not used.	-	N	N

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2. Server Address	Sets IP address or URI of SIP server. **Note 19**, **Note 20**	-	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	0.0.0.0	X	X
2. 2nd Server Address				
3. 3rd Server Address				
4. 4th Server Address				
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	0.0.0.0	X	X
2. 2nd Register Address				
3. 3rd Register Address				
4. 4th Register Address				
3. Access Mode	Sets access mode for SIP server.	Normal	X	X
1. Normal	Normal access			
2. Remote	Remote access			
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.			
2. 2nd Server Port				
3. 3rd Server Port				
4. 4th Server Port				
5. Registrar Destination	Sets port for registrar server [1024-65535].			
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.			
2. 2nd Register Port				
3. 3rd Register Port				
4. 4th Register Port				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
5. Area ID	Sets the area (country) using DT830.	Automatic	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.			
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.			
2. America (Canada and North America)				
3. Australia				
4. Others				
5. Hong Kong				
6. Malaysia				
7. Singapore				
8. Mexico				
9. Taiwan				
10. New Zealand				
11. Korea				
12. Brazil				
13. China				
14. Thailand				
15. Thailand (EGAT)				
16. Sri Lanka				
17. Germany				
18. Italy				
19. Netherlands				
20. Catalonia (Not used)				
21. Denmark				
22. Sweden				
23. Poland				
24. Czech				
25. Norway				
26. France				
27. Portugal				
28. Spain				
29. Austria				
30. Belgium				
31. UK				
32. Greece				
33. Switzerland				
34. South Africa				
35. Brazil (EMEA)				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).			
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).			
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X
1. Disable	Calls in progress are not held even when DT830 terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are held even when DT830 terminal detects communication failure with the Telephony Server.			
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disable	N	N
1. Disable	Howler tone sending is OFF.			
2. Enable	Howler tone sending is ON.			
7. Encryption	Sets encryption data.	Disable	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X
1. Disable	Authentication is not used.			
2. Enable	Authentication is used.			
2. One Time Password	Sets One Time Password.	-	X	X
3. Authentication Status	Displays authentication status.	-	X	X
8. NAT Traversal **Note 23**	Not used.	-	N	N
1.NAT Traverse Mode	Not used.	-	N	N
1.Disable				
2.Dynamic				
3.Static				
2.Network Area Name	Not used.	-	N	N
3.WAN Settings	Not used.	-	N	N
1.WAN Mate IP Address				
2.WAN SIP Mate Port				
3.WAN Self IP Address				

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. Maintenance Settings	Sets maintenance related data.	-	X	X
1. Download Menu	Downloads specified file to DT830.	-	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X
1. Boot & Program	Downloads boot and program.	12/24CG: itzisipvc.tgz 12/24DG: itzisipvg.tgz	X	X
2. Config	Downloads configuration file.	config.tgz	X	X
3. Voice File	Downloads voice file.	voice.tgz	X	X
4. Language Pack	Downloads translation data file.	LangPack.tgz	X	X
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
2. Hard Reset	Resets DT830 without data saving.	-	X	X
3. Data Clear	Initializes DT830 selecting the initialization mode.	-	X	X
1. Factory Value	Initializes DT830 to factory default.	-	X	X
2. Terminal Data	Clears terminal data on DT830.	-	X	X
3. Personal Data	Clears personal data on DT830.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X
1. Default Audio	Sets audio data.	-	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7].	4	X	X
2. Send Gain	Sets sending gain of handset [0-31].	24	X	X
3. Receive Bias	Sets receiving bias of handset [0-7].	0	X	X
4. Receive Gain	Sets receiving gain of handset [0-31].	22	X	X
5. Characteristics	Sets talk characteristics of handset.	-	X	X
1. Noise Suppression	Sets whether to enable the Noise Suppressor. (Set "1.Disable" in normal operation.)	Disable	X	X
1.Disable	Disables the Noise Suppressor.			
2.Enable	Enables the Noise Suppressor.			
2. Handsfree Mode	Sets handsfree mode of handset.	Retro Mode	X	X
1. Retro Mode	Sets to Retro mode.			
2. New Mode	Sets to New mode.			
6. DTMF Send Level	Specfies the DTMF Send Level [0-48] (level 0 (maximum) ~ level 48 (minimum))	32	X	X
2. KeyKit Type	Sets additional button kit data.	-	X	X
1 ~ 2. Kit 1 ~ 2	Key 1 ~ 2 on button kit are used.	Kit 1	X	X
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-	X	X
1. Line 12	Sets to 12-line of DT830G.		X	X
2. Line 24	Sets to 24-line of DT830G.		X	X
3. Line 32	Not used.		N	N
4. Line 8			N	N
5. Line 6			N	N
6. Line 2			N	N
7. Line 0			N	N

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)	-	X
0. Area Contrast				
1. Wide				
2. Narrow				
4. BCA Audio	Setting for the acoustic type and audio of BCA.	-	X	X
1. Acoustic Type	Selects acoustic type.	Type 1		
1. Type 1 - 5. Type 5				
2. Handset TX Gain	Sets sending gain of handset [-15dB~15dB].	15		
3. Handset RX Gain	Sets receiving gain of handset [-18dB~18dB].	18		
4. HF TX Gain	Sets sending gain of hands free [-15dB~15dB].	15		
5. HF RX Gain	Sets receiving gain of hands free [-18dB~18dB].	18		
6. Noise Suppression	Setting for the Noise Suppressor.	-		
1. TX	Sets the Noise Suppression level for TX.	Disable		
2. RX	Sets the Noise Suppression level for RX.	Disable		
5. Auto config	Selects whether to use auto-config function.	Enable	X	X
1. Disable	Auto config is not used.			
2. Enable	Auto config is used.			
6. Data Maintenance	Sets data maintenance related.	-	X	X
1. Backup	Executes data backup.	-	X	X
1. All Data	Executes backup for all the configuration settings and data.	AllData.tgz	X	X
2. Terminal Data	Executes backup for terminal settings and data.	TerminalData.tgz	X	X
3. Personal Data	Executes backup for personal settings and data.	PersonalData.tgz	X	X
2. Restore	Executes restoration.	-	X	X
1. All Data	Restores all the configuration settings and data.	AllData.tgz	X	X
2. Terminal Data	Restores terminal settings and data.	TerminalData.tgz	X	X
3. Personal Data	Restores personal settings and data.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7. Simple Test **Note 22**	Changes the terminal to test mode.	-	X	X
1. Call Test	Call Test	-	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X
6. Speaker Test	Tests the speaker.	-	X	X
1. Japan	A DT for Japan is heard in maximum volume.	-	X	X
2. America	A DT for North America is heard in maximum volume.	-	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X
4. Security	Sets security related data.	-	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X
1. Disable	Web Programming is disabled.			
2. Enable	Web Programming is enabled.			
2. Push Server	Sets XML's Push server related data.	-	X	X
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X	X
1. Disable	Access is disabled.			
2. Enable	Access is enabled.			
3. Enable (All Client) **Note 24**	Access is enabled. Select this item to set more than one XML's Push server.			
2. Client IP Address **Note 25**	IP address of XML's Push server.	0.0.0.0	X	X
1. Client 1	Sets IP address of 1st XML's Push server.			
2. Client 2	Sets IP address of 2nd XML's Push server.			
3. Client 3	Sets IP address of 3rd XML's Push server.			
4. Client 4	Sets IP address of 4th XML's Push server.			
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 28**	82	X	X
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X
1. Supplicant	Sets whether to use supplicant on DT830.	Disable	X	X
1. Disable	Supplicant is disabled on DT830.			
2. Enable	Supplicant is enabled on DT830.			
2. EAP Method	Not used.	-	N	N
3. Account	Sets user ID for EAP-MD5.	-	X	X
4. Password	Sets password for EAP-MD5.	-	X	X
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X
1. Disable	VLAN tag is not added to EAP packet.			
2. Enable	VLAN tag is added to EAP packet.			
5. VPN Client	Not used.	-	N	N
6 USB	Sets USB related parameter.	-	X	X
1 Power	Sets whether to supply power to USB devices.	Enable	X	X
1 Disable	Power is not supplied to USB devices.			
2 Enable	Power is supplied to USB devices.			
7 User Password	Setting for User Password.	-	X	X
1. Expiration Date	Sets the expiration of user password (0-90 days).	0	X	X
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1	X	X
5. Terminal Information	Displays terminal information.	-	X	X
Hardware Version	Displays hardware version of DT830.	-	X	X
MAC Address	Displays MAC address of DT830.	-	X	X
Firmware Version	Displays firmware version of DT830.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
6. Application Settings	Sets application data.	-	X	X
1. XML Settings	Specifies XML browser function.	-	X	X
1. Terminal ID	Login number for accessing XML server.	0000	X	X
2. XML Browser **Note 22**	Sets XML browser related data.	-	X	X
1. Home URL **Note 21**	Sets the address of the contents to access when starting up XML browser.	-	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X
3. Directory URL	Sets URL of Corporate Phonebook.	-	X	X
4. Service URL	Sets URL of XML application.	-	X	X
1. 1st Service URL	URL of up to four XML applications can be specified.			
2. 2nd Service URL				
3. 3rd Service URL				
4. 4th Service URL				
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535]. **Note 28**	3530	X	X
3. Popup	Sets the popup window display.	-	X	X
1.Popup Mode	Sets the mode of the popup window display.	App Priority	X	X
1.Enable	Sets the popup window display enabled.			
2.App Priority	Sets to depend on a definition of XML tag for Popup window.			
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-	X	X
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-	X	X
Emergency Dial 1	Up to three destination numbers can be specified.			
Emergency Dial 2				
Emergency Dial 3				
6. Menu Key Mode	Changes to menu key mode.	Enable	X	X
1. Disable	Sets the menu key mode disabled.			
2. Enable	Sets the menu key mode enabled.			

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
7. Voice Rec Settings	Setting for Voice Recording.	-	X	X
1, Voice Recording	Sets whether to use Voice Recording on the terminal.	Disable	X	X
1. Automatic	Enables Voice Recording		X	X
2. Disable	Disables Voice Recording		X	X
2, Rec Memo Settings	Sets the various configurations when using Voice Recording.	-	X	X
1. Auto Rec Start	Sets whether to use Auto Rec Start.	Enable	X	X
1. Disable	Disables Auto Rec Start.		X	X
2. Enable	Enables Auto Rec Start.		X	X
2. Auto Delete	Sets whether to delete the recording files automatically when the free space of USB memory is insufficient to use.	Enable	X	X
1. Disable	Not deletes the recording files automatically.		X	X
2. Enable	Deletes the recording files automatically.		X	X
3. Rec Tone	Sets whether to ring Rec Tone.	Enable	X	X
1. Disable	Disables to ring Rec Tone.		X	X
2. Enable	Enables to ring Rec Tone.		X	X
4. Rec Tone Level	Sets the recording tone level [0-48].	24	X	X
5. Rec Play Mode	Sets whether to play the recorded data.	Disable	X	X
1. Disable	Disables to play the recorded data.		X	X
2. Enable	Enables to play the recorded data.		X	X
6. Rec Admin Password	Sets the password for recording administrator. The password can be entered up to 32 digits. * Be sure to change the default password.	6633222	X	X

Note 19: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830G terminal is registered.

Note 20: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 21: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details" of "Hold Fixation Mode."

Also, refer to the manual (4.1.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Setting] - [2.IPM Self Port].

Note 22: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 23: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 24: Be careful when you specify "3.Enable(All Client)" because security service are disabled for Push when "3.Enable(All Client)" is set.

Note 25: To use Photo Frame Application for DT830G (12/24CG), configure one of the four Push servers (1st to 4th Push servers) with the IP address for PhotoFrame.

Note 26: "-" is displayed in default settings.

Note 27: Odd numbered ports cannot be assigned.

Note 28: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

4.1.3.8 DT830 Series Configuration Menu List (FW 3.0.0.0)

This section lists the configuration menu used for DT830 configuration settings.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The following menus are not displayed on the menu window: Tool, Call Func., Presence, Favorite and Config. To open Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0.Config] - [6.Application Settings] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default
1. Missed **Note 1**	Lists the history of missed calls.	-
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-
3. Incoming **Note 1**	Lists the history of incoming calls.	-
4. Delete All	Deletes the call history completely.	-

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data setting.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default
1. Call	Originates a call to the number displayed on the history.	-
2. Directory Add	Registers the number displayed on the history to Directory.	-

Parameter	Description	Default
1. New	Registers new number.	-
Category Set	Selects the group the new number registered to.	Company
1. Company		
2. Mobile		
3. Voice Mail		
4. Home		
5. Others		
Priority Flag	Sets the priority order of dialing number for call origination.	Disable
1. Disable		
2. Enable		
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-
2. Addition	Adds numbers to searched data.	-
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-
3. Prefix	Adds a prefix to the number displayed on the LCD.	-
4. Delete One	Deletes one history displayed on the LCD.	-
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-

Note 2: This menu has the same function with "2. Directory" →"2. Edit."

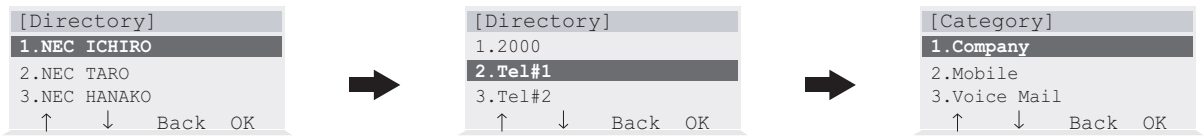
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1: This Directory Search menu has the same function with "2. Directory" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT830 (Standard LCD).

2. Directory

Parameter	Description	Default
1. Personal	Displays Terminal Phonebook **Note 7**	-
1. Search	Searches Phonebook.	-
1. Group	Searches by specifying group.	-
1. Default	Searches through “Default” group.	-
2. Colleagues	Searches through “Colleagues” group.	-
3. VIPs	Searches through “VIPs” group.	-
4. Family	Searches through “Family” group.	-
5. Friends	Searches through “Friends” group.	-
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-
2. Name	Searches by entering a target name.	-
3. Tel Number	Searches by entering numbers.	-
4. Others	Searches by other search key.	-
1. Memory ID	Searches by entering Memory ID.	-
2. Category	Searches by selecting Category.	-
1. Company	Searches through “Company” category.	-
2. Mobile	Searches through “Mobile” category.	-
3. Voice Mail	Searches through “Voice Mail” category.	-
4. Home	Searches through “Home” category.	-
5. Etc	Searches through “Etc” category.	-
3. Company	Searches by entering a company name.	-
4. Alphabet	Searches by alphabet order.	-
1. ABC	Searches by the name starting with A ~ Z.	-
2. DEF		
3. GHI		
4. JKL		
5. MNO		
6. PQRS		
7. TUV		
8. WXYZ		
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).	
#. All	Searches all.	
2. Edit	Edits the data in Terminal Phonebook.	-
1. Name	Registers name.	-
2. Group	Allocates group.	Default
1. Default		
2. Colleagues		
3. VIPs		
4. Family		
5. Friends		
6. Group6 ~ 20. Group 20		

2. Directory (Continued)

Parameter	Description	Default
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company
1. Company		
2. Mobile		
3. Voice Mail		
4. Home		
5. Others		
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable
1. Disable		
2. Enable		
7. Company Name	Registers company name.	-
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*	
2. Default	Applies default Ringing Tone on terminal.	
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.	
17. Download 1 ~ 19. Download 3		
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	
2. Default	Applies default illumination for announcing call termination.	
3. Disable	Illumination is OFF.	
4. Red	Specifies color of lamp indication for incoming call termination.	
5. Green		
6. Yellow		
7. Blue		
8. Light Blue		
9. Purple		
10. White		
11. Rotation		
0. Memory ID	Registers memory ID.	-

2. Directory (Continued)

Parameter	Description	Default
3. Group Setting	Sets groups.	-
1. Default		
2. Colleagues		
3. VIPs		
4. Family		
5. Friends		
6. Group6 ~ 20. Group 20		
1. Name	Registers group name.	-
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)
4. Own Number	Displays own number (login number).	-
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-

Note 4: The priority order of Ringing tone settings is as follows.
- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by “4. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal’s configuration menu regardless of SFI: 246/SFI: 247 data setting.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by “0.Config” - “6. Application Settings” - “1.XML Settings” - “3. Directory URL. When XML application is assigned to directory URL, “3. Corporate” is displayed on the “Directory” menu.

3. Service

Parameter	Description	Default
3. Service	Starts up XML browser and Instant Message tool.	-
1. Service **Note 9**	Starts up XML browser.	-

Note: Service menu is displayed only when the URL is set by “0.Config” - “6. Application Settings” - “1.XML Settings” - “4. Service URL”.

Note 9: At most 4 services are displayed on the menu. Even though “1. Service” isn’t displayed on the menu when only one URL is set, selection of “3. Service” starts up XML browser.

4. Setting

Parameter	Description	Default
1. User Setting	Sets user interface related.	-
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-
1. Ring Volume	Not used.	-
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable
1. Disable	Offhook ringing is OFF.	
2. Enable	Offhook ringing is ON.	
3. Headset Ring **Note 10**	Selects whether to use headset ringing.	Disable
1. Disable	Headset ringing is OFF.	
2. Enable	Headset ringing is ON.	

4. Setting (Continued)

Parameter	Description	Default
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.	
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
3. IM	Not used.	-
5. Illumination **Note 12**	Sets lamp indication pattern for incoming call termination.	-
1. External Call **Note 18**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic
1. Disable	Lamp indication is OFF.	
2. Red	Specifies the color of lamp indication for incoming call termination.	
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		

4. Setting (Continued)

Parameter	Description	Default
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic
1. Disable	Lamp indication is OFF.	
2. Red	Specifies the color of lamp indication for incoming call termination.	
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		
3. IM	Not used.	-
6. Headset Ring Volume	Not used	-
2. Talk	Sets call related data.	-
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic
0. Automatic	Applies RTP alarm setting on the Telephony Server.	
1. Disable	Alarm is OFF.	
2. Enable	Alarm is ON.	
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic
0. Automatic	Applies DTMF tone setting on the Telephony Server.	
1. Disable	DTMF tone is OFF.	
2. Enable	DTMF tone is ON.	
3. Key Touch Tone	Sets touch tone for pressing digit key.	Automatic **Note 15**
0. Automatic	Sets Automatic to key touch tone.	
1. No Tone	Sets key touch tone disabled.	
2. Tone	Sets key touch tone enabled.	
3. Voice	Enables the key touch tone by voice recognition.	
4. Hold Music	Sets Music-on-Hold.	Default
1. Default	Applies the default music (Minuet).	
2. Download	Applies the downloaded music.	
5. Prefix	Sets prefix number.	-
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-

4. Setting (Continued)

Parameter	Description	Default
3. Display	Sets display related data.	-
1. Time Format	Switches 12-hour/24-hour indication.	Automatic **Note 16**
0. Automatic	Applies the time indication on the Telephony Server.	
1. 12 hour Indication	12-hour indication	
2. 24 hour Indication	24-hour indication	
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**
0. Automatic	Sets Automatic for volume gage display.	
1. Disable	Volume gage is not displayed.	
2. Enable	Volume gage is displayed.	
3. Screen Saver	Sets Screen Saver related data.	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable
1. Disable	Screen Saver is not used.	
2. Enable	Screen Saver is used.	
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120
4. Back Light	Switches ON/OFF the backlight on DT830.	Enable **Note 12**
1. Disable	Backlight is OFF.	
2. Enable	Backlight is ON.	
5. Font Size	Switches the font size on configuration menu.	Standard (16dot)
1. Standard (16dot)	Selects Standard or Small of font size.	
2. Small (12dot)		

4. Setting (Continued)

Parameter	Description	Default
6. Language	Selects the language on date and time display.	Automatic **Note 18**
0. Automatic	Sets Automatic for language setting on date and time display.	
1. Japanese	Selected language is displayed on date and time display.	
2. NEC English		
3. NEC Portuguese		
4. NEC Spanish		
5. NEC French		
6. German		
7. Italian		
8. Dutch		
9. Norwegian		
10. Danish		
11. Swedish		
12. Greek		
13. English		
14. Portuguese		
15. Spanish		
16. French		
17. Russian		
18. Turkish		
19. Romania		
20. Polish		
21. Catalan		
22. Korean		
7. Advanced	Sets other data for display.	-
1..Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable
1.Disable	Disables Backlight Fade Control.	
2.Enable	Enables Backlight Fade Control.	
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000
5. Security	Not used.	-

4. Setting (Continued)

Parameter	Description	Default
6. Peripherals	Setting for using peripheral equipment of terminal.	-
1. USB Memory	Not used.	-
2. BCA Option	Setting for BCA (Bluetooth Connection Adapter).	-
1. BCA Connection Settings	Setting for Bluetooth connection.	-
1. Auto Connection	Selects whether to use Auto Connection.	Enable
1. Disable	Auto Connection is not used.	
2. Enable	Auto Connection is used.	
2. Connection Cycle	Sets Bluetooth connection cycle.	10 Seconds
1. 3 Seconds	Bluetooth connection cycle is 3 seconds.	
2. 10 Seconds	Bluetooth connection cycle is 10 seconds.	
3. 1 Minute	Bluetooth connection cycle is 1 minute.	
4. 10 Minutes	Bluetooth connection cycle is 10 minutes.	
2. Interrupt Ringing	Selects whether to use Interrupt Ringing.	Enable
1. Disable	Interrupt Ringing is OFF.	
2. Enable	Interrupt Ringing is ON.	
3. Smart Device Type	Setting for Smart Device Type.	Type 1
1. Type 1	Sets Smart Device Type for type 1.	
2. Type 2	Sets Smart Device Type for type 2.	
4. Auto Path Switch	Sets whether Auto Path Switch is in service.	Enable
1. Disable	Disables Auto Path Switch.	
2. Enable	Enables Auto Path Switch.	
5. Illumination	Sets lamp indication pattern for incoming call termination.	Enable
1. Disable	Specifies the color of lamp indication for incoming call termination.	Blue
2. Red		
3. Green		
4. Blue		
5. Yellow		
6. Purple		
7. Light Blue		
8. White		
9. Rotation		
7. Usability	Set the operation of Help key while pop-up window is displayed.	-
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu
1.SubMenu	Set the Help key which displays sub menu	
2.Popup Window	Set the Help key which displays pop-up window	
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-

4. Setting (Continued)

Parameter	Description	Default
2. Download	Sets download related data.	-
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.	
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav
2. Download 2		Melody2.wav
3. Download 3		Melody3.wav
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
3. Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
4. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save the download file.	
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0
4. Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
5. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save backup file.	

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default
1. Network Settings	Sets network related data.	-
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable
1. Disable	DHCP is not used.	
2. Enable	DHCP is used.	
2. IP Address	Sets DT830 terminal’s IP address.	0.0.0.0
3. Default Gateway	Sets default router’s IP address.	0.0.0.0
4. Subnet Mask	Sets subnet mask.	0.0.0.0
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0
6. Advanced Settings	Sets network expanded data.	-
1. LAN Port Settings	Sets LAN port.	-
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable
1. Disable	VLAN is not used.	
2. Enable	VLAN is used.	
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5
5. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable

0. Config

Parameter	Description	Default
2. PC Port Settings	Sets PC port.	-
1. Speed&Duplex	Sets communication speed of PC port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
2. VLAN Mode	Selects whether to use port VLAN of PC port.	Disable
1. Disable	Port VLAN of PC port is not used.	
2. Enable	Port VLAN of PC port is used.	
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0
5. Port Available	Selects whether to use PC port.	Automatic
0. Automatic	Sets Automatic for PC port.	
1. Disable	PC port is not used.	
6. EAPOL	Select whether to forward EAPOL packet from PC port.	Disable
1. Disable	Not forward EAPOL packet from PC port.	
2. Enable	Forwards EAPOL packet from PC port.	
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable
1. Disable	Not clear the authentication status.	
2. Enable	Clear the authentication status.	
8. Auto-MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable
3. CDP Mode	Not used.	Disable
4. Type of Service	Sets ToS value.	-
1. RTP	Sets ToS value for RTP in Hex.	A0
2. SIP	Sets ToS value for SIP in Hex.	C0
5.Self Port Settings	Sets each port for DT830.	-
1.RTP Self Port	Sets RTP port for DT830 [1024-65520 (except 59986-60000)]. **Note 26**, **Note 27**	3462
2.SIP Self Port	Sets SIP port for DT830 [1024-65534]. **Note 27**	5060
6.LLDP Settings	Sets information related to LLDP.	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable
1. Disable	DT830 does not transmit/receive LLDP packets.	
2. Enable	DT830 transmits/receives LLDP packets.	

0. Config

Parameter	Description	Default
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable
1. Disable	DT830 does not perform data setting automatically when LLDP packets are received.	
2. Enable	DT830 performs data setting automatically when LLDP packets are received.	
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830 receives LLDP packets (1-60 seconds).	15
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30
5.Hold Multiplier **Note 28**	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830 starts up (1-10 times).	3
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable
1. Disable	Transparent Mode of LLDP packets is disabled.	
2. Enable	Transparent Mode of LLDP packets is enabled.	
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 25**

0. Config

Parameter	Description	Default
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable
1. Disable	Both Spare and Backup IPs are disabled.	
2. Spare IP	Spare IP is enabled.	
3. Backup IP	Backup IP is enabled.	
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-
1. IP Address	Sets DT830 terminal's IP address when Spare/ Backup IP is enabled.	0.0.0.0
2. Default Gateway	Sets default router's IP address when Spare/ Backup IP is enabled.	0.0.0.0
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0
8.TTL Settings	Setting for multicast TTL (Time To Live)	-
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	
9.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable
1. Disable	Priority Queue is disabled.	
2. Enable	Priority Queue is enabled.	
2. SIP Settings	Sets SIP related data.	-
1. SIP User	Sets user data.	-
1. User ID	Sets user ID for digest authentication.	-
2. Password	Sets password for digest authentication.	-
3. Extension Number	Not used.	-
4. Backup Logon	Not used.	-

0. Config

Parameter	Description	Default
2. Server Address	Sets IP address or URI of SIP server. **Note 19**, **Note 20**	-
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	-
2. 2nd Server Address		
3. 3rd Server Address		
4. 4th Server Address		
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	-
2. 2nd Register Address		
3. 3rd Register Address		
4. 4th Register Address		
3. Access Mode	Sets access mode for SIP server.	Normal
1. Normal	Normal access	
2. Remote	Remote access	
4. SIP Server Port	Sets SIP server port [1024-65535].	5060
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.	
2. 2nd Server Port		
3. 3rd Server Port		
4. 4th Server Port		
5. Registrar Destination	Sets port for registrar server [1024-65535].	
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.	
2. 2nd Register Port		
3. 3rd Register Port		
4. 4th Register Port		

0. Config

Parameter	Description	Default
5. Area ID	Sets the area (country) using DT830.	Automatic
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.	
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.	
2. America (Canada and North America)		
3. Australia		
4. Others		
5. Hong Kong		
6. Malaysia		
7. Singapore		
8. Mexico		
9. Taiwan		
10. New Zealand		
11. Korea		
12. Brazil		
13. China		
14. Thailand		
15. Thailand (EGAT)		
16. Sri Lanka		
17. Germany		
18. Italy		
19. Netherlands		
20. Catalonia (Not used)		
21. Denmark		
22. Sweden		
23. Poland		
24. Czech		
25. Norway		
26. France		
27. Portugal		
28. Spain		
29. Austria		
30. Belgium		
31. UK		
32. Greece		
33. Switzerland		
34. South Africa		
35. Brazil (EMEA)		

0. Config

Parameter	Description	Default
6. Extra Function	Sets expanded data related to SIP packet.	-
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).	
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).	
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable
1. Disable	Calls in progress are not held even when DT830 terminal detects communication failure with the Telephony Server.	
2. Enable	Calls in progress are held even when DT830 terminal detects communication failure with the Telephony Server.	
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disable
1. Disable	Howler tone sending is OFF.	
2. Enable	Howler tone sending is ON.	
7. Encryption	Sets encryption data.	Disable
1. Authentication Mode	Selects whether to use authentication.	
1. Disable	Authentication is not used.	
2. Enable	Authentication is used.	
2. One Time Password	Sets One Time Password.	-
3. Authentication Status	Displays authentication status.	-
8. NAT Traversal **Note 23**	Not used.	-
1.NAT Traverse Mode	Not used.	-
1.Disable		
2.Dynamic		
3.Static		
2.Network Area Name	Not used.	-
3.WAN Settings	Not used.	-
1.WAN Mate IP Address		
2.WAN SIP Mate Port		
3.WAN Self IP Address		

0. Config

Parameter	Description	Default
3. Maintenance Settings	Sets maintenance related data.	-
1. Download Menu	Downloads specified file to DT830.	-
1. Download Files	Specifies download file name for each file type.	-
1. Boot & Program	Downloads boot and program.	itzisipvg.tgz
2. Config	Downloads configuration file.	config.tgz
3. Voice File	Downloads voice file.	voice.tgz
4. Language Pack	Downloads translation data file.	LangPack.tgz
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
4. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-
2. Hard Reset	Resets DT830 without data saving.	-
3. Data Clear	Initializes DT830 selecting the initialization mode.	-
1. Factory Value	Initializes DT830 to factory default.	-
2. Terminal Data	Clears terminal data on DT830.	-
3. Personal Data	Clears personal data on DT830.	-
4. Adjust	Adjusts LCD, audio, and button kit.	-
1. Default Audio	Sets audio data.	-
1. Sidetone Volume	Sets Side Tone volume [0-7].	4
2. Send Gain	Sets sending gain of handset [0-31].	24
3. Receive Bias	Sets receiving bias of handset [0-7].	0
4. Receive Gain	Sets receiving gain of handset [0-31].	22
5. Characteristics	Sets talk characteristics of handset.	-
1.Noise Suppression	Sets whether to enable the Noise Suppressor. (Set “1.Disable” in normal operation.)	Disable
2. Handsfree Mode	Sets whether to enable the Handsfree Mode	Retro mode
6. DTMF Send Level	Sets DTMF Send Level [0-48]. (level 0 (maximum) ~ level 48 (minimum))	32
2. KeyKit Type	Sets additional button kit data.	-
1 ~ 5. Kit 1 ~ 2, 8 ~ 10 . **Note 26**, **Note 27**	Key 1 ~ 2, 8 ~ 10 on button kit are used.	Kit 1
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-
1. Line 12	Sets to 12-line of DT830.	
2. Line 24	Sets to 24-line of DT830.	
3. Line 32	Not used.	
4. Line 8	Sets to 8-line of DT830.	
5. Line 6	Not used.	
6. Line 2	Not used.	
7. Line 0	Not used.	

0. Config

Parameter	Description	Default
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)
0. Area Contrast		
1. Wide		
2. Narrow		
4. BCA Audio	Setting for the acoustic type and audio of BCA.	-
1. Acoustic Type	Selects acoustic type.	Type 1
1. Type 1 - 5. Type 5		
2. Handset TX Gain	Sets sending gain of handset [0dB~30dB].	15
3. Handset RX Gain	Sets receiving gain of handset [0dB~36dB].	18
4. HF TX Gain	Sets sending gain of hands free [0dB~30dB].	15
5. HF RX Gain	Sets receiving gain of hands free [0dB~36dB].	18
6. Noise Suppression	Setting for the Noise Suppressor.	-
1. TX	Sets the Noise Suppression level for TX.	Disable
2. RX	Sets the Noise Suppression level for RX.	Disable
5. Auto config	Selects whether to use auto-config function.	Enable
1. Disable	Auto config is not used.	
2. Enable	Auto config is used.	
6. Data Maintenance	Sets data maintenance related.	-
1. Backup	Executes data backup.	-
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz
2. Restore	Executes restoration.	-
1. All Data	Restores all the configuration setting and data.	AllData.tgz
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz
3. Personal Data	Restores personal setting and data.	PersonalData.tgz
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
5. FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-

0. Config

Parameter	Description	Default
7. Simple Test **Note 22**	Changes the terminal to test mode.	-
1. Call Test	Call Test	-
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188
3. Key Test 1 (Random)	Tests to press the random button.	-
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-
5. Loop Back Test	Tests the voice loop back.	-
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-
6. Speaker Test	Tests the speaker.	-
1. Japan	A DT for Japan is heard in maximum volume.	-
2. America	A DT for North America is heard in maximum volume.	-
7. Receiver Test	Receiver Test for a handset	-
4. Security	Sets security related data.	-
1. Web Programming	Selects whether to use Web Programming.	Enable
1. Disable	Web Programming is disabled.	
2. Enable	Web Programming is enabled.	
2. Push Server	Sets XML's Push server related data.	-
1. Push Server Access	Sets whether to access XML's Push server.	Enable
1. Disable	Access is disabled.	
2. Enable	Access is enabled.	
3. Enable (All Client) **Note 24**	Access is enabled. Select this item to set more than one XML's Push server.	
2. Client IP Address	IP address of XML's Push server.	0.0.0.0
1. Client 1	Sets IP address of 1st XML's Push server.	
2. Client 2	Sets IP address of 2nd XML's Push server.	
3. Client 3	Sets IP address of 3rd XML's Push server.	
4. Client 4	Sets IP address of 4th XML's Push server.	
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 27**	82
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222

0. Config

Parameter	Description	Default
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-
1. Supplicant	Sets whether to use supplicant on DT830.	Disable
1. Disable	Supplicant is disabled on DT830.	
2. Enable	Supplicant is enabled on DT830.	
2. EAP Method	Not used.	-
3. Account	Sets user ID for EAP-MD5.	-
4. Password	Sets password for EAP-MD5.	-
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable
1. Disable	VLAN tag is not added to EAP packet.	
2. Enable	VLAN tag is added to EAP packet.	
5. VPN Client	Not used.	-
6. USB	Not used.	-
7 User Password	Setting for User Password.	-
1. Expiration Date	Sets the expiration of user password (0-90 days).	0
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1
5. Terminal Information	Displays terminal information.	-
Hardware Version	Displays hardware version of DT830.	-
MAC Address	Displays MAC address of DT830.	-
Firmware Version	Displays firmware version of DT830.	-

0. Config

Parameter	Description	Default
6. Application Settings	Sets application data.	-
1. XML Settings	Specifies XML browser function.	-
1. Terminal ID	Login number for accessing XML server.	0000
2. XML Browser	Sets XML browser related data.	-
1. Home URL **Note 21**	Sets the address of the contents to access when starting up XML browser.	-
2. Proxy Settings	Sets proxy server related data.	-
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080
3. Directory URL	Sets URL of Corporate Phonebook.	-
4. Service URL	Sets URL of XML application.	-
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 27**	3530
3. Popup	Sets the popup window display.	-
1.Popup Mode	Sets the mode of the popup window display.	App Priority
1.Enable	Sets the popup window display enabled.	
2.App Priority	Sets to depend on a definition of XML tag for Popup window.	
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-
Emergency Dial 1	Up to three destination numbers can be specified.	
Emergency Dial 2		
Emergency Dial 3		
6. Menu Key Mode	Changes to menu key mode.	Enable
1. Disable	Sets the menu key mode disabled.	
2. Enable	Sets the menu key mode enabled.	

Note 19: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830 terminal is registered.

Note 20: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 21: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details" of "Hold Fixation Mode."

Also, refer to the manual (4.1.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Settings] - [2.IPM Self Port].

Note 22: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 23: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 24: Be careful when you specify “3.Enable(All Client)” because security service are disabled for Push when “3.Enable(All Client)” is set.

Note 25: “-” is displayed in default settings.

Note 26: Odd numbered ports cannot be assigned.

Note 27: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

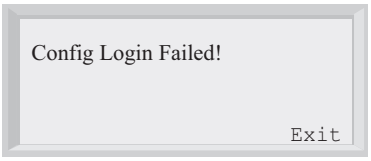
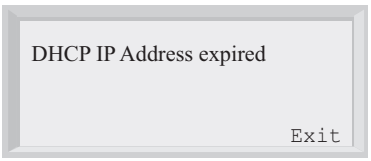
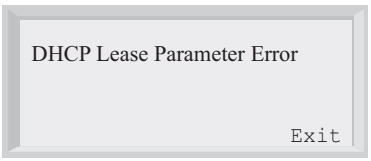
Note 28: LLDP time to live = LLDP packet transmission interval × the set value (65535 at most)

4.1.4 Error Messages

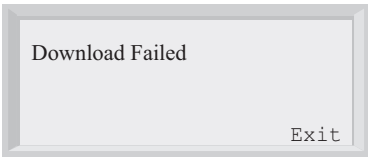
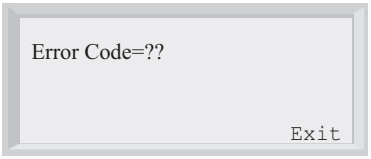
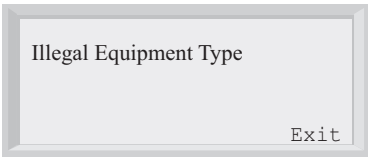
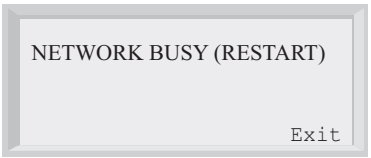
The following messages might be displayed when an error occurs during DT830 setup.

Note: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server where DT830 terminal is registered.

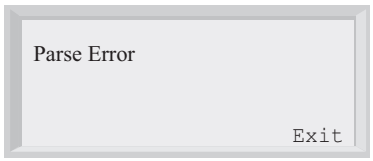
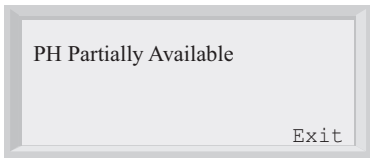
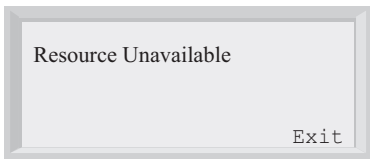
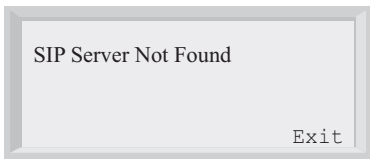
Error Messages on DT830 (Setup) (1 of 3)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
Licensed Number of Terminals is exceeded. 	The number of registered terminals exceeds the number of registration allowed (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Add the licenses to be required.
Config Data Error 	There is an error to the data setting.	• If it is failed again, contact the maintenance person.
Config Login is failed. 	The invalid password is entered to enter into the configuration menu.	• Enter the valid password.
DHCP IP address is expired. 	Though DHCP attempted to renew a lease for the IP address, the server didn't send back the response. (The DHCP address is expired.)	• The DHCP server setting and cable connection. • Check that the DHCP server function is operating normally.
DHCP Lease Parameter Error 	Not operable because of a discrepancy in the optional information acquired from DHCP.	• If it is failed again, contact the maintenance person.
DHCP server cannot be found. 	No answer from the DHCP server, after sending a request from the DT830. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Connect a DHCP server to the same network. • Check that a DHCP server and the DT830 are connected to the network. • Check that a DHCP server is operating normally. • Check that the network equipment is connected correctly. • When the DT830 is not used, set the parameter to "DHCP Disable".

Error Messages on DT830 (Setup) (2 of 3)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
Download is failed. 	The download failed.	• If it is failed again, contact the maintenance person.
Unrecognized error information is received. 	After sending “initial setup request” from the terminal to DRS, unrecognized error information for the terminal was received (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Confirm the office data setting for stations. • Initialize the system by SINZ command, or restart the system. • Please contact the system maintenance personnel for further information.
Illegal Line Equipment Number 	After sending “initial setup request” from the terminal to DRS, “Illegal Line Equipment Number” was received (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Change or adjust the LENS of the terminal at the system. • Confirm the office data setting for stations.
Registration Module cannot recognize Equipment Type. 	Registration Module cannot recognize the equipment type message sent from the terminal. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Initialize the system by SINZ command, or restart the system for stations.
DT830 cannot communicate due to network failure. 	Time-out of response for a request. (DT830 will be reset after the left error message is displayed for thirty seconds.)	• Check the network status and connection status, and the physical connection such as cable connection. • Check that DT830 is connected to the network. • Check that IP address is not overlapped. • Check that the network equipment is connected correctly. • Check that the network traffic is not too high. • Check that the Duplex is set for the LAN equipment on the network correctly. • Check that the Duplex of SW port connected to DT830 is set to Auto. • Check that the station number is not overlapped.

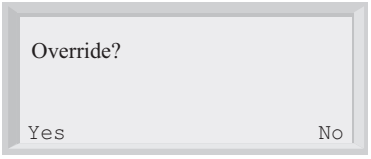
Error Messages on DT830 (Setup) (3 of 3)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
SP-PHD is not available 	After sending "initial setup request" from the terminal to DRS, SP-PHD error is received. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Confirm the settings of SP-PHD and office data. • Initialize the system by SINZ command, or restart the system.
Parameter is abnormal. 	In spite of "DHCP Disable," the IP address of the terminal has not been assigned. Or, there is a defect to the setting of DT830. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Correct the data assignment. • Check the data assignment on "config" display, saving the data again. • If the error still remains, the flash ROM may be faulty.
SIP message Error 	An internal error of Telephony Server has occurred (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Confirm the office data setting for stations. • Initialize the system by SINZ command, or restart the system. • Please contact the system maintenance personnel for further information.
PH cannot partially be used 	After sending "initial setup request" from the terminal to DRS, "PH Partially Available" was received (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Investigate the reason why SP-PHD is not available. • Confirm the office data setting.
DRS resource not available 	Registration cannot be performed because Telephony Server's resources are not available (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Confirm the office data setting for stations. • Initialize the system by SINZ command, or restart the system. • Please contact the system maintenance personnel for further information.
SIP server cannot be found. 	No answer from the SIP server, after sending a request from the DT830. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.) DNS server cannot be connected, or name solution is failed if FQDN is designated to SIP server address.	• Connect a SIP server to the same network. • Check that a SIP server and the DT830 are connected to the network. • Check that a SIP server is operating normally. • Check the SIP server address again. **Note 1** • When the DT830 is not used, set the parameter to "DHCP Disable".
SIP server cannot be supported. 	SIP server does not support operation by the connected equipment.	• Connect a DT830 that is supported by the SIP server.

Note 1: About IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

The following messages may be displayed in DT830 operation.

Error Messages on DT830 (Others)

ERROR MESSAGES	EXAMPLE	ACTION
Desired station number duplicates already registered one. 	When “Yes” is selected, the DT830 connected later is starting to operate, and the DT830 connected earlier will be unavailable and restart. When “No” is selected, change the station number set for the DT830 and restart it.	- If the left message is displayed continuously: • Select “Yes” to override and “No” not to override. • Check the office data related to the DT830 again.

4.2 DT820 Series

4.2.1 How to Start Configuration Setting

This section explains the configuration setup for DT820 Series. The following types of configuration settings are provided for DT820 Series:

[1] Configuration Setup on Terminal

Configuration data can be assigned by terminal operation. Each terminal can assign various configuration data by key operation. Press the “Menu” button and start up the configuration menu on the LCD. For details, see 4.2.2 Configuration Data Setting Procedure.

[2] Configuration Setup by Web Programming

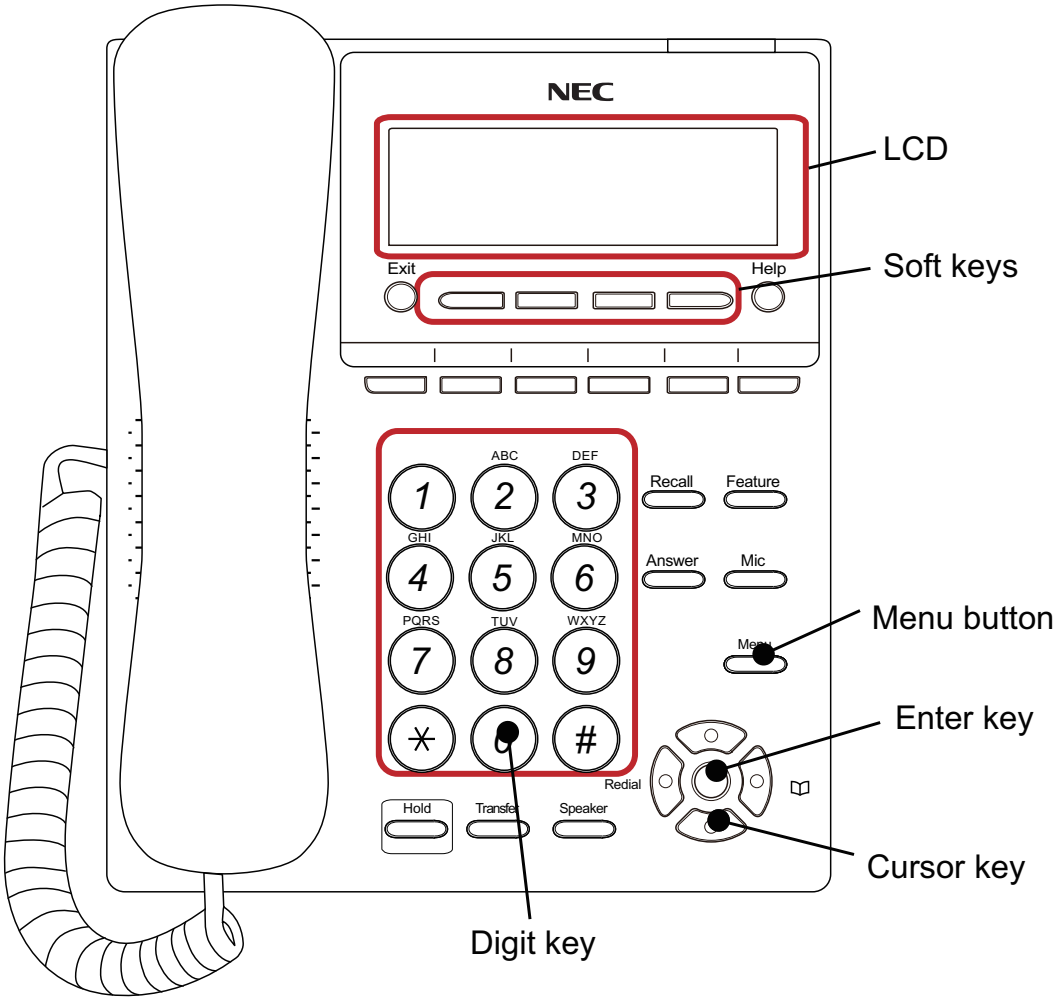
By using Web Programming application, various settings for the terminal is possible from the maintenance console. Web Programming supports both types of terminal; with LCD and without LCD. For details, see 4.2.2 Configuration Data Setting Procedure.

** This section describes the configuration settings related to the Telephony Server.*

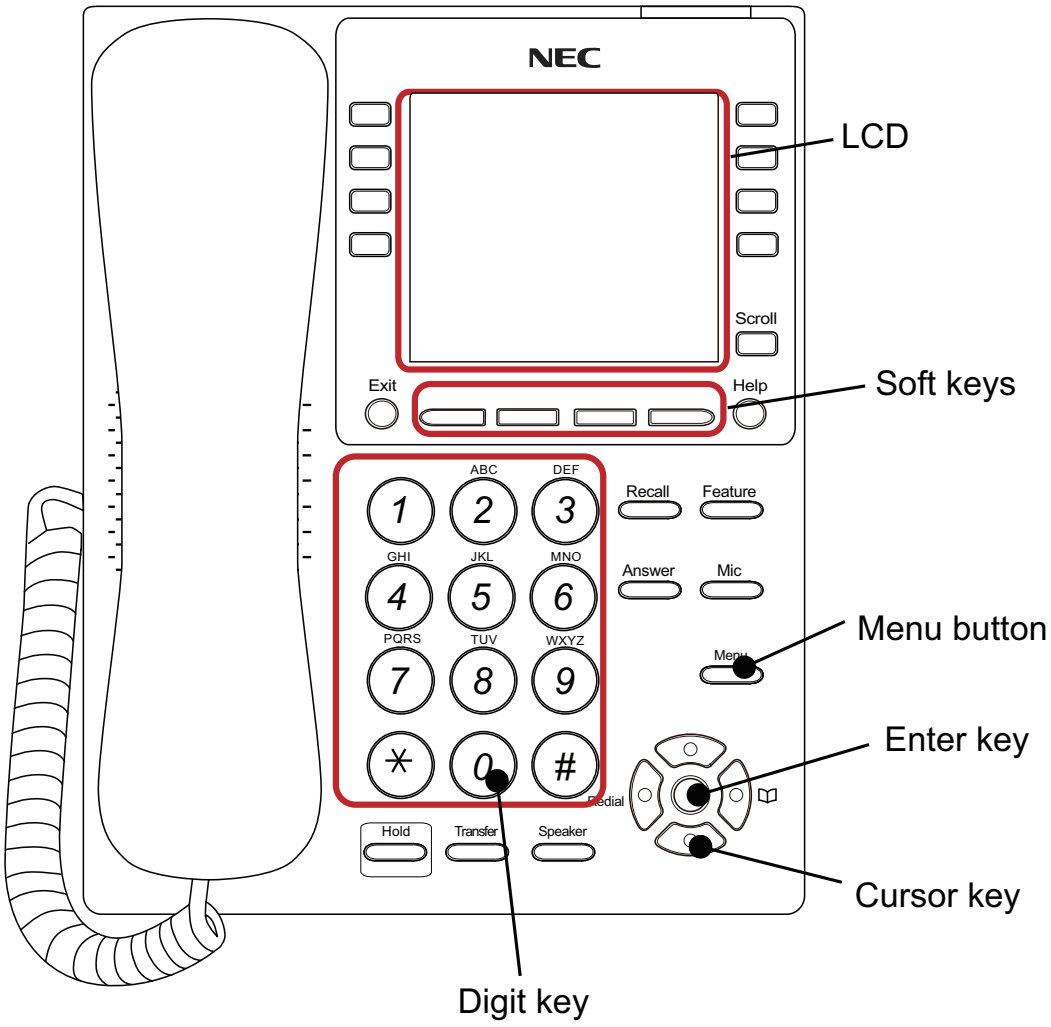
4.2.1.1 Configuration Setup on Terminal

This section explains the operation procedure to start configuration settings on terminal.

DT820 (6-button) Overview



DT820 (8-button type (DESI-LESS)) Overview



<Startup Procedure>

This section explains the procedure from turning ON the power to getting [Menu] and [Config] menus on the LCD.

[1] Power On

STEP 1: Power ON, and plug in the LAN cable to the LAN port.

STEP 2: The following will be displayed on the LCD shortly after turning the power on.



STEP 3: Shortly after the above is displayed, the following will be displayed on the LCD.

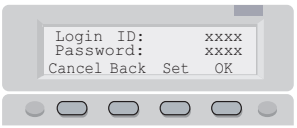


Login mode ➡ **Go to STEP 4**

MAC authentication mode ➡ **Go to STEP 5**

Note: If configuration data is already assigned to the terminal, the display may differ from the above.

STEP 4: For login mode, the LCD displays login screen. Enter Login ID and press Set, and then enter Password. After that, press the software key for "OK."



STEP 5: After a while, LCD displays date and time.



Note : When you select [Setting]→[Display] → [Time Format] → [Automatic] from the configuration menu, a time display pattern can be changed by by the system data (ASYDL System Data 1, Index1249).

Note : When the system data is changed, restart the terminal.

END

[2] Administrator Menu: [Config]

The LCD can be switched to [Config] for administrator's menu either before login or after login.

(a) Switch to [Config] menu before login

STEP 1: While the LCD indicating "Connecting..." after turning on the power (STEP 3 on the previous page), press the "Menu" + "0" keys.



Terminals with Menu button: "Menu"+"0"

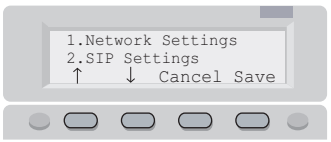
STEP 2: The LCD displays password entry screen. Enter User Name and Password, and then press the software key for "OK."



Note: Default value
User Name: ADMIN
Password: 6633222

*Be sure to change the default password.
See 4.2.2.23 Password Change.

STEP 3: After a while, [Config] menu is displayed.

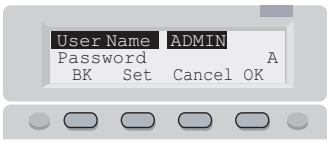


END

(b) Switch to [Config] menu after login

STEP 1: On [Menu] screen, press “0”.

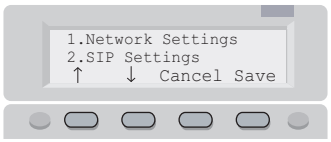
STEP 2: The LCD displays password entry screen for administrator's menu.



1. Enter User Name, and press the software key for "SET."
2. Enter Password, and press the software key for "OK."

Note: Default value
User Name: ADMIN
Password: 6633222
*Be sure to change the default password.
See 4.2.2.23 Password Change.

STEP 3: After a while, [Config] menu is displayed.



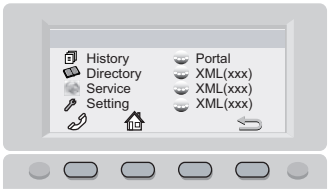
END

Note: To exit [Config] menu, press the software key for “Cancel” or “Save.” When you exit [Config] menu, the terminal restarts and returns to “Initializing...” display (STEP 2 in [1] Power On).

[3] User Menu: [Menu]

While the LCD displays date and time, press the “Menu” key on the terminal to open [Menu] screen for user’s menu.

User Menu



DT830 (Standard LCD)
Firmware version 3.0.0.0 or later **Note 2**
DT830G (Standard LCD)
Firmware version 3.0.0.0 or later **Note 2**

Note 2: “Portal” is displayed as follows depending on the Home URL setting.
- When Home URL is not registered, this menu name is displayed as “Phone”. Then, phone icon is not displayed.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. As an example, application name is displayed as “Portal” in this manual.

<Operations>

Follow the operations below to select the menu/parameter and to go forward/back the screen.

- Digit key - - - - - - - - Pressing the digit key corresponding to the menu number moves on to the next screen.
- Cursor key - - - - - - - Press the cursor key to select the target menu/parameter on the list. Then press the ENTER key or the software key for “OK” to move on to the next screen.
- UP ↑ and DOWN ↓ on Software key - - - Press the software key for “↑” and “↓” to select the target menu/parameter on the list. Then press the ENTER key or the software key for “OK” to move on to the next screen.

[How to Enter Characters on Configuration Menu]

By key operation, users can input alphanumeric characters and symbols on the LCD for such as user ID and password entry. See the tables below for available characters and symbols.

Pressing the "*" key switches the character table in the order of Bg (uppercase) → Sm (lowercase) → Num (numbers).

English: Bg (Upper case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	\	1	?	!	@	:	;						
2	A	B	C	2											
3	D	E	F	3											
4	G	H	I	4											
5	J	K	L	5											
6	M	N	O	6											
7	P	Q	R	S	7										
8	T	U	V	8											
9	W	X	Y	Z	9										
0	(space)	0													
#	*	#	.	/	:	~	!	@	$	%	^	&	(	)	'
	Six teen	Seven teen	Eigh teen	Nine teen	Twenty	Twenty one	Twenty two	Twenty three	Twenty four	Twenty five	Twenty six	Twenty seven	Twenty eight	Twenty nine	Thirty
1										;					
2															
3															
4															
5															
6															
7															
8															
9															
0															
#	?	_	+	−	=	[	]	{	}	<	>	,	;	\	

English: Sm (Lower case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	\	1	?	!	@	:	;						
2	a	b	c	2											
3	d	e	f	3											
4	g	h	i	4											
5	j	k	l	5											
6	m	n	o	6											
7	p	q	r	s	7										
8	t	u	v	8											
9	w	x	y	z	9										
0	(space)	0													
#	*	#	.	/	:	~	!	@	$	%	^	&	(	)	'
	Six teen	Seven teen	Eigh teen	Nine teen	Twenty	Twenty one	Twenty two	Twenty three	Twenty four	Twenty five	Twenty six	Twenty seven	Twenty eight	Twenty nine	Thirty
1										;					
2															
3															
4															
5															
6															
7															
8															
9															
0															
#	?	_	+	-	=	[	]	{	}	<	>	,	;	\	

[Function menu on Software key]

See the table below for the function menus allocated for the software keys in configuration settings.

SOFTWARE KEY DISPLAY	FEATURE
Common for all the menus	
↑	Scroll the focused line (highlighted line) up
↓	Scroll the focused line (highlighted line) down
OK	Confirm the entered/selected menu and move on to the next hierarchy
Back	Return to one menu hierarchy up without confirming the setting
Exec	Execute the setting with the entered/selected value
BK	Delete the entered character
Set	Move on to the next setting
Call History/Phonebook related	
Detail	Display detailed data
Option	Display optional menu
iCall	Originate a call to the displayed number
Prev	Return to the previous setting
Next	Move on to the next setting
[Config] for administrator's menu	
Save	Save the settings
Exit	Return to one menu hierarchy up
Cancel	Return to one menu hierarchy up without confirming the entered/selected value
IP/URI	Switch FQDN and IP address entry
Online Monitoring related	
Retry	Return to Ping menu

4.2.1.2 Configuration Setup by Web Programming

Web Programming is an application for assigning the terminal configuration data via maintenance console using Web browser. This section explains how to start and operate Web Programming.

<Startup Procedure>

STEP 1: Open Web browser on the maintenance PC and enter the IP address of the target terminal.

Note: Make sure that "4. Security Settings" → "1. Web Programming" → "2. Enable" is set on the [Config] menu of the terminal.

STEP 2: Login window for Web Programming is displayed. Enter the User ID and the password.
"ADMIN" and "6633222" are set as the default value for User ID and password respectively. Be sure to change the default password.

Note: For details, see 4.2.2.23 Password Change.

<Operations>

STEP 1: Setting menu is listed on the left field of the window. Select the target setting menu.

Note: The message waiting lamp of Cradle Phone blinks in yellow while logging in to Web Programming.

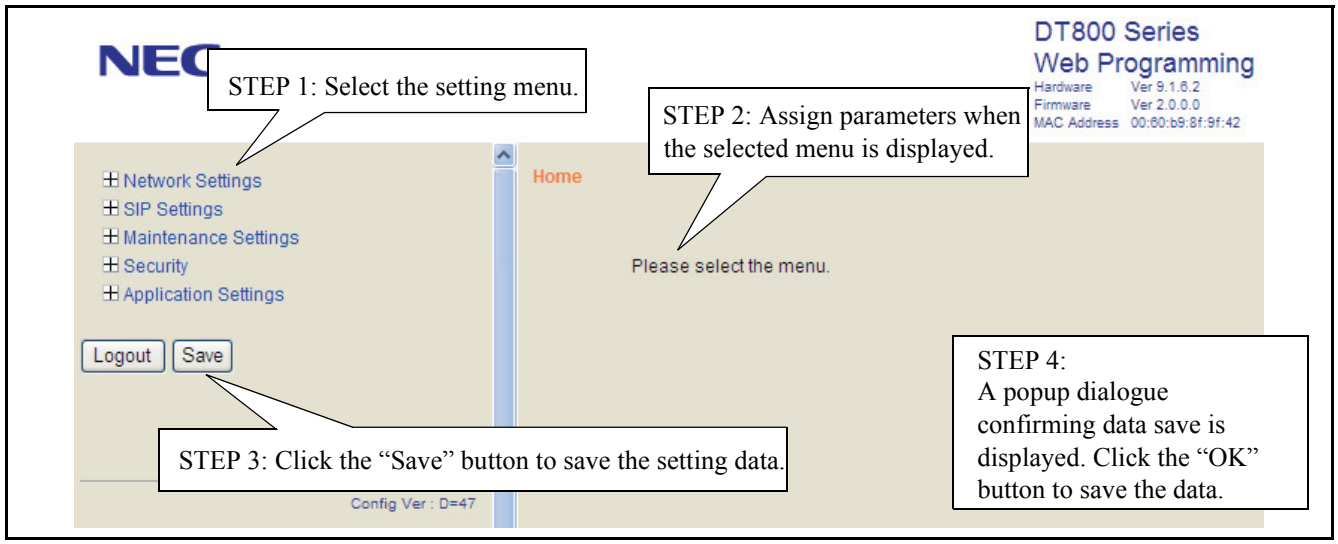
STEP 2: Setting parameters are displayed on the right frame of the window. Enter the parameters and then click the **OK** button.

STEP 3: After assigning all the menus, click the **Save** button on the bottom left of the window to save the assigned data.

STEP 4: A popup dialogue confirming data save is displayed. Click the "OK" button to save the data.
The terminal is rebooted when "OK" button is clicked.

Note: A popup dialogue confirming data save or rebooting the terminal is displayed when "Logout" button is clicked during the terminal's login state.

Note: The terminal name, hardware version, and firmware version displayed on the upper right corner of the screen may differ depending on the terminal model used.



4.2.2 Configuration Data Setting Procedure

This section explains the setting procedure of each configuration menu. The explanation covers the procedure for [1] Configuration Settings on Terminal and [2] Configuration Settings by Web Programming.

LCD varies depending on the terminal type and the setting condition. The explanation for the configuration setting procedure in the following sections goes with LCD of DT820 and digit key operation.

	DT820
Maximum number of lines displayed on LCD	3 lines
Operation	Digit key
	Cursor key
	Software key for "↑" and "↓"

Note: Refer to the operation manual of each terminal for the setting procedure using cursor key and software key.

4.2.2.1 IP Address of DT820 Series and SIP Server

This menu assigns the IP address of terminal (only for without DHCP configuration) and the IP address (or FQDN) of SIP server. **Note 1**
Assignment procedure depends on the system configuration. Select from the following three methods (**Note 2**) for configuration assignment.

Note 1: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server where DT820 is registered.

Note 2: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

TYPE 1: With DHCP Server (SIP Server's IP Address is Pre-assigned by DHCP Server)

DHCP server is connected to the network. DT820 terminal starts up and operates by obtaining own IP address and subnet mask, IP address (or FQDN) of SIP server, and router (default gateway) address via the DHCP server.
IP address assignment is not required on the configuration settings of DT820 since SIP server's IP address (or FQDN) is obtained via the DHCP server.

TYPE 2: With DHCP Server (SIP Server's IP Address is Not Assigned by DHCP Server)

DHCP server is connected to the network. DT820 terminal starts up and operates by obtaining own IP address, subnet mask, and router (default gateway) address via the DHCP server.
SIP server's IP address (or FQDN) is the only item necessary to be assigned on the configuration settings of DT820.

TYPE 3: Without DHCP Server

DHCP is in either of the following status; 1) DHCP server is not connected to the network or 2) the system is activated in a way that does not use the DHCP server.
It is necessary to assign the below in the DT820 configuration settings:
- IP address and subnet mask
- SIP server's IP address (or FQDN)
- Router (default gateway) address

[Setting Procedure]

STEP 1:Start up DT820

Turn on the power via PoE feeding.

STEP 2: Initialize data

1. On [Config], select "3. Maintenance Settings."
2. On [Maintenance] menu, select "3. Data Clear."
3. On [Data Clear] menu, select "1. Factory Value."
4. On [Factory Value] menu, press the software key "OK."

STEP 3: Assign configuration data on [Network Settings] menu

Depending on the system configuration, assign the following network data.

Type 1: With DHCP Server (SIP Server's IP Address is Pre-assigned by DHCP Server)

- Set DHCP to "Enable."
- When necessary, assign IP address for DNS server.

Type 2: With DHCP Server (SIP Server's IP Address is Not Assigned by DHCP Server)

- Set DHCP to "Enable."
- Assign IP address (or FQDN) for the primary SIP server.
- Assign IP address for second, third, fourth SIP server. (Perform this assignment only when backup SIP server is prepared in the network.)
- When necessary, assign IP address for DNS server.

Type 3: Without DHCP Server

- Set DHCP to "Disable."
- Assign IP address (or FQDN) for the primary SIP server.
- Assign IP address for second, third, fourth SIP server. (Perform this assignment only when backup SIP server is prepared in the network.)
- When necessary, assign IP address for DNS server.
- Assign IP address for DT820 terminal.
- Assign the Default Gateway address.
- Assign Subnet Mask.

STEP 4: Save settings

On [Config] screen, press the software key "Save" to save the settings.

STEP 5: Restart DT820 terminal

<Type 1 - System with DHCP Server (SIP Server's IP Address Is Pre-assigned by DHCP Server)>

This section explains the procedure of DT820 data assignment in the case where a DHCP server is available and SIP server's IP address (or FQDN) is preassigned on the DHCP server. The procedure assumes that the DHCP server notifies IP address of DT820, router (default gateway), subnet mask, and SIP server address (or FQDN).

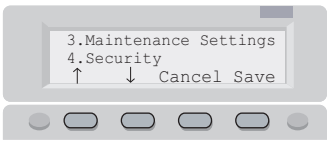
Telephony Server's IP address (or FQDN) must be pre-assigned to DHCP Options in the following ways.

For DT820, select Option according to the following priorities:
1st priority is option 162.
If there is no option 162, 2nd priority is option 120.
If there is no option 120, 3rd priority is terminal local settings.

Caution: *Observe the following while assigning the configuration data:*
- *Do Not Turn OFF the power of the terminal SIP server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the terminal, SIP server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the terminal, SIP server, DHCP.*

[1] Configuration Settings on Terminal

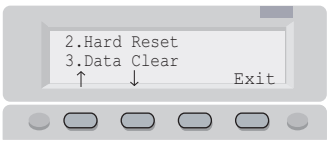
STEP 1: On [Config] main menu, select "3. Maintenance Settings."



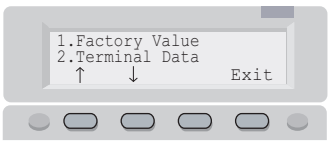
Note: For other operations, "↑" and "↓" of software key and cursor key are also available.

Note: For login mode, LoginID and Password entry is required here.

STEP 2: On [Maintenance] menu, select "3. Data Clear."



STEP 3: On [Data Clear] menu, select "1. Factory Value."



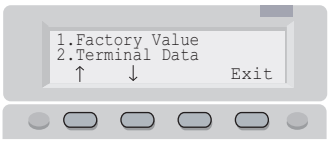
A

A

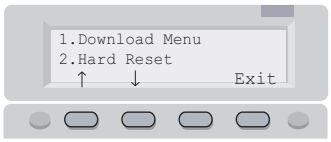
STEP 4: On [Factory Value] screen, press the software key for "OK" to confirm.



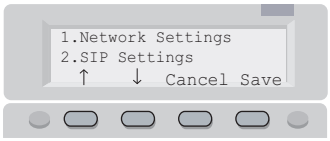
STEP 5: All the parameters return to factory default settings. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



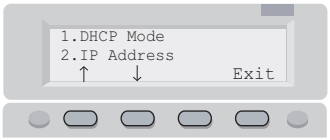
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



STEP 7: On [Config] menu, select "1. Network Settings."



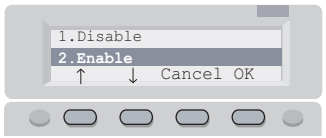
STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



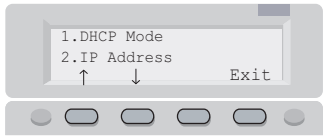
B

B

STEP 9: On [DHCP Mode] screen, verify that "2. Enable" is highlighted, and then press the software key for "OK."



STEP 10: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When SIP server's IP address is assigned via DHCP server:

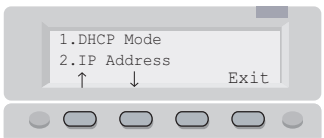
On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 14**

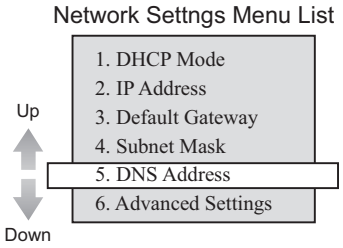
FQDN

When SIP server is specified by FQDN via DHCP server:

If DHCP option 162 (information for Telephony Server which the terminal connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:
-Obtain DNS server's IP address from the DHCP server.
-Assign DNS Server's IP address on the terminal [Config] settings. ➡ **Go to STEP 11**
When not necessary to assign DNS server's IP address on configuration settings, ➡ **Go to STEP 14**

STEP 11: On [Network Settings] menu, select "5. DNS Address."





C

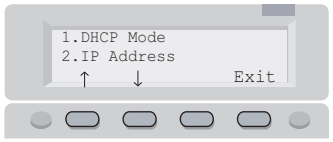
C

STEP 12: On [DNS Address] screen, assign the DNS server's IP address using the number button.

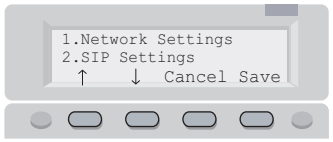


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 13: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



STEP 14: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for the terminal.



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Settings by Web Programming

STEP 1: Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "2. Enable" radio button (DHCP is enabled). Click the "OK" button.

STEP 5: Depending on the way to specify SIP server, perform either of the following:
a. When SIP server is specified by IP address via DHCP: → Go to STEP 8.
b. When SIP server is specified by FQDN via DHCP: → Go to STEP 6.

If DHCP option 162 (information of SIP server which DT820 connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:
- Obtain DNS server's IP address from the DHCP server.
- Assign DNS server's IP address on DT820 configuration settings.

- When not necessary to assign DNS server's IP address on configuration settings, go to STEP 8.

STEP 6: Select [Network Settings] → [DNS Address].

STEP 7: Enter the IP address of DNS server. Click the "OK" button.

STEP 8: Click the "Save" button. After setting is complete, SIP server begins setup for DT820.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to "4.2.4 Error Messages" for details on error messages.

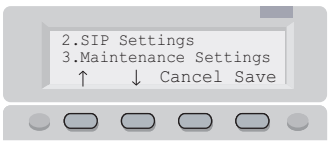
<Type 2 - System with DHCP Server (SIP Server's IP Address Is Not Assigned by DHCP Server)>

This section explains the procedure of DT820 data assignment in the case where a DHCP server is available and SIP server's IP address (or FQDN) is NOT assigned on the DHCP server yet. SIP server's IP address (or FQDN) is the only item necessary to be assigned on the configuration settings of DT820.

Caution: *Observe the following while assigning the configuration data:*
- *Do Not Turn OFF the power of the terminal, SIP server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the terminal, SIP server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the terminal, SIP server, DHCP.*

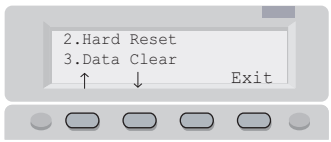
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select "3. Maintenance Settings."

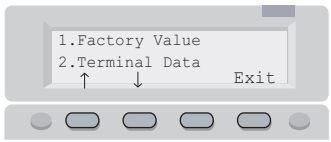


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

STEP 2: On [Maintenance] menu, select "3. Data Clear."



STEP 3: On [Data Clear] menu, select "1. Factory Value."



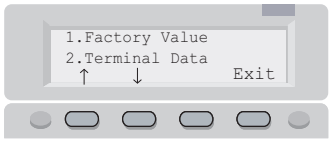
STEP 4: On [Factory Value] screen, press the software key for "OK."



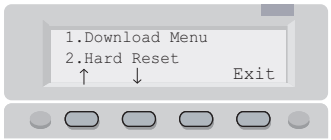
A

A

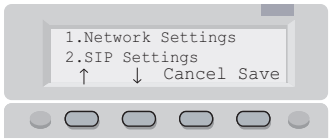
STEP 5: All the parameters return to factory default setting. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



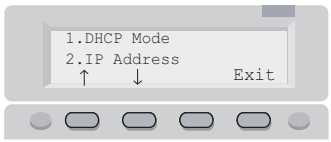
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



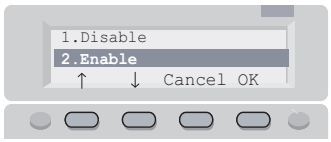
STEP 7: On [Config] menu, select "1. Network Settings."



STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



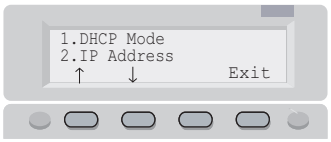
STEP 9: On [DHCP Mode] screen, verify that "2. Enable" is highlighted, and then press the software key for "OK."



B

B

STEP 10: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When SIP server's IP address is assigned via DHCP server:

On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 14**

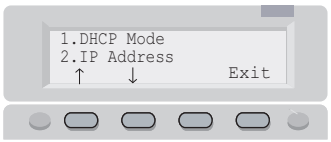
FQDN

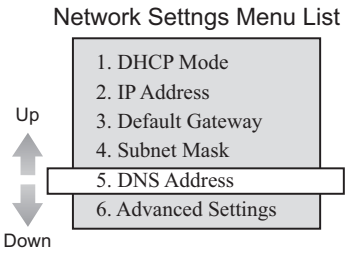
When SIP server is specified by FQDN via DHCP server:

It is necessary to perform either of the following:
-Obtain DNS server's IP address from the DHCP server.
-Assign DNS Server's IP address on the terminal [Config] settings. ➡ **Go to STEP 11**

When not necessary to assign DNS server's IP address on configuration setting, ➡ **Go to STEP 14**

STEP 11: On [Network Settings] menu, select "5. DNS Address."





STEP 12: On [DNS Address] screen, assign the DNS server's IP address using the number button.

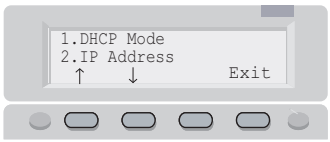


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

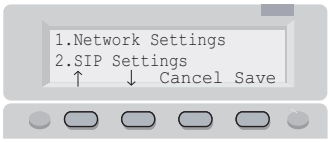
C

C

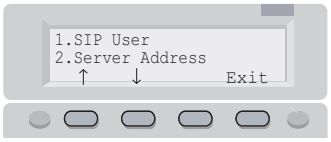
STEP 13: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



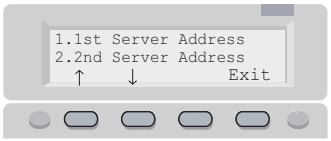
STEP 14: On [Config] menu, select "2. SIP Settings."



STEP 15: On [SIP Settings] menu, select "2. Server Address."



STEP 16: On [Server Address] menu, select "1. 1st Server Address."



D

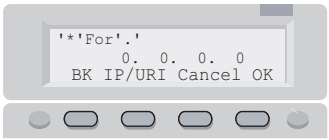
D

STEP 17: The LCD displays the [1st Server Address] setting screen.

Depending on the way to specify SIP server; by IP address or FQDN, perform either of the following:

IP address

When specifying the SIP server by IP address:

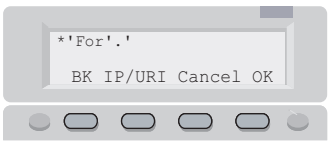


Assign the IP address of SIP server using digit keys.
Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

FQDN

When specifying the SIP server by FQDN:

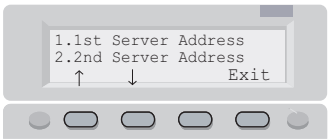
Press the software key for "IP/URI" to switch the mode to URI entry.



Assign fully qualified domain name of SIP server using digit keys. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _ (underscore) are valid in a domain name (maximum 128 characters).
Press the software key for "OK" when all settings are complete.

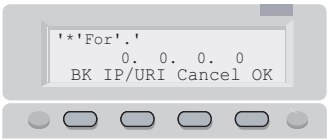
Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

STEP 18: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server addresses.



- Select "2" to assign the second SIP server
- Select "3" to assign the third SIP server
- Select "4" to assign the fourth SIP server

STEP 19: The LCD displays each of the [Server Address] setting screen.

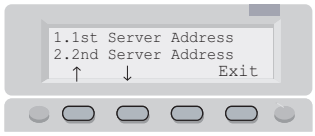


As in STEP 17, specify the SIP server by IP address or FQDN.
Press the software key for "OK" when all settings are complete and return to [Server Address] menu.

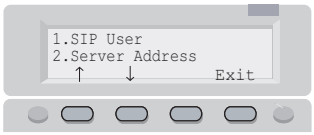
E

E

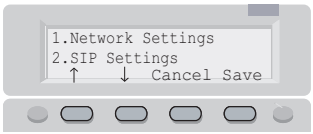
STEP 20: On [Server Address] menu, press the software key for "Exit" to return to [SIP Settings] menu.



STEP 21: On [SIP Settings] menu, press the software key for "Exit" to return to [Config] menu.



STEP 22: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for the terminal.



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Settings by Web Programming

STEP 1:Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "2. Enable" radio button (DHCP is enabled). Click the "OK" button.

STEP 5: Depending on the way to specify SIP server, perform either of the following:

a. When SIP server is specified by IP address via DHCP: → Go to STEP 8.

b. When SIP server is specified by FQDN via DHCP: → Go to STEP 6.

If DHCP option 162 (information of SIP server which DT820 connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:

- Obtain DNS server's IP address from the DHCP server.
- Assign DNS server's IP address on DT820 configuration settings.

- When not necessary to assign DNS server's IP address on configuration settings, go to STEP 8.

STEP 6: Select [Network Settings] → [DNS Address].

STEP 7: Enter the IP address of DNS server. Click the "OK" button.

STEP 8: Select [SIP Settings] → [Server Address URI] → [1st Server Address].

a. To specify SIP server by IP address:

Assign the IP address of SIP server, and then click the "OK" button. **Note 3**

b. To specify SIP server by FQDN:

Assign fully qualified domain name of SIP server, and then click the "OK" button. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) are valid in a domain name (maximum 128 characters).

Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

Note 3: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

STEP 9: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server.

- Click [2nd Server Address] to assign the second SIP server.
- Click [3rd Server Address] to assign the third SIP server.
- Click [4th Server Address] to assign the fourth SIP server.

STEP 10:As in STEP 8, specify the SIP server by IP address or FQDN. Click the "OK" button after assigning the data.

STEP 11:Click the “Save” button. After all settings are complete, SIP server begins setup for DT820.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to “4.2.4 Error Messages” for details on error messages.

<Type 3 - System without DHCP Server>

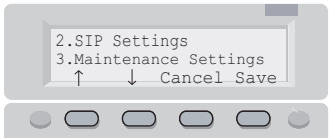
This section explains the procedure of DT820 data assignment for a system without DHCP server; DHCP server is not connected to the network or the system is activated in a way that does not use DHCP server.
The followings are necessary to assign in the DT820 configuration setting:

- DT820 terminal's IP address and Subnet mask
- Router (default gateway) address
- SIP server's IP address (or FQDN)

Caution: *Observe the following while assigning the configuration data:*
• Do Not Turn OFF the power of the terminal, SIP server, DHCP server.
• Do Not Unplug or Plug the LAN cable connecting to the terminal, SIP server, DHCP.
• Do Not Turn OFF the power of the HUB connecting to the terminal, SIP server, DHCP.

[1] Configuration Settings on Terminal

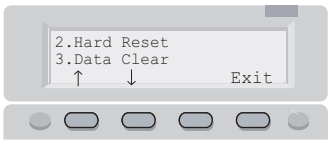
STEP 1: On [Config] main menu, select "3. Maintenance Settings."



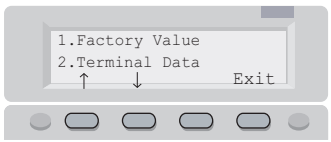
Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

Note: For login mode, LoginID and Password entry is required here.

STEP 2: On [Maintenance] menu, select "3. Data Clear."



STEP 3: On [Data Clear] menu, select "1. Factory Value."



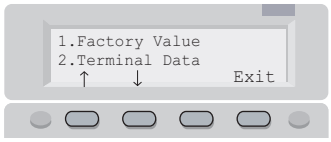
STEP 4: On [Factory Value] screen, press the software key for "OK."



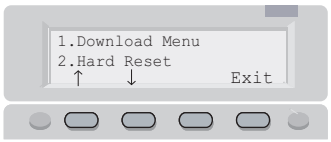
A

A

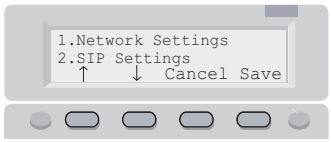
STEP 5: All the parameters return to factory default settings. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



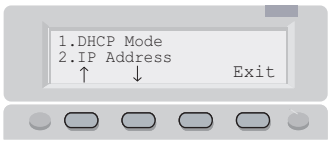
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



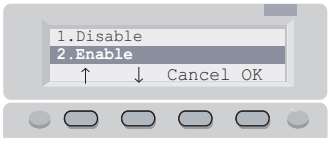
STEP 7: On [Config] menu, select "1. Network Settings."



STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



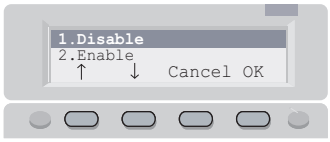
STEP 9: On [DHCP Mode] screen, "2. Enable" is highlighted.



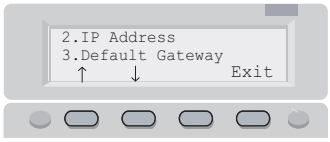
B

B

STEP 10: Select "1." and verify that "1. Disabled" line is highlighted. Then press the software key for "OK."



STEP 11: The LCD displays [Network Settings] menu. Select "2. IP Address" to display [IP Address] menu.

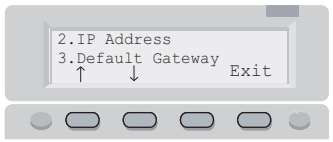


STEP 12: On [IP Address] setting screen, assign the IP address of DT820 using number keys.



Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 13: The LCD displays [Network Settings] menu. Select "3. Default Gateway" to display [Default Gateway] menu.



STEP 14: On [Default Gateway] setting screen, assign the IP address of DT820 using digit keys.

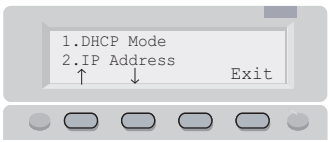


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

C

C

STEP 15: The LCD displays [Network Settings] menu. Select "4. Subnet Mask."



Network Settngs Menu List

Up

Down

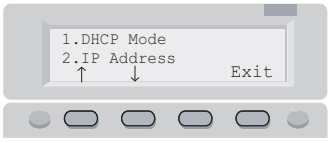
1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

STEP 16: The LCD displays [Subnet Mask] setting screen. Assign subnet mask using digit keys.



Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 17: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When IP address is used to specify SIP server:

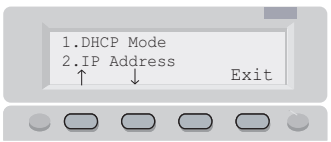
On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. **Go to STEP 22**

FQDN

When FQDN is used to specify SIP server:

Assign DNS Server's IP address on [Config] settings. **Go to STEP 18**

STEP 18: On [Network Settings] menu, select "5. DNS Address."



Network Settngs Menu List

Up

Down

1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

D

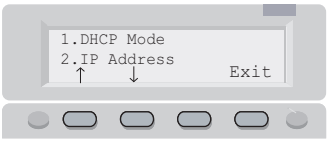
D

STEP 19: On [DNS Address] screen, assign the DNS server's IP address using the number button.

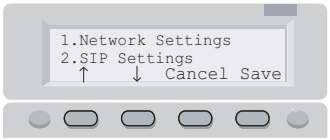


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

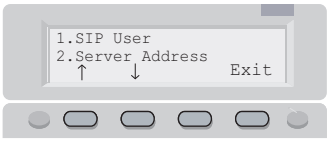
STEP 20: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



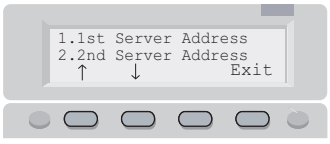
STEP 21: On [Config] menu, select "2. SIP Settings."



STEP 22: On [SIP Settings] menu, select "2. Server Address."



STEP 23: On [Server Address] menu, select "1. 1st Server Address."



E

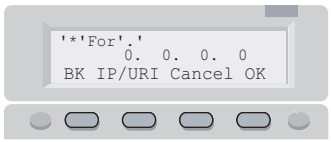
E

STEP 24: The LCD displays the [1st Server Address] setting screen.

Depending on the way to specify SIP server; by IP address or FQDN, perform either of the following:

IP address

When specifying the SIP server by IP address:



Assign the IP address of SIP server using digit keys.
Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

FQDN

When specifying the SIP server by FQDN:

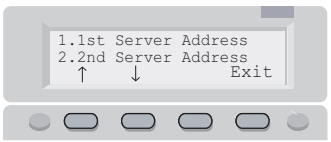
Press the software key for "IP/URI" to switch the mode to URI entry.



Assign fully qualified domain name of SIP server using digit keys. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _ (underscore) are valid in a domain name (maximum 128 characters).
Press the software key for "OK" when all settings are complete.

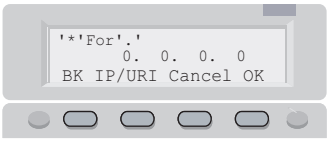
Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

STEP 25: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server addresses.



- Select "2" to assign the second SIP server
- Select "3" to assign the third SIP server
- Select "4" to assign the fourth SIP server

STEP 26: The LCD displays each of the [Server Address] setting screen.

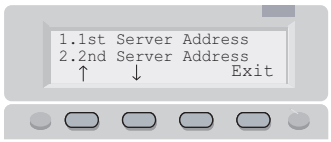


As in STEP 24, specify the SIP server by IP address or FQDN.
Press the software key for "OK" when all settings are complete and return to [Server Address] menu.

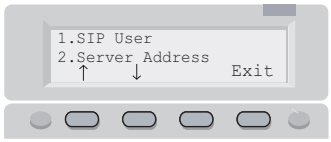
F

F

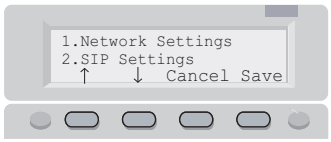
STEP 27: On [Server Address] menu, press the software key for "Exit" to return to [SIP Settings] menu.



STEP 28: On [SIP Settings] menu, press the software key for "Exit" to return to [Config] menu.



STEP 29: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for the terminal.



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Settings by Web Programming

STEP 1:Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "1. Disable" radio button (DHCP is disabled). Click the "OK" button.

STEP 5: Select [Network Settings] → [IP Address].

STEP 6: Enter the IP address of the DT820 terminal. Click the "OK" button.

STEP 7: Select [Network Settings] → [Default Gateway].

STEP 8: Enter the IP address of default gateway (router). Click the "OK" button.

STEP 9: Select [Network Settings] → [Subnet Mask].

STEP 10:Enter subnet mask. Click the "OK" button.

STEP 11:Depending on the way to specify SIP server, perform either of the following:

a. When SIP server is specified by IP address: → Go to STEP 14.

b. When SIP server is specified by FQDN: → Go to STEP 12.

Note: Assign DNS server's IP address on DT820 configuration settings.

STEP 12:Select [Network Settings] → [DNS Address].

STEP 13:Enter the IP address of DNS server. Click the "OK" button.

STEP 14:Select [SIP Settings] → [Server Address & URI] → [1st Server Address].

a. To specify SIP server by IP address:

Assign the IP address of SIP server, and then click the "OK" button. **Note 4**

b. To specify SIP server by FQDN:

Assign fully qualified domain name of SIP server, and then click the "OK" button. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) are valid in a domain name (maximum 128 characters).

Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

Note 4: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

STEP 15:If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server.

- Click [2nd Server Address] to assign the second SIP server.
- Click [3rd Server Address] to assign the third SIP server.
- Click [4th Server Address] to assign the fourth SIP server.

STEP 16:As in STEP 8, specify the SIP server by IP address or FQDN. Click the “OK” button after assigning the data.

STEP 17:Click the “Save” button. After all settings are complete, SIP server begins setup for DT820.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to “4.2.4 Error Messages” for details on error messages.

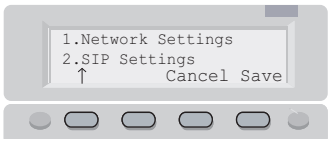
4.2.2.2 PC Port Remote Control

To use PC Port Remote Control feature assigned by PCPro programming, the following setting is also required on DT820 terminal side.

Note: Refer to “PC Port Remote Control” in Operations and Maintenance Manual for the data assignment on the Telephony Server.

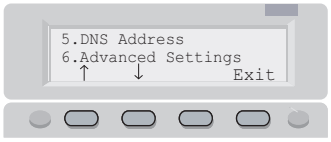
[1] Configuration Settings on Terminal

STEP 1: On [Config] menu, select "1. Network Settings."



Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

STEP 2: The LCD displays [Network Settings] menu. Select "6. Advanced Settings."



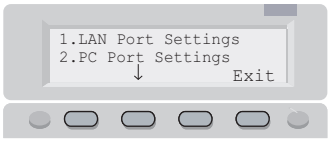
Network Settngs Menu List

Up

Down

1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

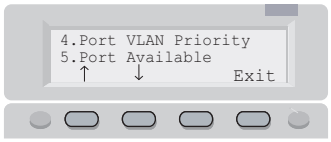
STEP 3: On [Advanced Settings] menu, select "2. PC Port Settings."



A

A

STEP 4: On [PC Port Settings] menu, select "5. Port Available."



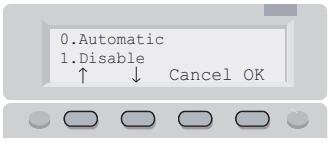
PC Port Settngs Menu List

Up

Down

1. Speed & Duplex
2. Port VLAN Mode
3. Port VLAN ID
4. Port VLAN Priority
5. Port Available
6. EAPOL Forwarding

STEP 5: The LCD displays [Port Available] setting screen.



Perform either of the following:

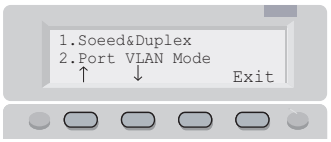
a.) When automatically setting the terminal's PC port status following the setting on PCPro:

1. Select "0. Automatic."
2. "0. Automatic" flashes.
3. Press the software key for "OK."

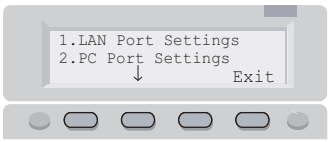
b.) When disabling the terminal's PC port without following the setting on PCPro:

1. Select "1. Disable."
2. "1. Disable" flashes.
3. Press the software key for "OK."

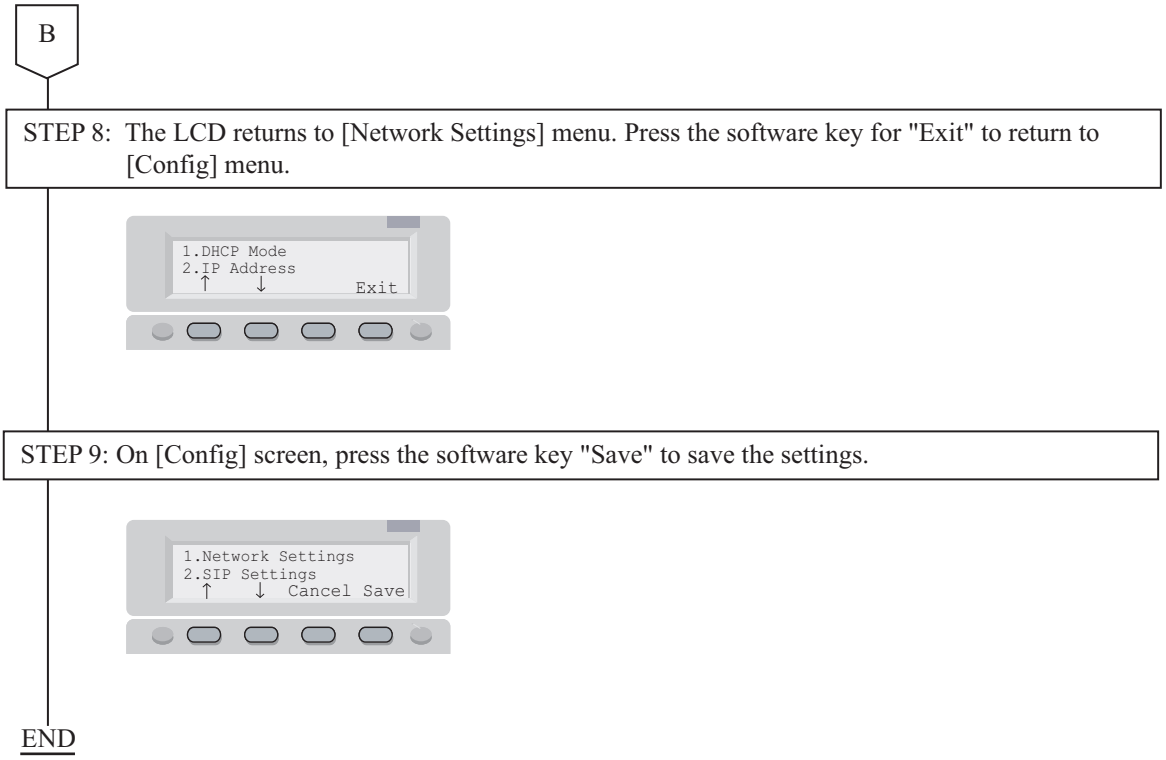
STEP 6: The LCD returns to [PC Port Settings] menu. Press the software key for "Exit."



STEP 7: The LCD returns to [Advanced Settings] menu. Press the software key for "Exit."



B



[2] Configuration Setting by Web Programming

STEP 1:Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port Available].

STEP 2: Select the [Port Available] parameter, and click the “OK” button.

1. Automatic:
   Automatically sets the DT820 terminal’s PC port status following the setting on PCPro.
2. Disable:
   Disable the DT820 terminal’s PC port without following the setting on PCPro.

STEP 3: Click the “Save” button.

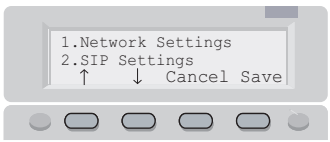
4.2.2.3 Type of Service (ToS)

ToS value can be changed on DT820 terminal.

Note: During operation, ToS value assigned by the Telephony Server is enabled. It is unnecessary to assign ToS value on the DT820 terminal side.

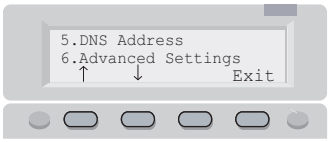
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “1. Network Settings.”



Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”



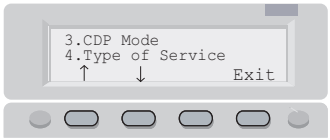
Network Settings Menu List

Up

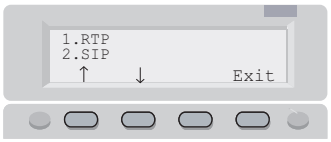
Down

1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

STEP 3: On [Advanced Settings] menu, select “4. Type of Service.”



STEP 4: The LCD displays [Type of Service] setting screen.



Select the packet type for setting ToS.

1. RTP
2. SIP

STEP 5: ToS value setting screen for the selected packet type (RTP in this example) is displayed.



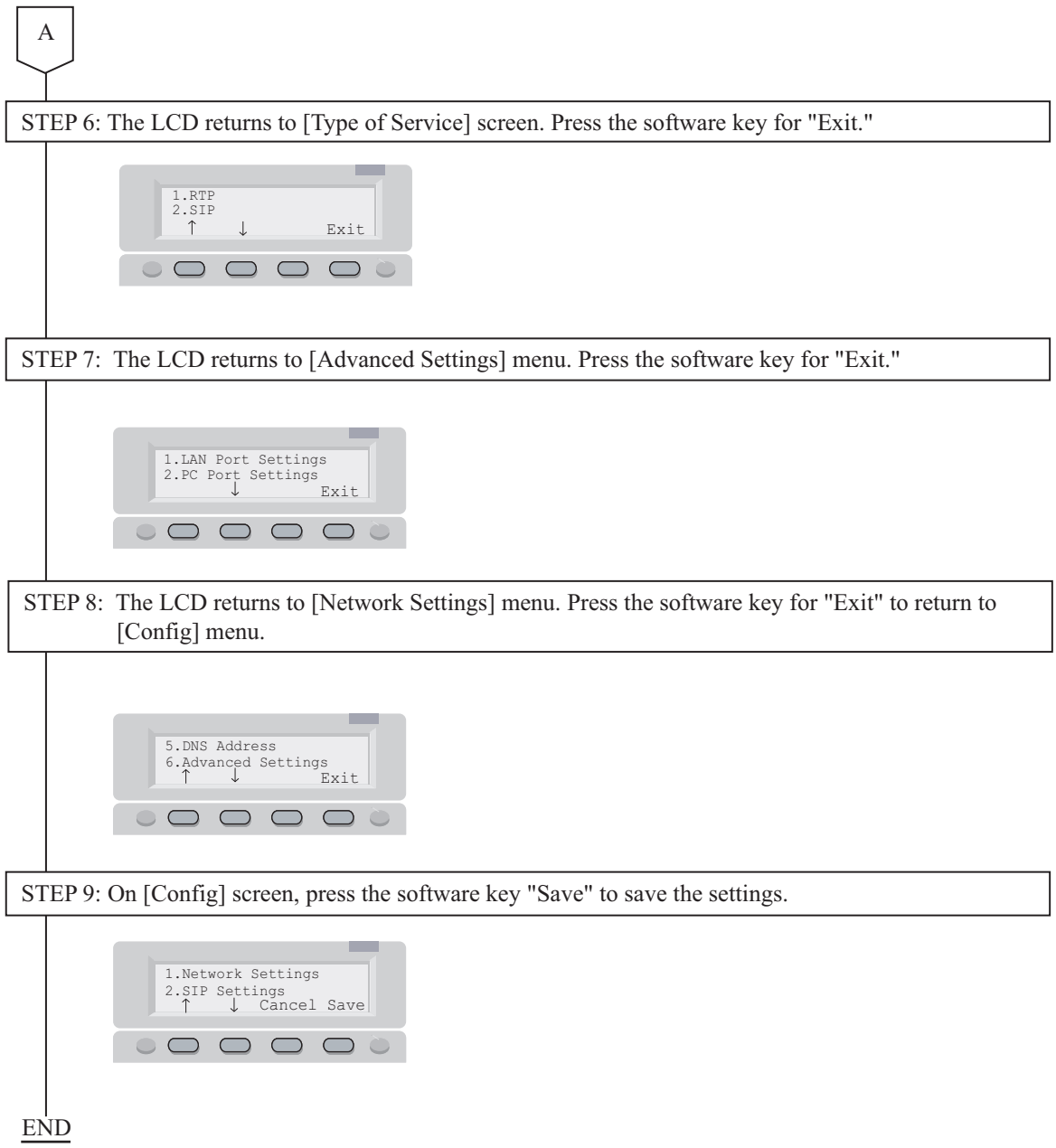
Enter any Hex value using the number key and then press “OK”.

Example: When entering “0B (Hex)”

1. Press the number button “0” once.
2. Press the number button “2” three times
   (The value changes “2” > “A” > “B.”)

Press the software key for “BK” to delete the entered value.

A



[2] Configuration Settings by Web Programming

STEP 1:Select [Network Settings] → [Advance Settings] → [Type of Service].

STEP 2: Select the packet type for setting the ToS value.

RTP: Click “RTP” to change the ToS value for sending RTP packet.

SIP: Click “SIP” to change the ToS value for SIP packet.

STEP 3: Enter any Hex value to the text box. Click the “OK” button.

STEP 4: Click the “Save” button.

4.2.2.4 LLDP and LLDP-MED

This section explains how to assign data for Link Layer Discovery Protocol (LLDP) and LLDP-Media Endpoint Discovery (LLDP-MED) on DT820 terminals.

DT820 supports LLDP, a standard Neighbor Discovery protocol, and can exchange information about themselves with adjacent network nodes such as IP/SIP terminals and other LLDP-capable devices. It also automatically performs some network settings upon receiving LLDP packets.

With LLDP Mode enabled, DT820 begins to transmit and receive LLDP packets after startup. It transmits LLDP packets from the LAN port at periodic intervals defined by LLDP Packet Transmission Interval (**Note 5**, **Note 6**, **Note 7**), and holds the latest available LLDP packet received on the LAN port (**Note 8**). When the LLDP Auto Setting Mode is enabled, it performs self-configuration based on the information learned from the received LLDP packet.

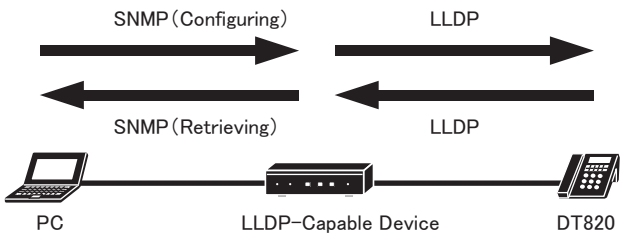
Note 5: LLDP packets are also transmitted in the following cases that LLDP packet contents to be advertised are changed.
- The Reception Waiting Time (RX Waiting Time) has timed out.
- IP address is allocated via DHCP.
- ToS value is defined by the Telephony Server.

Note 6: When DT820 transmits LLDP packets within LLDP Packet Transmission Interval, it sets LLDP Packet Transmission Interval based on the transmitted LLDP packet in the last time and transmits packets with the interval.

Note 7: LLDP packets are not transmitted from the PC port except when the LLDP Transparent Mode is enabled.

Note 8: LLDP packets will be discarded in the following cases where:
- LLDP packets are received on the PC port except when LLDP Transparent Mode is enabled.
- LLDP packets are received from network devices other than switches (IP/SIP terminal, PC, for example).
- LLDP packets whose LLDP-MED Capabilities TLV/LLDP-MED Device Type are not Connectivity Device Definition (04H).

Layer Discovery Protocol



LLDP Fast Start

DT820 usually transmits LLDP packets at the interval (30 seconds by default) specified by LLDP Packet Transmission Interval (Transmit Interval). However, this may cause slow MED device configuration due to the detection delay. In order to prompt neighbor devices to transmit an LLDP packet and renew the existing network information, DT820 can consecutively transmit one LLDP packet per second for a limited time, reducing the time it takes for automatic LLDP configuration. This feature, called "LLDP Fast Start," is activated immediately after DT820 starts transmitting an LLDP packet or when the link has been established on the LAN port, and transmits LLDP packets at intervals of one second for the duration of the LLDP Fast Start Count. After completion of the count, the transmission interval for LLDP packets returns to the value set for LLDP Packet Transmission Interval (Transmit Interval).

LLDP Auto Setting Mode

DT820 can automatically set the voice network policies based on the information from received LLDP packets. When the LLDP Auto Setting Mode is enabled, after starting LLDP packet transmission and reception, DT820 automatically sets network policies by using the valid LLDP packet received within the time specified by the Reception Waiting Time (RX Waiting Time).

LLDP Transparent Mode

DT820 can forward LLDP data between its LAN and PC ports. This provides the above-mentioned LLDP Auto Setting for a PC connected to the PC port of a DT820 terminal like those terminals adjacent to an LLDP capable switch.

When this Transparent Mode is enabled, DT820 transmits LLDP packets received on the LAN port to the PC port and vice versa.

Note: When the Transparent Mode is enabled, DT820 exchanges information with the LLDP-capable device connected to the PC port, as well as with the one connected to the LAN port.

<Service Conditions>

(1) DT820 supports the following protocol and standard:

- IEEE802.1AB
- ANSI/TIA-1057 LLDP-MED (LLDP for media endpoint discovery)
  LLDP-MED endpoint device class: “Class III (Communication Devices)”

(2) DT820 supports the following switches:

- NEC QX-S3200-PW Series Ver. 3.2.10 or higher
- Cisco Catalyst 3560 Series IOS Release 12.2 or higher

(3) Settings for LLDP and LLDP-MED features will be only valid after restarting the DT820 terminal.

(4) Transmission and reception of LLDP packets is performed after IEEE802.1X authentication.

(5) Settings for LLDP and LLDP-MED features are reset to default settings by clearing data (initialization, terminal settings data).

(6) The following settings can be configured by the AutoConfig feature:

- LLDP Mode
- Auto Setting Mode
- RX Waiting Time
- Transmit Interval
- Hold Multiplier
- Fast Start Count
- Transparent Mode

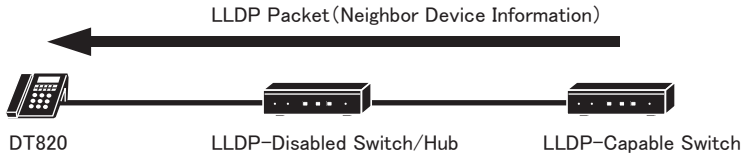
(7) Regardless of the settings for the LLDP Mode, LLDP Transparent Mode is performed based on the settings for the LLDP Transparent Mode.

(8) When the LLDP and the LLDP Auto Setting Modes are enabled, it may take some time to receive LLDP data (15 seconds by default) before DT820 starts up.

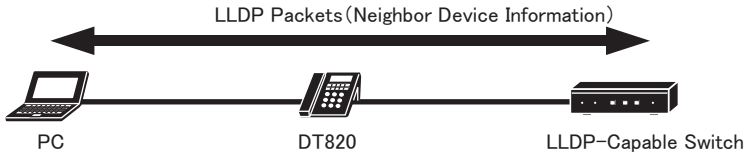
(9) VLAN IDs cannot be assigned automatically to the PC port of DT820 by using the LLDP Auto Setting Mode.

(10) The LLDP Auto Setting Mode will override the AutoConfig feature. Thus, even if performing the AutoConfig may involve changes in the settings common to both of them, the settings made by the LLDP Auto Setting will not be changed by the AutoConfig.

(11) Non-LLDP-capable switches and hubs relay LLDP packets. Switches that are LLDP-capable also relay LLDP packets if they are set to relay LLDP packets. When such an LLDP-disabled device is located between LLDP-capable devices and DT820, the DT820 will assume that LLDP information provided by the LLDP-capable device is the information about the one directly connected to itself.



(12) When the LLDP Transparent Mode is enabled, DT820 forwards LLDP packets between the LAN and PC ports. In this case, the LLDP-capable device (switch) will recognize the DT820 terminal and the PC connected to the terminal as its neighbor.



(13) The table below shows advertised LLDP Type Length Values:

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
Chassis ID TLV	chassis ID subtype	Chassis ID subtype	0x05 (Network address)
	chassis ID	Chassis ID	IP address Before DHCP assignment; "0.0.0.0" After DHCP assignment; the assigned address
Port ID TLV	port ID subtype	Port ID subtype	0x03 (MAC address)
	port ID	Port ID	MAC address
Time To Live TLV	time to live	Length of time the LLDP data will be valid	LLDP packet transmission interval×LLDP time to live
Port Description TLV	port description	Port description	"LAN Port"
System Name TLV	system name	System name	"NEC IP Phone"
System Description TLV	system description	System description	"DT820 Series"

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
System Capabilities TLV	system capabilities	Supported LAN capabilities (repeater hubs, routers, IP phones, for example)	0x00 0x24 (Telephone, Bridge)
	enabled capabilities	Enabled LAN capabilities (repeater hubs, routers, IP phones, for example)	0x00 0x24 (Telephone, Bridge)
Management Address TLV			Not advertised
IEEE802.1 Extensions			
Port VLAN ID TLV			Not advertised
Port And Protocol VLAN ID TLV			Not advertised
VLAN Name TLV			Not advertised
Protocol Identity TLV			Not advertised
IEEE802.3 Extensions			
MAC/PHY Configuration/ Status TLV	auto-negotiation support/ status	Auto-negotiation support/ status	0x02 (When Speed&duplex on the LAN port is set to automatic) 0x01 (When Speed&duplex on the LAN port is set to other than automatic)
	PMD auto-negotiation advertised capability	PMD auto-negotiation advertised capability	0x6C 0x00 (10BASE-T half duplex mode, 10BASE-T full duplex mode, 100BASE-TX half duplex mode, 100BASE-TX full duplex mode)
		PMD auto-negotiation advertised capability	0x6C 0x01 (10BASE-T half/full duplex mode, 100BASE-TX half/ full duplex mode, 1000BASE-T half/full duplex mode)

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
MAC/PHY Configuration/ Status TLV	operational MAU type	Operational MAU type	Speed&duplex during transmission 0x00 0x02 (10BASE-T half duplex) 0x00 0x04 (10BASE-T full duplex) 0x00 0x10 (100BASE-TX half duplex) 0x00 0x20 (100BASE-TX full duplex) 0x40 0x00 (1000BASE-T half duplex) 0x80 0x00 (1000BASE-T full duplex)
Power Via MDI TLV	MDI power support		Not advertised
	PSE power pair		
	power class		
Link Aggregation TLV	aggregation status	Link aggregation status	Not advertised
	aggregated port ID	Link aggregated port ID	
Maximum Frame Size TLV	maximum 802.3 frame size	Maximum 802.3 frame size	Not advertised
LLDP-MED Extensions			
LLDP-MED Capabilities TLV	LLDP-MED Capabilities	LLDP-MED capabilities	0x00 0x33 (Capabilities, network policy, power via MDI (PD), inventory management)
	LLDP-MED Device Type	LLDP-MED device type	0x03 (Endpoint class III)
Network Policy TLV [1]	Application Type	Application type to which the network policy applies	1 (Voice)
	U	Flag to indicate whether the information is known or unknown in the network policy request	In the LLDP Auto Setting Mode; 1 (Unknown) Otherwise; 0 (Defined)
	T	Flag to indicate whether the VLAN is tagged or untagged	LAN port VLAN is disabled; 0 (untagged VLAN) LAN port VLAN is enabled; 1 (tagged VLAN)
	X	(Not used)	0
	VLAN ID	VLAN ID	LAN port VLAN ID (When VLAN is disabled; 0)
	L2 Priority	Layer 2 priority	LAN port VLAN priority (When VLAN is disabled; 0)
	DSCP Value	DSCP value	Set value for RTP ToS

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
Network Policy TLV [2] **Note 9**	Application Type	Application type to which the network policy applies	2 (Voice Signaling)
	U	Flag to indicate whether the information is known or unknown in the network policy request	In the LLDP Auto Setting Mode; 1 (Unknown) In case other than the above; 0 (Defined)
	T	Flag to indicate whether the VLAN is tagged or untagged	LAN port VLAN is disabled; 0 (untagged VLAN) LAN port VLAN is enabled; 1 (tagged VLAN)
	X	(Not used)	0
	VLAN ID	VLAN ID	LAN port VLAN ID (When VLAN is disabled; 0)
	L2 Priority	Layer 2 priority	LAN port VLAN priority (When VLAN is disabled; 0)
	DSCP Value	DSCP value	Set value for SIP ToS
Location Identification TLV	Location Data Format	Location ID format	Not advertised
	Location ID	Location ID	
Extended Power-Via-MDI TLV	Power Type	Power supply or demand side	0x1(PD Device)
	Power Source	Power state Supply side: Main or auxiliary power Demand side: PoE or local power supply	0x0 (Unknown)
	Power Priority	Power supply priority	0x0 (Unknown)
	Power Value	Supply side: Minimum power available to supply Demand side: Maximum consumed power	36 (DT820)
Hardware Revision TLV	Hardware Revision	Hardware version	Hardware version
Firmware Revision TLV	Firmware Revision	Firmware version	Firmware version
Software Revision TLV	Software Revision	Software version	"-"
Serial Number TLV	Serial Number	Serial number	"-"
Manufacturer Name	Manufacturer Name	Manufacturer name	"NEC"
Model Name	Model Name	Model name	"DT820(6D)" "DT820(8LDX)"
Asset ID	Asset ID	Asset ID (Property ID)	Asset ID

Note 9: If DSCP Value (set value for SIP ToS) of Network Policy [2] is equal to that of Network Policy [1] (set value for RTP ToS), the TLV will not be advertised.

(14) The table below shows received LLDP Type Length Values:

Note: Only the LLDP packets received on the LAN port are valid. (LLDP packets received on the PC port are not valid.)

Received LLDP TLV

TLV	Description	Received Data	
		Availability	Online Monitoring
Basic management			
Chassis ID TLV	Chassis ID	Receivable	Viewed (Info only: IP Address, MAC Address)
Port ID TLV	Port ID	Receivable	Viewed (Info only)
Time To Live TLV	Length of time the LLDP data will be valid	Receivable	Not viewed
Port Description TLV	Port description	Receivable	Viewed
System Name TLV	System name	Receivable	Viewed
System Description TLV	System description	Receivable	Viewed
System Capabilities TLV	Supported/enabled LAN capabilities	Receivable	Not viewed
Management Address TLV		Receivable	Not viewed
IEEE802.1 Extensions			
Port VLAN ID TLV		Receivable	Not viewed
Port And Protocol VLAN ID TLV		Receivable	Not viewed
VLAN Name TLV		Receivable	Not viewed
Protocol Identity TLV		Receivable	Not viewed
IEEE802.3 Extensions			
MAC/PHY Configuration/ Status TLV	I/F capability/status/type	Receivable	Viewed (auto-negotiation support/status, operational MAU type only)
Power Via MDI TLV		Receivable	Not viewed
Link Aggregation TLV	Link aggregation port ID/ status	Receivable	Not viewed
Maximum Frame Size TLV	Maximum frame size	Receivable	Not viewed
LLDP-MED Extension			
LLDP-MED Capabilities TLV	LLDP-MED capabilities/ device type	Receivable	Not viewed
Network Policy TLV	Network policy	Receivable	Viewed (Voice, VoiceSignaling, Unknown only)
Location Identification TLV	Location identification	Receivable	Viewed (Civic Address, ECS ELIN only)

Received LLDP TLV

TLV	Description	Received Data	
		Availability	Online Monitoring
Extended Power-Via-MDI TLV	Power information	Receivable	Not viewed
Hardware Revision TLV	Hardware version	Receivable	Not viewed
Firmware Revision TLV	Firmware version	Receivable	Not viewed
Software Revision TLV	Software version	Receivable	Not viewed
Serial Number TLV	Serial number	Receivable	Not viewed
Manufacturer Name	Manufacturer name	Receivable	Viewed
Model Name	Model name	Receivable	Viewed
Asset ID	Asset ID (Property ID)	Receivable	Viewed

[Conditions for LLDP Auto Setting]

(1) To enable the LLDP Auto Setting Mode, an LLDP packet needs to contain a Network Policy TLV with Unknown Policy Flag (U) set to "0." If more than one Network Policy TLV is contained in a LLDP packet, all of their Unknown Policy Flag (U) must be "0."

(2) Both LLDP and LLDP Auto Setting Modes need to be enabled.

(3) DT820 will wait until it receives a valid LLDP packet for the LLDP Auto Setting or the Reception Waiting Time (RX Waiting Time) has timed out. In the latter case, the LLDP Auto Setting will not be performed. When receiving an LLDP packet with partially valid data, DT820 will continue waiting until it receives the one having all valid information for the LLDP Auto Setting. If no LLDP packets containing all valid data are received within the Reception Waiting Time (RX Waiting Time), the LLDP Auto Setting will be made by using LLDP packets with partially valid data.

Criteria for the LLDP Auto Setting

Received LLDP Packet	Waiting for Valid LLDP Packet (RX Waiting Time)	Auto Setting
Packet containing all valid data	Ends	Performed
Packet containing partially valid data	Continues	Performed by using only valid data after the Reception Waiting Time (RX Waiting Time) is expired
Packet containing no valid data	Continues	Not performed

(4) The following settings can be automatically configured by the LLDP Auto Setting:

- LAN port configuration/VLAN ID
- LAN port configuration/VLAN priority
- TOS mode/RTP
- TOS mode/SIP

(5) The LLDP Auto Setting is performed for each setting.

(6) The configuration data assigned to DT820 terminal is used until the LLDP data configured by the LLDP Auto Setting is applied.

(7) For setting items with invalid data, the LLDP Auto Setting is not performed.

(8) The priority order of the Layer 2 configuration is as follows:

1. Telephony Server definition
2. LLDP Auto Setting
3. Configuration data assignment of DT820 terminal

Note: Settings with lower priority are overridden by higher priority settings.

(9) Modification in the network configuration of the adjacent LLDP-capable device will cause changes in the LLDP information received by DT820, but this will not activate the LLDP Auto Setting. If you need to modify the configuration data of DT820, change the settings on the terminal or restart it.

(10) Changes in the configuration of the adjacent LLDP-capable device can disconnect communication between the DT820 terminal and the Telephony Server. In this case, DT820 automatically restarts.

(11) Settings data configured by the LLDP Auto Setting are not stored in the flash memory, and will be lost by turning the power off and on, or doing a hard or soft reset. In this case, perform the LLDP Auto Setting again.

(12) The AutoConfig is implemented for the settings configured by the Configuration data assignment of DT820 terminal after an IP address is allocated via DHCP, and then the terminal is reset. For this reason, AutoConfig setting has a priority equal to that of the Configuration data assignment.

(13) Conditions for LAN port configuration/VLAN ID

To configure VLAN ID, DT820 needs to receive an LLDP packet containing one or more Network Policy TLVs. VLAN ID is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for VLAN ID Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0

Note: For TLV definition, refer to the relevant manuals.

Note: This TLV definition will affect all types of packets (such as SIP, RTP, and HTTP) handled by DT820.

(14) Conditions for LAN port configuration/VLAN priority

To configure VLAN priority, DT820 needs to receive an LLDP packet containing one or more Network Policy TLVs. VLAN priority is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for VLAN Priority Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0

Note: For TLV definition, refer to the relevant manuals.

Note: This TLV definition will affect all types of packets (such as SIP, RTP, and HTTP) handled by DT820.

(15) Conditions for ToS mode/RTP

To configure ToS mode/RTP, DT820 needs to receive an LLDP packet containing one or more Network Policy TLVs. ToS mode/RTP is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for ToS Mode/RTP Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0
Tagged Flag (T)	Not Applicable

Note: For TLV definition, refer to the relevant manuals.

(16) Conditions for ToS mode/SIP

To configure ToS mode/SIP, DT820 needs to receive an LLDP packet containing one or more Network Policy TLVs. ToS mode/SIP is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for ToS Mode/SIP Configuration

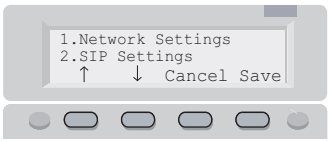
Priority	TLV Element	Condition
Primary	Application Type	Voice Signaling (2)
	Unknown Policy Flag (U)	0
	Tagged Flag (T)	Not Applicable
Secondary	Application Type	Voice (1)
	Unknown Policy Flag (U)	0
	Tagged Flag (T)	Not Applicable

Note: For TLV definition, refer to the relevant manuals.

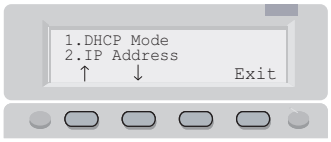
(17) The LCD displays the message “LLDP Receiving...” during the LLDP Auto Setting, including LLDP packet reception.

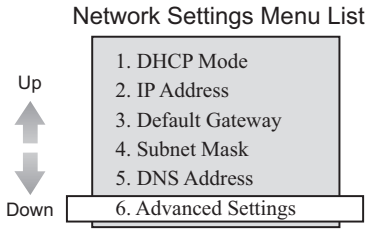
<How to Enable LLDP and LLDP-MED>

STEP 1: On [Config] menu, select “1. Network Settings.”

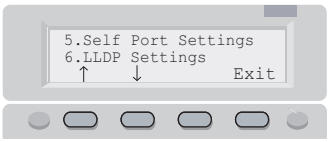


STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

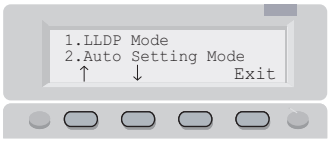




STEP 3: On [Advanced Settings] menu, select “6. LLDP Settings.”



STEP 4: The LCD displays [LLDP Settings] screen. Select “1. LLDP Mode.”



STEP 5: The LCD displays [LLDP Mode] screen.



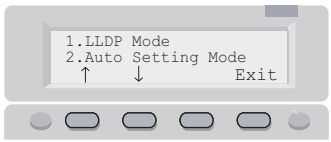
- Press the digit key “2” to transmit/receive LLDP packets.
- Press the digit key “1” not to transmit/receive LLDP packets.
- Press the software key for “OK” when the [LLDP Mode] setting is complete.

Note: “2. Enable” is set by default.

A

A

STEP 6: The LCD displays [LLDP Settings] screen.



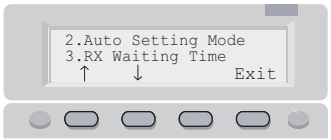
STEP 7: On [LLDP Settings] menu, select “2. Auto Setting Mode.”



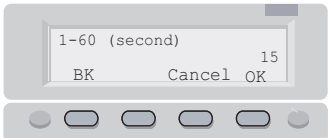
- Press the digit key “2” to enable the Auto Setting Mode.
- Press the digit key “1” to disable the Auto Setting Mode.
- Press the software key for “OK” when the [Auto Setting Mode] setting is complete.

Note:
- “2. Enable” is set by default.
- This data is valid when the LLDP mode is enabled.

STEP 8: The LCD displays [LLDP Settings] screen. Select “3. RX Waiting Time.”



STEP 9: The LCD displays [RX Waiting Time] menu.



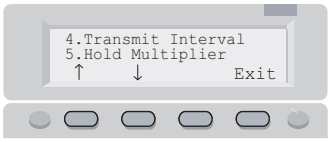
- Set the RX Waiting Time using digit keys.
- You can set 1- 60 (default time: 15) seconds.
- Press the software key for “BK” to delete the RX Waiting Time.
- Press the software key for “OK” when the [RX Waiting Time] settings is complete.

Note: This data is valid when the LLDP mode and Auto Setting Mode are enabled.

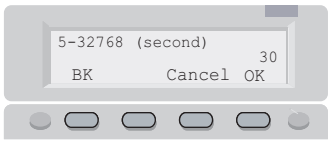
B

B

STEP 10: The LCD displays [LLDP Settings] menu. Select “4. Transmit Interval.”



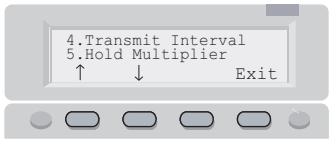
STEP 11: The LCD displays [Transmit Interval] setting screen.



- Set intervals to transmit LLDP packets using digit keys.
- You can set 5-32768 (default interval: 30) seconds.
- Press the software key for “BK” to delete the transmitting interval.
- Press the software key for “OK” when the [Transmit Interval] setting is complete.

Note: This data is valid when the LLDP mode is enabled.

STEP 12: The LCD displays [LLDP Settings] menu. Select “5. Hold Multiplier.”



STEP 13: The LCD displays [Hold Multiplier] setting screen.



- Set the time to live for the LLDP data using Digit Keys.
- The time to live will be determined by multiplying [Transmit Interval] value by the [Hold Multiplier] value.
- You can set 2-10 (default multiplier: 4) times.
- Press the software key for “BK” to delete the [Hold Multiplier] value.
- Press the software key for “OK” when the [Hold Multiplier] settings is complete.

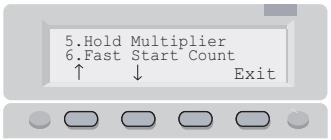
Note: This data is valid when the LLDP mode is enabled.

Note : When the value obtained by multiplying [Transmit Interval] value by the [Hold Multiplier] value exceeds 65535 seconds, the time to live for the LLDP data will be 65535 seconds.

C

C

STEP 14: The LCD displays [LLDP Settings] menu. Select “6. Fast Start Count.”



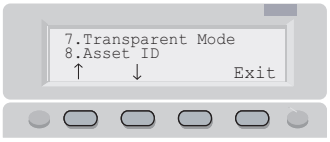
STEP 15: The LCD displays [Fast Start Count] setting screen.



- Set the number of times to transmit LLDP packets at one-second intervals after the terminal starts up using digit keys.
- You can set 1-10 (default count: 3) times.
- Press the software key for “BK” to delete the number.
- Press the software key for “OK” when the [Fast Start Count] settings is complete.

Note: This data is valid when the LLDP mode is enabled.

STEP 16: The LCD displays [LLDP Settings] menu. Select “7. Transparent Mode.”



STEP 17: The LCD displays [Transparent Mode] setting screen.



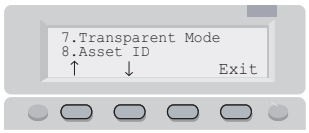
- Press the digit key “2” to enable the Transparent Mode.
- Press the digit key “1” to disable the Transparent Mode.
- Press the software key for “OK” when the [LLDP Mode] setting is complete.

Note: “2. Enable” is set by default.

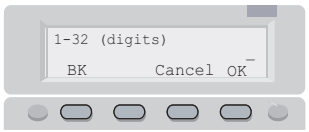
D

D

STEP 18: The LCD displays [LLDP Settings] menu. Select “8. Asset ID.”



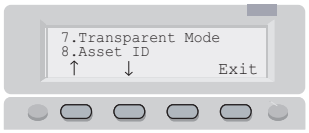
STEP 19: The LCD displays [Asset ID] setting screen.



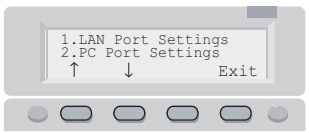
- Set the Asset ID using digit keys for the LLDP packet to be transmitted.
- You can set 1-32 digits of alphanumeric characters for the Asset ID. See [How to Enter Characters on Configuration Menu] for how to enter characters.
- Press the software key for “BK” to delete the Asset ID.
- Press the software key for “OK” when the [Asset ID] settings is complete.

Note: This data is valid when the LLDP mode is enabled.
Note: You can finish this setting by pressing the software key for “OK” without entering digits because of the software specification. In this case, the default data “-” will be set automatically .

STEP 20: The LCD displays [LLDP Settings] menu. Press the software key for “Exit.”



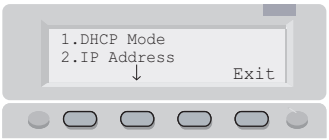
STEP 21: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



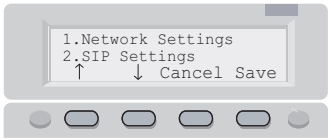
E

E

STEP 22: The LCD returns to [Network Settings] menu. Press the software key for “Exit”.



STEP 23: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

4.2.2.5 Spare/Backup IP

This section explains data assignment of Spare/Backup IP.

Even if DT820 fails to obtain an IP address from DHCP server, the DT820 can connect to the Telephony Server using Spare/Backup IP address.

Either of the following will be used as a substitute IP address depending on a substitute IP address mode assigned.

- Spare IP:IP address set by the Configuration Setting
- Backup IP:IP address obtained from DHCP last time

Spare IP

- If you set the following information by the Configuration Settings when substitute IP address mode is Spare IP, DT820 can use the following information as the substitute information while DHCP is out of service.
- IP Address
- Subnet Mask
- Default Gateway
- DNS Server Address
- 2nd - 4th Server Address
- 2nd - 4th Server Port

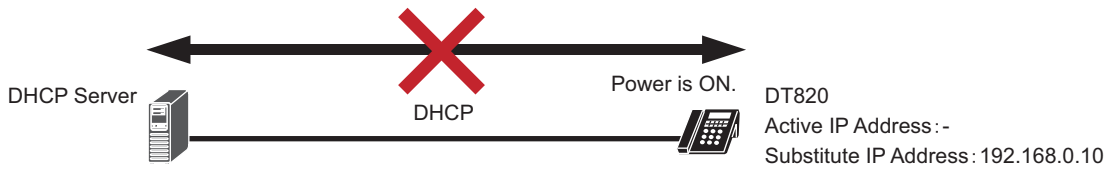
Note: It is mandatory to set IP address and Subnet Mask.

Operation with Spare IP

[1] The power of DT820 is OFF. A substitute IP address is set by Configuration Menu in advance.



[2] The power of DT820 is turned ON. DT820 fails to obtain an IP address because of communication failure.



[3] DT820 starts operating with a substitute IP address.



Backup IP

If you set the following information when substitute IP address mode is Backup IP, DT820 can save the following information which has been obtained from the DHCP server in advance so that DT820 can use the information as the substitute information if the DHCP server becomes out of service in the next time.

- IP Address
- Subnet Mask (obtained through DHCP option 1)
- Default Gateway (obtained through DHCP option 3)
- DNS Server Address (obtained through DHCP option 6)
- 2nd - 4th Server Address (obtained through DHCP option 120)
- 2nd - 4th Server Port (obtained through Vendor-class-identifier option 168)

Operation with Backup IP

[1] The power of DT820 is OFF.



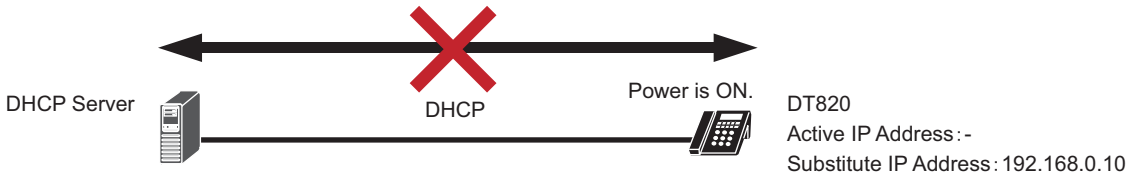
[2] The power of DT820 is turned ON. DT820 obtains an IP address from the DHCP server. DT820 operates with the obtained IP address. The obtained IP address is set for the configuration at the same time.



[3] The obtained IP address is saved as a substitute IP address in the configuration even after DT820 is turned OFF.



[4] The power of DT820 is turned ON. DT820 fails to obtain an IP address because of communication failure.



[5] DT820 starts operating with a substitute IP address.



<Service Conditions>

(1) To use the Spare IP/Backup IP function, DHCP Mode needs to be enabled.

(2) IP address (ACT) of the Telephony Server needs to be assigned to DT820.

(3) Spare IP and Backup IP share a substitute IP address information in the Configuration Settings. Even if the substitute IP address mode has been changed, DT820 maintains the substitute IP address information such as IP address, Subnet Mask, Default Gateway, DNS Server Address, 2nd - 4th Server Address, and 2nd - 4th Server Port.

(4) Even when the substitute IP address mode is Backup IP address, you can set the information above by Configuration Settings manually, but the information will be overwritten when DT820 obtains the new information from the DHCP server again.

(5) When DT820 uses the substitute IP address, DT820 attempts to connect to the 2nd Server without connecting to the 1st Server. When the 2nd Server does not answer or an error occurs, DT820 attempts to connect to the next server. DT820 keeps using the substitute IP address without obtaining an IP address from the DHCP server.

(6) When DT820 fails to connect to all of the 2nd - 4th servers, an error occurs. Then DT820 performs retry to obtain an IP address from the DHCP server. If DT820 obtains an IP address successfully, DT820 attempts to connect to the 1st server without using the substitute IP address.

(7) DT820 uses the following Configuration data when the substitute IP address is in service. DT820 determines the setting data kind on a group basis. When the setting data is included to the same group, the same setting data kind, Configuration (substitute) or Configuration, will be used.

Configuration data (substitute) : Configuration data in [0. Config] - [1. Network Settings] - [6. Advanced Settings] - [6.Spare IP Settings] - [2.Network Settings]/[3.SIP Settings]

Configuration data : Configuration data in [0. Config] - [1. Network Settings]/[2. SIP Settings]

Priority Order of Setting Data Kind While Using Substitute IP Address

Group	Group A	Group B	Group C	Group D	Group E
Setting Data / Priority Order	IP Address Subnet Mask	Default Gateway	DNS Server Address	2nd/3rd/4th Server Address	2nd/3rd/4th Server Port
Primary	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)

Note: When no higher priority data is set in the configuration, the lower priority data will be used without using the default data. When no data exists in all the groups, the default data of the lowest priority will be used.

(8) Even if the DHCP server allows DT820 to obtain IP address, DT820 does not obtain the IP address automatically. Restart the DT820 (by manual operation, operation from the Telephony Server or turn OFF and ON the DT820).

(9) If the DHCP server recovers while using a substitute IP address, the DHCP server may distribute the duplicated IP address of the substitute IP address which DT820 uses. Also network failure occurs if the DHCP server distributes the duplicated IP address of the substitute IP address which DT820 uses over the networks.

(10) The Spare IP/Backup IP function will become active after restarting DT820.

(11) The Spare IP/Backup IP function will become active after DT820 data clear (Initialization, Station Data Clear).

(12) Even when DT820 fails to connect to the Telephony Sever, the DT820 can save the substitute IP address information in Backup IP mode at the time it obtains an IP address from the DHCP server.

(13) A substitute IP address may inhibit DT820 from connecting to the Telephony Server if the substitute IP address duplicates other IP addresses used for the equipment in the network.

(14) AutoConfig will not be activated while a substitute IP address is in service.

(15) When AutoConfig Mode is in service, the operation mode of Spare IP/Backup IP will become the default data by initialization. In the case of Backup IP, the IP address obtained from the DHCP server last time will be maintained.

(16) The obtained data from the DHCP server last time for Backup IP will be deleted when DT820 data clear (Initialization, Station Data Clear) is performed. In the factory setting, DT820 does not have the data required for Backup IP so that Backup IP is not activated.

(17) Backup data is a target of [1. Setting] - [3. Data Backup/Restore] in the configuration menu.

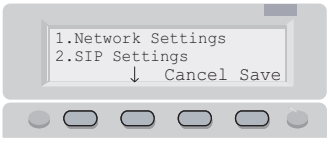
(18) When the substitute IP address mode is Backup IP, DT820 saves an IP address obtained from the DHCP server in the Flash Memory. If the power of DT820 is turned OFF while saving the IP address in the Flash Memory, DT820 may not start up.

(19) When the substitute IP address is out of service, the LCD displays the error message “Parameter Missing”. DT820 retries to obtain the IP address from the DHCP server when the certain period of time has elapsed since the LCD displays the error, or a user of DT820 presses the software key for “Exit.” Configuration setting is available even when the LCD displays the error message.

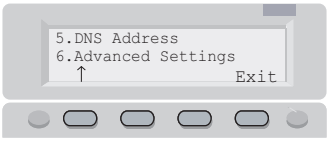
(20) When the substitute IP address mode is Backup IP, only IP addresses that are obtained through DHCP option 120 can be saved as 2nd - 4th Server Addresses. IP addresses obtained through DHCP option 162 are recognized as used for Location Diversity [L-55], and cannot be saved.

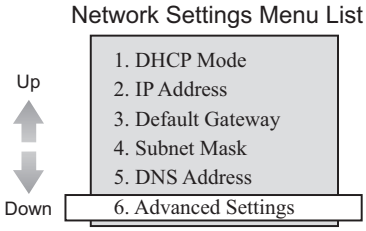
<How to Set the Substitute IP Address>

STEP 1: On [Config] menu, select “1. Network Settings.”

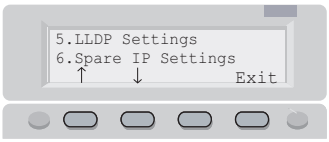


STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

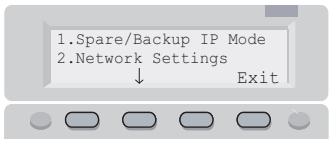




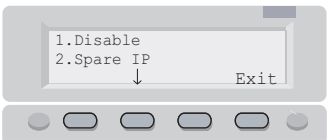
STEP 3: On [Advanced Settings] menu, select “6. Spare IP Settings.”



STEP 4: The LCD displays [Spare IP Settings] screen. Select “1. Spare/Backup IP Mode.”



STEP 5: The LCD displays [Spare/Backup IP Mode] screen.



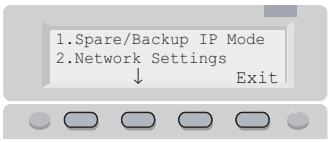
- Press the digit key “1” to disable the Spare/Backup IP.
- Press the digit key “2” to use the Spare IP.
- Press the digit key “3” to use the Backup IP.
- Press the software key for “OK” when the [Spare/Backup IP Mode] setting is complete.

Note: This data is valid when the Spare/Backup IP is disabled.

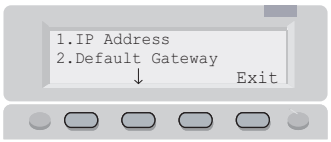
A

A

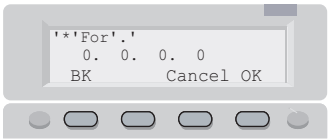
STEP 6: The LCD displays [Spare IP Settings] menu. Select “2. Network Settings.”



STEP 7: The LCD displays [Network Settings] menu.



STEP 8: On [Network Settings] menu, select “1. IP Address.” Assign the IP address using the digit keys.



- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [IP Address] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained IP address if the terminal obtains an IP address from DHCP server.

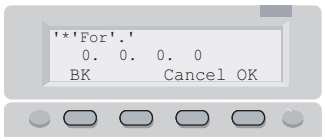
STEP 9: The LCD displays [Network Settings] menu.



B

B

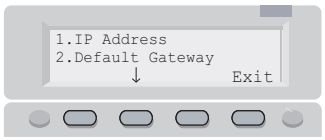
STEP 10: On [Network Settings] menu, select “3. Subnet Mask.” Assign the Subnet Mask using the digit keys.



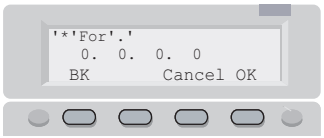
- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [Subnet Mask] setting is complete.

Note: When Backup IP is in service, this data will be also overwritten by obtained Subnet Mask if the terminal obtains an IP address from DHCP server.

STEP 11: The LCD displays [Network Settings] menu.



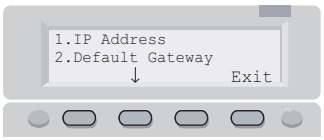
STEP 12: On [Network Settings] menu, select “2.Default Gateway.” Assign the Default Gateway address using the digit keys.



- Use “*” to separate each byte.
- Press the software key for “BK” to delete the input value.
- Press the software key for “OK” when the [Default Gateway] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained Default Gateway address if the terminal obtains an IP address from DHCP server. If obtained data does not have a Default Gateway address, the existing data is maintained.

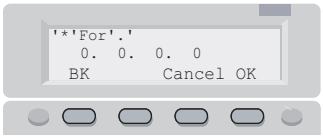
STEP 13: The LCD displays [Network Settings] menu.



C

C

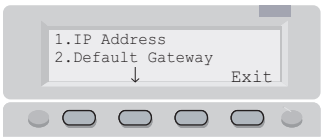
STEP 14: On [Network Settings] menu, select “4. DNS Address.” Assign the DNS address using digit keys.



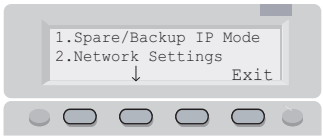
- Use “*” to separate each byte.
- Press the software key for “BK” to delete the input value.
- Press the software key for “OK” when the [DNS Address] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained DNS address if the terminal obtains an IP address from DHCP server. If obtained data does not have a DNS address, the existing data is maintained.

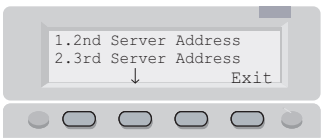
STEP 15: The LCD displays [Network Settings] menu.



STEP 16: On [Network Settings] menu, press software key for “Exit” to go back to [Spare IP Settings] menu.



STEP 17: On [Spare IP Settings] menu, select “3. SIP Settings.”



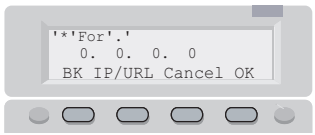
- Press the digit key “1” to Set the 2nd Server IP Address.
- Press the digit key “2” to Set the 3rd Server IP Address.
- Press the digit key “3” to Set the 4th Server IP Address.
- Press the digit key “4” to Set the 2nd Server port number.
- Press the digit key “5” to Set the 3rd Server port number.
- Press the digit key “6” to Set the 4th Server port number.

D

D

STEP 18: The LCD displays the selected [Server Address] or [Server Port] setting screen.

- Setting 2nd - 4th Server Address



- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for "OK" when all settings are complete.

Note: The figure shows an example when "1. 2nd Server Address" is selected in [SIP Settings] menu.

Note: When Backup IP is in service, this data will be overwritten by obtained SIP Server address if the terminal obtains an IP address from DHCP server. If obtained data does not have a SIP Server address, the existing data is maintained.

- Setting 2nd - 4th Server Port



- Use digit keys.
- It is possible to enter 0 or values between 1024-65535.
- Default value is 0.
- Press the software key for "OK" when all settings are complete.

Note: The figure shows an example when "4. 2nd Server Port" is selected in [SIP Settings] menu.

Note: When Backup IP is in service, this data will be overwritten by obtained SIP Server port number if the terminal obtains an IP address from DHCP server. If obtained data does not have a SIP Server port number, the existing data is maintained.

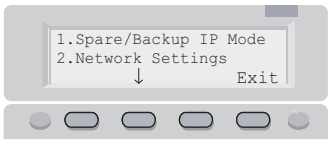
STEP 19: The LCD displays [SIP Settings] menu.



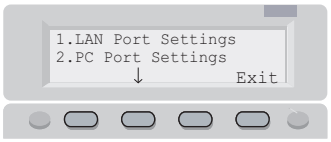
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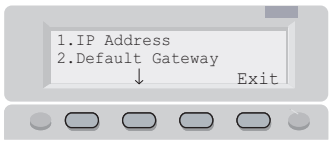
STEP 20: The LCD returns to [Spare IP Settings] menu. Press the software key for “Exit.”



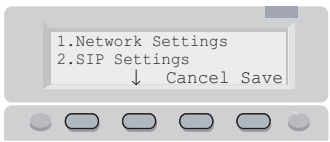
STEP 21: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



STEP 23: The LCD returns to [Network Settings] menu. Press the software key for “Exit”.



STEP 24: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



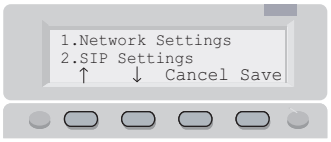
END

4.2.2.6 Digest Authentication

This menu assigns User ID and password for Digest Authentication.

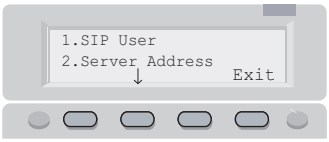
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”

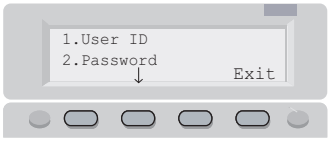


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

STEP 2: The LCD displays [SIP Settings] menu. Select “1. SIP User.”



STEP 3: On [SIP User] menu, select “1. User ID.”



STEP 4: The LCD displays [User ID] setting screen.

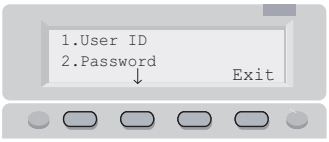


Enter User ID using the digit keys.

-Use digit keys 0-9, * and #.
-Press the software key for “BK” to delete entered value.

Press the software key for “OK” when all settings are complete.

STEP 5: The LCD returns to [SIP User] menu. Select “2. Password.”



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STEP 6: The LCD displays [Password] screen.



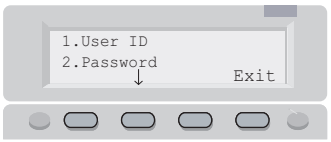
Enter Password for the User ID using the digit keys.

-Use digit keys 0-9, * and #.
-Press the software key for “BK” to delete entered value.

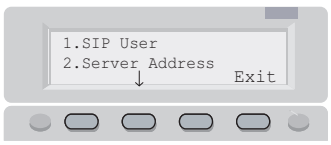
Press the software key for “OK” when all settings are complete.

Note: The terminal will not display the entered value as numbers, but will instead display them as asterisks (*).

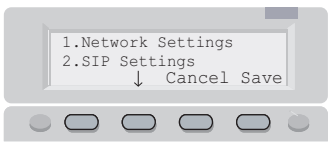
STEP 7: The LCD returns to [SIP User] menu. Press the software key for “Exit.”



STEP 8: The LCD returns to [SIP Settings] menu. Press the software key for “Exit” to return to [Config] menu.



STEP 9: On [Config] screen, press the software key “Save” to save the settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [SIP Settings] → [User] → [User ID].

STEP 2: Enter User ID using the digit keys, and then click the “OK” button.
0-9, *, # are available (maximum 32 characters).

STEP 3: Select [SIP Settings] → [User] → [Password].

STEP 4: Enter password for the User ID using the digit keys, and then click the “OK” button.
0-9, *, # are available (maximum 24 characters). **Note 10**

Note 10: The terminal will not display the entered value as numbers. Instead, they will be displayed as asterisks (*).

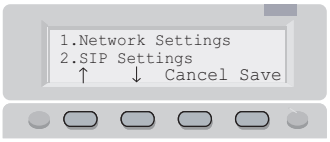
STEP 5: Click the “Save” button.

4.2.2.7 Port Number

This section explains how to change the port number used to send packets from DT820 to SIP server.

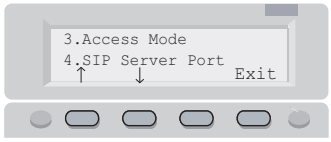
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”

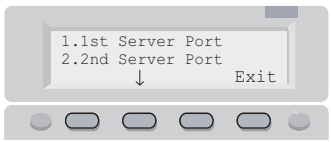


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

STEP 2: The LCD displays [SIP Settings] menu. Select “4. SIP Server Port.”



STEP 3: The LCD displays [SIP Server Port] menu.



Perform one of the following:

a.) Press 1. to change the port number of 1st SIP server used to send packets.

b.) Press 2. to change the port number of 2nd SIP server used to send packets.

c.) Press 3. to change the port number of 3rd SIP server used to send packets.

d.) Press 4. to change the port number of 4th SIP server used to send packets.

STEP 4: The LCD displays the chosen [Server Port] setting screen. (The user chose the 1st Server Port in this example.

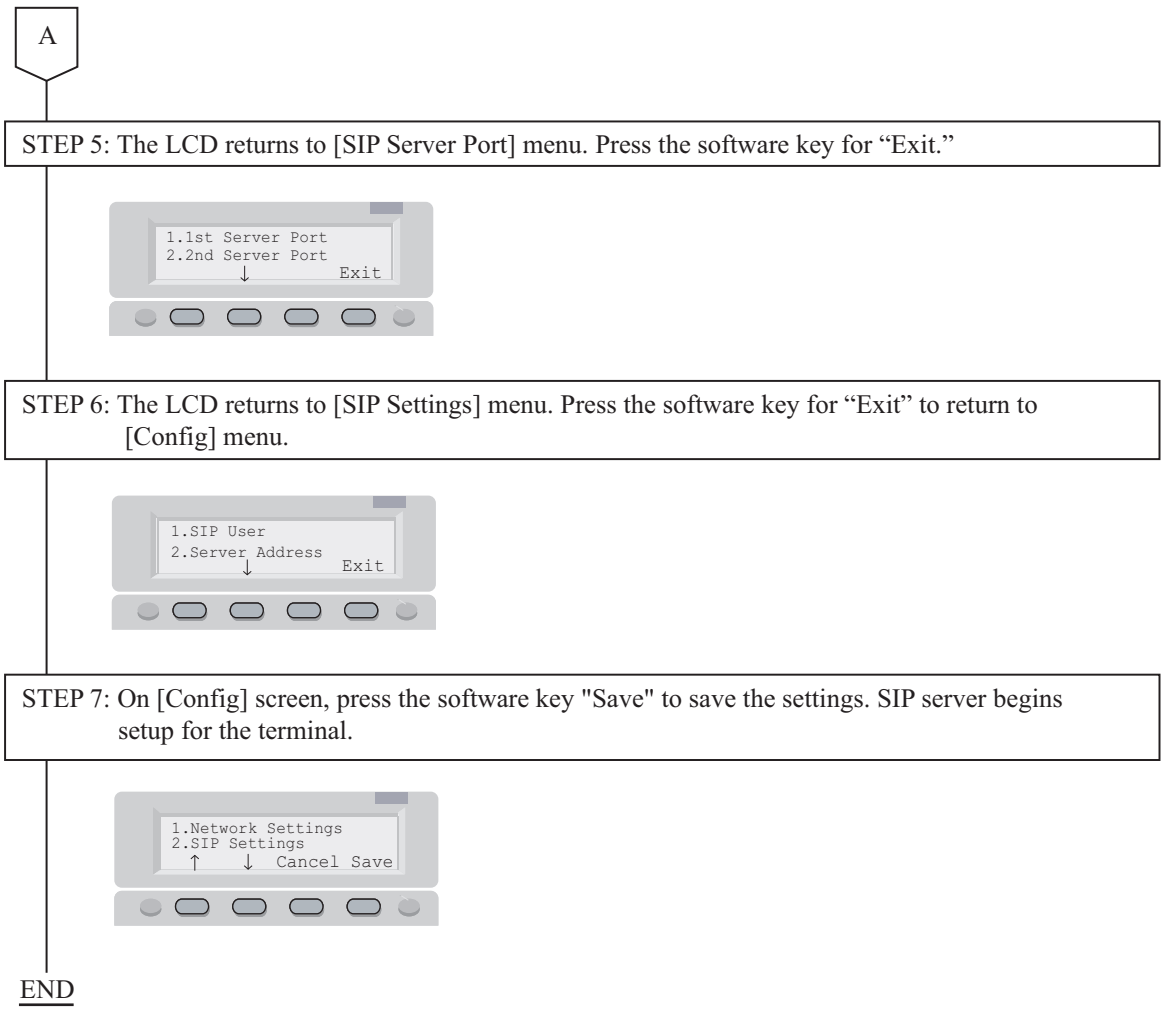


Enter User ID using the digit keys.

-Use digit keys.
-It is possible to enter values between 1024-65535.
-Default value is 5060.

Press the software key for “OK” when all settings are complete.

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[2] Configuration Settings by Web Programming

STEP 1:Select [SIP Settings] → [SIP Server Port].

STEP 2: Choose which SIP server’s port number to change.

- Choose 1. to change the port number of 1st SIP server used to send packets.
- Choose 2. to change the port number of 2nd SIP server used to send packets.
- Choose 3. to change the port number of 3rd SIP server used to send packets.
- Choose 4. to change the port number of 4th SIP server used to send packets.

STEP 3: Enter the Port number using digit keys. Then click the “OK” button.

- It is possible to enter values between 1024-65535.
- Initial value is 5060.

STEP 4: Click the “Save” button. After all settings are complete, SIP server begins setup for DT820.

4.2.2.8 Area ID

DT820 terminal can adjust its tone patterns for different areas (countries) that it is used in. The user must assign the Area ID to make this possible. This section explains the areas where DT820 usage is possible and the procedure to change the Area ID.

[1] Configuration Settings on Terminal

[Countries (Areas) Where DT820 Usage is Available] **Note 11**

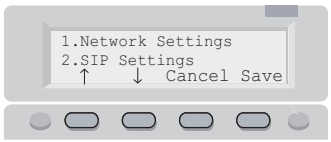
[Area ID/Country]
0. Automatic (Telephony Server side setting is applied when Automatic is selected.)
1. Japan
2. America (Canada and North America)
3. Australia
4. Others
5. Hong Kong
6. Malaysia
7. Singapore
8. Mexico
9. Taiwan
10. New Zealand
11. Korea
12. Brazil
13. China
14. Thailand
15. Thailand (EGAT)
16. Sri Lanka
17. Germany
18. Italy
19. Netherlands
20. Catalonia (Not used)
21. Denmark
22. Sweden
23. Poland
24. Czech
25. Norway
26. France
27. Portugal
28. Spain
29. Austria
30. Belgium
31. UK

[Countries (Areas) Where DT820 Usage is Available] **Note 11**

[Area ID/Country]
32. Greece
33. Switzerland
34. South Africa
35. Brazil (NECU)

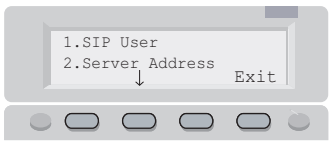
Note 11: Initial factory settings is “0. Automatic.” In other settings, the terminal side settings has priority.

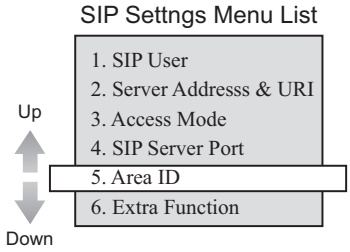
STEP 1: On [Config] menu, select “2. SIP Settings.”



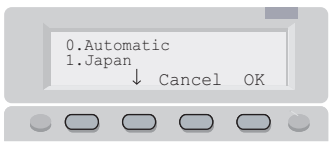
Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

STEP 2: The LCD displays [SIP Settings] menu. Select “5. Area ID.”





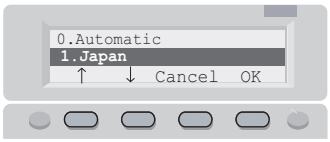
STEP 3: The LCD displays [Area ID] menu.



Enter Area ID using the digit keys.

-Use digit keys 0-9.
-LCD will display entering field upper right of the LCD.
-Enter 2-digit values.

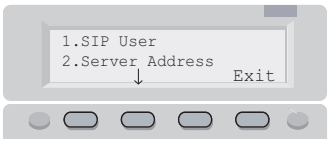
Example



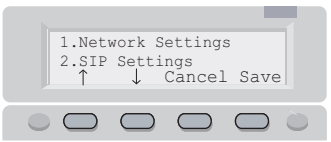
When selecting [1. Japan]:

1) Enter "0" and "1."
2) Entering Field displays "01."
3) "1. Japan" display is highlighted.
4) Press software key for "OK."

STEP 4: The LCD returns to [SIP Settings] menu. Press the software key for “Exit” to return to [Config] menu.



STEP 5: On [Config] screen, press the software key "Save" to save the settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [SIP Settings] → [Area ID].

STEP 2: Enter the Area ID using digit keys. Then click the “OK” button.

[Countries (Areas) Where DT820 Usage is Available]

[Area ID/Country]
0. Automatic (Telephony Server side setting is applied when Automatic is selected.)
1. Japan
2. America (Canada and North America)
3. Australia
4. Others
5. Hong Kong
6. Malaysia
7. Singapore
8. Mexico
9. Taiwan
10. New Zealand
11. Korea
12. Brazil
13. China
14. Thailand
15. Thailand (EGAT)
16. Sri Lanka
17. Germany
18. Italy
19. Netherlands
20. Catalonia (Not used)
21. Denmark
22. Sweden
23. Poland
24. Czech
25. Norway
26. France
27. Portugal
28. Spain
29. Austria
30. Belgium
31. UK
32. Greece
33. Switzerland

[Countries (Areas) Where DT820 Usage is Available]

[Area ID/Country]
34. South Africa
35. Brazil (NECU)

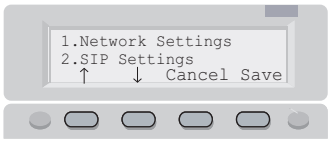
STEP 3: Click the “Save” button.

4.2.2.9 Keeping Call

User can assign data to retain an ongoing call when the network between DT820 and the Telephony Server is disconnected by a failure.

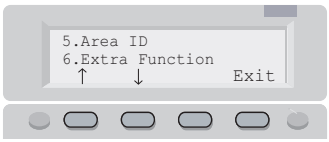
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”



Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

STEP 2: The LCD displays [SIP Settings] menu. Select “6. Extra Function.”



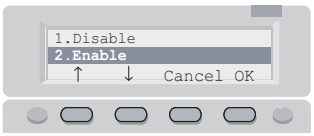
STEP 3: The LCD displays [Extra Function] menu. Select “2. Keeping Call” to display the [Keeping Call] menu.



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STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”

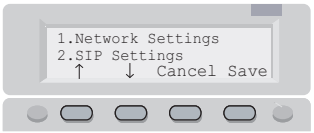


Note: When "2. Disable" is selected, an ongoing call through the handset will be kept until the appropriate terminal goes off-hook. An ongoing call through the headset or hands-free operation will be disconnected when the system detects the failure the system does not response to any information of terminal key operation.

STEP 5: The LCD returns to [Extra Function] menu. Press the software key for “Exit” to return to [Config] menu.



STEP 6: On [Config] screen, press the software key for “Save” to save the settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [SIP Settings] → [Extra Function] → [Keeping Call].

STEP 2: Select “2. Enable” radio button (Keeping Call is enabled).

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

4.2.2.10 Security Settings

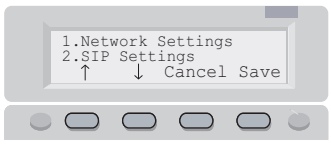
<SIP Terminal Authentication and VoIP Encryption>

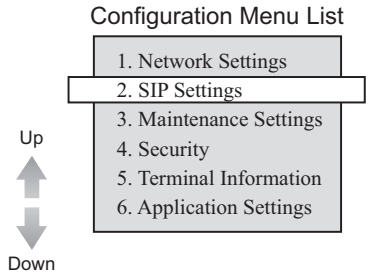
While the Security Mode is in service, terminal users can set data for SIP Terminal Authentication and VoIP Encryption.

[1] Configuration Settings on Terminal

Note: Refer to SIP Terminal Authentication [S-152] and VoIP Encryption [V-27] for the Telephony Server side data assignment.

STEP 1: On [Config] menu, select "2. SIP Settings."



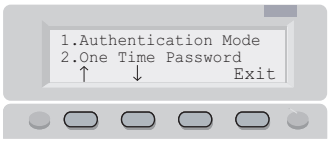


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available. Refer to <Operations> for more details.

STEP 2: The LCD displays [SIP Settings] menu. Select "7. Encryption."



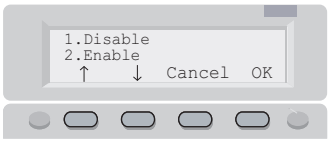
STEP 3: On [Encryption] menu, select "1. Authentication Mode."



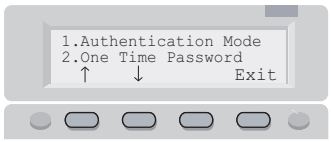
A

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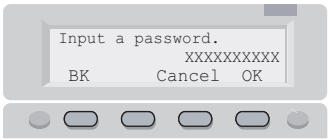
STEP 4: On [Auth Mode] menu, select “2. Enable”, then press the software key for “OK.”



STEP 5: The LCD displays [Encryption] menu.



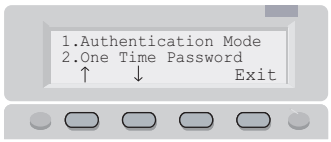
STEP 6: On [Encryption] menu, select “2. One Time Password.” The LCD displays [One Time Password] screen.



- Enter the password for User ID [up to 10 digits (“0-9”, “*”, “#”)].
- On the screen, the password will be displayed with “*”.
- To delete the entered value, press the software key for “BK.”
- Press the software key for “OK” when password entry is finished.

Note: Enter the same One Time Password as the password assigned to the Telephony Server.

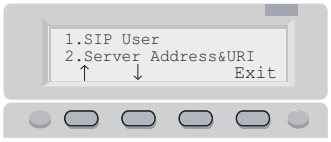
STEP 7: The LCD displays [Encryption] menu.



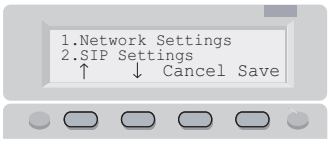
B

B

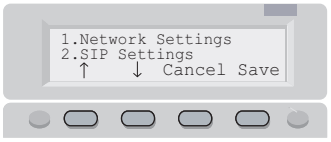
STEP 8: On [Encryption] menu, press the software key for “Exit.” The LCD displays [SIP Settings] menu.



STEP 9: On [SIP Settings] menu, press the software key for “Exit.” The LCD displays [Config] menu.



STEP 10: On [Config] screen, press the software key “Save” to save the settings.



END

[2] Configuration Setting by Web Programming

STEP 1: Select [SIP Settings] → [Encryption] → [Authentication Mode].

STEP 2: Select the [Enable] parameter, and click the “OK” button.

STEP 3: Select [SIP Settings] → [Encryption] → [One Time Password].

STEP 4: Enter the One Time Password [up to 10 digits (“0-9”, “*”, “#”)].

Note: On the screen, the password will be displayed with “*”.

Note: Enter the same One Time Password as the password assigned to the Telephony Server.

STEP 5: Click the “Save” button.

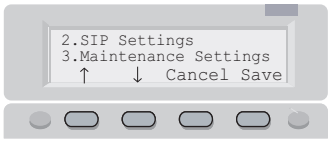
4.2.2.11 Side Tone

User can assign Sidetone Volume on DT820 terminal.

Note: Sidetone volume set by system takes priority over this setting.

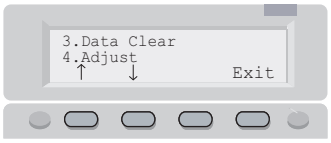
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select "3. Maintenance Settings."

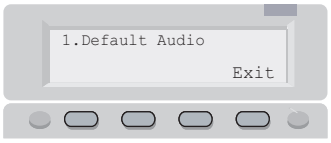


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

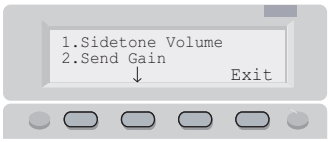
STEP 2: On [Maintenance] menu, select "4. Adjust" to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select "1. Default Audio."



STEP 4: On [Audio] menu, select "1. Sidetone Volume."



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STEP 5: On [Side Tone] menu, use digit keys to assign Sidetone Volume.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.

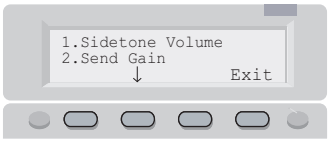


-Use digit keys 0-7.
-Press the software key for “BK” to delete entered value.

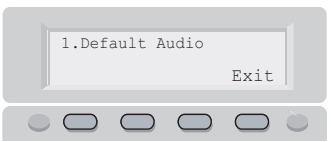
Assigned Value	Sidetone Volume Value (dB)
0	-54 (minimum value)
1	-48
2	-42
3	-36
4	-30 (initial value)
5	-24
6	-18
7	-12 (maximum value)

Note : Sidetone volume set by system takes priority over this setting.

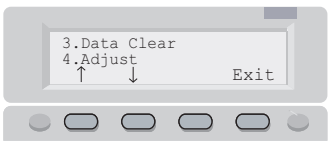
STEP 6: On [Default Audio] menu, press the software key for “Exit” to display [Adjust] menu.



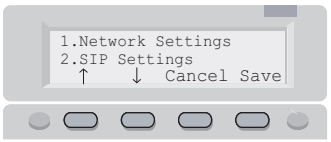
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Sidetone Volume].

STEP 2: Enter Sidetone Volume using number buttons 0-7. **Note 12**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

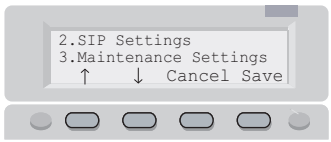
Note 12: For details on Sidetone Volume value, see [1] Configuration Settings on Terminal–STEP 5.

4.2.2.12 Handset Send Gain

User can assign Handset Send Volume on DT820 terminal. When the Telephony Server assigns Handset Send volume, it will have priority over the terminal side settings.

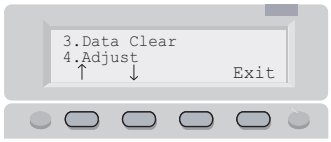
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

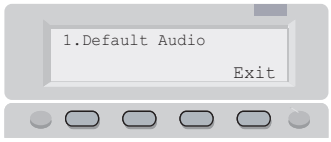


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

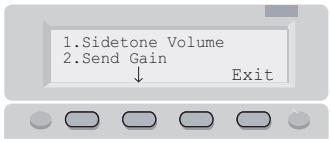
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Default Audio.”



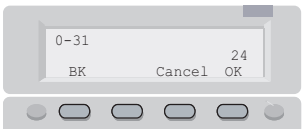
STEP 4: On [Audio] menu, select “2. Send Gain.”



A

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STEP 5: On [Send Gain] menu, use digit keys to assign Handset volume.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.



-Use digit keys 0-31.
-Press the software key for “BK” to delete entered value.

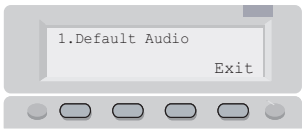
Assigned Value	Handset Volume
0	(Minimum Volume)
~	~
22	
23	
24	(Initial Value)
25	
26	
27	
28	
29	
30	
31	(Maximum Volume)

Note : Sidetone volume set by system takes priority over this setting.
Note : Volume becomes 2 dB higher/lower in each change of Assigned Value.

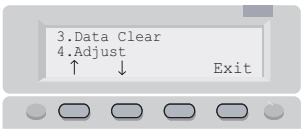
STEP 6: On [Default Audio] menu, press the software key for “Exit” to display [Adjust] menu.



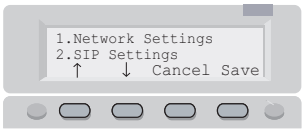
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Send Gain].

STEP 2: Enter Handset Send Volume using number buttons 0-31. **Note 13**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

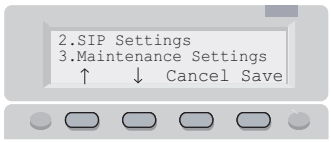
Note 13: For details on Handset Send Gain Value, see [1] Configuration Settings on Terminal–STEP 5.

4.2.2.13 Handset Receive Bias

User can assign Handset Receive Volume on DT820 terminal.

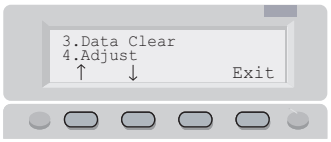
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

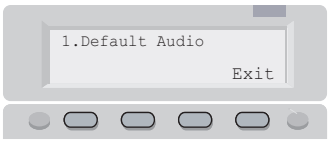


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

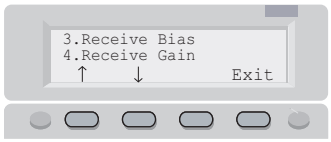
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Default Audio.”



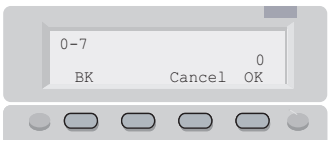
STEP 4: On [Default Audio] menu, select “3. Receive Bias.”



A

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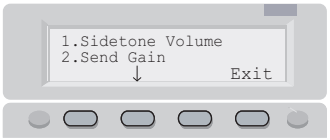
STEP 5: On [Receive Bias] menu, use digit keys to assign Handset Receive Volume.
Press the software key for “OK” when all settings are complete to return to [Default Audio] menu.



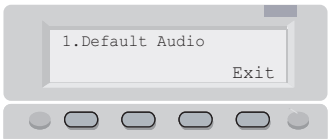
-Use digit keys 0-7.
-Press the software key for “BK” to delete entered value.

Assigned Value	Receive Bias Value (dB)
7	-6 (minimum value)
6	-4
5	-2
4	0
3	6
2	4
1	2
0	0 (initial value)

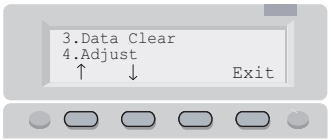
STEP 6: On [Default Audio] menu, press the software key for “Exit” to display [Adjust] menu.



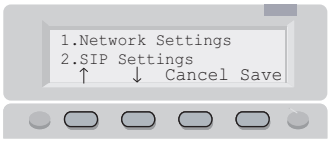
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Receive Bias].

STEP 2: Enter Handset Receive Volume using number buttons 0-7. **Note 14**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

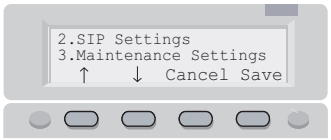
Note 14: For details on Handset Receive Bias Value, see [1] Configuration Settings on Terminal–STEP 5.

4.2.2.14 Handset Receive Gain

User can assign Handset Receive Volume on DT820 terminal. When the Telephony Server assigns Handset Receive volume, it will have priority over the terminal tone settings.

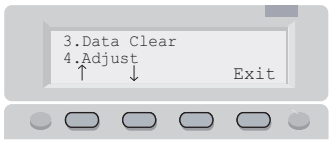
[1] Configuration Settings on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

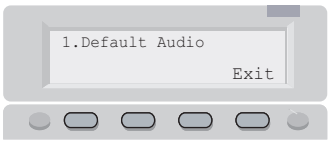


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

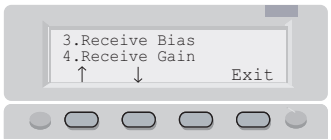
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Default Audio.”



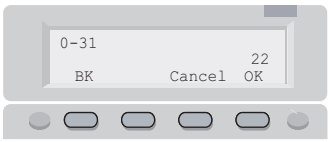
STEP 4: On [Default Audio] menu, select “4. Receive Gain.”



A

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STEP 5: On [Receive Gain] menu, use digit keys to assign Handset Receive Gain.
Press the software key for “OK” when all settings are complete to return to [Default Audio] menu.



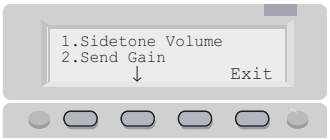
- Use digit keys 0–31.
- Press the software key for “BK” to delete entered value.

Note : Sidetone volume set by system takes priority over this setting.

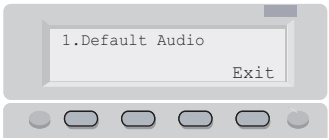
Assigned Value	Handset Volume
0	(Minimum Volume)
~	~
16	
17	
18	
19	
20	
21	
22	(Initial Value)
23	
24	
~	
31	(Maximum Volume)

Note : Volume becomes 2 dB higher/lower in each change of Assigned Value.

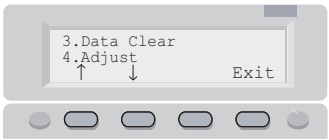
STEP 6: On [Default Audio] menu, press the software key for “Exit” to display [Adjust] menu.



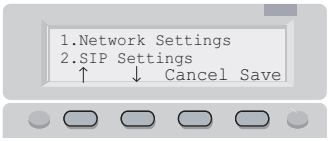
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Receive Gain].

STEP 2: Enter Handset Receive Gain using number buttons 0-31. **Note 15**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

Note 15: For details on Handset Receive Gain Value, see [1] Configuration Settings on Terminal–STEP 5.

4.2.2.15 IEEE802.1X Authentication

This section explains how to assign data for IEEE 802.1X authentication for DT820.

DT820 supports the User Name and Password-based IEEE 802.1X (EAP-MD5) authentication method and digital certificate-based IEEE 802.1X (EAP-TLS) authentication method. When a PC with supplicant feature available is connected to the DT820 PC port, EAP packet can be forwarded from that PC via DT820 (EAP Forwarding Feature).

There are four connection patterns.

PATTERN 1:

- Hardware is not connected to DT820 terminal's PC port.
- To authenticate with EAP-TLS, download CA certificate and client certificate, and select the certificate to be used.
- User enables DT820 terminal's 802.1X Supplicant feature.
- DT820 operates by connecting to a switch corresponding to authentication.
- If unauthorized hardware is connected to the PC port after authentication process is completed, unauthorized access to the network will occur. To prevent this from happening, we recommend that the users perform either of the following:
  - Perform preventive measures on authentication switch side
  - Disable PC Port in DT820 Configuration menu

PATTERN 2:

- Hardware without Supplicant feature is connected to DT820 terminal's PC port.
- User enables DT820 terminal's 802.1X Supplicant feature.
- DT820 operates by connecting to a switch corresponding to authentication.
- Regarding the PC connected to DT820 terminal:
  To register the PC's MAC Address as authorized hardware, the following are required on the authentication switch side:
  - Multi–Host Authentication Feature
  - MAC Address Authentication Feature
- When separating audio and data network by attaching different VLAN ID to the packets from the PC and the packets from the DT820:
  - Multi–Host Authentication Feature corresponding to Tag VLAN is required on authentication switch side.

PATTERN 3:

- Hardware with Supplicant feature is connected to DT820 terminal's PC port.
- To authenticate with EAP-TLS, download CA certificate and client certificate, and select the certificate to be used.
- User enables DT820 terminal's 802.1X Supplicant feature.
- DT820 operates by connecting to a switch corresponding to authentication.
- When separating Audio and Data Network by attaching different VLAN ID to the packets from the PC and the packets from the DT820:
  - Multi–Host Authentication Feature corresponding to Tag VLAN is required on authentication switch side.

PATTERN 4:

- Hardware with Supplicant feature is connected to DT820 terminal's PC port.
- User disables DT820 terminal's 802.1X Supplicant feature.
- DT820 operates by connecting to a switch corresponding to authentication.
- Authentication packet (EAP packet) from the PC is sent, via DT820, to the switch corresponding to authentication.
- Regarding the PC connected to DT820 terminal:
  To register the PC's MAC Address as authorized hardware, the following are required on the authentication switch side:
  - Multi–Host Authentication Feature
  - MAC Address Authentication Feature
- When separating Audio and Data Network by attaching different VLAN ID to the packets from the PC and the packets from the DT820:
  - Multi–Host Authentication Feature corresponding to VLAN Tag is required on authentication switch side.

Note:

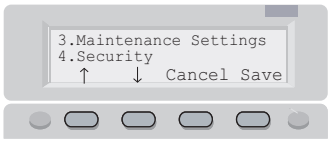
- Hardware with Supplicant feature with the following Operating System (OS) installed is available for connection to DT820 terminal:
  - Microsoft® Windows® 10
  - Microsoft® Windows® 8.1
  - Microsoft® Windows® 7
  - Microsoft® Windows® Vista
- User can choose whether to attach VLAN Tag to the EAPOL packet from DT820. See "<Supplicant Feature Data Assignment>" for details.
- When using DT820, if PC port link down is detected, the terminal requests to clear an authentication status of terminal which is connected to PC port to authentication switch. By clearing the authentication status, you can protect the terminal against unauthorized accesses. For details of the settings, refer to "<Supplicant Feature Data Assignment>".

<Supplicant Feature Data Assignment>

This section explains the data assignment when using 802.1X authentication for DT820.

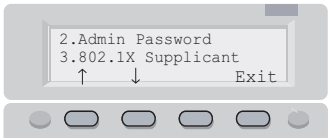
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “4. Security.”

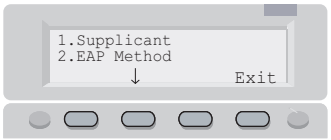


Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

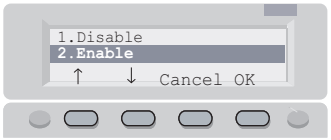
STEP 2: On [Security] menu, select “4. 802.1X Supplicant” to display the [802.1X Supplicant] menu.



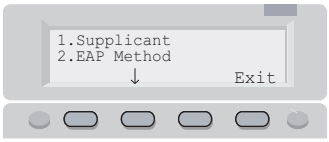
STEP 3: On [802.1X Supplicant] menu, select “1. Supplicant” to display the [Supplicant] menu.



STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



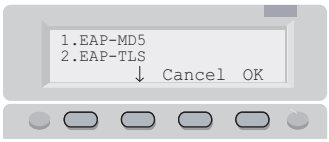
STEP 5: The LCD returns to [802.1X Supplicant] menu. Select “2. EAP Method” to display the [EAP Method] menu.



A

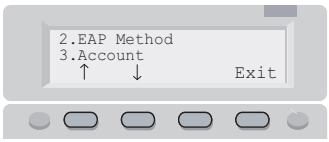
A

STEP 6: On [EAP Method] menu, select “1.EAP-MD5” or “2.EAP-TLS”, and then press software key for “OK.”

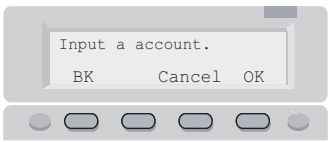


Note: For using EAP-TLS authentication feature,
be sure to install the certificate issued by the autnehtication office.
For the details of the certificate setting, see “Certificate Management”.

STEP 7: The LCD returns to [802.1X Supplicant] menu. Select “3. Account” to display the [Account] menu.

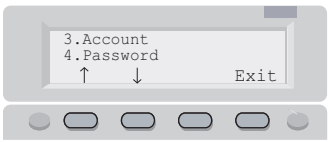


STEP 8: On [Account] menu, use digit keys to assign the User ID for authentication.



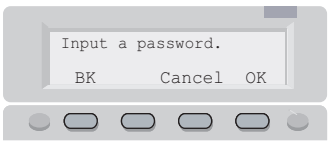
- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 9: The LCD returns to [802.1X Supplicant] menu. Select “4. Password” to display the [Password] menu.



- When EAP-TLS is selected on STEP 6, this setting is not required. ➡ **Go to STEP 11**

STEP 10: On [Password] menu, use digit keys to assign the Password for EAP–MD5 authentication.

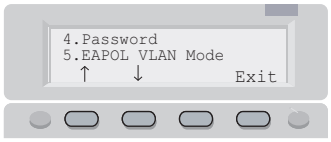


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

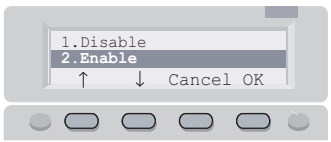
B

B

STEP 11: The LCD returns to [802.1X Supplicant] menu. Select “5” to display the [EAPOL VLAN Mode] menu.



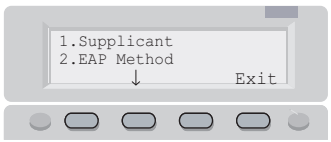
STEP 12: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



Note: When the user selects “2. Enable” in “EAPOL VLAN Mode,” VLAN tag will be attached according to the following data settings:

- “VLAN Mode”
- “VLAN ID”
- “VLAN Priority”

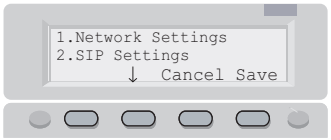
STEP 13: The LCD returns to [802.1X Supplicant] menu. Press the software key for “Exit.”



STEP 14: The LCD returns to [Security] menu. Press the software key for “Exit” to return to the [Config] menu.



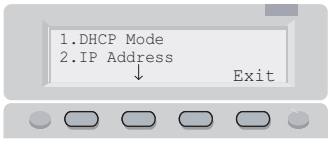
STEP 15: The LCD returns to [Config] menu. Select “1” to display the [Network Settings] menu.

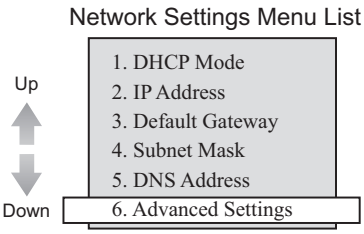


C

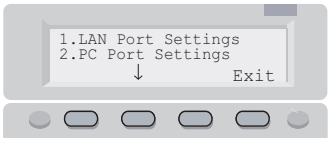
C

STEP 16: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

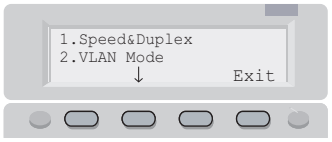




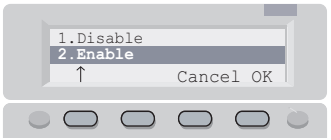
STEP 17: On [Advanced Settings] menu, select “1. LAN Port Settings.”



STEP 18: The LCD displays [LAN Port Settings] screen. Select “2” to display the [VLAN Mode] menu.



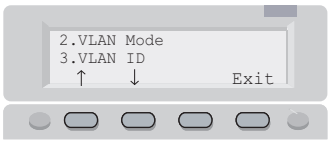
STEP 19: Select “2. Enable.” Verify that “2. Enable” is highlighted. Then, press the software key for “OK.”



D

D

STEP 20: The LCD returns to [LAN Port Settings] screen. Select “3” to display the [VLAN ID] menu.

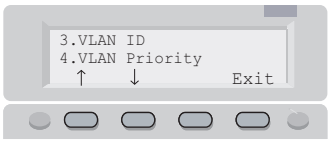


STEP 21: The LCD displays [VLAN ID] menu. Use digit keys to assign VLAN ID.



- VLAN ID value must be between 1–4094.
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 22: The LCD displays [LAN Port Settings] screen. Select “4” to display the [VLAN Priority] menu.

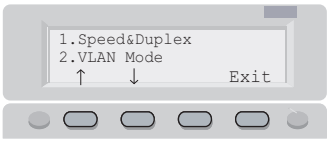


STEP 23: The LCD displays [VLAN Priority] menu. Use digit keys to assign VLAN ID.



- VLAN Priority value must be between 0–7.
- Press the software key for “OK” when all settings are complete.

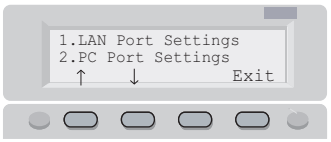
STEP 24: The LCD returns to [LAN Port Settings] screen. Press the software key for “Exit” to return to [Advanced Settings] menu.



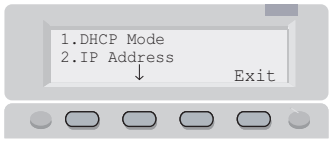
E

E

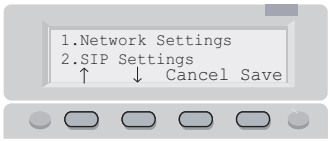
STEP 25: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



STEP 26: The LCD returns to [Network Settings] menu. Press the software key for “Exit.”



STEP 27: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Security] → [802.1X Supplicant] → [Supplicant].

STEP 2: Select “2. Enable.” Click the “OK” button.

STEP 3: Select [Security] → [802.1X Supplicant] → [EAP Method].

STEP 4: Select the type of EAP Method.

STEP 5: Select [Security] → [802.1X Supplicant] → [Account].

STEP 6: Enter User ID for authentication. Then click the “OK” button.
For User ID, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen) or _(underscore) (maximum 32 characters).

- When EAP-TLS is selected, go to STEP 9.

STEP 7: Select [Security] → [802.1X Supplicant] → [Password].

STEP 8: Enter Password for EAP–MD5 authentication. Then click the “OK” button.
For Password, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 32 characters).

STEP 9: Select [Security] → [802.1X Supplicant] → [EAP VLAN Mode].

STEP 10:Select “2. Enable” (VLAN tag is attached to EAP packet). Click the “OK” button. **Note 16**

STEP 11:Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN Mode].

STEP 12:Select “2. Enable.” Click the “OK” button.

STEP 13:Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN ID].

STEP 14:Enter VLAN ID. The value must be within 1–4094. Click the “OK” button.

STEP 15:Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN Priority].

STEP 16:Enter VLAN Priority. The value must be within 0–7. Click the “OK” button.

STEP 17:Click the “Save” button.

Note 16: When the user selects “2. Enable” in “EAP VLAN Mode,” VLAN tag will be attached according to the following data settings:

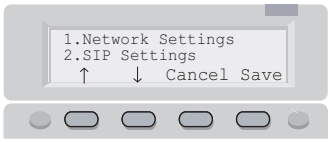
- VLAN Mode
- VLAN ID
- VLAN Priority

<Using Supplicant Mode>

This section explains the procedure to connect a PC with supplicant feature to the PC port of DT820.

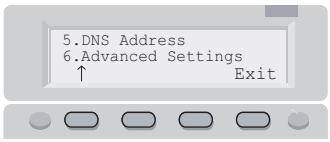
[1] Configuration Setting on Terminal

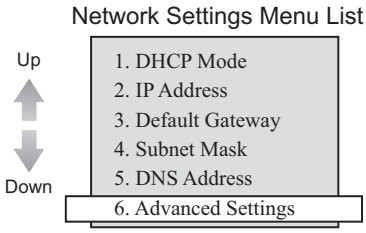
STEP 1: On [Config] menu, select “1. Network Settings.”



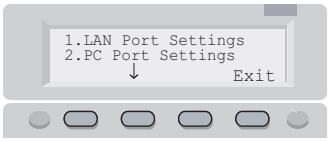
Note: For other operations, "↑" and "↓" of software key, and cursor key are also available.

STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

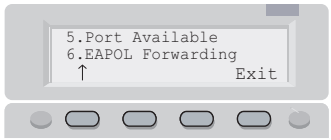




STEP 3: On [Advanced Settings] menu, select “2. PC Port Settings.”



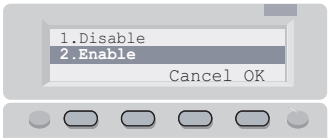
STEP 4: The LCD displays [PC Port Settings] menu. Select “6. EAPOL Forwarding.”



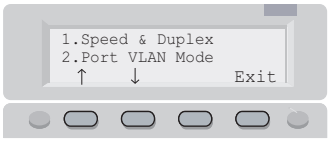
A

A

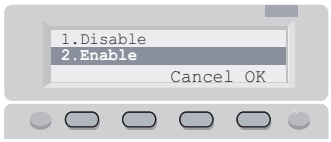
STEP 5: Select “2. Enable.” Verify that “2. Enable” is highlighted. Then, press the software key for “OK.”



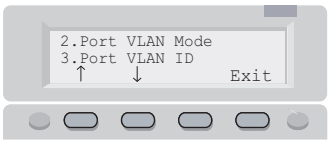
STEP 6: The LCD returns to [PC Port Settings] menu. Select “2. Port VLAN Mode.”



STEP 7: Select “2. Enable.” Verify that “2. Enable” is highlighted. Then, press the software key for “OK.”



STEP 8: The LCD returns to [PC Port Settings] menu. Select “3. Port VLAN ID.”



STEP 9: The LCD displays [VLAN ID] menu. Use digit keys to assign VLAN ID.

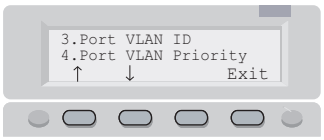


- VLAN ID value must be between 1–4094.
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

B

B

STEP 10: The LCD returns to [PC Port Settings] menu. Select “4. Port VLAN Priority.”

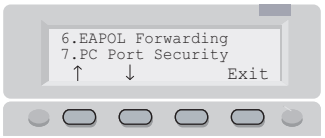


STEP 11: The LCD displays [VLAN Priority] menu. Use digit keys to assign VLAN ID.

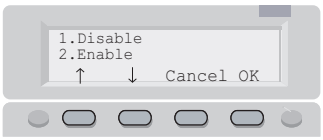


- VLAN Priority value must be between 0–7.
- Press the software key for “OK” when all settings are complete.

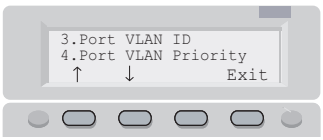
STEP 12: The LCD returns to [PC Port Settings] menu. Select “7. PC Port Security.”



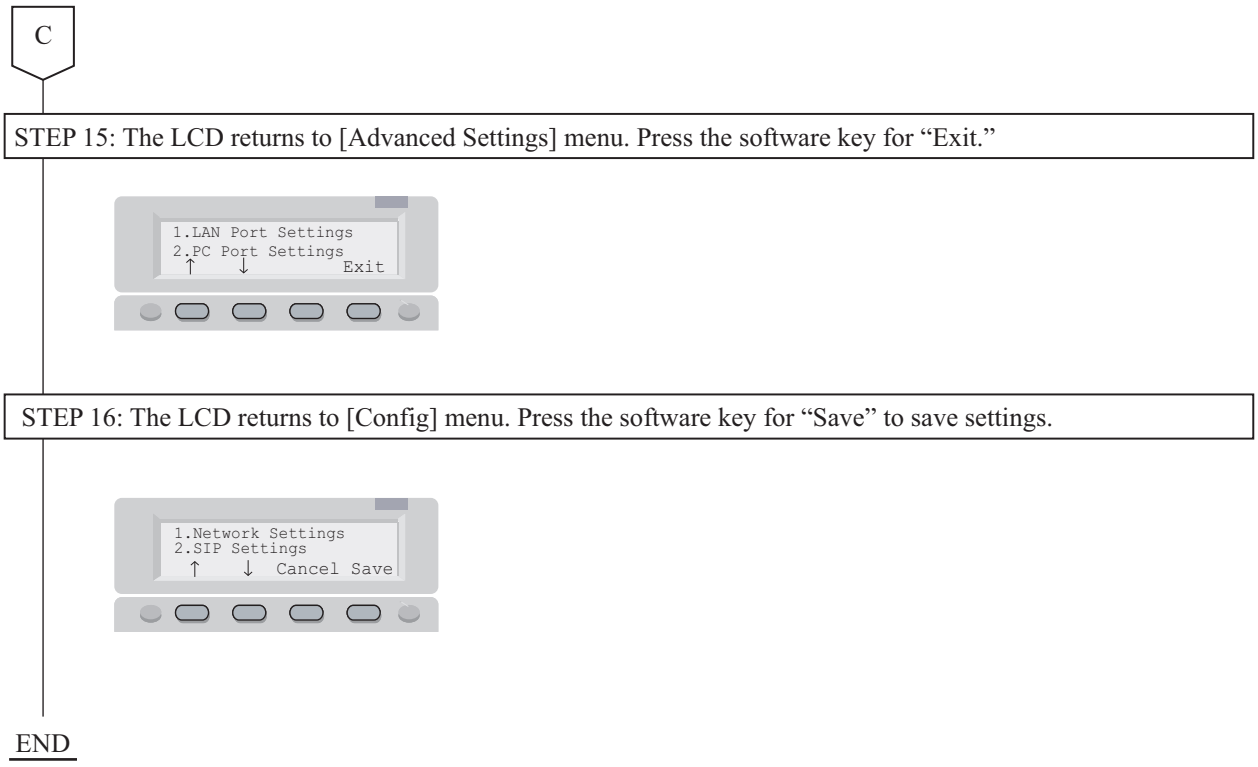
STEP 13: The LCD displays [Port Security] menu. Select “2. Enable” and press the software key for “OK.”



STEP 14: The LCD displays [PC Port Settings] menu. Press the software key for “Exit.”



C



[2] Configuration Settings by Web Programming

STEP 1:Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [EAPOL Forward].

STEP 2: Select “2. Enable.” This enables the EAPOL packet forwarding feature. Click the “OK” button.

STEP 3: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN Mode].

STEP 4: Select “2. Enable.” This enables VLAN. Click the “OK” button.

STEP 5: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN ID].

STEP 6: Enter VLAN ID. The ID value must be between 1–4094. Then click the “OK” button.

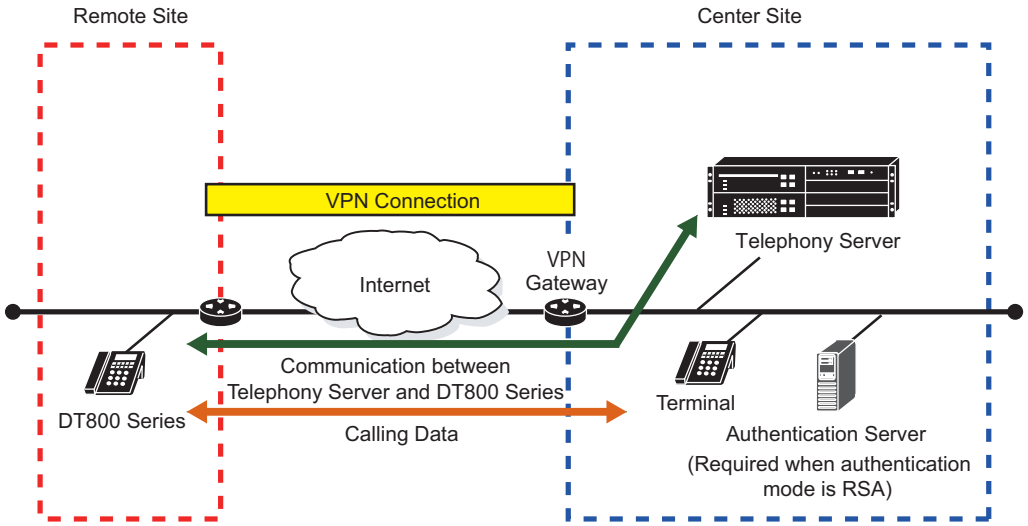
STEP 7: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN Priority].

STEP 8: Enter VLAN ID. The ID value must be between 0–7. Then click the “OK” button.

STEP 9: Click the “Save” button.

4.2.2.16 VPN Client

This section explains the assignment procedure of VPN client feature.



Note: This feature is not supported for North America and China.

Note: This setting is available for the terminal firmware version 3.0.0.0.

Note: The packet from the device connected to the PC port of DT800 Series cannot be transmitted to the center site.

Note: The packet from the center site cannot be transmitted to the device connected to the PC port of DT800 Series.

Note: The following features are not available at the same time as the VPN client feature.

- BGM
- RTP Streaming
- Streaming Music On Hold
- Multicast Paging

Specifications for using VPN client feature

Item	Descriptions
IPsec	Mode: Transport mode
	NAT: IPsec NAT traversal (on the NAT environment)
Key Exchange Protocol	IKEv1 or IKEv2 (IKEv1: Aggressive mode)
	Authentication method: PSK or RSA **Note 17**
	DH Group: Group 5 (1536 bit)
Cryptographic Algorithm	AES (128 bit)
Authentication Algorithm	SHA-2 (256 bit)
L2TPv2	PPP Authentication method: CHAP

Note 17: RSA authentication method is supported for IKEv2 only.

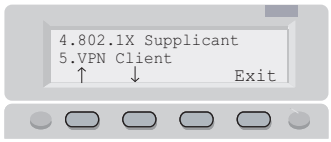
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “4. Security.”

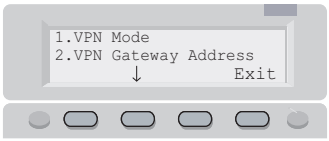


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

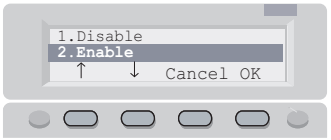
STEP 2: On [Security] menu, select “5. VPN Client” to display the [VPN Client] menu.



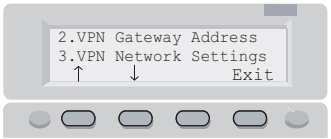
STEP 3: On [VPN Client] menu, select “1. VPN Mode” to display the [VPN Mode] menu.



STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



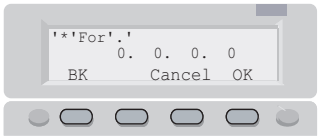
STEP 5: The LCD returns to [VPN Client] menu. Select “2. VPN Gateway Address” to display the [Gateway Address] menu.



A

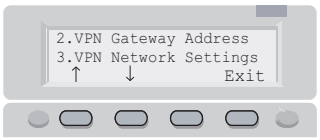
A

STEP 6: On [Gateway Address] menu, assign the Gateway address using the number button.



Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 7: The LCD returns to [VPN Client] menu. Select “3. VPN Network Settings” to display the [Network Settings] menu.



Note: If VPN IP address has already been provided from VPN gateway, VPN IP address setting is not requred. Then, go to STEP 11.

STEP 8: On [Network Settings] menu, select “1.VPN IP Address” to display the [VPN Address] menu.

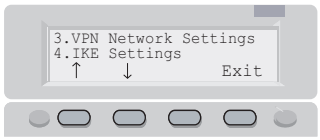


STEP 9: On [VPN Address] menu, assign the VPN address using the number button.

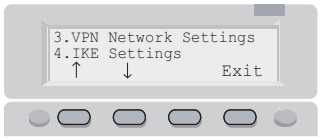


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 10: The LCD returns to [Network Settings] menu. Press the software key for “Exit” to return to [VPN Client] menu.



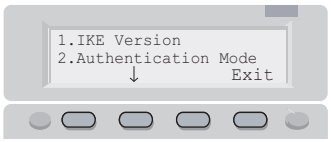
STEP 11: The LCD returns to [VPN Client] menu. Select “4. IKE Settings” to display the [IKE Settings] menu.



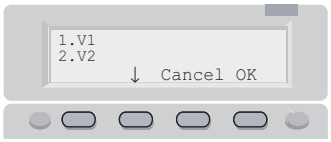
B

B

STEP 12: On [IKE Settings] menu, Select “1. IKE Version” to display the [IKE Version] menu.

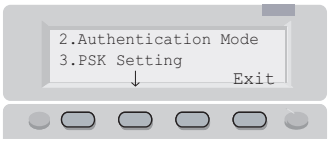


STEP 13: On [IKE Version] menu, select “1.V1” or “2.V2”, and then press software key for “OK.”



Note: For authentication mode,
IKE version V1 supports PSK only.

STEP 14: The LCD returns to [IKE Settings] menu, Select “2. Authentication Mode” to display the [Auth Mode] menu.

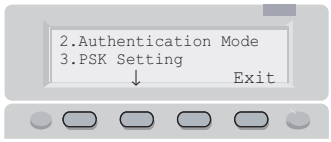


STEP 15: On [Auth Mode] menu, select “1.PSK” or “2.RSA”, and then press software key for “OK.”



Note: For using RSA authentication feature,
be sure to install the certificate issued by
the autnehtication office.

STEP 16: The LCD returns to [IKE Settings] menu. Select “3.PSK Setting” to display the [PSK Setting] menu.



Note: When “2.RSA” is selected, go to STEP 18.
This setting is not required.

C

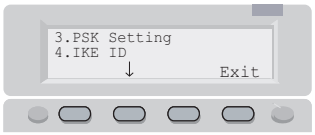
C

STEP 17: On [PSK Setting] menu, use digit keys to assign the PSK.

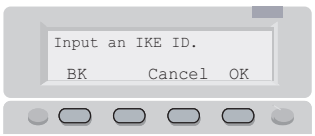


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 18: The LCD displays [IKE Settings] menu. Select “4. IKE ID” to display the [IKE ID] menu.



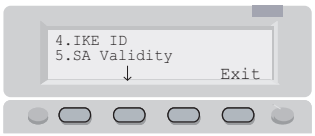
STEP 19: On [IKE ID] menu, use digit keys to assign the IKE ID.



- User may enter the following characters:
  0-9, A-Z, a-z, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

Note: Be sure not to use the character “*”, the network may perceives the IKE ID as IPv6 address. Also, when you input IPv4 address for this setting such as “*.*.*.*”, you cannot access the center site when connecting VPN on the NAT environment.

STEP 20: The LCD displays [IKE Settings] screen. Select “5” to display the [SA Validity] menu.



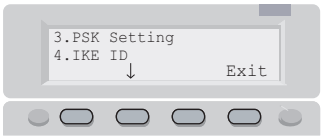
STEP 21: On [SA Validity] menu, use digit keys to enter the validity for SA when IPsec connection established. Then, press the software key for OK.



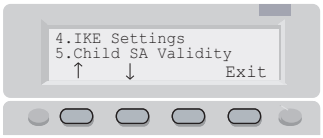
D

D

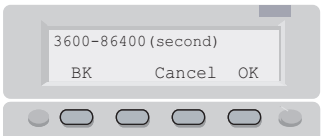
STEP 22: The LCD displays [IKE Settings] screen. Press the software key for "Exit" to return to [VPN Client] menu.



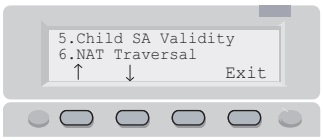
STEP 23: The LCD returns to [VPN Client] menu. Select “5. Child SA Validity” to display the [Child SA Validity] menu.



STEP 24: On [Child SA Validity] menu, use digit keys to enter the validity for Child SA when IPsec connection established. Then, press the software key for OK.



STEP 25: The LCD returns to [VPN Client] menu. Select “6. NAT Traversal” to display the [NAT Traversal] menu.



Note: When the network is not in NAT environment, this setting is not required. Then, go to STEP 31.

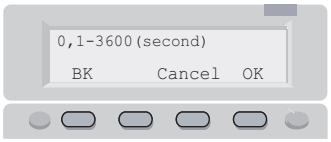
STEP 26: On [NAT Traversal] menu, Select “1. Keep Alive” to display the [Keep Alive] menu.



E

E

STEP 27: On [Keep Alive] menu, use digit keys to enter the keep alive for IPsec NAT Traversal.
Then, press the software key for OK.



Note: When you input “0”, this setting will be disabled.

STEP 28: The LCD returns to [NAT Traversal] menu. Select “2. NAT Traversal Port” to display the [Port] menu.



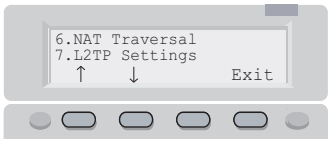
STEP 29: On [Port] menu, use digit keys to enter the NAT traversal port number.
Then, press the software key for OK.



STEP 30: The LCD returns to [NAT Traversal] menu. Press the software key for "Exit" to return to [VPN Client] menu.



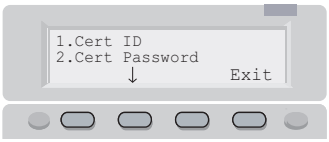
STEP 31: The LCD returns to [VPN Client] menu. Select “7. L2TP Settings” to display the [L2TP Settings] menu.



F

F

STEP 32: On [L2TP Setting] menu, Select “1. Cert ID” to display the [Cert ID] menu.

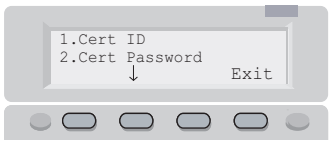


STEP 33: On [Cert ID] menu, use digit keys to assign the certification ID. Then, press the software key for OK.

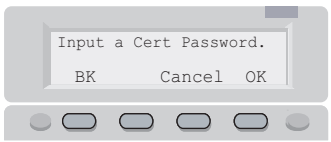


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 34: The LCD returns to [L2TP Setting] menu. Select “2. Cert Password” to display the [Cert Password] menu.



STEP 35: On [Cert Password] menu, use digit keys to assign the certification password. Then, press the software key for OK.

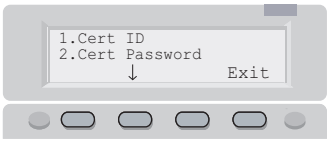


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

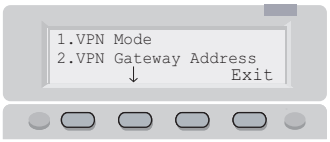
G

G

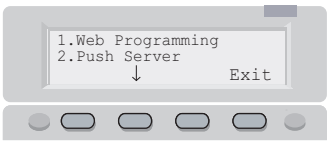
STEP 36: The LCD returns to [L2TP Settings] menu. Press the software key for "Exit" to return to [VPN Client] menu.



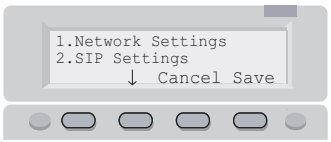
STEP 37: The LCD returns to [VPN Client] menu. Press the software key for "Exit" to return to [Security] menu.



STEP 38: The LCD returns to [Security] menu. Press the software key for "Exit" to return to [Config] menu.



STEP 39: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

STEP 1:Select [Security] → [VPN Client] → [VPN Mode].

STEP 2: Select "2. Enable." Click the "OK" button.

STEP 3: Select [VPN Client] → [VPN Gateway Address].

STEP 4: Enter the IP address of VPN Gateway. Then click the "OK" button.

STEP 5: Select [VPN Client] → [VPN Network Settings] → [VPN IP Address].

Note: If VPN IP address has already been provided from VPN gateway, VPN IP address setting is not required. Then, go to STEP 7.

STEP 6: Enter the IP address of VPN. Then click the "OK" button.

STEP 7: Select [VPN Client] → [IKE Settings].

STEP 8: Select [IKE Settings] → [IKE Version]. **Note 18**
- When you specify V1, click "V1". Then click the "OK" button.
- When you specify V2, click "V2". Then click the "OK" button.

Note 18: For authentication mode, IKE version V1 supports PSK only.

STEP 9: Select [IKE Settings] → [Authentication Mode].
- When you specify PSK, click "PSK". Then click the "OK" button.
- When you specify RSA click "RSA". Then click the "OK" button.

STEP 10:Select [IKE Settings] → [PSK Setting].

Note: When RSA is specified, this setting is not required. Go to STEP 12.

STEP 11:Enter PSK. Then click the "OK" button.
For PSK, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 64 characters).

STEP 12:Select [IKE Settings] → [IKE ID].

STEP 13:Enter IKE ID. Then click the "OK" button.
For IKE ID, use 0-9, A-Z, a-z, #, . (period), - (hyphen), and _(underscore) (maximum 127 characters).

STEP 14:Select [VPN Client] → [IKE Settings] → [SA Validity].

STEP 15:Enter SA Validity (3600-86400 seconds). Then click the "OK" button.

STEP 16:Select [VPN Client] → [Child SA Validity].

STEP 17:Enter Child SA Validity (3600-86400 seconds). Then click the "OK" button.

STEP 18:Select [VPN Client] → [NAT Traversal] → [Keep Alive].

Note: When the network is not in NAT environment, this setting is not required. Go to STEP 22.

STEP 19:Enter the keep alive for IPsec NAT traversal (0, 1-3600 seconds). Then click the "OK" button.

STEP 20:Select [NAT Traversal] → [NAT Traversal Port].

STEP 21:Enter the port number of NAT Traversal (1024-65535). Then click the “OK” button.

STEP 22:Select [VPN Client] → [L2TP Settings] → [Cert ID].

STEP 23:Enter Cert ID. Then click the “OK” button.
For Cert ID, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 127 characters).

STEP 24:Select [VPN Client] → [L2TP Settings] → [Cert Password].

STEP 25:Enter Cert Password. Then click the “OK” button.
For Cert Password, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 127 characters).

STEP 26:Click the “Save” button.

4.2.2.17 Certificate Management

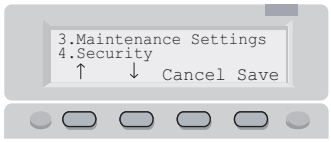
This section explains the setting of certificate for the terminal. Before using certificate, be sure to set the followings on the terminal configuration menu.

1. Set the PKCS password from [0. Config] - [4. Security] - [8. Certificate] - [1. Install] - [1. PKCS#12 Password.]
2. Download the certificate file from [0. Config] - [3. Maintenance Settings] - [1. Download Menu] - [1. Download Files] - [5. Certificate]
3. Select the certificate file from [0. Config] - [4. Security] - [8. Certificate] - [2. Select].

[1] Configuration Setting on Terminal

(a) The procedures to set PKCS#12 password and validity data of the certificate.

STEP 1: On [Config] main menu, select “4. Security.”

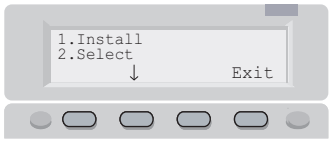


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

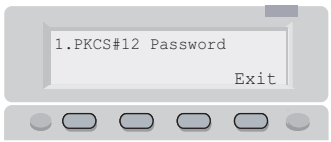
STEP 2: On [Security] menu, select “7. Certificate” to display the [Certificate] menu.



STEP 3: On [Certificate] menu, select “1. Install” to display the [Install] menu.



STEP 4: On [Install] menu, select “1. PKCS#12 Password” to display the [PKCS#12 Password] menu.



A

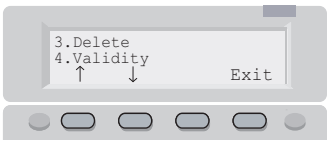
A

STEP 5: On [PKCS#12 Password] menu, use digit keys to assign the the password.

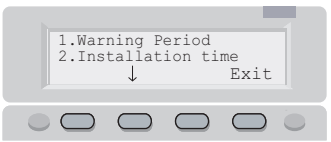


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

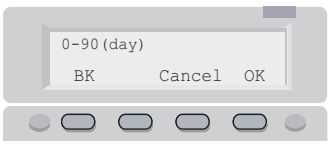
STEP 6: The LCD returns to [Certificate] menu. Select “4. Validity” to display the [Validity] menu.



STEP 7: On [Validity] menu, select “1. Warning Period” to display the [Warning Period] menu.

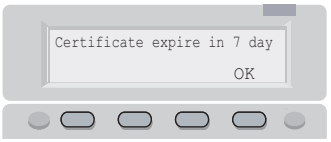


STEP 8: On [Warning Period] menu, use digit keys to enter the warning period.
Then, press the software key for OK.



Note: When you input “0”, this setting will be disabled.

When the expiration of certificate is closer, the following message is displayed.
This message is an example when "Warning Period" is assigned to "7".



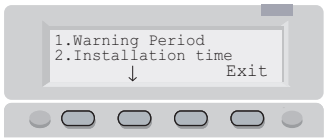
When the certificate is expired, the following message is displayed.



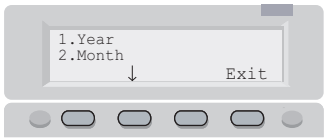
B

B

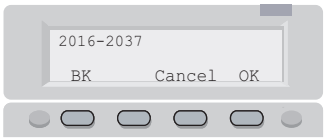
STEP 9: The LCD returns to [Validity] menu. select “2. Installation time” to display the [Installation time] menu.



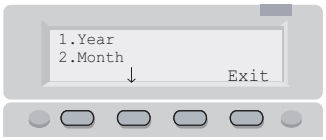
STEP 10: On [Installation time] menu, select “1. Year” to display the [Year] menu.



STEP 11: On [Year] menu, use digit keys to enter the year when you install the certificate. Then, press the software key for OK.



STEP 12: The LCD returns to [Installation time] menu, select “2. Month” to display the [Month] menu.



C

C

STEP 13: On [Month] menu, use digit keys to enter the month when you install the certificate.
Then, press the software key for OK.



STEP 14: The LCD returns to [Installation time] menu, select “3. Day” to display the [Day] menu.



STEP 15: On [Day] menu, use digit keys to enter the day when you install the certificate.
Then, press the software key for OK.



STEP 16: The LCD returns to [Installation time] menu, select “4. Hour” to display the [Hour] menu.



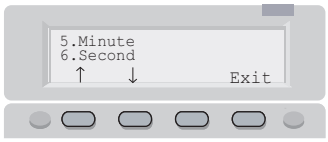
D

D

STEP 17: On [Hour] menu, use digit keys to enter the hour when you install the certificate.
Then, press the software key for OK.



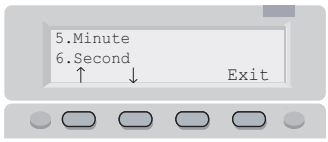
STEP 18: The LCD returns to [Installation time] menu, select “5. Minute” to display the [Minute] menu.



STEP 19: On [Minute] menu, use digit keys to enter the minute when you install the certificate.
Then, press the software key for OK.



STEP 20: The LCD returns to [Installation time] menu, select “6. Second” to display the [Second] menu.



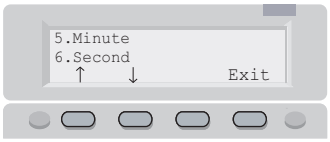
E

E

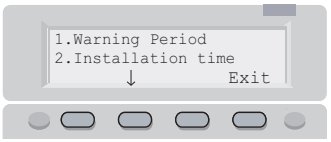
STEP 21: On [Second] menu, use digit keys to enter the second when you install the certificate.
Then, press the software key for OK.



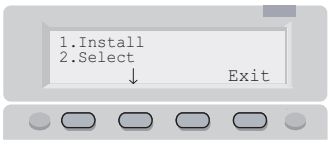
STEP 22: The LCD returns to [Installation time] menu, press the software key for "Exit" to return to [Validity] menu.



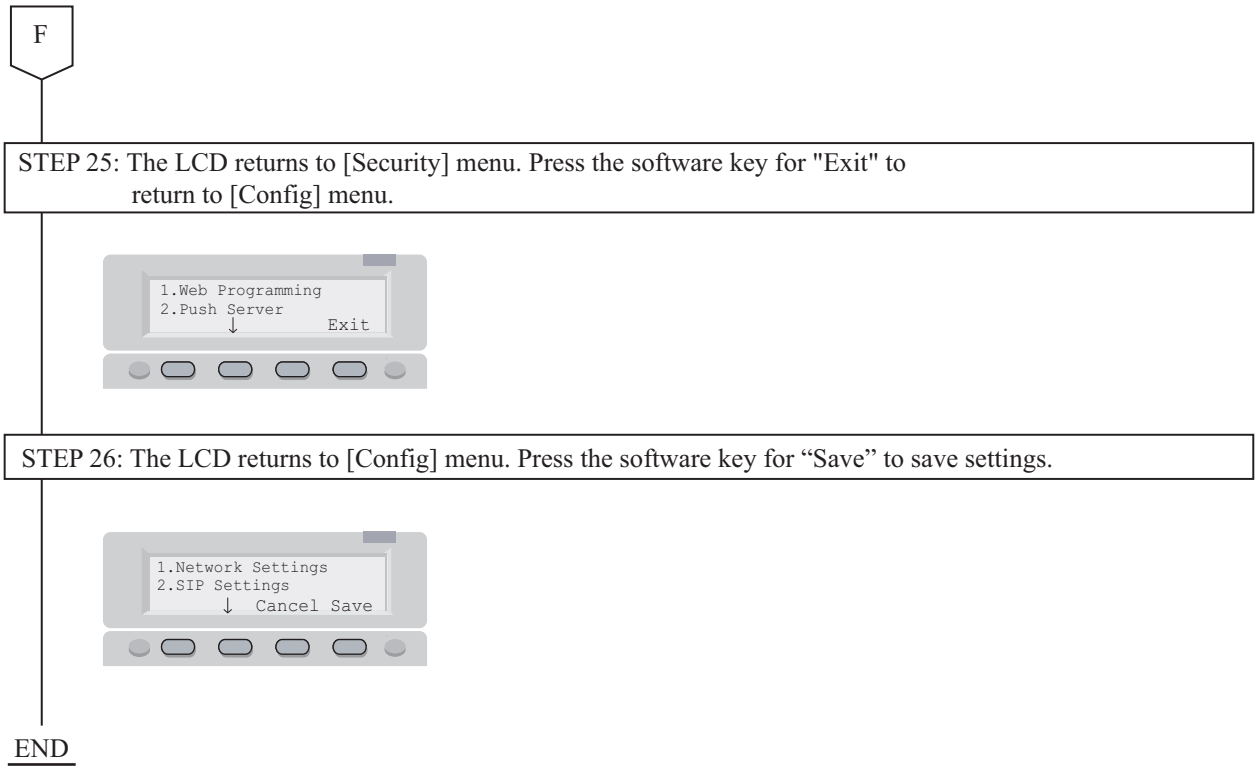
STEP 23: The LCD returns to [Validity] menu. Press the software key for "Exit" to return to [Certificate] menu.



STEP 24: The LCD returns to [Certificate] menu. Press the software key for "Exit" to return to [Security] menu.



F

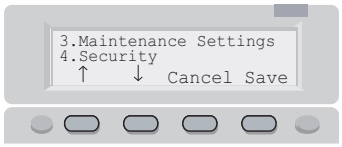


(b) The procedures to download the certificate

For the details of downloading procedure of the certificate, see “File Downloading”.

(c) The procedure to select the certificate.

STEP 1: On [Config] main menu, select “4. Security.”

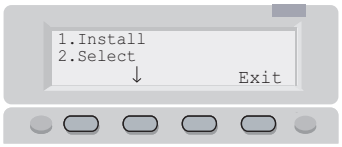


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

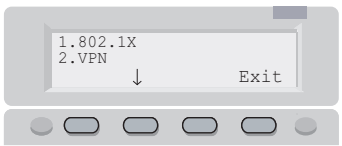
STEP 2: On [Security] menu, select “7. Certificate” to display the [Certificate] menu.



STEP 3: The LCD returns to [Certificate] menu. Select “2. Select” to display the [Certificate Select] menu.



STEP 4: On [Certificate Select] menu, select “1.802.1X” or “2.VPN”.



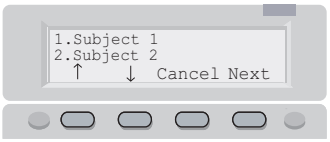
- When the client certificate is specified for 802.1x (EAP-TLS) client, select “1.802.1x”
- When the client certificate is specified for VPN client, select “2.VPN”

Note: For North America and China, “2. VPN” cannot be chosen.

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STEP 5: [Certificate] menu is displayed. use digit keys to specify the certificate installed on the terminal.

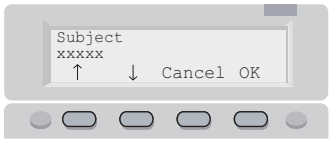


For example, to set "1. Subject 1",
1) Enter "0" and "1."
2) Entering field displays "01."
3) "1.Subject 1" line is focused.
4) Press the software key for "Next."

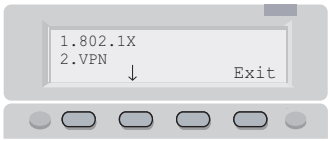
Note: One certificate can be selected in the 15 certificates.

STEP 6: On [Details] menu, verify the information described in the certificate using "↑" and "↓" of software key or cursor key, and press the software key “OK”. The information for the certificate is as follows.

- Subject
- Issuer
- Validity (Not before)
- Validity (Not After)
- Serial Number



STEP 7: On [Certificate Select] menu, press the software key for "Exit" to return to [Certificate] menu.

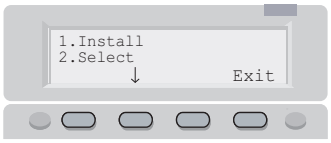


Note: For North America and China, “2. VPN” cannot be chosen.

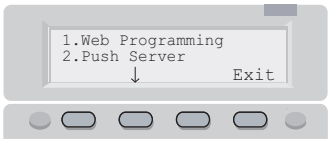
B

B

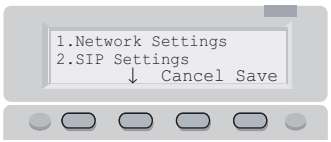
STEP 8: The LCD returns to [Certificate] menu. Press the software key for "Exit" to return to [Security] menu.



STEP 9: The LCD returns to [Security] menu. Press the software key for "Exit" to return to [Config] menu.



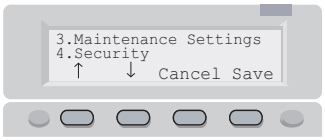
STEP 10: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

(d) The procedures to delete the certificate.

STEP 1: On [Config] main menu, select “4. Security.”

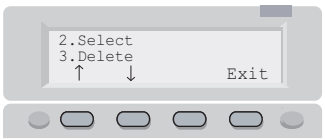


Note: For other operations, "↑" and "↓" of software key, cursor key are also available.

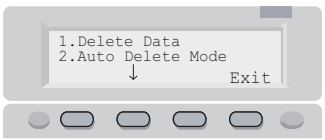
STEP 2: On [Security] menu, select “7. Certificate” to display the [Certificate] menu.



STEP 3: The LCD returns to [Certificate] menu. Select “3. Delete” to display the [Certificate Delete] menu.

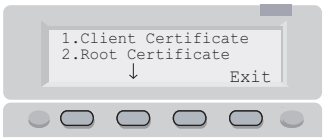


STEP 4: On [Certificate Delete] menu, select “1. Delete Data” or “2.Auto Delete Mode”



- When you delete the certificate manually,
select “1. Delete Data” ➡ **Go to STEP 5**
- When you delete the expired certificate automatically,
select “2. Auto Delete Mode” ➡ **Go to STEP 11**

STEP 5: On [Delete Data] menu, select a type of certificate data to delete.
Followings are the type of certificate data.

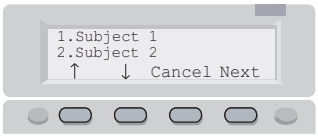


- When you delete the client certificate,
select “1. Client Certificate.” ➡ **Go to STEP 6**
- When you delete the root certificate,
select “2. Root Certificate.” ➡ **Go to STEP 6**
- When you delete the expired certificate,
select “3. Expired Certificate.” ➡ **Go to STEP 9**
- When you delete the all certificate files,
select “4. All Certificate.” ➡ **Go to STEP 10**

A

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STEP 6: [Certificate] menu is displayed. use digit keys to specify the certificate data to deleted from the terminal.

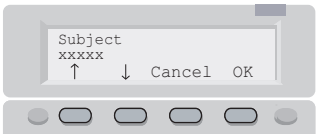


For example, to set "1. Subject 1",
1) Enter "0" and "1."
2) Entering field displays "01."
3) "1.Subject 1" line is focusted.
4) Press the software key for "Next."

Note: One certificate can be deleted in the 15 certificates.

STEP 7: On [Details] menu, verify the information described in the certificate using "↑" and "↓" of software key or cursor key, and press the software key “OK”. The information for the certificate is as follows.

- Subject
- Issuer
- Validity (Not before)
- Validity (Not After)
- Serial Number



STEP 8: On the confirmation screen, press the software key for “OK”. Then, go to STEP 12.



STEP 9: On [Expired Certificates] screen, press the software key for “OK”. Then, go to STEP 12.



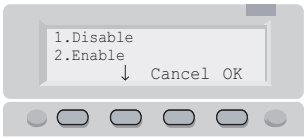
B

B

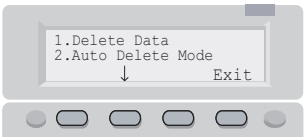
STEP 10: On [All Certificates] screen, press the software key for “OK”. Then, go to STEP 12.



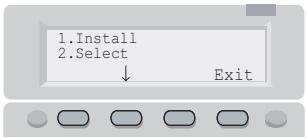
STEP 11: On [Auto Delete] menu, select “2. Enable” and press the software key for “OK”. Then, go to STEP 12.



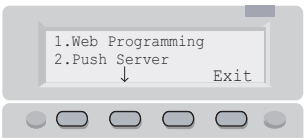
STEP 12: The LCD returns to [Certificate Delete] menu. Press the software key for "Exit" to return to [Certificate] menu.



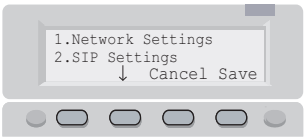
STEP 13: The LCD returns to [Certificate] menu. Press the software key for "Exit" to return to [Security] menu.



STEP 14: The LCD returns to [Security] menu. Press the software key for "Exit" to return to [Config] menu.



STEP 15: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

[2] Configuration Settings by Web Programming

(a) The procedures to set PKCS#12 password and validity data of the certificate.

STEP 1:Select [Security] → [Certificate] → [Install] → [PKCS#12 Password].

STEP 2: Enter PKCS#12 Password. Then click the "OK" button.
For Cert Password, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) (maximum 16 characters).

STEP 3: Select [Certificate] → [Validity] → [Warning Period].

STEP 4: Enter the warning period. Then click the "OK" button.

STEP 5: Select [Certificate] → [Validity] → [Installation time] → [Year].

STEP 6: Enter the installed year for certificate. Then click the "OK" button.

STEP 7: Select [Certificate] → [Validity] → [Installation time] → [Month].

STEP 8: Enter the installed month for certificate. Then click the "OK" button.

STEP 9: Select [Certificate] → [Validity] → [Installation time] → [Day].

STEP 10:Enter the installed day for certificate. Then click the "OK" button.

STEP 11:Select [Certificate] → [Validity] → [Installation time] → [Hour].

STEP 12:Enter the installed hour for certificate. Then click the "OK" button.

STEP 13:Select [Certificate] → [Validity] → [Installation time] → [Minute].

STEP 14:Enter the installed minute for certificate. Then click the "OK" button.

STEP 15:Select [Certificate] → [Validity] → [Installation time] → [Second].

STEP 16:Enter the installed second for certificate. Then click the "OK" button.

STEP 17:Click the "Save" button.

(b) The procedures to download the certificate

For the details of downloading procedure of the certificate, see "File Downloading".

(c) The procedures to select the certificate

STEP 1: Select [Security] → [Certificate] → [Select].
- When you specify 802.1x (EAP-TLS), click "802.1x".
- When you specify VPN, click "VPN".

Note: For North America and China, VPN cannot be specified.

STEP 2: Select the certificate installed on the terminal and verify the detail. Then, click the "OK" button.

STEP 3: Click the "Save" button.

(d) The procedures to delete the certificate

STEP 1: Select [Security] → [Certificate] → [Delete].
- When you delete a certificate data automatically, select [Auto Delete Mode] and go to STEP 3.

STEP 2: Select [Delete Data], and select the certificate to delete from the terminal and verify the detail. Then, click the “OK” button.

STEP 3: Select [Enable], and click the “OK” button.

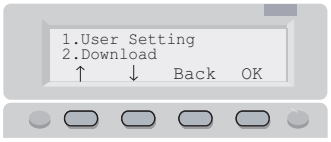
STEP 4: Click the “Save” button.

4.2.2.18 Ringing Tone

User can change the ringing tone settings on DT820 terminal.

[1] Configuration Settings on Terminal

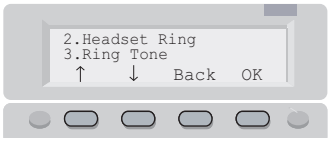
STEP 1: On [Setting] menu, select “1. User Setting.”



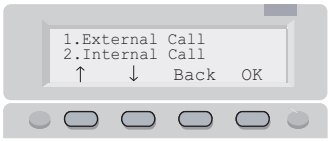
STEP 2: On [User Setting] menu, select “1. Incoming Call.”



STEP 3: On [Incoming Call] menu, select “3. Ring Tone.”



STEP 4: LCD displays the [Ring Tone] menu. Select “2. Internal Call.”



A

See the following table for details on Ring Tone settings.

Ring Tone Settings

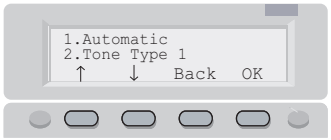
Value	Display Name	1st Frequency [Hz]	2nd Frequency [Hz]	Tone Kind
0	Automatic **Note 19**	520	660	16 Hz modulation
1	Tone Type 1			16 Hz modulation
2	Tone Type 2			8 Hz modulation
3	Tone Type 3	1400	1100	Door Phone
4	Tone Type 4	1100		No modulation
5	Tone Type 5	540		No modulation
6	Tone Type 6	1100	1400	16 Hz modulation
7	Tone Type 7	660	760	16 Hz modulation
8	Tone Type 8	1100		Envelope
9	Tone Type 9	-		Door Phone Melody
10	Tone Type 10	-		Melody 1
11	Tone Type 11	-		Melody 2
12	Tone Type 12	-		Melody 3
13	Tone Type 13	-		Melody 4
14	Tone Type 14	-		Melody 5
15	Download 1 **Note 20**	-		
16	Download 2 **Note 20**	-		
17	Download 3 **Note 20**	-		

Note 19: Default is Tone Type 1 when directions from the Telephony Server do not exist.

Note 20: This tone is not supported for DT820 (6-button type).

A

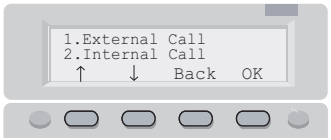
STEP 5: LCD displays [Internal Call] menu. The LCD will display the following.



Step 1. Currently selected Ring Tone will ring.
Step 2. Currently selected Ring Tone Value will flash.
Step 3. Use number buttons to assign a Ring Tone (value is between 1–17).
Step 4. Newly assigned Ring Tone will ring.
Step 5. Press the software key for “OK” when all settings are complete.

Note: Items from “15.Download 1” to “17.Download 3” are not available for DT820 (6-button type).

STEP 6: LCD returns to the [Ring Tone] menu. Pressing the software key for "Back" will return to the upper menu.



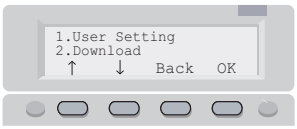
END

4.2.2.19 RTP Alarm

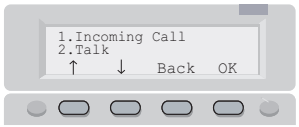
User can Disable or Enable RTP Alarm on DT820 terminal.

[1] Configuration Setting on Terminal

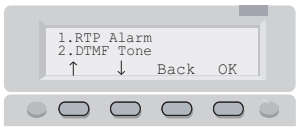
STEP 1: On [Setting] menu, select “1. User Setting.”



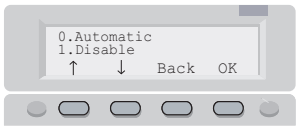
STEP 2: On [User Setting] menu, select “2. Talk.”



STEP 3: On [Talk] menu, select “1. RTP Alarm.”

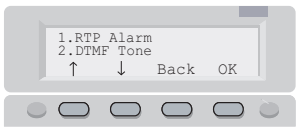


STEP 4: LCD displays the [RTP Alarm] menu. Select either Automatic, Disable or Enable using digit keys.
“0. Automatic” will be flashing before any selection is made, since “0” is assigned by default.
Press the software key for “OK” when done.



LCD Display	Assignment Conditions
0. Automatic	- Follows the settings assigned to system. - Settings assigned to system has priority. - RTP Alarm is Enabled only when settings assigned by system do not exist.
1. Disable	- Does not follow the setting assigned by system. - Settings assigned to terminal has priority. - RTP Alarm is Disabled.
2. Enable	- Does not follow the settings assigned by system. - Settings assigned to terminal has priority. - RTP Alarm is Enabled.

STEP 5: LCD returns to [Talk] menu. Pressing the software key for "Back" will return to uppder menu.



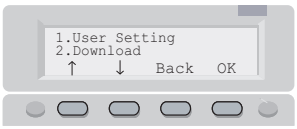
END

4.2.2.20 DTMF Tone

User can Disable or Enable DTMF Tone on DT820 terminal.

[1] Configuration Settings on Terminal

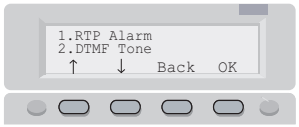
STEP 1: On [Setting] menu, select “1. User Setting.”



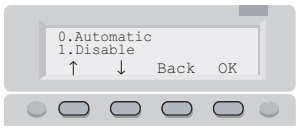
STEP 2: On [User Setting] menu, select “2. Talk.”



STEP 3: On [Talk] menu, select “2. DTMF Tone.”

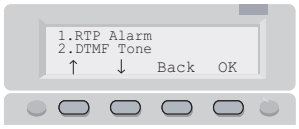


STEP 4: LCD displays the [DTMF Tone] menu. Select either Automatic, Disable or Enable using digit keys.
“0. Automatic” will be flashing before any selection is made, since “0” is assigned by default.
Press the software key for “OK” when done.



LCD Display	Assignment Conditions
0. Automatic	- Follows the settings assigned to system. - Settings assigned to system has priority. - DTMF Tone is Enabled only when settings assigned by system do not exist.
1. Disable	- Does not follow the setting assigned by system. - Settings assigned to terminal has priority. - DTMF Tone is Disabled.
2. Enable	- Does not follow the settings assigned by system. - Settings assigned to terminal has priority. - DTMF Tone is Enabled.

STEP 5: LCD returns to [Talk] menu. Pressing the software key for "Back" will return to uppder menu.



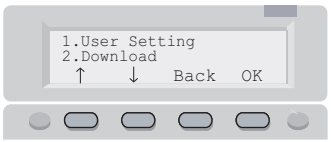
END

4.2.2.21 Hold Music

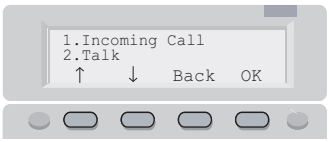
You can select the default hold music (minuet) or downloaded hold music that are heard from the terminal when held by the calling party while talking.

Note: To use a downloaded hold music, it needs to be downloaded in advance. For how to download the hold music, refer to 4.2.2.24 File Downloading.

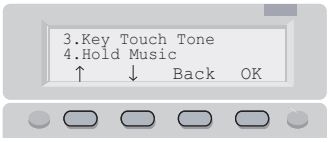
STEP 1: On [Setting] menu, select “1. User Setting.”



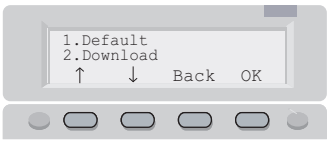
STEP 2: On [User Setting] menu, select “2. Talk.”



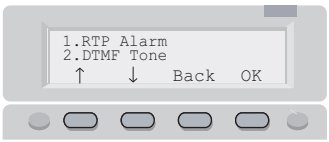
STEP 3: On [Talk] menu, select “4.Hold Music.”



STEP 4: On [Hold Music] menu, select either "1. Default (Minuet)" or "2. Download" by digit key, and then press the software key for "OK."



STEP 5: LCD returns to [Talk] menu. Pressing the software key for "Back" will return to uppder menu.



END

4.2.2.22 Language

By changing the language on the configuration menu of the terminal, time display and the setting menu on the terminal can be displayed by the language of each country. The following describes the languages supported by the terminal, and the procedure to set them.

Languages supported by the terminal

LCD	Description
0.Automatic **Note 21**	Telephony Server side's language setting is applied.
1.日本語	Japanese
2.NEC English	NEC English
3.NEC Português	NEC Portuguese
4.NEC Español	NEC Spanish
5.NEC Français	NEC French
6.Deutsch	German
7.ITALIANO	Italian
8.Nederlands	Dutch
9.Norsk	Norwegian
10.Dansk	Danish
11.Svensk	Swedish
12.Ελληνικά	Greek
13.English	English
14.Português	Portuguese
15.Español	Spanish
16.Français	French
17.Русский	Russian
18.Türk	Turkish
19.Român	Romania
20. Polski	Polish
21. Català	Catalan
22.한국어	Korean
23.中文(簡体字) **Note 22**	Simplified Chinese
24.中文(繁体字) **Note 22**	Traditional Chinese

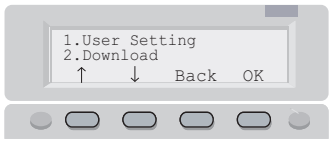
Note: If "Language Pack" files are not downloaded, the parameters of downloaded languages are not displayed.

Note: Each parameter is displayed in its native language.

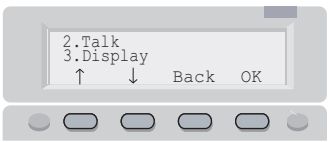
Note 21: When you select [Setting] → [Display] → [Time Format] → [Automatic] from the configuration menu, the language setting of time display will be specified as "0. Automatic".

Note 22: This language is available since FP95-113 V3, and terminal firmware version 2.0.0.0 or later.

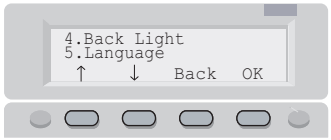
STEP 1: On [Setting] menu, select “1. User Setting.”



STEP 2: On [User Setting] menu, select “3. Display.”



STEP 3: On [Display] menu, select “5. Language.”

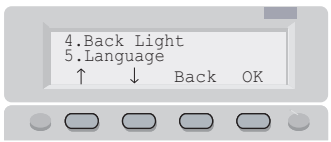


STEP 4: On [Language] menu, select the language by pressing the digit key, and then press the software key for "OK."



For example, to set "2. NEC English",
1) Enter "0" and "2."
2) Entering field displays "02."
3) "2. NEC English" line is focusted.
4) Press the software key for "OK."

STEP 5: The LCD displays "Display" menu. Presings the software key for "Back" will return to "User Setting" menu.



END

4.2.2.23 Password Change

In this section, the user can change the password for DT820 terminal's local data assignment and Admin Password for Administrator Menu login. **Note 23**, **Note 24**

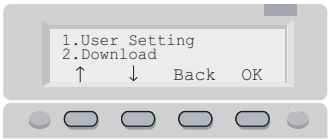
Note 23: The password for terminal authentication assigned in this section is also used for releasing Security mode.
- Password for terminal authentication
- Admin Password

Note 24: Cautions in changing the password are as follows.
- When the terminal user forgets the assigned Admin Password for Administrator Menu login or the password for terminal authentication to assign DT820 terminal's local data and to release Security mode, configure initialization by using IP phone manager. In this case, note that all the data including configuration settings and phonebook data on the terminal are cleared and get back to factory default. For IP phone manager, see the IP phone manager's operation manual.
- When the terminal user forgets the assigned Security password, the restriction can be released by administrator's menu [Config] → 3.Maintenance Settings → 3.Data Clear → 1.Factory Value. Note that all the data including phonebook data on the terminal is cleared and gets back to factory default.

[1] Configuration Setting on Terminal

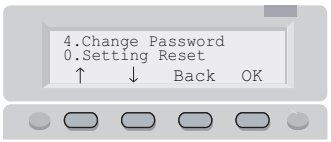
(a) Password for terminal authentication

STEP 1: Go to [Setting] menu. Select "1. User Setting."



Note: For other operations, "↑" and "↓" of software key, cursor key.

STEP 2: On [User Setting] menu, select "4. Change Password."



A

A

STEP 3: On [Change Password] menu, enter “Old Pass” and “New Pass.” Then, press the software key for OK.



Up

Down

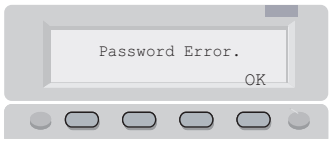
Old Pass: XXXX
New Pass: ****
Retry Pass: XXXX

Note: Default value: Password: 0000

*Be sure to change the default password.

STEP 4: The LCD will display either of the following:

Error



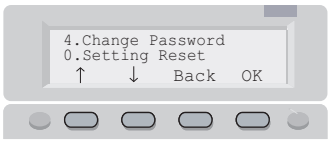
1. Press the software key for OK.
2. Return to Step 3.

Complete

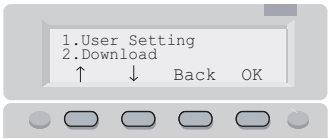


1. Press the software key for OK.
2. Proceed to Step 5.

STEP 5: The LCD returns to [User Setting] menu. Press the software key for “Back.”



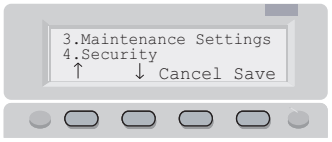
STEP 6: The LCD returns to [Setting] menu. Press the software key for “Back” to save settings.



END

(b) Admin Password

STEP 1: On [Config] menu, select “4. Security.”



Config Menu List

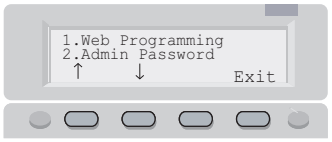
Up

Down

1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings

Note: For other operations, "↑" and "↓" of software key, cursor key.

STEP 2: The LCD displays [Security] menu. Select “2. Admin Password.”



STEP 3: On [Admin Password] menu, enter “Old Pass” and “New Pass.” Then, press the software key for OK.



Up

Down

Old Pass: XXXX
New Pass: ****
Retry Pass: XXXX

Note: Default value: Password: 6633222

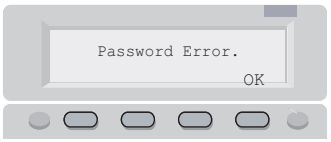
*Be sure to change the default password.

A

A

STEP 4: The LCD will display either of the following:

Error



1. Press the software key for OK.
2. Return to Step 3.

Complete

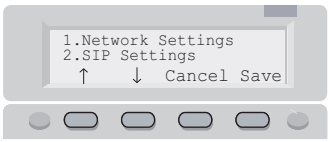


1. Press the software key for OK.
2. Proceed to Step 5.

STEP 5: The LCD returns to [Security] menu. Press the software key for “Exit.”



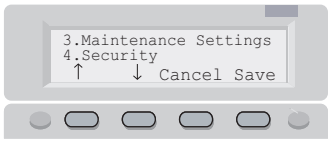
STEP 6: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

(c) Password expiration date

STEP 1: On [Config] menu, select “4. Security.”



Config Menu List

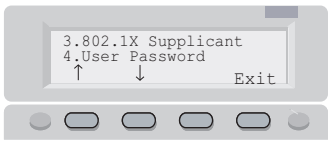
Up

Down

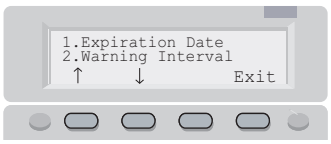
1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings

Note: For other operations, "↑" and "↓" of software key, cursor key.

STEP 2: The LCD displays [Security] menu. Select “4. User Password.”



STEP 3: On [User Password] menu, select “1. Expiration Date”.



A

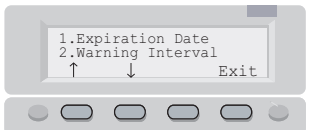
A

STEP 4: On [Expiration Date] menu, enter the expiration. Then, press the software key for OK.



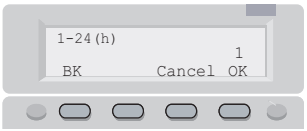
Note: 1 - 90 days are available for the expiration.
The password isn't expired by setting zero.

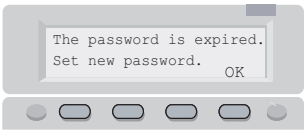
STEP 5: The LCD displays [User Password]. Select "2. Warning Interval."



Note: When no expiration is set for the user password, the terminal user need not set warning interval.

STEP 6: On [Warning Interval] menu, enter the warning interval. Then, press the software key for OK.



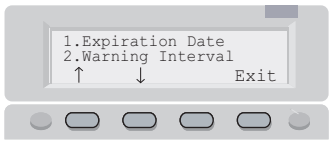


Note: When the password is expired, the warning shown in the figure is displayed while the terminal is in the idle state. Pressing the software key for OK deletes the warning and restores the time screen, but the warning is displayed repeatedly based on the assigned waring interval.

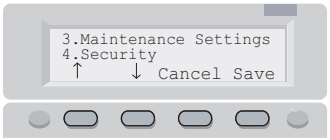
B

B

STEP 7: The LCD returns to [User Password] menu. Press the software key for “Back” to return to [Config] menu.



STEP 8: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

4.2.2.24 File Downloading

This section explains how to update program and how to download Music-on-Hold file on DT820 terminal using configuration menu. FTP/TFTP server is required for file downloading.

Download files in this feature are as follows:

- Download file

TYPE			DEFAULT FILE NAME	Description
Data for terminal user	Music-on-Hold file (**Note 25**)		MOH.wav	Melody file for Music-On-Hold.
	Ringing Tone file (**Note 25**, **Note 26**)		Melody1.wav ~ Melody3.wav	Melody file for ringing.
Data for maintenance personnel	Configuration file		config.tgz	Terminal configuration settings file.
	Boot & Program file	DT820 (6-button type)	ityisipe.tgz	Files are used for firmware update.
		DT820 (8-button type (DESI-LESS))	ityisipex.tgz	
	Voice file (**Note 26**)		voice.tgz	Voice data file.
	Certificate (**Note 27**)	Client Certificate	clientcert.p12	Client certificate file.
		Root Certificate	rootcert.der	Root certificate file.

Note 25: File with the up to 32 seconds long replay can be downloaded.

Note 26: Not supported for DT820 (6-button type).

Note 27: This feature is available for the terminal firmware version 3.0.0.0 or later.

<Before Downloading>

Before downloading the files on terminal, prepare the following:

- DT820
- Device with FTP/TFTP server function (PC)
- HUB and LAN cable for connecting DT820 and FTP/TFTP server to network
- Download file

Note: After downloading, the parameters assigned on each configuration menu may return to factory default. Be sure to write down the assigned value before starting the downloading procedure.

Caution: *Observe the following while program downloading:*
- *Do Not Turn OFF the power of the terminal, the Telephony Server, and DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the terminal, the Telephony Server, and DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the terminal, the Telephony Server, and DHCP.*

<Downloading Procedure>

Program downloading procedure is explained. Also program downloading specifying the file name is available.

[1] Configuration Settings on Terminal

STEP 1: Prepare download file on FTP/TFTP server.

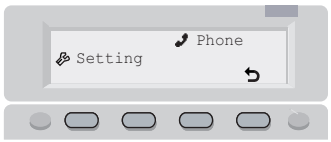
- FTP server
  Place the files to be downloaded on the specified directory.
  ** "C:\InetPub\ftproot" is the default directory for Windows server.*
- TFTP server
  Place the files to be downloaded under the directory for download.

File type → (b) Boot & Program, Config, Voice File, Certificate → **Go to STEP 21**

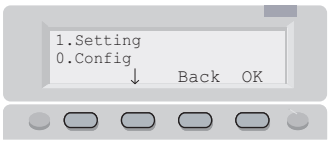
(a) Music on Hold, Ringing Tone downloading.

STEP 2: On the main menu [Menu] screen, select "4. Setting."

[Firmware version 3.0.0.0 or later]

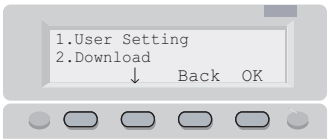


[Firmware version 2.0.0.0 or before]

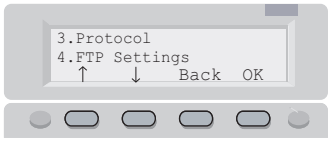


Note: For firmware version 2.0.0.0, select “1. Setting.”

STEP 3: On [Setting] menu, select "2. Download."



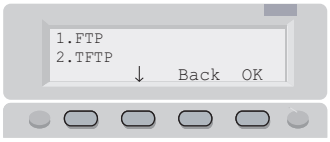
STEP 4: On [Download] menu, select "3. Protocol."



A

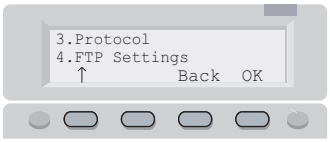
A

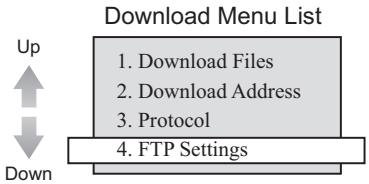
STEP 5: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP", and then press the software key for "OK."



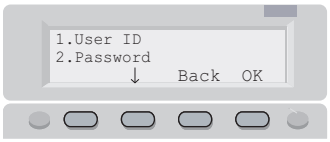
- When FTP is selected → **Go to STEP 6**
- When TFTP is selected → **Go to STEP 15**

STEP 6: The LCD displays [Download] menu. Select "4. FTP Settings".





STEP 7: On [FTP Settings] menu, select "1. User ID".

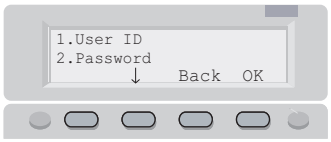


STEP 8: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."



Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

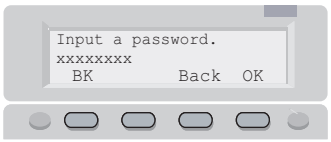
STEP 9: The LCD displays [FTP Settings] menu. Select "2. Password."



B

B

STEP 10: On [Password] screen, enter password by the digit keys, and then press the software key for "OK."



Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Alphanumeric characters are available. "*" is displayed instead of the entered character.

STEP 11: The LCD displays [FTP Settings] menu. Select "3. Folder."



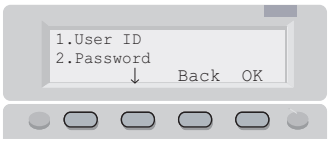
STEP 12: On [Folder] screen, enter the download file stored directory, and then press the software key for "OK."



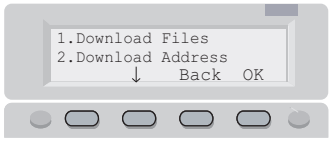
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Specify full-path directory; from the root directory to the target file on FTP server.

STEP 13: The LCD displays [FTP Settings] menu. Press the software key for "Back" to return to [Download] menu.



STEP 14: On [Download] menu, select "2. Download Address."



C

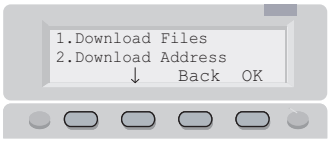
C

STEP 15: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.

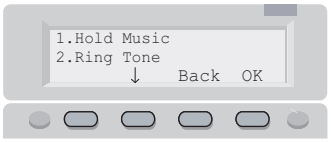


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 16: The LCD displays [Download] menu. Select "1. Download Files."

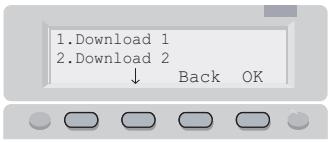


STEP 17: On [Download Files] menu, select the download file type and then press the software key for "OK."



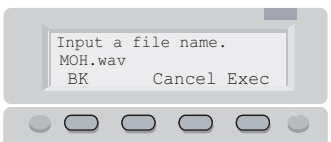
- Music-on-Hold file, select "1. Hold Music" ➡ **Go to STEP 19**
- Ringing Tone file, select "2. Ring Tone" ➡ **Go to STEP 18**

STEP 18: To download Ringing Tone file, [Ring Tone] menu is displayed. Select one of the menus by digit key, and then press the software key for "OK."



STEP 19: File name is displayed for each selected download file.

This is an example for selecting Music-on-Hold.



Default file names
- Music-on-Hold: MOH.wav
- Ringing Tone: Melody1.wav ~ Melody3.wav

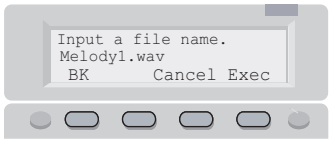
Change the download file name ➡ **Go to STEP 20**

Not change the download file name, chack the file name and press the software key for "Exec." ➡ **Go to STEP 41**

D

D

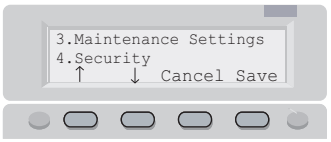
STEP 20: When you want to change the download file name, perform this step.



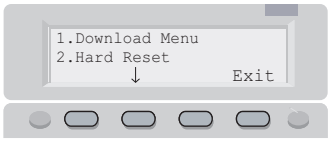
1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 41**

Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

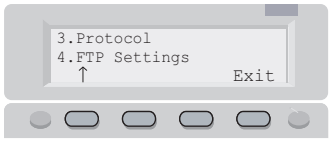
STEP 21: Following STEP 1 for (b) Configuration, Boot & Program, Voice, Certificate downloading on [Config] menu, select "3. Maintenance Settings."



STEP 22: The LCD displays [Maintenance] menu. Select "1. Download Menu."



STEP 23: On [Download menu], select "3. Protocol."



STEP 24: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP", and then press the software key for "OK."

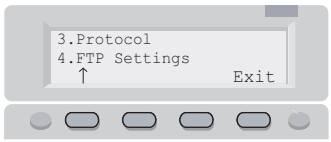


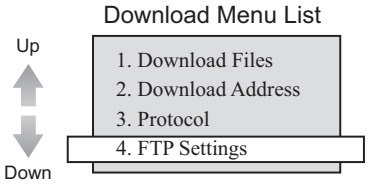
- When FTP is selected ➡ **Go to STEP 25**
- When TFTP is selected ➡ **Go to STEP 33**

E

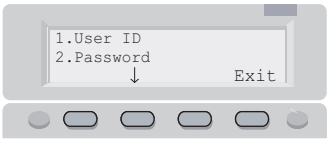
E

STEP 25: The LCD displays [Download Menu]. Select "4. FTP Settings."





STEP 26: On [FTP Settings] menu, select "1. User ID."

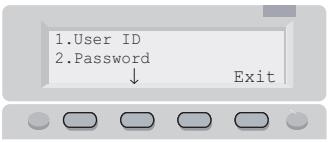


STEP 27: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."

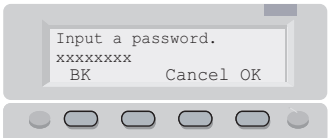


Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

STEP 28: The LCD displays [FTP Settings] menu. Select "2. Password."



STEP 29: On [Password] screen, enter password by the digit keys, and then press the software key for "OK."



Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Alphanumeric characters are available. “*” is displayed instead of the entered character.

F

F

STEP 30: The LCD displays [FTP Settings] menu. Select "3. Folder."



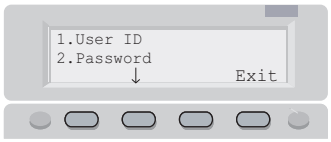
STEP 31: On [Folder] screen, enter the download file stored directory, and then press the software key for "OK."



Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Specify full-path directory; from the root directory to the target file on FTP server.

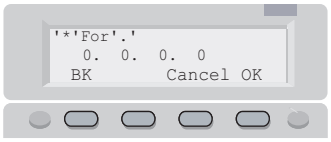
STEP 32: The LCD displays [FTP Settings] menu. Press the software key for "Exit" to return to [Download Menu].



STEP 33: On [Download Menu], select "2. Download Address."



STEP 34: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.



Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

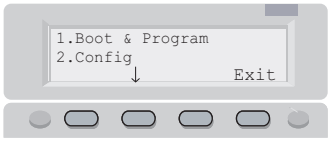
G

G

STEP 35: The LCD displays [Download Menu] screen. Select "1. Download Files."



STEP 36: On [Download Files] menu, select the download file type and then press the software key for "OK."



- Boot & Program file, select "Boot & Program"
- Configuration file, select "Config"
- Voice file, select "Voice File"
- Certificate data file, select "Certificate"

STEP 37: File name is displayed for each selected download file.

This is an example for selecting Boot & Program file.



Change the download file name ➡ **Go to STEP 38**

Not change the download file name, chack the file name and press the software key for "Exec." ➡ **Go to STEP 39**

Note: See Download file on page 618 for the default file name of each type.

STEP 38: When you want to change the download file name, perform this step.



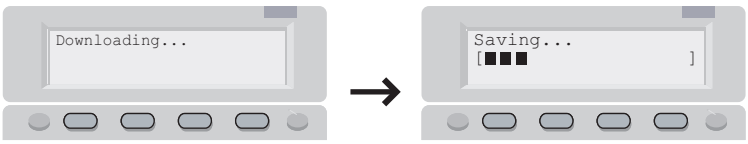
1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 39**

Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

H

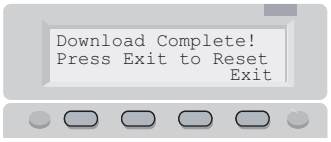
H

STEP 39: The terminal starts downloading. "Downloading..." flashes on the LCD.



Note: Do not power off the terminal during the LCD displaying "Saving...". It may cause trouble in the terminal starting up.

STEP 40: The LCD displays the message below. Press the software key for "Exit" to restart the terminal.

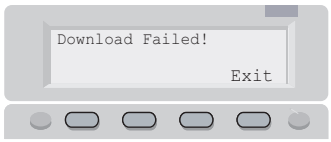


STEP 41: The terminal restarts reading out the downloaded program.



END

Note: In the case of download failure, the LCD displays the message below.



The following table lists the points to be checked. Try downloading again.

CAUSE	COUNTERMEASURES
Target download file is not put in the directory specified by FTP/TFTP server.	*Place the download file on the directory where FTP/TFTP server specifies.*
File name differs between the file on the FTP/TFTP server and the file you try to download.	*Assign the same file name on the server and on the terminal.*
The IP address of FTP/TFTP server assigned on the configuration settings is wrong.	*Enter correct IP address of FTP/TFTP server.*
FTP/TFTP server or the network device (e.g. HUB) between the server and the terminal is not turned on.	*Turn the power on for the devices.*
LAN cable disconnection.	*Connect LAN cable to the terminal and FTP/TFTP server.*
Certificates are full	*Delete a certificate file which is not used.*
File format is not right!	*Confirm the expiration date and the format of certificate.*

When the LCD responses “Download Failed” message again even after some retry, the memory of the terminal may be damaged. Contact a maintenance personnel.

[2] Configuration Settings by Web Programming

STEP 1:Prepare download file on FTP/TFTP server. (See STEP 1 in [1] Configuration Settings on Terminal.)

STEP 2: Select [Maintenance] → [Download Menu] → [Download Files].

[Config] for Configuration file download
[Boot & Program] for Boot & Program file download
[Voice File] for voice file download
[Certificate] for certificate file download

Note: For Web Programming, Music-on-Hold and Ringing-Tone can be downloaded only when logging in as the User Name "USER". Refer to [1] Configuration Settings on Terminal for these types of file downloading.

Note: Ringing-Tone is not supported for DT820 (6-button type).

STEP 3: Enter the parameters below and then click the "OK" button. The terminal starts downloading.

[Protocol] : Select the protocol of the file server storing download file.
[Download Address] : Enter the IP address of FTP/TFTP server.
[folder] : Enter the folder name on which download file is stored.
[File name] : Enter target download file name. **Note 28**
[User ID] : Enter User ID.
[Password] : Enter password.

Note 28: See Download file on page 618 for the default file name of each type.

Note: The LCD displays the messages below:

STATE	*LCD*
While download is in progress	*Downloading...*
Succeeded in downloading	*Download Complete!* *Press Exit to Reset.*
Failed in downloading	*Download Failed!*

4.2.3 Configuration Menu List

4.2.3.1 DT820 Configuration Menu List (FW 3.0.0.0)

This section lists the configuration menu used for DT820 (8-button (DESI-LESS)/6-button) configuration settings. DT820 columns on the tables below show whether the menu is available or not for each terminal type.

Note: History and Directory are displayed for DT820 (8-button (DESI-LESS)) only. However, Terminal Call History and Terminal Phone Book are not supported. Therefore, when you select “History” on the main menu, Call History at the Telephony Server side will be activated. Also, when you select “Directory” on the main menu, System Phonebook/Corporate Directory will be activated.When you assign URL of Corporate Directory on “0.Config”. Corporate Directory will be activated.

LEGEND	X: Available	N: Not available	-: Not applicable

3. Service

Parameter	Description	Default
3. Service	Starts up XML browser and Instant Message tool.	-
1. Service **Note 1**	Starts up XML browser.	-

Note: For DT820 (8-button (DESI-LESS)), service menu is displayed only when the URL is set by “0.Config” - “6. Application Settings” - “1.XML Settings” - “4. Service URL”.

Note: For DT820 (6-button), service menu is displayed only when the URL is set by “0.Config” - “6. Application Settings” - “1.XML Settings” - “3. Service URL”.

Note 1: At most 4 services (8-button (DESI-LESS))/2 services (6-button) are displayed on the menu. Even though “1. Service” isn’t displayed on the menu when only one URL is set, selection of “3. Service” starts up XML browser.

4. Setting

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
2. Headset Ring **Note 1**	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			
3. Ring Tone	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			-
2. Internal Call	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.			X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			-

4. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key.	Automatic **Note 3**	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. Disable	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			–
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
3. Display	Sets display related data.	-	X	X
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 6**	X	X
1. Calendar Format	Specifies the calendar display format.			
0. Automatic	Sets Automatic for calendar display format.			
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.			
2. Type 2				
3. Type 3				
4. Type 4				
5. Type 5				
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 4**		
0. Automatic	Sets Automatic for time display.			
1. 12 hour Indication	Sets 12-hour display.			
2. 24 hour Indication	Sets 24-hour display.			
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 5**	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			

4. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
3. Screen Saver	Sets Screen Saver related data.	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X
1. Disable	Screen Saver is not used.			
2. Enable	Screen Saver is used.			
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X
4. Back Light	Switches ON/OFF the backlight on the terminal.	Enable **Note 2**	X	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			
5. Language	Selects the language on the time display and the setting menu.	Automatic **Note 6**	X	X
0. Automatic	Sets Automatic for language setting on the LCD.			
1. Japanese	Selected language is displayed on the LCD. The parameters of language are displayed as native language. For the details, refer to "4.2.2.22 Language".			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				
22. Korean				
23. Simplified Chinese **Note 7**				
24. Traditional Chinese **Note 7**				

4. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6. Advanced	Sets other data for display.	Enable	X	X
1..Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.			
1.Disable	Disables Backlight Fade Control.			
2.Enable	Enables Backlight Fade Control.			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
5. Usability	Set the operation of Help key while pop-up window is displayed.	-	X	X
1. Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window).	Submenu	X	X
1. SubMenu	Set the Help key which displays sub menu.			
2. Popup Window	Set the Help key which displays pop-up window.			
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	-
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			

4. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 1: Do not go the handset off-hook when headset is used.

Note 2: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 3: A tone will be provided if Automatic has been set.

Note 4: 12-Hour Indication is applied when Automatic has been set.

Note 5: A setting for Enable is applied when Automatic has been set.

Note 6: A setting on the Telephony Server is applied when Automatic has been set.

Note 7: This language can be selected for FP95-113 V3 or later.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. Network Settings	Sets network related data.	-	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X
1. Disable	DHCP is not used.			
2. Enable	DHCP is used.			
2. IP Address	Sets the terminal’s IP address.	0.0.0.0	X	X
3. Default Gateway	Sets default router’s IP address.	0.0.0.0	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X
1. Disable	VLAN is not used.			
2. Enable	VLAN is used.			
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X
5. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. PC Port Settings	Sets PC port.	-	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X
1. Disable	Port VLAN of PC port is not used.			
2. Enable	Port VLAN of PC port is used.			
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X
0. Automatic	Sets Automatic for PC port.			
1. Disable	PC port is not used.			
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X
1. Disable	Not forward EAPOL packet from PC port.			
2. Enable	Forwards EAPOL packet from PC port.			
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X
1. Disable	Not clear the authentication status.			
2. Enable	Clear the authentication status.			
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X
3. Type of Service	Sets ToS value.	-	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0		
2. SIP	Sets ToS value for SIP in Hex.	C0		
4.Self Port Settings	Sets each port for the terminal.	-	-	-
1.RTP Self Port	Sets RTP port for the terminal [1024-65520 (except 59986-60000)]. **Note 13**, **Note 14**	3462	X	X
2.SIP Self Port	Sets SIP port for the terminal [1024-65534]. **Note 14**	5060	X	X
5.LLDP Settings	Sets information related to LLDP.	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X
1. Disable	The terminal does not transmit/receive LLDP packets.			
2. Enable	The terminal transmits/receives LLDP packets.			

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X
1. Disable	The terminal does not perform data setting automatically when LLDP packets are received.			
2. Enable	The terminal performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until the terminal receives LLDP packets (1-60 seconds).	15	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X
5.Hold Multiplier **Note 15**	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after the terminal starts up (1-10 times).	3	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.			
2. Enable	Transparent Mode of LLDP packets is enabled.			
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 12**	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X
1. Disable	Both Spare and Backup IPs are disabled.			
2. Spare IP	Spare IP is enabled.			
3. Backup IP	Backup IP is enabled.			
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X
1. IP Address	Sets the terminal's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
2. Default Gateway	Sets default router's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0		
4. DNS Address	Sets DNS server's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X
7.TTL Settings	Setting for multicast TTL (Time To Live)	-	-	-
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	32	X	X
8.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable	X	X
1. Disable	Priority Queue is disabled.		X	X
2. Enable	Priority Queue is enabled.		X	X
2. SIP Settings	Sets SIP related data.	-	X	X
1. SIP User	Sets user data.	-	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X
2. Password	Sets password for digest authentication.	-	X	X
3. Extension Number **Note 11**	Not used.	-	N	N
4. Backup Logon **Note 11**	Not used.	-	N	N

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. Server Address&URI	Sets IP address or URI of SIP server. **Note 8**, **Note 9**	-	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	0.0.0.0	X	X
2. 2nd Server Address				
3. 3rd Server Address				
4. 4th Server Address				
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th registrar server. **Note:** Do not set this parameter except when using Firewall NAT accommodating special SIP-NAT.	0.0.0.0	X	X
2. 2nd Register Address				
3. 3rd Register Address				
4. 4th Register Address				
3. Access Mode	Sets access mode for SIP server.	Normal	X	X
1. Normal	Normal access			
2. Remote	Remote access			
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.			
2. 2nd Server Port				
3. 3rd Server Port				
4. 4th Server Port				
5. Registrar Destination	Sets port for registrar server [1024-65535].			
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.			
2. 2nd Register Port				
3. 3rd Register Port				
4. 4th Register Port				

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
5. Area ID	Sets the area (country) using the terminal.	Automatic	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.			
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.			
2. America (Canada and North America)				
3. Australia				
4. Others				
5. Hong Kong				
6. Malaysia				
7. Singapore				
8. Mexico				
9. Taiwan				
10. NewZealand				
11. Korea				
12. Brazil				
13. China				
14. Thailand				
15. Thailand (EGAT)				
16. Sri Lanka				
17. Germany				
18. Italy				
19. Netherlands				
20. Catalonia (Not used)				
21. Denmark				
22. Sweden				
23. Poland				
24. Czech				
25. Norway				
26. France				
27. Portugal				
28. Spain				
29. Austria				
30. Belgium				
31. UK				
32. Greece				
33. Switzerland				
34. South Africa				
35. Brazil (EMEA)				

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).			
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).			
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X
1. Disable	Calls in progress are not held even when the terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are held even when the terminal detects communication failure with the Telephony Server.			
3. Howler Tone (Not used)	Selects whether to send howler tone.	Disble	-	-
1. Disable	Howler tone sending is OFF.			
2. Enable	Howler tone sending is ON.			
4. Random Wait Time	Sets random wait time of when the connection between Telephony Server and terminal starts (5-3600 seconds).	5	X	X
5. Connect Wait Time	Sets the time to wait until the connection between Telephony Server and terminal is complete (30-300 seconds).	30	X	X
7. Encryption	Sets encryption data.	Disable	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X
1. Disable	Authentication is not used.			
2. Enable	Authentication is used.			
2. One Time Password	Sets One Time Password.	-	X	X
3. Authentication Status	Displays authentication status.	-	X	X
8. NAT Traversal **Note 11**	Not used.	-	N	N
1.NAT Traverse Mode				
1.Disable				
2.Dynamic				
3.Static				
2.Network Area Name				
3.WAN Settings				
1.WAN Mate IP Address				
2.WAN SIP Mate Port				
3.WAN Self IP Address				

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
3. Maintenance Settings	Sets maintenance related data.	-	X	X
1. Download Menu	Downloads specified file to the terminal.	-	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X
1. Boot & Program	Downloads boot and program.	ityisipex.tgz	X	-
		ityisipe.tgz	-	X
2. Config	Downloads configuration file.	config.tgz	X	X
3. Voice File	Downloads voice file.	voice.tgz	X	-
4. Language Pack	Not used.	-	N	N
5. Certificate	Downloads certificate files.	-	X	X
1. Client Certificate	Downloads client certificate file.	clientcert.p12		
2. Root Certificate	Downloads root certificate file.	rootcert.der		
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
2. Hard Reset	Resets the terminal without data saving.	-	X	X
3. Data Clear	Initializes the terminal selecting the initialization mode.	-	X	X
1. Factory Value	Initializes the terminal to factory default.	-	X	X
2. Terminal Data	Clears terminal data on the terminal.	-	X	X
3. Personal Data	Clears personal data on the terminal.	-	X	X
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X
1. Default Audio	Sets audio data.	-	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7]. *The setting of system data (ASYDL, SYS1, Index 1256, bit 4-7) has priority over this setting. Therefore, this setting is invalid.	4	X	X
2. Send Gain	Sets sending gain of handset/headset [0-31]. *The setting of system data (ASYD, SYS3, Index 13) has priority over this setting. Therefore, this setting is invalid.	24	X	X
3. Receive Bias	Sets receiving bias of handset/headset [0-7].	0	X	X
4. Receive Gain	Sets receiving gain of handset/headset [0-31]. *The setting of system data (ASYD, SYS3, Index 14) has priority over this setting. Therefore, this setting is invalid.	22	X	X
5. Talk Characteristics	Sets talk characteristics of handset.	-	X	X
1.Noise Suppression	Sets whether to enable the Noise Suppressor. (Set “1.Disable” in normal operation.)	Disable	X	X
2. Handsfree Mode	Sets a send gain mode of handsfree call.	Retro mode	X	X
1. Retro Mode	Sets to Retro mode.			
2. New Mode	Sets to New mode.			
6. DTMF Send Level	Sets DTMF Send Level [0-48]. (level 0 (maximum) ~ level 48 (minimum))	32	X	X
2. EHS Cable **Note 19**	Selects whether to use the cable for wireless headset connection.	None	X	X
1. None	Wireless headset is not used (instead of it, wired headset is used).			
2. APD-80	Wireless headset with APD-80 is used.			
5. Auto config	Selects whether to use auto-config function.	Enable	X	X
1. Disable	Auto config is not used.			
2. Enable	Auto config is used.			

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6. Data Maintenance	Sets data maintenance related.	-	X	X
1. Backup	Executes data backup.	-	X	X
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz	X	X
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz	X	X
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz	X	X
2. Restore	Executes restoration.	-	X	X
1. All Data	Restores all the configuration setting and data.	AllData.tgz	X	X
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz	X	X
3. Personal Data	Restores personal setting and data.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
7. Simple Test **Note 10**	Changes the terminal to test mode.	-	X	X
1. Call Test	Starts call test.	-	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X
6. Speaker Test	Tests the speaker.	-	X	X
1. Japan	A dial tone for Japan is heard in maximum volume.	-	X	X
2. America	A dial tone for North America is heard in maximum volume.	-	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X
4. Security	Sets security related data.	-	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X
1. Disable	Web Programming is disabled.			
2. Enable	Web Programming is enabled.			
2. Push Server	Sets XML's Push server related data.	-	X	X
1. Push Server Access	Sets whether to access XML's Push server.	Enable		
1. Disable	Access is disabled.			
2. Enable	Access is enabled.			
3. Enable (All Client) **Note 17**	Access is enabled. Select this item to set more than one XML's Push server.			
2. Client IP Address	IP address of XML's Push server.	0.0.0.0	X	X
1. Client 1	Sets IP address of 1st XML's Push server.			
2. Client 2	Sets IP address of 2nd XML's Push server.			
3. Client 3	Sets IP address of 3rd XML's Push server.			
4. Client 4	Sets IP address of 4th XML's Push server.			
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 18**	82	X	X
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. Supplicant	Sets whether to use supplicant on the terminal.	Disable	X	X
1. Disable	Supplicant is disabled on the terminal.			
2. Enable	Supplicant is enabled on the terminal.			
2. EAP Method	Selects EAP-MD5 or EAP-TLS for the EAP Method.	EAP-MD5	X	X
1. EAP-MD5	EAP-MD5 is used.			
2. EAP-TLS	EAP-TLS is used.			
3. Account	Sets user ID for authentication.	-	X	X
4. Password	Sets password for authentication.	-	X	X
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X
1. Disable	VLAN tag is not added to EAP packet.			
2. Enable	VLAN tag is added to EAP packet.			
5. VPN Client **Note 23**	Sets VPN Client related parameter.	-	-	-
1. VPN Mode	Sets whether to enable VPN Mode.	Disable	X	X
1. Disable	VPN Mode is disabled.			
2. Enable	VPN Mode is enabled.			
2. VPN Gateway Address	Sets VPN Gateway address.	0.0.0.0	X	X
3. VPN Network Settings	Sets VPN network related data.	-	X	X
1. VPN IP Address	Sets VPN IP Address.	0.0.0.0		
4. IKE Settings	Sets IKE protocol related data.	-	X	X
1. IKE Version **Note 27**	Selects IKE protocol version.	V1	X	X
1. V1 **Note 26**	V1 is used.			
2. V2	V2 is used.			

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. Authentication Mode	Selects authentication mode.	PSK	X	X
1. PSK **Note 24**	PSK is used.			
2. RSA **Note 25**	RSA is used.			
3. PSK Setting	Sets the parameter of PSK (up to 64 characters).	-	X	X
4. IKE ID	Sets the parameter of IKE ID (up to 127 characters).	-	X	X
5. SA Validity	Sets the expiration of SA validity when the IPsec connection has been established (3600-86400 seconds).	86400	X	X
5. Child SA Validity	Sets the expiration of Child SA validity when the IPsec connection has been established (3600-86400 seconds).	28800	X	X
6. NAT Traversal	Sets IPsec NAT traversal related data.	-	X	X
1. Keep Alive	Sets keepalive for NAT traversal (0, 1-3600 seconds). **Note 20**	20	X	X
2. NAT Traversal Port	Sets port for NAT traversal (1024-65535).	4500	X	X
7. L2TP Settings	Sets L2TP connection related data.	-	X	X
1. Cert ID	Sets certificate ID for L2TP (up to 127 characters).	-	X	X
2. Cert Password	Sets certificate password for L2TP (up to 127 characters).	-	X	X
6. User Password	Setting for User Password.	-	X	X
1. Expiration Date	Sets the expiration of user password (0-90 days). **Note 22**	0	X	X
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1	X	X
7. Certificate	Sets certificate related data.	-	X	X
1. Install	Sets install related data of certificate.	-	X	X
1. PKCS#12 Password	Sets PKCS#12 password.			
2. Select	Selects the client certificate.	-	X	X
1. 802.1X	802.1X is selected as a client certificate. **Note 21**			
2. VPN **Note 23**	VPN connection is selected as a client certificate. **Note 21**			
3. Delete	Sets delete method of certificate.	-	X	X
1. Delete Data	Selects the type of certificate data to be deleted.	-		
1. Client Certificate	Deletes client certificate data.			
2. Root Certificate	Deletes root certificate data.			
3. Expired Certificates	Deletes expired certificate data.			
4. All Certificates	Deletes all certificates data.			
2. Auto Delete Mode	Sets whether to delete the certificate data automatically.	Disable	X	X
1. Disable	Certificate data is not deleted automatically.			
2. Enable	Certificate data is deleted automatically.			

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
4. Validity	Sets the expiration of certificate validity.	-	X	X
1. Warning Period	Sets the time to display the warning notice for the end of certificate validity (0-90 days). **Note 22**	7	X	X
2. Installation time	Sets the time of when the certificate is installed. This setting will be applied to authenticate a certificate until the time information from the Telephony Server is received.	-	X	X
1. Year	Year [2016-2037]	2016		
2. Month	Month [1-12]	1		
3. Day	Day [1-31]	1		
4. Hour	Hour [0-23]	0		
5. Minute	Minute [0-59]	0		
6. Second	Second [0-59]	0		
5. Terminal Information	Displays terminal information.	-	X	X
Hardware Version	Displays hardware version of the terminal.	-	X	X
MAC Address	Displays MAC address of the terminal.	-	X	X
Firmware Version	Displays firmware version of the terminal.	-	X	X
6. Application Settings	Sets application data.	-	X	X
1. XML Settings	Specifies XML browser function.	-	X	X
1. Terminal ID	Login number for accessing XML server.	0000	X	X
2. XML Browser	Sets XML browser related data.	-	X	X
1. Home URL	Sets the address of the contents to access when starting up XML browser.	-	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X
3. Directory URL	Sets URL of Corporate Directory.	-	X	-
4. Service URL	Sets URL of XML application.	-	X	X
1. 1st Service URL	URL of up to four XML applications can be specified.			
2. 2nd Service URL				
3. 3rd Service URL				
4. 4th Service URL				
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 18**	3530	X	X
3. Popup	Sets the popup window display.	-	X	X
1.Popup Mode	Sets the mode of the popup window display.	App Priority		
1.Enable	Sets the popup window display enabled.			
2.App Priority	Sets to depend on a definition of XML tag for Popup window.			
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-	X	X
5. Menu Key Mode	Changes to menu key mode.	Enable	X	X
1. Disable	Sets the menu key mode disabled.			
2. Enable	Sets the menu key mode enabled.			

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
7. License Settings Note 16	Sets the data for various feature license. (For North America only)	-	X	X
1. License Server Settings	Sets IP address and server port for license setting.	-	X	X
1. Server Address	Sets IP address for license setting.	0.0.0.0		
2. Server Port	Sets server port for license setting [1024-65535]	6080		
2. License Request	Select whether to enable the license for Gigabit Ethernet feature and DESI-Less key.	-	X	X
1. Gigabit Ethernet	Selects whether to enable Gigabit Ethernet feature.	Disable	X	X
1. Disable	Gigabit Ethernet feature is not used.			
2. Enable	Gigabit Ethernet feature is used.			
2. Line Key	Sets the type of key number of DESI-Less terminal.	Disable	X	-
1. Disable	Sets to 8-button type DESI-Less terminal.			
2. Line 16	Sets to 16-button type DESI-Less terminal.			
3. Line 32	Sets to 32-button type DESI-Less terminal.			
3. Adjust	Adjust the prefix characters of license user ID.	-	X	X
1. License User Prefix	Sets the prefix characters of license user ID.			

Note 8: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where the terminal is registered.

Note 9: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 10: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 11: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 12: "-" is displayed in default settings.

Note 13: Odd numbered ports cannot be assigned.

Note 14: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

Note 15: LLDP time to live = LLDP packet transmission interval × the set value (65535 at most)

Note 16: Except for North America, this setting is not supported.

Note 17: Be careful when you specify "3.Enable(All Client)" because security service are disabled for Push when "3.Enable(All Client)" is set.

Note 18: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

Note 19: The following table shows the usable headset type depending on the setting of “EHS Cable”.

Setting of EHS Cable	Usable Headsets (Cables)
None	HW510 (A10) HW251 (A10)
APD-80	W710 (APD-80 cable (Savi 710))

Note 20: When “0” is specified, this setting will be disabled.

Note 21: Up to 15 certificates can be selected.

Note 22: When “0” is specified, the warning indication will not be indicated.

Note 23: For North America and China, this setting is not available. Therefore, this setting cannot be selected on the terminal.

Note 24: IKE authentication is executed with “PSK” which has been assigned in [0.Config] - [4.Security] - [5.VPN Client] - [4.IKE Settings] - [3.PSK Setting].

Note 25: IKE authentication is executed with “RSA” which has been assigned in [0.Config] - [4.Security] - [7.Certificate] - [2.Select] - [2.VPN].

Note 26: For IKE version “V1”, the supported authentication mode is “PSK” only. Therefore, when “1. V1” is specified, be sure to specify “1. PSK” on “2. Authentication Mode”. When “2. RSA” is specified, a communication error occurs.

Note 27: The following table shows the supporting authentication mode and IKE version.

X: Available N: Not available

Authentication Mode	IKE Version	
	IKEv1	IKEv2
PSK	X	X
RSA	N	X

4.2.3.2 DT820 Configuration Menu List (FW 2.0.0.0)

This section lists the configuration menu used for DT820 (8-button (DESI-LESS)/6-button) configuration settings. DT820 columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

1. Setting

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
2. Headset Ring **Note 1**	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			
3. Ring Tone	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			-
2. Internal Call	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.			X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			-
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			

1. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key.	Automatic **Note 3**	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. Disable	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			–
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
3. Display	Sets display related data.	-	X	X
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 6**	X	X
1. Calendar Format	Specifies the calendar display format.			
0. Automatic	Sets Automatic for calendar display format.			
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.			
2. Type 2				
3. Type 3				
4. Type 4				
5. Type 5				
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 4**		
0. Automatic	Sets Automatic for time display.			
1. 12 hour Indication	Sets 12-hour display.			
2. 24 hour Indication	Sets 24-hour display.			
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 5**	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			
3. Screen Saver	Sets Screen Saver related data.	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X
1. Disable	Screen Saver is not used.			
2. Enable	Screen Saver is used.			
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X
4. Back Light	Switches ON/OFF the backlight on the terminal.	Enable **Note 2**	X	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			

1. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
5. Language	Selects the language on the time display and the setting menu.	Automatic **Note 6**	X	X
0. Automatic	Sets Automatic for language setting on the LCD.			
1. Japanese	Selected language is displayed on the LCD. The parameters of language are displayed as native language. For the details, refer to "4.2.2.22 Language".			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				
22. Korean				
23. Simplified Chinese **Note 7**				
24. Traditional Chinese **Note 7**				
6. Advanced	Sets other data for display.	Enable	X	X
1..Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.			
1.Disable	Disables Backlight Fade Control.			
2.Enable	Enables Backlight Fade Control.			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X

1. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	-
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 1: Do not go the handset off-hook when headset is used.

Note 2: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 3: A tone will be provided if Automatic has been set.

Note 4: 12-Hour Indication is applied when Automatic has been set.

Note 5: A setting for Enable is applied when Automatic has been set.

Note 6: A setting on the Telephony Server is applied when Automatic has been set.

Note 7: This language can be selected for FP95-113 V3 or later.

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. Network Settings	Sets network related data.	-	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X
1. Disable	DHCP is not used.			
2. Enable	DHCP is used.			
2. IP Address	Sets the terminal's IP address.	0.0.0.0	X	X
3. Default Gateway	Sets default router's IP address.	0.0.0.0	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X
5. DNS Address	Sets DNS server's IP address.	0.0.0.0	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X
1. Disable	VLAN is not used.			
2. Enable	VLAN is used.			
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X
5. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when "1. Autonego" is assigned in "1. Speed&Duplex".	Enable	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. PC Port Settings	Sets PC port.	-	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X
1. Disable	Port VLAN of PC port is not used.			
2. Enable	Port VLAN of PC port is used.			
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X
0. Automatic	Sets Automatic for PC port.			
1. Disable	PC port is not used.			
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X
1. Disable	Not forward EAPOL packet from PC port.			
2. Enable	Forwards EAPOL packet from PC port.			
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X
1. Disable	Not clear the authentication status.			
2. Enable	Clear the authentication status.			
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X
3. Type of Service	Sets ToS value.	-	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0		
2. SIP	Sets ToS value for SIP in Hex.	C0		
4.Self Port Settings	Sets each port for the terminal.	-	-	-
1.RTP Self Port	Sets RTP port for the terminal [1024-65520 (except 59986-60000)]. **Note 13**, **Note 14**	3462	X	X
2.SIP Self Port	Sets SIP port for the terminal [1024-65534]. **Note 14**	5060	X	X
5.LLDP Settings	Sets information related to LLDP.	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X
1. Disable	The terminal does not transmit/receive LLDP packets.			
2. Enable	The terminal transmits/receives LLDP packets.			

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X
1. Disable	The terminal does not perform data setting automatically when LLDP packets are received.			
2. Enable	The terminal performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until the terminal receives LLDP packets (1-60 seconds).	15	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X
5.Hold Multiplier **Note 15**	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after the terminal starts up (1-10 times).	3	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.			
2. Enable	Transparent Mode of LLDP packets is enabled.			
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 12**	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X
1. Disable	Both Spare and Backup IPs are disabled.			
2. Spare IP	Spare IP is enabled.			
3. Backup IP	Backup IP is enabled.			
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X
1. IP Address	Sets the terminal's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
2. Default Gateway	Sets default router's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0		
4. DNS Address	Sets DNS server's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X
7.TTL Settings	Setting for multicast TTL (Time To Live)	-	-	-
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	32	X	X
8.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable	X	X
1. Disable	Priority Queue is disabled.		X	X
2. Enable	Priority Queue is enabled.		X	X
2. SIP Settings	Sets SIP related data.	-	X	X
1. SIP User	Sets user data.	-	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X
2. Password	Sets password for digest authentication.	-	X	X
3. Extension Number **Note 11**	Not used.	-	N	N
4. Backup Logon **Note 11**	Not used.	-	N	N

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. Server Address&URI	Sets IP address or URI of SIP server. **Note 8**, **Note 9**	-	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	-	X	X
2. 2nd Server Address				
3. 3rd Server Address				
4. 4th Server Address				
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	-	X	X
2. 2nd Register Address				
3. 3rd Register Address				
4. 4th Register Address				
3. Access Mode	Sets access mode for SIP server.	Normal	X	X
1. Normal	Normal access			
2. Remote	Remote access			
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.			
2. 2nd Server Port				
3. 3rd Server Port				
4. 4th Server Port				
5. Registrar Destination	Sets port for registrar server [1024-65535].			
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.			
2. 2nd Register Port				
3. 3rd Register Port				
4. 4th Register Port				

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
5. Area ID	Sets the area (country) using the terminal.	Automatic	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.			
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.			
2. America (Canada and North America)				
3. Australia				
4. Others				
5. Hong Kong				
6. Malaysia				
7. Singapore				
8. Mexico				
9. Taiwan				
10. NewZealand				
11. Korea				
12. Brazil				
13. China				
14. Thailand				
15. Thailand (EGAT)				
16. Sri Lanka				
17. Germany				
18. Italy				
19. Netherlands				
20. Catalonia (Not used)				
21. Denmark				
22. Sweden				
23. Poland				
24. Czech				
25. Norway				
26. France				
27. Portugal				
28. Spain				
29. Austria				
30. Belgium				
31. UK				
32. Greece				
33. Switzerland				
34. South Africa				
35. Brazil (EMEA)				

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).			
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).			
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X
1. Disable	Calls in progress are not held even when the terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are held even when the terminal detects communication failure with the Telephony Server.			
3. Howler Tone	Not used.	-	N	N
7. Encryption	Sets encryption data.	Disable	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X
1. Disable	Authentication is not used.			
2. Enable	Authentication is used.			
2. One Time Password	Sets One Time Password.	-	X	X
3. Authentication Status	Displays authentication status.	-	X	X
8. NAT Traversal **Note 11**	Not used.	-	N	N
1.NAT Traverse Mode				
1.Disable				
2.Dynamic				
3.Static				
2.Network Area Name				
3.WAN Settings				
1.WAN Mate IP Address				
2.WAN SIP Mate Port				
3.WAN Self IP Address				
3. Maintenance Settings	Sets maintenance related data.	-	X	X
1. Download Menu	Downloads specified file to the terminal.	-	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X
1. Boot & Program	Downloads boot and program.	ityisipex.tgz	X	-
		ityisipe.tgz	-	X
2. Config	Downloads configuration file.	config.tgz	X	X
3. Voice File	Downloads voice file.	voice.tgz	X	-
4. Language Pack	Not used.	-	N	N
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
2. Hard Reset	Resets the terminal without data saving.	-	X	X
3. Data Clear	Initializes the terminal selecting the initialization mode.	-	X	X
1. Factory Value	Initializes the terminal to factory default.	-	X	X
2. Terminal Data	Clears terminal data on the terminal.	-	X	X
3. Personal Data	Clears personal data on the terminal.	-	X	X
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X
1. Default Audio	Sets audio data.	-	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7].	4	X	X
2. Send Gain	Sets sending gain of handset [0-31].	24	X	X
3. Receive Bias	Sets receiving bias of handset [0-7].	0	X	X
4. Receive Gain	Sets receiving gain of handset [0-31].	22	X	X
5. Talk Characteristics	Sets talk characteristics of handset.	-	X	X
1.Noise Suppression	Sets whether to enable the Noise Suppressor. (Set “1.Disable” in normal operation.)	Disable	X	X
2. Handsfree Mode	Sets whether to enable the Handsfree Mode	Retro mode		
6. DTMF Send Level	Sets DTMF Send Level [0-48]. (level 0 (maximum) ~ level 48 (minimum))	32		
2. EHS Headset	Selects whether to use Wireless Headset with EHS cable.	Disable	X	X
1. Disable	Wireless Headset with EHS cable is disabled.			
2. Enable	Wireless Headset with EHS cable is enabled.			
5. Auto config	Selects whether to use auto-config function.	Enable	X	X
1. Disable	Auto config is not used.			
2. Enable	Auto config is used.			

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6. Data Maintenance	Sets data maintenance related.	-	X	X
1. Backup	Executes data backup.	-	X	X
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz	X	X
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz	X	X
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz	X	X
2. Restore	Executes restoration.	-	X	X
1. All Data	Restores all the configuration setting and data.	AllData.tgz	X	X
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz	X	X
3. Personal Data	Restores personal setting and data.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
7. Simple Test **Note 10**	Changes the terminal to test mode.	-	X	X
1. Call Test	Starts call test.	-	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6. Speaker Test	Tests the speaker.	-	X	X
1. Japan	A dial tone for Japan is heard in maximum volume.	-	X	X
2. America	A dial tone for North America is heard in maximum volume.	-	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X
4. Security	Sets security related data.	-	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X
1. Disable	Web Programming is disabled.			
2. Enable	Web Programming is enabled.			
2. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X
3. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X
1. Supplicant	Sets whether to use supplicant on the terminal.	Disable	X	X
1. Disable	Supplicant is disabled on the terminal.			
2. Enable	Supplicant is enabled on the terminal.			
2. Account	Sets user ID for EAP-MD5.	-	X	X
3. Password	Sets password for EAP-MD5.	-	X	X
4. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X
1. Disable	VLAN tag is not added to EAP packet.			
2. Enable	VLAN tag is added to EAP packet.			
4 User Password	Setting for User Password.	-	X	X
1. Expiration Date	Sets the expiration of user password (0-90 days).	0	X	X
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1	X	X
5. Terminal Information	Displays terminal information.	-	X	X
Hardware Version	Displays hardware version of the terminal.	-	X	X
MAC Address	Displays MAC address of the terminal.	-	X	X
Firmware Version	Displays firmware version of the terminal.	-	X	X
6. Application Settings	Sets application data.	-	X	X
1. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 14**	3530	X	X
7. License Settings Note 16	Sets the data for various feature license. (For North America only)	-	X	X
1. License Server Settings	Sets IP address and server port for license setting.	-	X	X
1. Server Address	Sets IP address for license setting.	0.0.0.0		
2. Server Port	Sets server port for license setting [1024-65535]	6080		
2. License Request	Select whether to enable the license for Gigabit Ethernet feature and DESI-Less key.	-	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. Gigabit Ethernet	Selects whether to enable Gigabit Ethernet feature.	Disable	X	X
1. Disable	Gigabit Ethernet feature is not used.			
2. Enable	Gigabit Ethernet feature is used.			
2. Line Key	Sets the type of key number of DESI-Less terminal.	Disable	X	-
1. Disable	Sets to 8-button type DESI-Less terminal.			
2. Line 16	Sets to 16-button type DESI-Less terminal.			
3. Line 32	Sets to 32-button type DESI-Less terminal.			
4. Adjust	Adjust the prefix characters of license user ID.	-	X	X
1. License User Prefix	Sets the prefix characters of license user ID.			

Note 8: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where the terminal is registered.

Note 9: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 10: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 11: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 12: "-" is displayed in default settings.

Note 13: Odd numbered ports cannot be assigned.

Note 14: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

Note 15: LLDP time to live = LLDP packet transmission interval × the set value (65535 at most)

Note 16: Except for North America, this setting is not supported.

4.2.3.3 DT820 Configuration Menu List (FW 1.0.0.0)

This section lists the configuration menu used for DT820 (8-button (DESI-LESS)/6-button) configuration settings. DT820 columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

1. Setting

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
2. Headset Ring **Note 1**	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			
3. Ring Tone	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			-
2. Internal Call	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.			X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			-
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			

1. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key.	Automatic **Note 3**	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. Disable	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			–
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
3. Display	Sets display related data.	-	X	X
1. Calendar Format	Sets calendar display format and time display format.	Automatic **Note 6**	X	X
1. Calendar Format	Specifies the calendar display format.			
0. Automatic	Sets Automatic for calendar display format.			
1. Type 1	Sets Type 1 ~ Type 5 for calendar display format.			
2. Type 2				
3. Type 3				
4. Type 4				
5. Type 5				
2. Time Format	Switches 12-hour/24-hour display.	Automatic **Note 4**		
0. Automatic	Sets Automatic for time display.			
1. 12 hour Indication	Sets 12-hour display.			
2. 24 hour Indication	Sets 24-hour display.			
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 5**	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			
3. Screen Saver	Sets Screen Saver related data.	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X
1. Disable	Screen Saver is not used.			
2. Enable	Screen Saver is used.			
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X
4. Back Light	Switches ON/OFF the backlight on the terminal.	Enable **Note 2**	X	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			

1. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
5. Language	Selects the language on the time display and the setting menu.	Automatic **Note 6**	X	X
0. Automatic	Sets Automatic for language setting on the LCD.			
1. Japanese	Selected language is displayed on the LCD. The parameters of language are displayed as native language. For the details, refer to "4.2.2.22 Language".			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				
22. Korean				
6. Advanced	Sets other data for display.	Enable	X	X
1..Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.			
1.Disable	Disables Backlight Fade Control.			
2.Enable	Enables Backlight Fade Control.			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X

1. Setting (Continued)

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	-
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 1: Do not go the handset off-hook when headset is used.

Note 2: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 3: A tone will be provided if Automatic has been set.

Note 4: 12-Hour Indication is applied when Automatic has been set.

Note 5: A setting for Enable is applied when Automatic has been set.

Note 6: A setting on the Telephony Server is applied when Automatic has been set.

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. Network Settings	Sets network related data.	-	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X
1. Disable	DHCP is not used.			
2. Enable	DHCP is used.			
2. IP Address	Sets the terminal's IP address.	0.0.0.0	X	X
3. Default Gateway	Sets default router's IP address.	0.0.0.0	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X
5. DNS Address	Sets DNS server's IP address.	0.0.0.0	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X
1. Disable	VLAN is not used.			
2. Enable	VLAN is used.			
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X
5. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when "1. Autonego" is assigned in "1. Speed&Duplex".	Enable	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. PC Port Settings	Sets PC port.	-	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X
1. Disable	Port VLAN of PC port is not used.			
2. Enable	Port VLAN of PC port is used.			
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X
0. Automatic	Sets Automatic for PC port.			
1. Disable	PC port is not used.			
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X
1. Disable	Not forward EAPOL packet from PC port.			
2. Enable	Forwards EAPOL packet from PC port.			
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X
1. Disable	Not clear the authentication status.			
2. Enable	Clear the authentication status.			
8. Auto-MDI/MDIX	Selects whether to use Auto-MDIX. Auto-MDIX is available only when “1. Autonego” is assigned in “1. Speed&Duplex”.	Enable	X	X
3. Type of Service	Sets ToS value.	-	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0		
2. SIP	Sets ToS value for SIP in Hex.	C0		
4.Self Port Settings	Sets each port for the terminal.	-	-	-
1.RTP Self Port	Sets RTP port for the terminal [1024-65520 (except 59986-60000)]. **Note 12**, **Note 13**	3462	X	X
2.SIP Self Port	Sets SIP port for the terminal [1024-65534]. **Note 13**	5060	X	X
5.LLDP Settings	Sets information related to LLDP.	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X
1. Disable	The terminal does not transmit/receive LLDP packets.			
2. Enable	The terminal transmits/receives LLDP packets.			

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X
1. Disable	The terminal does not perform data setting automatically when LLDP packets are received.			
2. Enable	The terminal performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until the terminal receives LLDP packets (1-60 seconds).	15	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X
5.Hold Multiplier **Note 14**	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after the terminal starts up (1-10 times).	3	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.			
2. Enable	Transparent Mode of LLDP packets is enabled.			
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 11**	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X
1. Disable	Both Spare and Backup IPs are disabled.			
2. Spare IP	Spare IP is enabled.			
3. Backup IP	Backup IP is enabled.			
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X
1. IP Address	Sets the terminal's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
2. Default Gateway	Sets default router's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0		
4. DNS Address	Sets DNS server's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X
7.TTL Settings	Setting for multicast TTL (Time To Live)	-	-	-
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)	32	X	X
8.Priority Queue	Sets whether to enable Priority Queue of the internal switching HUB.	Disable	X	X
1. Disable	Priority Queue is disabled.		X	X
2. Enable	Priority Queue is enabled.		X	X
2. SIP Settings	Sets SIP related data.	-	X	X
1. SIP User	Sets user data.	-	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X
2. Password	Sets password for digest authentication.	-	X	X
3. Extension Number **Note 10**	Not used.	-	N	N
4. Backup Logon **Note 10**	Not used.	-	N	N

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
2. Server Address&URI	Sets IP address or URI of SIP server. **Note 7**, **Note 8**	-	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	-	X	X
2. 2nd Server Address				
3. 3rd Server Address				
4. 4th Server Address				
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	-	X	X
2. 2nd Register Address				
3. 3rd Register Address				
4. 4th Register Address				
3. Access Mode	Sets access mode for SIP server.	Normal	X	X
1. Normal	Normal access			
2. Remote	Remote access			
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.			
2. 2nd Server Port				
3. 3rd Server Port				
4. 4th Server Port				
5. Registrar Destination	Sets port for registrar server [1024-65535].			
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.			
2. 2nd Register Port				
3. 3rd Register Port				
4. 4th Register Port				

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
5. Area ID	Sets the area (country) using the terminal.	Automatic	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.			
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.			
2. America (Canada and North America)				
3. Australia				
4. Others				
5. Hong Kong				
6. Malaysia				
7. Singapore				
8. Mexico				
9. Taiwan				
10. NewZealand				
11. Korea				
12. Brazil				
13. China				
14. Thailand				
15. Thailand (EGAT)				
16. Sri Lanka				
17. Germany				
18. Italy				
19. Netherlands				
20. Catalonia (Not used)				
21. Denmark				
22. Sweden				
23. Poland				
24. Czech				
25. Norway				
26. France				
27. Portugal				
28. Spain				
29. Austria				
30. Belgium				
31. UK				
32. Greece				
33. Switzerland				
34. South Africa				
35. Brazil (EMEA)				

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).			
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).			
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X
1. Disable	Calls in progress are not held even when the terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are held even when the terminal detects communication failure with the Telephony Server.			
3. Howler Tone	Not used.	-	N	N
7. Encryption	Sets encryption data.	Disable	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X
1. Disable	Authentication is not used.			
2. Enable	Authentication is used.			
2. One Time Password	Sets One Time Password.	-	X	X
3. Authentication Status	Displays authentication status.	-	X	X
8. NAT Traversal **Note 10**	Not used.	-	N	N
1.NAT Traverse Mode				
1.Disable				
2.Dynamic				
3.Static				
2.Network Area Name				
3.WAN Settings				
1.WAN Mate IP Address				
2.WAN SIP Mate Port				
3.WAN Self IP Address				
3. Maintenance Settings	Sets maintenance related data.	-	X	X
1. Download Menu	Downloads specified file to the terminal.	-	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X
1. Boot & Program	Downloads boot and program.	ityisipex.tgz	X	-
		ityisipe.tgz	-	X
2. Config	Downloads configuration file.	config.tgz	X	X
3. Voice File	Downloads voice file.	voice.tgz	X	-
4. Language Pack	Not used.	-	N	N
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
2. Hard Reset	Resets the terminal without data saving.	-	X	X
3. Data Clear	Initializes the terminal selecting the initialization mode.	-	X	X
1. Factory Value	Initializes the terminal to factory default.	-	X	X
2. Terminal Data	Clears terminal data on the terminal.	-	X	X
3. Personal Data	Clears personal data on the terminal.	-	X	X
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X
1. Default Audio	Sets audio data.	-	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7].	4	X	X
2. Send Gain	Sets sending gain of handset [0-31].	24	X	X
3. Receive Bias	Sets receiving bias of handset [0-7].	0	X	X
4. Receive Gain	Sets receiving gain of handset [0-31].	22	X	X
5. Talk Characteristics	Sets talk characteristics of handset.	-	X	X
1.Noise Suppression	Sets whether to enable the Noise Suppressor. (Set “1.Disable” in normal operation.)	Disable	X	X
2. Handsfree Mode	Sets whether to enable the Handsfree Mode	Retro mode		
6. DTMF Send Level	Sets DTMF Send Level [0-48]. (level 0 (maximum) ~ level 48 (minimum))	32		
5. Auto config	Selects whether to use auto-config function.	Enable	X	X
1. Disable	Auto config is not used.			
2. Enable	Auto config is used.			
6. Data Maintenance	Sets data maintenance related.	-	X	X
1. Backup	Executes data backup.	-	X	X
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz	X	X
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz	X	X
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz	X	X
2. Restore	Executes restoration.	-	X	X
1. All Data	Restores all the configuration setting and data.	AllData.tgz	X	X
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz	X	X
3. Personal Data	Restores personal setting and data.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
7. Simple Test **Note 9**	Changes the terminal to test mode.	-	X	X
1. Call Test	Starts call test.	-	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X
6. Speaker Test	Tests the speaker.	-	X	X
1. Japan	A dial tone for Japan is heard in maximum volume.	-	X	X
2. America	A dial tone for North America is heard in maximum volume.	-	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X
4. Security	Sets security related data.	-	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X
1. Disable	Web Programming is disabled.			
2. Enable	Web Programming is enabled.			
2. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X
3. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X

0. Config

Parameter	Description	Default	8-Button (DESI-Less)	6-Button
1. Supplicant	Sets whether to use supplicant on the terminal.	Disable	X	X
1. Disable	Supplicant is disabled on the terminal.			
2. Enable	Supplicant is enabled on the terminal.			
2. Account	Sets user ID for EAP-MD5.	-	X	X
3. Password	Sets password for EAP-MD5.	-	X	X
4. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X
1. Disable	VLAN tag is not added to EAP packet.			
2. Enable	VLAN tag is added to EAP packet.			
4 User Password	Setting for User Password.	-	X	X
1. Expiration Date	Sets the expiration of user password (0-90 days).	0	X	X
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1	X	X
5. Terminal Information	Displays terminal information.	-	X	X
Hardware Version	Displays hardware version of the terminal.	-	X	X
MAC Address	Displays MAC address of the terminal.	-	X	X
Firmware Version	Displays firmware version of the terminal.	-	X	X
6. Application Settings	Sets application data.	-	X	X
1. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 13**	3530	X	X

Note 7: “SIP server” used here refers to the Telephony Server. The Telephony Server acts as SIP server where the terminal is registered.

Note 8: For IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

Note 9: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 10: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 11: “-” is displayed in default settings.

Note 12: Odd numbered ports cannot be assigned.

Note 13: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

Note 14: LLDP time to live = LLDP packet transmission interval × the set value (65535 at most)

4.2.4 Error Messages

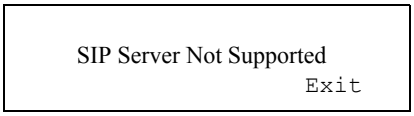
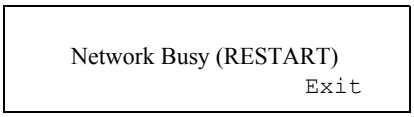
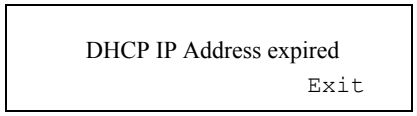
The following messages might be displayed when an error occurs during DT820 setup.

Note: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server where DT820 terminal is registered.

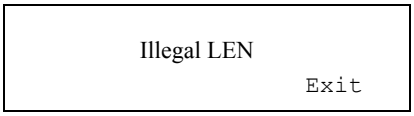
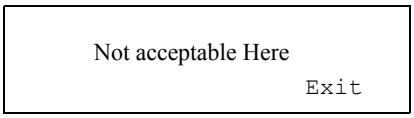
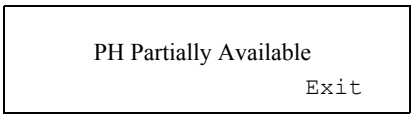
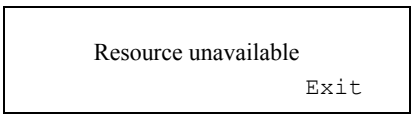
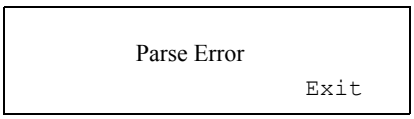
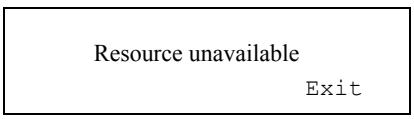
Error Messages on DT820 (Setup) (1 of 3)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
Licensed Number of Terminals is exceeded. Capability Exceeded Exit	The number of registered terminals exceeds the number of registration allowed (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Add the licenses to be required.
Config Data Error Config Data Error Exit	There is an error to the data setting.	• If it is failed again, contact the maintenance person.
Parameter is abnormal Parameter Missing Exit	In spite of "DHCP Disable," the IP address of the terminal has not been assigned. Or, there is a defect to the setting of DT820. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Correct the data assignment. • Check the data assignment on "config" display, saving the data again. • If the error still remains, the flash ROM may be faulty.
DHCP server cannot be found. DHCP Server Not Found Exit	No answer from the DHCP server, after sending a request from the DT820. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Connect a DHCP server to the same network. • Check that a DHCP server and the DT820 are connected to the network. • Check that a DHCP server is operating normally. • Check that the network equipment is connected correctly. • When the DT820 is not used, set the parameter to "DHCP Disable".
DHCP Lease Parameter Error DHCP Lease Parameter Error Exit	Not operable because of a discrepancy in the optional information acquired from DHCP.	• If it is failed again, contact the maintenance person.

Error Messages on DT820 (Setup) (2 of 3)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
SIP server cannot be found. 	No answer from the SIP server, after sending a request from the DT820. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.) DNS server cannot be connected, or name solution is failed if FQDN is designated to SIP server address.	• Connect a SIP server to the same network. • Check that a SIP server and the DT820 are connected to the network. • Check that a SIP server is operating normally. • Check the SIP server address again. **Note 1** • When the DT820 is not used, set the parameter to “DHCP Disable”.
SIP server cannot be supported. 	SIP server does not support operation by the connected equipment.	• Connect a DT820 that is supported by the SIP server.
DT820 cannot communicate due to network failure. 	Time-out of response for a request. (DT820 will be reset after the left error message is displayed for thirty seconds.)	• Check the network status and connection status, and the physical connection such as cable connection. • Check that DT820 is connected to the network. • Check that IP address is not overlapped. • Check that the network equipment is connected correctly. • Check that the network traffic is not too high. • Check that the Duplex is set for the LAN equipment on the network correctly. • Check that the Duplex of SW port connected to DT820 is set to Auto. • Check that the station number is not overlapped.
DHCP IP address is expired. 	Though DHCP attempted to renew a lease for the IP address, the server didn’t send back the response. (The DHCP address is expired.)	• The DHCP server setting and cable connection. • Check that the DHCP server function is operating normally.
Config Login is failed. 	The invalid password is entered to enter into the configuration menu.	• Enter the valid password.
Download is failed. 	The download failed.	• If it is failed again, contact the maintenance person.

Error Messages on DT820 (Setup) (3 of 3)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
Illegal Line Equipment Number 	After sending "initial setup request" from the terminal to DRS, "Illegal Line Equipment Number" was received. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Change or adjust the LENS of the terminal at the system. • Confirm the office data setting.
SP-PHD is not available 	After sending "initial setup request" from the terminal to DRS, "Not acceptable Here" was received. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Investigate the reason why SP-PHD is not available. • Confirm the office data setting. • Restart the system.
Registration Module Cannot Recognize Equipment Type 	Registration Module cannot recognize the equipment type message received from the terminal. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Restart the system.
PH cannot partially be used 	After sending "initial setup request" from the terminal to DRS, "PH Partially Available" was received. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Investigate the reason why SP-PHD is not available. • Confirm the office data setting.
DRS resource not available 	Registration cannot be performed because Telephony Server's resources are not available. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Confirm the office data setting. • Restart the system. • Please contact the system maintenance personnel for further information.
Telephony Server Internal Process Error 	An error concerning the internal process of Telephony Server has occurred. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Confirm the office data setting. • Restart the system. • Please contact the system maintenance personnel for further information.
Unrecognized Error Information Received 	After sending "initial setup request" from the terminal to DRS, unrecognized error information for the terminal was received. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Confirm the office data setting. • Restart the system. • Please contact the system maintenance personnel for further information.

Note 1: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

The following messages may be displayed in DT820 operation.

Error Messages on DT820 (Others)

ERROR MESSAGES	EXAMPLE	ACTION
Desired station number duplicates already registered one. Override? Yes No	When "Yes" is selected, the DT820 connected later is starting to operate, and the DT820 connected earlier will be unavailable and restart. When "No" is selected, change the station number set for the DT820 and restart it.	If the left message is displayed continuously: • Select "Yes" to override and "No" not to override. • Check the office data related to the DT820 again.

4.3 DT700 Series

4.3.1 How to Start Configuration Setting of Terminal

This section explains the configuration setup for DT700 Series. The following types of configuration setting are provided for DT700 Series:

[1] Configuration Setup on Terminal

Configuration data can be assigned by terminal operation. Each terminal can assign various configuration data by key operation. Press the "Menu" button and start up the configuration menu on the LCD. For details, see 4.3.2 Configuration Data Setting Procedure.

Note: Configuration setup is not supported on terminals without LCD.

[2] Configuration Setup by Web Programming

By using Web Programming application, various settings for the terminal is possible from the maintenance console. Web Programming supports both types of terminal; with LCD and without LCD. For details, see 4.3.2 Configuration Data Setting Procedure.

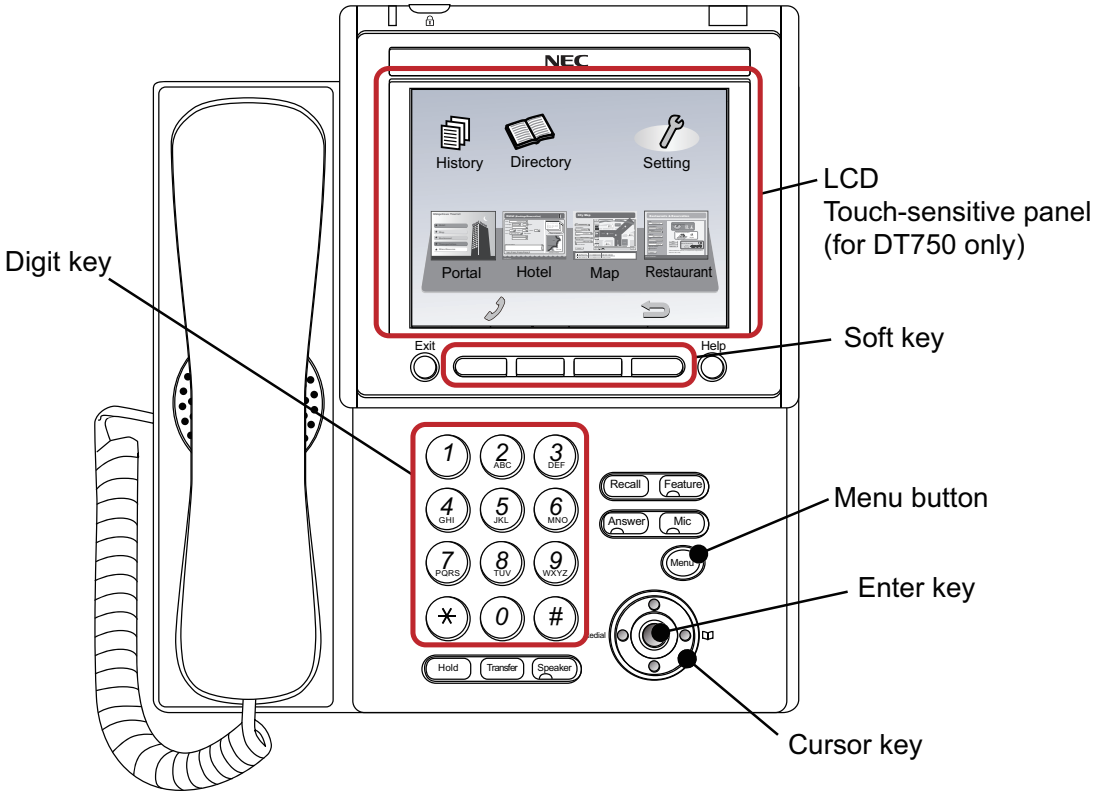
** This section describes the configuration settings related to the Telephony Server.*

** For some menus and parameters, this section describes "Not used" on the example LCD and the configuration menu list table to show they cannot be used. (These menus and parameters are displayed on the LCD of DT700 Series though, they cannot be used in this version.)*

4.3.1.1 Configuration Setup on Terminal

This section explains the operation procedure to start configuration settings on terminal.

DT700 Series Overview



Note: DT750 (Color LCD) is used as an example.

<Startup Procedure>

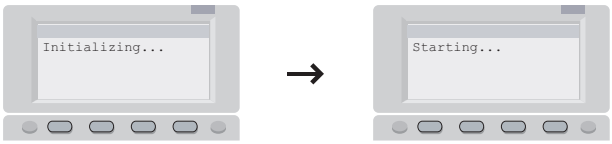
This section explains the procedure from turning ON the power to getting [Menu] and [Config] menus on the LCD.

[1] Power On

STEP 1: Power ON

Plug in the LAN cable to the LAN port.
(Connect optional AC/DC adapter to DC24V jack, if required.)

STEP 2: The following will be displayed on the LCD shortly after turning the power on.



Note: If configuration data is already assigned to the terminal, the display may differ from the above.

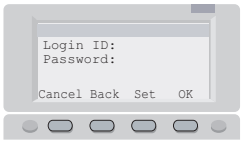
STEP 3: Shortly after the above is displayed, the following will be displayed on the LCD.



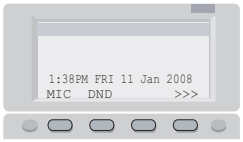
Login mode → **Go to STEP 4**

MAC authentication mode → **Go to STEP 5**

STEP 4: For login mode, the LCD displays login screen. Enter Login ID and Password, and then press the software key for "OK."



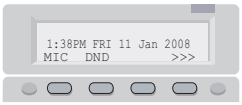
STEP 5: After a while, LCD displays date and time.



DT730 (Standard LCD)
Without Home URL (**Note 3**, **Note 4**)



DT730 (Standard LCD)
With Home URL (**Note 1**)



DT710 (2-line LCD)

Example of XML application window



DT750 (Color LCD)
Without Home URL



DT750 (Color LCD)
With Home URL (**Note 2**)

Note 1: The Home URL can be displayed from [0.Config] - [6.Application Settings] - [1.XML Settings] - [2.XML Browser] - [1.Home URL]. For details, refer to Confugration Menu List.
(DT730 : Available for firmware issue 5.0.0.0 or later.)
(DT730G : Available for firmware issue 1.0.0.0 or later.)

Note 2: The Home URL can be displayed from [0.Config] - [6.Application Settings] - [1.XML Settings] - [2.XML Browser] - [1.Home URL]. For details, refer to Confugration Menu List.
(Available only for firmware issue 2.0.0.0 or later.)

END

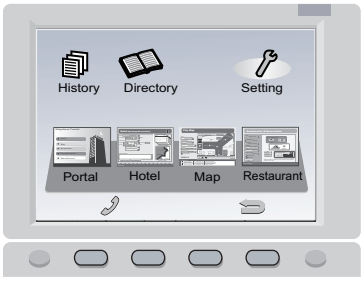
Note 3: When you select [Setting]→[Display] → [Time Format] → [Automatic] from the configuration menu, a time display pattern can be changed by by the system data (ASYDL System Data 1, Index1249).

Note 4: When the time display pattern is changed, restart the terminal.

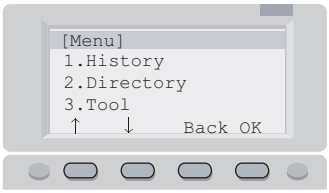
[2] User Menu: [Menu]

While the LCD displays date and time (STEP 5 on the previous page), press the "Menu" key (**Note 1**) on the terminal to open [Menu] screen for user's menu.

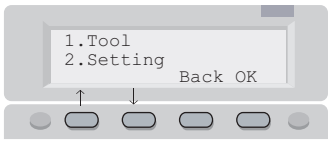
User Menu



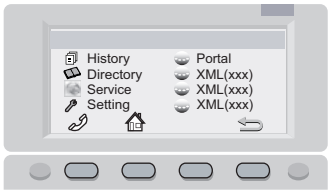
DT750 (Color LCD)



DT730 (Standard LCD)
Firmware version 4.0.0.0 or earlier



DT710 (2-line LCD)



DT730 (Standard LCD) **Note 2**
Firmware version 5.0.0.0 or later
DT730G (Standard LCD) **Note 2**
Firmware version 1.0.0.0 or later

Note 1: On 6-button type of DT710, menu screen cannot be displayed if you press "Menu" key.

Note 2: "Portal" is displayed as follows depending on the Home URL setting.

- When Home URL is not registered, this menu name is displayed as "Phone". Then, phone icon is not displayed.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. As an example, application name is displayed as "Portal" in this manual.

[3] Administrator Menu: [Config]

The LCD can be switched to [Config] for administrator's menu either before login or after login.

(a) Switch to [Config] menu before login

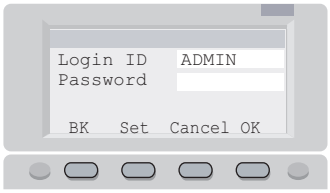
STEP 1: While the LCD indicating "Connecting..." after turning on the power (STEP 3 on the previous page), press the "Menu" + "0" keys or "Hold"→"Transfer"→ "*"→ "#".
For ACD terminals with Key Pads, press "Release"→"Hold"→ "*"→ "#".



Terminals with Menu button: "Menu"+"0"
Terminals without Menu button: "Hold"→"Transfer"→ "*" →"#"
ACD terminals with Key Pads: "Release"→"Hold"→ "*" →"#"

Note: For details of Key Pads for ACD terminals, refer to manuals attached to Key Pads.

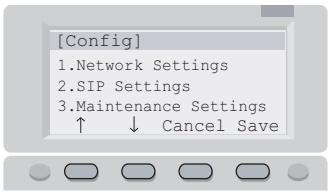
STEP 2: The LCD displays password entry screen. Enter User Name and Password, and then press the software key for "OK."



Note: Default value
Login ID: ADMIN
Password: 6633222

*Be sure to change the default password.
See 4.3.2.22 Password Change.

STEP 3: After a while, [Config] menu is displayed.



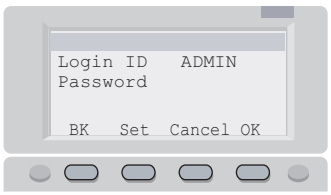
END

(b) Switch to [Config] menu after login

STEP 1: On [Menu] screen, select the following menu for each terminal type.

DT750 (Color LCD): "0" key
DT730 (Standard LCD): "0" key
DT710 (2-line LCD): "0. Config"

STEP 2: The LCD displays password entry screen for administrator's menu.

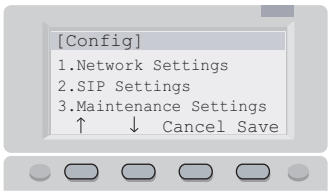


1. Enter User Name, and press the software key for "SET."
2. Enter Password, and press the software key for "OK."

Note: Default value
User Name: ADMIN
Password: 6633222

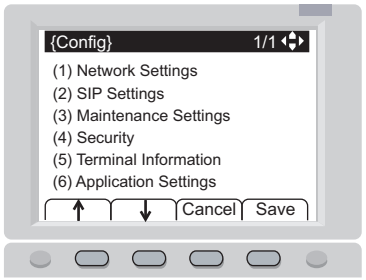
*Be sure to change the default password. See 4.3.2.22 Password Change.

STEP 3: After a while, [Config] menu is displayed.

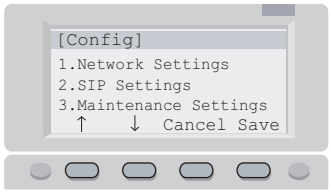


END

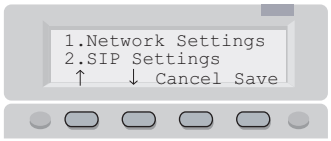
Administrator Menu



DT750 (Color LCD)



DT730 (Standard LCD)



DT710 (2-line LCD)

Note: To exit [Config] menu, press the software key for “Cancel” or “Save.” When you exit [Config] menu, the terminal restarts and returns to “Initializing...” display (STEP 2 in [1] Power On).

Note: Refer to 4.3.4 Error Messages or 4.3.3.2 Configuration Menu List (Not Earlier Than FW 2.0.0.0 but Earlier Than FW 5.0.0.0) for all the parameters on the configuration menu.

<Operations>

Follow the operations below to select the menu/parameter and to go forward/back the screen.

- Digit key

  Pressing the digit key corresponding to the menu number moves on to the next screen.

  Note: For DT750 (equipped with firmware version 4.0.0.0 or later), and DT730G (12/24CG), you can only use the digit key "0" to open Config menu on the menu window.

- Cursor key

  Press the cursor key to select the target menu/parameter on the list. Then press the ENTER key or the software key for "OK" to move on to the next screen.

- UP ↑ and DOWN ↓ on Software key

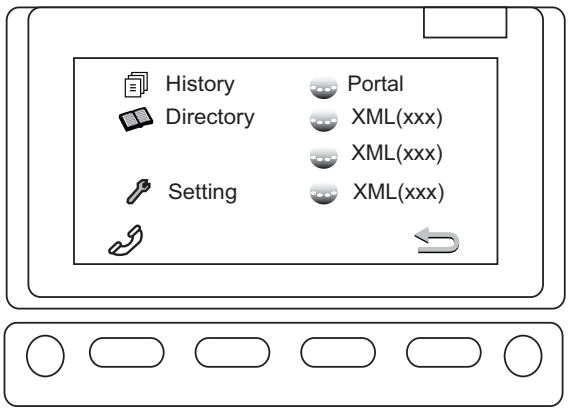
  Press the software key for "↑" and "↓" to select the target menu/parameter on the list. Then press the ENTER key or the software key for "OK" to move on to the next screen.

- Touch-sensitive panel

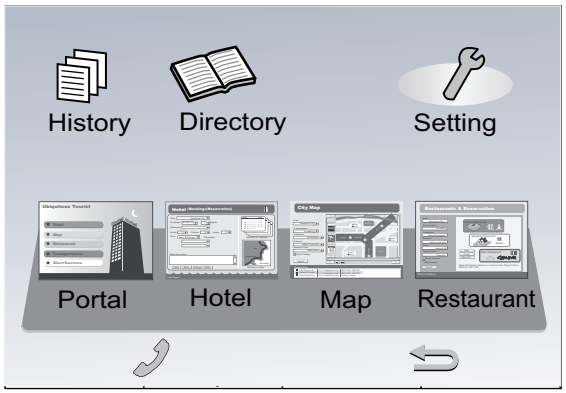
  Touch the target menu to move on to the next screen.

  Note: For DT750 only.

DT730, DT730G (12/24DG) <Standard LCD>



DT750, DT730G (12/24CG) <Color LCD>



[How to Enter Characters on Configuration Menu]

By key operation, users can input alphanumeric characters and symbols on the LCD for such as user ID and password entry. See the tables below for available characters and symbols.

Pressing the "*" key switches the character table in the order of Bg (uppercase) → Sm (lowercase) → Num (numbers).

FW 3.0.0.0 or Later (For DT730G, FW 1.0.0.0 or Later)

(a) English: Bg (Upper case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	\	1	?	!	@	:	;						
2	A	B	C	2											
3	D	E	F	3											
4	G	H	I	4											
5	J	K	L	5											
6	M	N	O	6											
7	P	Q	R	S	7										
8	T	U	V	8											
9	W	X	Y	Z	9										
0	(space)	0													
#	*	#	.	/	:	~	!	@	$	%	^	&	(	)	'
	Six teen	Seven teen	Eigh teen	Nine teen	Twenty	Twenty one	Twenty two	Twenty three	Twenty four	Twenty five	Twenty six	Twenty seven	Twenty eight	Twenty nine	Thirty
1										;					
2															
3															
4															
5															
6															
7															
8															
9															
0															
#	?	_	+	−	=	[	]	{	}	<	>	,	;	\	

(b) English: Sm (Lower case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	\	1	?	!	@	:	;						
2	a	b	c	2											
3	d	e	f	3											
4	g	h	i	4											
5	j	k	l	5											
6	m	n	o	6											
7	p	q	r	s	7										
8	t	u	v	8											
9	w	x	y	z	9										
0	(space)	0													
#	*	#	.	/	:	~	!	@	$	%	^	&	(	)	'
	Six teen	Seven teen	Eigh teen	Nine teen	Twenty	Twenty one	Twenty two	Twenty three	Twenty four	Twenty five	Twenty six	Twenty seven	Twenty eight	Twenty nine	Thirty
1										;					
2															
3															
4															
5															
6															
7															
8															
9															
0															
#	?	_	+	-	=	[	]	{	}	<	>	,	;	\	

(c) Turkish: Bg (Upper case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen	Six teen	Seven teen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡		
2	A	B	C	Ç													
3	D	E	F														
4	G	Ğ	H	I	İ												
5	J	K	L														
6	M	N	O	Ö													
7	P	R	S	Ş													
8	T	U	Ü	V													
9	Y	Z															
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(d) Turkish: Sm (Lower case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen	Six teen	Seven teen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡		
2	a	b	c	ç													
3	d	e	f														
4	g	ğ	h	ı	i												
5	j	k	l														
6	m	n	o	ö													
7	p	r	s	ş													
8	t	u	ü	v													
9	y	z															
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(e) Russian: Bg (Upper case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡		
2	А	Б	В	Г													
3	Д	Е	Ё	Ж	З												
4	И	Й	К	Л													
5	М	Н	О	П													
6	Р	С	Т	У													
7	Ф	Х	Ц	Ч													
8	Ш	Щ	Ъ	Ы	Ь												
9	Э	Ю	Я														
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(f) Russian: Sm (Lower case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡		
2	а	б	в	г													
3	д	е	ё	ж	з												
4	и	й	к	л													
5	м	н	о	п													
6	р	с	т	у													
7	ф	х	ц	ч													
8	ш	щ	ъ	ы	ь												
9	э	ю	я														
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(g) Others (EMEA): Bg (Upper case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	–	%	&	/	(	)	=	¿	¡		
2	A	B	C	À	Á	Â	Ã	Ä	Å	Æ	Ç						
3	D	E	F	È	É	Ê	Ë										
4	G	H	I	Ì	Í	Î	Ï										
5	J	K	L														
6	M	N	O	Ñ	Ò	Ó	Ô	Õ	Ö	Œ	Ø						
7	P	Q	R	S	ß												
8	T	U	V	Ù	Ú	Û	Ü										
9	W	X	Y	Z													
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

(h) Others (EMEA): Sm (Lower case)

Key	Number of Time(s) to Press the Keys																
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen	Sixteen	Seventeen
1	.	,	:	!	?	+	–	%	&	/	(	)	=	¿	¡		
2	a	b	c	à	á	â	ã	ä	å	æ	ç						
3	d	e	f	è	é	ê	ë										
4	g	h	i	ì	í	î	ï										
5	j	k	l														
6	m	n	o	ñ	ò	ó	ô	õ	ö	œ	ø						
7	p	q	r	s	ß												
8	t	u	v	ù	ú	û	ü										
9	w	x	y	z													
0	(space)																
#	*	#	~	@	$	^	'	_	[	]	{	}	<	>	;	\	

FW 2.2.X.X or Earlier (Except for DT730G)

(a) English: Bg (Upper case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Eif teen
1	.	,	\	1	?	!	"	@	:	;					
2	A	B	C	2											
3	D	E	F	3											
4	G	H	I	4											
5	J	K	L	5											
6	M	N	O	6											
7	P	Q	R	S	7										
8	T	U	V	8											
9	W	X	Y	Z	9										
0	(space)	0													
#	*	#	.	/	:	~	!	@	$	%	^	&	(	)	'

	Six teen	Seven teen	Eigh teen	Nine teen	Twenty	Twenty one	Twenty two	Twenty three	Twenty four	Twenty five	Twenty six	Twenty seven	Twenty eight	Twenty nine	Thirty
1										;					
2															
3															
4															
5															
6															
7															
8															
9															
0															
#	?	"	_	+	−	=	[	]	{	}	<	>	,	;	\

(b) English: Sm (Lower case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	\	1	?	!	"	@	:	;					
2	a	b	c	2											
3	d	e	f	3											
4	g	h	i	4											
5	j	k	l	5											
6	m	n	o	6											
7	p	q	r	s	7										
8	t	u	v	8											
9	w	x	y	z	9										
0	(space)	0													
#	*	#	.	/	:	~	!	@	$	%	^	&	(	)	'
	Six teen	Seven teen	Eigh teen	Nine teen	Twenty	Twenty one	Twenty two	Twenty three	Twenty four	Twenty five	Twenty six	Twenty seven	Twenty eight	Twenty nine	Thirty
1										;					
2															
3															
4															
5															
6															
7															
8															
9															
0															
#	?	"	_	+	-	=	[	]	{	}	<	>	,	;	\

(c) Turkish: Bg (Upper case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡
2	A	B	C	Ç											
3	D	E	F												
4	G	Ğ	H	I	İ										
5	J	K	L												
6	M	N	O	Ö											
7	P	R	S	Ş											
8	T	U	Ü	V											
9	Y	Z													
0	(space)														
#	#													.	

(d) Turkish: Sm (Lower case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡
2	a	b	c	ç											
3	d	e	f												
4	g	ğ	h	ı	i										
5	j	k	l												
6	m	n	o	ö											
7	p	r	s	ş											
8	t	u	ü	v											
9	y	z													
0	(space)														
#	#														

(e) Russian: Bg (Upper case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡
2	А	Б	В	Г											
3	Д	Е	Ё	Ж	З										
4	И	Й	К	Л											
5	М	Н	О	П											
6	Р	С	Т	У											
7	Ф	Х	Ц	Ч											
8	Ш	Щ	Ъ	Ы	Ь										
9	Э	Ю	Я												
0	(space)														
#	#														

(f) Russian: Sm (Lower case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thirteen	Fourteen	Fifteen
1	.	,	:	!	?	+	-	%	&	/	(	)	=	¿	¡
2	а	б	в	г											
3	д	е	ё	ж	з										
4	и	й	к	л											
5	м	н	о	п											
6	р	с	т	у											
7	ф	х	ц	ч											
8	ш	щ	ъ	ы	ь										
9	э	ю	я	э											
0	(space)														
#	#														

(g) Others (EMEA): Bg (Upper case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	:	!	?	+	–	%	&	/	(	)	=	¿	¡
2	A	B	C	À	Á	Â	Ã	Ä	Å	Æ	Ç				
3	D	E	F	È	É	Ê	Ë								
4	G	H	I	Ì	Í	Î	Ï								
5	J	K	L												
6	M	N	O	Ñ	Ò	Ó	Ô	Õ	Ö	Œ	Ø				
7	P	Q	R	S	ß										
8	T	U	V	Ù	Ú	Û	Ü								
9	W	X	Y	Z											
0	(space)														
#	#														

(h) Others (EMEA): Sm (Lower case)

Key	Number of Time(s) to Press the Keys														
	Once	Twice	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Eleven	Twelve	Thir teen	Four teen	Fif teen
1	.	,	:	!	?	+	–	%	&	/	(	)	=	¿	¡
2	a	b	c	à	á	â	ã	ä	å	æ	ç				
3	d	e	f	è	é	ê	ë								
4	g	h	i	ì	í	î	ï								
5	j	k	l												
6	m	n	o	ñ	ò	ó	ô	õ	ö	œ	ø				
7	p	q	r	s	ß										
8	t	u	v	ù	ú	û	ü								
9	w	x	y	z											
0	(space)														
#	#														

[Function menu on Software key]

See the table below for the function menus allocated for the software keys in configuration settings.

SOFTWARE KEY DISPLAY	FEATURE
Common for all the menus	
↑	Scroll the focused line (highlighted line) up
↓	Scroll the focused line (highlighted line) down
OK	Confirm the entered/selected menu and move on to the next hierarchy
Back	Return to one menu hierarchy up without confirming the setting
Exec	Execute the setting with the entered/selected value
BK	Delete the entered character
Set	Move on to the next setting
Call History/Phonebook related	
Detail	Display detailed data
Option	Display optional menu
Call	Originate a call to the displayed number
Prev	Return to the previous setting
Next	Move on to the next setting
[Config] for administrator's menu	
Save	Save the settings
Exit	Return to one menu hierarchy up
Cancel	Return to one menu hierarchy up without confirming the entered/selected value
IP/URI	Switch FQDN and IP address entry
Online Monitoring related	
Retry	Return to Ping menu

[Parameters on Configuration Menu]

See 4.3.4 Error Messages or 4.3.3.2 Configuration Menu List (Not Earlier Than FW 2.0.0.0 but Earlier Than FW 5.0.0.0) for the menu list.

User Menu

1. History (Earlier than FW 2.0.0.0)
2. Directory (Earlier than FW 2.0.0.0)
3. Tool (Earlier than FW 2.0.0.0)
5. Setting (Earlier than FW 2.0.0.0)

Administrator Menu

0. Config (Earlier than FW 2.0.0.0)

4.3.1.2 Configuration Setup by Web Programming

Web Programming is an application for assigning the terminal configuration data via maintenance console using Web browser. This section explains how to start and operate Web Programming.

<Startup Procedure>

STEP 1: Open Web browser on the maintenance PC and enter the IP address of the target terminal.

Note: Make sure that "4. Security Settings" → "1. Web Programming" → "2. Enable" is set on the [Config] menu of the terminal.

STEP 2: Login window for Web Programming is displayed. Enter the User ID and the password.
"ADMIN" and "6633222" are set as the default value for User ID and password respectively. Be sure to change the default password.

Note: For details, see 4.3.2.22 Password Change.

<Operations>

STEP 1: Setting menu is listed on the left field of the window. Select the target setting menu.

Note: The message waiting lamp of Cradle Phone blinks in yellow while logging in to Web Programming.

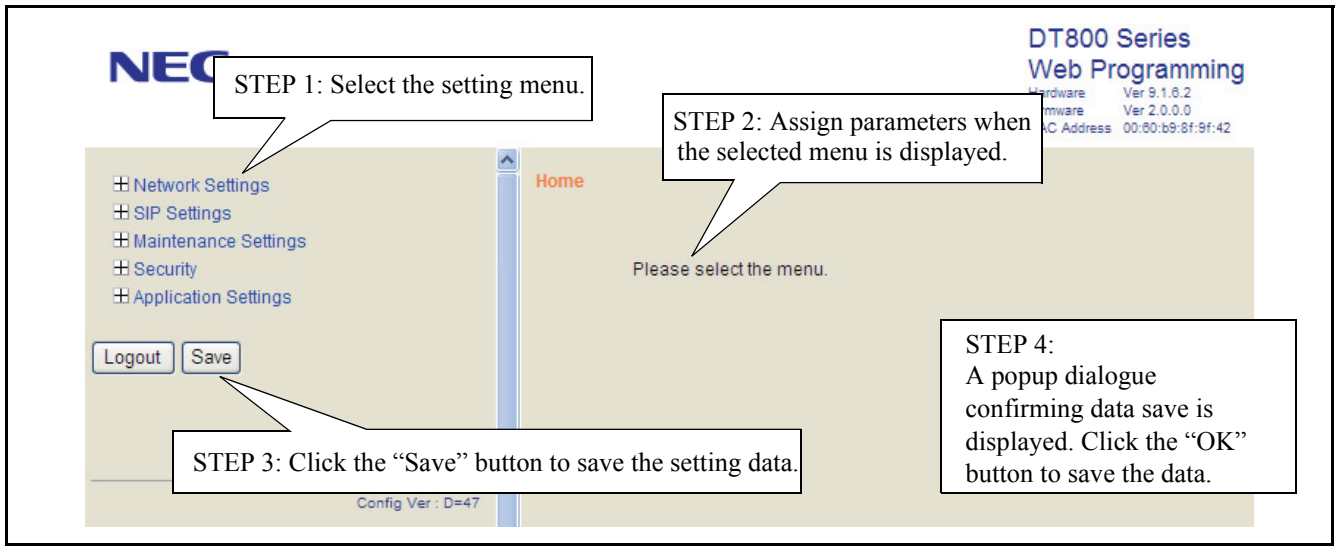
STEP 2: Setting parameters are displayed on the right frame of the window. Enter the parameters and then click the **OK** button.

STEP 3: After assigning all the menus, click the **Save** button on the bottom left of the window to save the assigned data.

STEP 4: A popup dialogue confirming data save is displayed. Click the "OK" button to save the data.
The terminal is rebooted when "OK" button is clicked.

Note: A popup dialogue confirming data save or rebooting the terminal is displayed when "Logout" button is clicked during the terminal's login state.

Note: The terminal name, hardware version, and firmware version displayed on the upper right corner of the screen may differ depending on the terminal model used.



4.3.2 Configuration Data Setting Procedure

This section explains the setting procedure of each configuration menu. The explanation covers the procedure for [1] Configuration Setting on Terminal and [2] Configuration Setting by Web Programming.

LCD varies depending on the terminal type and the setting condition. The explanation for the configuration setting procedure in the following sections goes with Standard LCD of DT730/DT730G and digit key operation.

<table>
<tr><th></th><th>DT750
(Color LCD)</th><th>DT730G
(Color LCD)</th><th>DT730/
DT730G
(Standard
LCD)</th><th colspan="2">DT710</th><th>DT770G</th></tr>
<tr><th></th><th></th><th></th><th></th><th>w/ LCD
(2-line LCD)</th><th>w/o LCD</th><th></th></tr>
<tr><td>Maximum number of lines displayed on LCD</td><td>8 lines Note 1</td><td>6 lines Note 1</td><td>3 lines Note 1</td><td>2 lines</td><td rowspan="5">-
Note 2</td><td rowspan="5">-
Note 2</td></tr>
<tr><td rowspan="4">Operation</td><td colspan="4">Digit key</td></tr>
<tr><td colspan="4">Cursor key</td></tr>
<tr><td colspan="4">Software key for “↑” and “↓”</td></tr>
<tr><td>Touch-sensitive panel (DT750 only)</td><td colspan="3">-</td></tr>
</table>

Note 1: The maximum number of lines means the available number on condition that default value is applied to font size setting.

Note 2: DT710 without LCD/DT770G does not support [1] Configuration Setting on Terminal, therefore, you need to set up DHCP server for the terminal to acquire an IP address before configuring the terminal. And then, specify the terminal setting, referring to [2] Configuration Setting by Web Programming.

Note: Refer to the operation manual of each terminal for the setting procedure using cursor key and software key.

4.3.2.1 IP Address of DT700 Series and SIP Server

This menu assigns the IP address of terminal (only for without DHCP configuration) and the IP address (or FQDN) of SIP server. **Note 3**
Assignment procedure depends on the system configuration. Select from the following three methods (**Note 4**) for configuration assignment.

Note: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server where DT700 Series are registered.

Note 3: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 4: As for DT710 without LCD/DT770G, you have to follow the procedure of TYPE 1 or TYPE 2 using Web Programming.

TYPE 1: With DHCP Server (SIP Server's IP Address is Pre-assigned by DHCP Server)

DHCP server is connected to the network. DT700 Series terminal starts up and operates by obtaining own IP address and subnet mask, IP address (or FQDN) of SIP server, and router (default gateway) address via the DHCP server.
IP address assignment is not required on the configuration setting of DT700 Series since SIP server's IP address (or FQDN) is obtained via the DHCP server.

TYPE 2: With DHCP Server (SIP Server's IP Address is Not Assigned by DHCP Server)

DHCP server is connected to the network. DT700 Series terminal starts up and operates by obtaining own IP address, subnet mask, and router (default gateway) address via the DHCP server.
SIP server's IP address (or FQDN) is the only item necessary to be assigned on the configuration setting of DT700 Series.

TYPE 3: Without DHCP Server

DHCP is in either of the following status; 1) DHCP server is not connected to the network or 2) the system is activated in a way that does not use the DHCP server.
It is necessary to assign the below in the DT700 Series' configuration setting:

- DT700 Series terminal's IP address and subnet mask
- SIP server's IP address (or FQDN)
- Router (default gateway) address

[Setting Procedure]

STEP 1:Start up DT700 Series

Turn on the power via PoE feeding or optional AC adapter.

STEP 2: Initialize data

(a) For DT700 Series other than DT710 without LCD

1. On the administrator's menu [Config], select "3. Maintenance Settings."
2. On [Maintenance] menu, select "3. Data Clear."
3. On [Data Clear] menu, select "1. Factory Value."
4. On [Factory Value] menu, press the software key "OK."

(b) For DT710 without LCD

1. On the terminal, press the following buttons in order: Hold, Transfer, *, *.
2. Make sure that Line Key 1 and 2 are lit green (meaning Factory Value setting mode).
3. Dial "331#".
4. Make sure that Line Key 2 begins flashing.
5. Press Line Key 1.
6. Make sure that Line Key 1 and 2 are lit red (meaning restoring factory defaults).
7. Make sure that Message Waiting Lamp is lit green (if red, some problem occurs).
8. Press Line Key 1 to reboot.
9. Make sure that Line Key 1, 2 and Message Waiting Lamp turn off.

(c) For DT770G without LCD

1. On the terminal, press the following buttons in order: "Mic", "Up", "Mic", "Connect", "Path".
2. Make sure that Line Key 1 and 2 are lit green (meaning Factory Value setting mode).
3. Press "Speaker".
4. Press "Mic".
5. Make sure that Message Waiting Lamp is lit green.
6. Press Line Key 1 (the terminal starts the data initialization).
7. Make sure that Message Waiting Lamp is lit alternately with green and red.
8. Press Line Key 1 to reboot.
9. Make sure that Line Key 1, 2 and Message Waiting Lamp turn off.

STEP 3: Assign configuration data on [Network Settings] menu

Depending on the system configuration, assign the following network data.

Type 1: With DHCP Server (SIP Server's IP Address is Pre-assigned by DHCP Server)

- Set DHCP to "Enable."
- When necessary, assign IP address for DNS server.

Type 2: With DHCP Server (SIP Server's IP Address is Not Assigned by DHCP Server)

- Set DHCP to "Enable."
- Assign IP address (or FQDN) for the primary SIP server.
- Assign IP address for second, third, fourth SIP server. (Perform this assignment only when backup SIP server is prepared in the network.)
- When necessary, assign IP address for DNS server.

Type 3: Without DHCP Server

- Set DHCP to "Disable."
- Assign IP address (or FQDN) for the primary SIP server.
- Assign IP address for second, third, fourth SIP server. (Perform this assignment only when backup SIP server is prepared in the network.)
- When necessary, assign IP address for DNS server.
- Assign IP address for DT700 Series terminal.
- Assign the Default Gateway address.
- Assign Subnet Mask.

STEP 4: Save settings

On [Config] screen, press the software key "Save" to save the settings.

STEP 5: Restart DT700 Series terminal

<Type 1 - System with DHCP Server (SIP Server's IP Address Is Pre-assigned by DHCP Server)>

This section explains the procedure of DT700 Series data assignment in the case where a DHCP server is available and SIP server's IP address (or FQDN) is preassigned on the DHCP server. The procedure assumes that the DHCP server notifies IP address of DT700 Series, router (default gateway), subnet mask, and SIP server address (or FQDN).

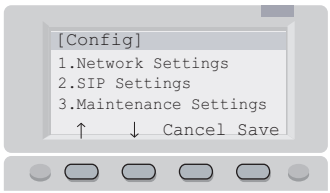
Telephony Server's IP address (or FQDN) must be pre-assigned to DHCP Options in the following ways.

For DT 700 Series, select Option according to the following priorities:
1st priority is option 162.
If there is no option 162, 2nd priority is option 120.
If there is no option 120, 3rd priority is terminal local setting.

Caution: *Observe the following while assigning the configuration data:*
- *Do Not Turn OFF the power of the DT700 Series, SIP server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DT700 Series, SIP server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT700 Series, SIP server, DHCP.*

[1] Configuration Setting on Terminal

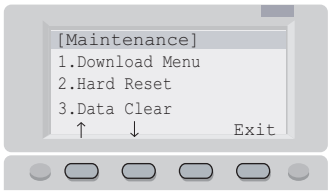
STEP 1: On [Config] main menu, select "3. Maintenance Settings."



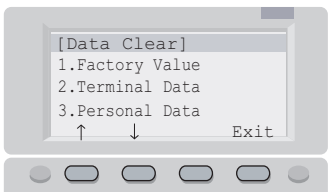
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

Note: For login mode, LoginID and Password entry is required here.

STEP 2: On [Maintenance] menu, select "3. Data Clear."



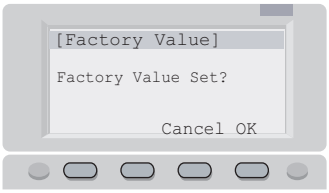
STEP 3: On [Data Clear] menu, select "1. Factory Value."



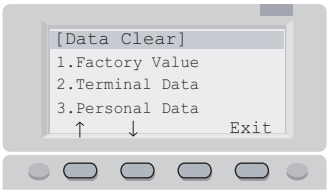
A

A

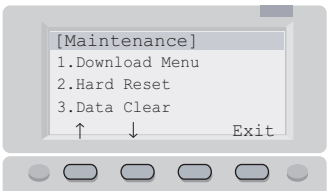
STEP 4: On [Factory Value] screen, press the software key for "OK" to confirm.



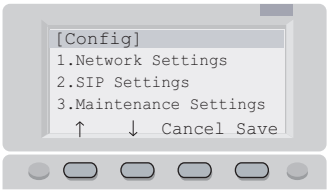
STEP 5: All the parameters return to factory default setting. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



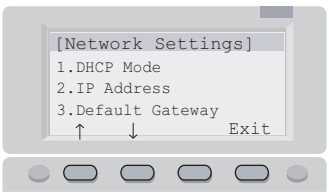
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



STEP 7: On [Config] menu, select "1. Network Settings."



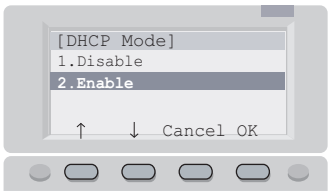
STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



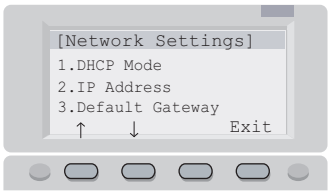
B

B

STEP 9: On [DHCP Mode] screen, verify that "2. Enable" is flashing, and then press the software key for "OK."



STEP 10: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When SIP server's IP address is assigned via DHCP server:

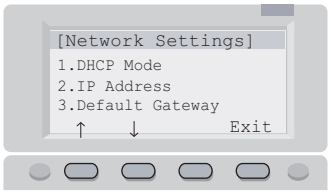
On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 14**

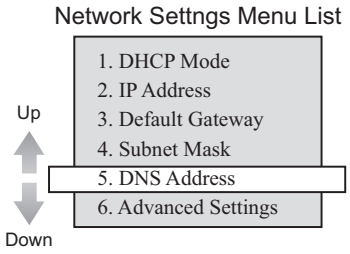
FQDN

When SIP server is specified by FQDN via DHCP server:

If DHCP option 162 (information for Telephony Server which DT700 Series connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:
-Obtain DNS server's IP address from the DHCP server.
-Assign DNS Server's IP address on DT700 Series [Config] setting. ➡ **Go to STEP 11**
When not necessary to assign DNS server's IP address on configuration setting, ➡ **Go to STEP 14**

STEP 11: On [Network Settings] menu, select "5. DNS Address."

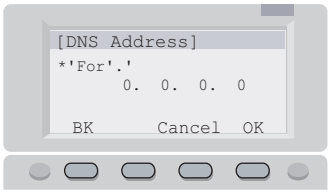




C

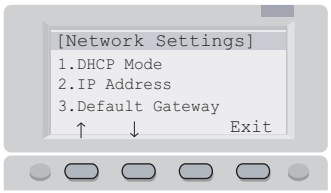
C

STEP 12: On [DNS Address] screen, assign the DNS server's IP address using the number button.

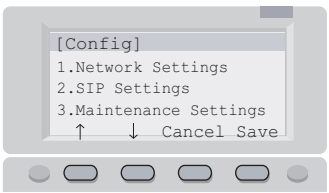


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 13: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



STEP 14: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for DT700 Series



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "2. Enable" radio button (DHCP is enabled). Click the "OK" button.

STEP 5: Depending on the way to specify SIP server, perform either of the following:

a. When SIP server is specified by IP address via DHCP: → Go to STEP 8.

b. When SIP server is specified by FQDN via DHCP: → Go to STEP 6.

If DHCP option 162 (information of SIP server which DT700 Series connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:

- Obtain DNS server's IP address from the DHCP server.
- Assign DNS server's IP address on DT700 Series configuration setting.

- When not necessary to assign DNS server's IP address on configuration setting, go to STEP 8.

STEP 6: Select [Network Settings] → [DNS Address].

STEP 7: Enter the IP address of DNS server. Click the "OK" button.

STEP 8: Click the "Save" button. After setting is complete, SIP server begins setup for DT700 Series.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to "4.3.4 Error Messages" for details on error messages.

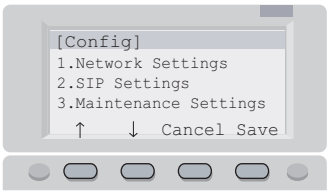
<Type 2 - System with DHCP Server (SIP Server's IP Address Is Not Assigned by DHCP Server)>

This section explains the procedure of DT700 Series data assignment in the case where a DHCP server is available and SIP server's IP address (or FQDN) is NOT assigned on the DHCP server yet. SIP server's IP address (or FQDN) is the only item necessary to be assigned on the configuration setting of DT700 Series.

Caution: *Observe the following while assigning the configuration data:*
- *Do Not Turn OFF the power of the DT700 Series, SIP server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DT700 Series, SIP server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT700 Series, SIP server, DHCP.*

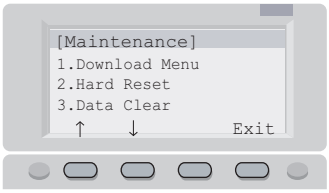
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select "3. Maintenance Settings."

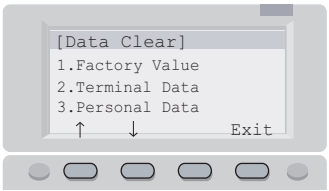


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available. Refer to Section 6.1.1.2 Operations for more details.

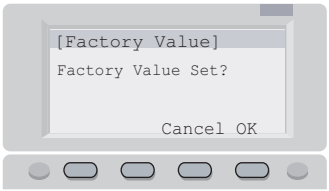
STEP 2: On [Maintenance] menu, select "3. Data Clear."



STEP 3: On [Data Clear] menu, select "1. Factory Value."



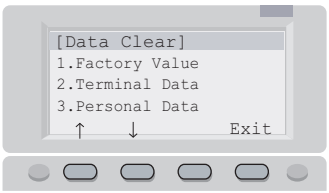
STEP 4: On [Factory Value] screen, press the software key for "OK."



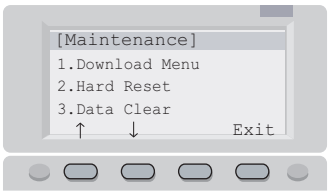
A

A

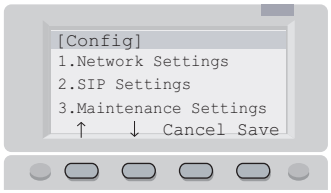
STEP 5: All the parameters return to factory default setting. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



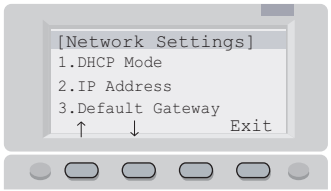
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



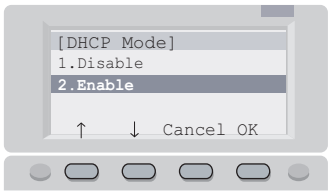
STEP 7: On [Config] menu, select "1. Network Settings."



STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



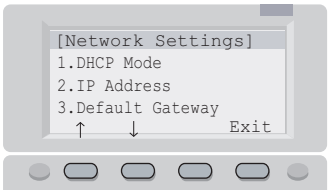
STEP 9: On [DHCP Mode] screen, verify that "2. Enable" is flashing, and then press the software key for "OK."



B

B

STEP 10: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When SIP server's IP address is assigned via DHCP server:

On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 14**

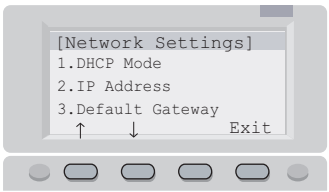
FQDN

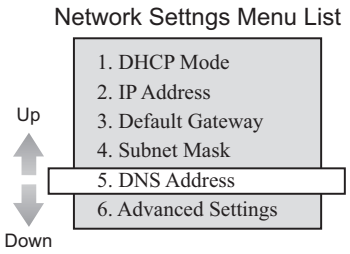
When SIP server is specified by FQDN via DHCP server:

It is necessary to perform either of the following:
-Obtain DNS server's IP address from the DHCP server.
-Assign DNS Server's IP address on DT700 Series [Config] setting. ➡ **Go to STEP 11**

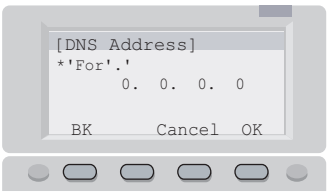
When not necessary to assign DNS server's IP address on configuration setting, ➡ **Go to STEP 14**

STEP 11: On [Network Settings] menu, select "5. DNS Address."





STEP 12: On [DNS Address] screen, assign the DNS server's IP address using the number button.

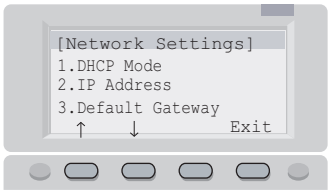


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

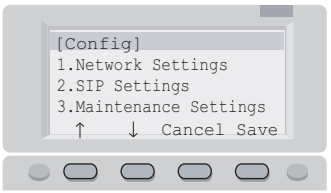
C

C

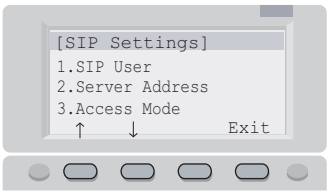
STEP 13: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



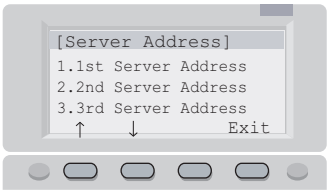
STEP 14: On [Config] menu, select "2. SIP Settings."



STEP 15: On [SIP Settings] menu, select "2. Server Address."



STEP 16: On [Server Address] menu, select "1. 1st Server Address."



D

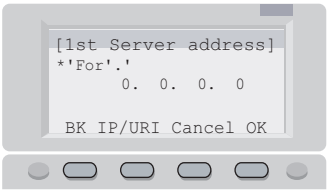
D

STEP 17: The LCD displays the [1st Server Address] setting screen.

Depending on the way to specify SIP server; by IP address or FQDN, perform either of the following:

IP address

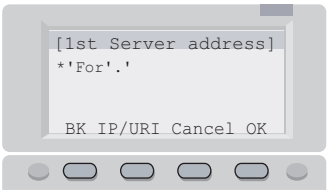
When specifying the SIP server by IP address:



Assign the IP address of SIP server using digit keys.
Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

FQDN

When specifying the SIP server by FQDN:

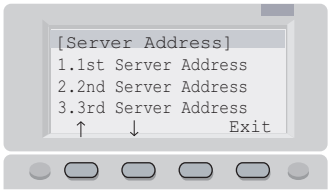


Press the software key for "IP/URI" to switch the mode to URI entry.

Assign fully qualified domain name of SIP server using digit keys. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _ (underscore) are valid in a domain name (maximum 128 characters).
Press the software key for "OK" when all settings are complete.

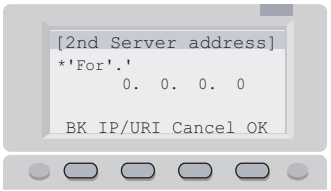
Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

STEP 18: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server addresses.



- Select "2" to assign the second SIP server
- Select "3" to assign the third SIP server
- Select "4" to assign the fourth SIP server

STEP 19: The LCD displays each of the [Server Address] setting screen.

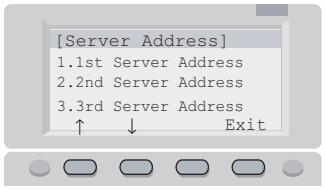


As in STEP 17, specify the SIP server by IP address or FQDN.
Press the software key for "OK" when all settings are complete and return to [Server Address] menu.

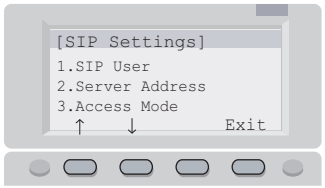
E

E

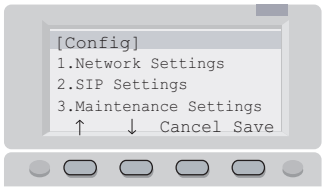
STEP 20: On [Server Address] menu, press the software key for "Exit" to return to [SIP Settings] menu.



STEP 21: On [SIP Settings] menu, press the software key for "Exit" to return to [Config] menu.



STEP 22: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for DT700 Series.



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "2. Enable" radio button (DHCP is enabled). Click the "OK" button.

STEP 5: Depending on the way to specify SIP server, perform either of the following:

a. When SIP server is specified by IP address via DHCP: → Go to STEP 8.

b. When SIP server is specified by FQDN via DHCP: → Go to STEP 6.

If DHCP option 162 (information of SIP server which DT700 Series connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:

- Obtain DNS server's IP address from the DHCP server.
- Assign DNS server's IP address on DT700 Series configuration setting.

- When not necessary to assign DNS server's IP address on configuration setting, go to STEP 8.

STEP 6: Select [Network Settings] → [DNS Address].

STEP 7: Enter the IP address of DNS server. Click the "OK" button.

STEP 8: Select [SIP Settings] → [Server Address URI] → [1st Server Address].

a. To specify SIP server by IP address:

Assign the IP address of SIP server, and then click the "OK" button. **Note 5**

b. To specify SIP server by FQDN:

Assign fully qualified domain name of SIP server, and then click the "OK" button. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) are valid in a domain name (maximum 128 characters).

Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

Note 5: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

STEP 9: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server.

- Click [2nd Server Address] to assign the second SIP server.
- Click [3rd Server Address] to assign the third SIP server.
- Click [4th Server Address] to assign the fourth SIP server.

STEP 10:As in STEP 8, specify the SIP server by IP address or FQDN. Click the "OK" button after assigning the data.

STEP 11:Click the “Save” button. After setting is complete, SIP server begins setup for DT700 Series.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to “4.3.4 Error Messages” for details on error messages.

<Type 3 - System without DHCP Server>

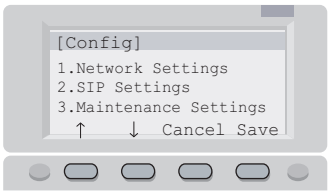
This section explains the procedure of DT700 Series data assignment for a system without DHCP server; DHCP server is not connected to the network or the system is activated in a way that does not use DHCP server.
The followings are necessary to assign in the DT700 Series' configuration setting:

- DT700 Series terminal's IP address and Subnet mask
- Router (default gateway) address
- SIP server's IP address (or FQDN)

Caution: *Observe the following while assigning the configuration data:*
• Do Not Turn OFF the power of the DT700 Series, SIP server, DHCP server.
• Do Not Unplug or Plug the LAN cable connecting to the DT700 Series, SIP server, DHCP.
• Do Not Turn OFF the power of the HUB connecting to the DT700 Series, SIP server, DHCP.

[1] Configuration Setting on Terminal

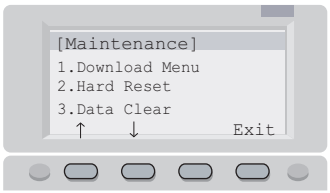
STEP 1: On [Config] main menu, select "3. Maintenance Settings."



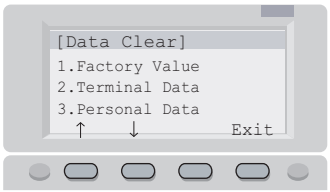
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

Note: For login mode, LoginID and Password entry is required here.

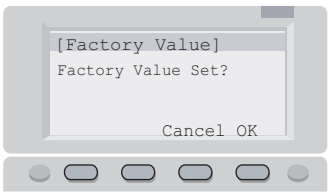
STEP 2: On [Maintenance] menu, select "3. Data Clear."



STEP 3: On [Data Clear] menu, select "1. Factory Value."



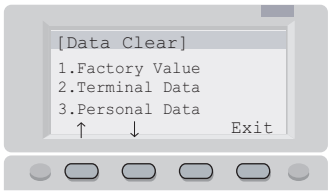
STEP 4: On [Factory Value] screen, press the software key for "OK."



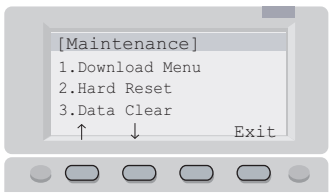
A

A

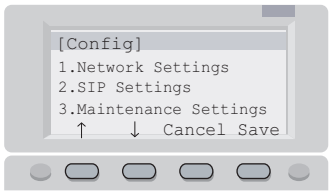
STEP 5: All the parameters return to factory default setting. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



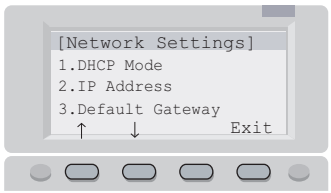
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



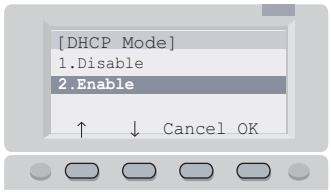
STEP 7: On [Config] menu, select "1. Network Settings."



STEP 8: On [Network Settings] menu, select "1. DHCP Mode".



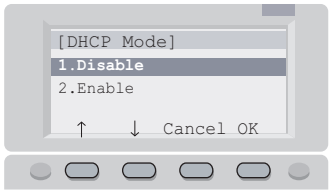
STEP 9: On [DHCP Mode] screen, "2. Enable" is flashing.



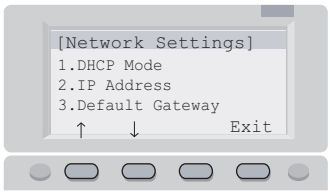
B

B

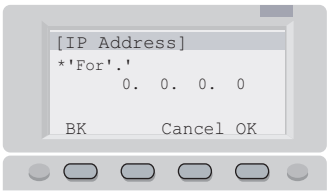
STEP 10: Select "1." and verify that "1. Disabled" line is flashing. Then press the software key for "OK."



STEP 11: The LCD displays [Network Settings] menu. Select "2. IP Address" to display [IP Address] menu.

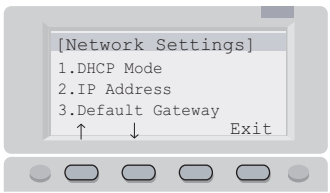


STEP 12: On [IP Address] setting screen, assign the IP address of DT700 Series terminal using number keys.



Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 13: The LCD displays [Network Settings] menu. Select "3. Default Gateway" to display [Default Gateway] menu.



STEP 14: On [Default Gateway] setting screen, assign the IP address of DT700 Series terminal using digit keys.

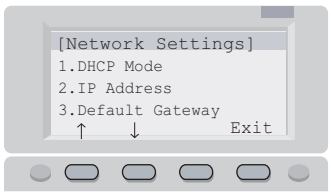


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

C

C

STEP 15: The LCD displays [Network Settings] menu. Select "4. Subnet Mask."



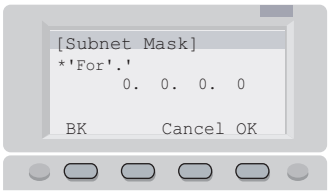
Network Settngs Menu List

Up

Down

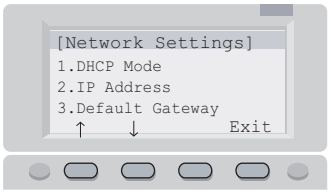
1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

STEP 16: The LCD displays [Subnet Mask] setting screen. Assign subnet mask using digit keys.



Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

STEP 17: The LCD displays [Network Settings] menu.



IP address or FQDN to specify SIP server?

IP address

When IP address is used to specify SIP server:

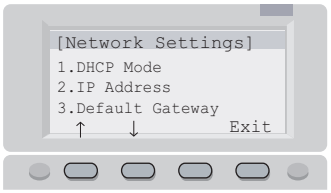
On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. **Go to STEP 22**

FQDN

When FQDN is used to specify SIP server:

Assign DNS Server's IP address on DT700 Series [Config] setting. **Go to STEP 18**

STEP 18: On [Network Settings] menu, select "5. DNS Address."



Network Settngs Menu List

Up

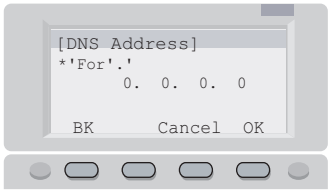
Down

1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

D

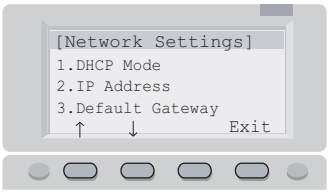
D

STEP 19: On [DNS Address] screen, assign the DNS server's IP address using the number button.

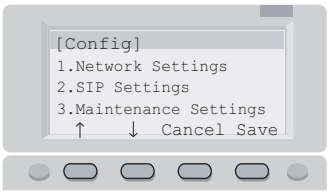


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

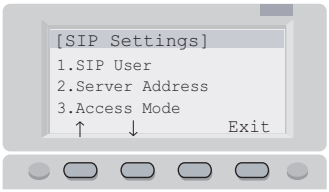
STEP 20: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



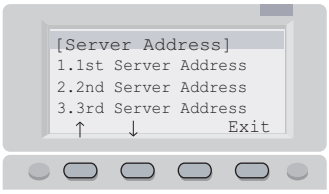
STEP 21: On [Config] menu, select "2. SIP Settings."



STEP 22: On [SIP Settings] menu, select "2. Server Address."



STEP 23: On [Server Address] menu, select "1. 1st Server Address."



E

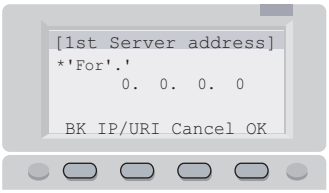
E

STEP 24: The LCD displays the [1st Server Address] setting screen.

Depending on the way to specify SIP server; by IP address or FQDN, perform either of the following:

IP address

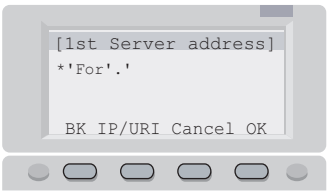
When specifying the SIP server by IP address:



Assign the IP address of SIP server using digit keys.
Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.
Note: About IP address of SIP server.

FQDN

When specifying the SIP server by FQDN:

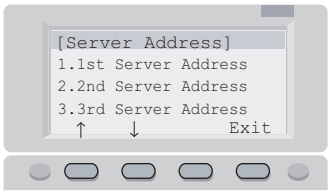


Press the software key for "IP/URI" to switch the mode to URI entry.

Assign fully qualified domain name of SIP server using digit keys. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _ (underscore) are valid in a domain name (maximum 128 characters).
Press the software key for "OK" when all settings are complete.

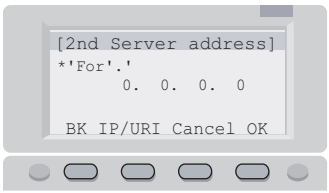
Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

STEP 25: If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server addresses.



- Select "2" to assign the second SIP server
- Select "3" to assign the third SIP server
- Select "4" to assign the fourth SIP server

STEP 26: The LCD displays each of the [Server Address] setting screen.

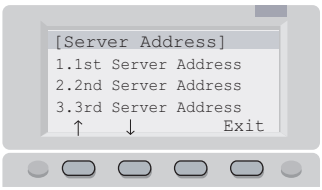


As in STEP 24, specify the SIP server by IP address or FQDN.
Press the software key for "OK" when all settings are complete and return to [Server Address] menu.

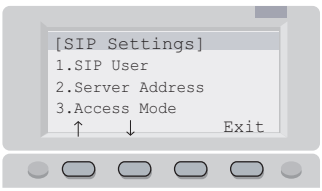
F

F

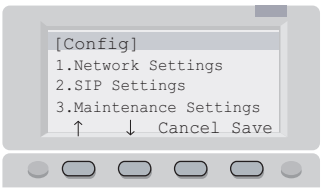
STEP 27: On [Server Address] menu, press the software key for "Exit" to return to [SIP Settings] menu.



STEP 28: On [SIP Settings] menu, press the software key for "Exit" to return to [Config] menu.



STEP 29: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for DT700 Series.



Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP Server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings
- Connect SIP server to the network.
- Connect DHCP Server to the network.

Refer to "Error Messages" for details on error messages.

END

[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Data Clear] → [Factory Value].

STEP 2: Clicking the "OK" button will return all the parameters to factory default settings.

STEP 3: Select [Network Settings] → [DHCP Mode].

STEP 4: Select "1. Disable" radio button (DHCP is disabled). Click the "OK" button.

STEP 5: Select [Network Settings] → [IP Address].

STEP 6: Enter the IP address of the DT700 Series terminal. Click the "OK" button.

STEP 7: Select [Network Settings] → [Default Gateway].

STEP 8: Enter the IP address of default gateway (router). Click the "OK" button.

STEP 9: Select [Network Settings] → [Subnet Mask].

STEP 10:Enter subnet mask. Click the "OK" button.

STEP 11:Depending on the way to specify SIP server, perform either of the following:

a. When SIP server is specified by IP address: → Go to STEP 14.

b. When SIP server is specified by FQDN: → Go to STEP 12.

Note: Assign DNS server's IP address on DT700 Series configuration setting.

STEP 12:Select [Network Settings] → [DNS Address].

STEP 13:Enter the IP address of DNS server. Click the "OK" button.

STEP 14:Select [SIP Settings] → [Server Address & URI] → [1st Server Address].

a. To specify SIP server by IP address:

Assign the IP address of SIP server, and then click the "OK" button. **Note 6**

b. To specify SIP server by FQDN:

Assign fully qualified domain name of SIP server, and then click the "OK" button. 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore) are valid in a domain name (maximum 128 characters).

Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

Note 6: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

STEP 15:If there are backup SIP servers in the network, continue assigning 2nd, 3rd and 4th SIP server.

- Click [2nd Server Address] to assign the second SIP server.
- Click [3rd Server Address] to assign the third SIP server.
- Click [4th Server Address] to assign the fourth SIP server.

STEP 16:As in STEP 8, specify the SIP server by IP address or FQDN. Click the "OK" button after assigning the data.

STEP 17:Click the “Save” button. After setting is complete, SIP server begins setup for DT700 Series.

Note: In the following instances, the terminal will display an error message.
- SIP server does not exist in the network.
- Connection to SIP server could not be established since the user assigned an incorrect value.
- Connection to DHCP server could not be established since the user assigned an incorrect value.

If the above occurs, perform one of the following:
- Reassign data settings.
- Connect SIP server to the network.
- Connect DHCP server to the network.

Refer to “4.3.4 Error Messages” for details on error messages.

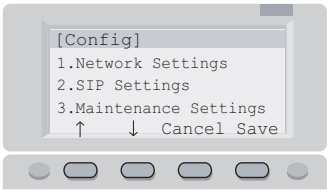
4.3.2.2 PC Port Remote Control

To use PC Port Remote Control feature assigned by PCPro programming, the following setting is also required on DT700 Series terminal side.

Note: Refer to “PC Port Remote Control” in Operations and Maintenance Manual for the data assignment on the Telephony Server.

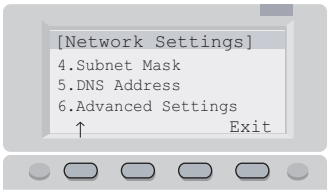
[1] Configuration Setting on Terminal

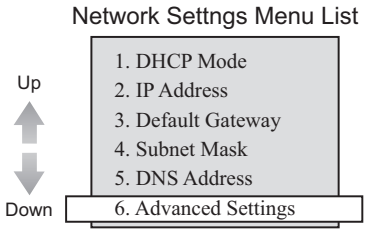
STEP 1: On [Config] menu, select "1. Network Settings."



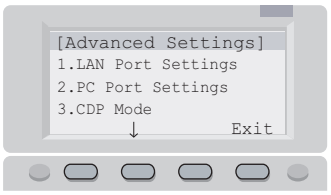
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: The LCD displays [Network Settings] menu. Select "6. Advanced Settings."





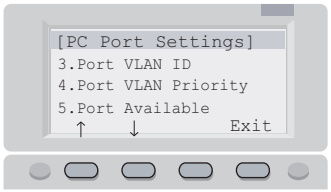
STEP 3: On [Advanced Settings] menu, select "2. PC Port Settings."

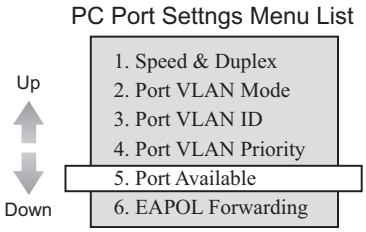


A

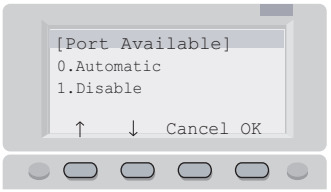
A

STEP 4: On [PC Port Settings] menu, select "5. Port Available."





STEP 5: The LCD displays [Port Available] setting screen.



Perform either of the following:

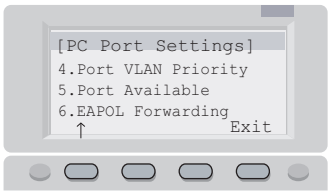
a.) When automatically setting the DT700 Series terminal's PC port status following the setting on PCPro:

1. Select "0. Automatic."
2. "0. Automatic" flashes.
3. Press the software key for "OK."

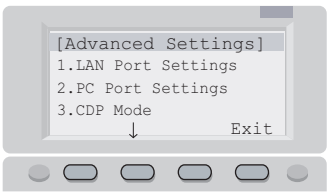
b.) When disabling the DT700 Series terminal's PC port without following the setting on PCPro:

1. Select "1. Disable."
2. "1. Disable" flashes.
3. Press the software key for "OK."

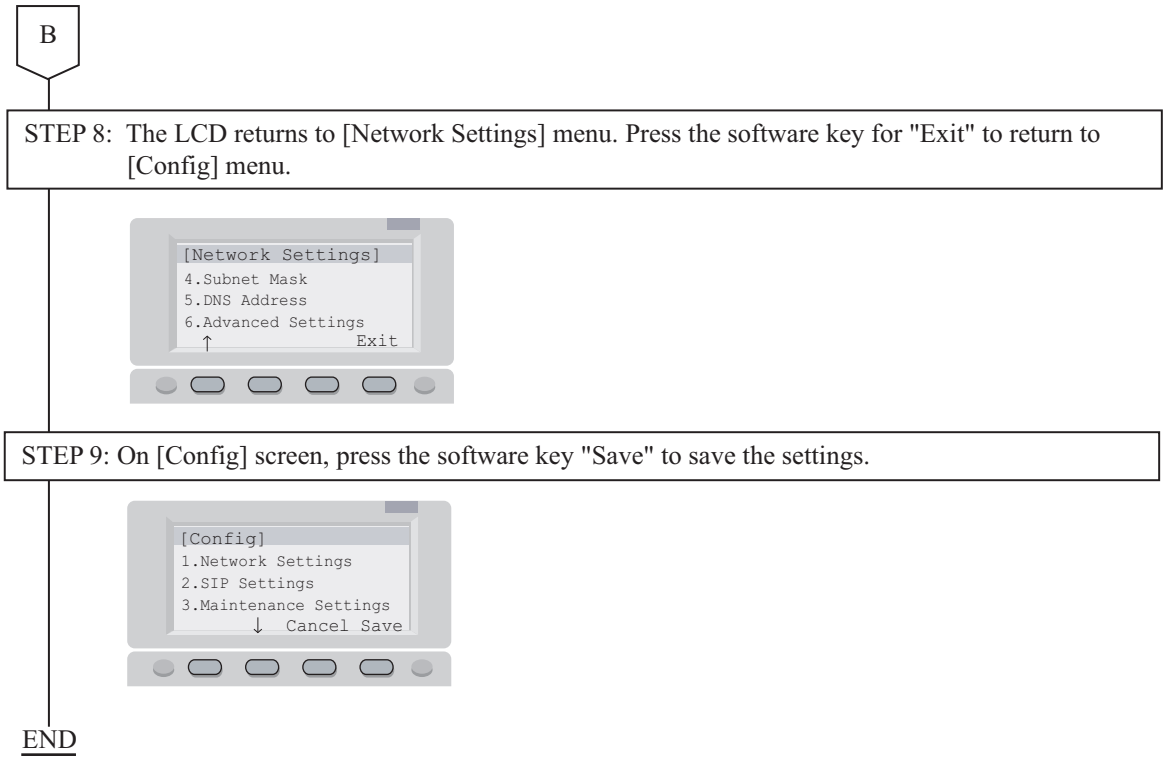
STEP 6: The LCD returns to [PC Port Settings] menu. Press the software key for "Exit."



STEP 7: The LCD returns to [Advanced Settings] menu. Press the software key for "Exit."



B



[2] Configuration Setting by Web Programming

STEP 1:Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port Available].

STEP 2: Select the [Port Available] parameter, and click the “OK” button.

1. Automatic:
   Automatically sets the DT700 Series terminal’s PC port status following the setting on PCPro
2. Disable:
   Disable the DT700 Series terminal’s PC port without following the setting on PCPro

STEP 3: Click the “Save” button.

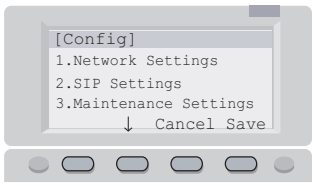
4.3.2.3 Type of Service (ToS)

ToS value can be changed on DT700 Series terminal.

Note: During operation, ToS value assigned by the Telephony Server is enabled. It is unnecessary to assign ToS value on the DT700 Series terminal side.

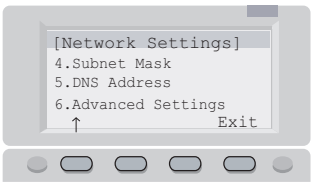
[1] Configuration Setting on Terminal

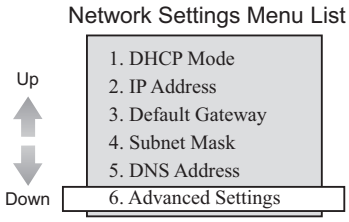
STEP 1: On [Config] menu, select “1. Network Settings.”



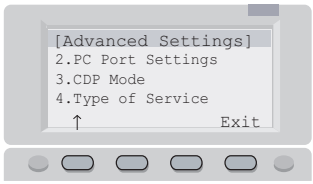
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

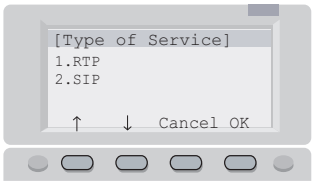




STEP 3: On [Advanced Settings] menu, select “4. Type of Service.”



STEP 4: The LCD displays [Type of Service] setting screen.



Select the packet type for setting ToS.

1. RTP
2. SIP

STEP 5: ToS value setting screen for the selected packet type (RTP in this example) is displayed.



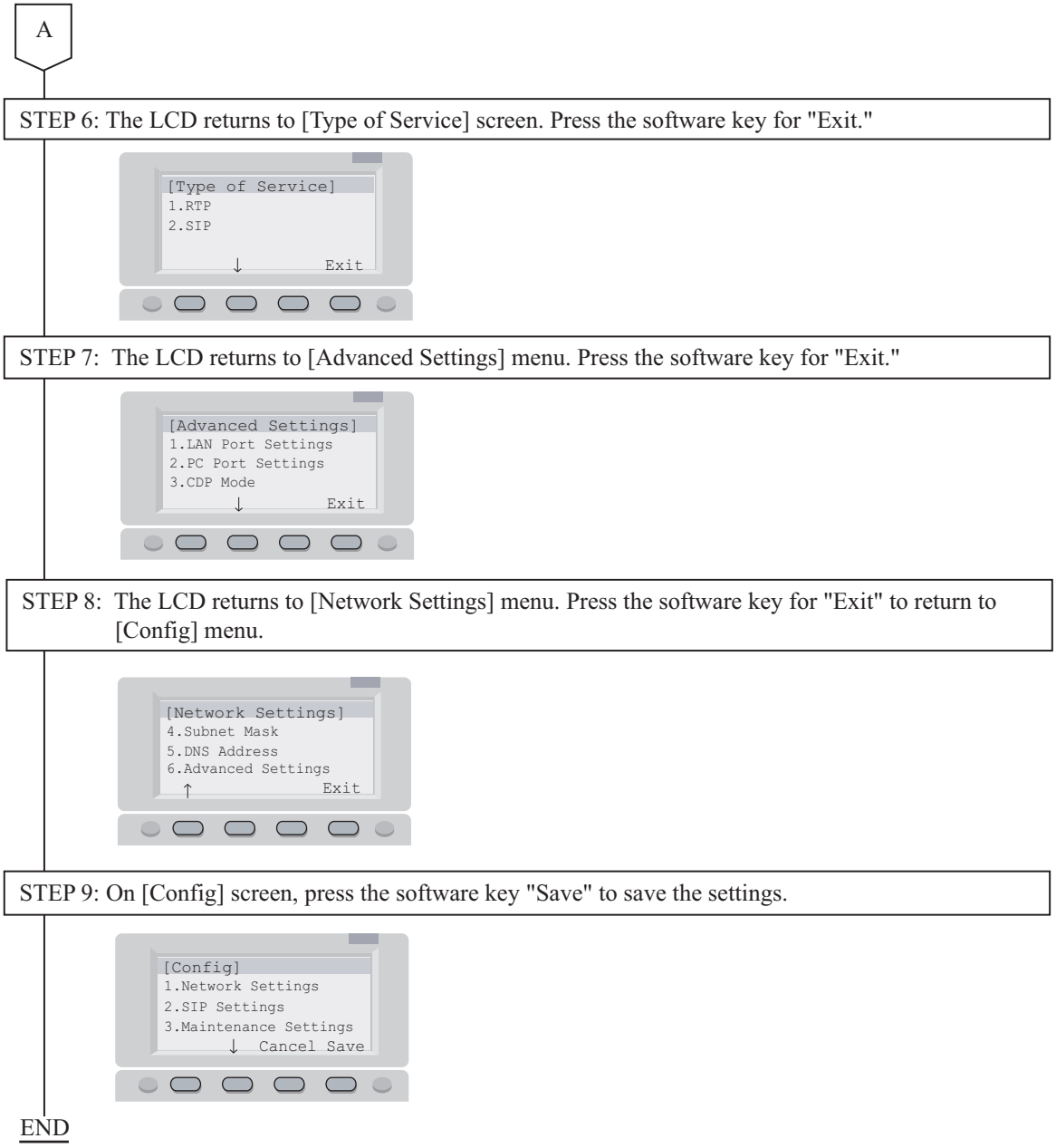
Enter any Hex value using the number key and then press “OK”.

Example: When entering “0B (Hex)”

1. Press the number button “0” once.
2. Press the number button “2” three times
   (The value changes “2” > “A” > “B.”)

Press the software key for “BK” to delete the entered value.

A



[2] Configuration Setting by Web Programming

STEP 1:Select [Network Settings] → [Advance Settings] → [Type of Service].

STEP 2: Select the packet type for setting the ToS value.

RTP: Click “RTP” to change the ToS value for sending RTP packet.

SIP: Click “SIP” to change the ToS value for SIP packet.

STEP 3: Enter any Hex value to the text box. Click the “OK” button.

STEP 4: Click the “Save” button.

4.3.2.4 LLDP and LLDP-MED

This section explains how to assign data for Link Layer Discovery Protocol (LLDP) and LLDP-Media Endpoint Discovery (LLDP-MED) on DT700 Series terminals.

DT700 Series supports LLDP, a standard Neighbor Discovery protocol, and can exchange information about themselves with adjacent network nodes such as IP/SIP terminals and other LLDP-capable devices. It also automatically performs some network settings upon receiving LLDP packets.

With LLDP Mode enabled, DT700 Series begins to transmit and receive LLDP packets after startup. It transmits LLDP packets from the LAN port at periodic intervals defined by LLDP Packet Transmission Interval (**Note 7**, **Note 8**, **Note 9**), and holds the latest available LLDP packet received on the LAN port (**Note 10**). When the LLDP Auto Setting Mode is enabled, it performs self-configuration based on the information learned from the received LLDP packet.

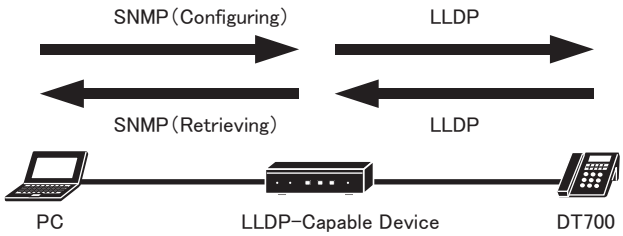
Note 7: LLDP packets are also transmitted in the following cases that LLDP packet contents to be advertised are changed.
- The Reception Waiting Time (RX Waiting Time) has timed out.
- IP address is allocated via DHCP
- ToS value is defined by the Telephony Server.

Note 8: When DT700 Series transmits LLDP packets within LLDP Packet Transmission Interval, it sets LLDP Packet Transmission Interval based on the transmitted LLDP packet in the last time and transmits packets with the interval.

Note 9: LLDP packets are not transmitted from the PC port except when the LLDP Transparent Mode is enabled.

Note 10: LLDP packets will be discarded in the following cases where:
- LLDP packets are received on the PC port except when LLDP Transparent Mode is enabled.
- LLDP packets are received from network devices other than switches (IP/SIP terminal, PC, for example).
- LLDP packets whose LLDP-MED Capabilities TLV/LLDP-MED Device Type are not Connectivity Device Definition (04H).

Layer Discovery Protocol



LLDP Fast Start

DT700 Series usually transmits LLDP packets at the interval (30 seconds by default) specified by LLDP Packet Transmission Interval (Transmit Interval). However, this may cause slow MED device configuration due to the detection delay. In order to prompt neighbor devices to transmit an LLDP packet and renew the existing network information, DT700 Series can consecutively transmit one LLDP packet per second for a limited time, reducing the time it takes for automatic LLDP configuration. This feature, called "LLDP Fast Start," is activated immediately after DT700 Series starts transmitting an LLDP packet or when the link has been established on the LAN port, and transmits LLDP packets at intervals of one second for the duration of the LLDP Fast Start Count. After completion of the count, the transmission interval for LLDP packets returns to the value set for LLDP Packet Transmission Interval (Transmit Interval).

LLDP Auto Setting Mode

DT700 Series can automatically set the voice network policies based on the information from received LLDP packets. When the LLDP Auto Setting Mode is enabled, after starting LLDP packet transmission and reception, DT700 Series automatically sets network policies by using the valid LLDP packet received within the time specified by the Reception Waiting Time (RX Waiting Time).

LLDP Transparent Mode

DT700 Series can forward LLDP data between its LAN and PC ports. This provides the above-mentioned LLDP Auto Setting for a PC connected to the PC port of a DT700 Series terminal like those terminals adjacent to an LLDP capable switch.

When this Transparent Mode is enabled, DT700 Series transmits LLDP packets received on the LAN port to the PC port and vice versa.

Note: When the Transparent Mode is enabled, DT700 Series exchanges information with the LLDP-capable device connected to the PC port, as well as with the one connected to the LAN port.

<Service Conditions>

(1) This service is available for DT700 Series equipped with firmware version 4.0.0.0 or later.

Note: For DT730G, available for firmware version 1.0.0.0 or later.

(2) DT700 Series supports the following protocol and standard:

- IEEE802.1AB
- ANSI/TIA-1057 LLDP-MED (LLDP for media endpoint discovery)
  LLDP-MED endpoint device class: "Class III (Communication Devices)"

(3) DT700 Series supports the following switches:

- NEC QX-S3200-PW Series Ver. 3.2. 10 or higher
- Cisco Catalyst 3560 Series IOS Release 12.2 or higher

(4) Settings for LLDP and LLDP-MED features will be only valid after restarting the DT700 Series terminal.

(5) Transmission and reception of LLDP packets is performed after IEEE802.1X authentication.

(6) Settings for LLDP and LLDP-MED features are reset to default settings by clearing data (initialization, terminal setting data).

(7) The following settings can be configured by the AutoConfig feature:

- LLDP Mode
- Auto Setting Mode
- RX Waiting Time
- Transmit Interval
- Hold Multiplier
- Fast Start Count
- Transparent Mode

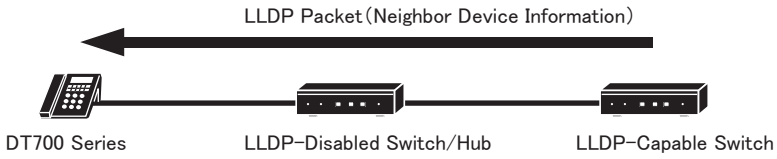
(8) Regardless of the settings for the LLDP Mode, LLDP Transparent Mode is performed based on the setting for the LLDP Transparent Mode.

(9) When the LLDP and the LLDP Auto Setting Modes are enabled, it may take some time to receive LLDP data (15 seconds by default) before DT700 Series starts up.

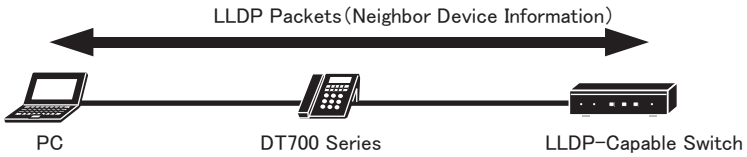
(10) VLAN IDs cannot be assigned automatically to the PC port of DT700 Series by using the LLDP Auto Setting Mode.

(11) The LLDP Auto Setting Mode will override the AutoConfig feature. Thus, even if performing the AutoConfig may involve changes in the settings common to both of them, the settings made by the LLDP Auto Setting will not be changed by the AutoConfig.

(12) Non-LLDP-capable switches and hubs relay LLDP packets. Switches that are LLDP-capable also relay LLDP packets if they are set to relay LLDP packets. When such an LLDP-disabled device is located between LLDP-capable devices and DT700 Series, the DT700 Series will assume that LLDP information provided by the LLDP-capable device is the information about the one directly connected to itself.



(13) When the LLDP Transparent Mode is enabled, DT700 Series forwards LLDP packets between the LAN and PC ports. In this case, the LLDP-capable device (switch) will recognize the DT700 Series terminal and the PC connected to the terminal as its neighbor.



(14) The table below shows advertised LLDP Type Length Values:

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
Chassis ID TLV	chassis ID subtype	Chassis ID subtype	0x05 (Network address)
	chassis ID	Chassis ID	IP address Before DHCP assignment; "0.0.0.0" After DHCP assignment; the assigned address
Port ID TLV	port ID subtype	Port ID subtype	0x03 (MAC address)
	port ID	Port ID	MAC address
Time To Live TLV	time to live	Length of time the LLDP data will be valid	LLDP packet transmission interval×LLDP time to live
Port Description TLV	port description	Port description	"LAN Port"
System Name TLV	system name	System name	"NEC IP Phone"
System Description TLV	system description	System description	"DT700 Series"
System Capabilities TLV	system capabilities	Supported LAN capabilities (repeater hubs, routers, IP phones, for example)	0x00 0x24 (Telephone, Bridge)
	enabled capabilities	Enabled LAN capabilities (repeater hubs, routers, IP phones, for example)	0x00 0x24 (Telephone, Bridge)
Management Address TLV			Not advertised

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
IEEE802.1 Extensions			
Port VLAN ID TLV			Not advertised
Port And Protocol VLAN ID TLV			Not advertised
VLAN Name TLV			Not advertised
Protocol Identity TLV			Not advertised
IEEE802.3 Extensions			
MAC/PHY Configuration/ Status TLV	auto-negotiation support/ status	Auto-negotiation support/ status	0x02 (When Speed&duplex on the LAN port is set to automatic) 0x01 (When Speed&duplex on the LAN port is set to other than automatic)
	PMD auto-negotiation advertised capability	PMD auto-negotiation advertised capability (Other than DT730G)	0x00 0x36 (10BASE-T half duplex mode, 10BASE-T full duplex mode, 100BASE-TX half duplex mode, 100BASE-TX full duplex mode)
		PMD auto-negotiation advertised capability (for DT730G)	0xC0 0x36 (10BASE-T half/full duplex mode, 100BASE-TX half/ full duplex mode, 1000BASE-T half/full duplex mode)
	operational MAU type	Operational MAU type	Speed&duplex during transmission 0x00 0x02 (10BASE-T half duplex) 0x00 0x04 (10BASE-T full duplex) 0x00 0x10 (100BASE-TX half duplex) 0x00 0x20 (100BASE-TX full duplex)
Power Via MDI TLV	MDI power support		Not advertised
	PSE power pair		
	power class		
Link Aggregation TLV	aggregation status	Link aggregation status	Not advertised
	aggregated port ID	Link aggregated port ID	
Maximu Frame Size TLV	maximum 802.3 frame size	Maximum 802.3 frame size	Not advertised

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
LLDP-MED Extensions			
LLDP-MED Capabilities TLV	LLDP-MED Capabilities	LLDP-MED capabilities	0x00 0x33 (Capabilities, network policy, power via MDI (PD), inventory management)
	LLDP-MED Device Type	LLDP-MED device type	0x03 (Endpoint class III)
Network Policy TLV [1]	Application Type	Application type to which the network policy applies	1 (Voice)
	U	Flag to indicate whether the information is known or unknown in the network policy request	In the LLDP Auto Setting Mode; 1 (Unknown) Otherwise; 0 (Defined)
	T	Flag to indicate whether the VLAN is tagged or untagged	LAN port VLAN is disabled; 0 (untagged VLAN) LAN port VLAN is enabled; 1 (tagged VLAN)
	X	(Not used)	0
	VLAN ID	VLAN ID	LAN port VLAN ID (When VLAN is disabled; 0)
	L2 Priority	Layer 2 priority	LAN port VLAN priority (When VLAN is disabled; 0)
	DSCP Value	DSCP value	Set value for RTP ToS
Network Policy TLV [2] **Note 11**	Application Type	Application type to which the network policy applies	2 (Voice Signaling)
	U	Flag to indicate whether the information is known or unknown in the network policy request	In the LLDP Auto Setting Mode; 1 (Unknown) In case other than the above; 0 (Defined)
	T	Flag to indicate whether the VLAN is tagged or untagged	LAN port VLAN is disabled; 0 (untagged VLAN) LAN port VLAN is enabled; 1 (tagged VLAN)
	X	(Not used)	0
	VLAN ID	VLAN ID	LAN port VLAN ID (When VLAN is disabled; 0)
	L2 Priority	Layer 2 priority	LAN port VLAN priority (When VLAN is disabled; 0)
	DSCP Value	DSCP value	Set value for SIP ToS

Advertised LLDP TLV

TLV	TLV Element	Description	Transmitted Data from the LAN Port
Location Identification TLV	Location Data Format	Location ID format	Not advertised
	Location ID	Location ID	
Extended Power-Via-MDI TLV	Power Type	Power supply or demand side	0x1(PD Device)
	Power Source	Power state Supply side: Main or auxiliary power Demand side: PoE or local power supply	0x0 (Unknown)
	Power Priority	Power supply priority	0x0 (Unknown)
	Power Value	Supply side: Minimum power available to supply Demand side: Maximum consumed power	77 (DT750) 63 (DT730) 63 (DT730 DESI-less) 130 (DT730G) 33 (DT710) 33 (DT710 without LCD) 90 (DT770G)
Hardware Revision TLV	Hardware Revision	Hardware version	Hardware version
Firmware Revision TLV	Firmware Revision	Firmware version	Firmware version
Software Revision TLV	Software Revision	Software version	"-"
Serial Number TLV	Serial Number	Serial number	"-"
Manufacturer Name	Manufacturer Name	Manufacturer name	"NEC"
Model Name	Model Name	Model name	“DT750” “DT730” “DT730 (8LD)” “DT730CG” “DT730DG” “DT710 (2E)” “DT710 (6DE)” “DT710 (8LDE)” **Note 12** “DT770G”
Asset ID	Asset ID	Asset ID (Property ID)	Asset ID

Note 11: If DSCP Value (set value for SIP ToS) of Network Policy [2] is equal to that of Network Policy [1] (set value for RTP ToS), the TLV will not be advertised.

Note 12: For firmware version 4.0.0.0 or earlier (except for DT730G), only “DT700 Series” is displayed.

(15) The table below shows received LLDP Type Length Values:

Note: Only the LLDP packets received on the LAN port are valid. (LLDP packets received on the PC port are not valid.)

Received LLDP TLV

TLV	Description	Received Data	
		Availability	Online Monitoring
Basic management			
Chassis ID TLV	Chassis ID	Receivable	Viewed (Info only: IP Address, MAC Address)
Port ID TLV	Port ID	Receivable	Viewed (Info only)
Time To Live TLV	Length of time the LLDP data will be valid	Receivable	Not viewed
Port Description TLV	Port description	Receivable	Viewed
System Name TLV	System name	Receivable	Viewed
System Description TLV	System description	Receivable	Viewed
System Capabilities TLV	Supported/enabled LAN capabilities	Receivable	Not viewed
Management Address TLV		Receivable	Not viewed
IEEE802.1 Extensions			
Port VLAN ID TLV		Receivable	Not viewed
Port And Protocol VLAN ID TLV		Receivable	Not viewed
VLAN Name TLV		Receivable	Not viewed
Protocol Identity TLV		Receivable	Not viewed
IEEE802.3 Extensions			
MAC/PHY Configuration/ Status TLV	I/F capability/status/type	Receivable	Viewed (auto-negotiation support/status, operational MAU type only)
Power Via MDI TLV		Receivable	Not viewed
Link Aggregation TLV	Link aggregation port ID/ status	Receivable	Not viewed
Maximum Frame Size TLV	Maximum frame size	Receivable	Not viewed
LLDP-MED Extension			
LLDP-MED Capabilities TLV	LLDP-MED capabilities/ device type	Receivable	Not viewed
Network Policy TLV	Network policy	Receivable	Viewed (Voice, VoiceSignaling, Unknown only)
Location Identification TLV	Location identification	Receivable	Viewed (Civic Address, ECS ELIN only)

Received LLDP TLV

TLV	Description	Received Data	
		Availability	Online Monitoring
Extended Power-Via-MDI TLV	Power information	Receivable	Not viewed
Hardware Revision TLV	Hardware version	Receivable	Not viewed
Firmware Revision TLV	Firmware version	Receivable	Not viewed
Software Revision TLV	Software version	Receivable	Not viewed
Serial Number TLV	Serial number	Receivable	Not viewed
Manufacturer Name	Manufacturer name	Receivable	Viewed
Model Name	Model name	Receivable	Viewed
Asset ID	Asset ID (Property ID)	Receivable	Viewed

[Conditions for LLDP Auto Setting]

(1) To enable the LLDP Auto Setting Mode, an LLDP packet needs to contain a Network Policy TLV with Unknown Policy Flag (U) set to "0." If more than one Network Policy TLV is contained in a LLDP packet, all of their Unknown Policy Flag (U) must be "0."

(2) Both LLDP and LLDP Auto Setting Modes need to be enabled.

(3) DT700 Series will wait until it receives a valid LLDP packet for the LLDP Auto Setting or the Reception Waiting Time (RX Waiting Time) has timed out. In the latter case, the LLDP Auto Setting will not be performed. When receiving an LLDP packet with partially valid data, DT700 Series will continue waiting until it receives the one having all valid information for the LLDP Auto Setting. If no LLDP packets containing all valid data are received within the Reception Waiting Time (RX Waiting Time), the LLDP Auto Setting will be made by using LLDP packets with partially valid data.

Criteria for the LLDP Auto Setting

Received LLDP Packet	Waiting for Valid LLDP Packet (RX Waiting Time)	Auto Setting
Packet containing all valid data	Ends	Performed
Packet containing partially valid data	Continues	Performed by using only valid data after the Reception Waiting Time (RX Waiting Time) is expired
Packet containing no valid data	Continues	Not performed

(4) The following settings can be automatically configured by the LLDP Auto Setting:

- LAN port configuration/VLAN ID
- LAN port configuration/VLAN priority
- TOS mode/RTP
- TOS mode/SIP

(5) The LLDP Auto Setting is performed for each setting.

(6) The configuration data assigned to DT700 Series terminal is used until the LLDP data configured by the LLDP Auto Setting is applied.

(7) For setting items with invalid data, the LLDP Auto Setting is not performed.

(8) The priority order of the Layer 2 configuration is as follows:

1. Telephony Server definition
2. LLDP Auto Setting
3. Configuration data assignment of DT700 Series terminal

Note: Settings with lower priority are overridden by higher priority settings.

(9) Modification in the network configuration of the adjacent LLDP-capable device will cause changes in the LLDP information received by DT700 Series, but this will not activate the LLDP Auto Setting. If you need to modify the configuration data of DT700 Series, change the setting on the terminal or restart it.

(10) Changes in the configuration of the adjacent LLDP-capable device can disconnect communication between the DT700 Series terminal and the Telephony Server. In this case, DT700 Series automatically restarts.

(11) Setting data configured by the LLDP Auto Setting are not stored in the flash memory, and will be lost by turning the power off and on, or doing a hard or soft reset. In this case, perform the LLDP Auto Setting again.

(12) The AutoConfig is implemented for the settings configured by the Configuration data assignment of DT700 Series terminal after an IP address is allocated via DHCP, and then the DT700 terminal is reset. For this reason, AutoConfig setting has a priority equal to that of the Configuration data assignment.

(13) Conditions for LAN port configuration/VLAN ID

To configure VLAN ID, DT700 Series needs to receive an LLDP packet containing one or more Network Policy TLVs. VLAN ID is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for VLAN ID Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0

Note: For TLV definition, refer to the relevant manuals.

Note: This TLV definition will affect all types of packets (such as SIP, RTP, and HTTP) handled by DT700 Series.

(14) Conditions for LAN port configuration/VLAN priority

To configure VLAN priority, DT700 Series needs to receive an LLDP packet containing one or more Network Policy TLVs. VLAN priority is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for VLAN Priority Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0

Note: For TLV definition, refer to the relevant manuals.

Note: This TLV definition will affect all types of packets (such as SIP, RTP, and HTTP) handled by DT700 Series.

(15) Conditions for ToS mode/RTP

To configure ToS mode/RTP, DT700 Series needs to receive an LLDP packet containing one or more Network Policy TLVs. ToS mode/RTP is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for ToS Mode/RTP Configuration

TLV Element	Condition
Application Type	Voice (1)
Unknown Policy Flag (U)	0
Tagged Flag (T)	Not Applicable

Note: For TLV definition, refer to the relevant manuals.

(16) Conditions for ToS mode/SIP

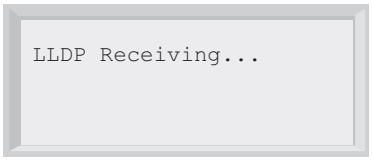
To configure ToS mode/SIP, DT700 Series needs to receive an LLDP packet containing one or more Network Policy TLVs. ToS mode/SIP is determined based on the received Network TLVs meeting the conditions below:

Network Policy TLV Requirements for ToS Mode/SIP Configuration

Priority	TLV Element	Condition
Primary	Application Type	Voice Signaling (2)
	Unknown Policy Flag (U)	0
	Tagged Flag (T)	Not Applicable
Secondary	Application Type	Voice (1)
	Unknown Policy Flag (U)	0
	Tagged Flag (T)	Not Applicable

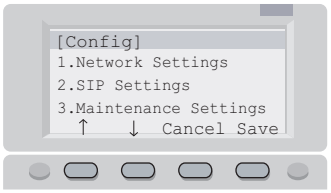
Note: For TLV definition, refer to the relevant manuals.

(17) The LCD displays the following message during the LLDP Auto Setting, including LLDP packet reception.

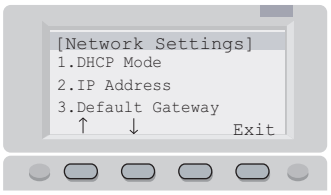


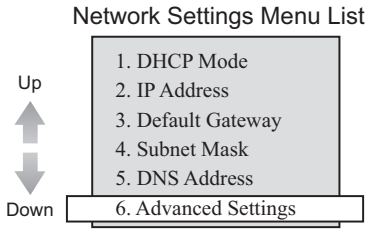
<How to Enable LLDP and LLDP-MED>

STEP 1: On [Config] menu, select “1. Network Settings.”

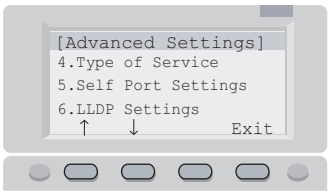


STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

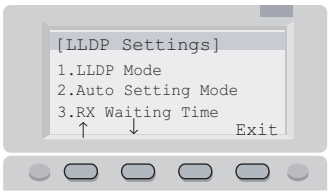




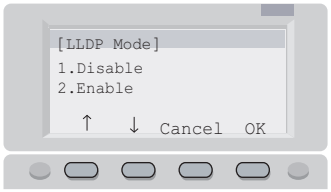
STEP 3: On [Advanced Settings] menu, select “6. LLDP Settings.”



STEP 4: The LCD displays [LLDP Settings] screen. Select “1. LLDP Mode.”



STEP 5: The LCD displays [LLDP Mode] screen.



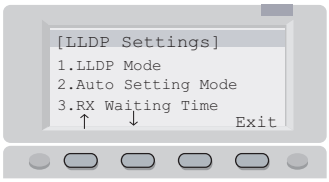
- Press the digit key “2” to transmit/receive LLDP packets.
- Press the digit key “1” not to transmit/receive LLDP packets.
- Press the software key for “OK” when the [LLDP Mode] setting is complete.

Note: “2. Enable” is set by default.

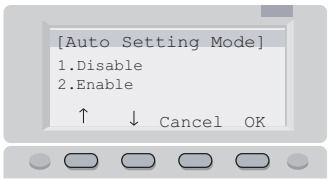
A

A

STEP 6: The LCD displays [LLDP Settings] screen.



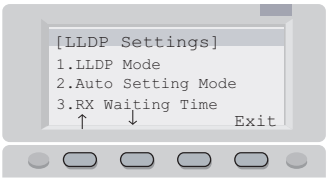
STEP 7: On [LLDP Settings] menu, select "2. Auto Setting Mode."



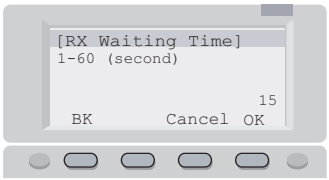
- Press the digit key "2" to enable the Auto Setting Mode.
- Press the digit key "1" to disable the Auto Setting Mode.
- Press the software key for "OK" when the [Auto Setting Mode] setting is complete.

Note:
- "2. Enable" is set by default.
- This data is valid when the LLDP mode is enabled.

STEP 8: The LCD displays [LLDP Settings] screen. Select "3. RX Waiting Time."



STEP 9: The LCD displays [RX Waiting Time] menu.



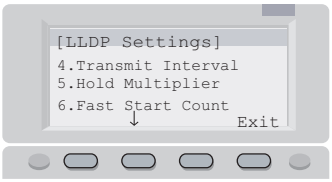
- Set the RX Waiting Time using digit keys.
- You can set 1- 60 (default time: 15) seconds.
- Press the software key for "BK" to delete the RX Waiting Time.
- Press the software key for "OK" when the [RX Waiting Time] settings is complete.

Note: This data is valid when the LLDP mode and Auto Setting Mode are enabled.

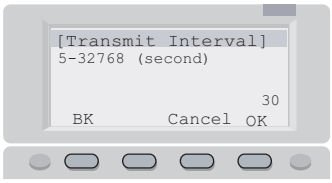
B

B

STEP 10: The LCD displays [LLDP Settings] menu. Select “4. Transmit Interval.”



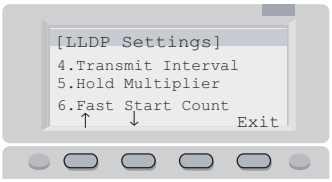
STEP 11: The LCD displays [Transmit Interval] setting screen.



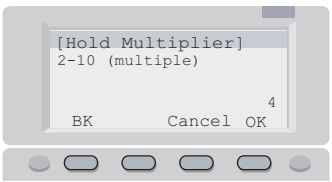
- Set intervals to transmit LLDP packets using digit keys.
- You can set 5-32768 (default interval: 30) seconds.
- Press the software key for “BK” to delete the transmitting interval.
- Press the software key for “OK” when the [Transmit Interval] setting is complete.

Note: This data is valid when the LLDP mode is enabled.

STEP 12: The LCD displays [LLDP Settings] menu. Select “5. Hold Multiplier.”



STEP 13: The LCD displays [Hold Multiplier] setting screen.



- Set the time to live for the LLDP data using Digit Keys.
- The time to live will be determined by multiplying [Transmit Interval] value by the [Hold Multiplier] value.
- You can set 2-10 (default multiplier: 4) times.
- Press the software key for “BK” to delete the [Hold Multiplier] value.
- Press the software key for “OK” when the [Hold Multiplier] settings is complete.

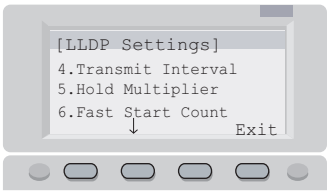
Note: This data is valid when the LLDP mode is enabled.

Note : When the value obtained by multiplying [Transmit Interval] value by the [Hold Multiplier] value exceeds 65535 seconds, the time to live for the LLDP data will be 65535 seconds.

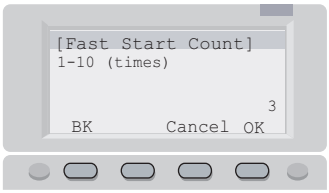
C

C

STEP 14: The LCD displays [LLDP Settings] menu. Select “6. Fast Start Count.”



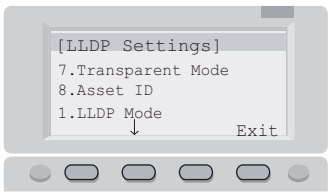
STEP 15: The LCD displays [Fast Start Count] setting screen.



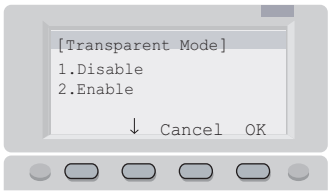
- Set the number of times to transmit LLDP packets at one-second intervals after DT700 Series starts up using digit keys.
- You can set 1-10 (default count: 3) times.
- Press the software key for “BK” to delete the number.
- Press the software key for “OK” when the [Fast Start Count] settings is complete.

Note: This data is valid when the LLDP mode is enabled.

STEP 16: The LCD displays [LLDP Settings] menu. Select “7. Transparent Mode.”



STEP 17: The LCD displays [Transparent Mode] setting screen.



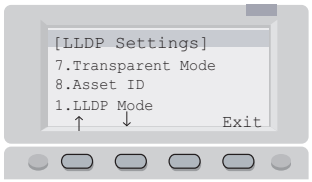
- Press the digit key “2” to enable the Transparent Mode.
- Press the digit key “1” to disable the Transparent Mode.
- Press the software key for “OK” when the [LLDP Mode] setting is complete.

Note: “2. Enable” is set by default.

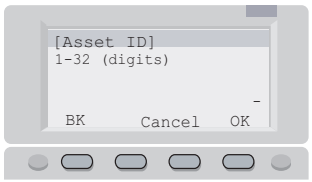
D

D

STEP 18: The LCD displays [LLDP Settings] menu. Select “8. Asset ID.”



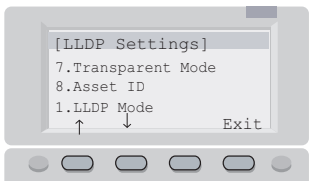
STEP 19: The LCD displays [Asset ID] setting screen.



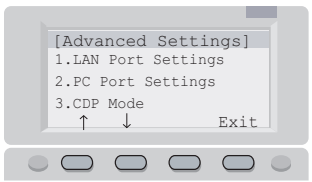
- Set the Asset ID using digit keys for the LLDP packet to be transmitted.
- You can set 1-32 digits of alphanumeric characters for the Asset ID. See [How to Enter Characters on Configuration Menu] for how to enter characters.
- Press the software key for “BK” to delete the Asset ID.
- Press the software key for “OK” when the [Asset ID] settings is complete.

Note: This data is valid when the LLDP mode is enabled.
Note: You can finish this setting by pressing the software key for “OK” without entering digits because of the software specification. In this case, the default data “-” will be set automatically .

STEP 20: The LCD displays [LLDP Settings] menu. Press the software key for “Exit.”



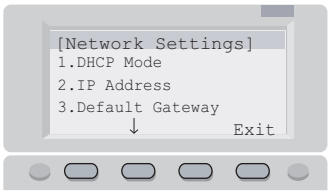
STEP 21: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



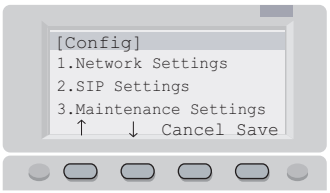
E

E

STEP 22: The LCD returns to [Network Settings] menu. Press the software key for “Exit”.



STEP 23: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

4.3.2.5 Spare/Backup IP

This section explains data assignment of Spare/Backup IP.

Even if DT700 Series fails to obtain an IP address from DHCP server, the DT700 Series can connect to the Telephony Server using Spare/Backup IP address.

Either of the following will be used as a substitute IP address depending on a substitute IP address mode assigned.

- Spare IP:IP address set by the Configuration Setting
- Backup IP:IP address obtained from DHCP last time

Spare IP

- If you set the following information by the Configuration Setting when substitute IP address mode is Spare IP, DT700 Series can use the following information as the substitute information while DHCP is out of service.
- IP Address
- Subnet Mask
- Default Gateway
- DNS Server Address
- 2nd - 4th Server Address
- 2nd - 4th Server Port

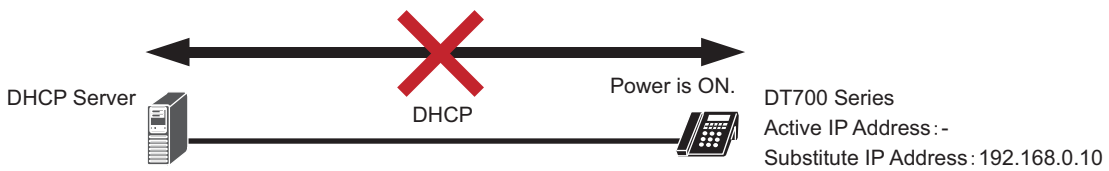
Note: It is mandatory to set IP address and Subnet Mask.

Operation with Spare IP

[1] The power of DT700 Series is OFF. A substitute IP address is set by Configuration Menu in advance.



[2] The power of DT700 Series is turned ON. DT700 Series fails to obtain an IP address because of communication failure.



[3] DT700 Series starts operating with a substitute IP address.



Backup IP

If you set the following information when substitute IP address mode is Backup IP, DT700 Series can save the following information which has been obtained from the DHCP server in advance so that DT700 Series can use the information as the substitute information if the DHCP server becomes out of service in the next time.

- IP Address
- Subnet Mask (obtained through DHCP option 1)
- Default Gateway (obtained through DHCP option 3)
- DNS Server Address (obtained through DHCP option 6)
- 2nd - 4th Server Address (obtained through DHCP option 120)
- 2nd - 4th Server Port (obtained through Vendor-class-identifier option 168)

Operation with Backup IP

[1] The power of DT700 Series is OFF.



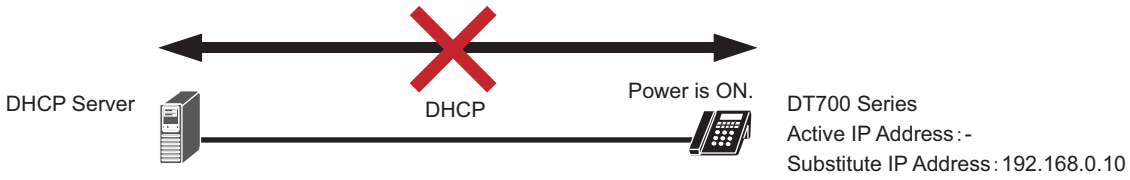
[2] The power of DT700 Series is turned ON. DT700 Series obtains an IP address from the DHCP server. DT700 Series operates with the obtained IP address. The obtained IP address is set for the configuration at the same time.



[3] The obtained IP address is saved as a substitute IP address in the configuration even after DT700 Series is turned OFF.



[4] The power of DT700 Series is turned ON. DT700 Series fails to obtain an IP address because of communication failure.



[5] DT700 Series starts operating with a substitute IP address.



<Service Conditions>

(1) This service is available for DT700 Series equipped with firmware version 4.0.0.0 or later.

Note: For DT730G, available for firmware version 1.0.0.0 or later.

(2) To use the Spare IP/Backup IP function, DHCP Mode needs to be enabled.

(3) IP address (ACT) of the Telephony Server needs to be assigned to DT700 Series.

(4) Spare IP and Backup IP share a substitute IP address information in the Configuration Settings. Even if the substitute IP address mode has been changed, DT700 Series maintains the substitute IP address information such as IP address, Subnet Mask, Default Gateway, DNS Server Address, 2nd - 4th Server Address, and 2nd - 4th Server Port.

(5) Even when the substitute IP address mode is Backup IP address, you can set the information above by Configuration Setting manually, but the information will be overwritten when DT700 Series obtains the new information from the DHCP server again.

(6) When DT700 Series uses the substitute IP address, DT700 Series attempts to connect to the 2nd Server without connecting to the 1st Server. When the 2nd Server does not answer or an error occurs, DT700 Series attempts to connect to the next server. DT700 Series keeps using the substitute IP address without obtaining an IP address from the DHCP server.

(7) When DT700 Series fails to connect to all of the 2nd - 4th servers, an error occurs. Then DT700 Series performs retry to obtain an IP address from the DHCP server. If DT700 Series obtains an IP address successfully, DT700 Series attempts to connect to the 1st server without using the substitute IP address.

(8) DT700 Series uses the following Configuration data when the substitute IP address is in service. DT700 Series determines the setting data kind on a group basis. When the setting data is included to the same group, the same setting data kind, Configuration (substitute) or Configuration, will be used.

Configuration data (substitute) : Configuration data in [0. Config] - [1. Network Settings] - [6. Advanced Settings] - [7.Spare IP Settings] - [2.Network Settings]/[3.SIP Settings]

Configuration data : Configuration data in [0. Config] - [1. Network Settings]/[2. SIP Settings]

Priority Order of Setting Data Kind While Using Substitute IP Address

Group	Group A	Group B	Group C	Group D	Group E
Setting Data / Priority Order	IP Address Subnet Mask	Default Gateway	DNS Server Address	2nd/3rd/4th Server Address	2nd/3rd/4th Server Port
Primary	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)	Configuration data (substitute)
Secondary	None	Configuration data	Configuration data	Configuration data	Configuration data

Note: When no higher priority data is set in the configuration, the lower priority data will be used without using the default data. When no data exists in all the groups, the default data of the lowest priority will be used.

(9) Even if the DHCP server allows DT700 Series to obtain IP address, DT700 Series does not obtain the IP address automatically. Restart the DT700 Series (by manual operation, operation from the Telephony Server or turn OFF and ON the DT700 Series).

(10) If the DHCP server recovers while using a substitute IP address, the DHCP server may distribute the duplicated IP address of the substitute IP address which DT700 Series uses. Also network failure occurs if the DHCP server distributes the duplicated IP address of the substitute IP address which DT700 Series uses over the networks.

(11) The Spare IP/Backup IP function will become active after restarting DT700 Series.

(12) The Spare IP/Backup IP function will become active after DT700 Series data clear (Initialization, Station Data Clear).

(13) Even when DT700 Series fails to connect to the Telephony Sever, the DT700 Series can save the substitute IP address information in Backup IP mode at the time it obtains an IP address from the DHCP server.

(14) A substitute IP address may inhibit DT700 Series from connecting to the Telephony Server if the substitute IP address duplicates other IP addresses used for the equipment in the network.

(15) AutoConfig will not be activated while a substitute IP address is in service.

(16) When AutoConfig Mode is in service, the operation mode of Spare IP/Backup IP will become the default data by initialization. In the case of Backup IP, the IP address obtained from the DHCP server last time will be maintained.

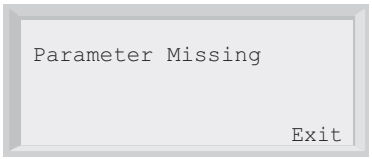
(17) The obtained data from the DHCP server last time for Backup IP will be deleted when DT700 Series data clear (Initialization, Station Data Clear) is performed. In the factory setting, DT700 Series does not have the data required for Backup IP so that Backup IP is not activated.

(18) When a substitute IP address is in service, functions except telephone functions, XML application for example, may not operate normally.

(19) Backup data is a target of [5. Setting] - [3. Data Backup/Restore] in the configuration menu.

(20) When the substitute IP address mode is Backup IP, DT700 Series saves an IP address obtained from the DHCP server in the Flash Memory. If the power of DT700 Series is turned OFF while saving the IP address in the Flash Memory, DT700 Series may not start up.

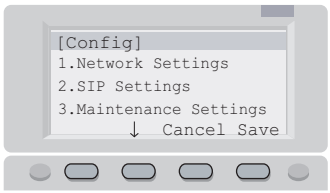
(21) When the substitute IP address is out of service, the LCD displays the following error message. DT700 Series retries to obtain the IP address from the DHCP server when the certain period of time has elapsed since the LCD displays the error, or a user of DT700 Series presses the software key for “Exit.” Configuration setting is available even when the LCD displays the error message.



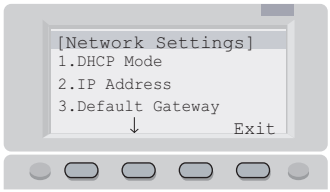
(22) When the substitute IP address mode is Backup IP, only IP addresses that are obtained through DHCP option 120 can be saved as 2nd - 4th Server Addresses. IP addresses obtained through DHCP option 162 are recognized as used for Location Diversity [L-55], and cannot be saved.

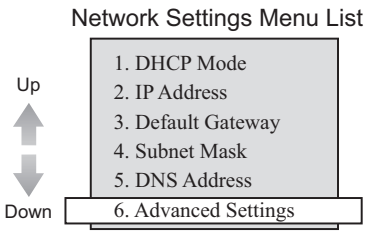
<How to Set the Substitute IP Address>

STEP 1: On [Config] menu, select “1. Network Settings.”

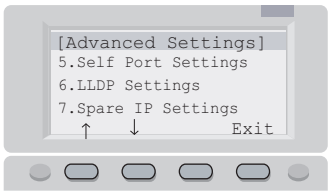


STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

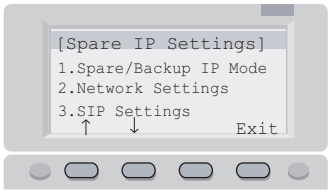




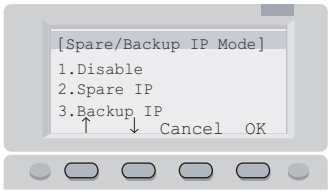
STEP 3: On [Advanced Settings] menu, select “7. Spare IP Settings.”



STEP 4: The LCD displays [Spare IP Settings] screen. Select “1. Spare/Backup IP Mode.”



STEP 5: The LCD displays [Spare/Backup IP Mode] screen.



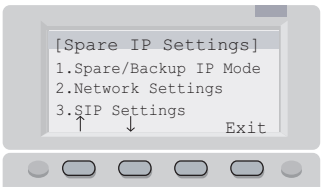
- Press the digit key “1” to disable the Spare/Backup IP.
- Press the digit key “2” to use the Spare IP.
- Press the digit key “3” to use the Backup IP.
- Press the software key for “OK” when the [Spare/Backup IP Mode] setting is complete.

Note: This data is valid when the Spare/Backup IP is disabled.

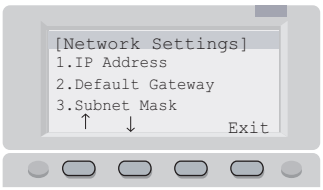
A

A

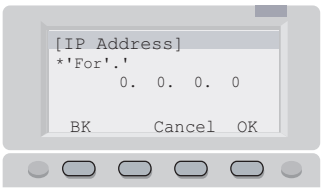
STEP 6: The LCD displays [Spare IP Settings] menu. Select “2. Network Settings.”



STEP 7: The LCD displays [Network Settings] menu.



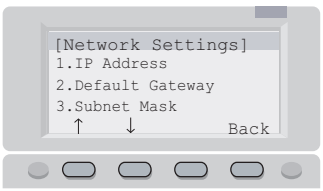
STEP 8: On [Network Settings] menu, select “1. IP Address.” Assign the IP address using the digit keys.



- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [IP Address] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained IP address if DT700 Series obtains an IP address from DHCP server.

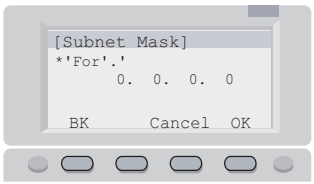
STEP 9: The LCD displays [Network Settings] menu.



B

B

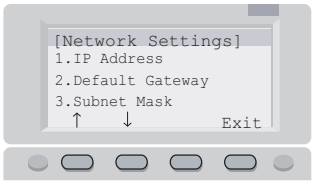
STEP 10: On [Network Settings] menu, select “3. Subnet Mask.” Assign the Subnet Mask using the digit keys.



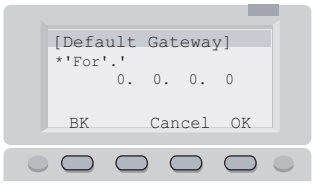
- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [Subnet Mask] setting is complete.

Note: When Backup IP is in service, this data will be also overwritten by obtained Subnet Mask if DT700 Series obtains an IP address from DHCP server.

STEP 11: The LCD displays [Network Settings] menu.



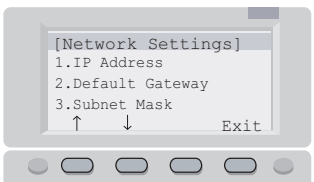
STEP 12: On [Network Settings] menu, select “2.Default Gateway.” Assign the Default Gateway address using the digit keys.



- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [Default Gateway] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained Default Gateway address if DT700 Series obtains an IP address from DHCP server. If obtained data does not have a Default Gateway address, the existing data is maintained.

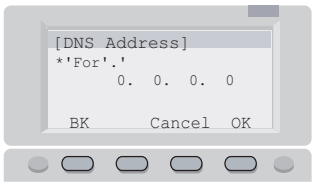
STEP 13: The LCD displays [Network Settings] menu.



C

C

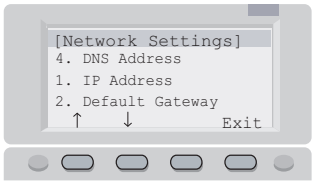
STEP 14: On [Network Settings] menu, select “4. DNS Address.” Assign the DNS address using digit keys.



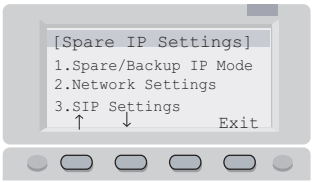
- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [DNS Address] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained DNS address if DT700 Series obtains an IP address from DHCP server. If obtained data does not have a DNS address, the existing data is maintained.

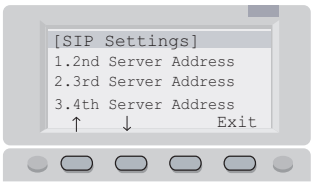
STEP 15: The LCD displays [Network Settings] menu.



STEP 16: On [Network Settings] menu, press software key for “Exit” to go back to [Spare IP Settings] menu.



STEP 17: On [Spare IP Settings] menu, select “3. SIP Settings.”



- Press the digit key “1” to Set the 2nd Server IP Address.
- Press the digit key “2” to Set the 3rd Server IP Address.
- Press the digit key “3” to Set the 4th Server IP Address.

- Press the digit key “4” to Set the 2nd Server port number.
- Press the digit key “5” to Set the 3rd Server port number.
- Press the digit key “6” to Set the 4th Server port number.

D

D

STEP 18: The LCD displays the selected [Server Address] or [Server Port] setting screen.

- Setting 2nd - 4th Server Address

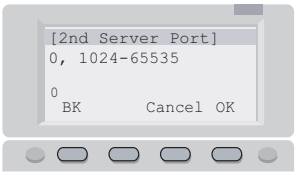


- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when all settings are complete.

Note: The figure shows an example when “1. 2nd Server Address” is selected in [SIP Settings] menu.

Note: When Backup IP is in service, this data will be overwritten by obtained SIP Server address if DT700 Series obtains an IP address from DHCP server. If obtained data does not have a SIP Server address, the existing data is maintained.

- Setting 2nd - 4th Server Port

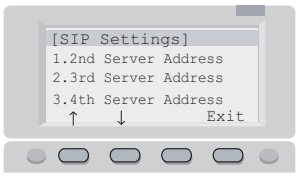


- Use digit keys.
- It is possible to enter 0 or values between 1024-65535.
- Default value is 0.
- Press the software key for “OK” when all settings are complete.

Note: The figure shows an example when “4. 2nd Server Port” is selected in [SIP Settings] menu.

Note: When Backup IP is in service, this data will be overwritten by obtained SIP Server port number if DT700 Series obtains an IP address from DHCP server. If obtained data does not have a SIP Server port number, the existing data is maintained.

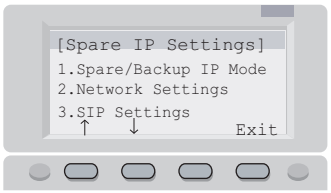
STEP 19: The LCD displays [SIP Settings] menu.



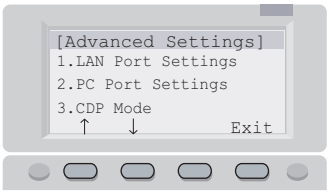
E

E

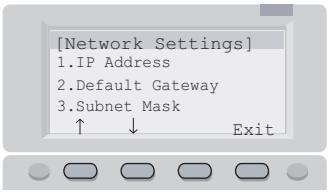
STEP 20: The LCD returns to [Spare IP Settings] menu. Press the software key for “Exit.”



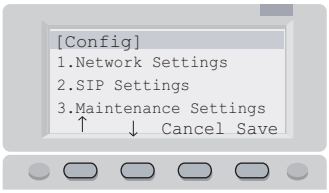
STEP 21: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



STEP 23: The LCD returns to [Network Settings] menu. Press the software key for “Exit”.



STEP 24: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



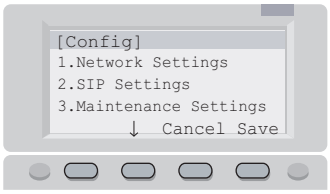
END

4.3.2.6 Digest Authentication

This menu assigns User ID and password for Digest Authentication.

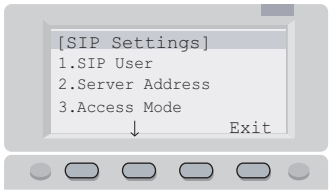
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”

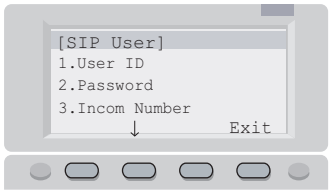


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

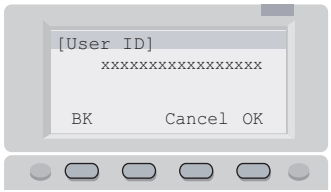
STEP 2: The LCD displays [SIP Settings] menu. Select “1. SIP User.”



STEP 3: On [SIP User] menu, select “1. User ID.”



STEP 4: The LCD displays [User ID] setting screen.

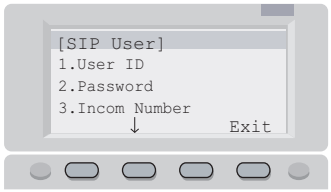


Enter User ID using the digit keys.

-Use digit keys 0-9, * and #.
-Press the software key for “BK” to delete entered value.

Press the software key for “OK” when all settings are complete.

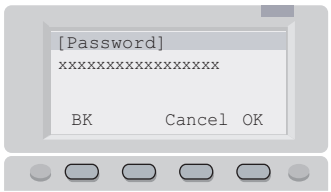
STEP 5: The LCD returns to [SIP User] menu. Select “2. Password.”



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STEP 6: The LCD displays [Password] screen.



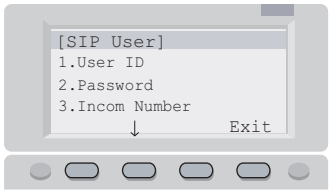
Enter Password for the User ID using the digit keys.

-Use digit keys 0-9, * and #.
-Press the software key for “BK” to delete entered value.

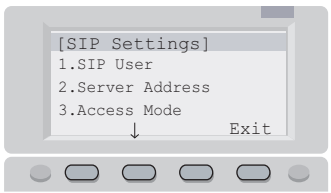
Press the software key for “OK” when all settings are complete.

Note: The terminal will not display the entered value as numbers, but will instead display them as asterisks (*).

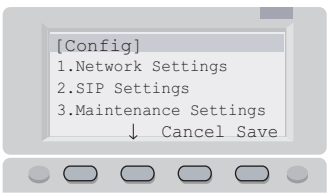
STEP 7: The LCD returns to [SIP User] menu. Press the software key for “Exit.”



STEP 8: The LCD returns to [SIP Settings] menu. Press the software key for “Exit” to return to [Config] menu.



STEP 9: On [Config] screen, press the software key “Save” to save the settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [SIP Settings] → [User] → [User ID].

STEP 2: Enter User ID using the digit keys, and then click the “OK” button.
0-9, *, # are available (maximum 32 characters).

STEP 3: Select [SIP Settings] → [User] → [Password].

STEP 4: Enter password for the User ID using the digit keys, and then click the “OK” button.
0-9, *, # are available (maximum 24 characters). **Note 13**

Note 13: The terminal will not display the entered value as numbers. Instead, they will be displayed as asterisks (*).

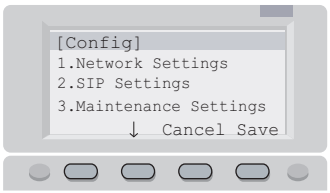
STEP 5: Click the “Save” button.

4.3.2.7 Port Number

This section explains how to change the port number used to send packets from DT700 Series to SIP server.

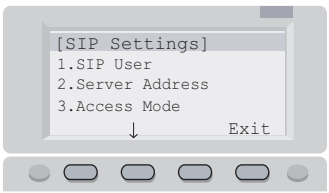
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”

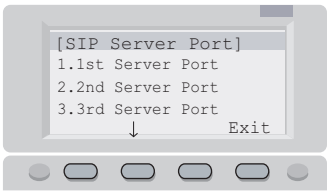


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: The LCD displays [SIP Settings] menu. Select “4. SIP Server Port.”



STEP 3: The LCD displays [SIP Server Port] menu.



Perform one of the following:

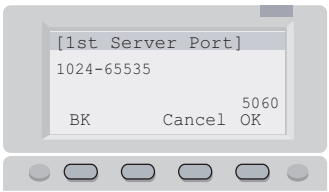
a.) Press 1. to change the port number of 1st SIP server used to send packets.

b.) Press 2. to change the port number of 2nd SIP server used to send packets.

c.) Press 3. to change the port number of 3rd SIP server used to send packets.

d.) Press 4. to change the port number of 4th SIP server used to send packets.

STEP 4: The LCD displays the chosen [Server Port] setting screen. (The user chose the 1st Server Port in this example.

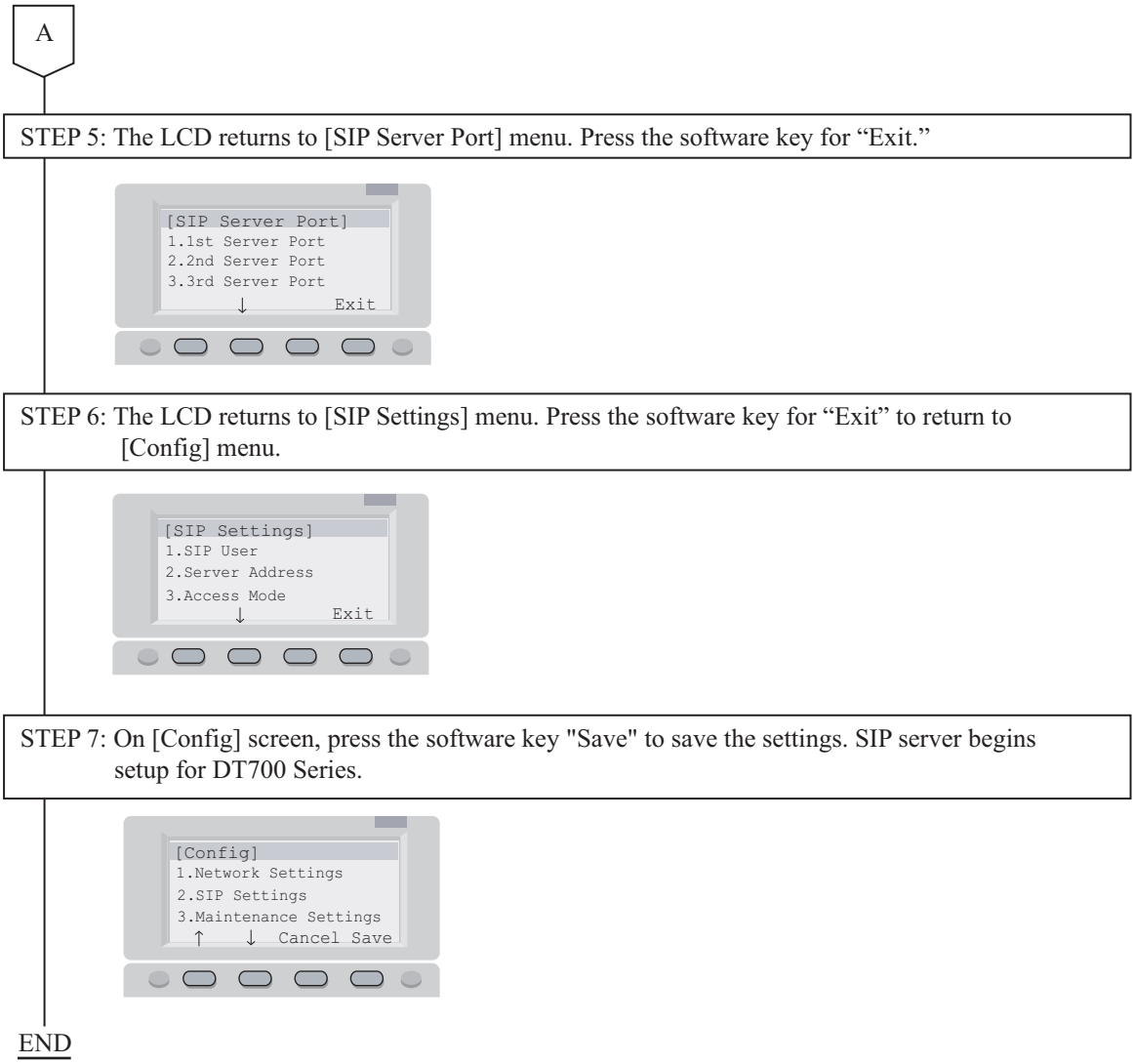


Enter User ID using the digit keys.

-Use digit keys.
-It is possible to enter values between 1024-65535.
-Default value is 5060.

Press the software key for “OK” when all settings are complete.

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[2] Configuration Setting by Web Programming

STEP 1:Select [SIP Settings] → [SIP Server Port].

STEP 2: Choose which SIP server’s port number to change.

- Choose 1. to change the port number of 1st SIP server used to send packets.
- Choose 2. to change the port number of 2nd SIP server used to send packets.
- Choose 3. to change the port number of 3rd SIP server used to send packets.
- Choose 4. to change the port number of 4th SIP server used to send packets.

STEP 3: Enter the Port number using digit keys. Then click the “OK” button.

- It is possible to enter values between 1024-65535.
- Initial value is 5060.

STEP 4: Click the “Save” button. After setting is complete, SIP server begins setup for DT700 Series.

4.3.2.8 Area ID

DT700 Series terminal can adjust its tone patterns for different areas (countries) that it is used in. The user must assign the Area ID to make this possible. This section explains the areas where DT700 Series usage is possible and the procedure to change the Area ID.

[1] Configuration Setting on Terminal

[Countries (Areas) Where DT700 Series Usage is Available] **Note 14**

[Area ID/Country]
0. Automatic (Telephony Server side setting is applied when Automatic is selected.)
1. Japan
2. America (Canada and North America)
3. Australia
4. Others
5. Hong Kong
6. Malaysia
7. Singapore
8. Mexico
9. Taiwan
10. New Zealand
11. Korea
12. Brazil
13. China
14. Thailand
15. Thailand (EGAT)
16. Sri Lanka
17. Germany
18. Italy
19. Netherlands
20. Catalonia (Not used)
21. Denmark
22. Sweden
23. Poland
24. Czech
25. Norway
26. France
27. Portugal
28. Spain
29. Austria
30. Belgium
31. UK

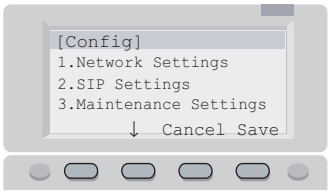
[Countries (Areas) Where DT700 Series Usage is Available] **Note 14**

[Area ID/Country]
32. Greece
33. Switzerland
34. South Africa
35. Brazil (NECU) **Note 15**

Note 14: Initial factory setting is “0. Automatic.” In other settings, the terminal side setting has priority.

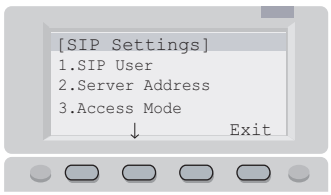
Note 15: “35. Brazil (NEC Phillips)” is displayed in the configuration menu earlier than FW 4.0.0.0 (except for DT730G).

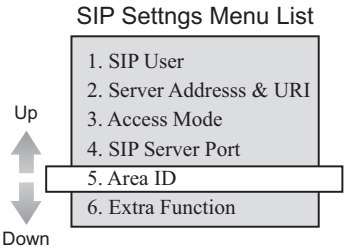
STEP 1: On [Config] menu, select “2. SIP Settings.”



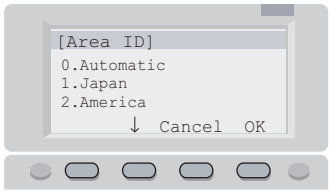
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: The LCD displays [SIP Settings] menu. Select “5. Area ID.”





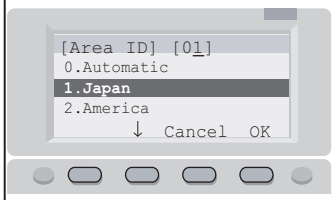
STEP 3: The LCD displays [Area ID] menu.



Enter Area ID using the digit keys.

-Use digit keys 0-9.
-LCD will display entering field upper right of the LCD.
-Enter 2-digit values.

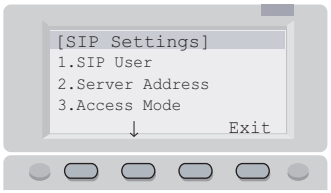
Example



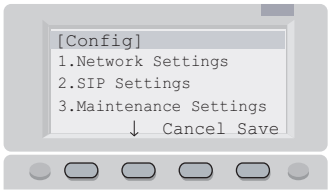
When selecting [1. Japan]:

1) Enter "0" and "1."
2) Entering Field displays "01."
3) "1. Japan" display flashes.
4) Press software key for "OK."

STEP 4: The LCD returns to [SIP Settings] menu. Press the software key for “Exit” to return to [Config] menu.



STEP 5: On [Config] screen, press the software key "Save" to save the settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [SIP Settings] → [Area ID].

STEP 2: Enter the Area ID using digit keys. Then click the “OK” button.

[Countries (Areas) Where DT700 Series Usage is Available]

[Area ID/Country]
0. Automatic (Telephony Server side setting is applied when Automatic is selected.)
1. Japan
2. America (Canada and North America)
3. Australia
4. Others
5. Hong Kong
6. Malaysia
7. Singapore
8. Mexico
9. Taiwan
10. New Zealand
11. Korea
12. Brazil
13. China
14. Thailand
15. Thailand (EGAT)
16. Sri Lanka
17. Germany
18. Italy
19. Netherlands
20. Catalonia (Not used)
21. Denmark
22. Sweden
23. Poland
24. Czech
25. Norway
26. France
27. Portugal
28. Spain
29. Austria
30. Belgium
31. UK
32. Greece
33. Switzerland

[Countries (Areas) Where DT700 Series Usage is Available]

[Area ID/Country]
34. South Africa
35. Brazil (NECU) **Note 16**

STEP 3: Click the “Save” button.

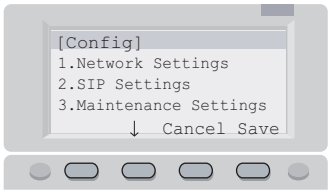
Note 16: “35. Brazil (NEC Phillips)” is displayed in the configuration menu earlier than FW 4.0.0.0 (except for DT730G).

4.3.2.9 Keeping Call

User can assign data to retain an ongoing call when the network between DT700 Series and the Telephony Server is disconnected by a failure.

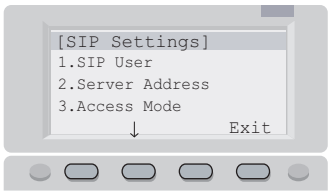
[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select “2. SIP Settings.”

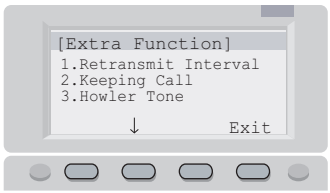


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: The LCD displays [SIP Settings] menu. Select “6. Extra Function.”



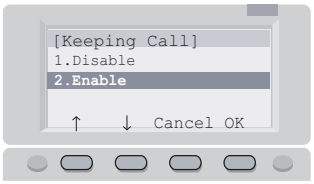
STEP 3: The LCD displays [Extra Function] menu. Select “2. Keeping Call” to display the [Keeping Cal] menu.



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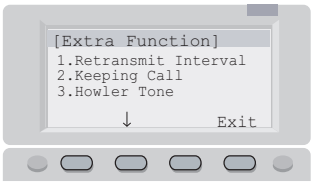
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STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”

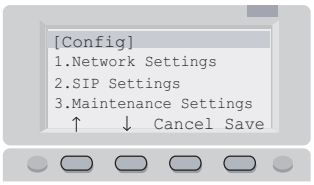


Note: When "2. Disable" is selected, an ongoing call through the handset will be kept until the appropriate terminal goes off-hook. An ongoing call through the headset or hands-free operation will be disconnected when the system detects the failure the system does not response to any information of terminal key operation.

STEP 5: The LCD returns to [Extra Function] menu. Press the software key for “Exit” to return to [Config] menu.



STEP 6: On [Config] screen, press the software key for “Save” to save the settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [SIP Settings] → [Extra Function] → [Keeping Call].

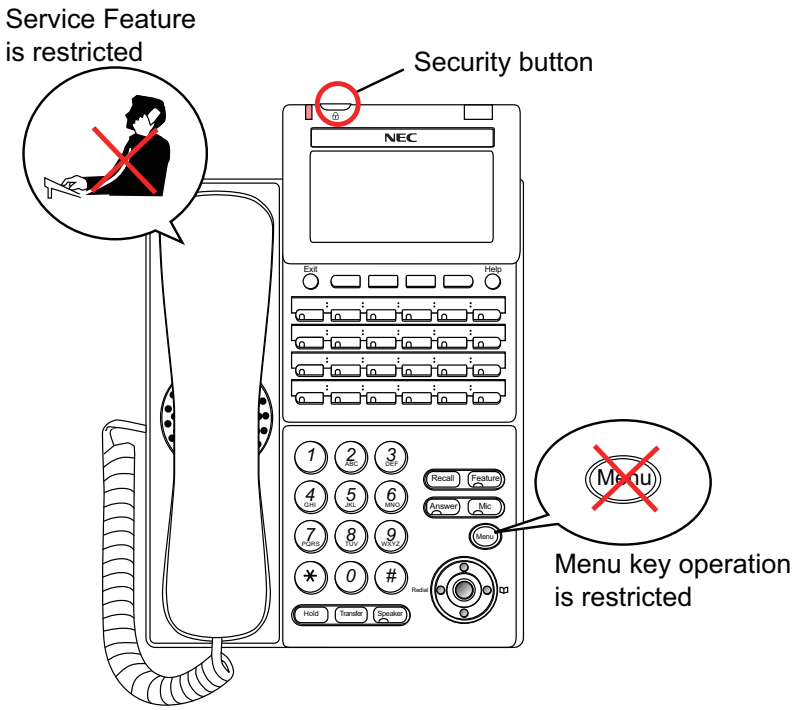
STEP 2: Select “2. Enable” radio button (Keeping Call is enabled).

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

4.3.2.10 Security Mode

Pressing the "Security" button on DT700 Series terminal starts up Security mode, which can restrict the Telephony Server provided service features and any configuration menu operation following the "Menu" key.



[Service Conditions]

(1) This function is available on DT700 Series terminal with Security button.

(2) Once the Security mode gets started, users cannot operate "Menu" button. In addition, the Telephony Server provided service features (excepting Emergency Call) and call origination/termination (**Note 17**) are all restricted on the terminal.

Note 17: Details for restriction on call origination/termination:
- Call origination (including Sub Line's call origination) is restricted.
- The terminal in Security mode rings for incoming call though, it cannot answer the call (including Sub Line's call termination).

(3) To make Security mode disabled, release password is required. When the terminal user does not remember the assigned Security password, the restriction can be released by administrator's menu [Config] → [3.Maintenance Settings Data] → [3.Data Clear] → [1.Factory Value]. Note that all the data including phonebook data on the terminal is cleared and gets back to factory default.

(4) When a terminal restarts for some reason during Security mode is in service, Security mode is not cancelled.

(5) If the user fails three times in a row to type the correct password to deactivate the Security mode, he/she cannot cancel Security mode for 10 minutes. This state is called "cancel locked." When cancel-locked terminal restarts for some reason, Security mode is not canceled.

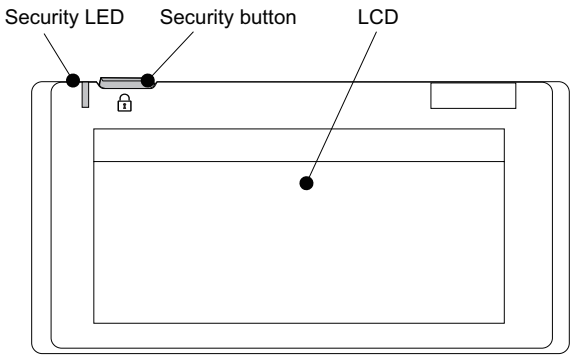
(6) It is possible to make a call using VOICE CALL [V-2] to a party in the Security mode. When a called party activates the Security mode with the MIC left ON, the called party can converse with a calling party though terminal operation is restricted.

(7) It is possible to make a call to a party in the Security mode, but the called party cannot respond because the terminal is locked. The terminal needs to release the Security mode to respond to the call.

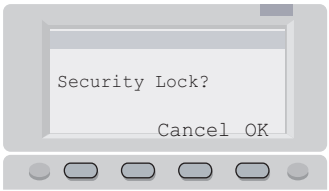
<How to Start/Release Security Mode>

[1] Start Security Mode

STEP 1: Press the "Security" button on the upper left of the terminal.



STEP 2: When the LCD asks "Security Lock?", press the software key for "OK."



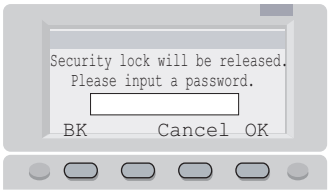
STEP 3: Security mode turns in service. Security LED lights and screen saver starts.

END

[2] Release Security Mode

STEP 1: While the Security Mode is in service (while the LCD displaying screen saver), press any key on the terminal. Password entry box appears for releasing Security mode.

STEP 2: Enter the password and then press the software key for “OK.”



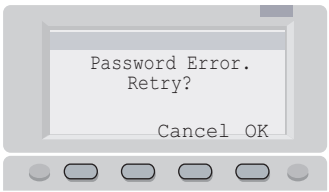
Note: Enter password of the terminal or Admin Password to release the Security lock. To change the password, refer to 4.3.2.22 Password Change.
Default value of each password:

- Password of the terminal: 0000
- Administrator Password: 6633222

STEP 3: Security LED turns OFF and the terminal exits Security mode.

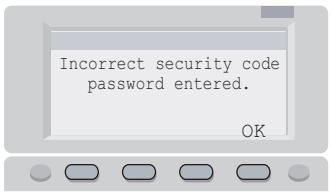
Note: The following explains the case when error occurs in password entry.

- The LCD displays “Security Violation” below for a password entry error.



- Pressing the software key for “Cancel” will start the screen saver and the Security mode continues.
- Pressing the software key for “OK” will return to the password entry screen.

- When the user fails three times in a row to type the correct password, the LCD displays “Security Violation” below.



- Pressing the software key for “OK” will start the screen saver and the Security mode continues.
- After the 10-minute lockout period has expired, the user can display the password entry screen again by pressing a key on the terminal.

END

<SIP Terminal Authentication and VoIP Encryption>

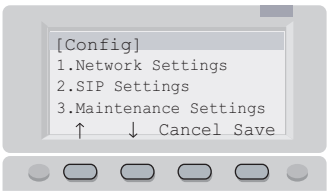
While the Security Mode is in service, terminal users can set data for SIP Terminal Authentication and VoIP Encryption.

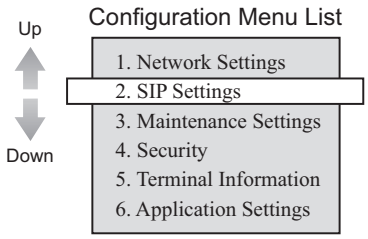
[1] Configuration Setting on Terminal

Note: Refer to SIP Terminal Authentication [S-152] and VoIP Encryption [V-27] for the Telephony Server side data assignment.

Note: This service is available with DT700 Series equipped with firmware version 2.2.0.0.

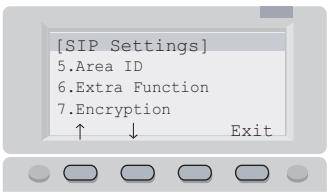
STEP 1: On [Config] menu, select "2. SIP Settings."



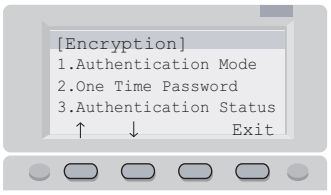


Note: For other operations,"↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available. Refer to <Operations> for more details.

STEP 2: The LCD displays [SIP Settings] menu. Select "7. Encryption."



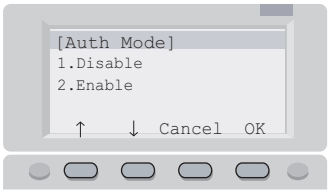
STEP 3: On [Encryption] menu, select "1. Authentication Mode."



A

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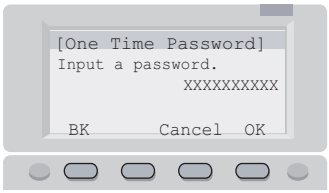
STEP 4: On [Auth Mode] menu, select “2. Enable”, then press the software key for “OK.”



STEP 5: The LCD displays [Encryption] menu.



STEP 6: On [Encryption] menu, select “2. One Time Password.” The LCD displays [One Time Password] screen.

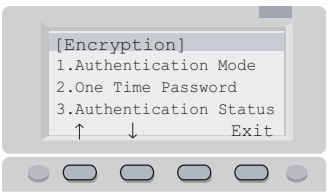


- Enter the password for User ID [up to 10 digits (“0-9”, “*”, “#”)].
- On the screen, the password will be displayed with “*”.
- To delete the entered value, press the software key for “BK.”
- Press the software key for “OK” when password entry is finished.

Note: Enter the same One Time Password as the password assigned to the Telephony Server.

Note: Refer to [How to Enter Characters on Configuration Menu] in 4.3.1.1 Configuration Setup on Terminal.

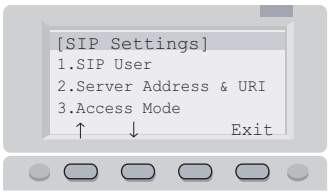
STEP 7: The LCD displays [Encryption] menu.



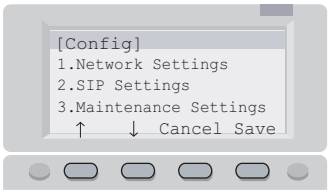
B

B

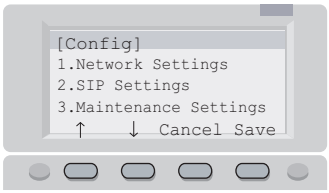
STEP 8: On [Encryption] menu, press the software key for “Exit.” The LCD displays [SIP Settings] menu.



STEP 9: On [SIP Settings] menu, press the software key for “Exit.” The LCD displays [Config] menu.



STEP 10: On [Config] screen, press the software key “Save” to save the settings.



END

[2] Configuration Setting by Web Programming

STEP 1: Select [SIP Settings] → [Encryption] → [Authentication Mode].

STEP 2: Select the [Enable] parameter, and click the “OK” button.

STEP 3: Select [SIP Settings] → [Encryption] → [One Time Password].

STEP 4: Enter the One Time Password [up to 10 digits (“0-9”, “*”, “#”)].

Note: On the screen, the password will be displayed with “*”.

Note: Enter the same One Time Password as the password assigned to the Telephony Server.

STEP 5: Click the “Save” button.

<Emergency Call>

While the Security Mode is in service, terminal user can originate an emergency call to pre-assigned number by handset's off-hook operation on emergency menu.

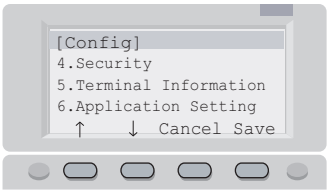
Note:

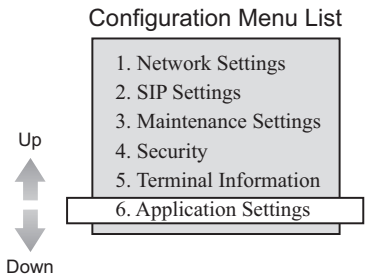
- Emergency Call can be set for firmware version 3.0.0.0 (DT730G with firmware version 1.0.0.0).
- For DT710 DESI-Less terminal, Emergency Call is not available.
- When using DT700 Series (DT750/DT730/DT710) with firmware version 5.0.0.0 or later, or DT730G, if Security Lock is not set after originating an Emergency Call, Security Lock will be set after 60 minutes from releasing Security Mode.

[1] Emergency Call Number Assignment

Register the destination number for emergency call on configuration menu of terminal. Up to three destinations can be assigned.

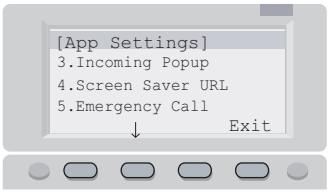
STEP 1: On [Config] menu, select "6. Application Settings."

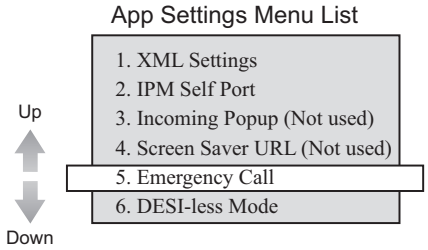




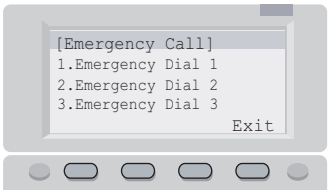
Note: For other operations,"↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available. Refer to <Operations> for more details.

STEP 2: The LCD displays [App Settings] menu. Select "5. Emergency Call."





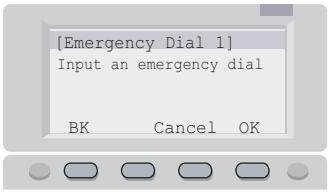
STEP 3: On [Emergency Call] menu, select "1. Emergency Dial 1."



A

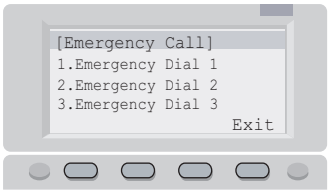
A

STEP 4: Enter the destination number for Emergency Call, and then press the software key for “OK.”

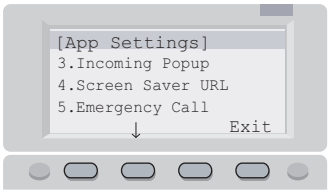


Note: This is an example for assigning the destination number for Emergency Dial 1. Perform these steps to Emergency Dial 2 and 3 in the same way if required.

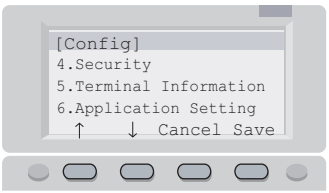
STEP 5: The LCD displays [Emergency Call] menu. Press the software key for “Exit.”



STEP 6: The LCD returns to [App Settings] menu. Press the software key for “Exit” to return to [Config] menu.



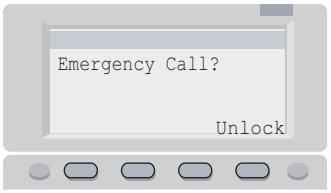
STEP 7: On [Config] menu, press the software key for “Save” to save the settings.



END

[2] Emergency Call Origination

STEP 1: While the Security Mode is in service (while the LCD displaying screen saver), go off-hook the handset to display Emergency Call menu.

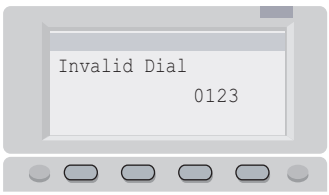


Note:

- Off-hook operation by other than handset cannot display Emergency Call menu. Password entry box for releasing Security mode appears as the other keys are pressed.
- Pressing the software key for “Unlock” on Emergency Call menu displays password entry box for releasing Security mode.
- When no emergency number is assigned, Emergency Call menu is not displayed. Password entry box for releasing Security mode appears instead.

STEP 2: Dial an emergency number using digit keys (0-9, *, #). The user can originate emergency call only to the previously assigned emergency number.

- When the dialed number corresponds to the assigned emergency number, Security mode is released and the call origination is established.
- When the dialed number does not correspond to the assigned emergency number, the LCD shows the message below. Then the LCD returns to Emergency Call menu after a few seconds.



STEP 3: After the call, place the handset on-hook. The LCD turns to time display. (Security mode is released.)

Note: When failed in originating an emergency call, Security mode is not released with on-hook operation.

END

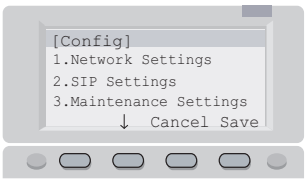
4.3.2.11 Side Tone

User can assign Sidetone Volume on DT700 Series terminal.

Note: Sidetone volume set by system takes priority over this setting.

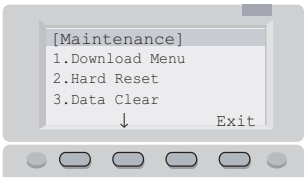
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select "3. Maintenance Settings."

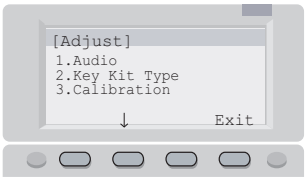


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

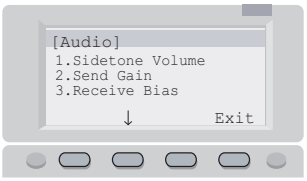
STEP 2: On [Maintenance] menu, select "4. Adjust" to display the [Adjust] menu.



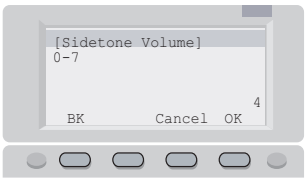
STEP 3: On [Adjust] menu, select "1. Audio."



STEP 4: On [Audio] menu, select "1. Sidetone Volume."



STEP 5: On [Side Tone] menu, use digit keys to assign Sidetone Volume. **Note 1**
Press the software key for "OK" when all settings are complete to return to [Audio] menu.



-Use digit keys 0-7.
-Press the software key for "BK" to delete entered value.

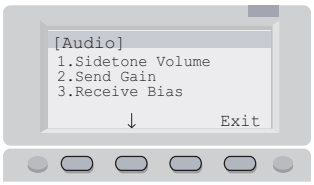
Assigned Value	Sidetone Volume Value (dB)
0	-54 (minimum value)
1	-48
2	-42
3	-36
4	-30 (initial value)
5	-24
6	-18
7	-12 (maximum value)

Note 1: Sidetone volume set by system takes priority over this setting.

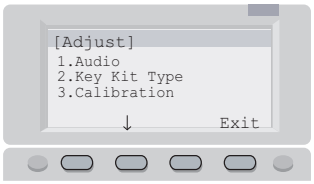
A

A

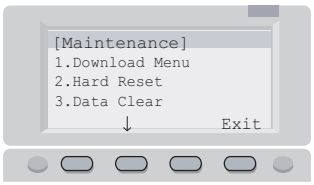
STEP 6: On [Audio] menu, press the software key for “Exit” to display [Adjust] menu.



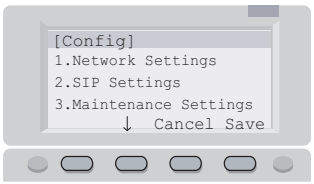
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Sidetone Volume].

STEP 2: Enter Sidetone Volume using number buttons 0-7. **Note 18**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

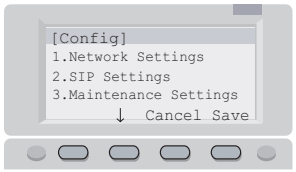
Note 18: For details on Sidetone Volume value, see [1] Configuration Setting on Terminal–STEP 5.

4.3.2.12 Handset Send Gain

User can assign Handset Send Volume on DT700 Series terminal. When the Telephony Server assigns Handset Send volume, it will have priority over the terminal side settings.

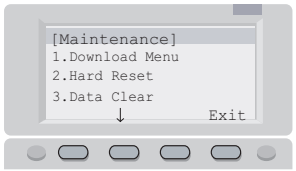
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

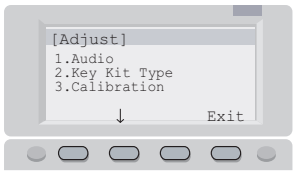


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

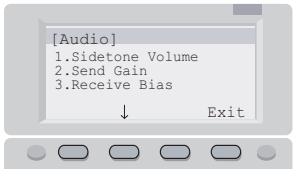
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



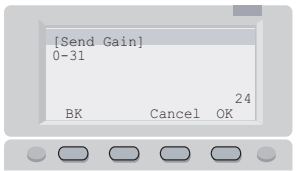
STEP 3: On [Adjust] menu, select “1. Audio.”



STEP 4: On [Audio] menu, select “2. Send Gain.”



STEP 5: On [Send Gain] menu, use digit keys to assign Handset volume.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.



-Use digit keys 0-31.
-Press the software key for “BK” to delete entered value.

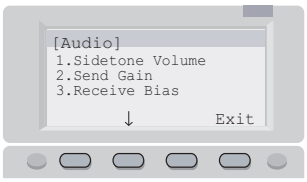
Assigned Value	Handset Volume
0	(Minimum Volume)
~	~
22	
23	
24	(Initial Value)
25	
26	
27	
28	
29	
30	
31	(Maximum Volume)

Note : Sidetone volume set by system takes priority over this setting.
Note : Volume becomes 2 dB higher/lower in each change of Assigned Value.

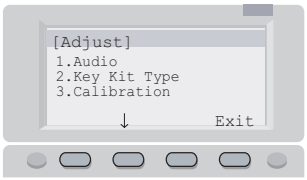
A

A

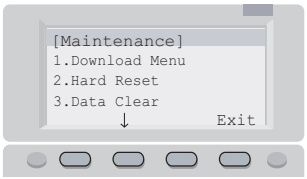
STEP 6: On [Audio] menu, press the software key for “Exit” to display [Adjust] menu.



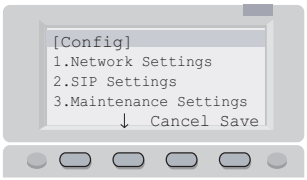
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Send Gain].

STEP 2: Enter Handset Send Volume using number buttons 0-31. **Note 19**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

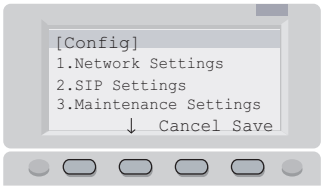
Note 19: For details on Handset Send Gain Value, see [1] Configuration Setting on Terminal–STEP 5.

4.3.2.13 Handset Receive Bias

User can assign Handset Receive Volume on DT700 Series terminal.

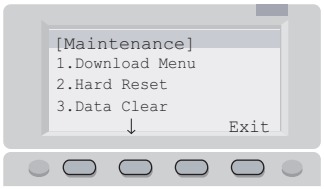
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

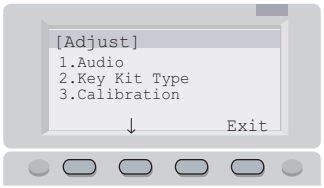


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

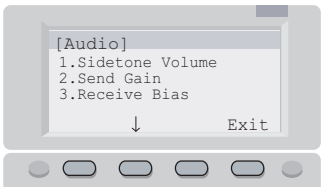
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



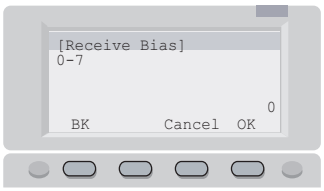
STEP 3: On [Adjust] menu, select “1. Audio.”



STEP 4: On [Audio] menu, select “3. Receive Bias.”



STEP 5: On [Receive Bias] menu, use digit keys to assign Handset Receive Volume.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.



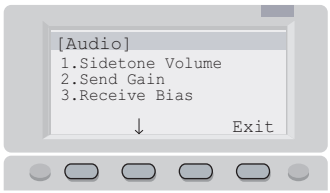
-Use digit keys 0-7.
-Press the software key for “BK” to delete entered value.

Assigned Value	Receive Bias Value (dB)
7	-6 (minimum value)
6	-4
5	-2
4	0
3	6
2	4
1	2
0	0 (initial value)

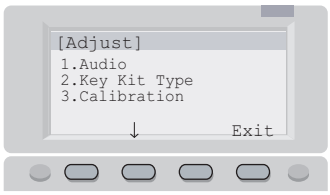
A

A

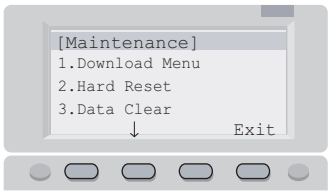
STEP 6: On [Audio] menu, press the software key for “Exit” to display [Adjust] menu.



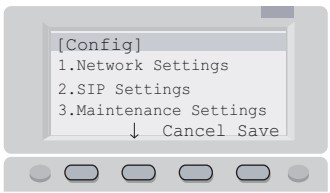
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



STEP 8: On [Maintenance] menu, press the software key for “Exit” to display [Config] menu.



STEP 9: On [Config] main menu, press the software key for “Save” to save settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Receive Bias].

STEP 2: Enter Handset Receive Volume using number buttons 0-7. **Note 20**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

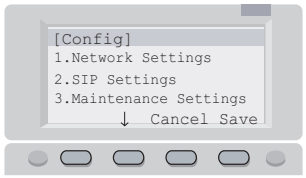
Note 20: For details on Handset Receive Bias Value, see [1] Configuration Setting on Terminal–STEP 5.

4.3.2.14 Handset Receive Gain

User can assign Handset Receive Volume on DT700 Series terminal. When the Telephony Server assigns Handset Receive volume, it will have priority over the terminal tone settings.

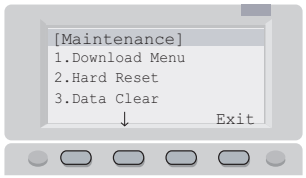
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “3. Maintenance Settings.”

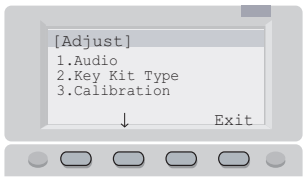


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

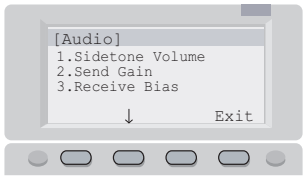
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



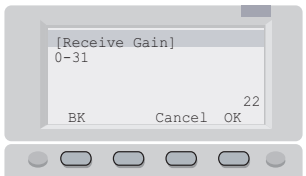
STEP 3: On [Adjust] menu, select “1. Audio.”



STEP 4: On [Audio] menu, select “4. Receive Gain.”



STEP 5: On [Receive Gain] menu, use digit keys to assign Handset Receive Gain.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.



- Use digit keys 0–31.
- Press the software key for “BK” to delete entered value.

Note : Sidetone volume set by system takes priority over this setting.

Assigned Value	Handset Volume
0	(Minimum Volume)
~	~
16	
17	
18	
19	
20	
21	
22	(Initial Value)
23	
24	
~	
31	(Maximum Volume)

Note : Volume becomes 2 dB higher/lower in each change of Assigned Value.

A



[2] Configuration Setting by Web Programming

STEP 1:Select [Maintenance] → [Adjust] → [Audio] → [Receive Gain].

STEP 2: Enter Handset Receive Gain using number buttons 0-31. **Note 21**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

Note 21: For details on Handset Receive Gain Value, see [1] Configuration Setting on Terminal–STEP 5.

4.3.2.15 IEEE802.1X Authentication

This section explains how to assign data for IEEE 802.1X authentication for DT700 Series.

DT700 Series supports the User Name and Password-based IEEE 802.1X (EAP-MD5) authentication method. When a PC with supplicant feature available is connected to the DT700 Series' PC port, EAP packet can be forwarded from that PC via DT700 Series (EAP Forwarding Feature).

There are four connection patterns.

PATTERN 1:

- Hardware is not connected to DT700 Series terminal's PC port.
- User enables DT700 Series terminal's 802.1X Supplicant feature.
- DT700 Series operates by connecting to a switch corresponding to authentication.
- If unauthorized hardware is connected to the PC port after authentication process is completed, unauthorized access to the network will occur. To prevent this from happening, we recommend that the users perform either of the following:
  - Perform preventive measures on authentication switch side
  - Disable PC Port in DT700 Series' Configuration menu

PATTERN 2:

- Hardware without Supplicant feature is connected to DT700 Series terminal's PC port.
- User enables DT700 Series terminal's 802.1X Supplicant feature.
- DT700 Series operates by connecting to a switch corresponding to authentication.
- Regarding the PC connected to DT700 Series terminal:
  To register the PC's MAC Address as authorized hardware, the following are required on the authentication switch side:
  - Multi–Host Authentication Feature
  - MAC Address Authentication Feature
- When separating audio and data network by attaching different VLAN ID to the packets from the PC and the packets from the DT700 Series respectively:
  - Multi–Host Authentication Feature corresponding to Tag VLAN is required on authentication switch side.

PATTERN 3:

- Hardware with Supplicant feature is connected to DT700 Series terminal's PC port.
- User enables DT700 Series terminal's 802.1X Supplicant feature.
- DT700 Series operates by connecting to a switch corresponding to authentication.
- When separating Audio and Data Network by attaching different VLAN ID to the packets from the PC and the packets from the DT700 Series, respectively:
  - Multi–Host Authentication Feature corresponding to Tag VLAN is required on authentication switch side.

PATTERN 4:

- Hardware with Supplicant feature is connected to DT700 Series terminal's PC port.
- User disables DT700 Series terminal's 802.1X Supplicant feature.
- DT700 Series operates by connecting to a switch corresponding to authentication.
- Authentication packet (EAP packet) from the PC is sent, via DT700 Series, to the switch corresponding to authentication.
- Regarding the PC connected to DT700 Series terminal:
  To register the PC's MAC Address as authorized hardware, the following are required on the authentication switch side:
  - Multi–Host Authentication Feature
  - MAC Address Authentication Feature
- When separating Audio and Data Network by attaching different VLAN ID to the packets from the PC and the packets from the DT700 Series, respectively:
  - Multi–Host Authentication Feature corresponding to VLAN Tag is required on authentication switch side.

Note:

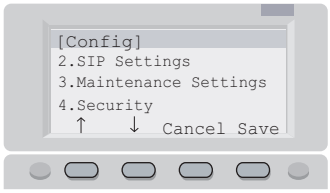
- Hardware with Supplicant feature with the following Operating System (OS) installed is available for connection to DT700 Series terminal:
  - Microsoft® Windows® 7
  - Microsoft® Windows® Vista7
- User can choose whether to attach VLAN Tag to the EAPOL packet from DT700 Series. See <Supplicant Feature Data Assignment> for details.
- When using DT700 Series (DT750/DT730/DT710) with firmware version 5.0.0.0 or later, or DT730G, if PC port link down is detected, the terminal requests to clear an authentication status of terminal which is connected to PC port to authentication switch. By clearing the authentication status, you can protect the terminal against unauthorized accesses. For details of the setting, refer to "<Supplicant Feature Data Assignment>".

<Supplicant Feature Data Assignment>

This section explains the data assignment when using 802.1X authentication for DT700 Series.

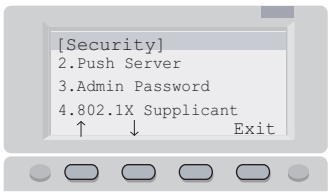
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “4. Security.”

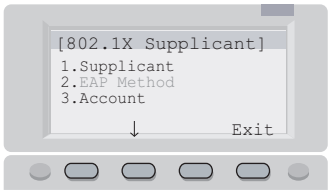


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

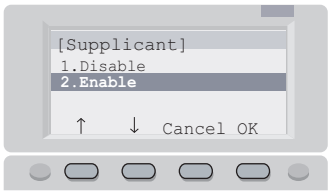
STEP 2: On [Security] menu, select “4. 802.1X Supplicant” to display the [802.1X Supplicant] menu.



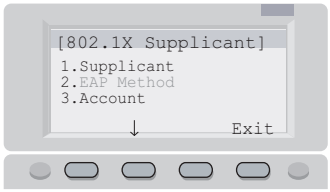
STEP 3: On [802.1X Supplicant] menu, select “1. Supplicant” to display the [Supplicant] menu.



STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



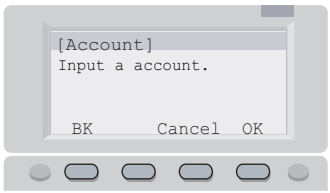
STEP 5: The LCD returns to [802.1X Supplicant] menu. Select “3. Account” to display the [Account] menu.



A

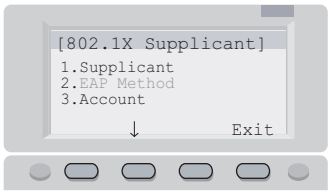
A

STEP 6: On [Account] menu, use digit keys to assign the User ID for EAP–MD5 authentication.

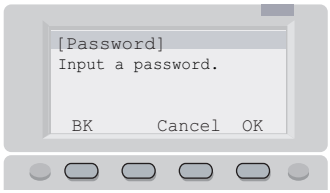


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 7: The LCD returns to [802.1X Supplicant] menu. Select “4. Password” to display the [Password] menu.

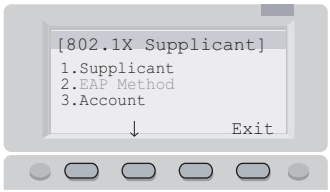


STEP 8: On [Password] menu, use digit keys to assign the Password for EAP–MD5 authentication.

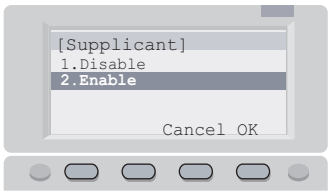


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 9: The LCD returns to [802.1X Supplicant] menu. Select “5” to display the [EAP VLAN Mode] menu.



STEP 10: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



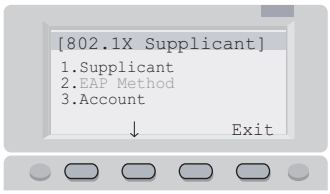
Note: When the user selects “2. Enable” in “EAPOL VLAN Mode,” VLAN tag will be attached according to the following data settings:

- “VLAN Mode”
- “VLAN ID”
- “VLAN Priority”

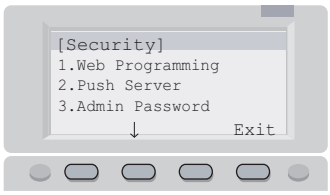
B

B

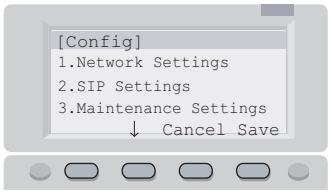
STEP 11: The LCD returns to [802.1X Supplicant] menu. Press the software key for “Exit.”



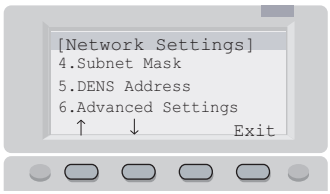
STEP 12: The LCD returns to [Security] menu. Press the software key for “Exit” to return to the [Config] menu.

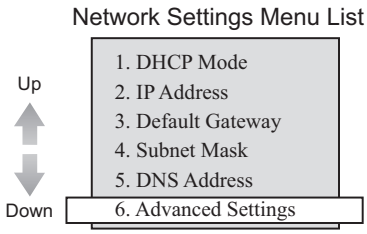


STEP 13: The LCD returns to [Config] menu. Select “1” to display the [Network Settings] menu.

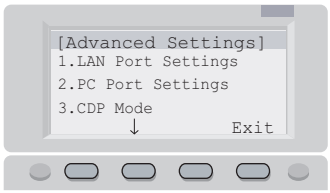


STEP 14: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”





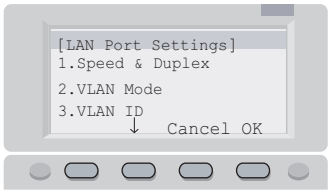
STEP 15: On [Advanced Settings] menu, select “1. LAN Port Settings.”



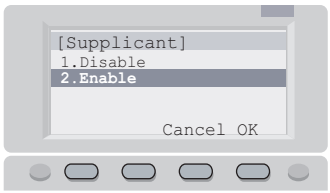
C

C

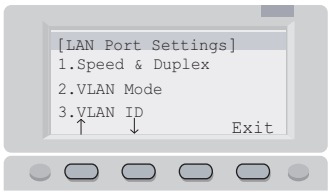
STEP 16: The LCD displays [LAN Port Settings] screen. Select “2” to display the [VLAN Mode] menu.



STEP 17: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



STEP 18: The LCD returns to [LAN Port Settings] screen. Select “3” to display the [VLAN ID] menu.

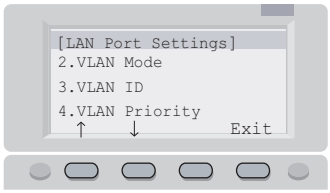


STEP 19: The LCD displays [VLAN ID] menu. Use digit keys to assign VLAN ID.



- VLAN ID value must be between 0–4094.
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

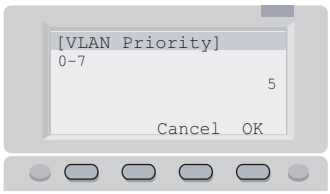
STEP 20: The LCD displays [LAN Port Settings] screen. Select “4” to display the [VLAN Priority] menu.



D

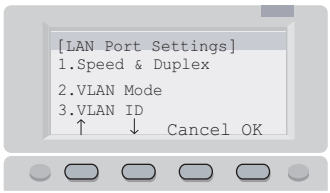
D

STEP 21: The LCD displays [VLAN Priority] menu. Use digit keys to assign VLAN ID.

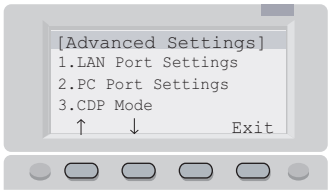


- VLAN Priority value must be between 0–7.
- Press the software key for “OK” when all settings are complete.

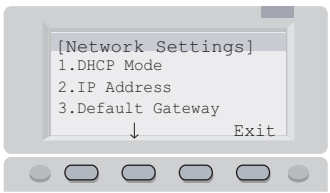
STEP 22: The LCD returns to [LAN Port Settings] screen. Press the software key for “OK” to return to [Advanced Settings] menu



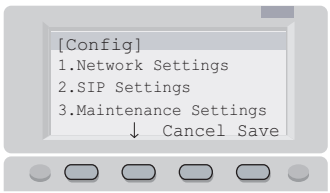
STEP 23: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



STEP 24: The LCD returns to [Network Settings] menu. Press the software key for “Exit.”



STEP 25: The LCD returns to [Config] menu. Press the software key for “Save” to save settings.



END

[2] Configuration Setting by Web Programming

STEP 1:Select [Security] → [802.1X Supplicant] → [Supplicant].

STEP 2: Select “2. Enable.” Click the “OK” button.

STEP 3: Select [Security] → [802.1X Supplicant] → [Account].

STEP 4: Enter User ID for EAP-MD5 authentication. Then click the “OK” button.
For User ID, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen) or _(underscore)
(maximum 32 characters).

STEP 5: Select [Security] → [802.1X Supplicant] → [Password].

STEP 6: Enter Password for EAP–MD5 authentication. Then click the “OK” button.
For Password, use 0-9, A-Z, a-z, *, #, . (period), - (hyphen), and _(underscore)
(maximum 32 characters).

STEP 7: Select [Security] → [802.1X Supplicant] → [EAP VLAN Mode].

STEP 8: Select “2. Enable” (VLAN tag is attached to EAP packet). Click the “OK” button. **Note 22**

STEP 9: Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN Mode].

STEP 10:Select “2. Enable.” Click the “OK” button.

STEP 11:Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN ID].

STEP 12:Enter VLAN ID. The value must be within 0–4094. Click the “OK” button.

STEP 13:Select [Network Settings] → [Advance Settings] → [LAN Port Settings] → [VLAN Priority].

STEP 14:Enter VLAN Priority. The value must be within 0–7. Click the “OK” button.

STEP 15:Click the “Save” button.

Note 22: When the user selects “2. Enable” in “EAP VLAN Mode,” VLAN tag will be attached according to the following data settings:
- VLAN Mode
- VLAN ID
- VLAN Priority

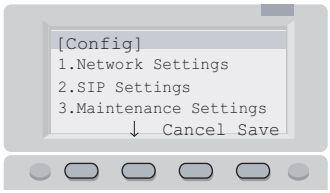
<Using Supplicant Mode>

This section explains the procedure to connect a PC with supplicant feature to the PC port of DT700 Series.

Note: PC to be connected to PC port of DT700 series requires the following Operating System (OS):
- Microsoft® Windows 7
- Microsoft® Windows Vista

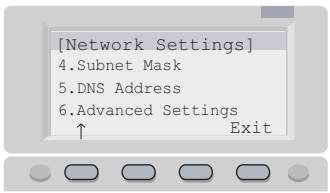
[1] Configuration Setting on Terminal

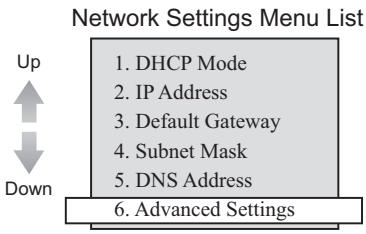
STEP 1: On [Config] menu, select “1. Network Settings.”



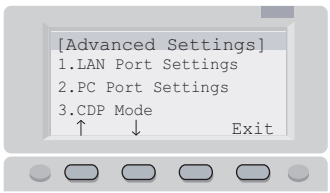
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

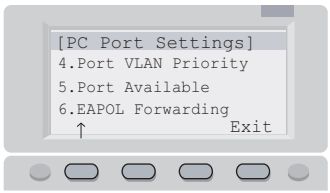




STEP 3: On [Advanced Settings] menu, select “2. PC Port Settings.”



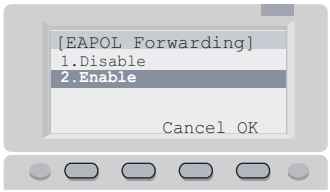
STEP 4: The LCD displays [PC Port Settings] menu. Select “6. EAPOL Forwarding.”



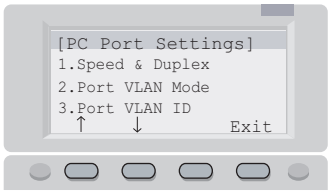
A

A

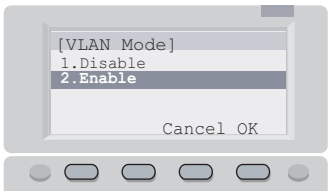
STEP 5: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



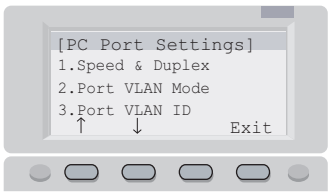
STEP 6: The LCD returns to [PC Port Settings] menu. Select “2. Port VLAN Mode.”



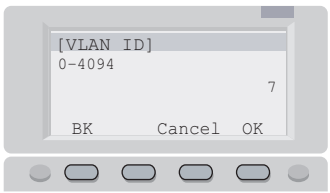
STEP 7: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



STEP 8: The LCD returns to [PC Port Settings] menu. Select “3. Port VLAN ID.”



STEP 9: The LCD displays [VLAN ID] menu. Use digit keys to assign VLAN ID.

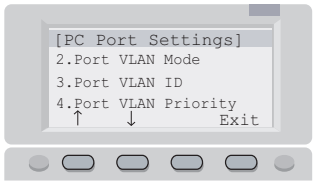


- VLAN ID value must be between 0–4094.
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

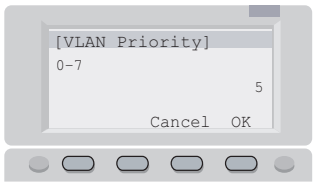
B

B

STEP 10: The LCD returns to [PC Port Settings] menu. Select “4. Port VLAN Priority.”

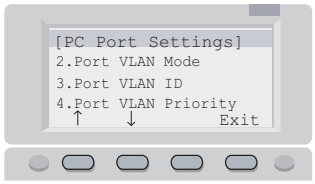


STEP 11: The LCD displays [VLAN Priority] menu. Use digit keys to assign VLAN ID.



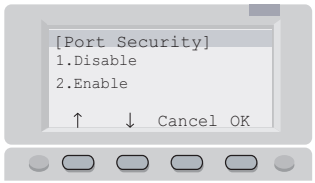
- VLAN Priority value must be between 0–7.
- Press the software key for “OK” when all settings are complete.

STEP 12: The LCD returns to [PC Port Settings] menu. Select “7. Port Security.”

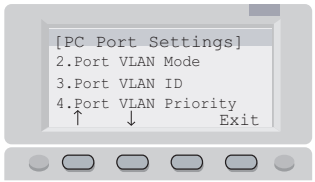


Note: [Port Security] menu is available for firmware version 5.0.0.0 or later (DT730G with firmware version 1.0.0.0 or later). For the terminal (except for DT730G) with firmware version 4.0.0.0 or earlier, press the software key for “Exit” and Go to STEP 15.

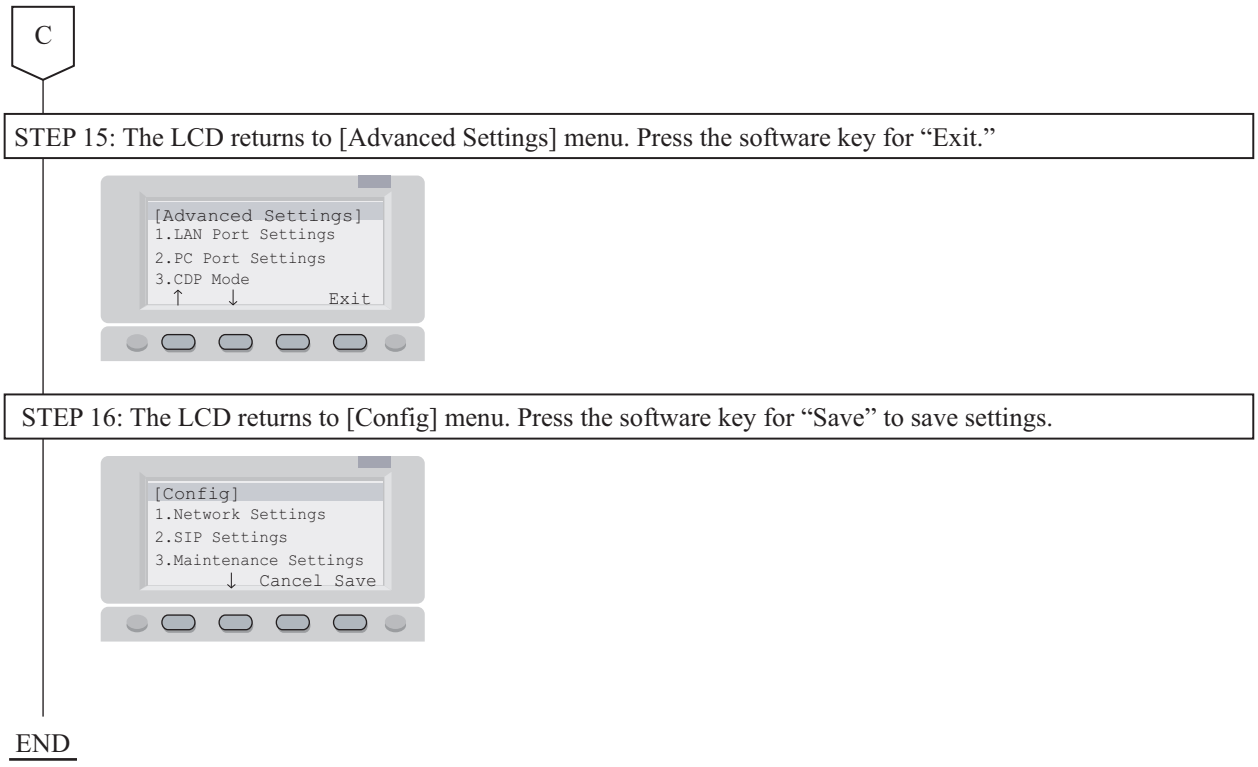
STEP 13: The LCD displays [Port Security] menu. Select “2. Enable” and press the software key for “OK.”



STEP 14: The LCD displays [PC Port Settings] menu. Press the software key for “Exit.”



C



[2] Configuration Setting by Web Programming

STEP 1:Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [EAPOL Forward].

STEP 2: Select “2. Enable.” This enables the EAPOL packet forwarding feature. Click the “OK” button.

STEP 3: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN Mode].

STEP 4: Select “2. Enable.” This enables VLAN. Click the “OK” button.

STEP 5: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN ID].

STEP 6: Enter VLAN ID. The ID value must be between 0–4094. Then click the “OK” button.

STEP 7: Select [Network Settings] → [Advance Settings] → [PC Port Settings] → [Port VLAN Priority].

STEP 8: Enter VLAN ID. The ID value must be between 0–7. Then click the “OK” button.

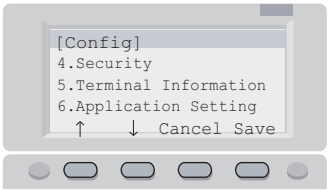
STEP 9: Click the “Save” button.

4.3.2.16 Corporate Phonebook

This section explains how to specify Corporate Phonebook. Referring to the following procedure, assign the URL of the target phonebook. After completing this setting, Corporate Phonebook is listed on the terminal's Directory menu.

[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select "6. Application Settings."



Configuration Menu List

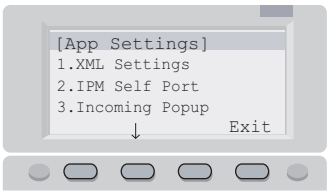
Up

Down

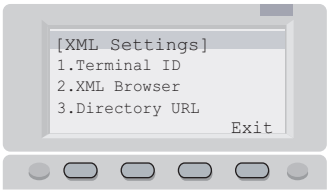
1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings
Special

Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

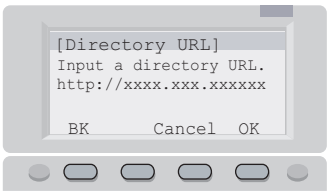
STEP 2: The LCD displays [App Settings] menu. Select "1. XML Settings."



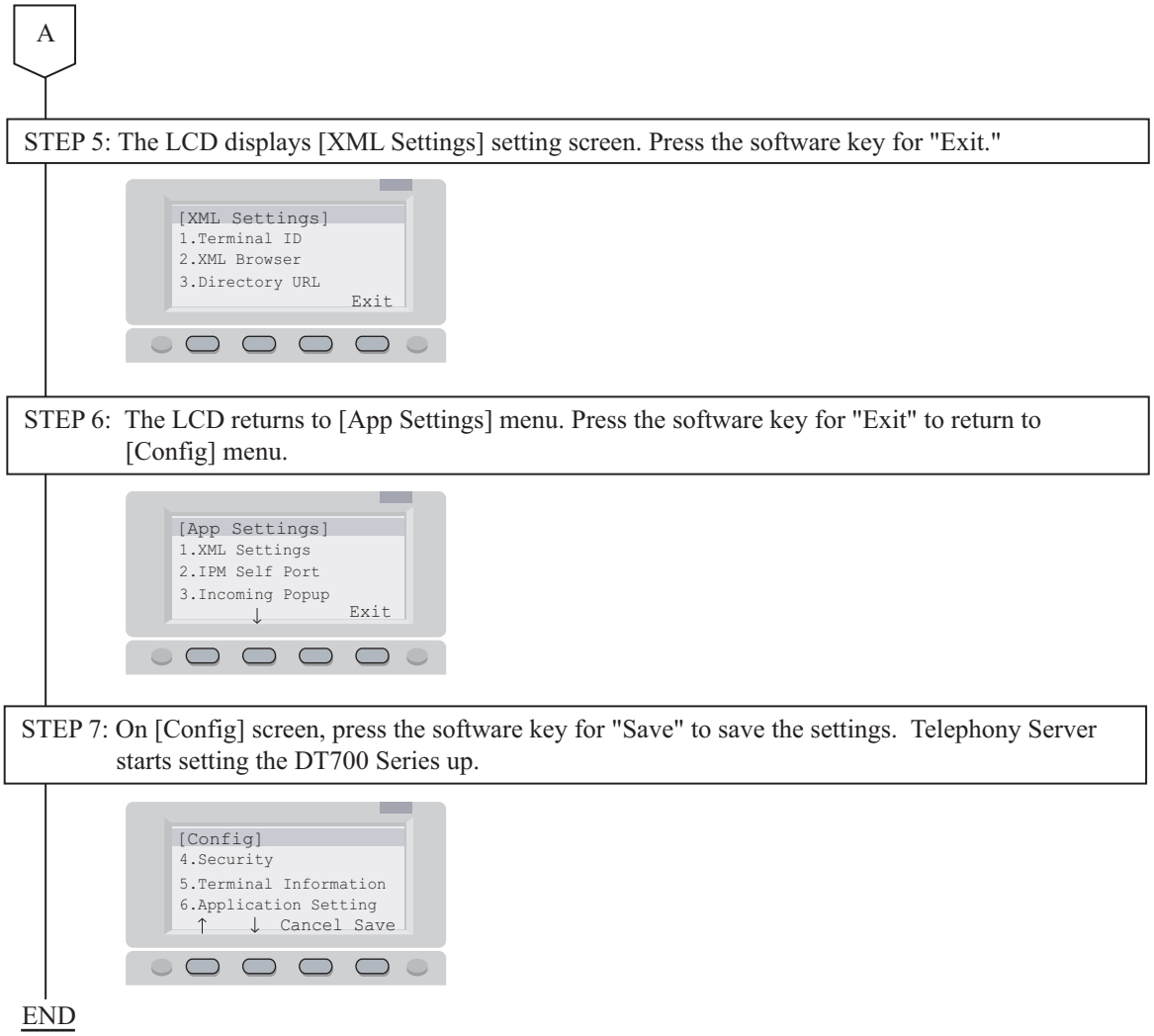
STEP 3: On [XML Settings] menu, select "3. Directory URL".



STEP 3: On [Directory URL] screen, enter the URL of Corporate Phonebook, and press the software key for "OK."



A



[2] Configuration Setting by Web Programming

STEP 1:Select [Application Settings] → [XML Settings] → [Directory URL].

STEP 2: Enter the URL of Corporate Phonebook, and click the “OK” button.

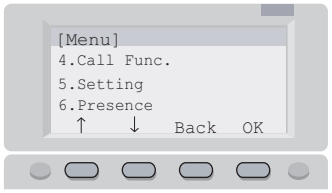
STEP 3: Click the “Save” button.

4.3.2.17 Ringing Tone

User can change the ringing tone settings on DT700 Series terminal.

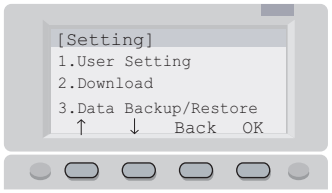
[1] Configuration Setting on Terminal

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

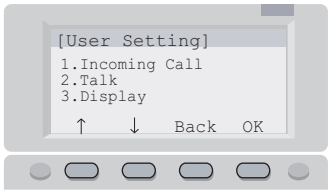


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

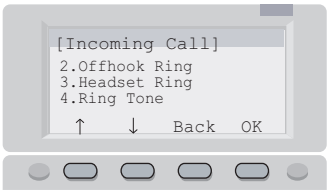
STEP 2: On [Setting] menu, select “1. User Setting.”



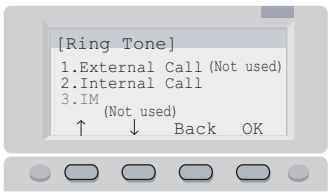
STEP 3: On [User Setting] menu, select “1. Incoming Call.”



STEP 4: On [Incoming Call] menu, select “4. Ring Tone.”



STEP 5: LCD displays the [Ring Tone] menu. Select “2. Internal Call.”



A

See the table below for details on Ring Tone setting.

Ring Tone Settings

Value	Display Name	1st Frequency [Hz]	2nd Frequency [Hz]	Tone Kind
00	Automatic **Note 23**	520	660	16 Hz modulation
01	Tone Type 1			16 Hz modulation
02	Tone Type 2			8 Hz modulation
03	Tone Type 3	1400	1100	Door Phone
04	Tone Type 4	1100		No modulation
05	Tone Type 5	540		No modulation
06	Tone Type 6	1100	1400	16 Hz modulation
07	Tone Type 7	660	760	16 Hz modulation
08	Tone Type 8	1100		Envelope
09	Tone Type 9	-		Door Phone Melody
10	Tone Type 10	-		Melody 1
11	Tone Type 11	-		Melody 2
12	Tone Type 12	-		Melody 3
13	Tone Type 13	-		Melody 4
14	Tone Type 14	-		Melody 5
15	Download 1	-		
16	Download 2	-		
17	Download 3	-		

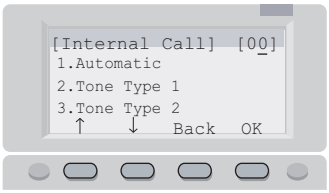
Note 23: Default is Tone Type 1 when directions from the Telephony Server do not exist.

Note: Ringing Tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone take priority over the settings in this section. The priority order is as follows.

- 1st Priority: Ringing tone settings by “2. Directory” - “2.Edit” - 8.Ringing Tone
- 2nd Priority: Ringing tone settings by “2. Directory” - “3.Group Setting” - 2.Ringing Tone
- 3rd Priority: Ringing tone settings by “5. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone (setting in this section)

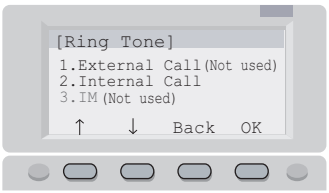
A

STEP 6: LCD displays [Internal Call] menu. The LCD will display the following.



Step 1. Currently selected Ring Tone will ring.
Step 2. Currently selected Ring Tone Value will flash.
Step 3. Use number buttons to assign a Ring Tone (value is between 1–17).
Step 4. Newly assigned Ring Tone will ring.
Step 5. Press the software key for “OK” when all settings are complete.

STEP 7: LCD returns to the [Ring Tone] menu. Pressing the software key for "Back" will return to the upper menu.



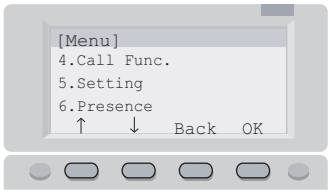
END

4.3.2.18 RTP Alarm

User can Disable or Enable RTP Alarm on DT700 Series terminal.

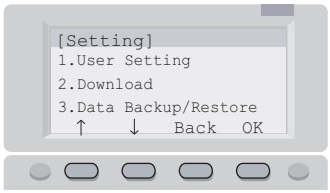
[1] Configuration Setting on Terminal

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

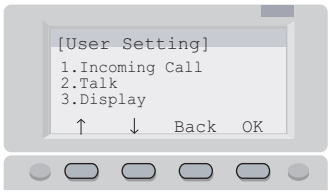


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

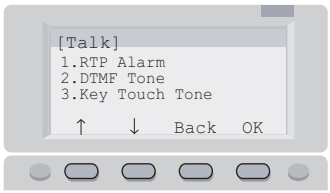
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



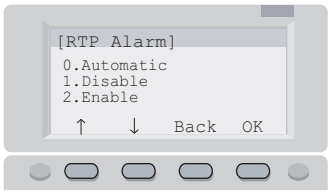
STEP 4: On [Talk] menu, select “1. RTP Alarm.”



A

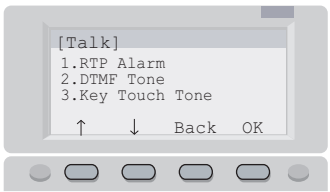
A

STEP 5: LCD displays the [RTP Alarm] menu. Select either Automatic, Disable or Enable using digit keys.
"0. Automatic" will be flashing before any selection is made, since "0" is assigned by default.
Press the software key for "OK" when done.



LCD Display	Assignment Conditions
0. Automatic	- Follows the setting assigned to system. - Settings assigned to system has priority. - RTP Alarm is Enabled only when settings assigned by system do not exist.
1. Disable	- Does not follow the setting assigned by system. - Settings assigned to terminal has priority. - RTP Alarm is Disabled.
2. Enable	- Does not follow the setting assigned by system. - Settings assigned to terminal has priority. - RTP Alarm is Enabled.

STEP 6: LCD returns to [Talk] menu. Pressing the software key for "Back" will return to uppder menu.



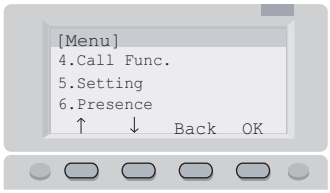
END

4.3.2.19 DTMF Tone

User can Disable or Enable DTMF Tone on DT700 Series terminal.

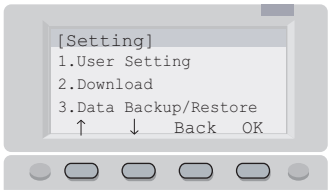
[1] Configuration Setting on Terminal

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

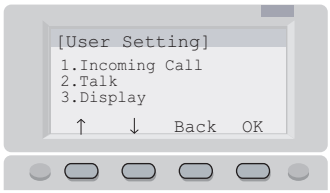


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

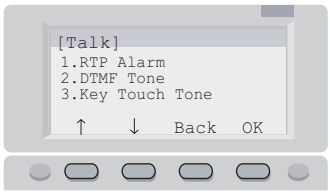
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



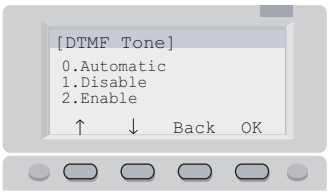
STEP 4: On [Talk] menu, select “2. DTMF Tone.”



A

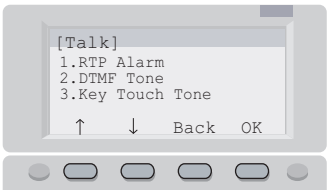
A

STEP 5: LCD displays the [DTMF Tone] menu. Select either Automatic, Disable or Enable using digit keys.
"0. Automatic" will be flashing before any selection is made, since "0" is assigned by default.
Press the software key for "OK" when done.



LCD Display	Assignment Conditions
0. Automatic	- Follows the settings assigned to system. - Settings assigned to system has priority. - DTMF Tone is Enabled only when settings assigned by system do not exist.
1. Disable	- Does not follow the setting assigned by system. - Settings assigned to terminal has priority. - DTMF Tone is Disabled.
2. Enable	- Does not follow the settings assigned by system. - Settings assigned to terminal has priority. - DTMF Tone is Enabled.

STEP 6: LCD returns to [Talk] menu. Pressing the software key for "Back" will return to the upper menu.



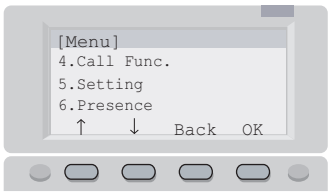
END

4.3.2.20 Hold Music

You can select the default hold music (minuet) or downloaded hold music that are heard from the terminal when held by the calling party while talking.

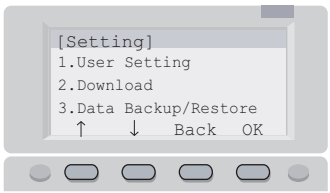
Note: To use a downloaded hold music, it needs to be downloaded in advance. For how to download the hold music, refer to 4.3.2.23 File Downloading.

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

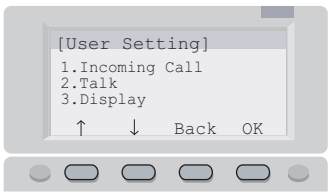


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

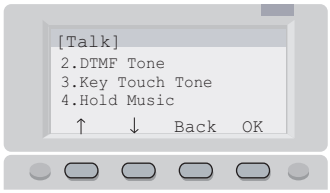
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



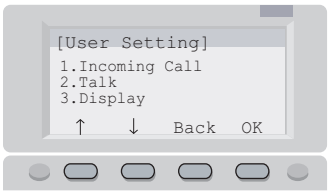
STEP 4: On [Talk] menu, select “4.Hold Music.”



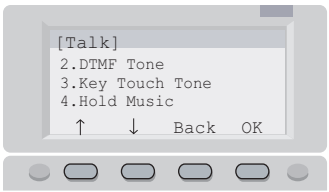
A

A

STEP 5: On [Hold Music] menu, select either "1. Default (Minuet)" or "2. Download" by digit key, and then press the software key for "OK."



STEP 6: The LCD displays "Talk" menu. Presings the software key for "Back" will return to "User Setting" menu.



END

4.3.2.21 Language on Time Display

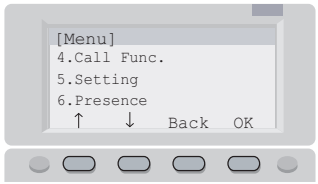
By changing the language on the configuration menu of the terminal, the time display can be displayed by the language of each country. The following describes the languages supported by the terminal, and the procedure to set them.

Languages supported by the terminal

LCD	Description
0. Automatic	Telephony Server side's language setting is applied.
1. Japanese	Japanese
2. NEC English	NEC English
3. NEC Portuguese	NEC Portuguese
4. NEC Spanish	NEC Spanish
5. NEC French	NEC French
6. German	German
7. Italian	Italian
8. Dutch	Dutch
9. Norwegian	Norwegian
10. Danish	Danish
11. Swedish	Swedish
12. Greek	Greek
13. English	English
14. Portuguese	Portuguese
15. Spanish	Spanish
16. French	French
17. Russian	Russian
18. Turkish	Turkish
19. Romania	Romania
20. Polish	Polish
21. Catalan	Catalan
22. Korean	Korean
23. Download 1	Downloaded languages from "Language Pack" **Note 24**
24. Download 2	
25. Download 3	
26. Download 4	

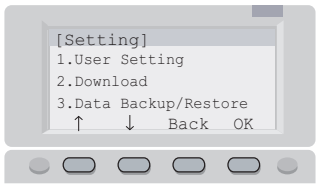
Note 24: If "Language Pack" files are not downloaded, these parameters are not displayed.

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

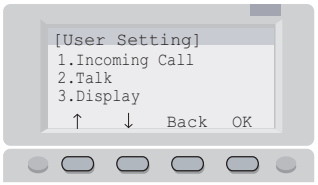


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

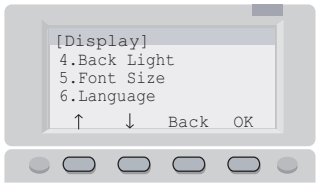
STEP 2: On [Setting] menu, select “1. User Setting.”



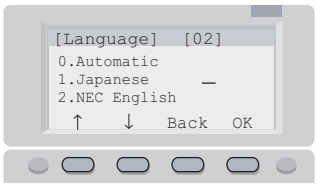
STEP 3: On [User Setting] menu, select “3. Display.”



STEP 4: On [Display] menu, select “6. Language.”

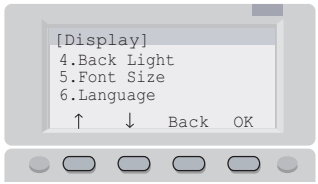


STEP 5: On [Language] menu, select the language by pressing the digit key, and then press the software key for "OK."



For example, to set "2. NEC English",
1) Enter "0" and "2."
2) Entering field displays "02."
3) "2. NEC English" line is focusted.
4) Press the software key for "OK."

STEP 6: The LCD displays "Display" menu. Presings the software key for "Back" will return to "User Setting" menu.



END

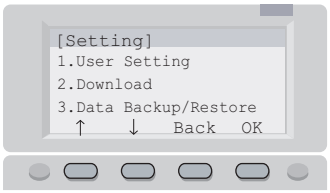
4.3.2.22 Password Change

In this section, the user can change the password for DT700 Series terminal's local data assignment and Admin Password for Administrator Menu login. The password for terminal authentication assigned in this section is also used for releasing Security mode.

[1] Configuration Setting on Terminal

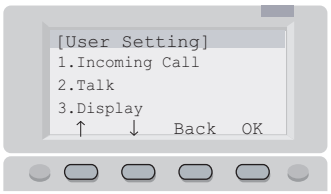
(a) Password for terminal authentication

STEP 1: Go to [Setting] menu. Select "1. User Setting."

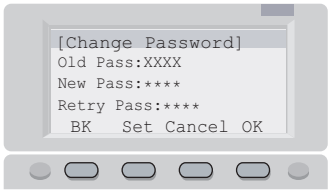


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: On [User Setting] menu, select "4. Change Password."



STEP 3: On [Change Password] menu, enter "Old Pass" and "New Pass." Then, press the software key for OK.



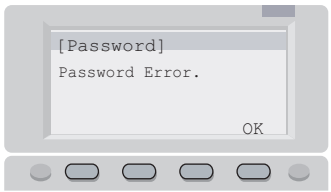
Note: Default value: Password: 0000

A

A

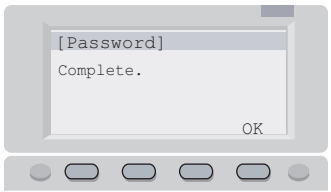
STEP 4: The LCD will display either of the following:

Error



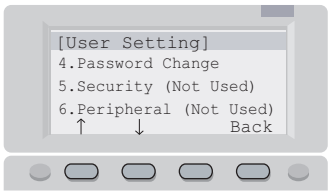
1. Press the software key for OK.
2. Return to Step 3.

Complete

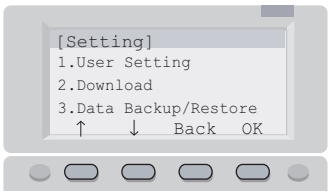


1. Press the software key for OK.
2. Proceed to Step 5.

STEP 5: The LCD returns to [User Setting] menu. Press the software key for “Back.”



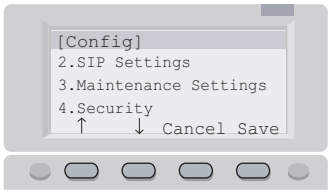
STEP 6: The LCD returns to [Setting] menu. Press the software key for “OK” to save settings.



END

(b) Admin Password

STEP 1: On [Config] menu, select “4. Security.”



Config Menu List

Up

Down

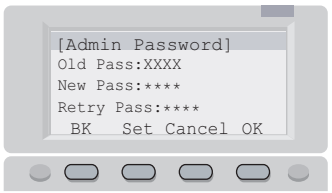
1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings
#. Special

Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: The LCD displays [Security] menu. Select “3. Admin Password.”



STEP 3: On [Admin Password] menu, enter “Old Pass” and “New Pass.” Then, press the software key for OK.



A

A

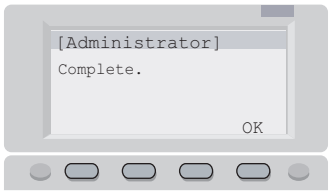
STEP 4: The LCD will display either of the following:

Error



1. Press the software key for OK.
2. Return to Step 3.

Complete

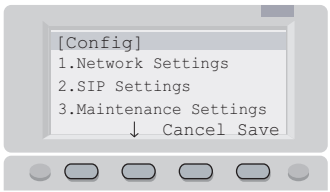


1. Press the software key for OK.
2. Proceed to Step 5.

STEP 5: The LCD returns to [Security] menu. Press the software key for "Exit."



STEP 6: The LCD returns to [Config] menu. Press the software key for "Save" to save settings.



END

Note: When the terminal user forgets the assigned Security password, the restriction can be released by administrator's menu [Config] → [3.Maintenance Settings Data] → [3.Data Clear] → [1.Factory Value]. Note that all the data including phonebook data on the terminal are cleared and get back to factory default.

4.3.2.23 File Downloading

This section explains how to update program and how to download Music-on-Hold file on DT700 Series terminal using configuration menu. FTP/TFTP server is required for file downloading.

Download files in this feature are as follows:

- Download file

TYPE		DEFAULT FILE NAME	Description
Music-on-Hold file (**Note 25**)		MOH.wav	Melody file for Music-On-Hold.
Ringing Tone file (**Note 25**)		Melody1.wav ~ Melody3.wav	Melody file for ringing.
Phonebook file		Directory.csv	Terminal Phonebook file. **Note 29**
Configuration file		config.tgz	Terminal configuration settings file.
Boot & Program file	DT710	itlisipe.tgz	Files are used for firmware update.
	DT730	itlisipv.tgz	
	DT730G (12/24DG)	itlisipvg.tgz	
	DT730G (12/24CG)	itlisipvc.tgz	
	DT750	itlisips.tgz	
	DT770G	itlisipcr.tgz	
Flash memory image file		imgsip.tgz	Wall paper file.
Voice file		voice.tgz	Voice data file.
Language Pack file (**Note 26**, **Note 27**)		LangPack.tgz (**Note 28**)	Language pack file.

Note 25: File with the up to 32 seconds long replay can be downloaded.

Note 26: For more information about “Language Pack file”, see 4.3.2.24 Font Download Feature.

Note 27: For firmware versions earlier than 4.0.0.0 (except for DT730G), displayed as “Translation data file.”

Note 28: For firmware versions earlier than 4.0.0.0 (except for DT730G), displayed as “trnslate.tgz.”

Note 29: To create the phonebook file, see 5.3 How to Create Terminal Phonebook File for DT800 Series/DT700 Series

<Before Downloading>

Before downloading program and Music-on-Hold file on terminal, prepare the following:

- DT700 Series
- Device with FTP/TFTP server function (PC)
- HUB and LAN cable for connecting DT700 Series and FTP/TFTP server to network
- Download file

Note: After downloading, the parameters assigned on each configuration menu may return to factory default. Be sure to write down the assigned value before starting the downloading procedure.

Caution: *Observe the following while program downloading:*
- *Do Not Turn OFF the power of the DT700 Series, the Telephony Server, and DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DT700 Series, the Telephony Server, and DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT700 Series, the Telephony Server, and DHCP.*

<Downloading Procedure>

Program downloading procedure is explained. Also program downloading specifying the file name is available.

[1] Configuration Settings on Terminal

STEP 1: Prepare download file on FTP/TFTP server.

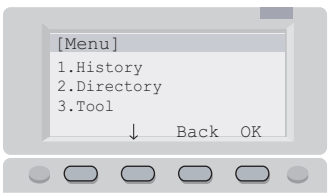
- FTP server
  Place the files to be downloaded on the specified directory.
  ** "C:\InetPub\ftproot" is the default directory for Windows server.*
- TFTP server
  Place the files to be downloaded under the directory for download.

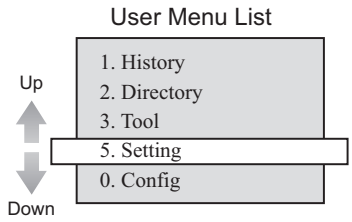
File type

→ (b) Configuration, Boot & Program, Flash memory, Voice, Translation file downloading ➡ **Go to STEP 21**

(a) Music on Hold, Ringing Tone, and Phonebook downloading

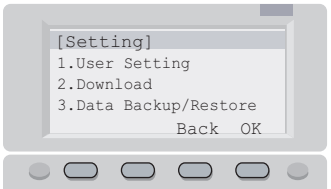
STEP 2: On the main menu [Menu] screen, select "5. Setting."



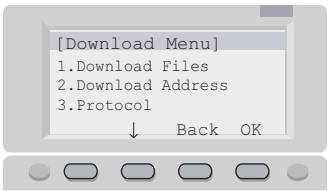


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 3: On [Setting] menu, select "2. Donwload."



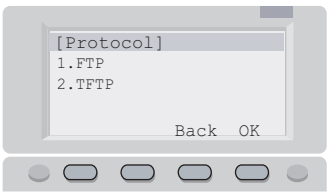
STEP 4: On [Download menu], select "3. Protocol."



A

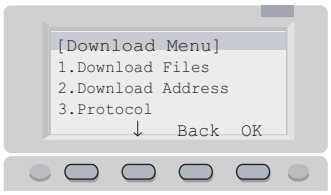
A

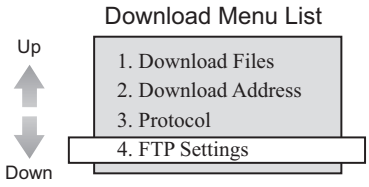
STEP 5: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP, and then press the software key for "OK."



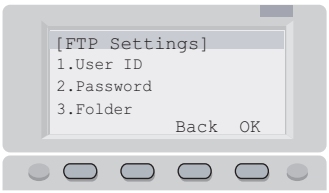
- When FTP is selected ➡ **Go to STEP 6**
- When TFTP is selected ➡ **Go to STEP 15**

STEP 6: The LCD displays [Download Menu]. Select "4. FTP Settings".

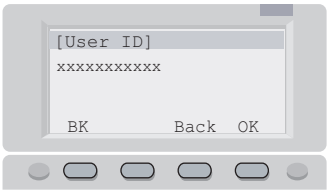




STEP 7: On [FTP Settings] menu, select "1. User ID".

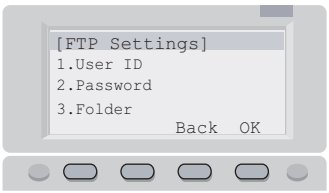


STEP 8: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."



Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

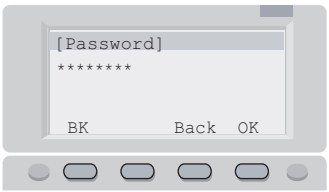
STEP 9: The LCD displays [FTP Settings] menu. Select "2. Password."



B

B

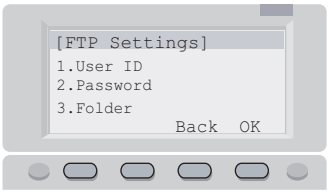
STEP 10: On [Password] screen, enter password by the digit keys, and then press the software key for "OK."



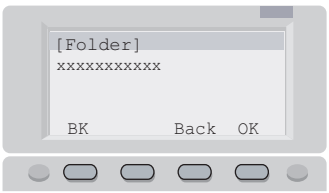
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Alphanumeric characters are available. "*" is displayed instead of the entered character.

STEP 11: The LCD displays [FTP Settings] menu. Select "3. Folder."



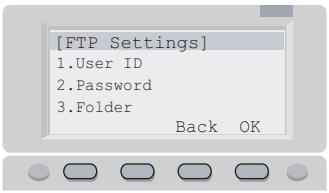
STEP 12: On [Folder] screen, enter the download file stored directory, and then press the software key for "OK."



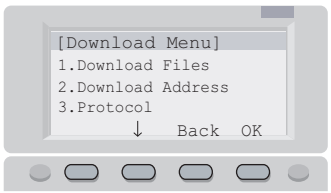
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Specify full-path directory; from the root directory to the target file on FTP server.

STEP 13: The LCD displays [FTP Settings] menu. Press the software key for "Back" to return to [Download Menu].



STEP 14: On [Download Menu], select "2. Download Address."



C

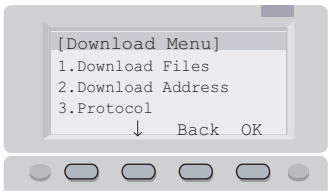
C

STEP 15: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.

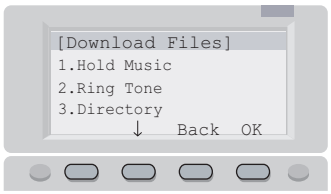


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

STEP 16: The LCD displays [Download Menu] screen. Select "1. Download Files."

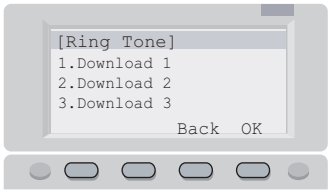


STEP 17: On [Download Files] menu, select the download file type and then press the software key for "OK."



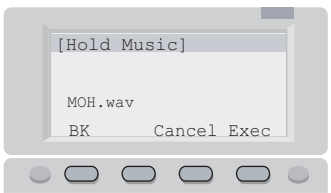
- Music-on-Hold file, select "1. Hold Music" ➡ **Go to STEP 19**
- Ringing Tone file, select "2. Ring Tone" ➡ **Go to STEP 18**
- Terminal Phonebook file, select "3. Directory" ➡ **Go to STEP 19**

STEP 18: To download Ringing Tone file, [Ring Tone] menu is displayed. Select one of the menus by digit key, and then press the software key for "OK."



STEP 19: File name is displayed for each selected download file.

This is an example for selecting Music-on-Hold.



Default file names
- Music-on-Hold: MOH.wav
- Ringing Tone: Melody1.wav ~ Melody3.wav
- Terminal Phonebook: Directory.csv

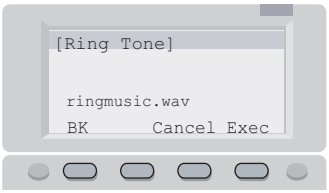
Change the download file name ➡ **Go to STEP 20**

Not change the download file name, chack the file name and press the software key for "Exec." ➡ **Go to STEP 41**

D

D

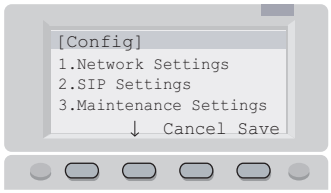
STEP 20: When you want to change the download file name, perform this step.



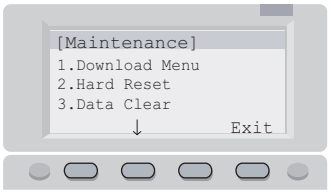
1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 41**

Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

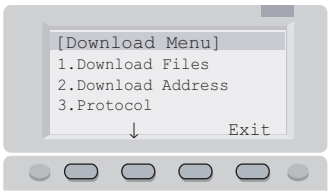
STEP 21: Following STEP 1 for (b) Configuration, Boot & Program, Flash memory, Voice, Translation file downloading, on [Config] menu, select "3. Maintenance."



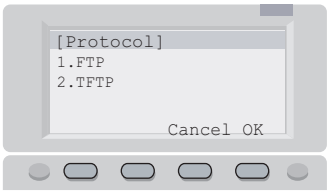
STEP 22: The LCD displays [Maintenance] menu. Select "1. Download Menu."



STEP 23: On [Download menu], select "3. Protocol."



STEP 24: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP, and then press the software key for "OK."

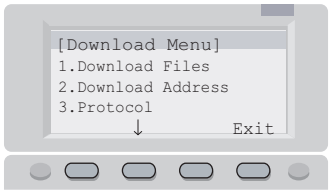


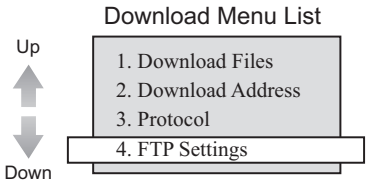
- When FTP is selected ➡ **Go to STEP 25**
- When TFTP is selected ➡ **Go to STEP 33**

E

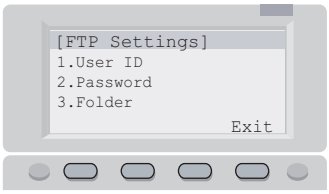
E

STEP 25: The LCD displays [Download Menu]. Select "4. FTP Settings".

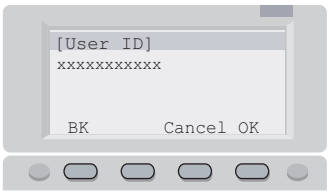




STEP 26: On [FTP Settings] menu, select "1. User ID".

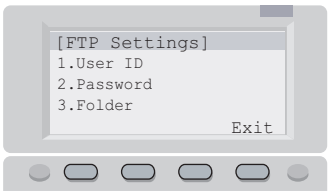


STEP 27: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."

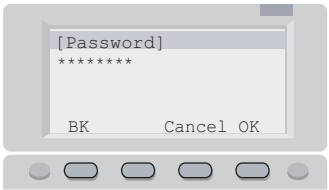


Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

STEP 28: The LCD displays [FTP Settings] menu. Select "2. Password."



STEP 29: On [Password] screen, enter password by the digit keys, and then press the software key for "OK."



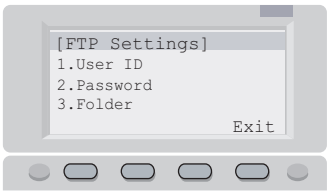
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Alphanumeric characters are available. "*" is displayed instead of the entered character.

F

F

STEP 30: The LCD displays [FTP Settings] menu. Select "3. Folder."



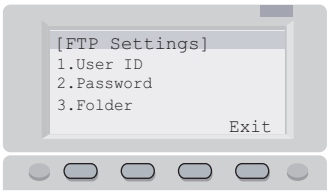
STEP 31: On [Folder] screen, enter the download file stored directory, and then press the software key for "OK.



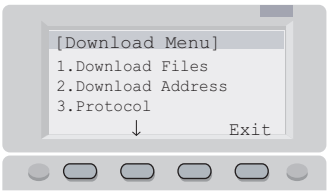
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Specify full-path directory; from the root directory to the target file on FTP server.

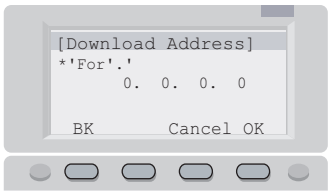
STEP 32: The LCD displays [FTP Settings] menu. Press the software key for "Exit" to return to [Download Menu].



STEP 33: On [Download Menu], select "2. Download Address."



STEP 34: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.

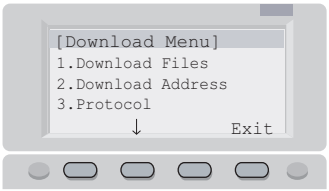


Use "*" to separate each byte.
Press the software key for "OK" when all settings are complete.

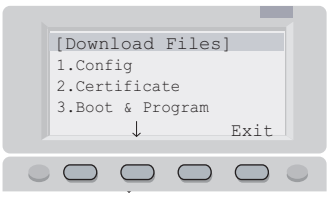
G

G

STEP 35: The LCD displays [Download Menu] screen. Select "1. Download Files."



STEP 36: On [Download Files] menu, select the download file type and then press the software key for "OK."

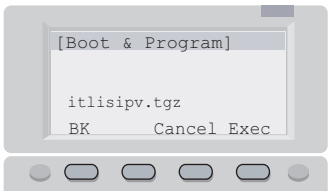


- Configuration file, select "1. Config"
- Boot & Program file, select "3. Boot & Program"
- Flash memory image file, select "4. Flash Memory Image"
- Voice file, select "6. Voice File"
- Translation data file, select "7. Language Pack"

Note : For firmware versions earlier than 4.0.0.0 (except for DT730G), displayed as "Translation Data."

STEP 37: File name is displayed for each selected download file.

This is an example for selecting Boot & Program file.

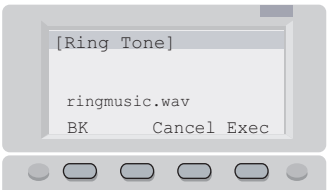


Change the download file name → **Go to STEP 38**

Not change the download file name, chack the file name and press the software key for "Exec." → **Go to STEP 39**

Note: See Download file on page 824 for the default file name of each type.

STEP 38: When you want to change the download file name, perform this step.



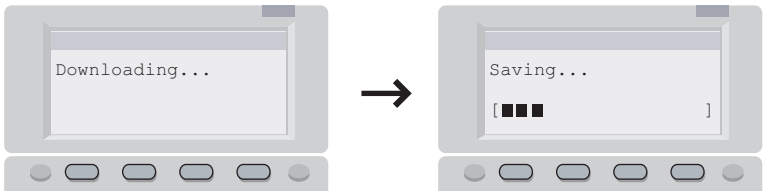
1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". → **Go to STEP 39**

Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

H

H

STEP 39: The terminal starts downloading. "Downloading..." flashes on the LCD.

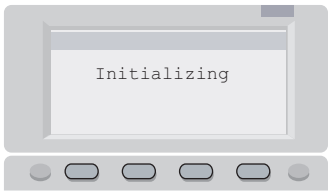


Note: Do not power off the terminal during the LCD displaying "Saving...". It may cause trouble in DT700 Series starting up.

STEP 40: The LCD displays the message below. Press the software key for "Exit" to restart the terminal.

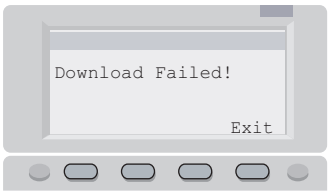


STEP 41: DT700 Series terminal restarts reading out the downloaded program.



END

Note: In the case of download failure, the LCD displays the message below.



The following table lists the points to be checked. Try downloading again.

CAUSE	COUNTERMEASURES
Target download file is not put in the directory specified by FTP/TFTP server.	*Place the download file on the directory where FTP/TFTP server specifies.*
File name differs between the file on the FTP/TFTP server and the file you try to download.	*Assign the same file name on the server and on the terminal.*
The IP address of FTP/TFTP server assigned on the configuration setting is wrong.	*Enter correct IP address of FTP/TFTP server.*
FTP/TFTP server or the network device (e.g. HUB) between the server and the terminal is not turned on.	*Turn the power on for the devices.*
LAN cable disconnection.	*Connect LAN cable to the terminal and FTP/TFTP server.*

When the LCD responses “Download Failed” message again even after some retry, the memory of the terminal may be damaged. Contact a maintenance personnel.

[2] Configuration Setting by Web Programming

STEP 1:Prepare download file on FTP/TFTP server. (See STEP 1 in [1] Configuration Settings on Terminal.)

STEP 2: Select [Maintenance] → [Download Menu] → [Download Files].

[Config] for Configuration file download
[Boot & Program] for Boot & Program file download
[Flash Memory Image] for Flash memory image file download
[Voice File] for voice file download
[Language Pack] for translation data file download **Note 30**

Note 30: For firmware versions earlier than 4.0.0.0 (except for DT730G), displayed as "Translation Data."

Note: Web Programming does not support the downloading of Music-on-Hold, Ringing-Tone, and Terminal Phonebook files. Refer to [1] Configuration Settings on Terminal for these types of file downloading.

STEP 3: Enter the parameters below and then click the "OK" button. The terminal starts downloading.

[Protocol]	: Select the protocol of the file server storing download file.
[Download Address]	: Enter the IP address of FTP/TFTP server.
[folder]	: Enter the folder name on which download file is stored.
[File name]	: Enter target download file name. **Note 31**
[User ID]	: Enter User ID.
[Password]	: Enter password.

Note 31: See Download file on page 824 for the default file name of each type.

Note: The LCD displays the messages below:

STATE	*LCD*
While download is in progress	*Downloading...*
Succeeded in downloading	*Download Complete!* *Press Exit to Reset.*
Failed in downloading	*Download Failed!*

4.3.2.24 Font Download Feature

This feature enables a terminal to support various languages using fonts which are not included in the standard firmware. When using this feature, download the font data file called “Language Pack” from configuration menu or Web Programming.

Note: This feature is available for the following versions of firmware:
- DT750/DT730/DT710 DESI-less: 5.0.0.0 or later
- DT730G: 1.0.0.0 or later

<Service Conditions>

(1) This feature is supported by DT750, DT730, DT730G, and DT710 DESI-less terminal.

(2) After “Language Pack” is downloaded, the language is set as “Automatic”. Therefore, from [Menu], select [5. Settings] → [1. User Setting] → [3. Display] → [6. Language] to display the language you want to use.

(3) When you download “Language Pack” newly, the previous data of “Language Pack” will be deleted.

(4) The download font is surely displayed in left-aligned.

(5) When language is set as the downloaded language, the text you can enter is English only.

(6) For the following firmware versions, supported language for “Language Pack” is Korean only:

- DT750/DT730/DT710 DESI-less: 5.0.0.0 or later
- DT730G: 1.0.0.0 or later

<Before Downloading>

Before downloading the font data file, prepare the following:

- DT700 Series
- Device with FTP/TFTP server function (PC)
- HUB and LAN cable for connecting DT700 Series and FTP/TFTP server to network
- Download file

TYPE	DEFAULT FILE NAME
Language Pack file **Note 32**	LangPack.tgz **Note 33**

Note 32: For firmware versions earlier than 4.0.0.0 (except for DT730G), displayed as “Translation data file.”

Note 33: For firmware versions earlier than 4.0.0.0 (except for DT730G), displayed as “trnslate.tgz.”

Note: After downloading, the parameters assigned on each configuration menu may return to factory default. Be sure to write down the assigned value before starting downloading procedure.

Caution: *Observe the following while program downloading:*
- *Do Not Turn OFF the power of the DT700 Series, the Telephony Server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DT700 Series, the Telephony Server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT700 Series, Telephony Server, DHCP.*

<Downloading Procedure>

Following shows the procedure of program download. Also program download by specifying a file name is available.

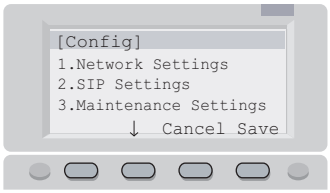
[1] Configuration Setting on Terminal

STEP 1: Prepare download file on FTP/TFTP server.

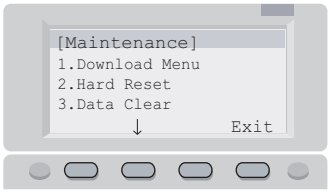
File type

- FTP server
  Place the files to be downloaded on the specified directory.
  ** "C:\InetPub\ftproot" is the default directory for Windows server.*
- TFTP server
  Place the files to be downloaded under the directory for download.

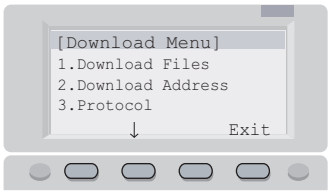
STEP 2: On [Config] menu, select "3. Maintenance."



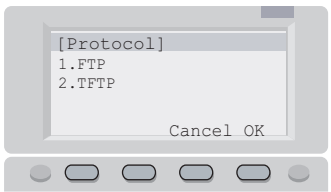
STEP 3: The LCD displays [Maintenance] menu. Select "1. Download Menu."



STEP 4: On [Download menu], select "3. Protocol."



STEP 5: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP", and then press the software key for "OK."

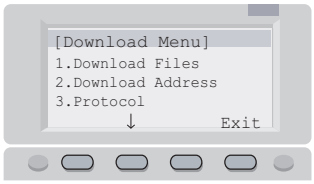


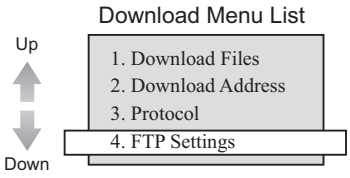
- When FTP is selected ➡ **Go to STEP 6**
- When TFTP is selected ➡ **Go to STEP 14**

A

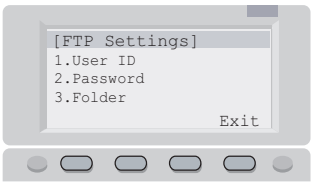
A

STEP 6: The LCD displays [Download Menu]. Select "4. FTP Settings".

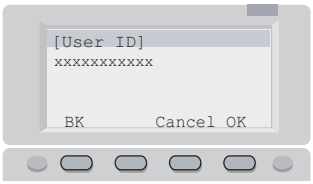




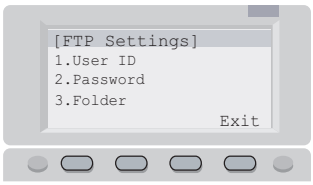
STEP 7: On [FTP Settings] menu, select "1. User ID".



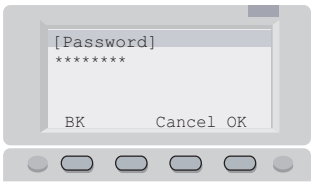
STEP 8: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."



STEP 9: The LCD displays [FTP Settings] menu. Select "2. Password."



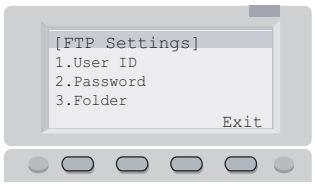
STEP 10: On [Password] screen, enter your password using the digit keys, and then press the software key for "OK."



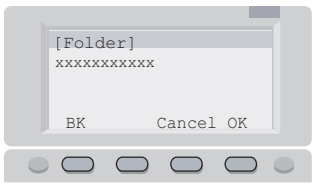
B

B

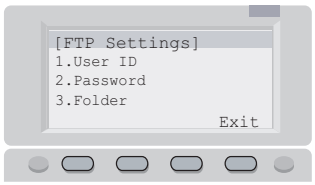
STEP 11: The LCD displays [FTP Settings] menu. Select "3. Folder."



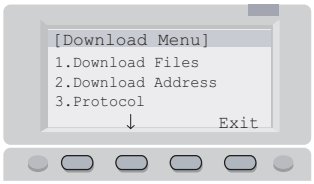
STEP 12: On [Folder] screen, enter the download file stored in the directory, and then press the software key for "OK."



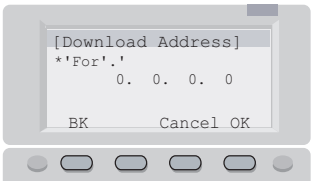
STEP 13: The LCD displays [FTP Settings] menu. Press the software key for "Exit" to return to [Download Menu].



STEP 14: On [Download Menu], select "2. Download Address."



STEP 15: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.

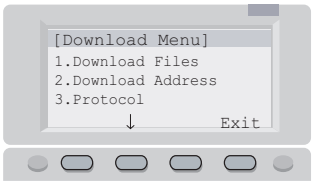


Use "*" to separate each byte.
Press the software key for "OK" when all settings are completed.

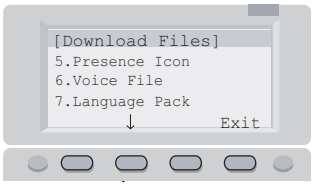
C

C

STEP 16: The LCD displays [Download Menu] screen. Select "1. Download Files."



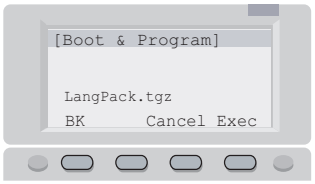
STEP 17: On [Download Files] menu, select "7. Language Pack" and then press the software key for "OK."



Note : For firmware versions earlier than 4.0.0.0 (except for DT730G), displayed as "Translation Data."

STEP 18: File name is displayed for each selected download file.

This is an example for selecting Boot & Program file.



Change the download file name → **Go to STEP 19**

Not change the download file name, check the file name and press the software key for "Exec." → **Go to STEP 20**

STEP 19: When you want to change the download file name, perform this step.

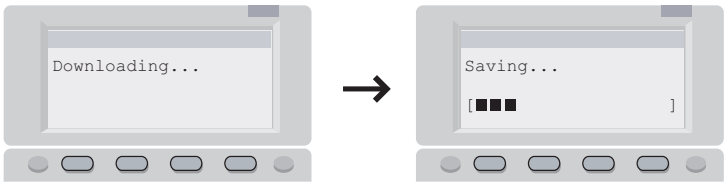


1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". → **Go to STEP 20**

D

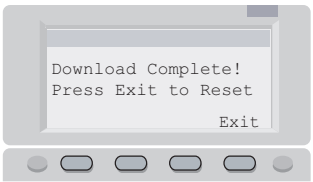
D

STEP 20: The terminal starts downloading. "Downloading..." flashes on the LCD.

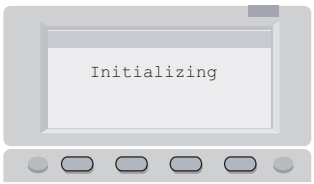


Note: Do not power off the terminal while the LCD is displaying "Saving...". It may cause trouble in DT700 Series starting up.

STEP 21: The LCD displays the message below. Press the software key for "Exit" to restart the terminal.



STEP 22: DT700 Series terminal restarts reading out the downloaded program.



END

Note: The following table lists the points to be checked. Try downloading again.

CAUSE	COUNTERMEASURES
Target download file is not put in the directory specified by FTP/TFTP server.	Place the download file on the directory where FTP/TFTP server specifies.
File name differs between the file on the FTP/TFTP server and the file you try to download.	Assign the same file name on the server and on the terminal.
The IP address of FTP/TFTP server assigned on the configuration setting is wrong.	Enter correct IP address of FTP/TFTP server.
FTP/TFTP server or the network device (e.g. HUB) between the server and the terminal is not turned on.	Turn the power on for the devices.
LAN cable disconnection.	Connect LAN cable to the terminal and FTP/TFTP server.

When the LCD returns “Download Failed” messages even after some retry, the memory of the terminal may be damaged. Contact a maintenance personnel.

[2] Configuration Setting by Web Programming

STEP 1:Prepare download file on FTP/TFTP server. (See STEP 1 in [1] Configuration Setting on Terminal.)

STEP 2: Select [Maintenance] → [Download Menu] → [Download Files] → [Language Pack] **Note 34**.

Note 34: For firmware versions earlier than 4.0.0.0 (except for DT730G), displayed as "Translation Data."

STEP 3: Enter the parameters below and then click the "OK" button. The terminal starts downloading.

[Protocol]	: Select the protocol of the file server storing download file.
[Download Address]	: Enter the IP address of FTP/TFTP server.
[folder]	: Enter the folder name on which download file is stored.
[File name]	: Enter target download file name. **Note 35**
[User ID]	: Enter User ID.
[Password]	: Enter password.

Note 35: See Download file on page 837 for the default file name of each type.

Note: The LCD displays the messages below:

STATE	LCD
While download is in progress	Downloading...
Succeeded in downloading	Download Complete! Press Exit to Reset.
Failed in downloading	Download Failed!

4.3.3 Configuration Menu List

4.3.3.1 Configuration Menu List (FW 5.0.0.0 or Later)

This section lists the configuration menu used for DT700 Series configuration setting. DT750, DT730, and DT710 columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: DT710 supports Tool and Config menu only.

Note: For DT750 running firmware version 4.0.0.0 or later, and DT730 running firmware version 5.0.0.0 or later, the following menus are not displayed on the menu window: Tool, Call Func., Presence, Favorite and Config. To open Config menu, press digit key “0.”

Note: The supported parameter information for DT710 DESI-Less is same as DT730/DT730G.

Note: Service menu is displayed only when the URL is registered by[0.Config] - [6.Application Setting] - [1.XML Settings] - [4.Service URL]. For DT710, Tool menu is displayed instead of Service menu.

1. History (FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730
1. Missed **Note 1**	Lists the history of missed calls.	-	X	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X	X
4. Delete All	Deletes the call history completely.	-	X	X

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal’s configuration menu regardless of SFI: 248 data setting.

Note 1: On [History] menu, pressing the software key for “Option” displays the following sub menu.

Parameter	Description	Default	DT750	DT730
1. Call	Originates a call to the number displayed on the history.	-	X	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X	X

Parameter	Description	Default	DT750	DT730
1. New	Registers new number.	-	X	X
Category Set	Selects the group the new number registered to.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Sets the priority order of dialing number for call origination.	Disable	X	X
1. Disable				
2. Enable				
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-	X	X
2. Addition	Adds numbers to searched data.	-	X	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X	X
4. Delete One	Deletes one history displayed on the LCD.	-	X	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X	X

Note 2: This menu has the same function with "2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" → "2. Edit."

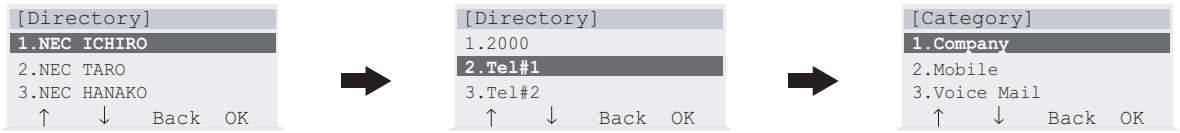
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1: This Directory Search menu has the same function with "2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT730 (Standard LCD).

2. Directory (FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730
1. Personal	Displays Terminal Phonebook **Note 7**	-	X	X
1. Search	Searches Phonebook.	-	X	X
1. Group	Searches by specifying group.	-	X	X
1. Default	Searches through “Default” group.	-	X	X
2. Colleagues	Searches through “Colleagues” group.	-	X	X
3. VIPs	Searches through “VIPs” group.	-	X	X
4. Family	Searches through “Family” group.	-	X	X
5. Friends	Searches through “Friends” group.	-	X	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X	X
2. Name	Searches by entering a target name.	-	X	X
3. Tel Number	Searches by entering numbers.	-	X	X
4. Others	Searches by other search key.	-	X	X
1. Memory ID	Searches by entering Memory ID.	-	X	X
2. Category	Searches by selecting Category.	-	X	X
1. Company	Searches through “Company” category.	-	X	X
2. Mobile	Searches through “Mobile” category.	-	X	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X	X
4. Home	Searches through “Home” category.	-	X	X
5. Etc	Searches through “Etc” category.	-	X	X
3. Company	Searches by entering a company name.	-	X	X
4. Alphabet	Searches by alphabet order.	-	X	X
1. ABC	Searches by the name starting with A ~ Z.	-	X	X
2. DEF				
3. GHI				
4. JKL				
5. MNO				
6. PQRS				
7. TUV				
8. WXYZ				
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).			
#. All	Searches all.			
2. Edit	Edits the data in Terminal Phonebook.	-	X	X
1. Name	Registers name.	-	X	X
2. Group	Allocates group.	Default	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				

2. Directory (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable	X	X
1. Disable				
2. Enable				
7. Company Name	Registers company name.	-	X	X
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*			
2. Default	Applies default Ringing Tone on terminal.			
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.			
17. Download 1 ~ 19. Download 3				
9. Illumination **Note 4** **Note 9**	Sets lamp indication for announcing call termination.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*			
2. Default	Applies default illumination for announcing call termination.			
3. Disable	Illumination is OFF.			
4. Red	Specifies color of lamp indication for incoming call termination.			
5. Green				
6. Yellow				
7. Blue				
8. Light Blue				
9. Purple				
10. White				
11. Rotation				
0. Memory ID	Registers memory ID.	-	X	X

2. Directory (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730
3. Group Setting	Sets groups.	-	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
1. Name	Registers group name.	-	X	X
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)	X	X
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)	X	X
4. Own Number	Displays own number (login number).	-	X	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-	X	X

Note 4: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by " 2. Directory (FW 5.0.0.0 or later)" - "2.Edit" - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by " 2. Directory (FW 5.0.0.0 or later)" - "3.Group Setting" - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by " 4. Setting (FW 5.0.0.0 or later)" - "1.User Setting" - "1.Incoming Call" - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with " 2. Directory (FW 5.0.0.0 or later)" - "2.Edit" - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with " 2. Directory (FW 5.0.0.0 or later)" - "2.Edit" - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal's configuration menu regardless of SFI: 246/SFI: 247 data setting.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by "0.Config" - "6. Application Settings" - "1.XML Settings" - "3. Directory URL. When XML application is assigned to directory URL, "3. Corporate" is displayed on the "Directory" menu.

Note 9: For DT710 DESI-Less terminal, “9. Illumination” menu is as shown below.

Parameter	Description	Default
9. Illumination **Note 10**	Sets lamp indication for announcing call termination.	Default (follows group settings) **Note 15**
1. Automatic	Sets Automatic to lamp indication for announcing call termination. **The lamp illuminates Red when Automatic is selected.*	
2. Default	Applies default illumination for announcing call termination.	
3. Disable	Illumination is OFF.	
4. Red	Specifies color of lamp indication for incoming call termination.	
5. Green		
6. Orange		
7. Rotation		

3. Service (for DT750 and DT730) (FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
3. Service	Starts up XML browser and Instant Message tool.	-	X	X	-
1. Service	Starts up XML browser.	-	X	X	-

3. Tool (for DT710) (FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
3. Tool	Starts up XML browser and Instant Message tool.	-	-	-	X
1. Service	Starts up XML browser.	-	-	-	X

4. Setting (FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
1. User Setting	Sets user interface related.	-	X	X	X **Note 21**
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X	X
1. Ring Volume	Not used.	-	N	N	N
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X	X
1. Disable	Offhook ringing is OFF.				
2. Enable	Offhook ringing is ON.				
3. Headset Ring **Note 10**	Selects whether to use headset ringing.	Disable	X	X	-
1. Disable	Headset ringing is OFF.				
2. Enable	Headset ringing is ON.				

4. Setting (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-	X	X	X
1. External Call **Note 13**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.				
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.				
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.				N
2. Internal Call **Note 13**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.				X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.				
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.				
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.				N
3. IM	Not used.	-	N	N	N
5. Illumination **Note 11**	Sets lamp indication pattern for incoming call termination.	-	X	X	-
1. External Call **Note 14**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-	X	X	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X	-
1. Disable	Lamp indication is OFF.				
2. Red	Specifies the color of lamp indication for incoming call termination.				
3. Green					
4. Blue					
5. Yellow					
6. Purple					
7. Light Blue					
8. White					
9. Rotation					

4. Setting (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-	X	X	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X	-
1. Disable	Lamp indication is OFF.				
2. Red	Specifies the color of lamp indication for incoming call termination.				
3. Green					
4. Blue					
5. Yellow					
6. Purple					
7. Light Blue					
8. White					
9. Rotation					
6. Headset Ring Volume	Not used	-	N	N	N
2. Talk	Sets call related data.	-	X	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.				
1. Disable	Alarm is OFF.				
2. Enable	Alarm is ON.				
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.				
1. Disable	DTMF tone is OFF.				
2. Enable	DTMF tone is ON.				
3. Key Touch Tone	Sets touch tone for pressing digit key/ touch-sensitive panel.	Automatic **Note 15**	X	X	X
0. Automatic	Sets Automatic to key touch tone.				
1. No Tone	Sets key touch tone disabled.				
2. Tone	Sets key touch tone enabled.				
3. Voice	Enables the key touch tone by voice recognition.				
4. Hold Music	Sets Music-on-Hold.	Default	X	X	X
1. Default	Applies the default music (Minuet).				
2. Download	Applies the downloaded music.				
5. Prefix	Sets prefix number.	-	X	X	-
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X	X	-

4. Setting (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
3. Display	Sets display related data.	-	X	X	X Note 22
1. Time Format	Switches 12-hour/24-hour indication.	Automatic Note 16	X	X	X
0. Automatic	Applies the time indication on the Telephony Server.				
1. 12 hour Indication	12-hour indication				
2. 24 hour Indication	24-hour indication				
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic Note 17	X	X	X
0. Automatic	Sets Automatic for volume gage display.				
1. Disable	Volume gage is not displayed.				
2. Enable	Volume gage is displayed.				
3. Screen Saver	Sets Screen Saver related data.	-	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X	X
1. Disable	Screen Saver is not used.				
2. Enable	Screen Saver is used.				
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X	X
4. Back Light	Switches ON/OFF the backlight on DT730.	Enable Note 12	-	X	-
1. Disable	Backlight is OFF.				
2. Enable	Backlight is ON.				
4. Back Light	Turns up/down the backlight on DT750.	Level 3	X	X	-
1. Level 1 (Bright) ~ 4. Level 4 (Dark)	Select the bright level of backlight.				
5. Font Size	Switches the font size on configuration menu.	Standard (16dot)	X	X	-
1. Standard (16dot)	Selects Standard or Small of font size.				
2. Small (12dot)					

4. Setting (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
6. Language	Selects the language on date and time display.	Automatic **Note 19**	X	X	X **Note 18**
0. Automatic	Sets Automatic for language setting on date and time display.				
1. Japanese	Selected language is displayed on date and time display.				
2. NEC English					
3. NEC Portuguese					
4. NEC Spanish					
5. NEC French					
6. German					
7. Italian					
8. Dutch					
9. Norwegian					
10. Danish					
11. Swedish					
12. Greek					
13. English					
14. Portuguese					
15. Spanish					
16. French					
17. Russian					
18. Turkish					
19. Romania					
20. Polish					
21. Catalan					
22. Korean					
23. Download 1	Selected download language is displayed on date and time display. **Note 20**				
24. Download 2					
25. Download 3					
26. Download 4					
7. Advanced	Sets other data for display.	-	X	-	-
1. Wallpaper	Sets the Home screen background.	Default	X	-	-
1. Default	Sets the default screen background.				
2. Download	Sets the download data file.				
2. Touch Panel	Selects whether to use touch-sensitive panel function.	Enable	X	-	-
1. Disable	Touch-sensitive panel is OFF.				
2. Enable	Touch-sensitive panel is ON.				
3. Shortcut Icon	Not used.	-	N	N	N
4. Font Color	Sets the font color for Time Display/ Feature Information Display area. * You can check the color while selecting.	Color 2	X	-	-
1~16. Color 1 ~ Color 16	Sets Font Color 1 ~ Font Color 16.				

4. Setting (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
5.Turn Off Display	Sets the data when turning off the backlight of the display automatically.	-	X	-	-
1.Turn Off Display Mode	Sets whether Turn Off Display Mode is in service.	App Priority			
1.Disable	Disables Turn Off Display Mode.				
2.Enable	Enables Turn Off Display Mode.				
3.App Priority	Sets to depend on an application.				
2.Wait Time	Sets the time until turning off the display (1-999 min.).	180			
6.Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable	–	-	-
1.Disable	Disables Backlight Fade Control.				
2.Enable	Enables Backlight Fade Control.				
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X	X
5. Security	Not used.	-	N	N	N
6. Peripherals	Setting for using peripheral equipment of terminal.	-	N	N	N
1. USB Memory	Setting for safely removing USB memory from the terminal.		N	N	N
1. Remove			N	N	N
7. Usability	Set the operation of Help key while pop-up window is displayed.	-	X	X	-
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu	X	X	-
1.SubMenu	Set the Help key which displays sub menu		X	X	-
2.Popup Window	Set the Help key which displays pop-up window		X	X	-
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X	X

4. Setting (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
2. Download	Sets download related data.	-	X	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.				
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	X	X
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav			
2. Download 2		Melody2.wav			
3. Download 3		Melody3.wav			
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X	X	X
4. Wallpaper	Downloads a file used for wallpaper.	WallPaper.bmp	X	X	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
4. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.				
2. Password	Sets password for login to FTP server.				
3. Folder	Specifies the directory to save the download file.				
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz			
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
5. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.				
2. Password	Sets password for login to FTP server.				
3. Folder	Specifies the directory to save backup file.				

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing Tone settings is as follows.
- 1st Priority: Ringing tone settings by " 2. Directory (FW 5.0.0.0 or later)" - "2.Edit" - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by " 2. Directory (FW 5.0.0.0 or later)" - "3.Group Setting" - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by " 4. Setting (FW 5.0.0.0 or later)" - "1.User Setting" - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting except DT710.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting except DT710.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: Only Automatic/Japanese/NEC English are available.

Note 19: A setting on the Telephony Server is applied when Automatic has been set.

Note 20: If "Language Pack" files are not downloaded, these parameters are not displayed.

Note 21: For DT710 DESI-Less terminal, the order of menus ([4.Terminal Settings] - [1.User Setting] - [1.Incoming Call]) is as follows.

Parameter	Description	Default	Note
1. User Setting	Sets user interface related.	-	
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	
1. Ring Volume	Not used.	-	
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	
1. Disable	Offhook ringing is OFF.		
2. Enable	Offhook ringing is ON.		
3. Ring Tone	Sets Ringing Tone for incoming call termination.	-	
1. External Call	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.		
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.		
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.		
2. Internal Call	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.		
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.		
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.		
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.		
3. IM	Not used.	-	

Parameter	Description	Default	Note
4. Illumination	Sets lamp indication pattern for incoming call termination.	-	
1. External Call	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-	• The lamp illuminates Red when Automatic is selected. • If an illumination has been set in the Directory menu, it will be prioritized over this setting.
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	
1. Disable	Lamp indication is OFF.		
2. Red	Specifies the color of lamp indication for incoming call termination.		
3. Green			
4. Orange			
5. Rotation			
2.Internal Call	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-	
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	
1. Disable	Lamp indication is OFF.		
2. Red	Specifies the color of lamp indication for incoming call termination.		
3. Green			
4. Orange			
5. Rotation			

Note 22: For DT710 DESI-Less terminal, the order of menus ([4.Terminal Settings] - [1.User Setting] - [3.Display]) is as follows.

Parameter	Description	Default	Note
3. Display	Sets display related data.	-	
1. Time Format	Switches 12-hour/24-hour indication.	Automatic	Same as other terminals.
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic	
3. Screen Saver	Sets Screen Saver related data.	-	
4. Back Light	Switches ON/OFF the backlight on DT710 DESI-Less terminal.	Enable	
5. Font Size	Switches the font size on configuration menu.	Standard (16dot)	
6. Language	Selects the language on date and time display.	Automatic	
7. Home View Mode	Sets whether to switch both menu window and DESI-less screen.	-	
1. Automatic	Sets Automatic for switching both menu window and DESI-less screen.	Automatic	
2. Fixed Mode	Sets fixed display (DESI-less screen).		

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config (FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
1. Network Settings	Sets network related data.	-	X	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X	X
1. Disable	DHCP is not used.				
2. Enable	DHCP is used.				
2. IP Address	Sets DT700 Series terminal’s IP address.	0.0.0.0	X	X	X
3. Default Gateway	Sets default router’s IP address.	0.0.0.0	X	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X	X
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0	X	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X	X
1. Autonego	Autonegotiation				
2. 100M Full	100Mbps in full-duplex mode				
3. 100M Half	100Mbps in half-duplex mode				
4. 10M Full	10Mbps in full-duplex mode				
5. 10M Half	10Mbps in half-duplex mode				
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X	X
1. Disable	VLAN is not used.				
2. Enable	VLAN is used.				
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X	X

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
2. PC Port Settings	Sets PC port.	-	X	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X	X
1. Autonego	Autonegotiation				
2. 100M Full	100Mbps in full-duplex mode				
3. 100M Half	100Mbps in half-duplex mode				
4. 10M Full	10Mbps in full-duplex mode				
5. 10M Half	10Mbps in half-duplex mode				
2. VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X	X
1. Disable	Port VLAN of PC port is not used.				
2. Enable	Port VLAN of PC port is used.				
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X	X
0. Automatic	Sets Automatic for PC port.				
1. Disable	PC port is not used.				
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X	X
1. Disable	Not forward EAPOL packet from PC port.				
2. Enable	Forwards EAPOL packet from PC port.				
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X	X
1. Disable	Not clear the authentication status.				
2. Enable	Clear the authentication status.				
3. CDP Mode	Selects whether to notify HUB of power consuming information.	Disable	X	X	X
1. Disable	CDP is not used (Not send CDP to HUB).				
2. Enable	CDP is used (Sends CDP to HUB).				
4. Type of Service	Sets ToS value.	-	X	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0			
2. SIP	Sets ToS value for SIP in Hex.	C0			
5.Self Port Settings	Sets each port for DT700 Series.	-	-	-	-
1.RTP Self Port	Sets RTP port for DT700 Series [1024-65520 (except 59986-60000)]. **Note 35**, **Note 36**	3462	X	X	X
2.SIP Self Port	Sets SIP port for DT700 Series [1024-65534]. **Note 36**	5060	X	X	X
6.LLDP Settings	Sets information related to LLDP.	-	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X	X
1. Disable	DT700 Series does not transmit/receive LLDP packets.				
2. Enable	DT700 Series transmits/receives LLDP packets.				

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X	X
1. Disable	DT700 Series does not perform data setting automatically when LLDP packets are received.				
2. Enable	DT700 Series performs data setting automatically when LLDP packets are received.				
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT700 Series receives LLDP packets (1-60 seconds).	15	X	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X	X
5.Hold Multiplier	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT700 Series starts up (1-10 times).	3	X	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.				
2. Enable	Transparent Mode of LLDP packets is enabled.				
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- Note 34	X	X	X

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X	X
1. Disable	Both Spare and Backup IPs are disabled.				
2. Spare IP	Spare IP is enabled.				
3. Backup IP	Backup IP is enabled.				
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X	X
1. IP Address	Sets DT700 Series terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0			
2. Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0			
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0			
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0			
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X	X
2. SIP Settings	Sets SIP related data.	-	X	X	X
1. SIP User	Sets user data.	-	X	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X	X
2. Password	Sets password for digest authentication.	-	X	X	X
3. Extension Number	Not used.	-	N	N	N
4. Backup Logon	Not used.	-	N	N	N

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
2. Server Address	Sets IP address or URI of SIP server. **Note 23**, **Note 24**	-	X	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	-	X	X	X
2. 2nd Server Address					
3. 3rd Server Address					
4. 4th Server Address					
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	-	X	X	X
2. 2nd Register Address					
3. 3rd Register Address					
4. 4th Register Address					
3. Access Mode	Sets access mode for SIP server.	Normal	X	X	X
1. Normal	Normal access				
2. Remote	Remote access				
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.				
2. 2nd Server Port					
3. 3rd Server Port					
4. 4th Server Port					
5. Registrar Destination	Sets port for registrar server [1024-65535].				
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.				
2. 2nd Register Port					
3. 3rd Register Port					
4. 4th Register Port					

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
5. Area ID	Sets the area (country) using DT700 Series.	Automatic	X	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.				
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.				
2. America (Canada and North America)					
3. Australia					
4. Others					
5. Hong Kong					
6. Malaysia					
7. Singapore					
8. Mexico					
9. Taiwan					
10. New Zealand					
11. Korea					
12. Brazil					
13. China					
14. Thailand					
15. Thailand (EGAT)					
16. Sri Lanka					
17. Germany					
18. Italy					
19. Netherlands					
20. Catalonia (Not used)					
21. Denmark					
22. Sweden					
23. Poland					
24. Czech					
25. Norway					
26. France					
27. Portugal					
28. Spain					
29. Austria					
30. Belgium					
31. UK					
32. Greece					
33. Switzerland					
34. South Africa					
35. Brazil (NECU)					

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).				
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).				
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X	X
1. Disable	Calls in progress are not held even when DT700 Series terminal detects communication failure with the Telephony Server.				
2. Enable	Calls in progress are held even when DT700 Series terminal detects communication failure with the Telephony Server.				
3. Howler Tone **Note 25**	Selects whether to send howler tone.	Disable	X	X	X
1. Disable	Howler tone sending is OFF.				
2. Enable	Howler tone sending is ON.				
7. Encryption	Sets encryption data.	Disable	X	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X	X
1. Disable	Authentication is not used.				
2. Enable	Authentication is used.				
2. One Time Password	Sets One Time Password.	-	X	X	X
3. Authentication Status	Displays authentication status.	-	X	X	X
8. NAT Traversal **Note 30**	Not used.	-	N	N	N
1.NAT Traverse Mode	Not used.	-	N	N	N
1.Disable					
2.Dynamic					
3.Static					
2.Network Area Name	Not used.	-	N	N	N
3.WAN Settings	Not used.	-	N	N	N
1.WAN Mate IP Address					
2.WAN SIP Mate Port					
3.WAN Self IP Address					

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
3. Maintenance Settings	Sets maintenance related data.	-	X	X	X
1. Download Menu	Downloads specified file to DT700 Series.	-	X	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X	X
1. Config	Downloads configuration file.	config.tgz	X	X	X
2. Certificate	Not used.	-	N	N	N
3. Boot & Program	Downloads boot and program.	DT750: itlisips.tgz DT730: itlisipv.tgz DT710: itlisipe.tgz	X	X	X
4. Flash Memory Image	Downloads flash memory image.	imgsip.tgz	X	X	X
5. Presence Icon	Not used.	-	N	N	N
6. Voice File	Downloads voice file.	voice.tgz	X	X	N
7. Language Pack	Downloads translation data file.	LangPack.tgz	X	X	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
4. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X	X
2. Password	Sets password for login to FTP server.	-	X	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X	X
2. Hard Reset	Resets DT700 Series without data saving.	-	X	X	X

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
3. Data Clear	Initializes DT700 Series selecting the initialization mode.	-	X	X	X
1. Factory Value	Initializes DT700 Series to factory default.	-	X	X	X
2. Terminal Data	Clears terminal data on DT700 Series.	-	X	X	X
3. Personal Data	Clears personal data on DT700 Series.	-	X	X	N
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X	X
1. Default Audio	Sets audio data.	-	X	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7].	4	X	X	X
2. Send Gain	Sets sending gain of handset [0-31].	24	X	X	X
3. Receive Bias	Sets receiving bias of handset [0-7].	0	X	X	X
4. Receive Gain	Sets receiving gain of handset [0-31].	22	X	X	X
5. Noise Suppression	Sets whether to enable the Noise Suppressor. (Set “1.Disable” in normal operation.)	Disable	X	X	X
1.Disable	Sets to disable the Noise Suppressor.				
2.Enable	Sets to enable the Noise Suppressor.				
2. KeyKit Type	Sets additional button kit data.	-	X	X	X
1. Kit 1 ~ 4. Kit 4, 8. Kit 8 ~ 12. Kit 12, 16. Kit 17 **Note 31**, **Note 32**	Key 1 ~ 4, 8 ~ 17 on button kit are used. ** Kit 8 is not displayed on DT750.* **Kit 17 is displayed on DT750 only.*	DT750: Kit 1 DT730: Kit 1 DT710: Kit 9	X	X	X
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-	X	X	X
1. Line 12	Sets to 12-line of DT730/DT730G.		X	X	X
2. Line 24	Sets to 24-line of DT730/DT730G.		X	X	X
3. Line 32	Not used.		N	N	N
4. Line 8	Sets to 8-line of DT730/DT710 DESI-Less terminal.		X	X	X
5. Line 6	Sets to 6-line of DT710.		X	X	X
6. Line 2	Sets to 2-line of DT710.		N	N	X
7. Line 0	No Line key setting.		X	X	X
3. Calibration	Adjusts touch-sensitive panel location.	-	X	-	-

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
4. LCD Contrast	Adjusts LCD Contrast.	Area Contrast	-	X	-
0. Area Contrast					
1. Wide					
2. Narrow					
5. Auto config	Selects whether to use auto-config function.	Enable	X	X	X
1. Disable	Auto config is not used.				
2. Enable	Auto config is used.				
6. Data Maintenance	Sets data maintenance related.	-	X	X	X
1. Backup	Executes data backup.	-	X	X	X
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz	X	X	X
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz	X	X	X
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz	X	X	X
2. Restore	Executes restoration.	-	X	X	X
1. All Data	Restores all the configuration setting and data.	AllData.tgz	X	X	X
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz	X	X	X
3. Personal Data	Restores personal setting and data.	PersonalData.tgz	X	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
5. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X	X
2. Password	Sets password for login to FTP server.	-	X	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X	X

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
7. Simple Test **Note 29**	Changes the terminal to test mode.	-	X	X	X
1. Call Test	Call Test	-	X	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X	X
6. Speaker Test	Tests the speaker.	-	X	X	X
1. Japan	A DT for Japan is heard in maximum volume.	-	X	X	X
2. America	A DT for North America is heard in maximum volume.	-	X	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X	X
4. Security	Sets security related data.	-	X	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X	N
1. Disable	Web Programming is disabled.				
2. Enable	Web Programming is enabled.				
2. Push Server	Sets XML's Push server related data.	-	X	X	N
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X	X	X
1. Disable	Access is disabled.				
2. Enable	Access is enabled.				
3. Enable (All Client) **Note 33**	Access is enabled. Select this item to set more than one XML's Push server.				
2. Client IP Address	IP address of XML's Push server.	0.0.0.0	X	X	X
1. Client 1	Sets IP address of 1st XML's Push server.				
2. Client 2	Sets IP address of 2nd XML's Push server.				
3. Client 3	Sets IP address of 3rd XML's Push server.				
4. Client 4	Sets IP address of 4th XML's Push server.				
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 36**	82	X	X	N
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X	X

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X	X
1. Supplicant	Sets whether to use supplicant on DT700 Series.	Disable	X	X	X
1. Disable	Supplicant is disabled on DT700 Series.				
2. Enable	Supplicant is enabled on DT700 Series.				
2. EAP Method	Not used.	-	-	-	-
3. Account	Sets user ID for EAP-MD5.	-	X	X	X
4. Password	Sets password for EAP-MD5.	-	X	X	X
5. EAP VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X	X
1. Disable	VLAN tag is not added to EAP packet.				
2. Enable	VLAN tag is added to EAP packet.				
5. VPN Client	Not used.	-	N	N	N
5. Terminal Information	Displays terminal information.	-	X	X	X
Hardware Version	Displays hardware version of DT700 Series.	-	X	X	X
MAC Address	Displays MAC address of DT700 Series.	-	X	X	X
Firmware Version	Displays firmware version of DT700 Series.	-	X	X	X

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
6. Application Settings	Sets application data.	-	X	X	X
1. XML Settings	Specifies XML browser function.	-	X	X	X
1. Terminal ID **Note 28**	Login number for accessing XML server.	0000	X	X	X
2. XML Browser **Note 28**	Sets XML browser related data.	-	X	X	X
1. Home URL **Note 27**	Sets the address of the contents to access when starting up XML browser.	-	X	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0	X	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X	X
3. Auto Startup	Set whether to start up an application specified at the Home URL automatically.	Disable	N	N	X
1. Disable	Sets the Auto Startup disabled.				
2. Enable	Sets the Auto Startup enabled.				
4. Fixed Mode	Sets whether to display an application on LCD in the Fixed Mode.	Disable	N	N	X
1. Disable	Sets the Fixed Mode disabled.				
2. Enable	Sets the Fixed Mode enabled.				
3. App Priority	Sets to depend on an application.				
3. Directory URL	Sets URL of Corporate Phonebook.	-	X	X	N
4. Service URL	Sets URL of XML application.	-	X	X	N
5. Conf Key URL	Sets URL when the Conf Key is used. *This data can be set only when Key Kit 17 is set.	-	X	N	N
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 36**	3530	X	X	X
3. Popup	Sets the popup window display.	-	X	X	X
1.Popup Mode	Sets the mode of the popup window display.	App Priority	X	X	X
1.Enable	Sets the popup window display enabled.				
2.App Priority	Sets to depend on a definition of XML tag for Popup window.				
2.Close Button	Sets the Close Button display for closing the popup window.	Enable	X	N	N
1.Disable	Sets the Close Button display disabled.				
2.Enable	Sets the Close Button display enabled.				
3.Window Size Button	Sets the Window Size Button display for changing the size of the popup window.	Enable			
1.Disable	Sets the Window Size Button display disabled.				
2.Enable	Sets the Window Size Button display enabled.				
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-	X	X	X
5. Emergency Call **Note 37**	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-	X	X	N
Emergency Dial 1	Up to three destination numbers can be specified.				
Emergency Dial 2					
Emergency Dial 3					

0. Config (Continued)(FW 5.0.0.0 or later)

Parameter	Description	Default	DT750	DT730	DT710
6. Menu Key Mode	Changes to menu key mode.	Enable	X	X	N
1. Disable	Sets the menu key mode disabled.				
2. Enable	Sets the menu key mode enabled.				
7. DESI-less Mode **Note 26**	Sets the DESI-less screen view.	DESI-less Mode 2	X	N	N
1. DESI-less Mode 1	Switches the LCD to DESI-less mode off-hook.				
2. DESI-less Mode 2	Does not change the LCD to DESI-less mode.				

Note 23: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT700 Series terminal is registered.

Note 24: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 25: Howler Tone is not available. Be sure to assign "Disable" to this parameter.

Note 26: DESI-less mode allows access to Line/Feature keys automatically during off-hook state.

Note 27: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details" of "Hold Fixation Mode."

Also, refer to the manual (4.3.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Setting] - [2.IPM Self Port].

Note 28: This function requires an LCD.

Note 29: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 30: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 31: Key Kit 17 is provided for Hotel System feature.

Note 32: Key Kit 16 is not displayed. Actual Key Kit will be displayed as "13, 14, 15, 17."

Note 33: Be careful when you specify "3.Enable(All Client)" because security service are disabled for Push when "3.Enable(All Client)" is set.

Note 34: "-" is displayed in default setting.

Note 35: Odd numbered ports cannot be assigned.

Note 36: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.
- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

Note 37: For DT710 DESI-Less, this menu is displayed as “5. Menu Key Mode”.

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

4.3.3.2 Configuration Menu List (Not Earlier Than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

This section lists the configuration menu used for DT700 Series configuration setting. DT750, DT730, and DT710 columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: DT710 supports Tool and Config menu only.

Note: For DT750 equipped with firmware version 4.0.0.0 or later, the following menus are not displayed on the menu window: Tool, Call Func., Presence, Favorite and Config. To open Config menu, press digit key "0."

1. History (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730
1. Missed **Note 1**	Lists the history of missed calls.	-	X	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X	X
4. Delete All	Deletes the call history completely.	-	X	X

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data setting.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default	DT750	DT730
1. Call	Originates a call to the number displayed on the history.	-	X	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X	X
1. New	Registers new number.	-	X	X
Category Set	Selects the group the new number registered to.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Sets the priority order of dialing number for call origination.	Disable	X	X
1. Disable				
2. Enable				
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-	X	X

Parameter	Description	Default	DT750	DT730
2. Addition	Adds numbers to searched data.	-	X	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X	X
4. Delete One	Deletes one history displayed on the LCD.	-	X	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X	X

Note 2: This menu has the same function with "2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" → "2. Edit."

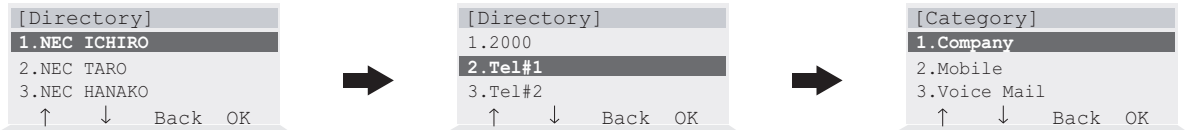
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1: This Directory Search menu has the same function with "2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT730 (Standard LCD).

2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730
1. Personal	Displays Terminal Phonebook **Note 7**	-	X	X
1. Search	Searches Phonebook.	-	X	X
1. Group	Searches by specifying group.	-	X	X
1. Default	Searches through “Default” group.	-	X	X
2. Colleagues	Searches through “Colleagues” group.	-	X	X
3. VIPs	Searches through “VIPs” group.	-	X	X
4. Family	Searches through “Family” group.	-	X	X
5. Friends	Searches through “Friends” group.	-	X	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X	X
2. Name	Searches by entering a target name.	-	X	X
3. Tel Number	Searches by entering numbers.	-	X	X
4. Others	Searches by other search key.	-	X	X
1. Memory ID	Searches by entering Memory ID.	-	X	X
2. Category	Searches by selecting Category.	-	X	X
1. Company	Searches through “Company” category.	-	X	X
2. Mobile	Searches through “Mobile” category.	-	X	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X	X
4. Home	Searches through “Home” category.	-	X	X
5. Etc	Searches through “Etc” category.	-	X	X
3. Company	Searches by entering a company name.	-	X	X
4. Alphabet	Searches by alphabet order.	-	X	X
1. ABC	Searches by the name starting with A ~ Z.	-	X	X
2. DEF				
3. GHI				
4. JKL				
5. MNO				
6. PQRS				
7. TUV				
8. WXYZ				
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).			
#. All	Searches all.			

2. Directory (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730
2. Edit	Edits the data in Terminal Phonebook.	-	X	X
1. Name	Registers name.	-	X	X
2. Group	Allocates group.	Default	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable	X	X
1. Disable				
2. Enable				
7. Company Name	Registers company name.	-	X	X
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings) **Note 9**	X	X
1. Automatic	Sets Automatic to Ring Tone. **Tone Type 1 rings when Automatic is selected.*			
2. Default	Applies default Ringing Tone on terminal.			
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.			
17. Download 1 ~ 19. Download 3				
9. Illumination **Note 4**	Sets lamp indication for informing call termination.	Default (follows group settings) **Note 9**	X	X
1. Automatic	Sets Automatic to lamp indication for informing call termination. **The lamp illuminates Red when Automatic is selected.*			
2. Default	Applies default illumination for informing call termination.			
3. Disable	Illumination is OFF.			
4. Red	Specifies color of lamp indication for incoming call termination.			
5. Green				
6. Yellow				
7. Blue				
8. Light Blue				
9. Purple				
10. White				
11. Rotation				
0. Memory ID	Registers memory ID.	-	X	X

2. Directory (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730
3. Group Setting 1. Default 2. Colleagues 3. VIPs 4. Family 5. Friends 6. Group6 ~ 20. Group 20	Sets groups.	-	X	X
1. Name	Registers group name.	-	X	X
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for informing call termination.	Default (follows terminal setting **Note 9**	X	X
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for informing call termination.	Default (follows terminal settings) **Note 9**	X	X
4. Own Number	Displays own number (login number).	-	X	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-	X	X

Note 4: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by " 2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" - "2.Edit" - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by " 2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" - "3.Group Setting" - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by " 5. Setting (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" - "1.User Setting" - "1.Incoming Call" - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with " 2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" - "2.Edit" - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with " 2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" - "2.Edit" - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal's configuration menu regardless of SFI: 246/SFI: 247 data setting.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by "0.Config" - "6. Application Settings" - "1.XML Settings" - "3. Directory URL."

Note 9: For firmware versions earlier than 4.0.0.0, the default is "Automatic."

3. Tool (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3. Tool	Starts up XML browser and Instant Message tool.	-	X	X	X
1. Service	Starts up XML browser.	-	X	X	X
2. IM	Not used.	-	N	N	N

4. Call Func. (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Not used. (This menu depends on the Telephony Server.)

5. Setting (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
1. User Setting	Sets user interface related.	-	X	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X	X
1. Ring Volume	Not used.	-	N	N	N
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X	X
1. Disable	Offhook ringing is OFF.				
2. Enable	Offhook ringing is ON.				
3. Headset Ring **Note 10**	Selects whether to use headset ringing.	Disable	X	X	-
1. Disable	Headset ringing is OFF.				
2. Enable	Headset ringing is ON.				
4. Ring Tone **Note 11**	Sets Ringing Tone for incoming call termination.	-	X	X	X
1. External Call **Note 14**	Sets Ringing Tone for external call termination.	Automatic	X	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.				
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.				
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.				N
2. Internal Call **Note 14**	Sets Ringing Tone for station call termination.				X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.				
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.				
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.				N
3. IM	Not used.	-	N	N	N
5. Illumination **Note 11**	Sets lamp indication pattern for incoming call termination.	-	X	X	-

5. Setting (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
1. External Call **Note 15**	Sets Illumination for External Call.	-	X	X	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X	-
1. Disable	Lamp indication is OFF.				
2. Red	Specifies the color of lamp indication for incoming call termination.				
3. Green					
4. Blue					
5. Yellow					
6. Purple					
7. Light Blue					
8. White					
9. Rotation					
2.Internal Call **Note 15**	Sets Illumination for Internal Call.	-	X	X	-
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X	-
1. Disable	Lamp indication is OFF.				
2. Red	Specifies the color of lamp indication for incoming call termination.				
3. Green					
4. Blue					
5. Yellow					
6. Purple					
7. Light Blue					
8. White					
9. Rotation					
6. Headset Ring Volume	Not used	-	N	N	N
2. Talk	Sets call related data.	-	X	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.				
1. Disable	Alarm is OFF.				
2. Enable	Alarm is ON.				
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.				
1. Disable	DTMF tone is OFF.				
2. Enable	DTMF tone is ON.				
3. Key Touch Tone	Sets touch tone for pressing digit key/ touch-sensitive panel.	Tone	X	X	X **Note 16**
0. Automatic	Sets Automatic to key touch tone.				
1. No Tone	Sets key touch tone disabled.				
2. Tone	Sets key touch tone enabled.				
3. Voice	Enables the key touch tone by voice recognition.				

5. Setting (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
4. Hold Music	Sets Music-on-Hold.	Default	X	X	X
1. Default	Applies the default music (Minuet).				
2. Download	Applies the downloaded music.				
5. Prefix	Sets prefix number.	-	X	X	-
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X	X	-
3. Display	Sets display related data.	-	X	X	X
1. Time Format	Switches 12-hour/24-hour indication.	12 hour	X	X	X Note 17
0. Automatic	Applies the time indication on the Telephony Server.				
1. 12 hour Indication	12-hour indication				
2. 24 hour Indication	24-hour indication				
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic	X	X	X Note 18
0. Automatic	Sets Automatic for volume gage display.				
1. Disable	Volume gage is not displayed.				
2. Enable	Volume gage is displayed.				
3. Screen Saver Note 20	Sets Screen Saver related data.	-	N	N	N
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X	X
1. Disable	Screen Saver is not used.				
2. Enable	Screen Saver is used.				
2. Wait Time	Sets wait time until Screen Saver activation. (1-999 min)	120	X	X	X
4. Back Light	Switches ON/OFF the backlight on DT730.	Enable Note 12	-	X	-
1. Automatic	Sets Automatic for Back Light.				
2. Disable	Backlight is OFF.				
3. Enable	Backlight is ON.				
4. Back Light	Turns up/down the backlight on DT750.	Level 3	X	-	-
1. Level 1 (Bright) ~ 4. Level 4 (Dark)	Select the bright level of backlight.				
5. Font Size Note 13	Switches the font size on configuration menu.	Standard (16dot)	X	X	-
1. Standard (16dot)	Selects Standard or Small of font size.				
2. Small (12dot)					

5. Setting (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
6. Language	Selects the language on date and time display.	Automatic	X	X	X Note 19
0. Automatic	Sets Automatic for language setting on date and time display.				
1. Japanese	Selected language is displayed on date and time display.				
2. NEC English					
3. NEC Portuguese					
4. NEC Spanish					
5. NEC French					
6. German					
7. Italian					
8. Dutch					
9. Norwegian					
10. Danish					
11. Swedish					
12. Greek					
13. English					
14. Portuguese					
15. Spanish					
16. French					
17. Russian					
18. Turkish					
19. Romania					
20. Polish					
21. Catalan					
7. Advanced	Sets other data for display (DT750 (Color LCD) only).	-	X	-	-
1. Wallpaper Note 21	Sets the Home screen background.	Default	X	-	-
1. Default	Sets the default screen background.				
2. Download	Sets the download data file.				
2. Touch Panel	Selects whether to use touch-sensitive panel function.	Enable	X	-	-
1. Disable	Touch-sensitive panel is OFF.				
2. Enable	Touch-sensitive panel is ON.				
3. Shortcut Icon	Not used.	-	N	N	N
4. Font Color Note 21	Sets the font color for Time Display/ Feature Information Display area. * You can check the color while selecting.	Color 2	X	-	-
1~16. Color 1 ~ Color 16	Sets Font Color 1 ~ Font Color 16.				

5. Setting (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
5.Turn Off Display **Note 21**	Sets the data when turning off the backlight of the display automatically.	-	X	-	–
1.Turn Off Display Mode	Sets whether Turn Off Display Mode is in service.	App Priority			
1.Disable	Disables Turn Off Display Mode.				
2.Enable	Enables Turn Off Display Mode.				
3.App Priority	Sets to depend on an application.				
2.Wait Time	Sets the time until turning off the display. (1-999 min)	180			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X	X
5. Security	Not used.	-	N	N	N
6. Peripherals	Not used.	-	-	-	X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X	X
2. Download	Sets download related data.	-	X	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.				
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	X	X
1. Download 1	Downloads Melody1 ~ Melody3.	Melody1.wav			
2. Download 2		Melody2.wav			
3. Download 3		Melody3.wav			
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X	X	X
4. Wallpaper **Note 21**	Downloads a file used for wallpaper.	WallPaper.bmp	X	-	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
4. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.				
2. Password	Sets password for login to FTP server.				
3. Folder	Specifies the directory to save the download file.				

5. Setting (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz			
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
5. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.				
2. Password	Sets password for login to FTP server.				
3. Folder	Specifies the directory to save backup file.				

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by "2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" - "2.Edit" - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by "2. Directory (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" - "3.Group Setting" - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by "5. Setting (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)" - "1.User Setting" - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 13: To make the font size change effective, once exit the configuration menu by pressing the software key for "Exit."

Note 14: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting except DT710.

Note 15: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting except DT710.

Note 16: A tone will be provided if Automatic has been set.

Note 17: 12-Hour Indication is applied when Automatic has been set.

Note 18: A setting for Enable is applied when Automatic has been set.

Note 19: Only Automatic/Japanese/NEC English are available. A setting on the Telephony Server is applied when Automatic has been set.

Note 20: This service is available for DT700 Series running firmware version 2.2.0.0 or later.

Note 21: This service is available for DT700 Series running firmware version 3.0.0.0 or later and DT730G (12/24CG).

6. Presence

Not used.

#. Favorite

Not used.

0. Config (Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
1. Network Settings	Sets network related data.	-	X	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X	X
1. Disable	DHCP is not used.				
2. Enable	DHCP is used.				
2. IP Address	Sets DT700 Series terminal's IP address.	0.0.0.0	X	X	X
3. Default Gateway	Sets default router's IP address.	0.0.0.0	X	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X	X
5. DNS Address	Sets DNS server's IP address.	0.0.0.0	X	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X	X
1. Autonego	Autonegotiation				
2. 100M Full	100Mbps in full-duplex mode				
3. 100M Half	100Mbps in half-duplex mode				
4. 10M Full	10Mbps in full-duplex mode				
5. 10M Half	10Mbps in half-duplex mode				
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X	X
1. Disable	VLAN is not used.				
2. Enable	VLAN is used.				
3. VLAN ID	Sets VLAN ID of terminal [0-4096].	7	X	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X	X
2. PC Port Settings	Sets PC port.	-	X	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X	X
1. Autonego	Autonegotiation				
2. 100M Full	100Mbps in full-duplex mode				
3. 100M Half	100Mbps in half-duplex mode				
4. 10M Full	10Mbps in full-duplex mode				
5. 10M Half	10Mbps in half-duplex mode				
2. VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X	X
1. Disable	Port VLAN of PC port is not used.				
2. Enable	Port VLAN of PC port is used.				

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4096].	1 **Note 42**	X	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0 **Note 43**	X	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X	X
0. Automatic	Sets Automatic for PC port.				
1. Disable	PC port is not used.				
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X	X
1. Disable	Not forward EAPOL packet from PC port.				
2. Enable	Forwards EAPOL packet from PC port.				
3. CDP Mode	Selects whether to notify HUB of power consuming information.	Disable	X	X	X
1. Disable	CDP is not used (Not send CDP to HUB).				
2. Enable	CDP is used (Sends CDP to HUB).				
4. Type of Service	Sets ToS value.	-	X	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0			
2. SIP	Sets ToS value for SIP in Hex.	C0			
5.Self Port Settings **Note 31**	Sets each port for DT700 Series.	-	-	-	-
1.RTP Self Port	Sets RTP port for DT700 Series [1024-65528 (except 59994-60000)]. **Note 40 Note 41**	3462	X	X	X
2.SIP Self Port	Sets SIP port for DT700 Series [1024-65534 (except 17185, 60000)]. **Note 41**	5060	X	X	X
6.LLDP Settings **Note 35**	Sets information related to LLDP.	-	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X	X
1. Disable	DT700 Series does not transmit/receive LLDP packets.				
2. Enable	DT700 Series transmits/receives LLDP packets.				
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X	X
1. Disable	DT700 Series does not perform data setting automatically when LLDP packets are received.				
2. Enable	DT700 Series performs data setting automatically when LLDP packets are received.				

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT700 Series receives LLDP packets. (1-60 seconds)	15	X	X	X
1-60 (second)					
4.Transmit Interval	Sets intervals to transmit LLDP packets. (5-32768 seconds)	30	X	X	X
5-32768 (second)					
5.Hold Multiplier	Sets a multiplier determining the time to live for the LLDP packets to be transmitted. (2-10 multiples)	4	X	X	X
2-10 (multiple)					
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT700 Series starts up. (1-10 times)	3	X	X	X
1-10 (times)					
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.				
2. Enable	Transparent Mode of LLDP packets is enabled.				
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- Note 39	X	X	X
7.Spare IP Settings Note 35	Sets information related to Spare IP/Backup IP.	-	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X	X
1. Disable	Both Spare and Backup IPs are disabled.				
2. Spare IP	Spare IP is enabled.				
3. Backup IP	Backup IP is enabled.				
2.Network Settings	Sets network related data when Spare/Backup IP is enabled.	-	X	X	X
1. IP Address	Sets DT700 Series terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0			
2. Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0			
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0			
4. DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0			
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server.	0	X	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server.	0	X	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server.	0	X	X	X

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
2. SIP Settings	Sets SIP related data.	-	X	X	X
1. SIP User	Sets user data.	-	X	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X	X
2. Password	Sets password for digest authentication.	-	X	X	X
3. Extension Number	Not used.	-	N	N	N
4. Backup Logon	Not used.	-	N	N	N
2. Server Address	Sets IP address or URI of SIP server. **Note 22**, **Note 23**	-	X	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server. **Note 22**, **Note 23**	-	X	X	X
2. 2nd Server Address					
3. 3rd Server Address					
4. 4th Server Address					
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination. **Note 23**	-	X	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server. **Note 23**	-	X	X	X
2. 2nd Register Address					
3. 3rd Register Address					
4. 4th Register Address					
3. Access Mode	Sets access mode for SIP server.	Normal	X	X	X
1. Normal	Normal access				
2. Remote	Remote access				
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.				
2. 2nd Server Port					
3. 3rd Server Port					
4. 4th Server Port					
5. Registrar Destination	Sets port for registrar server [1024-65535]				
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.				
2. 2nd Register Port					
3. 3rd Register Port					
4. 4th Register Port					

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
5. Area ID	Sets the area (country) using DT700 Series.	Automatic	X	X	X
0. Automatic	Telephony Server side setting is applied when Automatic is selected.				
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.				
2. America (Canada and North America)					
3. Australia					
4. Others					
5. Hong Kong					
6. Malaysia					
7. Singapore					
8. Mexico					
9. Taiwan					
10. Newzealand					
11. Korea					
12. Brazil					
13. China					
14. Thailand					
15. Thailand (EGAT)					
16. Sri Lanka					
17. Germany					
18. Italy					
19. Netherlands					
20. Catalonia (Not used)					
21. Denmark					
22. Sweden					
23. Poland					
24. Czech					
25. Norway					
26. France					
27. Portugal					
28. Spain					
29. Austria					
30. Belgium					
31. UK					
32. Greece					
33. Switzerland					
34. South Africa					
35. Brazil (NECU) **Note 38**					

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).				
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).				
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X	X
1. Disable	Calls in progress are not held even when DT700 Series terminal detects communication failure with the Telephony Server.				
2. Enable	Calls in progress are held even when DT700 Series terminal detects communication failure with the Telephony Server.				
3. Howler Tone **Note 24**	Selects whether to send howler tone.	Disable	X	X	X
1. Disable	Howler tone sending is OFF.				
2. Enable	Howler tone sending is ON.				
7. Encryption **Note 28**	Sets encryption data.	-	X	X	X
1. Authentication Mode	Selects whether to use authentication.	Disable	X	X	X
1. Disable	Authentication is not used.				
2. Enable	Authentication is used.				
2. One Time Password	Sets One Time Password.	-	X	X	X
3. Authentication Status	Displays authentication status.	-	X	X	X
8. NAT Traversal	Not used.	-	N	N	N
1.NAT Traverse Mode **Note 30**	Not used.	-	N	N	N
1.Disable					
2.Dynamic					
3.Static					
2.Network Area Name **Note 30**	Not used.	-	N	N	N
3.WAN Settings **Note 30**	Not used.	-	N	N	N
1.WAN Mate IP Address					
2.WAN SIP Mate Port					
3.WAN Self IP Address					

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3. Maintenance Settings	Sets maintenance related data.	-	X	X	X
1. Download Menu	Downloads specified file to DT700 Series.	-	X	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X	X
1. Config	Downloads configuration file.	config.tgz	X	X	X
2. Certificate	Not used.	-	N	N	N
3. Boot & Program	Downloads boot and program.	DT750: itlisips.tgz DT730: itlisipv.tgz DT710: itlisipe.tgz	X	X	X
4. Flash Memory Image	Downloads flash memory image.	imgsip.tgz	X	X	X
5. Presence Icon	Not used.	-	N	N	N
6. Voice File	Downloads voice file.	voice.tgz	X	X	N
7. Translation Data	Downloads translation data file.	trnslate.tgz	X	X	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
4. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X	X
2. Password	Sets password for login to FTP server.	-	X	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X	X
2. Hard Reset	Resets DT700 Series without data saving.	-	X	X	X

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3. Data Clear	Initializes DT700 Series selecting the initialization mode.	-	X	X	X
1. Factory Value	Initializes DT700 Series to factory default.	-	X	X	X
2. Terminal Data	Clears terminal data on DT700 Series.	-	X	X	X
3. Personal Data	Clears personal data on DT700 Series.	-	X	X	N
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X	X
1. Audio	Sets audio data.	-	X	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7, 9 for Auto].	DT750: 9 DT730: 9 DT710: 4	X	X	X
2. Send Gain	Sets sending gain of handset [0-31, 99].	DT750: 99 DT730: 99 DT710: 24	X	X	X
3. Receive Bias	Sets receiving bias of handset [0-7, 9].	DT750: 9 DT730: 9 DT710: 0	X	X	X
4. Receive Gain	Sets receiving gain of handset [0-31, 99].	DT750: 99 DT730: 99 DT710: 22	X	X	X
5. Noise Suppression **Note 34**	Sets whether to enable the Noise Suppressor. (Set "1.Disable" in normal operation.)	Disable	X	X	X
1.Disable	Sets to disable the Noise Suppressor.				
2.Enable	Sets to enable the Noise Suppressor.				
2. KeyKit Type	Sets additional button kit data.	-	X	X	X
1. Kit 1 ~ 4. Kit 4, 8. Kit 8 ~ 12. Kit 12, 16. Kit 17**Note 31**, **Note 32**, **Note 33**	Key 1 ~ 4, 8 ~ 17 on button kit are used. ** Kit 8 is not displayed on DT750.* **Kit 17 is displayed on DT750 only.*	DT750: Kit 1 DT730: Kit 1 DT710: Kit 9	X	X	X
1. Line Key Type	Sets Line key. ** Available for DT730 (Standard LCD) excepting DESI-Less Phone.*		X	X	X
1. Line 12	Sets to 12-line of DT730.	DT750: Line 12	X	X	X
2. Line 24	Sets to 24-line of DT730.	DT730: Line 12	X	X	X
3. Line 32	Not used.	DT730 (DESI-Less): Line 8	N	N	N
4. Line 8	Sets to 8-line of DT730 DESI-Less Phone.		X	X	X
5. Line 6	Sets to 6-line of DT710.	DT710: Line 2	X	X	X
6. Line 2	Sets to 2-line of DT710.		N	N	X
7. Line 0	No Line key setting.		X	X	X
3. Calibration **Note 28**	Adjusts touch-sensitive panel location.	-	X	-	-
5. Auto config	Selects whether to use auto-config function.	Enable	X	X	X
1. Disable	Auto config is not used.				
2. Enable	Auto config is used.				

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
6. Data Maintenance	Sets data maintenance related.	-	X	X	X
1. Backup	Executes data backup.	-	X	X	X
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz	X	X	X
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz	X	X	X
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz	X	X	X
2. Restore	Executes restoration.	-	X	X	X
1. All Data	Restores all the configuration setting and data.	AllData.tgz	X	X	X
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz	X	X	X
3. Personal Data	Restores personal setting and data.	PersonalData.tgz	X	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
5. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X	X
2. Password	Sets password for login to FTP server.	-	X	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X	X
7. Simple Test **Note 29**	Changes the terminal to test mode.	-	X	X	X
1. Call Test	Call Test	-	X	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X	X

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
6. Speaker Test	Tests the speaker.	-	X	X	X
1. Japan	A DT for Japan is heard in maximum volume.	-	X	X	X
2. America	A DT for North America is heard in maximum volume.	-	X	X	X
7. Receiver Test **Note 35**	Receiver Test for a handset	-	X	X	X
4. Security	Sets security related data.	-	X	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X	N
1. Disable	Web Programming is disabled.				
2. Enable	Web Programming is enabled.				
2. Push Server	Sets XML's Push server related data.	-	X	X	N
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X	X	X
1. Disable	Access is disabled.				
2. Enable	Access is enabled.				
3. Enable (All Client) **Note 36**, **Note 37**	Access is enabled. Select this item to set more than one XML's Push server.				
2. Client IP Address	IP address of XML's Push server.	0.0.0.0	X	X	X
1. Client 1 **Note 36**	Sets IP address of 1st XML's Push server.				
2. Client 2 **Note 36**	Sets IP address of 2nd XML's Push server.				
3. Client 3 **Note 36**	Sets IP address of 3rd XML's Push server.				
4. Client 4 **Note 36**	Sets IP address of 4th XML's Push server.				
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 41**	82	X	X	N
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X	X
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X	X
1. Supplicant	Sets whether to use supplicant on DT700 Series.	Disable	X	X	X
1. Disable	Supplicant is disabled on DT700 Series.				
2. Enable	Supplicant is enabled on DT700 Series.				
2. EAP Method	Not used.	-	N	N	N
3. Account	Sets user ID for EAP-MD5.	-	X	X	X
4. Password	Sets password for EAP-MD5.	-	X	X	X
5. EAP VLAN	Selects whether to add VLAN tag to EAP packet.	Enable	X	X	X
1. Disable	VLAN tag is not added to EAP packet.				
2. Enable	VLAN tag is added to EAP packet.				
5. VPN Client	Not used.	-	N	N	N
5. Terminal Information	Displays terminal information.	-	X	X	X
Hardware Version	Displays hardware version of DT700 Series.	-	X	X	X
MAC Address	Displays MAC address of DT700 Series.	-	X	X	X
Firmware Version	Displays firmware version of DT700 Series.	-	X	X	X
6. Application Settings	Sets application data.	-	X	X	X

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
1. XML Settings	Specifies XML browser function.	-	X	X	X
1. Terminal ID **Note 27**	Login number for accessing XML server.	-	X	X	X
2. XML Browser **Note 27**	Sets XML browser related data.	-	X	X	X
1. Home URL **Note 26**	Sets the address of the contents to access when starting up XML browser.	-	X	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	-	X	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X	X
3. Auto Startup	Set whether to start up an application specified at the Home URL automatically.	Disable	N	X	X
1. Disable	Sets the Auto Startup disabled.				
2. Enable	Sets the Auto Startup enabled.				
4. Fixed Mode	Sets whether to display an application on LCD in the Fixed Mode.	Disable	N	X	X
1. Disable	Sets the Fixed Mode disabled.				
2. Enable	Sets the Fixed Mode enabled.				
3. App Priority	Sets to depend on an application.				
3. Directory URL	Sets URL of Corporate Phonebook.	-	X	X	N
4. Conf Key URL **Note 31**	Sets URL when the Conf Key is used. *This data can be set only when Key Kit 17 is set.	-	X	N	N
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 41**	3530	X	X	X
3. Popup **Note 31**	Sets the popup window display.	-	X	-	-
1.Popup Mode	Sets the mode of the popup window display.	App Priority			
1.Enable	Sets the popup window display enabled.				
2.App Priority	Sets to depend on a definition of XML tag for Popup window.				
2.Close Button	Sets the Close Button display for closing the popup window.	Enable			
1.Disable	Sets the Close Button display disabled.				
2.Enable	Sets the Close Button display enabled.				
3.Window Size Button **Note 36**	Sets the Window Size Button display for changing the size of the popup window.	Enable			
1.Disable	Sets the Window Size Button display disabled.				
2.Enable	Sets the Window Size Button display enabled.				
4. Screen Saver URL **Note 28**	Sets reference URL for Screen Saver activation.	-	X	X	X
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-	X	X	N
Emergency Dial 1	Up to three destination numbers can be specified.				
Emergency Dial 2					
Emergency Dial 3					

0. Config (Continued)(Not Earlier than FW 2.0.0.0 but Earlier Than FW 5.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
6. Menu Key Mode **Note 36**	Changes to menu key mode.	Enable	X	N	N
1. Disable	Sets the menu key mode disabled.				
2. Enable	Sets the menu key mode enabled.				
7. DESI-less Mode **Note 25**	Sets the DESI-less screen view.	DESI-less Mode 2	X	N	N
1. DESI-less Mode 1	Switches the LCD to DESI-less mode off-hook.				
2. DESI-less Mode 2	Does not change the LCD to DESI-less mode.				

Note 22: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT700 Series terminal is registered.

Note 23: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 24: Howler Tone is not available. Be sure to assign "Disable" to this parameter.

Note 25: DESI-less mode allows access to Line/Feature keys automatically during off-hook state.

Note 26: When the application registered to Home URL is in Fixed Mode, the Telephony Server must set "Hold Fixation Mode" to Hold Key to retrieve a held call. Refer to "Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details of "Hold Fixation Mode."

The Fixed Mode can be set [0.Config] - [6.Application Settings] - [1.XML Setting] - [2.XML Browser] - [4.Fixed Mode] - [2.Enable] on the menu.
Since the Fixed Mode can be set on an application individually, be sure to check whether the application on a URL to register is compliant with the Fixed Mode or not.
When the Fixed Mode is set on an application individually, set [0.Config] - [6.Application Settings] - [1.XML Setting] - [2.XML Browser] - [4.Fixed Mode] - [3.App Priority] on the menu.

Also, refer to the manual (4.3.2.10 Security Mode) of IP Phone Manager, set the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Setting] - [2.IPM Self Support].

Note 27: This function requires an LCD.

Note 28: This service is available for DT700 Series equipped with firmware version 2.2.0.0 or later.

Note 29: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 30: This item appears in the menu of DT700 Series equipped with firmware version 3.0.0.0 or later.

Note 31: This service is available for DT700 Series equipped with firmware version 3.0.0.0 or later.

Note 32: Key Kit 17 is provided for Hotel System feature.

Note 33: Key Kit 16 is not displayed. Actual Key Kit will be displayed as “13, 14, 15, 17.”

Note 34: This service is available for DT700 Series equipped with firmware version 3.0.3.0 or later.

Note 35: This service is available for DT700 Series equipped with firmware version 4.0.0.0 or later.

Note 36: This service is available for DT750 equipped with firmware version 4.0.0.0 or later.

Note 37: Be careful when you specify “3.Enable(All Client)” because security service are disabled for Push when “3.Enable(All Client)” is set.

Note 38: “35. Brazil (NEC Phillips)” is displayed in the configuration menu earlier than FW 4.0.0.0.

Note 39: “-” is displayed in default setting.

Note 40: Odd numbered ports cannot be assigned.

Note 41: A unique number must be assigned to each of the following ports. For RTP Self Port, eight ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

Note 42: The default setting is “7” for the firmware version before 2.1.1.0.

Note 43: The default setting is “5” for the firmware version before 2.1.1.0.

4.3.3.3 Configuration Menu List (Earlier Than FW 2.0.0.0)

This section lists the configuration menu used for DT700 Series configuration setting. DT750, DT730, and DT710 columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: DT710 supports Tool and Config menu only.

1. History (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
1. Missed **Note 1**	Lists the history of missed calls.	-	X	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X	X
4. Delete All	Deletes the call history completely.	-	X	X

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data setting.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default	DT750	DT730
1. Call	Originates a call to the number displayed on the history.	-	X	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X	X
1. New	Registers new number.	-	X	X
Category Set	Selects the group the new number registered to.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Sets the priority order of dialing number for call origination.	Disable	X	X
1. Disable				
2. Enable				
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-	X	X
2. Addition	Adds numbers to searched data.	-	X	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X	X
4. Delete One	Deletes one history displayed on the LCD.	-	X	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X	X

Note 2: This menu has the same function with "2. Directory (Earlier than FW 2.0.0.0)" → "2. Edit."

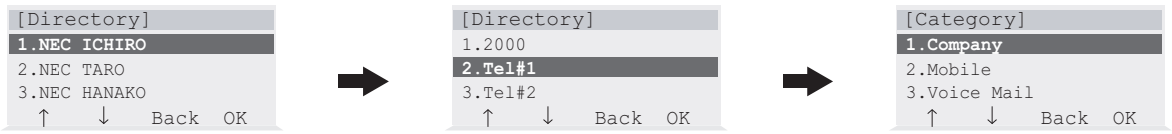
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1:This Directory Search menu has the same function with "2. Directory (Earlier than FW 2.0.0.0)" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT730 (Standard LCD).

2. Directory (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
1. Personal	Displays Terminal Phonebook **Note 7**	-	X	X
1. Search	Searches Phonebook.	-	X	X
1. Group	Searches by specifying group.	-	X	X
1. Default	Searches through “Default” group.	-	X	X
2. Colleagues	Searches through “Colleagues” group.	-	X	X
3. VIPs	Searches through “VIPs” group.	-	X	X
4. Family	Searches through “Family” group.	-	X	X
5. Friends	Searches through “Friends” group.	-	X	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X	X
2. Name	Searches by entering a target name.	-	X	X
3. Tel Number	Searches by entering numbers.	-	X	X
4. Others	Searches by other search key.	-	X	X
1. Memory ID	Searches by entering Memory ID.	-	X	X
2. Category	Searches by selecting Category.	-	X	X
1. Company	Searches through “Company” category.	-	X	X
2. Mobile	Searches through “Mobile” category.	-	X	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X	X
4. Home	Searches through “Home” category.	-	X	X
5. Etc	Searches through “Etc” category.	-	X	X
3. Company	Searches by entering a company name.	-	X	X
4. Alphabet	Searches by alphabet order.	-	X	X
1. ABC	Searches by the name starting with A ~ Z.	-	X	X
2. DEF				
3. GHI				
4. JKL				
5. MNO				
6. PQRS				
7. TUV				
8. WXYZ				
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).			
#. All	Searches all.			

2. Directory (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
2. Edit	Edits the data in Terminal Phonebook.	-	X	X
1. Name	Registers name.	-	X	X
2. Group	Allocates group.	Default	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable	X	X
1. Disable				
2. Enable				
7. Company Name	Registers company name.	-	X	X
8. Ring Tone **Note 4**	Sets a ringing tone for informing call termination. Up to three patterns can be specified.	Automatic	X	X
1. Automatic	Sets Automatic to Ring Tone. **Tone Type 1 rings when Automatic is selected.*			
2. Default	Applies default ringing tone on terminal.			
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to the ringing tone.			
17. Download 1 ~ 19. Download 3				
9. Illumination **Note 4**	Sets lamp indication for informing call termination.	Automatic	X	X
1. Automatic	Sets Automatic to lamp indication for informing call termination. **The lamp illuminates Red when Automatic is selected.*			
2. Default	Applies default illumination for informing call termination.			
3. Disable	Illumination is OFF.			
4. Red	Specifies color of lamp indication for incoming call termination.			
5. Green				
6. Yellow				
7. Blue				
8. Light Blue				
9. Purple				
10. White				
11. Rotation				
0. Memory ID	Registers memory ID.	-	X	X

2. Directory (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
3. Group Setting	Sets groups.	-	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
1. Name	Registers group name.	-	X	X
2. Ring Tone **Note 4, Note 5**	Sets a ringing tone for informing call termination.	Automatic	X	X
3. Illumination **Note 4, Note 6**	Sets lamp indication for informing call termination.	Automatic	X	X
4. Own Number	Displays own number (login number).	-	X	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-	X	X

Note 4: The priority order of ringing tone settings is as follows.
- 1st Priority: Ringing tone settings by " 2. Directory (Earlier than FW 2.0.0.0)" - "2.Edit" - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by " 2. Directory (Earlier than FW 2.0.0.0)" - "3.Group Setting" - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by " 2. Directory (Earlier than FW 2.0.0.0)" - "1.User Setting" - "1.Incoming Call" - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with " 2. Directory (Earlier than FW 2.0.0.0)" - "2.Edit" - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with " 2. Directory (Earlier than FW 2.0.0.0)" - "2.Edit" - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal's configuration menu regardless of SFI: 246/SFI: 247 data setting.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by "0.Config" - "6. Application Settings" - "1.XML Settings" - "3. Directory URL."

3. Tool (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3. Tool	Starts up XML browser and Instant Message tool.	-	X	X	X
1. Service	Starts up XML browser.	-	X	X	X
2. IM	Not used.	-	-	N	N

4. Call Func. (Earlier than FW 2.0.0.0)

Not used. (This menu depends on the Telephony Server.)

5. Setting (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Ring Volume	Not used.	-	N	N
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
3. Headset Ring **Note 9**	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			
4. Ring Tone **Note 10**	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call	Sets Ringing Tone for external call termination.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination. **Tone Type 1 rings when Automatic is selected.*			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
2. Internal Call	Sets Ringing Tone for station call termination.			
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination. **Tone Type 1 rings when Automatic is selected.*			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
3. IM	Not used.	-	N	N

5. Setting (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
5. Illumination **Note 10**	Sets lamp indication pattern for incoming call termination.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination. **The lamp illuminates Red when Automatic is selected.*	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
6. Headset Ring Volume	Not used	-	N	N
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key/touch-sensitive panel.	Tone	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. No Tone	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
5. Prefix	Sets prefix number.	-	X	X
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X	X
3. Display	Sets display related data.	-	X	X
1. Time Format	Switches 12-hour/24-hour indication.	12 hour	X	X
0. Automatic	Applies the time indication on the Telephony Server.			
1. 12 hour Indication	12-hour indication			
2. 24 hour Indication	24-hour indication			

5. Setting (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			
3. Screen Saver	Not used.	-	N	N
4. Back Light	Switches ON/OFF the backlight on DT730.	Enable Note 11	-	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			
4. Back Light	Turns up/down the backlight on DT750.	Level 3	X	-
1. Level 1 (Bright) ~ 4. Level 4 (Dark)	Select the bright level of backlight.			
5. Font Size Note 12	Switches the font size on configuration menu.	Standard (16dot)	X	X
1. Standard (16dot)	Selects Standard or Small of font size.			
2. Small (12dot)				
6. Language	Selects the language on date and time display.	Automatic	X	X
0. Automatic	Sets Automatic for language setting on date and time display.			
1. Japanese	Selected language is displayed on date and time display.			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				

5. Setting (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
7. Advanced	Sets other data for display (DT750 (Color LCD) only).	-	X	-
1. Wallpaper Select	Not used.	-	-	-
2. Touch Panel	Selects whether to use touch-sensitive panel function.	Enable	X	-
1. Disable	Touch-sensitive panel is OFF.			
2. Enable	Touch-sensitive panel is ON.			
3. Shortcut Icon	Not used.	-	N	N
4. Font Color	Not used.	-	N	N
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
5. Security	Not used.	-	N	N
6. Peripherals	Not used.	-	N	N
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	X
1. Download 1	Downloads Melody1 ~ Melody3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X	X
4. Wall Paper	Not used.	-	N	N
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			

5. Setting (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.gz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.gz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 9: Do not go the handset off-hook when headset is used.

Note 10: The priority order of Ringing tone settings is as follows.

- 1st Priority: Ringing tone settings by " 2. Directory (Earlier than FW 2.0.0.0)" - "2.Edit" - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by " 2. Directory (Earlier than FW 2.0.0.0)" - "3.Group Setting" - 2.Ringing Tone/3. Illumination
- 3rd Priority: Ringing tone settings by " 5. Setting (Earlier than FW 2.0.0.0)" - "1.User Setting" - 4.Ringing Tone/5. Illumination

Note 11: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 12: To make the font size change effective, once exit the configuration menu by pressing the software key for "Exit."

6. Presence (Earlier than FW 2.0.0.0)

Not used.

#. Favorite (Earlier than FW 2.0.0.0)

Not used.

0. Config (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
1. Network Settings	Sets network related data.	-	X	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X	X
1. Disable	DHCP is not used.				
2. Enable	DHCP is used.				
2. IP Address	Sets DT700 Series terminal's IP address.	0.0.0.0	X	X	X
3. Default Gateway	Sets default router's IP address.	0.0.0.0	X	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X	X
5. DNS Address	Sets DNS server's IP address.	0.0.0.0	X	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X	X
1. Autonego	Autonegotiation				
2. 100M Full	100Mbps in full-duplex mode				
3. 100M Half	100Mbps in half-duplex mode				
4. 10M Full	10Mbps in full-duplex mode				
5. 10M Half	10Mbps in half-duplex mode				
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X	X
1. Disable	VLAN is not used.				
2. Enable	VLAN is used.				
3. VLAN ID	Sets VLAN ID of terminal [0-4096].	7	X	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X	X
2. PC Port Settings	Sets PC port.	-	X	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X	X
1. Autonego	Autonegotiation				
2. 100M Full	100Mbps in full-duplex mode				
3. 100M Half	100Mbps in half-duplex mode				
4. 10M Full	10Mbps in full-duplex mode				
5. 10M Half	10Mbps in half-duplex mode				
2. VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X	X
1. Disable	Port VLAN of PC port is not used.				
2. Enable	Port VLAN of PC port is used.				
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4096].	7	X	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	5	X	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X	X
0. Automatic	Sets Automatic for PC port.				
1. Disable	PC port is not used.				
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X	X
1. Disable	Not forward EAPOL packet from PC port.				
2. Enable	Forwards EAPOL packet from PC port.				

0. Config (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3. CDP Mode	Selects whether to notify HUB of power consuming information.	Disable	X	X	X
1. Disable	CDP is not used (Not send CDP to HUB).				
2. Enable	CDP is used (Sends CDP to HUB).				
4. Type of Service	Sets ToS value.	-	X	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0			
2. SIP	Sets ToS value for SIP in Hex.	C0			
2. SIP Settings	Sets SIP related data.	-	X	X	X
1. SIP User	Sets user data.	-	X	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X	X
2. Password	Sets password for digest authentication.	-	X	X	X
3. Extension Number	Not used.	-	-	N	N
4. Backup Logon	Not used.	-	-	N	N
2. Server Address	Sets IP address or URI of SIP server. **Note 13**, **Note 14**	-	X	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server. **Note 13**, **Note 14**	-	X	X	X
2. 2nd Server Address					
3. 3rd Server Address					
4. 4th Server Address					
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination. **Note 14**	-	X	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server. **Note 14**	-	X	X	X
2. 2nd Register Address					
3. 3rd Register Address					
4. 4th Register Address					
3. Access Mode	Sets access mode for SIP server.	Normal	X	X	X
1. Normal	Normal access				
2. Remote	Remote access				
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.				
2. 2nd Server Port					
3. 3rd Server Port					
4. 4th Server Port					
5. Registrar Destination	Sets port for registrar server [1024-65535]				
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.				
2. 2nd Register Port					
3. 3rd Register Port					
4. 4th Register Port					

0. Config (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
5. Area ID	Sets the area (country) using DT700 Series.	Automatic	X	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.				
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.				
2. America (Canada and North America)					
3. Australia					
4. Others					
5. Hong Kong					
6. Malaysia					
7. Singapore					
8. Mexico					
9. Taiwan					
10. Newzealand					
11. Korea					
12. Brazil					
13. China					
14. Thailand					
15. Thailand (EGAT)					
16. Sri Lanka					
17. Germany					
18. Italy					
19. Netherlands					
20. Catalonia (Not used)					
21. Denmark					
22. Sweden					
23. Poland					
24. Czech					
25. Norway					
26. France					
27. Portugal					
28. Spain					
29. Austria					
30. Belgium					
31. UK					
32. Greece					
33. Switzerland					
34. South Africa					
35. Brazil (NEC Phillips)					

0. Config (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).				
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).				
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X	X
1. Disable	Calls in progress are not held even when DT700 Series terminal detects communication failure with the Telephony Server.				
2. Enable	Calls in progress are held even when DT700 Series terminal detects communication failure with the Telephony Server.				
3. Howler Tone **Note 15**	Selects whether to send howler tone.	Disable	X	X	X
1. Disable	Howler tone sending is OFF.				
2. Enable	Howler tone sending is ON.				
7. NAT Traversal	Not used.	-	N	N	N
3. Maintenance Settings	Sets maintenance related data.	-	X	X	X
1. Download Menu	Downloads specified file to DT700 Series.	-	X	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X	X
1. Config	Downloads configuration file.	Terminal.tgz	X	X	X
2. Certificate	Not used.	-	N	N	N
3. Boot & Program	Downloads boot and program.	DT750: itlisips.tgz DT730: itlisipv.tgz DT710: itlisipe.tgz	X	X	X
4. Flash Memory Image	Downloads flash memory image.	imgsip.tgz	X	X	X
5. Presence Icon	Not used.	-	N	N	N
6. Voice File	Downloads voice file.	voice.tgz	X	X	N
7. Translation Data	Downloads translation data file.	trnslate.tgz	X	X	X
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
4. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X	X
2. Password	Sets password for login to FTP server.	-	X	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X	X
2. Hard Reset	Resets DT700 Series without data saving.	-	X	X	X

0. Config (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
3. Data Clear	Initializes DT700 Series selecting the initialization mode.	-	X	X	X
1. Factory Value	Initializes DT700 Series to factory default.	-	X	X	X
2. Terminal Data	Clears terminal data on DT700 Series.	-	X	X	X
3. Personal Data	Clears personal data on DT700 Series.	-	X	X	N
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X	X
1. Audio	Sets audio data.	-	X	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7, 9 for Auto].	9	X	X	X
2. Send Gain	Sets sending gain of handset [0-31, 99].	99	X	X	X
3. Receive Bias	Sets receiving bias of handset [0-7, 9].	9	X	X	X
4. Receive Gain	Sets receiving gain of handset [0-31, 99].	99	X	X	X
2. KeyKit Type	Sets additional button kit data.	-	X	X	X
1. Kit 1 ~ 4. Kit 4, 8. Kit 8 ~ 12. Kit 12	Key 1 ~ 4, 8 ~ 12 on button kit is used. ** Kit 8 is not displayed on DT750.*	DT750: Kit 1 DT730: Kit 1 DT710: Kit 9	X	X	X
1. Line Key Type	Sets Line key. ** Available for DT730 (Standard LCD) excepting DESI-Less Phone.*	DT750: Line 12 DT730: Line 12 DT730 (DESI-Less): Line 8 DT710: Line 2	X	X	X
1. Line 12	Sets to 12-line of DT730.		X	X	X
2. Line 24	Sets to 24-line of DT730.		X	X	X
3. Line 32	Not used.		N	N	N
4. Line 8	Sets to 8-line of DT730 DESI-Less Phone.		X	X	X
5. Line 6	Sets to 6-line of DT710.		X	X	X
6. Line 2	Sets to 2-line of DT710.		N	N	X
7. Line 0	No Line key setting.		X	X	X
5. Auto config	Selects whether to use auto-config function.	Enable	X	X	X
1. Disable	Auto config is not used.				
2. Enable	Auto config is used.				

0. Config (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
6. Data Maintenance	Sets data maintenance related.	-	X	X	X
1. Backup	Executes data backup.	-	X	X	X
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz	X	X	X
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz	X	X	X
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz	X	X	X
2. Restore	Executes restoration.	-	X	X	X
1. All Data	Restores all the configuration setting and data.	AllData.tgz	X	X	X
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz	X	X	X
3. Personal Data	Restores personal setting and data.	PersonalData.tgz	X	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X	X
1. FTP	FTP is used.				
2. TFTP	TFTP is used.				
5. FTP Settings	Sets data for accessing FTP server.	-	X	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X	X
2. Password	Sets password for login to FTP server.	-	X	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X	X
7. Simple Test	Not used.	-	N	N	N

0. Config (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
4. Security	Sets security related data.	-	X	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X	N
1. Disable	Web Programming is disabled.				
2. Enable	Web Programming is enabled.				
2. Push Server	Sets XML's Push server related data.	-	X	X	N
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X	X	N
1. Disable	Access is disabled.				
2. Enable	Access is enabled.				
2. Client IP Address	IP address of XML's Push server.	0.0.0.0	X	X	N
3. Push Server Port	Port number of XML's Push server [82, 1024-65535].	82	X	X	N
3. Admin Password	Sets administrator's password.	Enable	X	X	X
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X	X
1. Supplicant	Sets whether to use supplicant on DT700 Series.	Disable	X	X	X
1. Disable	Supplicant is disabled on DT700 Series.				
2. Enable	Supplicant is enabled on DT700 Series.				
2. EAP Method	Not used.	-	N	N	N
3. Account	Sets user ID for EAP-MD5.	-	X	X	X
4. Password	Sets password for EAP-MD5.	-	X	X	X
5. EAP VLAN	Selects whether to add VLAN tag to EAP packet.	Enable	X	X	X
1. Disable	VLAN tag is not added to EAP packet.				
2. Enable	VLAN tag is added to EAP packet.				
5. VPN Client	Not used.	-	N	N	N
5. Terminal Information	Displays terminal information.	-	X	X	X
Hardware Version	Displays hardware version of DT700 Series.	-	X	X	X
MAC Address	Displays MAC address of DT700 Series.	-	X	X	X
Firmware Version	Displays firmware version of DT700 Series.	-	X	X	X
6. Application Settings	Sets application data.	-	X	X	X

0. Config (Continued) (Earlier than FW 2.0.0.0)

Parameter	Description	Default	DT750	DT730	DT710
1. XML Settings	Specifies XML browser function.	-	X	X	X
1. Terminal ID	Login number for accessing XML server.	-	X	X	X
2. XML Browser	Sets XML browser related data.	-	X	X	X
1. Home URL	Sets the address of the contents to access when starting up XML browser.	-	X	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	-	X	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X	X
3. Directory URL	Sets URL of Corporate Phonebook.	-	X	X	N
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)].	3530	X	X	X
3. Incoming Popup	Not used.	-	N	N	N
4. Screen Saver URL	Not used.	-	N	N	N
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-	X	X	N
Emergency Dial 1	Up to three destination numbers can be specified.				
Emergency Dial 2					
Emergency Dial 3					
6. DESI-less Mode **Note 16**	Sets the DESI-less screen view.	DESI-less Mode 2	X	N	N
1. DESI-less Mode 1	Switches the LCD to DESI-less mode off-hook.				
2. DESI-less Mode 2	Does not change the LCD to DESI-less mode.				

Note 13: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT700 Series terminal is registered.

Note 14: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 15: Howler Tone is not available. Be sure to assign "Disable" to this parameter.

Note 16: DESI-less mode allows access to Line/Feature keys automatically during off-hook state.

4.3.3.4 DT730G Series Configuration Menu List (FW 1.0.0.0 or Later)

This section lists the configuration menu used for DT730G configuration setting. DT730G (12/24CG), and DT730G (12/24DG) columns on the tables below show whether the menu is available or not for each terminal type.

LEGEND	X: Available	N: Not available	-: Not applicable

Note: The following menus are not displayed on the menu window: Tool, Call Func., Presence, Favorite and Config. To open Config menu, press digit key "0."

Note: Service menu is displayed only when the URL is registered by [0. Config] - [6.Application Setting] - [1.XML Settings] - [4.Service URL].

1. History

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
1. Missed **Note 1**	Lists the history of missed calls.	-	X	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X	X
4. Delete All	Deletes the call history completely.	-	X	X

Note: When [C-195] Call History (ASFC SFI: 238) is in service, the LCD moves on to the list of Call History. The parameters under [History] menu is not available.

Note: Even though Terminal Call History is set as out of service (ASFC SFI: 248=0), the parameters under [History] menu will be displayed on the terminal's configuration menu regardless of SFI: 248 data setting.

Note 1: On [History] menu, pressing the software key for "Option" displays the following sub menu.

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
1. Call	Originates a call to the number displayed on the history.	-	X	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X	X

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
1. New	Registers new number.	-	X	X
Category Set	Selects the group the new number registered to.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Sets the priority order of dialing number for call origination.	Disable	X	X
1. Disable				
2. Enable				
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-	X	X
2. Addition	Adds numbers to searched data.	-	X	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X	X
4. Delete One	Deletes one history displayed on the LCD.	-	X	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X	X

Note 2: This menu has the same function with "2. Directory" → "2. Edit."

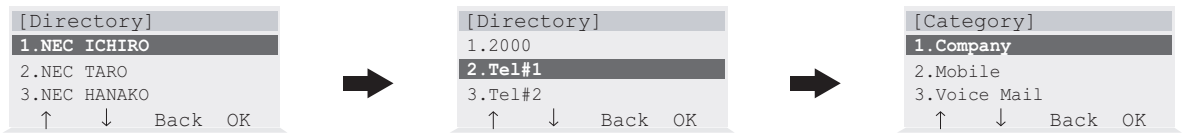
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

STEP 1:This Directory Search menu has the same function with "2. Directory" → "1. Personal" → "1. Search." On searching, data (name) are listed in alphanumeric order (see LCD-1).

STEP 2: Select the target data on the list, and then press the software key for "OK" to move on to LCD-2.

STEP 3: In the example below, from "2.Tel #2" to down on the list are vacant and new numbers can be added to. Select "2.Tel #2" and press the software key for "OK" to move on to Category Set screen (LCD-3).

LCD-1 LCD-2 LCD-3



Note: Follow the sub menu "2. Directory Add" → "1. New" for the subsequent procedure.

Note: This is an example for DT730 (Standard LCD).

2. Directory

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
1. Personal	Displays Terminal Phonebook Note 7	-	X	X
1. Search	Searches Phonebook.	-	X	X
1. Group	Searches by specifying group.	-	X	X
1. Default	Searches through “Default” group.	-	X	X
2. Colleagues	Searches through “Colleagues” group.	-	X	X
3. VIPs	Searches through “VIPs” group.	-	X	X
4. Family	Searches through “Family” group.	-	X	X
5. Friends	Searches through “Friends” group.	-	X	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X	X
2. Name	Searches by entering a target name.	-	X	X
3. Tel Number	Searches by entering numbers.	-	X	X
4. Others	Searches by other search key.	-	X	X
1. Memory ID	Searches by entering Memory ID.	-	X	X
2. Category	Searches by selecting Category.	-	X	X
1. Company	Searches through “Company” category.	-	X	X
2. Mobile	Searches through “Mobile” category.	-	X	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X	X
4. Home	Searches through “Home” category.	-	X	X
5. Etc	Searches through “Etc” category.	-	X	X
3. Company	Searches by entering a company name.	-	X	X
4. Alphabet	Searches by alphabet order.	-	X	X
1. ABC	Searches by the name starting with A ~ Z.	-	X	X
2. DEF				
3. GHI				
4. JKL				
5. MNO				
6. PQRS				
7. TUV				
8. WXYZ				
*. Others	Searches by the name starting with other than A ~ Z (starting with a number or a symbol).			
#. All	Searches all.			
2. Edit	Edits the data in Terminal Phonebook.	-	X	X
1. Name	Registers name.	-	X	X
2. Group	Allocates group.	Default	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				

2. Directory (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	X	X
1. Company				
2. Mobile				
3. Voice Mail				
4. Home				
5. Others				
Priority Flag	Selects whether to set priority for Tel #1 ~ Tel #4. (This menu is displayed after Category Set.	Disable	X	X
1. Disable				
2. Enable				
7. Company Name	Registers company name.	-	X	X
8. Ring Tone **Note 4**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to Ring Tone. ** Tone Type 1 rings when Automatic is selected.*			
2. Default	Applies default Ringing Tone on terminal.			
3. Tone Type 1 ~ 16. Tone Type 14	Sets the selected tone type to Ringing Tone.			
17. Download 1 ~ 19. Download 3				
9. Illumination **Note 4**	Sets lamp indication for announcing call termination.	Default (follows group settings)	X	X
1. Automatic	Sets Automatic to lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*			
2. Default	Applies default illumination for announcing call termination.			
3. Disable	Illumination is OFF.			
4. Red	Specifies color of lamp indication for incoming call termination.			
5. Green				
6. Yellow				
7. Blue				
8. Light Blue				
9. Purple				
10. White				
11. Rotation				
0. Memory ID	Registers memory ID.	-	X	X

2. Directory (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
3. Group Setting	Sets groups.	-	X	X
1. Default				
2. Colleagues				
3. VIPs				
4. Family				
5. Friends				
6. Group6 ~ 20. Group 20				
1. Name	Registers group name.	-	X	X
2. Ring Tone **Note 4**, **Note 5**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)	X	X
3. Illumination **Note 4**, **Note 6**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)	X	X
4. Own Number	Displays own number (login number).	-	X	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 7**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 8**	-	X	X

Note 4: The priority order of Ringing tone settings is as follows.
- 1st Priority: Ringing tone settings by " 2. Directory" - "2.Edit" - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by " 2. Directory" - "3.Group Setting" - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by " 4. Setting" - "1.User Setting" - "1.Incoming Call" - 4.Ringing Tone/5. Illumination

Note 5: This parameter has the same Ring Tone menu with " 2. Directory" - "2.Edit" - 8.Ring Tone.

Note 6: This parameter has the same Illumination menu with " 2. Directory" - "2.Edit" - 9.Illumination.

Note 7: Even though System Phonebook and Terminal Phonebook are set as out of service (ASFC SFI: 246=0/SFI: 247=0), the parameters under [Directory] menu will be displayed on the terminal's configuration menu regardless of SFI: 246/SFI: 247 data setting.

Note 8: This parameter becomes available when you set URL of Corporate Phonebook by " 0. Config" - "6. Application Settings" - "1.XML Settings" - "3. Directory URL. When XML application is assigned to directory URL, "3. Corporate" is displayed on the "Directory" menu.

3. Service

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
3. Service Note 9	Starts up XML browser and Instant Message tool.	-	X	X
1. Service 1	Starts up XML browser.	-	X	X
2. Service 2		-	X	X
3. Service 3		-	X	X
4. Service 4		-	X	X

Note 9: Unavailable (not configured) services appear dimmed on the menu.

4. Setting

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
1. User Setting	Sets user interface related.	-	X	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X	X
1. Ring Volume	Not used.	-	N	N
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X	X
1. Disable	Offhook ringing is OFF.			
2. Enable	Offhook ringing is ON.			
3. Headset Ring Note 10	Selects whether to use headset ringing.	Disable	X	X
1. Disable	Headset ringing is OFF.			
2. Enable	Headset ringing is ON.			
4. Ring Tone Note 11	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call Note 13	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	X	X
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
2. Internal Call Note 13	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.			
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.			
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.			
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.			
3. IM	Not used.	-	N	N

4. Setting (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
5. Illumination **Note 11**	Sets lamp indication pattern for incoming call termination.	-	X	X
1. External Call **Note 14**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
2.Internal Call **Note 14**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-	X	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	X	X
1. Disable	Lamp indication is OFF.			
2. Red	Specifies the color of lamp indication for incoming call termination.			
3. Green				
4. Blue				
5. Yellow				
6. Purple				
7. Light Blue				
8. White				
9. Rotation				
6. Headset Ring Volume	Not used	-	N	N

4. Setting (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
2. Talk	Sets call related data.	-	X	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	X	X
0. Automatic	Applies RTP alarm setting on the Telephony Server.			
1. Disable	Alarm is OFF.			
2. Enable	Alarm is ON.			
2. DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic	X	X
0. Automatic	Applies DTMF tone setting on the Telephony Server.			
1. Disable	DTMF tone is OFF.			
2. Enable	DTMF tone is ON.			
3. Key Touch Tone	Sets touch tone for pressing digit key/touch-sensitive panel.	Automatic Note 15	X	X
0. Automatic	Sets Automatic to key touch tone.			
1. No Tone	Sets key touch tone disabled.			
2. Tone	Sets key touch tone enabled.			
3. Voice	Enables the key touch tone by voice recognition.			
4. Hold Music	Sets Music-on-Hold.	Default	X	X
1. Default	Applies the default music (Minuet).			
2. Download	Applies the downloaded music.			
5. Prefix	Sets prefix number.	-	X	X
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X	X

4. Setting (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
3. Display	Sets display related data.	-	X	X
1. Time Format	Switches 12-hour/24-hour indication.	Automatic **Note 16**	X	X
0. Automatic	Applies the time indication on the Telephony Server.			
1. 12 hour Indication	12-hour indication			
2. 24 hour Indication	24-hour indication			
2. Local Volume	Selects whether to display volume gage when adjusting the volume level.	Automatic **Note 17**	X	X
0. Automatic	Sets Automatic for volume gage display.			
1. Disable	Volume gage is not displayed.			
2. Enable	Volume gage is displayed.			
3. Screen Saver	Sets Screen Saver related data.	-	-	-
1. Screen Saver Mode	Selects whether to use Screen Saver.	Disable	X	X
1. Disable	Screen Saver is not used.			
2. Enable	Screen Saver is used.			
2. Wait Time	Sets wait time until Screen Saver activation (1-999 min.).	120	X	X
4. Back Light	Switches ON/OFF the backlight on DT730G (12/24DG).	Enable **Note 12**	-	X
1. Disable	Backlight is OFF.			
2. Enable	Backlight is ON.			
4. Back Light	Turns up/down the backlight on DT730G (12/24CG).	Level 3	X	-
1. Level 1 (Bright) - 4. Level 4 (Dark)	Select the bright level of backlight.			
5. Font Size	Switches the font size on configuration menu.	Standard	X	X
1. Standard (28 dots (12/24CG)/16 dots (12/24DG))	Selects Standard or Small of font size.			
2. Small (24 dots (12/24CG)/12 dots (12/24DG))				

4. Setting (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
6. Language	Selects the language on date and time display.	Automatic Note 18	X	X
0. Automatic	Sets Automatic for language setting on date and time display.			
1. Japanese	Selected language is displayed on date and time display.			
2. NEC English				
3. NEC Portuguese				
4. NEC Spanish				
5. NEC French				
6. German				
7. Italian				
8. Dutch				
9. Norwegian				
10. Danish				
11. Swedish				
12. Greek				
13. English				
14. Portuguese				
15. Spanish				
16. French				
17. Russian				
18. Turkish				
19. Romania				
20. Polish				
21. Catalan				
22. Korean				
23. Download 1	Selected download language is displayed on date and time display. Note 19			
24. Download 2				
25. Download 3				
26. Download 4				
7. Advanced	Sets other data for display.	-	X	X
1. Wallpaper	Sets the Home screen background.	Default	X	-
1. Default	Sets the default screen background.			
2. Download	Sets the download data file.			
2. Shortcut Icon	Not used.	-	N	N
3. Font Color	Sets the font color for Time Display/Feature Information Display area. * You can check the color while selecting.	Color 2	X	-
1~16. Color 1 ~ Color 16	Sets Font Color 1 ~ Font Color 16.			

4. Setting (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
4.Turn Off Display	Sets the data when turning off the backlight of the display automatically.	-	X	-
1.Turn Off Display Mode	Sets whether Turn Off Display Mode is in service.	App Priority		
1.Disable	Disables Turn Off Display Mode.			
2.Enable	Enables Turn Off Display Mode.			
3.App Priority	Sets to depend on an application.			
2.Wait Time	Sets the time until turning off the display (1-999 min.).	180		
5.Backlight Fade Control	Sets whether Backlight Fade Control is in service, when turning on/off the backlight of the display.	Enable	X	X
1.Disable	Disables Backlight Fade Control.			
2.Enable	Enables Backlight Fade Control.			
4. Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000	X	X
5. Security	Not used.	-	N	N
6. Peripherals	Setting for using peripheral equipment of terminal.	-	X	X
1. USB Memory	Setting for safely removing USB memory from the terminal.			
1. Remove				
7. Usability	Set the operation of Help key while pop-up window is displayed.	-	X	X
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu	X	X
1.SubMenu	Set the Help key which displays sub menu		X	X
2.Popup Window	Set the Help key which displays pop-up window		X	X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X	X

4. Setting (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
2. Download	Sets download related data.	-	X	X
1. Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.			
1. Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav	X	X
2. Ring Tone	Downloads a sound file used for Ringing Tone.	-	X	X
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav		
2. Download 2		Melody2.wav		
3. Download 3		Melody3.wav		
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X	X
4. Wallpaper	Downloads a file used for wallpaper.	WallPaper.bmp	X	-
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save the download file.			
3. Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-	X	X
1. Data Backup	Saves the terminal setting to backup file.	PersonalData.tgz		
2. Data Restore	Restores the terminal data by reading out the saved backup file.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.			
2. Password	Sets password for login to FTP server.			
3. Folder	Specifies the directory to save backup file.			

Note 10: Do not go the handset off-hook when headset is used.

Note 11: The priority order of Ringing tone settings is as follows.
- 1st Priority: Ringing tone settings by " 2. Directory" - "2.Edit" - 8.Ringing Tone/9. Illumination
- 2nd Priority: Ringing tone settings by " 2. Directory" - "3.Group Setting" - 2.Ringing Tone/ 3. Illumination
- 3rd Priority: Ringing tone settings by " 4. Setting" - "1.User Setting" - 4.Ringing Tone/5. Illumination

Note 12: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 13: Tone Type 1 rings when Automatic is selected. If a ring tone has been set in the Directory menu, it will be prioritized over this setting.

Note 14: The lamp illuminates Red when Automatic is selected. If an illumination has been set in the Directory menu, it will be prioritized over this setting.

Note 15: A tone will be provided if Automatic has been set.

Note 16: 12-Hour Indication is applied when Automatic has been set.

Note 17: A setting for Enable is applied when Automatic has been set.

Note 18: A setting on the Telephony Server is applied when Automatic has been set.

Note 19: If "Language Pack" files are not downloaded, these parameters are not displayed.

5. Phone

Depending on the Home URL setting, this menu is displayed as follows.

- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

0. Config

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
1. Network Settings	Sets network related data.	-	X	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X	X
1. Disable	DHCP is not used.			
2. Enable	DHCP is used.			
2. IP Address	Sets DT700 Series terminal’s IP address.	0.0.0.0	X	X
3. Default Gateway	Sets default router’s IP address.	0.0.0.0	X	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X	X
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0	X	X
6. Advanced Settings	Sets network expanded data.	-	X	X
1. LAN Port Settings	Sets LAN port.	-	X	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use VLAN on terminal.	Disable	X	X
1. Disable	VLAN is not used.			
2. Enable	VLAN is used.			
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	X	X

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
2. PC Port Settings	Sets PC port.	-	X	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	X	X
1. Autonego	Autonegotiation			
2. 100M Full	100Mbps in full-duplex mode			
3. 100M Half	100Mbps in half-duplex mode			
4. 10M Full	10Mbps in full-duplex mode			
5. 10M Half	10Mbps in half-duplex mode			
2. VLAN Mode	Selects whether to use port VLAN of PC port.	Disable	X	X
1. Disable	Port VLAN of PC port is not used.			
2. Enable	Port VLAN of PC port is used.			
3. Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0	X	X
5. Port Available	Selects whether to use PC port.	Automatic	X	X
0. Automatic	Sets Automatic for PC port.			
1. Disable	PC port is not used.			
6. EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable	X	X
1. Disable	Not forward EAPOL packet from PC port.			
2. Enable	Forwards EAPOL packet from PC port.			
7. PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable	X	X
1. Disable	Not clear the authentication status.			
2. Enable	Clear the authentication status.			
3. CDP Mode	Selects whether to notify HUB of power consuming information.	Disable	N	N
1. Disable	CDP is not used (Not send CDP to HUB).			
2. Enable	CDP is used (Sends CDP to HUB).			
4. Type of Service	Sets ToS value.	-	X	X
1. RTP	Sets ToS value for RTP in Hex.	A0		
2. SIP	Sets ToS value for SIP in Hex.	C0		
5.Self Port Settings	Sets each port for DT700 Series.	-	-	-
1.RTP Self Port	Sets RTP port for DT700 Series [1024-65520 (except 59986-60000)]. **Note 32**, **Note 33**	3462	X	X
2.SIP Self Port	Sets SIP port for DT700 Series [1024-65534]. **Note 33**	5060	X	X
6.LLDP Settings	Sets information related to LLDP.	-	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X	X
1. Disable	DT700 Series does not transmit/receive LLDP packets.			
2. Enable	DT700 Series transmits/receives LLDP packets.			

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X	X
1. Disable	DT700 Series does not perform data setting automatically when LLDP packets are received.			
2. Enable	DT700 Series performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT700 Series receives LLDP packets (1-60 seconds).	15	X	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X	X
5.Hold Multiplier	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT700 Series starts up (1-10 times).	3	X	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	X	X
1. Disable	Transparent Mode of LLDP packets is disabled.			
2. Enable	Transparent Mode of LLDP packets is enabled.			
8.Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- Note 31	X	X

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
7.Spare IP Settings	Sets information related to Spare IP/Backup IP.	-	-	-
1.Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable	X	X
1. Disable	Both Spare and Backup IPs are disabled.			
2. Spare IP	Spare IP is enabled.			
3. Backup IP	Backup IP is enabled.			
2.Network Settings	Sets network related data when Spare/ Backup IP is enabled.	-	X	X
1. IP Address	Sets DT700 Series terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0		
2. Default Gateway	Sets default router's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3. Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0		
4. DNS Address	Sets DNS server's IP address when Spare/ Backup IP is enabled.	0.0.0.0		
3.SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-	-	-
1.2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0	X	X
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	X	X
4.2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0	X	X
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	X	X
6.4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0	X	X
2. SIP Settings	Sets SIP related data.	-	X	X
1. SIP User	Sets user data.	-	X	X
1. User ID	Sets user ID for digest authentication.	-	X	X
2. Password	Sets password for digest authentication.	-	X	X
3. Extension Number	Not used.	-	N	N
4. Backup Logon	Not used.	-	N	N

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
2. Server Address	Sets IP address or URI of SIP server. **Note 20**, **Note 21**	-	X	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	-	X	X
2. 2nd Server Address				
3. 3rd Server Address				
4. 4th Server Address				
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-	X	X
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	-	X	X
2. 2nd Register Address				
3. 3rd Register Address				
4. 4th Register Address				
3. Access Mode	Sets access mode for SIP server.	Normal	X	X
1. Normal	Normal access			
2. Remote	Remote access			
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	X	X
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.			
2. 2nd Server Port				
3. 3rd Server Port				
4. 4th Server Port				
5. Registrar Destination	Sets port for registrar server [1024-65535].			
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.			
2. 2nd Register Port				
3. 3rd Register Port				
4. 4th Register Port				

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
5. Area ID	Sets the area (country) using DT700 Series.	Automatic	X	X
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.			
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.			
2. America (Canada and North America)				
3. Australia				
4. Others				
5. Hong Kong				
6. Malaysia				
7. Singapore				
8. Mexico				
9. Taiwan				
10. New Zealand				
11. Korea				
12. Brazil				
13. China				
14. Thailand				
15. Thailand (EGAT)				
16. Sri Lanka				
17. Germany				
18. Italy				
19. Netherlands				
20. Catalonia (Not used)				
21. Denmark				
22. Sweden				
23. Poland				
24. Czech				
25. Norway				
26. France				
27. Portugal				
28. Spain				
29. Austria				
30. Belgium				
31. UK				
32. Greece				
33. Switzerland				
34. South Africa				
35. Brazil (EMEA)				

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
6. Extra Function	Sets expanded data related to SIP packet.	-	X	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	X	X
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 500ms).			
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).			
2. Keeping Call	Selects whether to use call hold function on the terminal.	Enable	X	X
1. Disable	Calls in progress are not held even when DT700 Series terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are held even when DT700 Series terminal detects communication failure with the Telephony Server.			
3. Howler Tone **Note 22**	Selects whether to send howler tone.	Disable	X	X
1. Disable	Howler tone sending is OFF.			
2. Enable	Howler tone sending is ON.			
7. Encryption	Sets encryption data.	Disable	X	X
1. Authentication Mode	Selects whether to use authentication.		X	X
1. Disable	Authentication is not used.			
2. Enable	Authentication is used.			
2. One Time Password	Sets One Time Password.	-	X	X
3. Authentication Status	Displays authentication status.	-	X	X
8. NAT Traversal **Note 26**	Not used.	-	N	N
1.NAT Traverse Mode	Not used.	-	N	N
1.Disable				
2.Dynamic				
3.Static				
2.Network Area Name	Not used.	-	N	N
3.WAN Settings	Not used.	-	N	N
1.WAN Mate IP Address				
2.WAN SIP Mate Port				
3.WAN Self IP Address				

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
3. Maintenance Settings	Sets maintenance related data.	-	X	X
1. Download Menu	Downloads specified file to DT700 Series.	-	X	X
1. Download Files	Specifies download file name for each file type.	-	X	X
1. Boot & Program	Downloads boot and program.	12/24CG: itlisipvc.tgz 12/24DG: itlisipvg.tgz	X	X
2. Config	Downloads configuration file.	config.tgz	X	X
3. Voice File	Downloads voice file.	voice.tgz	X	X
4. Language Pack	Downloads translation data file.	LangPack.tgz	X	X
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
4. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X
2. Hard Reset	Resets DT700 Series without data saving.	-	X	X
3. Data Clear	Initializes DT700 Series selecting the initialization mode.	-	X	X
1. Factory Value	Initializes DT700 Series to factory default.	-	X	X
2. Terminal Data	Clears terminal data on DT700 Series.	-	X	X
3. Personal Data	Clears personal data on DT700 Series.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
4. Adjust	Adjusts LCD, audio, and button kit.	-	X	X
1. Default Audio	Sets audio data.	-	X	X
1. Sidetone Volume	Sets Side Tone volume [0-7].	4	X	X
2. Send Gain	Sets sending gain of handset [0-31].	24	X	X
3. Receive Bias	Sets receiving bias of handset [0-7].	0	X	X
4. Receive Gain	Sets receiving gain of handset [0-31].	22	X	X
5. Talk Characteristics	Sets talk characteristics of handset.	-	X	X
1. Noise Suppression	Sets whether to enable the Noise Suppressor. (Set "1.Disable" in normal operation.)	Disable	X	X
1.Disable	Disables the Noise Suppressor.			
2.Enable	Enables the Noise Suppressor.			
2. Handsfree Mode	Sets handsfree mode of handset.	Retro Mode	X	X
1. Retro Mode	Sets to Retro mode.			
2. New Mode	Sets to New mode.			
2. KeyKit Type	Sets additional button kit data.	-	X	X
2. Kit 2 **Note 27**, **Note 28**	Key 1, 3 ~ 17 on button kit are used.	Kit 2	X	X
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-	X	X
1. Line 12	Sets to 12-line of DT730G.		X	X
2. Line 24	Sets to 24-line of DT730G.		X	X
3. Line 32	Not used.		N	N
4. Line 8			N	N
5. Line 6			N	N
6. Line 2			N	N
7. Line 0			N	N

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
3. LCD Contrast	Adjusts LCD Contrast.	Area Contrast (Narrow)	-	X
0. Area Contrast				
1. Wide				
2. Narrow				
5. Auto config	Selects whether to use auto-config function.	Enable	X	X
1. Disable	Auto config is not used.			
2. Enable	Auto config is used.			
6. Data Maintenance	Sets data maintenance related.	-	X	X
1. Backup	Executes data backup.	-	X	X
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz	X	X
2. Terminal Data	Executes backup for terminal setting and data.	Terminal Data.tgz	X	X
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz	X	X
2. Restore	Executes restoration.	-	X	X
1. All Data	Restores all the configuration setting and data.	AllData.tgz	X	X
2. Terminal Data	Restores terminal setting and data.	Terminal Data.tgz	X	X
3. Personal Data	Restores personal setting and data.	PersonalData.tgz	X	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X	X
1. FTP	FTP is used.			
2. TFTP	TFTP is used.			
5. FTP Settings	Sets data for accessing FTP server.	-	X	X
1. User ID	Sets user ID for login to FTP server.	-	X	X
2. Password	Sets password for login to FTP server.	-	X	X
3. Folder	Specifies the directory to save the download file.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
7. Simple Test **Note 25**	Changes the terminal to test mode.	-	X	X
1. Call Test	Call Test	-	X	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X	X
5. Loop Back Test	Tests the voice loop back.	-	X	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X	X
6. Speaker Test	Tests the speaker.	-	X	X
1. Japan	A DT for Japan is heard in maximum volume.	-	X	X
2. America	A DT for North America is heard in maximum volume.	-	X	X
7. Receiver Test	Receiver Test for a handset	-	X	X
4. Security	Sets security related data.	-	X	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X	X
1. Disable	Web Programming is disabled.			
2. Enable	Web Programming is enabled.			
2. Push Server	Sets XML's Push server related data.	-	X	X
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X	X
1. Disable	Access is disabled.			
2. Enable	Access is enabled.			
3. Enable (All Client) **Note 29**	Access is enabled. Select this item to set more than one XML's Push server.			
2. Client IP Address **Note 30**	IP address of XML's Push server.	0.0.0.0	X	X
1. Client 1	Sets IP address of 1st XML's Push server.			
2. Client 2	Sets IP address of 2nd XML's Push server.			
3. Client 3	Sets IP address of 3rd XML's Push server.			
4. Client 4	Sets IP address of 4th XML's Push server.			
3. Push Server Port	Port number of XML's Push server [82, 1024-65535]. **Note 33**	82	X	X
3. Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222	X	X

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X	X
1. Supplicant	Sets whether to use supplicant on DT700 Series.	Disable	X	X
1. Disable	Supplicant is disabled on DT700 Series.			
2. Enable	Supplicant is enabled on DT700 Series.			
2. EAP Method	Not used.	-	N	N
3. Account	Sets user ID for EAP-MD5.	-	X	X
4. Password	Sets password for EAP-MD5.	-	X	X
5. EAP VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	X	X
1. Disable	VLAN tag is not added to EAP packet.			
2. Enable	VLAN tag is added to EAP packet.			
5. VPN Client	Not used.	-	N	N
6 USB	Sets USB related parameter.	-	X	X
1 Power	Sets whether to supply power to USB devices.	Enable	X	X
1 Disable	Power is not supplied to USB devices.			
2 Enable	Power is supplied to USB devices.			
5. Terminal Information	Displays terminal information.	-	X	X
Hardware Version	Displays hardware version of DT700 Series.	-	X	X
MAC Address	Displays MAC address of DT700 Series.	-	X	X
Firmware Version	Displays firmware version of DT700 Series.	-	X	X
6. Application Settings	Sets application data.	-	X	X
1. XML Settings	Specifies XML browser function.	-	X	X
1. Terminal ID **Note 24**	Login number for accessing XML server.	0000	X	X
2. XML Browser **Note 24**	Sets XML browser related data.	-	X	X
1. Home URL **Note 23**	Sets the address of the contents to access when starting up XML browser.	-	X	X
2. Proxy Settings	Sets proxy server related data.	-	X	X
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0	X	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X	X
3. Auto Startup	Set whether to start up an application specified at the Home URL automatically.	Disable	N	N
1. Disable	Sets the Auto Startup disabled.			
2. Enable	Sets the Auto Startup enabled.			
4. Fixed Mode	Sets whether to display an application on LCD in the Fixed Mode.	Disable	N	N
1. Disable	Sets the Fixed Mode disabled.			
2. Enable	Sets the Fixed Mode enabled.			
3. App Priority	Sets to depend on an application.			
3. Directory URL	Sets URL of Corporate Phonebook.	-	X	X

0. Config (Continued)

Parameter	Description	Default	DT730G (12/24CG)	DT730G (12/24DG)
4. Service URL	Sets URL of XML application.	-	X	X
1. 1st Service URL	URL of up to four XML applications can be specified.			
2. 2nd Service URL				
3. 3rd Service URL				
4. 4th Service URL				
5. Conf Key URL	Sets URL when the Conf Key is used. *This data can be set only when Key Kit 17 is set.	-	N	N
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535]. **Note 33**	3530	X	X
3. Popup	Sets the popup window display.	-	X	X
1.Popup Mode	Sets the mode of the popup window display.	App Priority	X	X
1.Enable	Sets the popup window display enabled.			
2.App Priority	Sets to depend on a definition of XML tag for Popup window.			
2.Close Button	Sets the Close Button display for closing the popup window.	Enable	N	N
1.Disable	Sets the Close Button display disabled.			
2.Enable	Sets the Close Button display enabled.			
3.Window Size Button	Sets the Window Size Button display for changing the size of the popup window.	Enable		
1.Disable	Sets the Window Size Button display disabled.			
2.Enable	Sets the Window Size Button display enabled.			
4. Screen Saver URL	Sets reference URL for Screen Saver activation.	-	X	X
5. Emergency Call	Sets the destination number of emergency call which a terminal user can originate even while the Security Mode is in service.	-	X	X
Emergency Dial 1	Up to three destination numbers can be specified.			
Emergency Dial 2				
Emergency Dial 3				
6. Menu Key Mode	Changes to menu key mode.	Enable	X	X
1. Disable	Sets the menu key mode disabled.			
2. Enable	Sets the menu key mode enabled.			

Note 20: “SIP server” used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT730G terminal is registered.

Note 21: For IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

Note 22: Howler Tone is not available. Be sure to assign “Disable” to this parameter.

Note 23: When all the applications registered to Home URL are in Fixed Mode, the Telephony Server must set “Hold Fixation Mode” to Hold Key to retrieve a held call. Refer to “Non-exclusive Hold-D [N-7D] in Data Programming Manual - Business for details” of “Hold Fixation Mode.”

Also, refer to the manual (4.3.2.10 Security Mode) of IP Phone Manager for setting the Lock Mode to Disable to disable the security button. To connect the phone and the IP Phone Manager, port numbers to use must match. Set the port number on the phone side from [0.Config] - [6.Application Setting] - [2.IPM Self Port].

Note 24: This function requires an LCD.

Note 25: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 26: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 27: Key Kit 17 is provided for Hotel System feature.

Note 28: Key Kit 16 is not displayed. Actual Key Kit will be displayed as “13, 14, 15, 17.”

Note 29: Be careful when you specify “3.Enable(All Client)” because security service are disabled for Push when “3.Enable(All Client)” is set.

Note 30: To use Photo Frame Application for DT730G (12/24CG), configure one of the four Push servers (1st to 4th Push servers) with the IP address for PhotoFrame.

Note 31: “-” is displayed in default setting.

Note 32: Odd numbered ports cannot be assigned.

Note 33: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

4.3.3.5 Configuration Menu List for DT770G

This section lists the configuration menu used for DT770G configuration setting.

On the login window for Web Programming, enter the User ID (default value: ADMIN) and the password (default value: 6633222) to log in.

Config

Parameter	Description	Default
Network Settings	Sets network related data.	-
DHCP Mode	Selects whether to use DHCP protocol.	Enable
1. Disable	DHCP is not used.	
2. Enable	DHCP is used.	
IP Address	Sets DT770G terminal's IP address.	0.0.0.0
Default Gateway	Sets default router's IP address.	0.0.0.0
Subnet Mask	Sets subnet mask.	0.0.0.0
DNS Address	Sets DNS server's IP address.	0.0.0.0
Advanced Settings	Sets network expanded data.	-
LAN Port Settings	Sets LAN port.	-
Speed&Duplex	Sets communication speed of Ether port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
VLAN Mode	Selects whether to use VLAN on terminal.	Disable
1. Disable	VLAN is not used.	
2. Enable	VLAN is used.	
VLAN ID	Sets VLAN ID of terminal [0-4094].	7
VLAN Priority	Sets VLAN Priority of terminal [0-7].	5
PC Port Settings	Sets PC port.	-
Speed&Duplex	Sets communication speed of PC port.	Autonego
1. Autonego	Autonegotiation	
2. 100M Full	100Mbps in full-duplex mode	
3. 100M Half	100Mbps in half-duplex mode	
4. 10M Full	10Mbps in full-duplex mode	
5. 10M Half	10Mbps in half-duplex mode	
Port VLAN Mode	Selects whether to use port VLAN of PC port.	Disable
1. Disable	Port VLAN of PC port is not used.	
2. Enable	Port VLAN of PC port is used.	
Port VLAN ID	Sets port VLAN ID of PC port [0-4094].	1
Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	0
Port Available	Selects whether to use PC port.	Automatic
0. Automatic	Sets Automatic for PC port.	
1. Disable	PC port is not used.	
EAPOL Forwarding	Select whether to forward EAPOL packet from PC port.	Disable
1. Disable	Not forward EAPOL packet from PC port.	
2. Enable	Forwards EAPOL packet from PC port.	

Config (Continued)

Parameter	Description	Default
PC Port Security	Select whether to clear authentication status of the terminal which is connected to PC port for authentication switch when the link of PC port has been down.	Enable
1. Disable	Not clear the authentication status.	
2. Enable	Clear the authentication status.	
Type Of Service	Sets ToS value.	-
1. RTP	Sets ToS value for RTP in Hex.	a0
2. SIP	Sets ToS value for SIP in Hex.	c0
Self Port Settings	Sets each port for DT770G.	-
1.RTP Self Port	Sets RTP port for DT770G [1024-65520 (except 59986-60000)]. **Note 7**, **Note 8**	3462
2.SIP Self Port	Sets SIP port for DT770G [1024-65534 (except 17185-60000)]. **Note 8**	5060
LLDP Settings	Sets information related to LLDP.	-
LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable
1. Disable	DT770G does not transmit/receive LLDP packets.	
2. Enable	DT770G transmits/receives LLDP packets.	
Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable
1. Disable	DT770G does not perform data setting automatically when LLDP packets are received.	
2. Enable	DT770G performs data setting automatically when LLDP packets are received.	
RX Waiting Time	For Auto Setting, sets the waiting time until DT770G receives LLDP packets (1-60 seconds).	15
Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30
Hold Multiplier	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4
Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT770G starts up (1-10 times).	3
Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable
1. Disable	Transparent Mode of LLDP packets is disabled.	
2. Enable	Transparent Mode of LLDP packets is enabled.	
Asset ID	Sets the Asset ID for LLDP packets to be transmitted.	- **Note 6**
Spare IP Settings	Sets information related to Spare IP/Backup IP.	-
Spare/Backup IP Mode	Specifies which mode is to be used for Spare IP Settings.	Disable
1. Disable	Both Spare and Backup IPs are disabled.	
2. Spare IP	Spare IP is enabled.	
3. Backup IP	Backup IP is enabled.	
Network Settings	Sets network related data when Spare/Backup IP is enabled.	-
IP Address	Sets DT770G terminal's IP address when Spare/Backup IP is enabled.	0.0.0.0
Default Gateway	Sets default router's IP address when Spare/Backup IP is enabled.	0.0.0.0
Subnet Mask	Sets subnet mask when Spare/Backup IP is enabled.	0.0.0.0
DNS Address	Sets DNS server's IP address when Spare/Backup IP is enabled.	0.0.0.0

Config (Continued)

Parameter	Description	Default
SIP Settings	Sets SIP related data when Spare/Backup IP is enabled.	-
2nd Server Address	Specifies the address of the server to be set as the 2nd SIP server.	0.0.0.0
3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0
4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0
2nd Server Port	Specifies the port number of the server to be set as the 2nd SIP server [0, 1024-65535]	0
3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0
4th Server Port	Specifies the port number of the server to be set as the 4th SIP server [0, 1024-65535]	0
SIP Settings	Sets SIP related data.	-
SIP User	Sets user data.	-
User ID	Sets user ID for digest authentication.	-
Password	Sets password for digest authentication.	-
Extension Number	Not used.	-
Backup Logon	Not used.	-
Server Address	Sets IP address or URI of SIP server. **Note 1**, **Note 2**	-
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	0.0.0.0
2. 2nd Server Address		
3. 3rd Server Address		
4. 4th Server Address		
5. Registrar Destination	Sets IP address or fully qualified domain name (FQDN) of registrar destination.	-
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	0.0.0.0
2. 2nd Register Address		
3. 3rd Register Address		
4. 4th Register Address		
Access Mode	Sets access mode for SIP server.	Normal
1. Normal	Normal access	
2. Remote	Remote access	
SIP Server Port	Sets SIP server port [1024-65535].	5060
1. 1st Server Port	Specifies the destination port number of sending packet to 1st ~ 4th SIP server.	
2. 2nd Server Port		
3. 3rd Server Port		
4. 4th Server Port		
5. Registrar Destination	Sets port for registrar server [1024-65535].	
1. 1st Register Port	Sets port for 1st ~ 4th registrar server.	
2. 2nd Register Port		
3. 3rd Register Port		
4. 4th Register Port		

Config (Continued)

Parameter	Description	Default
Area ID	Sets the area (country) using DT770G.	Automatic
0. Automatic	The Telephony Server side setting is applied when Automatic is selected.	
1. Japan	Selects the area (country) **Note:** Area IDs allowed on the Telephony Server can be selected.	
2. America (Canada and North America)		
3. Australia		
4. Others		
5. Hong Kong		
6. Malaysia		
7. Singapore		
8. Mexico		
9. Taiwan		
10. New Zealand		
11. Korea		
12. Brazil		
13. China		
14. Thailand		
15. Thailand (EGAT)		
16. Sri Lanka		
17. Germany		
18. Italy		
19. Netherlands		
20. Catalonia (Not used)		
21. Denmark		
22. Sweden		
23. Poland		
24. Czech		
25. Norway		
26. France		
27. Portugal		
28. Spain		
29. Austria		
30. Belgium		
31. UK		
32. Greece		
33. Switzerland		
34. South Africa		
35. Brazil (NECU)		

Config (Continued)

Parameter	Description	Default
Extra Function	Sets expanded data related to SIP packet.	-
Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard
1. Standard	SIP Standard Retransmit Interval is used (500ms, 1s, 2s, 4s, 4s, 4s, 4s, 500ms).	
2. 6 Seconds	Original Retransmit Interval is used (6s, 6s, 6s, 6s, 6s, 2s).	
Keeping Call	Selects whether to use call hold function on the terminal.	Enable
1. Disable	Calls in progress are not held even when DT770G terminal detects communication failure with the Telephony Server.	
2. Enable	Calls in progress are held even when DT770G terminal detects communication failure with the Telephony Server.	
Howler Tone **Note 3**	Selects whether to send howler tone.	Disable
1. Disable	Howler tone sending is OFF.	
2. Enable	Howler tone sending is ON.	
Encryption	Sets encryption data.	Disable
Authentication Mode	Selects whether to use authentication.	
1. Disable	Authentication is not used.	
2. Enable	Authentication is used.	
One Time Password	Sets One Time Password.	-
Authentication Status	Displays authentication status.	-
NAT Traversal **Note 4**	Not used.	-
NAT Traverse Mode	Not used.	-
1.Disable		
2.Dynamic		
3.Static		
Network Area Name	Not used.	-
WAN Settings	Not used.	-
1.WAN Mate IP Address		
2.WAN SIP Mate Port		
3.WAN Self IP Address		
Maintenance	Sets maintenance related data.	-
Download Menu	Downloads specified file to DT770G.	-
Download Files	Specifies download file name for each file type.	-
Boot & Program	Downloads boot and program.	itlisipcr.tgz
Config	Downloads configuration file.	config.tgz
Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-

Config (Continued)

Parameter	Description	Default
Hard Reset	Resets DT770G without data saving.	-
Data Clear	Initializes DT770G selecting the initialization mode.	-
1. Factory Value	Initializes DT770G to factory default.	-
2. Terminal Data	Clears terminal data on DT770G.	-
3. Personal Data	Clears personal data on DT770G.	-
Adjust	Adjusts audio and button kit.	-
Default Audio	Sets audio data.	-
Sidetone Volume **Note 5**	Sets Side Tone volume [0-7].	4
Send Gain **Note 5**	Sets sending gain of handset [0-31].	24
Receive Bias **Note 5**	Sets receiving bias of handset [0-7].	0
Receive Gain **Note 5**	Sets receiving gain of handset [0-31].	22
Talk Characteristics	Sets talk characteristics of handset.	-
Noise Suppression	Sets whether to enable the Noise Suppressor. (Set "1.Disable" in normal operation.)	Disable
Handsfree Mode	Sets handsfree mode of handset.	Retro Mode
KeyKit Type	Sets additional button kit data.	-
1. Kit 1 ~ 2. Kit 2, 8. Kit 8 ~ 10. Kit 10, 17. Kit 17 **Note 5**	Key 1 ~ 2, 8 ~ 10, 17 on button kit are used.	Kit 9
Line Key Type	*(Do not change the factory default value of this parameter.)*	Line 2
1. Line 12	Not used.	
2. Line 24	Not used.	
3. Line 32	Not used.	
4. Line 8	Not used.	
5. Line 6	Not used.	
6. Line 2	Sets to 2-line of DT770G.	
7. Line 0	No Line key setting.	
Auto config	Selects whether to use auto-config function.	Enable
1. Disable	Auto config is not used.	
2. Enable	Auto config is used.	
Data Maintenance	Sets data maintenance related.	-
Backup	Executes data backup.	-
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz
Restore	Executes restoration.	-
1. All Data	Restores all the configuration setting and data.	AllData.tgz
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz
3. Personal Data	Restores personal setting and data.	PersonalData.tgz

Config (Continued)

Parameter	Description	Default
Server Address	Sets IP address of the server that executes data backup/ restoration.	0.0.0.0
Protocol	Selects FTP or TFTP for file downloading protocol.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	-
2. Password	Sets password for login to FTP server.	-
3. Folder	Specifies the directory to save the download file.	-
4. Security	Sets security related data.	-
Admin Password	Sets administrator's password. * Be sure to change the default password.	6633222
802.1X Supplicant	Sets 802.1X authentication related parameter.	-
Supplicant	Sets whether to use supplicant on DT770G.	Disable
1. Disable	Supplicant is disabled on DT770G.	
2. Enable	Supplicant is enabled on DT770G.	
Account	Sets user ID for EAP-MD5.	-
Password	Sets password for EAP-MD5.	-
EAP VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable
1. Disable	VLAN tag is not added to EAP packet.	
2. Enable	VLAN tag is added to EAP packet.	
VPN Client	Not used.	-
USB	Sets USB related parameter.	Enable
Power	Sets whether to supply power to USB devices.	
1. Disable	Power is not supplied to USB devices.	
2. Enable	Power is supplied to USB devices.	
6. Application Settings	Sets application data.	-
IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 8**	3530

Note 1: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT700 Series terminal is registered.

Note 2: For IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

Note 3: Howler Tone is not available. Be sure to assign "Disable" to this parameter.

Note 4: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 5: Be sure not to change from default value to the others.

Note 6: "-" is displayed in default setting.

Note 7: Odd numbered ports cannot be assigned.

Note 8: A unique number must be assigned to each of the following ports. For RTP Self Port, 16 ports starting from an assigned port are used.

- RTP Self Port
- SIP Self Port
- Push Server Port
- IPM Self Port

On the login window for Web Programming, enter the User ID (default value: USER) and the password (default value: 0000) to log in.

Setting

Parameter	Description	Default
User Setting	Sets user interface related.	-
Incoming Call	Sets ringing and lamp indication data for incoming call.	-
Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable
1. Disable	Offhook ringing is OFF.	
2. Enable	Offhook ringing is ON.	
Ring Tone	Sets Ringing Tone for incoming call termination.	-
External Call **Note 9**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
Internal Call **Note 9**	Sets Ringing Tone for station call termination. * Tone Type 1 rings when Automatic is selected.	
0. Automatic	Sets Automatic for the Ringing Tone of incoming call termination.	
1. Tone Type 1 ~ 14. Tone Type 14	Sets Tone Type 1 ~ Tone Type 14 for Ringing Tone.	
15. Download 1 ~ 17. Download 3	Sets Download 1 ~ Download 3 for Ringing Tone.	
Talk	Sets call related data.	-
RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic
0. Automatic	Applies RTP alarm setting on the Telephony Server.	
1. Disable	Alarm is OFF.	
2. Enable	Alarm is ON.	
DTMF Tone	Sets whether to hear DTMF (PB) tone on receiving DTMF signal.	Automatic
0. Automatic	Applies DTMF tone setting on the Telephony Server.	
1. Disable	DTMF tone is OFF.	
2. Enable	DTMF tone is ON.	
Key Touch Tone	Sets touch tone for pressing digit key/touch-sensitive panel.	Automatic **Note 10**
0. Automatic	Sets Automatic to key touch tone.	
1. No Tone	Sets key touch tone disabled.	
2. Tone	Sets key touch tone enabled.	

Setting (Continued)

Parameter	Description	Default
Hold Music	Sets Music-on-Hold.	Default
1. Default	Applies the default music (Minuet).	
2. Download	Applies the downloaded music.	
Display	Sets display related data.	-
Language	Selects the language on date and time display of Web page.	Automatic
0. Automatic	Sets Automatic for language setting on date and time display of Web page.	
1. Japanese	Selected language is displayed on date and time display of Web page.	
2. NEC English		
Change Password	Assigns the password of the terminal, used for data clear, security, and login of user mode. * Be sure to change the default password.	0000
Peripherals	Setting for using peripheral equipment of terminal.	-
USB Memory	Setting for safely removing USB memory from the terminal.	
1. Remove		
BCA Option	Setting for BCA (Bluetooth cradle phone adapter)	-
BT Connection Settings	Setting for Bluetooth connection.	-
Auto Connection	Selects whether to use auto connection.	Enable
Disable	Auto connection is not used.	
Enable	Auto connection is used.	
Connection Cycle	Sets Bluetooth connection cycle.	10 Seconds
3 Seconds	Bluetooth connection cycle is 3 seconds.	
10 Seconds	Bluetooth connection cycle is 10 seconds.	
1 Minute	Bluetooth connection cycle is 1 minute.	
10 Minutes	Bluetooth connection cycle is 10 minutes.	
Interrupt Ringing	Selects whether to use Interrupt Ringing.	Enable
Disable	Interrupt Ringing is OFF.	
Enable	Interrupt Ringing is ON.	
Mobile Answer Mode	Specifies mobile answer mode.	Auto Detect
Auto Detect	Auto detect is used.	
Redirect	Redirect is used.	
Acoustic Setting	Sets acoustic type and andio.	-
Acoustic Type Select	Selects Acoustic Type.	Type 1
Handset TX Gain	Sets sending gain of handset [-15dB~15dB].	0
Handset RX Gain	Sets receiving gain of handset [-18dB~18dB].	
HF TX Gain	Sets sending gain of hands free [-15dB~15dB].	
HF RX Gain	Sets receiving gain of hands free [-18dB~18dB].	
Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-

Setting (Continued)

Parameter	Description	Default
Download	Sets download related data.	-
Download Files	Downloads files of Music-on-Hold, Ringing Tone, and Phonebook.	
Hold Music	Downloads a sound file used for Music-on-Hold.	MOH.wav
Ring Tone	Downloads a sound file used for Ringing Tone.	-
1. Download 1	Downloads Melody 1 ~ Melody 3.	Melody1.wav
2. Download 2		Melody2.wav
3. Download 3		Melody3.wav
Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0
Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save the download file.	
Data Backup/Restore	Makes backup of terminal data or restores from backup file.	-
Data Backup	Saves the terminal setting to backup file.	-
Data Restore	Restores the terminal data by reading out the saved backup file.	-
Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0
Protocol	Specifies the protocol for file downloading.	FTP
1. FTP	FTP is used.	
2. TFTP	TFTP is used.	
FTP Settings	Sets data for accessing FTP server.	-
1. User ID	Sets user ID for login to FTP server.	
2. Password	Sets password for login to FTP server.	
3. Folder	Specifies the directory to save backup file.	

Note 9: Tone Type 1 rings when Automatic is selected.

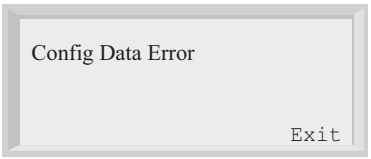
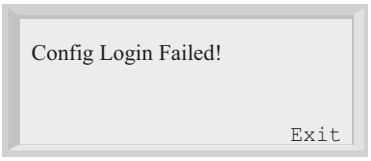
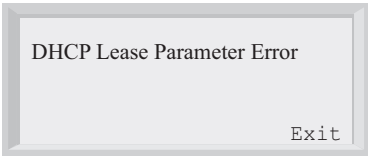
Note 10: A tone will be provided if Automatic has been set.

4.3.4 Error Messages

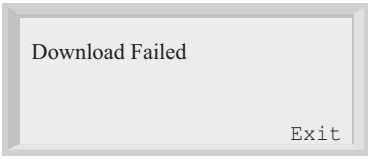
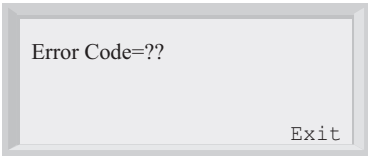
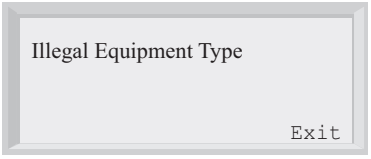
The following messages might be displayed when an error occurs during DT700 Series setup.

Note: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server where DT700 Series terminal is registered.

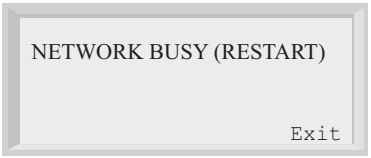
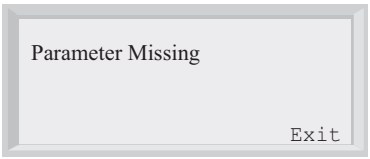
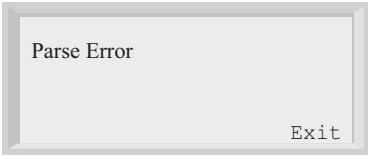
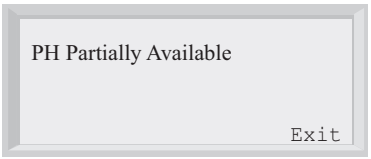
Error Messages on DT700 Series (Setup) (1 of 4)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
Licensed Number of Terminals is exceeded. 	The number of registered terminals exceeds the number of registration allowed (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Add the licenses to be required.
Config Data Error 	There is an error to the data setting.	• If it is failed again, contact the maintenance person.
Config Login is failed. 	The invalid password is entered to enter into the configuration menu.	• Enter the valid password.
DHCP IP address is expired. 	Though DHCP attempted to renew a lease for the IP address, the server didn't send back the response. (The DHCP address is expired.)	• The DHCP server setting and cable connection. • Check that the DHCP server function is operating normally.
DHCP Lease Parameter Error 	Not operable because of a discrepancy in the optional information acquired from DHCP.	• If it is failed again, contact the maintenance person.

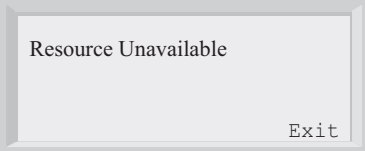
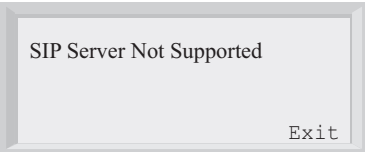
Error Messages on DT700 Series (Setup) (2 of 4)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
DHCP server cannot be found. 	No answer from the DHCP server, after sending a request from the DT700 Series. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Connect a DHCP server to the same network. • Check that a DHCP server and the DT700 Series are connected to the network. • Check that a DHCP server is operating normally. • Check that the network equipment is connected correctly. • When the DT700 Series is not used, set the parameter to “DHCP Disable”.
Download is failed. 	The download failed.	• If it is failed again, contact the maintenance person.
Unrecognized error information is received 	After sending “initial setup request” from the terminal to DRS, unrecognized error information for the terminal was received (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Confirm the office data setting for stations. • Initialize the system by SINZ command, or restart the system. • Please contact the system maintenance personnel for further information.
Illegal Line Equipment Number 	After sending “initial setup request” from the terminal to DRS, “Illegal Line Equipment Number” was received (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Change or adjust the LENS of the terminal at the system. • Confirm the office data setting for stations.
Registration Module cannot recognize Equipment Type. 	Registration Module cannot recognize the equipment type message sent from the terminal. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Initialize the system by SINZ command, or restart the system.

Error Messages on DT700 Series (Setup) (3 of 4)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
DT700 Series cannot communicate due to network failure. 	Time-out of response for a request. (DT700 Series will be reset after the left error message is displayed for thirty seconds.)	• Check the network status and connection status, and the physical connection such as cable connection. • Check that DT700 Series is connected to the network. • Check that IP address is not overlapped. • Check that the network equipment is connected correctly. • Check that the network traffic is not too high. • Check that the Duplex is set for the LAN equipment on the network correctly. • Check that the Duplex of SW port connected to DT700 Series is set to Auto. • Check that the station number is not overlapped.
SP-PHD is not available 	After sending “initial setup request” from the terminal to DRS, SP-PHD error is received (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Confirm the settings of SP-PHD and office data. • Initialize the system by SINZ command, or restart the system.
Parameter is abnormal 	In spite of “DHCP Disable,” the IP address of the terminal has not been assigned. Or, there is a defect to the setting of DT700 Series. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Correct the data assignment. • Check the data assignment on “config” display, saving the data again. • If the error still remains, the flash ROM may be faulty.
SIP message Error 	An internal error of Telephony Server has occurred (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Confirm the office data setting for stations. • Initialize the system by SINZ command, or restart the system. • Please contact the system maintenance personnel for further information.
PH cannot partially be used. 	After sending “initial setup request” from the terminal to DRS, “PH Partially Available” was received. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Investigate the reason why SP-PHD is not available. • Confirm the office data setting.

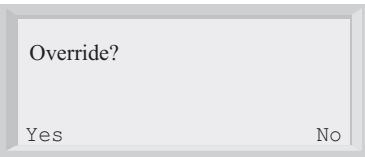
Error Messages on DT700 Series (Setup) (4 of 4)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
DRS resource not available. 	Registration cannot be performed because Telephony Server's resources are not available (Though this indication is shown, you can move to the Configuration Mode by using normal operation.)	• Confirm the office data setting for stations. • Initialize the system by SINZ command, or restart the system. • Please contact the system maintenance personnel for further information.
SIP server cannot be found. 	No answer from the SIP server, after sending a request from the DT700 Series. (Though this indication is shown, you can move to the Configuration Mode by using normal operation.) DNS server cannot be connected, or name solution is failed if FQDN is designated to SIP server address.	• Connect a SIP server to the same network. • Check that a SIP server and the DT700 Series are connected to the network. • Check that a SIP server is operating normally. • Check the SIP server address again. **Note 11** • When the DT700 Series is not used, set the parameter to "DHCP Disable".
SIP server cannot be supported. 	SIP server does not support operation by the connected equipment.	• Connect a DT700 Series that is supported by the SIP server.

Note 11: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

The following messages may be displayed in DT700 Series operation.

Error Messages on DT700 Series (Others)

ERROR MESSAGES	EXAMPLE	ACTION
Desired station number duplicates already registered one. 	When "Yes" is selected, the DT700 Series connected later is starting to operate, and the DT700 Series connected earlier will be unavailable and restart. When "No" is selected, change the station number set for the DT700 Series and restart it.	- If the left message is displayed continuously: • Select "Yes" to override and "No" not to override. • Check the office data related to the DT700 Series again.

4.4 DtermIP/IP Enabled Dterm

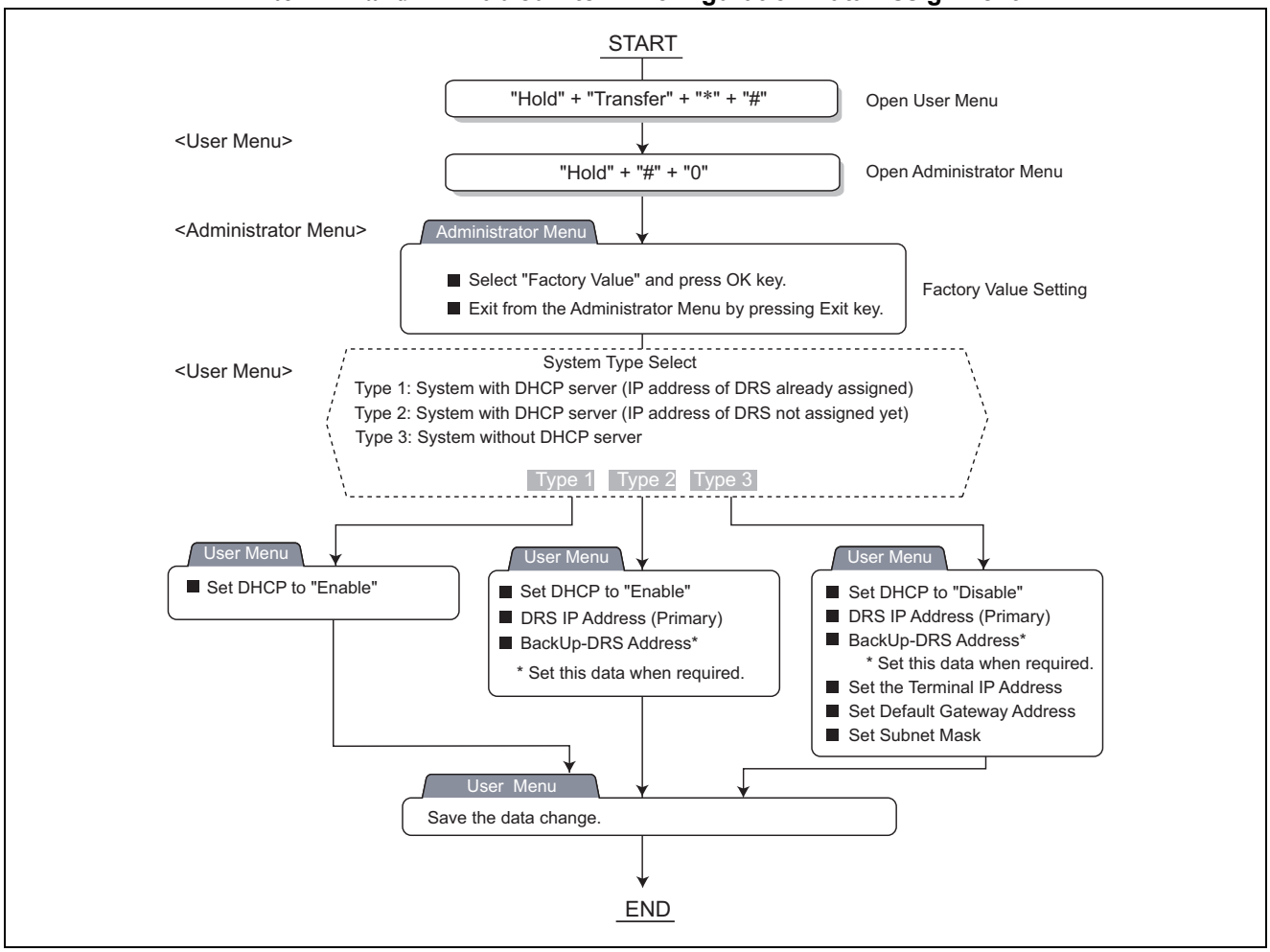
The following shows the overall procedure for assigning the configuration data of DtermIP and IP Enabled Dterms. Note that configuration setup falls into the following three categories depending on the system type.

- Type 1:System having DHCP server. (The DRS address (**Note 1**) has been already assigned at the DHCP server.)
- Type 2:System having DHCP server. (The DRS address (**Note 1**) has not been assigned at the DHCP server.)
- Type 3:System without DHCP server.

Note 1: About IP address of DRS (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

Note: “DRS (Device Registration Server)” used in this section refers to the Telephony Server. The Telephony Server acts as DRS, where DtermIP/IP Enabled Dterm is registered.

DtermIP and IP Enabled Dterm Configuration Data Assignment



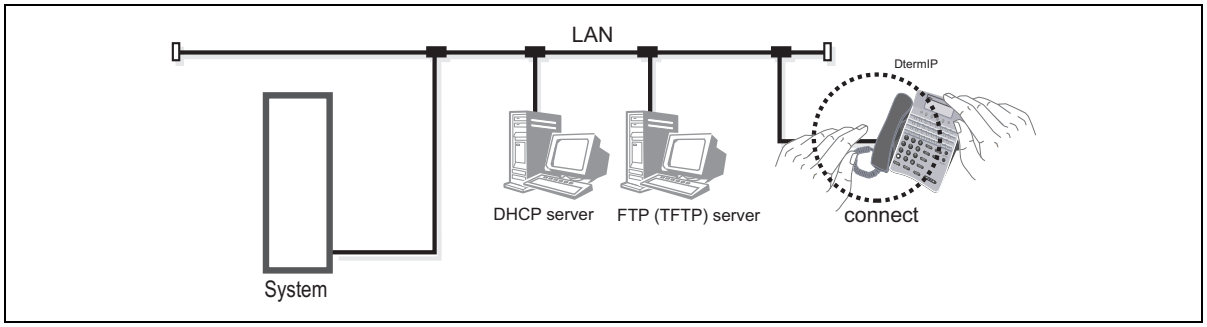
Preparation

Prepare the following to use DtermIP/IP Enabled Dterm:

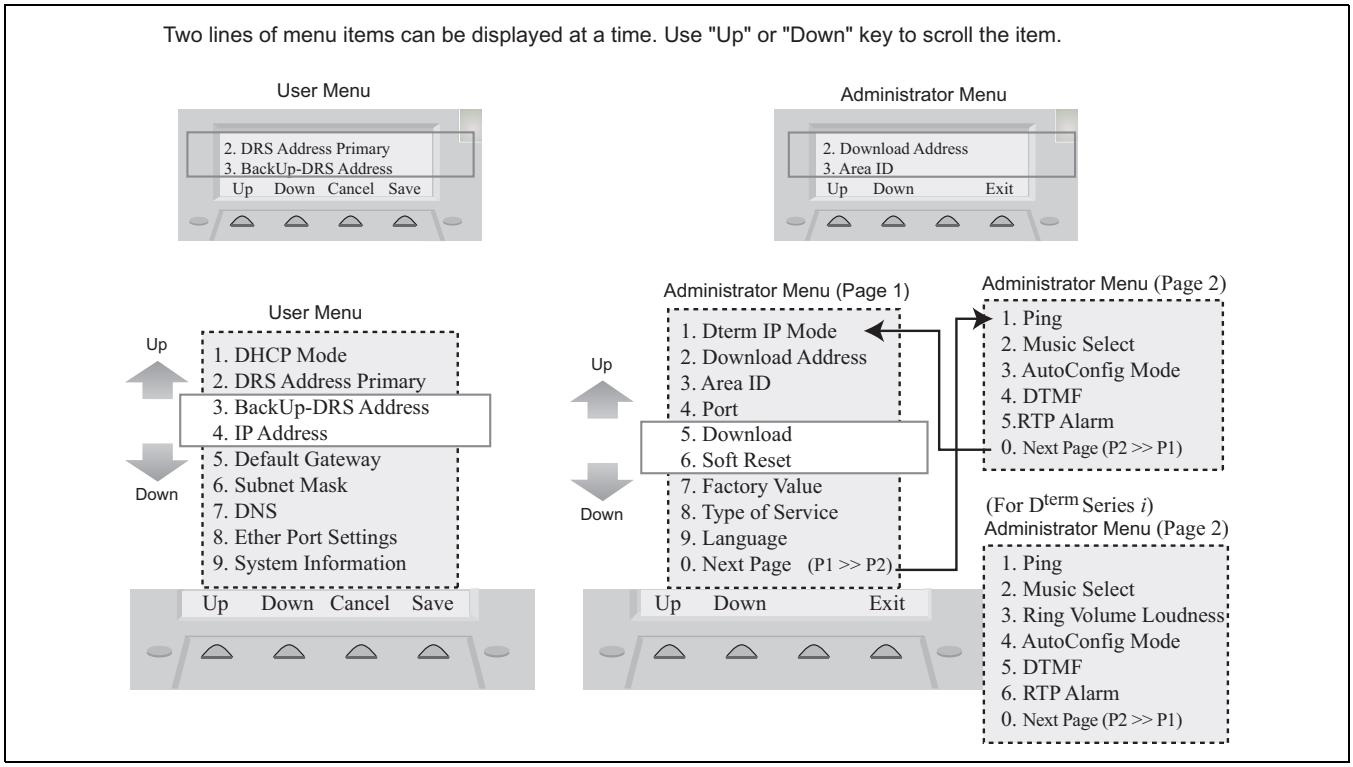
- Telephony Server
- SP-PHD
- DHCP server (required when DHCP is used)
- FTP (TFTP) server (required when downloading)

To use DtermIP/IP Enabled Dterm immediately after the data assignment, connect the terminal to the network that has DHCP server and FTP (TFTP) server.

DtermIP/IP Enabled Dterm Data Assignment Preparation



User Menu and Administrator Menu



Parameters on User Menu and Administrator Menu

The tables below show the description of each parameter on the User Menu and Administrator Menu.

Parameters on User Menu

Parameter	Description	Default
1. DHCP Mode	Select whether to use DHCP or not.	Enable
1. Disable	DHCP is not used.	
2. Enable	DHCP is used.	
3. Enable (w/ Spare IP)	Use a fixed IP address as an alternative when DtermIP/IP Enabled Dterm failed to connect to the DHCP server.	
4. Enable (Auto BackUp)	Use the previous IP address (obtained through the DHCP server) as an alternative when DtermIP/IP Enabled Dterm failed to connect to the DHCP server.	
2. DRS Address Primary	Displaying or entering IP address of Primary DRS. **Note 2**	0.0.0.0
3. BackUp-DRS Address	Displaying or entering IP address of Backup DRS. **Note 2**	-
1. DRS Address 2nd	Displaying or entering IP address of the second DRS. **Note 2**	0.0.0.0
2. DRS Address 3rd	Displaying or entering IP address of the third DRS. **Note 2**	0.0.0.0
3. DRS Address 4th	Displaying or entering IP address of the fourth DRS. **Note 2**	0.0.0.0
4. IP Address	Displaying or entering IP address of the terminal.	0.0.0.0
5. Default Gateway	Displaying or entering IP address of the Default Gateway.	0.0.0.0
6. Subnet Mask	Displaying or entering Subnet Mask.	0.0.0.0
7. DNS	Perform the DNS setting.	-
1. DNS Address	Displaying or entering IP address of DNS server.	0.0.0.0
2. DNS Domain Name	Displaying or entering Domain Name of DtermIP/IP Enabled Dterm.	No Data
3. DRS Name	Displaying or entering DRS Host Name.	NECDRS1

Parameter	Description	Default
8. Ether Port Settings	Setting LAN/PC port.	-
1. LAN Port Settings	Setting LAN port.	-
1. Speed & Duplex (LAN)	Setting LAN speed.	Autonego
1. Autonego	Auto-Negotiation	
2. 100M Full	Fixed to 100 Mbps and Full Duplex mode.	
3. 100M Half	Fixed to 100 Mbps and Half Duplex mode.	
4. 10M Full	Fixed to 10 Mbps and Full Duplex mode.	
5. 10M Half	Fixed to 10 Mbps and Half Duplex mode.	
2. VLAN Mode (LAN)	Enable or disable VLAN.	Disable
1. Disable	VLAN is disabled.	
2. Enable	VLAN is enabled.	
3. VLAN ID (LAN)	VLAN ID setting.	7
4. VLAN Priority (LAN)	VLAN Priority setting.	5
2. PC Port Settings	Setting PC port.	-
1. Speed & Duplex (PC)	Setting LAN speed.	Autonego
1. Autonego	Auto-Negotiation	
2. 100M Full	Fixed to 100 Mbps and Full Duplex mode.	
3. 100M Half	Fixed to 100 Mbps and Half Duplex mode.	
4. 10M Full	Fixed to 10 Mbps and Full Duplex mode.	
5. 10M Half	Fixed to 10 Mbps and Half Duplex mode.	
2. VLAN Mode (PC)	Enable or disable Port VLAN for PC port.	Disable
1. Disable	Disable PC Port VLAN.	
2. Enable	Enable PC Port VLAN.	
3. VLAN ID (PC)	Setting PC Port VLAN ID.	7
4. VLAN Priority (PC)	Setting PC Port VLAN Priority.	5
5. Port Available (PC)	Enable or disable PC port.	Automatic
0. Automatic	According to the direction from the System. If there is no direction, PC port is enabled.	
1. ON	According to the setting on DtermIP/IP Enabled Dterm. (PC port is enabled.)	
2. OFF	According to the setting on DtermIP/IP Enabled Dterm. (PC port is disabled.)	

Parameter	Description	Default
9. System Information	Display the setting information of DtermIP/IP Enabled Dterm.	-
DRS Address (Primary)	IP address of primary DRS. **Note 2**	
DRS Address (2nd)	IP address of the second DRS. **Note 2**	
DRS Address (3rd)	IP address of the third DRS. **Note 2**	
DRS Address (4th)	IP address of the fourth DRS. **Note 2**	
DRS Mate Port	DRS/MGC port used for receiving message from DtermIP/IP Enabled Dterm.	
DRS Self Port	DtermIP/IP Enabled Dterm port for sending/receiving message to/from DRS.	
IP Address	IP address of the terminal.	
Default Gateway	IP address of Default Gateway.	
Subnet Mask	Subnet Mask.	
Download Address	IP address of TFTP/FTP server used for downloading DtermIP/IP Enabled Dterm software.	
Area ID	Area (Country) Setting.	
Language	Language for Time Display.	
DHCP Mode	DHCP is used/not used.	
DtermIP Mode	Whether DtermIP/IP Enabled Dterm is remotely connected or not (directly connected).	
AutoConfig Mode	AutoConfig Mode is enabled or disabled.	
ConfigFile Version	Displaying the version of the downloaded Configuration file.	
Speed & Duplex (LAN)	Setting of LAN speed.	
VLAN Mode (LAN)	VLAN is enabled or disabled.	
VLAN ID (LAN)	Setting of VLAN.	
VLAN Priority (LAN)	Setting of VLAN priority.	
Speed & Duplex (PC)	LAN speed setting for PC port.	
VLAN Mode (PC)	Enabled or disable VLAN for PC port.	
VLAN ID (PC)	Setting of VLAN ID for PC port.	
VLAN Priority (PC)	Setting of PC Port VLAN priority.	
Port Available (PC)	Enabled or disable PC port.	
VLAN Mode	VLAN is used/not used.	
VLAN ID	Displaying or entering the Virtual LAN Identifier (2-4094).	
VLAN Priority	Displaying or entering the user priority to voice packet (0-7).	
DNS Address	IP address of DNS server.	
DRS Name	Host name of DRS.	
DNS Access Domain	Domain name of DNS server.	
PROTIMS Self Port	PHD Send/Receive port.	
RTP Self Port	DtermIP/IP Enabled Dterm port for sending/receiving RTP signal.	

Parameter	Description	Default
Voice Ctrl Self Port	DtermIP/IP Enabled Dterm port for sending/receiving Voice Control.	-
H245 Self Port	DtermIP/IP Enabled Dterm port for sending/receiving H.245.	
ToS DRS	ToS value for DRS session.	
ToS Protims	ToS value for Protims session.	
ToS RTP	ToS value for RTP session.	
ToS Voice Ctrl	ToS value for Voice Control session.	
MAC Address	MAC address of the terminal.	
Firmware Version (PtoP)	Firmware version of the program installed to DtermIP/IP Enabled Dterm.	
Hardware Version	Hardware version of DtermIP/IP Enabled Dterm.	

Note 2: About IP address of DRS (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

Parameters on Administrator Menu (Page 1)

Parameter	Description	Default
1. DtermIP Mode	Displaying or setting the DtermIP/IP Enabled Dterm location information. Remote: DtermIP/IP Enabled Dterm is remotely connected to DRS via dial-up router, etc. Normal: DtermIP/IP Enabled Dterm is directly connected to DRS.	Normal
2. Download Address	Displaying or entering FTP (TFTP) server address.	0.0.0.0
3. Area ID	Displaying or setting the area (country) using DtermIP/IP Enabled Dterm. **Note 3**	Automatic
0. Automatic	Automated Setting	
1. Japan	Japan	
2. America	North America	
3. Australia	Australia	
4. Others	Other Countries	
5. HongKong	Hong Kong	
6. Malaysia	Malaysian	
7. Singapore	Singapore	
8. England	England	
9. Mexico	Mexico	
10. Taiwan	Taiwan	
11. Newzealand	New Zealand	
12. Korea	Korea	
13. Brazil	Brazil	
14. China	China	
15. Thailand	Thailand	
16. Thailand (EGAT)	Thailand (EGAT)	
17. Srilanka	Sri Lanka	

Parameter	Description	Default
4. Port	Setting the port number. **Note 4**	-
1. DRS Mate Port	DRS port used for receiving message from DtermIP/IP Enabled Dterm. **Note 4**	3456
2. DRS Self Port	DtermIP/IP Enabled Dterm port for sending/receiving message to/ from DRS. **Note 4**	3455
3. PROTIMS Self Port	DtermIP/IP Enabled Dterm port used for sending/receiving PROTIMS signal to/from SP-PHD. **Note 4**	3458
4. RTP Self Port	DtermIP/IP Enabled Dterm port for sending/receiving RTP signal. **Note 4**	3462
5. Voice Ctrl Self Port	DtermIP/IP Enabled Dterm port for sending/receiving Voice Control. **Note 4**	4000
6. H245 Self Port	DtermIP/IP Enabled Dterm port for H.245	0
5. Download	Downloading the program.	-
1. Program	Executing the Program (firmware) downloading.	ramhp2pw.tgz
2. Config	Executing the Configuration data downloading.	config.ini
3. Input File Name	Executing the Program (firmware) downloading by specifying the file name.	(No Data)
4. Boot & Program	Boot and F/W Program download	romw.tgz
5. Music	Executing the Music On Hold downloading	music.tgz
6. SoftReset	Executing the software reset.	-
7. Factory Value	Setting the configuration data of the IP Enabled Dterm to the default (factory value).	-
8. Type of Service	Setting the following ToS values.	-
1. DRS	Setting the ToS value for DRS session.	0xC0
2. Protims	Setting the ToS value for Protims session.	0xC0
3. RTP	Setting the ToS value for RTP session.	0xA0
4. Voice Control	Setting the ToS value for Voice Control session.	0xC0

Parameter	Description	Default
9. Language **Note 5**	Setting Language for Time Display	Automatic
* Automatic	Automatic (according to the System Data setting)	
0. English/Japan	English	
1. Portuguese	Portuguese	
2. Spanish	Spanish	
3. French	French	
4. German	German	
5. Italian	Italian	
6. Dutch	Dutch	
7. Norwegian	Norwegian	
8. Danish	Danish	
9. Swedish	Swedish	
0. Next Page (P1>>P2)	Go to Administrator Menu (Page 2).	-

Note 3: When changing this data manually, ask the maintenance personnel.

Note 4: Do not change the default port numbers except in cases of absolute necessity. When changing the default port numbers, ask the maintenance personnel for the port numbers.

Note 5: The following languages are supported by each terminal:
- IP Enabled Dterm (Dterm Series i), DtermIP: Automatic (according to the System Data setting), English, Portuguese, Spanish, French, German, Italian, Dutch, Norwegian, Danish, Swedish

Parameters on Administrator Menu (Page 2) (For Dterm Series *i*)

Parameter	Description	Default
1. Ping	Setting/Sending Echo Request	-
1. Echo Request Start	Sending Echo Request	-
2. Destination Address	Setting the destination address of Echo Request	0.0.0.0
3. Requests Count	Setting the number of times that Echo Request is sent	4-times
1. 4-times	Echo Request is sent four times	
2. Endless	Echo Request is endlessly sent	
4. Reply Time Out	Setting Echo Reply timer	2000
2. Music Select	Setting Music On Hold	Default Data
1. Download Data	Downloaded Music On Hold	
2. Default Data	Default Music On Hold	
3. Ring Volume Loudness	Raise the volume level of ringer tone. **Note 6**	Disable
1. Disable	Use the default volume level (Volume level is not raised).	
2. Enable	Raise the volume level.	
4. AutoConfig Mode	Enable or disable the AutoConfig Mode.	Enable
1. Disable	Disable the AutoConfig Mode.	
2. Enable	Enable the AutoConfig Mode.	
5. DTMF	Switch DTMFAlarm ON and OFF.	Automatic
0. Automatic	Follow the setting on the System. If no setting is made in the System, DTMF Alarm is automatically set to OFF.	
1. ON	Follow the setting on the terminal (ON).	
2. OFF	Follow the setting on the terminal (OFF).	
6. RTP Alarm	Switch DTMF/RTP Alarm ON and OFF.	Automatic
0. Automatic	Follow the setting on the System. If no setting is made in the System, RTP Alarm is automatically set to ON.	
1. ON	Follow the setting on the terminal (ON).	
2. OFF	Follow the setting on the terminal (OFF).	
0. Next Page (P2>>P1)	Go to Administrator Menu (Page 1).	-

Note 6: "Ring Volume Loudness" is available for Dterm Series i only. If this function is enabled, the volume level of ringer tone is raised (two levels).

Precautions before starting IP Enabled Dterm Operation and the Configuration Data Setting

Before starting DtermIP/IP Enabled Dterm operation and the data setting, be sure to read the following precautions.

A. DtermIP/IP Enabled Dterm Setup

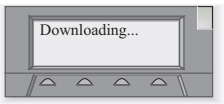


(1) Observe the following while the display is indicating “DHCP Connecting...” or “DRS (1st/2nd/3rd/4th) Connecting...”. If one of the following is not observed, the terminal cannot start up normally.

- Do not turn off the power of the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server. This includes the server service stop.
- Do not unplug or plug the LAN cable connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server.
- Do not turn off the power of the HUB connecting to the DtermIP/ IP Enabled Dterm, the Telephony Server, DHCP server.

(2) When trying to set up a DtermIP/IP Enabled Dterm with another DRS after having connected to a former DRS be sure to perform “Software Reset” from “Config Menu” -> “Administrator Menu” -> “6. Soft Reset.”

B.Downloading



(1) Observe the following while DtermIP/IP Enabled Dterm is downloading data. The display of DtermIP/IP Enabled Dterm indicates “Downloading...” while downloading data. If one of the following is not observed, the terminal cannot start up normally.

- Do not turn off the power of the Telephony Server, DHCP server, FTP (TFTP) server. This includes the server service stop.
- Do not unplug or plug the LAN cable connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server, FTP (TFTP) server.
- Do not turn off the power of the HUB connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server, FTP (TFTP) server.

(2) When the download is performed, the data assigned to each parameter of the Configuration Menu is set to the default setting (factory value). Please note the setting for each in advance.

C. Changing Port Number

(1) "Well-known port" (0-1023) cannot be used except for DRS Mate Port.
(2) Changeable port numbers are as follows:

- DRS Mate Port: 1-65535 (Default is 3456)
- DRS Self Port: 1024-65535 (Default is 3455)
- Protims Self Port: 1024-65535 (Default is 3458)
- RTP Self Port: 1024-65472 (Default is 3462)
- Voice Control Port: 1-65535 (Default is 4000)
- H245 Self Port: 0, 1024-65504 (0 = Any Port **Note 7**)

Note 7: When assigning “0” for H245 Self Port, the desired idle port will be used.

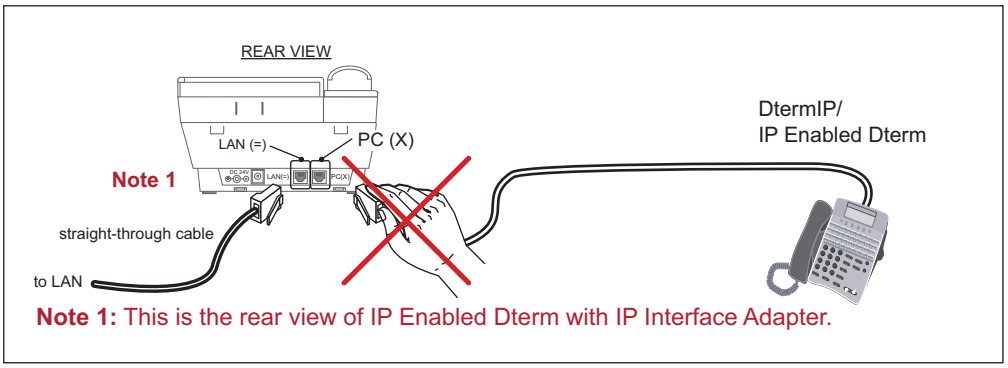
(3) When changing port numbers of DtermIP/IP Enabled Dterm, be sure to assign a unique port number for each port. If a duplicate port number is assigned, the DtermIP/IP Enabled Dterm cannot start up (After the port number change is completed, an error message "Port Number Duplicate" will be issued.).
(4) A total of 64 ports are used for the RTP Self Port. For example, when "3462" is assigned as a RTP Self Port, the port numbers from "3462" to "3525" are automatically used as RTP Self Ports. Therefore, at this time, the port numbers "3462"-"3525" cannot be used for other DtermIP/IP Enabled Dterm ports.
   1. A total of 32 ports are used for H245 Self Port.
   2. Odd-numbered ports cannot be assigned for the RTR Self Port.

D. PC / LAN connection

Considerations should be given for the following for PC / LAN connections.

Connecting a PC:

- DtermIP/IP Enabled Dterm is equipped with 'switching hub' function, allowing the cascading connection of a PC by using the PC jack (X).
- Do not connect a DtermIP/IP Enabled Dterm by using the PC jack (X).



Note 1: This is the rear view of IP Enabled Dterm with IP Interface Adapter.

Connecting to LAN:

- Hub stack connection is recommended up to four stacks for 10BASE-T, two stacks for 100BASE-TX (class 2).
- Use the following cables for connecting to LAN:

<10BASE-T>
Category: Category 3 or higher
Maximum Length: 100 m
Cable Type: Straight-through
UTP

<100BASE-TX>
Category: Category 5 or higher
Maximum Length: 100 m
Cable Type: Straight-through
UTP

- The duplex modes on the hub equipped on the DtermIP/IP Enabled Dterm and the destination hub must be set to auto-negotiation. The use of full-duplex or half-duplex on the devices may cause sound loss.

E. Installing IP Interface Adapter

Be sure to turn off the power of IP Enabled Dterm when installing / uninstalling the IP Interface Adapter.
If performed without turning off the terminal, it may not start up again.

F. Config Menu

Configuration menu is automatically closed when no key input is detected for more than five minutes. The terminal is automatically reset discarding the data change. This is performed for preventing unauthorized personnel from changing the data. Therefore this is normal operation of the DtermIP/IP Enabled Dterm.

When the Configuration menu is closed by pressing the Save Key, do not turn off the terminal until the "DHCP Connecting..." or "DRS(1st/2nd/3rd/4th) Connecting..." appears on the LCD again. If this is not observed, the DtermIP/IP Enabled Dterm may not start up normally.

G. Others

In the following case DtermIP/IP Enabled Dterm operation becomes unstable. The related messages are not displayed on the terminal.

- Duplicate IP address is assigned to multiple DtermIP/IP Enabled Dterms on the same network.

If key operations on the DtermIP/IP Enabled Dterm have no effect, terminal reset is required. In this case the LAN communication is also likely to be lost. Check the following items and connect the terminal to the LAN again.

- LAN cable is securely connected to the DtermIP/IP Enabled Dterm and System?
- Network devices such as a switching HUB connecting the DtermIP/IP Enabled Dterm and System are turned ON?
- LAN cable from the switching HUB is connected to the LAN connector (=) of the DtermIP/IP Enabled Dterm?

The user hears 0.5-second silence immediately after the starting of the conversation, due to the Echo Canceler function. The conversation proceeds normally after this 0.5-second silence.

When using the DHCP server, the setting for detection of DHCP address conflict is required.

4.4.1 Data Assignment for System having DHCP Server - Type 1 [DRS Address Already Assigned]

The following shows the procedure of DtermIP/IP Enabled Dterm data assignment for a system having DHCP server [MGC (DRS) address already assigned at the DHCP server]. The procedure assumes that the DHCP server notifies IP address of IP DtermIP/Enabled Dterm, default gateway, subnet mask, DRS address primary and secondary (option) (**Note 8**).

Note 8: About IP address of DRS (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

- **When using the DHCP server and Redundancy Configuration System such as SR-MGC, refer to “2.1.1 Setting for Redundancy Configuration System”.**

Caution: *Observe the following while performing this procedure:*
- *Do Not Turn OFF the power of the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DtermIP/IP Enabled Dterm, Telephony Server, DHCP.*

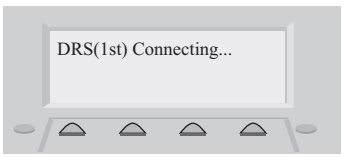
STEP 1: Turn ON the DtermIP/IP Enabled Dterm.

When the terminal is turned ON, it starts setup process with the DRS on the LAN, indicating "DHCP Connecting..." or "DRS(1st) Connecting..." on the display.

Ex.)



or

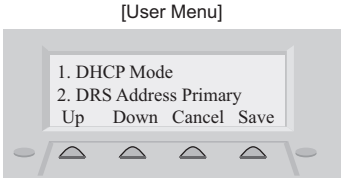


Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

STEP 2: While indicating "DHCP Connecting..." or "DRS(1st) Connecting..." on the display, press "Hold" + "Transfer" + "*" + "#" on the terminal, and open the User Menu.

A

[User Menu]

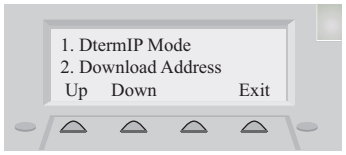


A

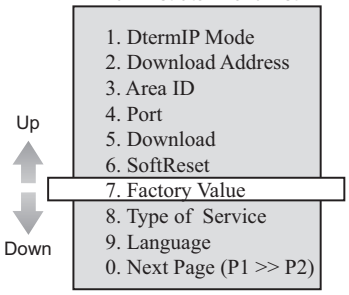
STEP 3: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]



Administrator Menu List



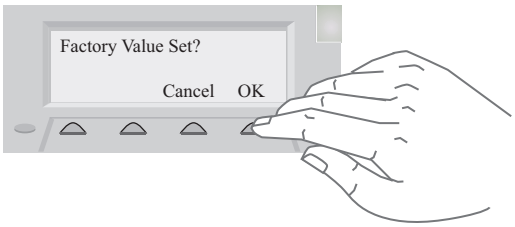
STEP 4: Select "7. Factory Value" by pressing "7" key on the Administrator Menu.

[Administrator Menu]



STEP 5: "Factory Value Set?" is displayed. Press OK key.

By pressing the OK key, the display automatically returns to the Administrator Menu.



STEP 6: Return to the User Menu by pressing Exit key.

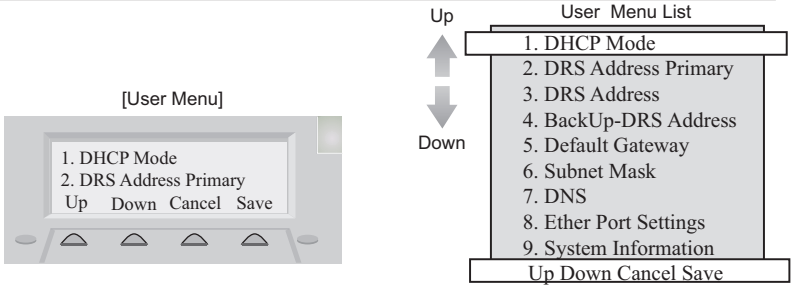
[Administrator Menu]



B

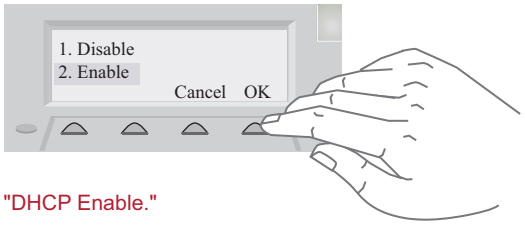
B

STEP 7: Select "DHCP Mode" by pressing "1" key on the User Menu.



STEP 8: Check to see that "2. Enable" is flashing, and press OK key.

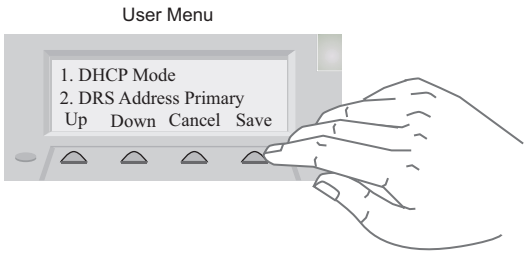
By pressing OK key, the display automatically returns to the User Menu.



Note: Default value is "DHCP Enable."

STEP 9: Press Save key to save the data change.

When the data saving ends successfully, configuration data assignment is completed.



Note: By pressing Cancel key at this time, all assigned data is discarded returning to the previous setting.

END

When STEP 9 is performed, the DtermIP/IP Enabled Dterm starts setup process with the DRS on the same network. If data assignment is not proper, an error message is displayed. In this case, correct the data assignment.

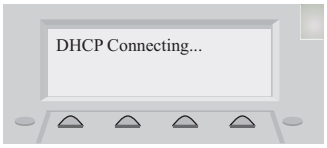
4.4.1.1 Setting for Redundancy Configuration System

The following procedure explains how to use the previous IP address (obtained through the DHCP server) as an alternative when DtermIP/IP Enabled Dterm failed to connect to the DHCP server.

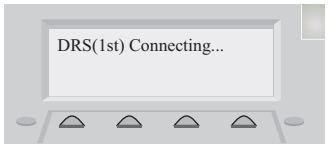
STEP 1: Turn ON the DtermIP/IP Enabled Dterm.

Wait for a while until the following message is displayed on the terminal.

Ex.)



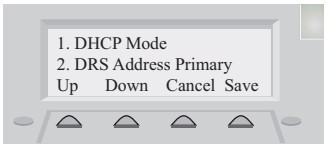
or



Note: If any data has been assigned to the terminal, the displayed message may differ from the above.

STEP 2: While indicating "Connecting..." or "DRS(1st) Connecting" on the display, press "Hold" + "Transfer" + "*" + "#" on the IP Enabled Dterm, and open the User Menu.

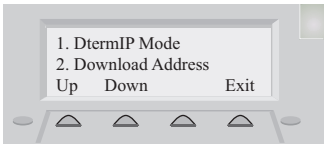
[User Menu]



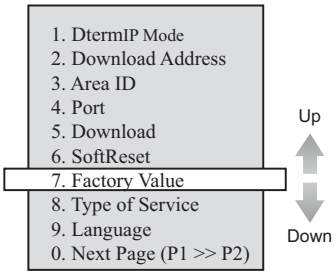
STEP 3: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]

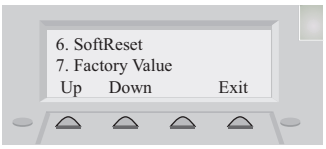


Administrator Menu List



STEP 4: Select "7. Factory Value" by pressing "7" key on the Administrator Menu.

[Administrator Menu]

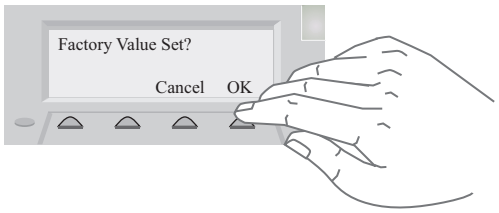


A

A

STEP 5: "Factory Value Set?" is displayed. Press OK key.

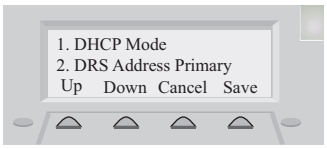
By pressing the OK key, the display automatically returns to the Administrator Menu.



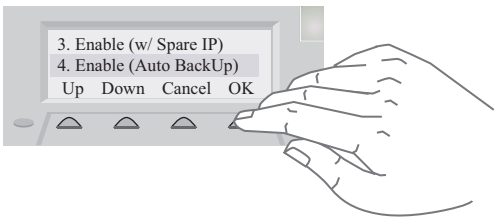
On the Administrator Menu, press Exit key to return to the User Menu.

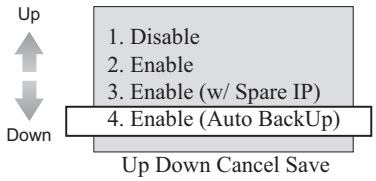
STEP 6: Select "DHCP Mode" by pressing "1" key on the User Menu.

[User Menu]



STEP 7: Select "Enable (Auto BackUp)" by pressing "4" key.



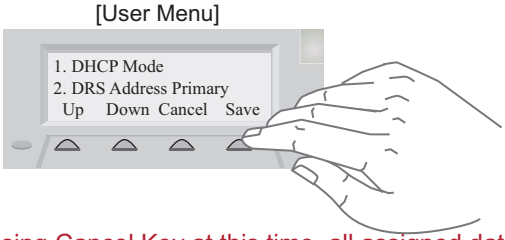


Check to see that "4. Enable (Auto BackUp)" is flashing, and press OK key to return to the User Menu.

STEP 8: Press Save key to save the data change.

After saving the data, the configuration data assignment is complete.

[User Menu]



END

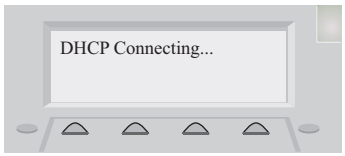
Note: By pressing Cancel Key at this time, all assigned data is discarded returning to the previous setting.

The following procedure explains how to use a fixed IP address as an alternative when IP Enabled Dterm failed to connect to the DHCP server.

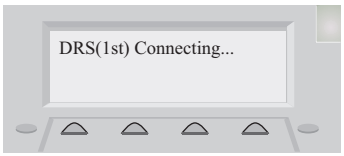
STEP 1: Turn ON the DtermIP/IP Enabled Dterm.

Wait for a while until the following message is displayed on the terminal.

Ex.)



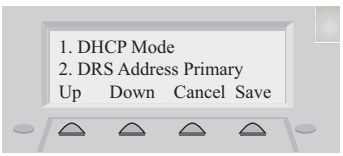
or



Note: If any data has been assigned to the terminal, the displayed message may differ from the above.

STEP 2: While indicating "Connecting..." or "DRS(1st) Connecting" on the display, press "Hold" + "Transfer" + "*" + "#" on the IP Enabled Dterm, and open the User Menu.

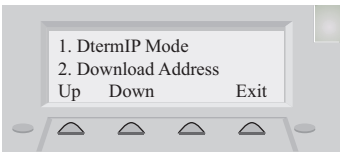
[User Menu]



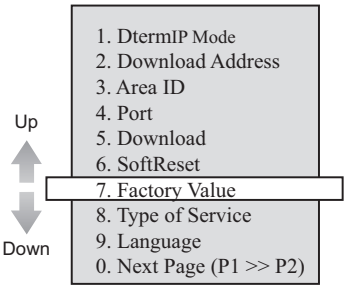
STEP 3: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]

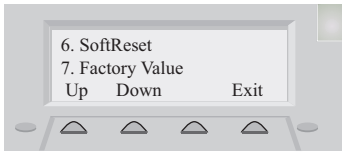


Administrator Menu List



STEP 4: Select "7. Factory Value" by pressing "7" key on the Administrator Menu.

[Administrator Menu]

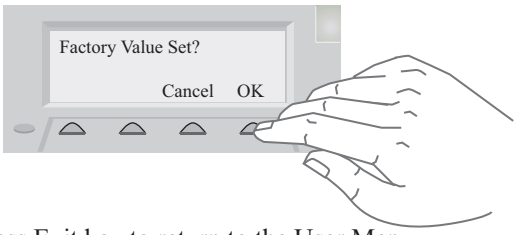


A

A

STEP 5: "Factory Value Set?" is displayed. Press OK key.

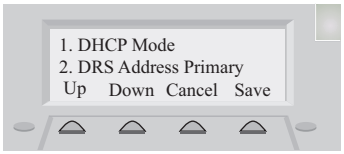
By pressing the OK key, the display automatically returns to the Administrator Menu.



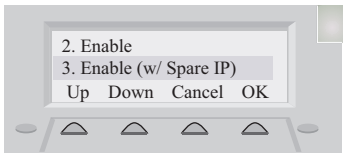
On the Administrator Menu, press Exit key to return to the User Menu.

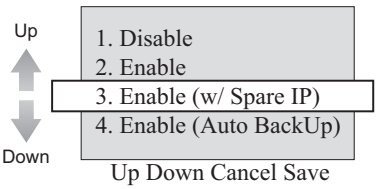
STEP 6: Select "DHCP Mode" by pressing "1" key on the User Menu.

[User Menu]



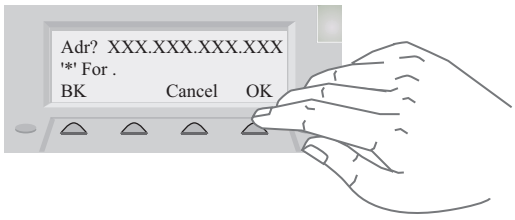
STEP 7: Select "Enable (w/ Spare IP)" by pressing "3" key.





STEP 8: Enter an alternative IP address. Then press OK key to return to the previous display.

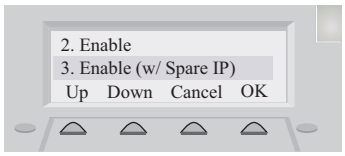
"OK" key entry while the data input is ignored. To stop data entry, press "Cancel" key.



B

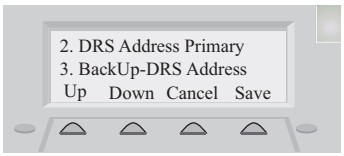
B

Step 9: If "3. Enable (w/ Spare IP)" is flashing, press OK key and return to the User Menu.



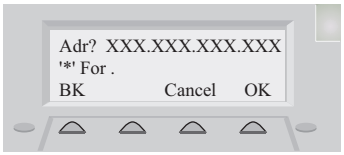
STEP 10: Select "2. DRS Address Primary" by pressing "2" key on the User Menu.

[User Menu]



STEP 11: Enter the IP address of the DRS connected to the LAN.

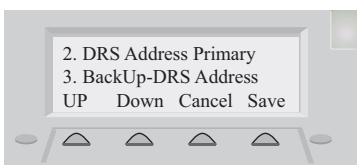
Note: The same address is to be set to the DHCP server.



When the IP address is entered, press "OK" key and return to the User Menu.
"OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key.

STEP 12: Select "3. BackUp-DRS Address" by pressing "3" key".

[User Menu]



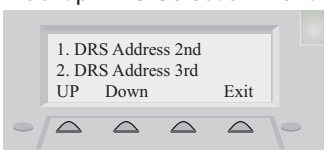
C

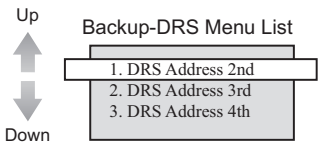
C

STEP 13: Select a desired Redundancy Configuration System and assign its IP address.

IP addresses of a maximum of three Redundancy Configuration Systems can be set here.

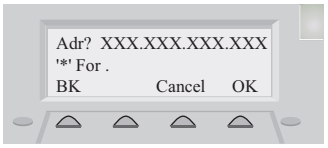
Backup-DRS Selection Menu





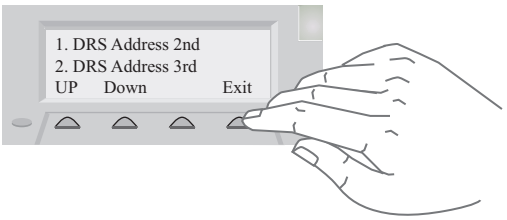
Note: The same address is to be set to the DHCP server.

STEP 14: Press the OK Key to return to the Backup-DRS Selection Menu.



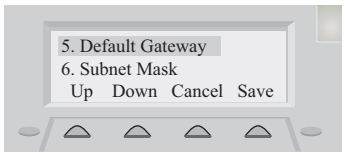
STEP 15: After all the necessary IP addresses are set, press the Exit Key to return to the User Menu.

Backup-DRS Selection Menu



STEP 17: Select "5. Default Gateway" on the User Menu by pressing "5" when a default gateway is used.

User Menu

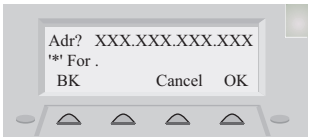


D

D

STEP 18: Enter the IP Address of the Default Gateway when a default gateway is used.

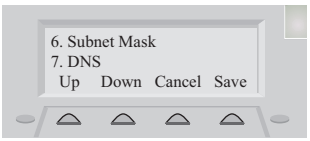
When the IP address is entered, press "OK" key to confirm your entry. By pressing "OK" key, the display returns to the User Menu. "OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key



Note: The same address is to be set to the DHCP server.

STEP 19: Select "6. Subnet Mask" on the User Menu by pressing "6" when a subnet mask is used.

User Menu



STEP 20: Enter the subnet mask data when a subnet mask is used.

When the IP address is entered, press "OK" key to confirm your entry. By pressing "OK" key, the display returns to the User Menu. "OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key



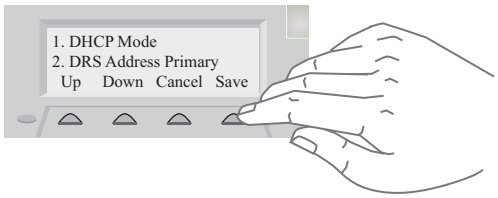
Note: "0.0.0.0" or "255.255.255.255" cannot be entered.

Note: The same address is to be set to the DHCP server.

STEP 21: Press Save key to save the data change.

When the data saving ends successfully, configuration data assignment is complete.

User Menu



Note: By pressing Cancel key at this time, all assigned data is discarded returning to the previous setting.

Note: At this time, if the IP addresses of the terminal and the Default Gateway belong to different segments, the user cannot exist from the Configuration Mode.

END

4.4.2 Data Assignment for System Having DHCP Server - Type 2 [DRS Address Not Assigned]

The following shows the procedure of DtermIP/IP Enabled Dterm data assignment for a system having DHCP server [DRS address not assigned (**Note 9**)].

Note 9: About IP address of DRS (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

- **When using the DHCP server and Redundancy Configuration System such as SR-MGC, refer to “2.2.1 Setting for Redundancy Configuration System”.**

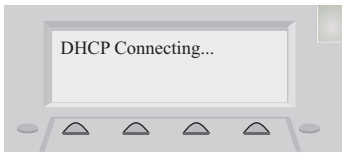
Caution: *Observe the following while performing this procedure:*
- *Do Not Turn OFF the power of the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*

STEP 1: Turn ON the DtermIP/IP Enabled Dterm.

Wait for a while until the following message is displayed on the terminal.

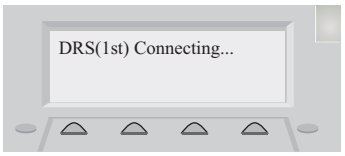
Ex.)

Note 1



or

Note 1 Note 2

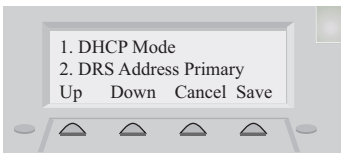


Note 1: If any data has been assigned to the terminal, the displayed message may differ from the above.

Note 2: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

STEP 2: While indicating "Connecting..." or "DRS(1st) Connecting" on the display, press "Hold" + "Transfer" + "*" + "#" on the terminal, and open the User Menu.

[User Menu]

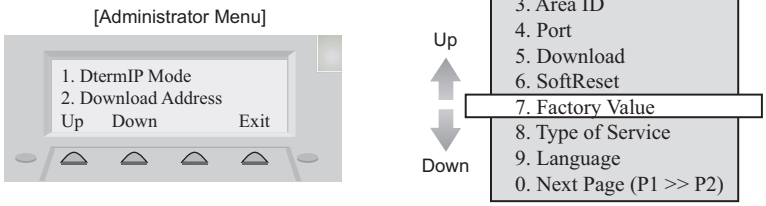


A

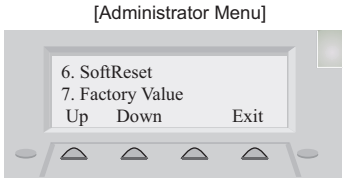
A

STEP 3: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

The following Administrator Menu is displayed.

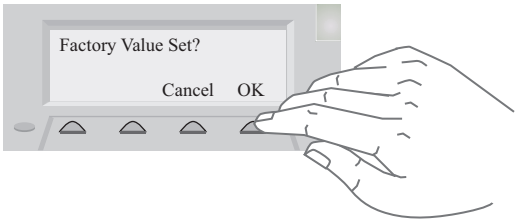


STEP 4: Select "7. Factory Value" by pressing "7" key on the Administrator Menu.



STEP 5: "Factory Value Set?" is displayed. Press OK key.

By pressing the OK key, the display automatically returns to the Administrator Menu.



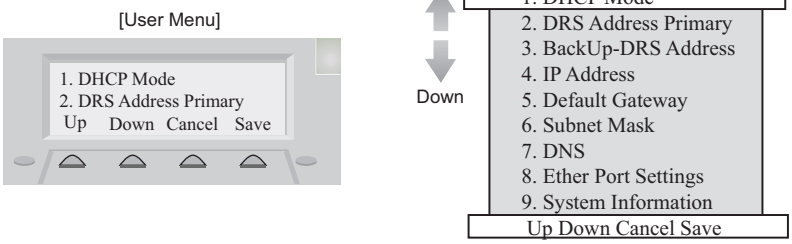
STEP 6: Return to the User Menu by pressing Exit key.



B

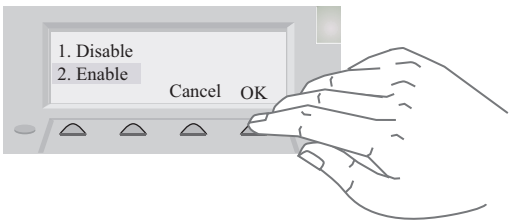
B

STEP 7: Select "DHCP Mode" by pressing "1" key on the User Menu.



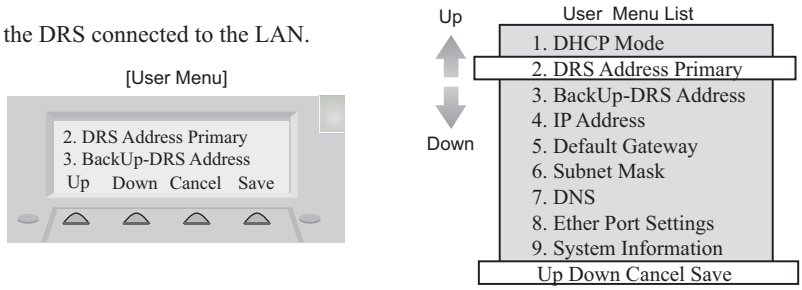
STEP 8: Check to see that "2. Enable" is flashing, and press OK key.

By pressing the OK key, the display automatically returns to the User Menu.

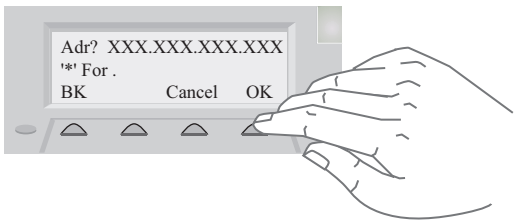


STEP 9: Select "2. DRS Address Primary" and assign the IP address of the DRS connected to the LAN.

Assign the IP address of the DRS connected to the LAN.



STEP 10: Press OK key to return to the User Menu.

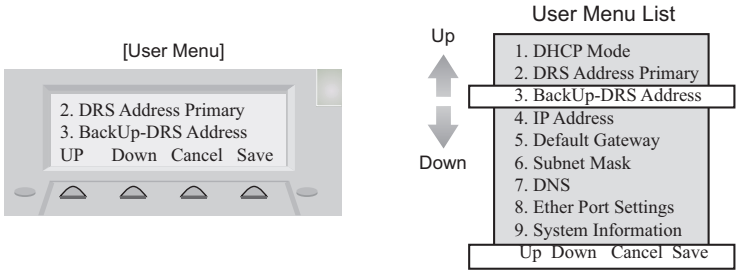


C

C

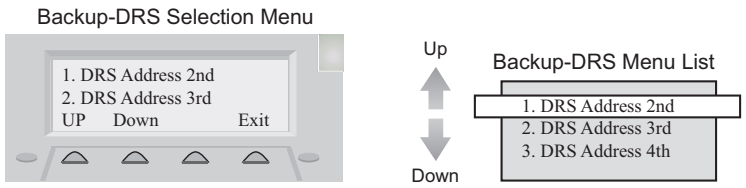
STEP 11: Select "3. BackUp-DRS Address" and display Backup-DRS Selection Menu.

This setting is required only when Redundancy Configuration Systems (such as SR-MGC) are connected on the network. If there is no Redundancy Configuration System on the network, go to STEP 15.

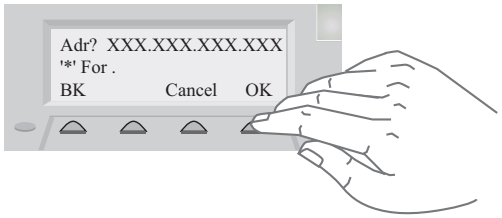


STEP 12: Select a desired Redundancy Configuration System and assign its IP address.

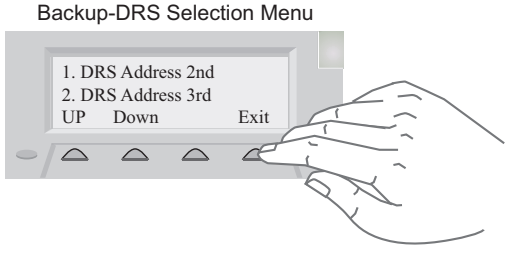
IP addresses of a maximum of three Redundancy Configuration Systems can be set here.



STEP 13: Press the OK Key to return to the Backup-DRS Selection Menu.



STEP 14: After all the necessary IP addresses are set, press the Exit Key to return to the User Menu.

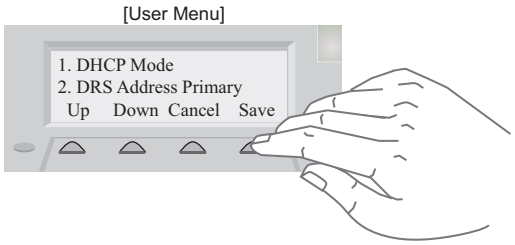


D

D

STEP 15: Press Save key to save the data change.

After saving the data, the configuration data assignment is complete.



END

Note: By pressing Cancel Key at this time, all assigned data is discarded returning to the previous setting.

When STEP 15 is performed, the IP Enabled Dterm starts setup process with the DRS on the same network. If data assignment is not proper, an error message is displayed. In this case, correct the data assignment.

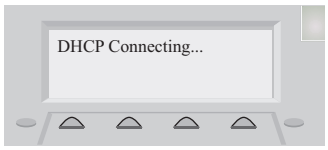
4.4.2.1 Setting for Redundancy Configuration System

The following procedure explains how to use the previous IP address (obtained through the DHCP server) as an alternative when DtermIP/IP Enabled Dterm failed to connect to the DHCP server.

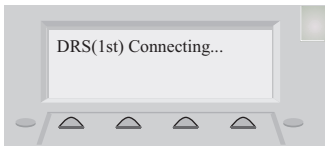
STEP 1: Turn ON the DtermIP/IP Enabled Dterm.

Wait for a while until the following message is displayed on the terminal.

Ex.)



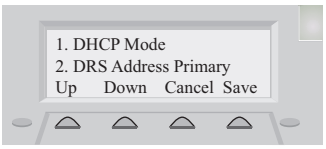
or



Note: If any data has been assigned to the terminal, the displayed message may differ from the above.

STEP 2: While indicating "Connecting..." or "DRS(1st) Connecting" on the display, press "Hold" + "Transfer" + "*" + "#" on the terminal, and open the User Menu.

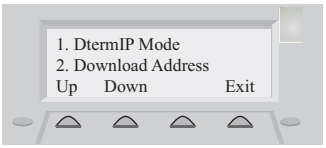
[User Menu]



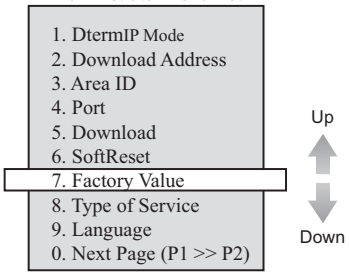
STEP 3: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]

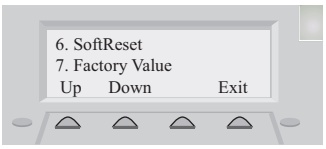


Administrator Menu List



STEP 4: Select "7. Factory Value" by pressing "7" key on the Administrator Menu.

[Administrator Menu]

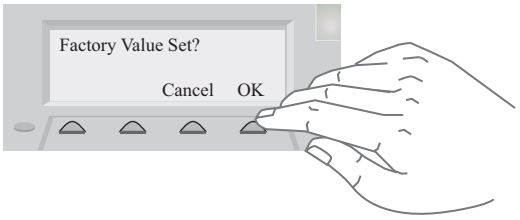


A

A

STEP 5: "Factory Value Set?" is displayed. Press OK key.

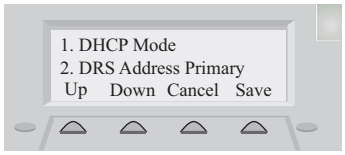
By pressing the OK key, the display automatically returns to the Administrator Menu.



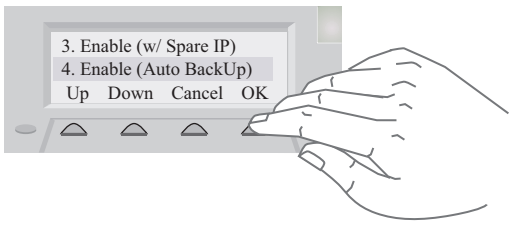
On the Administrator Menu, press Exit key to return to the User Menu.

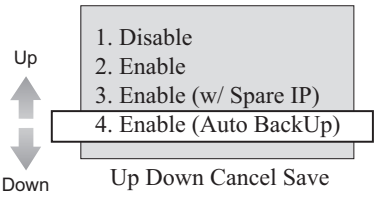
STEP 6: Select "DHCP Mode" by pressing "1" key on the User Menu.

[User Menu]



STEP 7: Select "Enable (Auto BackUp)" by pressing "4" key.

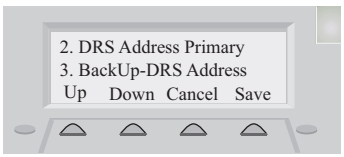




Check to see that "4. Enable (Auto BackUp)" is flashing, and press OK key to return to the User Menu.

STEP 8: Select "2. DRS Address Primary" by pressing "2" key on the User Menu.

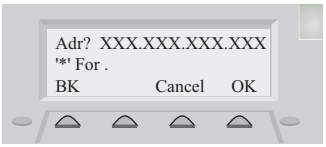
[User Menu]



B

B

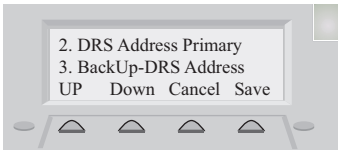
STEP 9: Enter the IP address of the DRS connected to the LAN.



When the IP address is entered, press "OK" key and return to the User Menu.
"OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key

STEP 10: Select "3. BackUp-DRS Address" by pressing "3" key".

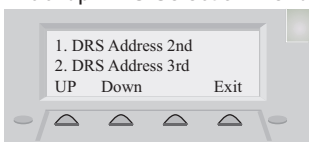
[User Menu]

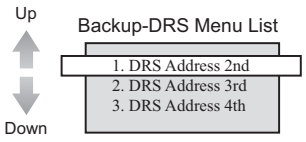


STEP 11: Select a desired Redundancy Configuration System and assign its IP address.

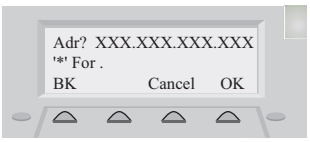
IP addresses of a maximum of three Redundancy Configuration Systems can be set here.

Backup-DRS Selection Menu





STEP 12: Press OK key to return to the Backup-DRS Selection Menu.

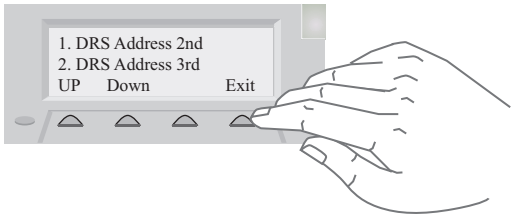


C

C

STEP 13: After all the necessary IP addresses are set, press the Exit Key to return to the User Menu.

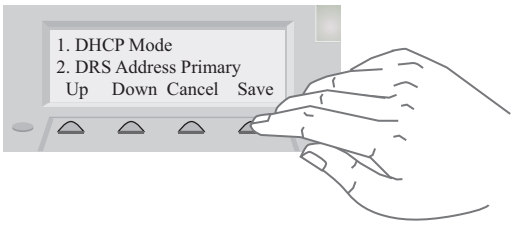
Backup-DRS Selection Menu



STEP 14: Press Save key to save the data change.

After saving the data, the configuration data assignment is complete.

[User Menu]



Note: By pressing Cancel Key at this time, all assigned data is discarded returning to the previous setting.

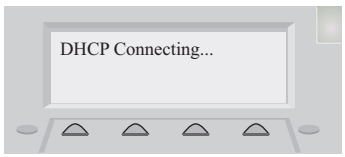
END

The following procedure explains how to use a fixed IP address as an alternative when DtermIP/IP Enabled Dterm failed to connect to the DHCP server.

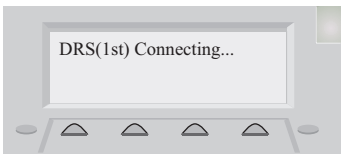
STEP 1: Turn ON the DtermIP/IP Enabled Dterm.

Wait for a while until the following message is displayed on the terminal.

Ex.)



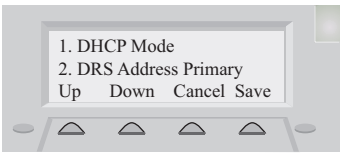
or



Note: If any data has been assigned to the terminal, the displayed message may differ from the above.

STEP 2: While indicating "Connecting..." or "DRS(1st) Connecting" on the display, press "Hold" + "Transfer" + "*" + "#" on the terminal, and open the User Menu.

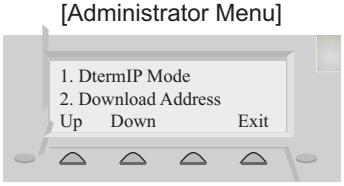
[User Menu]



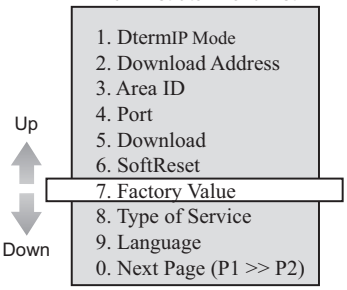
STEP 3: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]



Administrator Menu List



STEP 4: Select "7. Factory Value" by pressing "7" key on the Administrator Menu.

[Administrator Menu]

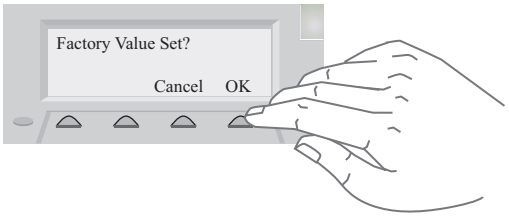


A

A

STEP 5: "Factory Value Set?" is displayed. Press OK key.

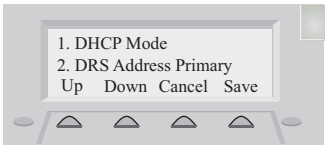
By pressing the OK key, the display automatically returns to the Administrator Menu.On



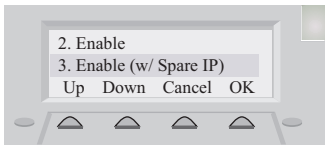
On the Administrator Menu, press Exit key to return to the User Menu.

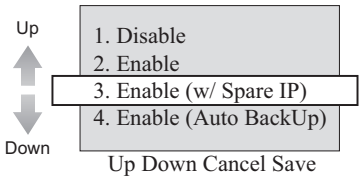
STEP 6: Select "DHCP Mode" by pressing "1" key on the User Menu.

[User Menu]



STEP 7: Select "Enable (w/ Spare IP)" by pressing "3" key.





STEP 8: Enter an alternative IP address. Then press OK key to return to the previous display.

"OK" key entry while the data input is ignored. To stop data entry, press "Cancel" key.

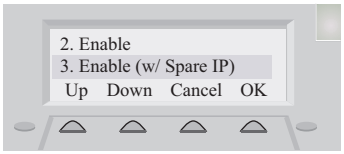


B

If "3. Enable (w/ Spare IP)" is flashing, press OK key and return to the User Menu.

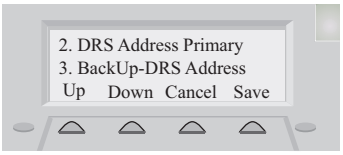
B

Step 9: If "3. Enable (w/ Spare IP)" is flashing, press OK key and return to the User Menu.

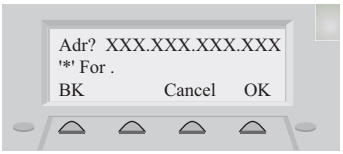


STEP 10: Select "2. DRS Address Primary" by pressing "2" key on the User Menu.

[User Menu]



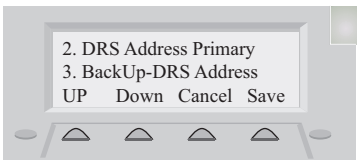
STEP 11: Enter the IP address of the DRS connected to the LAN.



When the IP address is entered, press "OK" key and return to the User Menu.
"OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key

STEP 12: Select "3. BackUp-DRS Address" by pressing "3" key".

[User Menu]



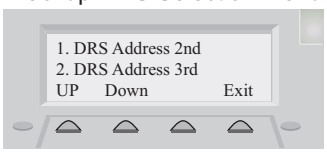
C

C

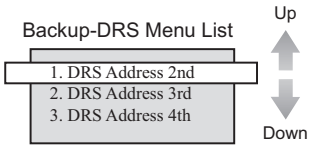
STEP 13: Select a desired Redundancy Configuration System and assign its IP address.

IP addresses of a maximum of three Redundancy Configuration Systems can be set here.

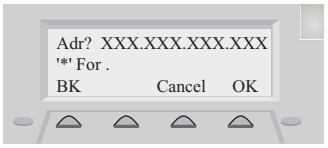
Backup-DRS Selection Menu



Backup-DRS Menu List

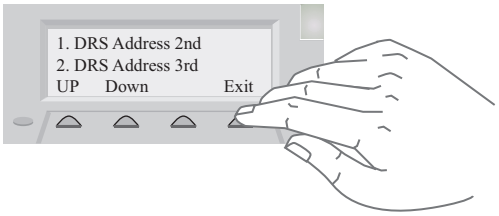


STEP 14: Press OK key to return to the Backup-DRS Selection Menu.



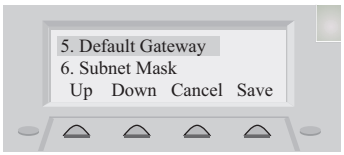
STEP 15: After all the necessary IP addresses are set, press the Exit Key to return to the User Menu.

Backup-DRS Selection Menu



STEP 17: Select "5. Default Gateway" on the User Menu by pressing "5" when a default gateway is used.

User Menu



D

D

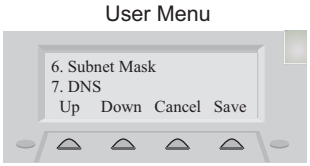
STEP 18: Enter the IP Address of the Default Gateway when a default gateway is used.

When the IP address is entered, press "OK" key to confirm your entry. By pressing "OK" key, the display returns to the User Menu. "OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key



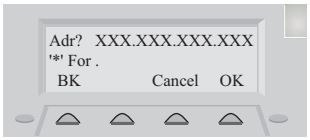
Note: The same address is to be set to the DHCP server.

STEP 19: Select "6. Subnet Mask" on the User Menu by pressing "6" when a subnet mask is used.



STEP 20: Enter the subnet mask data when a subnet mask is used.

When the IP address is entered, press "OK" key to confirm your entry. By pressing "OK" key, the display returns to the User Menu. "OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key

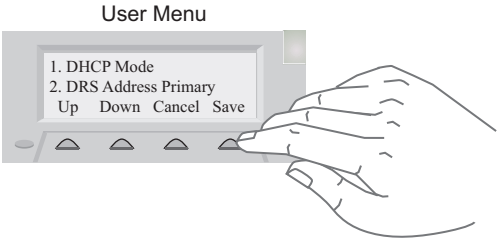


Note: "0.0.0.0" or "255.255.255.255" cannot be entered.

Note: The same address is to be set to the DHCP server.

STEP 21: Press Save key to save the data change.

When the data saving ends successfully, configuration data assignment is complete.



Note: By pressing Cancel key at this time, all assigned data is discarded returning to the previous setting.

Note: At this time, if the IP addresses of the terminal and the Default Gateway belong to different segments, the user cannot exist from the Configuration Mode.

END

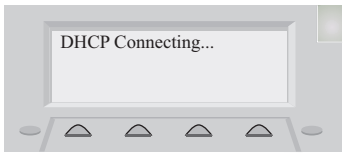
4.4.3 DtermIP/IP Enabled Dterm Data Assignment for System without DHCP Server - Type 3

The following shows the procedure of DtermIP/IP Enabled Dterm data assignment for a system having no DHCP server.

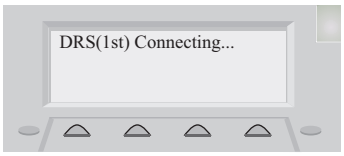
Caution: *Observe the following while performing this procedure:*
- *Do Not Turn OFF the power of the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*

STEP 1: Turn ON the DtermIP/IP Enabled Dterm.

Ex.)



or



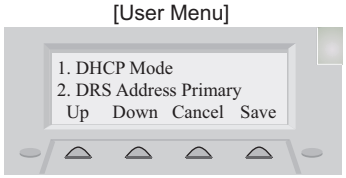
Note: If any data has been assigned to the terminal, the displayed message may differ from the above.

Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

STEP 2: While indicating "DHCP Connecting..." or "DRS(1st) Connecting on the display, press "Hold" + "Transfer" + "*" + "#" on the terminal, and open the User Menu.

Two items are displayed on the terminal at a time.

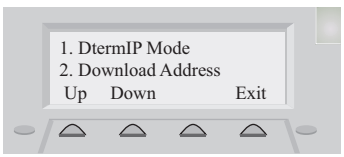
[User Menu]



STEP 3: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]



Administrator Menu List

Up

Down

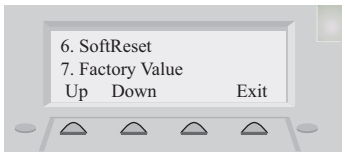
1. DtermIP Mode
2. Download Address
3. Area ID
4. Port
5. Download
6. SoftReset
7. Factory Value
8. Type of Service
9. Language
0. Next Page (P1 >> P2)

A

A

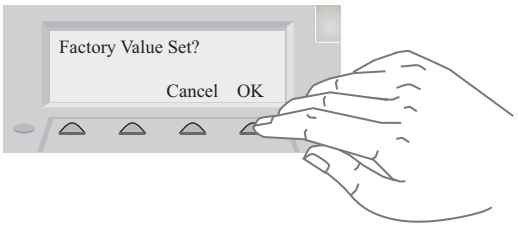
STEP 4: Select "Factory Value" by pressing "7" key on the Administrator Menu.

[Administrator Menu]



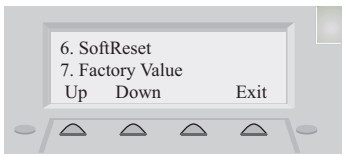
STEP 5: "Factory Value Set?" is displayed. Press OK key.

By pressing the OK key, the display automatically returns to the Administrator Menu.



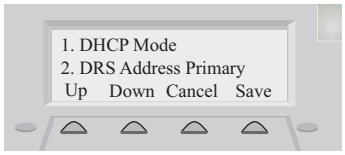
STEP 6: Return to the User Menu by pressing Exit key.

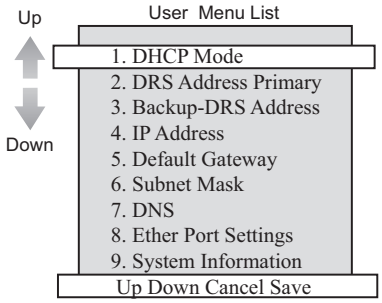
[Administrator Menu]



STEP 7: Select "DHCP Mode" by pressing "1" key on the User Menu.

[User Menu]



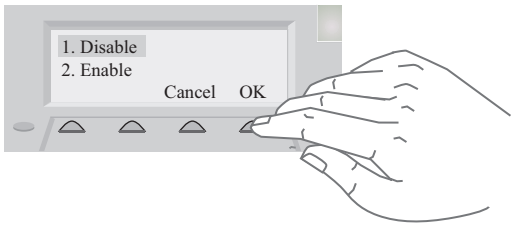


B

B

STEP 8: Select "1. DHCP Disable" on the terminal, and press the OK key.

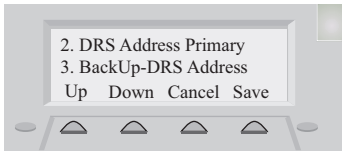
When an item is selected, the selected item changes to blink indication.
Press OK key to confirm your entry. By pressing OK key, the display automatically returns to the User Menu.



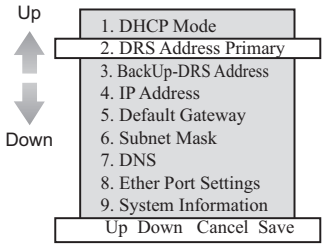
STEP 9: Select "2. DRS Address Primary" and assign the IP address of the DRS connected to the LAN.

Assign the IP address of the DRS connected to the LAN.

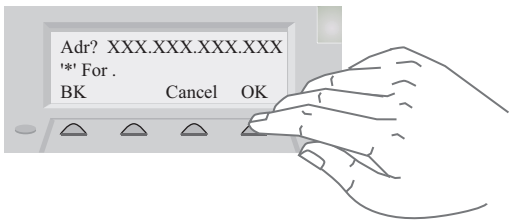
[User Menu]



User Menu List



STEP 10: Press OK key to confirm your entry.

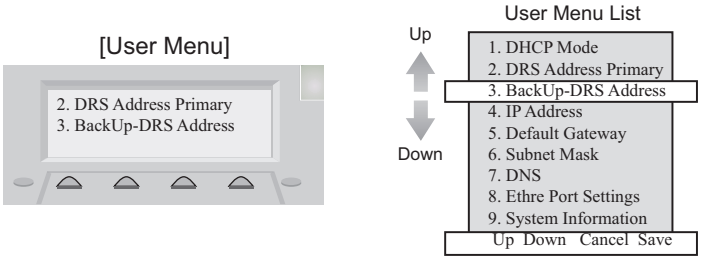


C

C

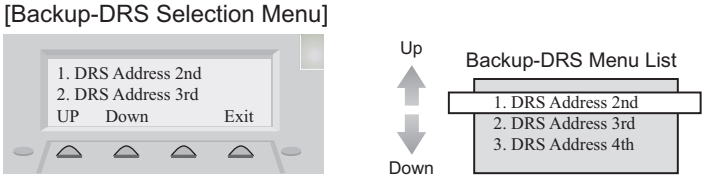
STEP 11: Select "3. BackUp-DRS Address" and display Backup-DRS Selection Menu.

This setting is required only when Redundancy Configuration Systems (such as SR-MGC) are connected on the network. If there is no Redundancy Configuration System on the network, go to STEP 15.

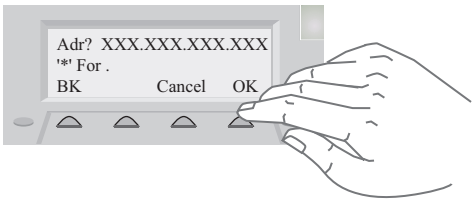


STEP 12: Select a desired Redundancy Configuration System and assign its IP address.

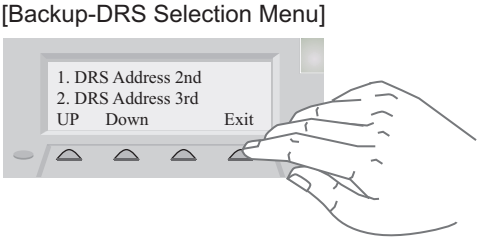
IP addresses of a maximum of three Redundancy Configuration Systems can be set here.



STEP 13: Press the OK Key to return to the Backup-DRS Selection Menu.



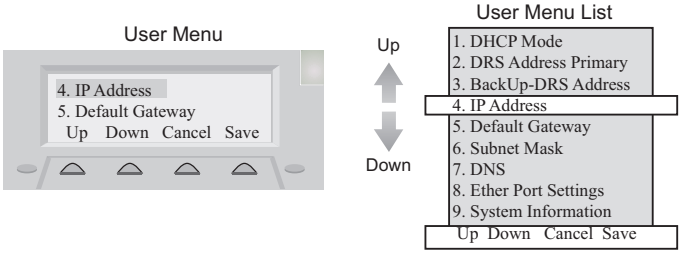
STEP 14: After all the necessary IP addresses are set, press the Exit Key to return to the User Menu.



D

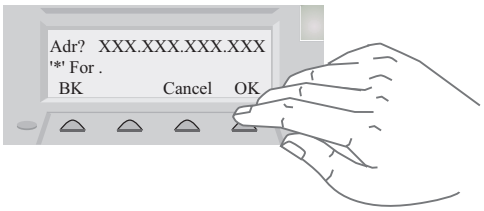
D

STEP 15: Select "4. IP Address" by pressing "4" on the User Menu.

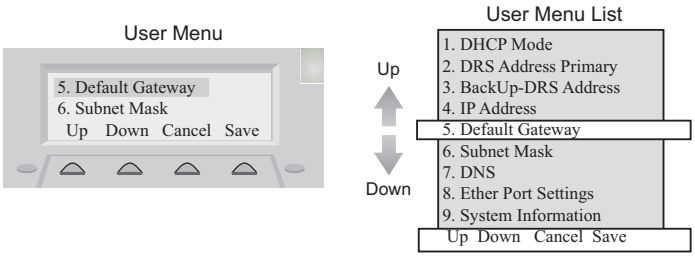


STEP 16: Enter the IP Address of the terminal.

When the IP address is entered, press "OK" key to confirm your entry. By pressing "OK" key, the display returns to the User Menu. "OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key.

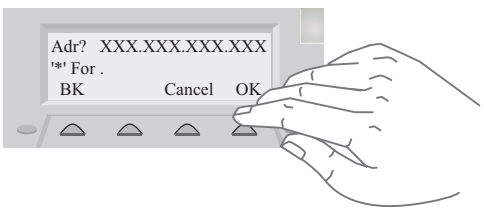


STEP 17: Select "5. Default Gateway" on the User Menu by pressing "5" when a default gateway is used.



STEP 18: Enter the IP Address of the Default Gateway when a default gateway is used.

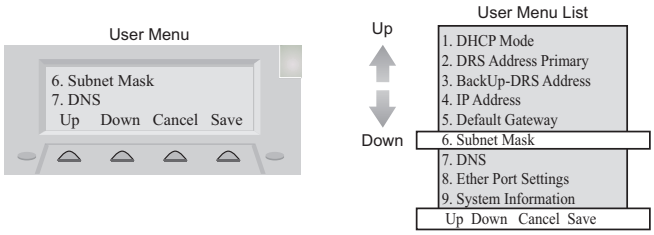
When the IP address is entered, press "OK" key to confirm your entry. By pressing "OK" key, the display returns to the User Menu. "OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key.



E

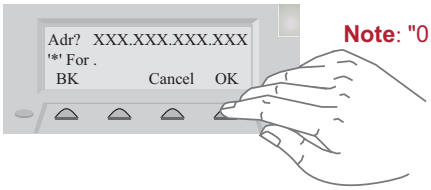
E

STEP 19: Select "6. Subnet Mask" on the User Menu by pressing "6" when a subnet mask is used.



STEP 20: Enter the subnet mask data when a subnet mask is used.

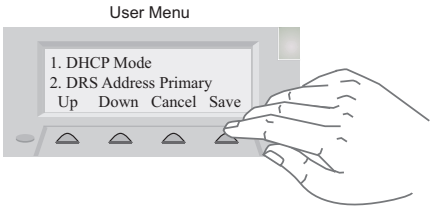
When the IP address is entered, press "OK" key to confirm your entry. By pressing "OK" key, the display returns to the User Menu. "OK" key entry while the data input is incomplete will be ignored. To stop data entry, press "Cancel" key.



Note: "0.0.0.0" or "255.255.255.255" cannot be entered.

STEP 21: Press Save key to save the data change.

When the data saving ends successfully, configuration data assignment is complete.



Note: By pressing Cancel key at this time, all assigned data is discarded returning to the previous setting.

Note: At this time, if the IP addresses of the terminal and the Default Gateway belong to different segments, the user cannot exist from the Configuration Mode.

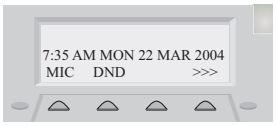
END

When STEP 21 is performed, the DtermIP/IP Enabled Dterm starts setup process with the DRS on the same network. If data assignment is not proper, an error message is displayed. In this case, correct the data assignment.

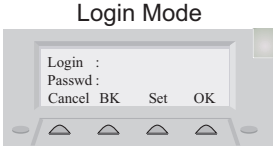
4.4.4 Operations of IP Enabled Dterm

A DtermIP/IP Enabled Dterm operates in one of two modes:

MAC Authentication



Login Mode



MAC Authentication Mode	When MAC address and station number have already been registered to Office Data, the terminal can be used only by connecting to the LAN (with its power ON).
Login Mode	When the MAC address data has not been assigned by AMAC command, the terminal starts up in this mode. When the terminal power is ON, it requests the user to enter "Login Name" and "Password." By entering the login code and the password, the terminal becomes operational.

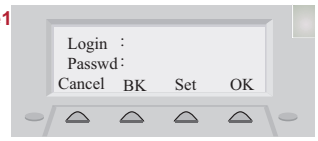
Caution: *Observe the following while performing this procedure:*
- *Do Not Turn OFF the power of the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*

4.4.4.1 How to Log In

The procedure below explains how to log in to the system from an IP Enabled Dterm.

START

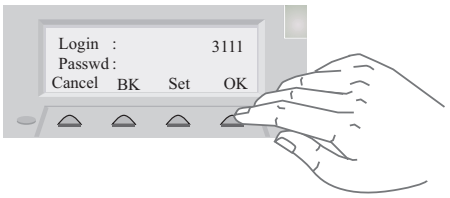
Note1



LOGIN code	Station number (maximum 16 digits (0-9, * and #))
PASSWORD	Station number (4-10 digits (0-9, * and #))

Note1: This display varies according to the system.

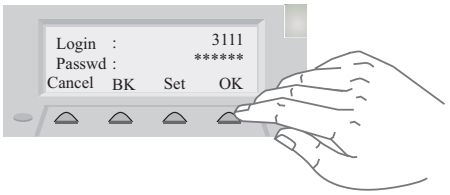
STEP 1: Enter Login code (station number) and press OK key. **Note 2**



Note 2: If an arbitrary number is assigned as Login Code by the ALGCL/ALGCN command, enter resistered Login Code instead of station number.

STEP 2: Enter the password and press OK key. **Note 3**

The entered password is indicated in a string of "*" on the display.



Note 3: When logging to DtermIP/IP Enabled Dterm for the first time (or when the password is not assigned on the DtermIP/ IP Enabled Dterm), enter station number as the password, and then assign a new password.

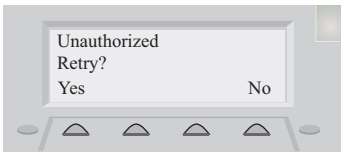
STEP 3: After a while, the current time is appeared on the display, indicating that the terminal is in service.

Note1



END

Note: If the current data and time are not displayed and the following message is issued, the entered login code or password is not correct. After pressing Yes Key on the following display, enter the correct login code and password.

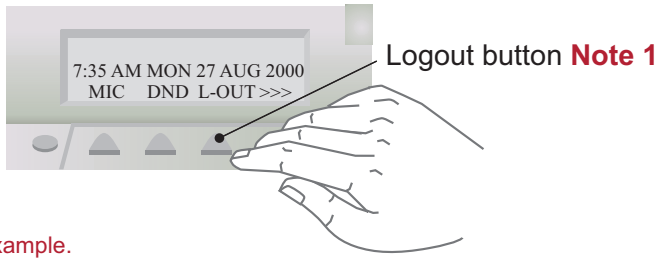


4.4.4.2 How to Log Out

Follow the procedure below to log out.

STEP 1: Press the preassigned "Logout" button on the terminal.

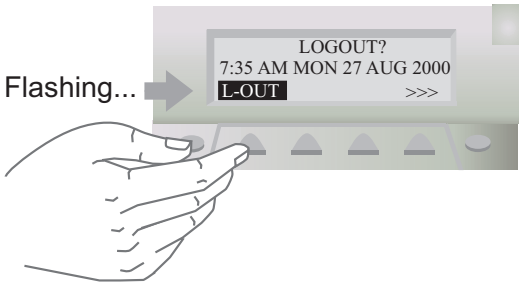
Logout button is assigned to a Line/Feature Key and/or a Soft Key by data setting at Telephony Server. Ask the maintenance personnel for the location of the Logout button.



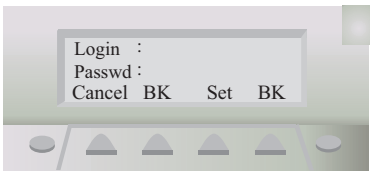
Note 1: This location is an example.

STEP 2: LOGOUT? is displayed. Press the "Logout" button again within 5 seconds.

The "Logout" button is moved to the leftmost Soft Key for 5 seconds.



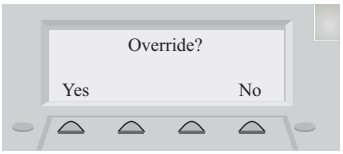
STEP 3: After Logout is complete, the display changes as follows.



END

4.4.4.3 Override

When attempting login using the same station number, the following is displayed on the terminal. DtermIP/IP Enabled Dterms with duplicate station number cannot operate in a system. If the indication below appears, do one of the following.



"Override? " indication

<Choice 1: Use the station number for the DtermIP/IP Enabled Dterm with "Override?" indication.>

START

STEP 1: Press "Yes" button.

The overridden DtermIP/IP Enabled Dterm becomes inoperative.

STEP 2: Start up the overridden terminal again and log in by using different station number.

END

<Choice 2: Start up the DtermIP/IP Enabled Dterm with "Override?" indication again to log in by using the different station number.>

START

STEP 1: Press "No" button.

STEP 2: Log in again using different station number.

END

4.4.4.4 Password Setting

- New Password Assignment

To assign a new password, follow the procedure below. Note that the password stored in System memory can be assigned from the DtermIP/IP Enabled Dterm only.

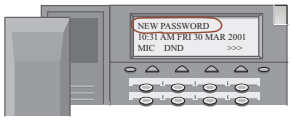
Note: When starting up Login Mode on IP terminal for the first time, station number is used for a password. If an arbitrary number is set as Login Code by the ALGCL/ALGCN command, enter registered Login Code instead of station number for a password.

Note: The password assigned here is not for the line to be used, but for the terminal itself.

START

STEP 1: Lift the handset and dial "IP Enabled Dterm Password Entry" access code.

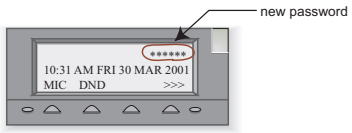
• Lift the handset and dial "IP Enabled Dterm Password Entry" access code; receive SPDT. The LCD indicates "NEW PASSWORD" prompt.



SPDT

STEP 2: Enter new password.

• Enter your new password; receive DT.

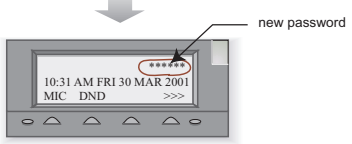


DT

STEP 3: Repeat the new password.

• "REPEAT" prompt appears. Enter your new password again to confirm your entry; receive SST.





SST

• "SET" indication appears when your new password has been set.



STEP 4: Replace the handset.

• Replace the handset.



END

- Password Change

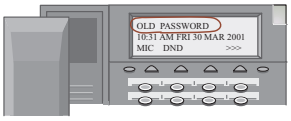
To change an existing password, follow the procedure below. The Password stored in System memory can be changed from the DtermIP/IP Enabled Dterm only.

START

STEP 1: Lift the handset and dial "IP Enabled Dterm Password Entry" access code.

Lift the handset and dial "IP Enabled Dterm Password Entry" access code; receive SPDT.
The LCD indicaters "OLD PASSWORD" prompt.

SPDT



STEP 2: Enter the current password.

Enter your old password; receive SPDT.

SPDT



STEP 3: Enter new password.

"NEW PASSWORD" prompt appears. Enter your new password; receive DT.



DT



STEP 4: Repeat the new password.

"REPEAT" prompt appears. Enter your new password again to confirm your entry; receive SST.

"REPEAT" prompt

SST



"SET" indication appears when your new password has been set.



STEP 5: Replace the handset.

• Replace the handset.



END

- Password Deletion

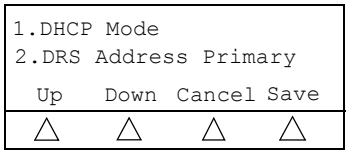
Passwords stored in System memory can be deleted from PCPro only. Use the RDPD (Remove of DtermIP Password) command. Select either, STN (TN and STN) or TELN (UGN and TELN) for specifying terminal on which the password to be removed.

4.4.4.5 How to Set LAN Port/PC Port

IP terminal can add VLAN tag to the LAN packet sent from the PC port, and send it to the LAN port. Also, IP terminal can delete VLAN tag of the LAN packet sent from the LAN port, and send it to the PC port.

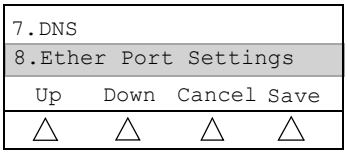
STEP 1:Open the User Menu by pressing “Hold” + “Transfer” + “*” + “#” on the terminal while indicating time, an error message, or “DHCP Connecting.../DRS (1st) Connecting...”.

[User Menu]



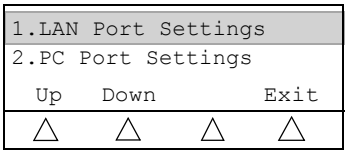
Note: When using Backup MGC, “DRS(2nd) Connecting...”, “DRS(3rd) Connecting...”, or “DRS(4th) Connecting...” will be displayed instead of “DRS(1st) Connecting...”.

STEP 2: Select “8. Ether Port Settings” by pressing “8” key.



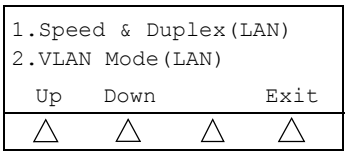
STEP 3: The following Port Setting Menu is displayed. Select “1. LAN Port Settings” by pressing “1” key.

[Port Setting]



[LAN Port Setting]

STEP 1:When “1. LAN Port Settings” is selected in STEP 3, the display changes as follows:



“LAN Port Settings” includes the following four setting items. The data set here is saved when pressing Save key on the User Menu.

(a) 1. Speed & Duplex (LAN)

The display changes follows when “1. Speed & Duplex (LAN)” is selected.

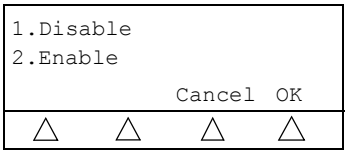


Choose a desired LAN speed by pressing each digit key, and then press OK key.

1. Autonego: Auto-Negotiation (Default)
2. 100M Full: Fixed to 100 Mbps and Full Duplex mode.
3. 100M Half: Fixed to 100 Mbps and Half Duplex mode.
4. 10M Full: Fixed to 10 Mbps and Full Duplex mode.
5. 10M Half: Fixed to 10 Mbps and Half Duplex mode.

(b) 2. VLAN Mode (LAN)

The display changes as follows when “2. VLAN Mode (LAN)” is selected.

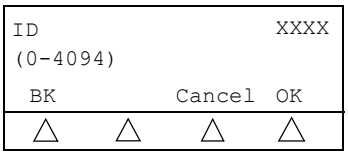


Determine whether VLAN is enabled or disabled by pressing each digit key, and then press OK key.

1. Disable: VLAN is disabled. (Default)
2. Enable: VLAN is enabled.

(c) 3. VLAN ID (LAN)

The display changes as follows when “3. VLAN ID (LAN)” is selected.

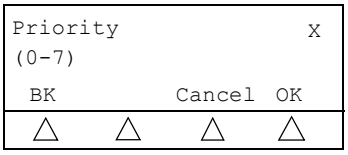


Set VLAN ID in the range from 0 to 4094 (The default value is 7.), and then press OK key.

Note: Pressing any key other than 0 to 9 is invalid.
To delete an entered character, press BK key.

(d) 4. VLAN Priority (LAN)

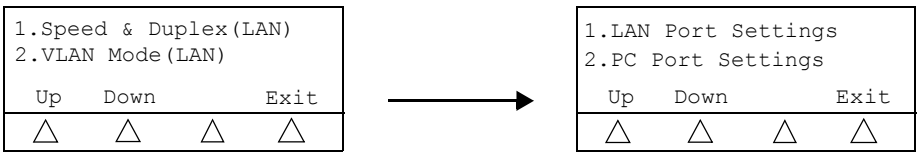
The display changes as follows when “4. VLAN Priority (LAN)” is selected.



Set VLAN Priority in the range from 0 to 7 (The default value is 5.), and then press OK key.

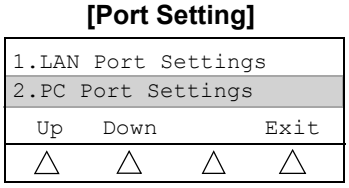
Note: Pressing any key other than 0 to 7is invalid.
To delete an entered character, press BK key.

STEP 1: All the necessary data is set, press EXIT key to go back to the display of STEP 3.



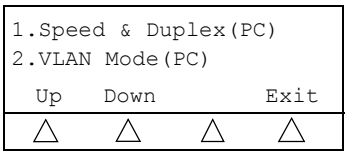
Press EXIT key.

STEP 2: Select “2. PC Port Settings” by pressing “2” key.



[PC Port Setting]

STEP 1:When “2. PC Port Settings” is selected in STEP 6, the display changes as follows:



“PC Port Settings” includes the following five setting items. The data set here is saved when pressing Save key on the User Menu.

(a) 1. Speed & Duplex (PC)

The display changes as follows when “1. Speed & Duplex (PC)” is selected.

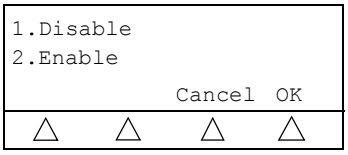


Choose a desired LAN speed by pressing each digit key, and then press OK key.

1. Autonego: Auto-Negotiation (Default)
2. 100M Full: Fixed to 100 Mbps and Full Duplex mode.
3. 100M Half: Fixed to 100 Mbps and Half Duplex mode.
4. 10M Full: Fixed to 10 Mbps and Full Duplex mode.
5. 10M Half: Fixed to 10 Mbps and Half Duplex mode.

(b) 2. VLAN Mode (PC)

The display changes as follows when “2. VLAN Mode (PC)” is selected.

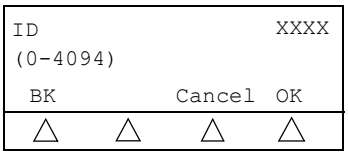


Determine whether VLAN is enabled or disabled by pressing each digit key, and then press OK key.

1. Disable: PC Port VLAN is disabled. (Default)
2. Enable: PC Port VLAN is enabled.

(c) 3. VLAN ID (PC)

The display changes as follows when “3. VLAN ID (PC)” is selected.

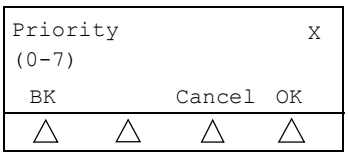


Set VLAN ID in the range from 0 to 4094 (The default value is 7.), and the press OK key.

Note: Pressing any key other than 0 to 9 is invalid.
To delete an entered character, press BK key.

(d) 4. VLAN Priority (PC)

The display changes as follows when “4. VLAN Priority (PC)” is selected.

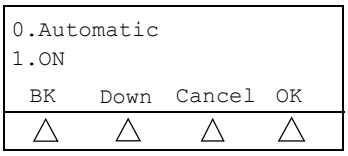


Set VLAN Priority in the range from 0 to 7 (The default value is 5.), and the press OK key.

Note: Pressing any key other than 0 to 7is invalid.
To delete an entered character, press BK key.

(e) 5. Port Available (PC)

The display changes as follows when "5. Port Available (PC)" is selected.



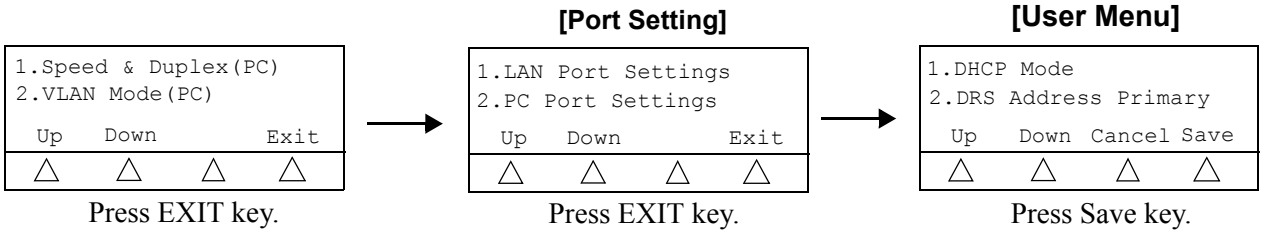
Choose one of the following by pressing each digit key, and then press OK key.

0. Automatic: According to the direction from the System. If there is no direction, PC port is enabled.

1. ON: According to the setting on terminal. (PC port is enabled.)

2. OFF: According to the setting on terminal. (PC port is disabled.)

STEP 1: All the necessary data is set, go back to the User Menu, and then press Save key.



Press EXIT key. Press EXIT key. Press Save key.

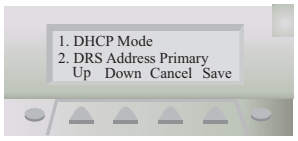
4.4.4.6 How to Change Area ID Data

By setting the Area ID data, audible tone such as Dial Tone or Ring Back Tone and the ringing pattern to be used by DtermIP/IP Enabled Dterm can be changed on an area (a country) basis. To set the Area ID data, follow the procedure below.

Note: This Area ID data except "0. Automatic (Factory value)" set from the terminal has precedence over the System Data.

STEP 1: Open the User Menu by pressing "Hold" + "Transfer" + "*" + "#" on the terminal while indicating time, an error message, or "DHCP Connecting.../DRS (1st) Connecting...".

[User Menu]



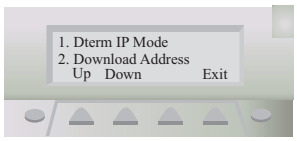
Two items are displayed on the terminal.

Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

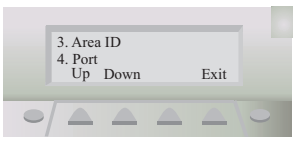
STEP 2: Open the Administrator Menu by pressing "Hold"+"#"+"0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]

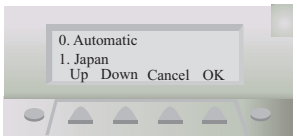


STEP 3: Select "3. Area ID" by pressing "3" key on the Administrator Menu.



STEP 4: The display changes as follows. Choose the area (country) for using the terminal by pressing 0~9 keys and then press "#" key.

The Maximum of 3 digits can be entered when selecting the area (country). For example, when selecting "3. Australia", press "3 + #", "0 + 3 + #" or "0 + 0 + 3 + #".



Area ID Menu List

Up / Down

0. Automatic
1. Japan
2. America
3. Australia
4. Others
5. HongKong
6. Malaysia
7. Singapore
8. England
9. Mexico
10. Taiwan
11. Newzealand
12. Korea
13. Brazil
14. China
15. Thailand
16. Thailand(EAGT)
17. Srilanka

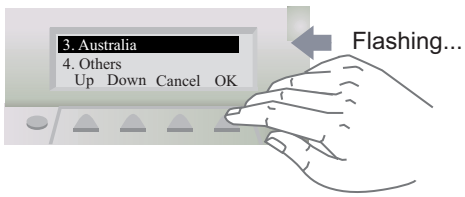
Note: When pressing the keys other than "0~9" and "#" during entering 3 digits, the already entered digits are all cleared.

A

A

STEP 5: After selecting the area (country) and pressing "#", the selected area name (ex. 3. Australia) starts flashing. Then press the OK key.

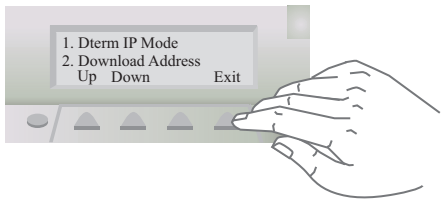
[Example:]



STEP 6: The Administrator Menu is displayed again.

Return to the User Menu by pressing Exit key.

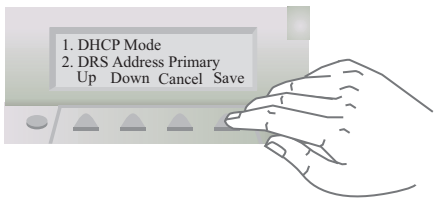
[Administrator Menu]



STEP 7: Press the Save key on the User Menu to save the assigned data.

When the data saving ends successfully, Area ID data assignment is complete.

[User Menu]



END

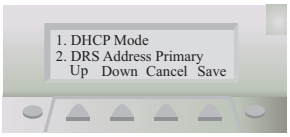
4.4.4.7 How to Set ToS Data

To set the ToS (Type of Service) data, follow the procedure below.

Note: ToS values, except the one that is sent to DRS, are set from PCPro (at the system side). Consequently, ToS value setting from the terminal is not especially required while the system is in operation.

STEP 1: Open the User Menu by pressing "Hold" + "Transfer" + "*" + "#" on the terminal while indicating time, an error message, or "DHCP Connecting.../DRS(1st) Connecting...".

[User Menu]



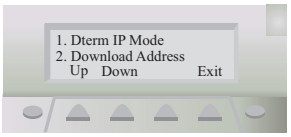
Two items are displayed on the IP Enabled Dterm.

Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

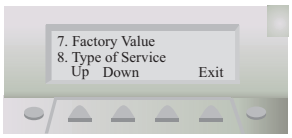
STEP 2: Open the Administrator Menu by pressing "Hold"+"#"+"0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]

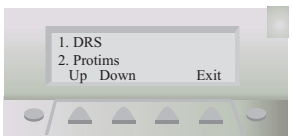


STEP 3: Select "8. Type of Service" by pressing "8" key on the Administrator Menu.

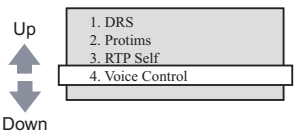


STEP 4: The display changes as follows. Choose one of the items from the menu.

1. DRS	: Press "1" key to change the ToS value that is sent to DRS.
2. Protims	: Press "2" key to change the ToS value that is sent to Protims.
3. RTP	: Press "3" key to change the ToS value that is sent to RTP.
4. Voice Control	: Press "4" key to change the ToS value that is sent to Voice Control.



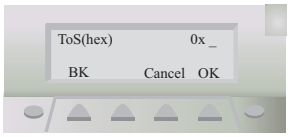
Type of Service Menu List



A

A

STEP 5: After one of the ToS values is selected, the display changes as follows. Enter the desired ToS value in hexadecimal, by using "0~9" and "#" keys.



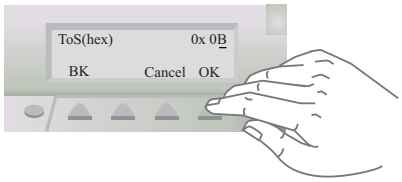
- When the appropriate number or alphanumeric character appears, press the "#" key.
- A~F can be entered by means of "2" or "3" key.
  "2" Key: 2 → A → B → C → (back to 2)
  "3" Key: 3 → D → E → F → (back to 3)

Example: When entering "0B"...

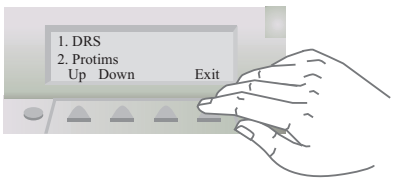
[Press "0" key (+ "#" Key)] [Press "2" key] [Press "2" key] [Press "2" key]



STEP 6: After the desired ToS value is entered, press the OK key to go back to the display of Step 4. If more than one ToS value needs to be set, repeat Steps 4 and 5.



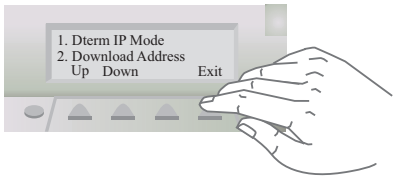
STEP 7: Press the Exit key to return to the Administrator Menu.



STEP 8: The Administrator Menu is displayed again.

Return to the User Menu by pressing Exit key.

[Administrator Menu]



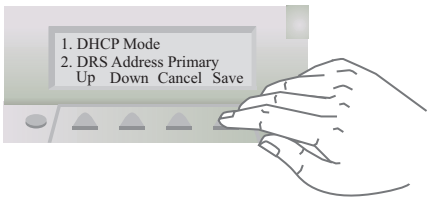
B

B

STEP 9: Press the Save key on the User Menu to save the assigned data.

When the data saving ends successfully, ToS value data assignment is complete.

[User Menu]



END

4.4.4.8 How to Register MAC Address onto the Telephony Server

MAC address can also be registered onto the Telephony Server from the terminal when initially connecting the terminal to the LAN and turning ON the power of the terminal. At this time, MAC Registration Password must be assigned by the ADTM command.

4.4.4.9 How to Download and Set Music On Hold

This section explains how to download and set Music On Hold to be heard by DtermIP/IP Enabled Dterm user.

<TFTP(FTP) Server IP Address Setting>

Before starting download of Music On Hold, an IP Address of the TFTP (FTP) Server must be entered from the DtermIP/IP Enabled Dterm. Follow the procedure below.

STEP 1: Set up the TFTP (FTP) server.

<TFTP server>
Designate the directory, where the program file is stored, as the directory for downloading.

Note: Do not change the file name or extension of the download file.

<FTP server>
Place the program file to be downloaded into the specified directory of the FTP server.

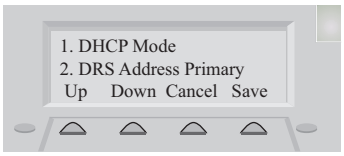
Note: Do not change the file name or extension of the download file.

STEP 2: Enter the necessary data for operation of the DtermIP/IP Enabled Dterm such as "DRS Address", "IP Address of the terminal" and "Subnet Mask" in advance.

STEP 3: Open the User Menu by pressing "Hold" + "Transfer" + "*" + "#" on the terminal

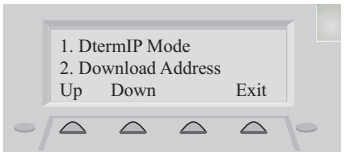
Two items are displayed on the IP Enabled Dterm.

[User Menu]



STEP 4: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

[Administrator Menu]

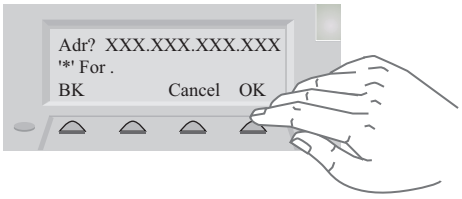


A

A

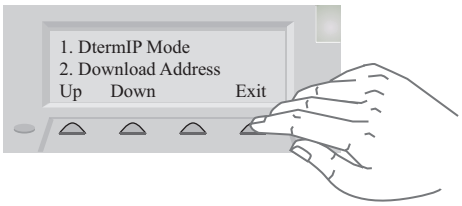
STEP 5: Select "2 Download Address" by pressing "2" on the Administrator Menu.

STEP 6: Enter the IP address of the TFTP (FTP) server, and press OK key.



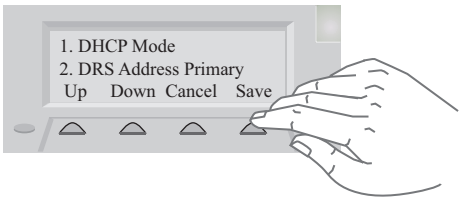
STEP 7: Return to the User Menu by pressing Exit key.

[Administrator Menu]



STEP 8: Press Save key to save the assigned data.

[User Menu]



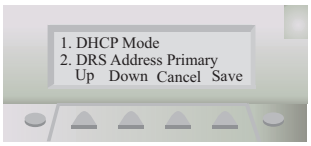
END

<Downloading Music On Hold>

STEP 1: Open the User Menu by pressing "Hold"+"Transfer"+"*"+"#" while the terminal is in normal operation, indicating an error message or "DHCP Connecting.../DRS(1st) Connecting..." on the display.

Two items are displayed on the terminal.

[User Menu]

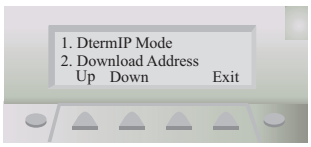


Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

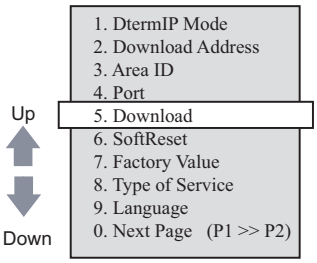
STEP 2: Open the Administrator Menu by pressing "Hold"+"#"+"0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]

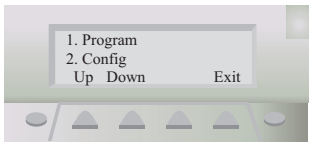


Administrator Menu List

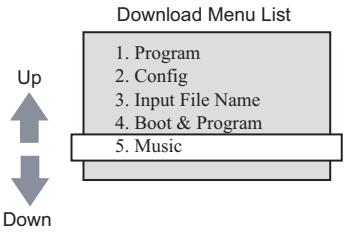


STEP 3: Select "5. Download" by pressing "5" on the menu. Download Menu is displayed.

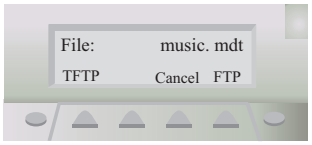
[Download Menu]



Download Menu List



STEP 4: Select "5. Music" by pressing "5" on the Download Menu. The display will change as follows.



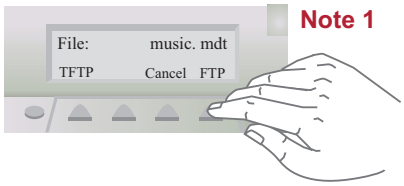
A

A

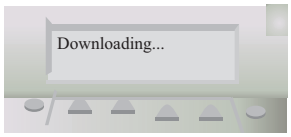
STEP 5: Press TFTP key (the leftmost soft key) for TFTP, or FTP key (the rightmost soft key) for FTP.

While download is in progress, "Downloading..." is displayed.

"Downloading" starts flashing.



Note 1

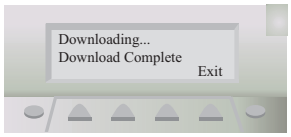


Note: Do Not Turn OFF the power of the DtermIP/IP Enabled Dterm while "Downloading..." is displayed. If the power is turned OFF, there is a possibility that the terminal cannot start up normally.

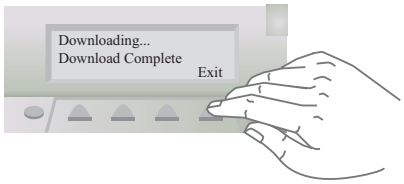
Note 1: In this example, press FTP key for FTP.

STEP 6: After a while, the display will change as follows indicating the download is completed.

"Download Complete" is displayed when the download is complete.

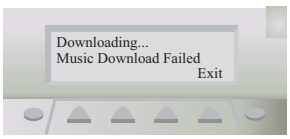


STEP 7: Press Exit key to reset the terminal. The terminal starts up again with the new Music On Hold.



End

Note: If the following message is displayed, the downloading has failed. Program download failure, wav format error or oversized file, etc. will cause the download failure.



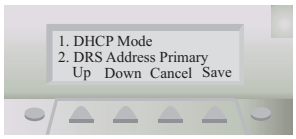
<Setting Music On Hold>

Note: The following procedure explains how to set Music On Hold to be heard by Dterm user.

STEP 1: Open the User Menu by pressing "Hold"+"Transfer"+"*"+"#" while the terminal is in normal operation, indicating an error message or "DHCP Connecting.../DRS(1st) Connecting..." on the display.

Two items are displayed on the terminal.

[User Menu]

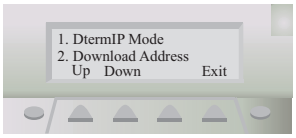


Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

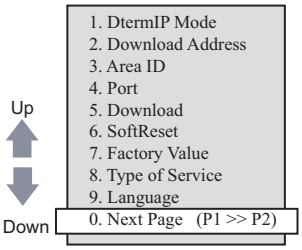
STEP 2: Open the Administrator Menu by pressing "Hold"+"#"+"0" on the User Menu.

The following Administrator Menu is displayed.

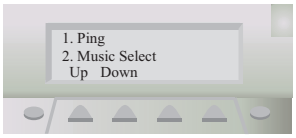
[Administrator Menu (Page 1)]



Administrator Menu (Page 1) List

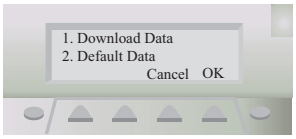


STEP 3: Select "0. Next Page (P1 >> P2)" by pressing "0" on the menu. The following Administrator Menu (Page 2) is displayed. Select "2. Music Select" by pressing "2" on the menu.



STEP 4: The currently setting for Music On Hold is flashing. To change the current setting for the Music On Hold, press the applicable number and then press OK key. If you don't need to change, press Cancel Key.

When using the downloaded Music On Hold ⟶ Download Data
When using the default Music On Hold ⟶ Default Data



After the Music On Hold selection has been made, return to the Administrator Menu by selecting "0. Next Page (P2 >> P1)".

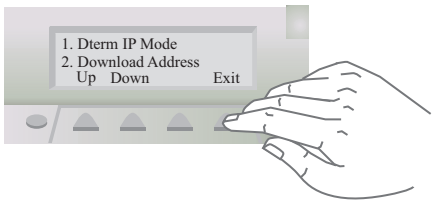
A

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STEP 5: When the above procedure is all completed, the Administrator Menu is displayed again.

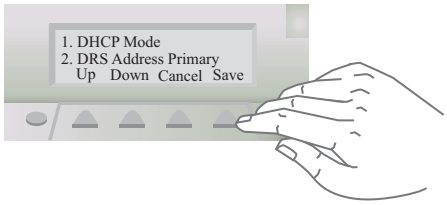
Return to the User Menu by pressing Exit key.

[Administrator Menu]



Step 6: Press the Save key on the User Menu to save the assigned data.

[User Menu]



End

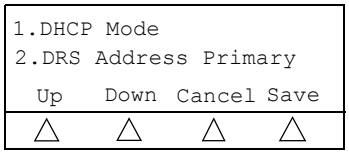
4.4.4.10 How to Send Ping Packet

To send packets from the IP Enabled Dterm by using the Ping command, follow the procedure below.

Note: When the IP addresses of the terminal and the destination is not set on the IP Enabled Dterm, Ping Packet cannot be sent.

STEP 1:Open the User Menu by pressing "Hold" + "Transfer" + "*" + "#" on the terminal while indicating time, an error message, or "DHCP Connecting.../DRS (1st) Connecting...".

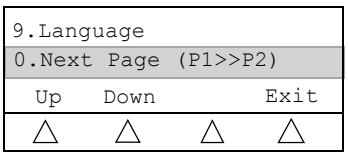
[User Menu]



Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

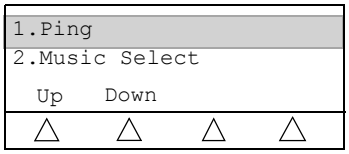
STEP 2: Open the Administrator Menu (Page 1) by pressing "Hold"+"#"+"0" on the User Menu. Select "0. Next Page (P1 >> P2)" by pressing "0" on the Administrator Menu (Page 1).

[Administrator Menu (Page1)]



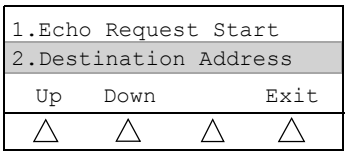
STEP 3: The Administrator Menu (Page 2) is displayed. Select "1. Ping" by pressing "1" key.

[Administrator Menu (Page2)]

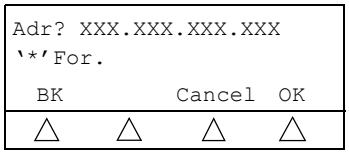


STEP 4: The following Ping Menu is displayed. Select "2. Destination Address" by pressing "2" key.

[Ping Menu]

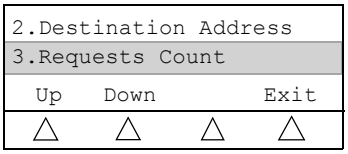


STEP 5: Enter the destination IP address, and then press OK Key.

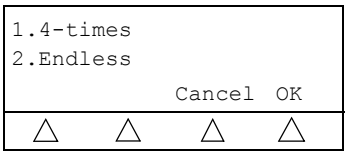


STEP 6: Ping Menu will appear again. Select "3. Request Count" by pressing "3" key.

[Ping Menu]

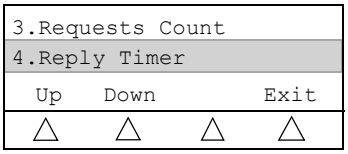


STEP 7: Select either "1. 4-times" or "2. Endless," and then press OK Key.

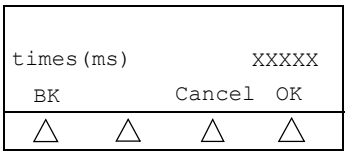


STEP 8: Ping Menu will appear again. Select "4. Reply Timer" by pressing "4" key.

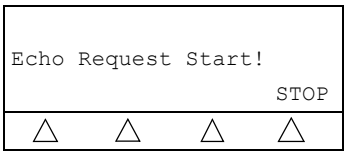
[Ping Menu]

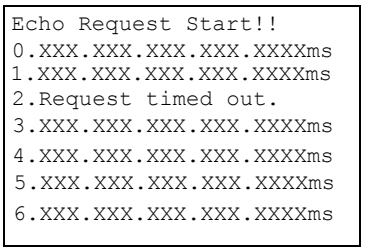


STEP 9: Set the timer (1-10000), and then press OK Key.

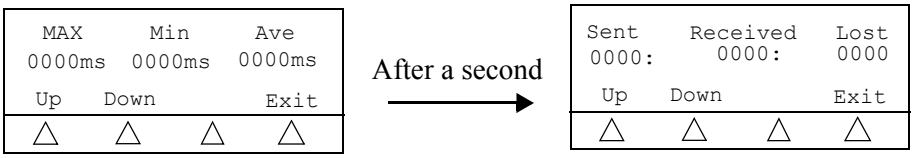


STEP 10: Select “1. Echo Request Start” by pressing “1” on Ping Menu. The following display appears and the terminal starts to send Ping.





STEP 11: When the sending of Ping is completed or "STOP" Key is pressed, the sending report will be displayed as follows.



STEP 12: Go back to Ping Menu by pressing EXIT key.

4.4.4.11 How to Set Language for Time Display

To set language for Time Display of DtermIP/IP Enabled Dterm, follow the procedure below.

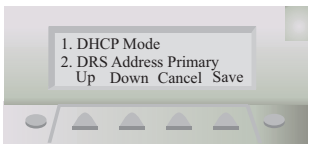
The following languages are supported by each terminal:

- IP Enabled Dterm (Dterm Series i), DtermIP: Automatic (according to the System Data setting), English, Portuguese, Spanish, French, German, Italian, Dutch, Norwegian, Danish, Swedish

STEP 1: Open the User Menu by pressing "Hold"+"Transfer"+"*"+"#" while the terminal is in normal operation, indicating an error message or "DHCP Connecting.../DRS(1st) Connecting..." on the display.

Two items are displayed on the terminal.

[User Menu]

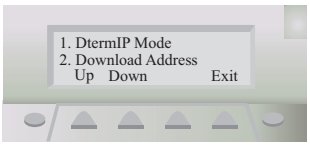


Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

STEP 2: Open the Administrator Menu by pressing "Hold"+"#"+"0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]



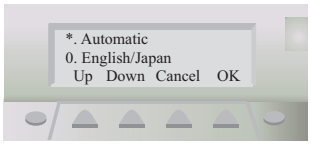
Administrator Menu List

Up

Down

1. DtermIP Mode
2. Download Address
3. Area ID
4. Port
5. Download
6. SoftReset
7. Factory Value
8. Type of Service
9. Language
0. Next Page (P1 >> P2)

STEP 3: Select "9. Language" by pressing "9" on the menu. The display changes as follows.



Language Items

Up

Down

*. Automatic
0. English/Japan
1. Portuguese
2. Spanish
3. French
4. German
5. Italian
6. Dutch
7. Norwegian
8. Danish
9. Swedish

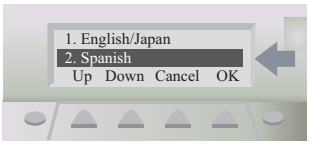
A

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STEP 4: Select the desired language by pressing "*" and "0-9" Keys. After entering the appropriate number, press the "#" Key.

(Example) When selecting "2. Spanish":

1. Enter "2", "02" or "002".
2. Press the "#" Key.
3. "2. Spanish" on the display starts to flash.

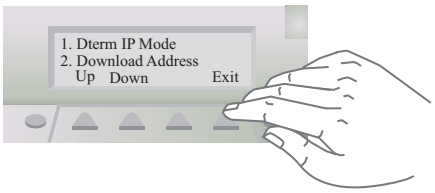


Note: Be sure to press the "#" Key after entering the appropriate number.
When pressing the keys other than "0-9", "*" and "#", the entered numbers will be cleared.

STEP 5: Press OK Key on the above menu and go back to the Administrator Menu.

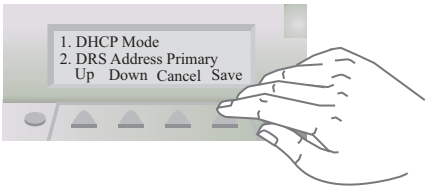
Return to the User Menu by pressing Exit key.

[Administrator Menu]



Step 6: Press the Save key on the User Menu to save the assigned data.

[User Menu]



End

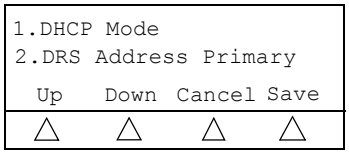
4.4.4.12 How to Switch DTMF/RTP Alarm ON and OFF

To switch DTMF/RTP alarm ON and OFF, follow the procedure below.

<For Dterm Series *i*>

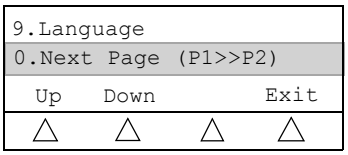
STEP 1: Open the User Menu by pressing "Hold" + "Transfer" + "*" + "#" on the terminal while indicating time, an error message, or "DHCP Connecting.../DRS (1st) Connecting...".

[User Menu]



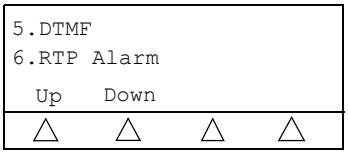
STEP 2: Open the Administrator Menu (Page 1) by pressing "Hold"+"#"+"0" on the User Menu. Select "0. Next Page (P1 >> P2)" by pressing "0" on the Administrator Menu (Page 1).

[Administrator Menu (Page1)]

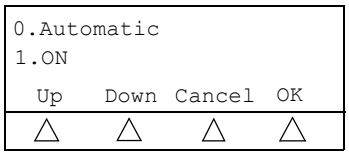


STEP 3: The Administrator Menu (Page 2) is displayed. Select "5. DTMF" by pressing "5" for DTMF setting. Select "6. RTP Alarm" by pressing "6" for RTP alarm setting.

[Administrator Menu (Page2)]



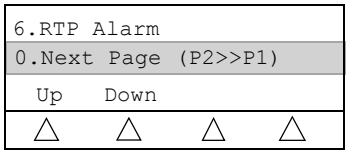
STEP 4: The display changes as follows. Choose either “0. Automatic”, “1. ON” or “2.OFF” by pressing each digit key. Then press the OK key.



0. Automatic: Follow the setting on the System. If no setting is made in the System, the default setting (DTMF=OFF/RTP Alarm=ON) is applied.
1. ON: Follow the setting on the terminal (ON).
2. OFF Follow the setting on the terminal (OFF).

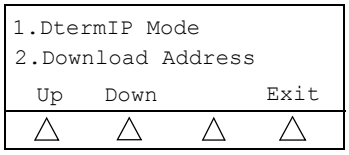
STEP 5: Go back to the Administrator Menu (Page 1) by pressing “0” key on the Page 2. Then, go back to the User Menu by pressing the EXIT key. On the User Menu, press the Save key to save the setting data.

[Administrator Menu (Page2)]



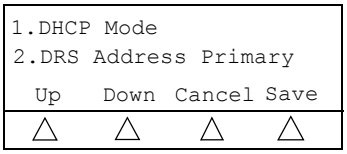
Press “0” key.

[Administrator Menu (Page1)]



Press “Exit” key.

[User Menu]



Press “Save” key.

4.4.5 Program Download

- Preparation before Downloading

Prepare the following before starting download:

- DtermIP/IP Enabled Dterm
- Equipment having FTP (TFTP) server function such as a PC
- Device and cable for connecting DtermIP/IP Enabled Dterm and FTP (TFTP) server: HUB, LAN cables
- Program file to be downloaded.

Kind of Terminal	Files to be downloaded
IP Enabled Dterm (Dterm Series i)	ramhp2pr.hex
DtermIP	ramhp2pw.out

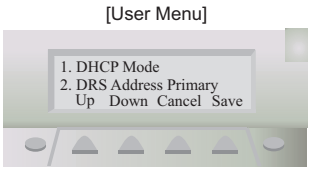
Note: The “ramhprt.hex” file applies only to the non peer-to-peer (Protims) IP phones.

4.4.5.1 Confirmation of File to be Downloaded

Before starting Program Download, confirm the file to be downloaded using the procedure shown below.

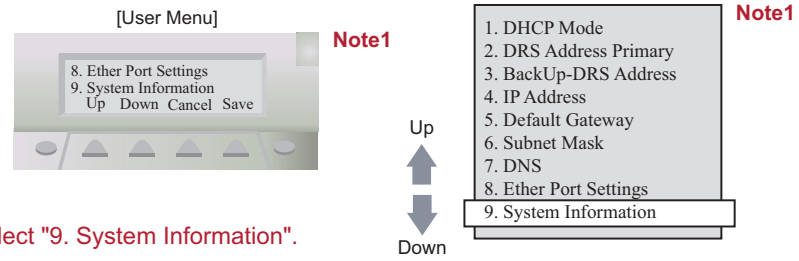
Note: Set the necessary data for operation of the IP Enabled Dterm such as “DRS Address,” “IP Address of the terminal” and “Subnet Mask” in advance.

STEP 1: While the terminal is in normal operation, or indicating an error message or "DHCP Connecting.../DRS(1st) Connecting..." on the display, open the User Menu by pressing "Hold" + "Transfer" + "*" +"#" on the terminal.



Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

STEP 2: Select "System Information" by pressing "9" or "7" on the User Menu.



Note1: In this example, select "9. System Information".

STEP 3: Press the "Up" key twice or once and confirm the Firmware version.

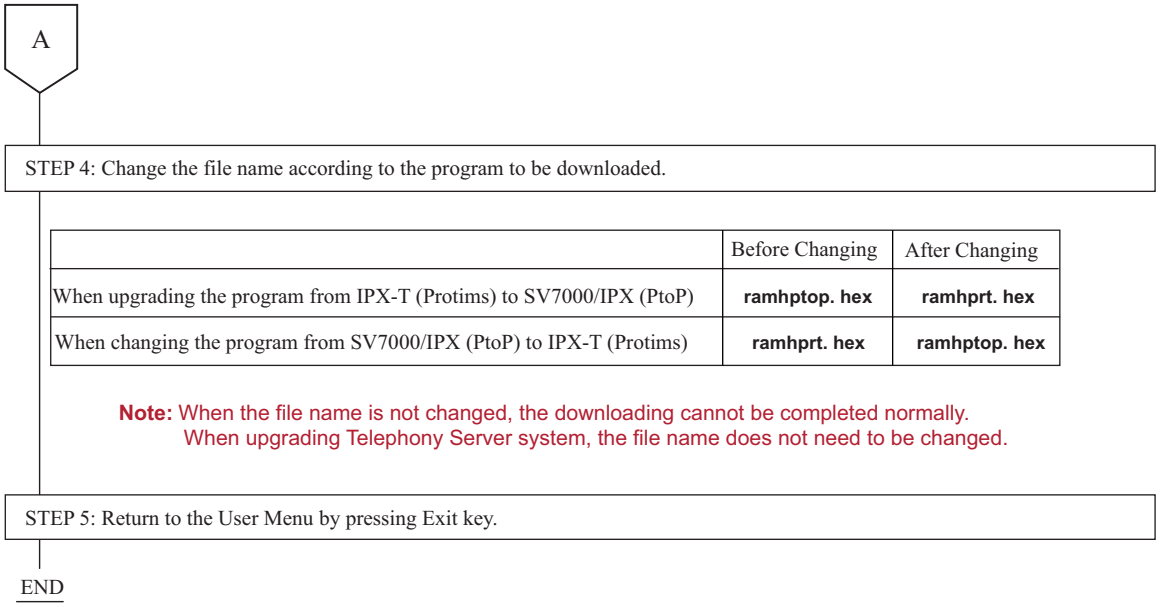
Check whether "PtoP" is displayed or not next to the "Firmware Version."



When "PtoP" is indicated:
IP Enabled Dterm is presently operated with the program for SV7000, IPX (Peer-to-Peer).
When "PtoP" is not indicated:
IP Enabled Dterm is presently operated with the program for IPX-T (Protims).

Note2: For Dterm Series i, "Firmware Version(P2PR)" is displayed.
For Dterm IP, "Firmware Version(P2PW)" is displayed.

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	Before Changing	After Changing
When upgrading the program from IPX-T (Protims) to SV7000/IPX (PtoP)	**ramhptop. hex**	**ramhprt. hex**
When changing the program from SV7000/IPX (PtoP) to IPX-T (Protims)	**ramhprt. hex**	**ramhptop. hex**

Note: When the file name is not changed, the downloading cannot be completed normally.
When upgrading Telephony Server system, the file name does not need to be changed.

Caution: *Observe the following while performing the downloading procedure:*
- *Do Not Turn OFF the power of the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DtermIP/IP Enabled Dterm, the Telephony Server, DHCP.*

Caution: *When the download is performed, the data assigned to each parameter of the Configuration Menu is set to the default setting (factory value). Please take notes of the each setting data in advance.*

4.4.5.2 TFTP (FTP) Server IP Address Setting

The following shows the procedure for downloading on the config menu. Before downloading, install the TFTP (FTP) server and the DtermIP/IP Enabled Dterm on the same network

STEP 1: Set up the TFTP (FTP) server.

<TFTP server>
Designate the directory , where the program file is stored, as the [IP Enabled Dterm (Dterm Series E /Dterm 75): ramhptop.hex (ramhprt.hex), IP Enabled Dterm (Dterm Series i): ramhp2pr.hex, DtermIP: ramhp2pw.out] directory for downloading.

Note: Do not change the file name or extension of the download program file.

<FTP server>
Place download program file [IP Enabled Dterm (Dterm E/Dterm 75): ramhptop.hex (ramhprt.hex), IP Enabled Dterm (Dterm Series i): ramhp2pr.hex, Dterm: ramhp2pw.out] in the appropriate directory in advance.

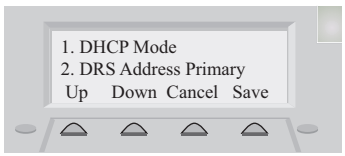
Note: Do not change the file name or extension of the download program file.

STEP 2: Enter the necessary data for operation of the terminal such as "DRS Address", "IP Address of the terminal" and "Subnet Mask" in advance.

STEP 3: Open the User Menu by pressing "Hold" + "Transfer" + "*" + "#" on the terminal.

Two items are displayed on the terminal.

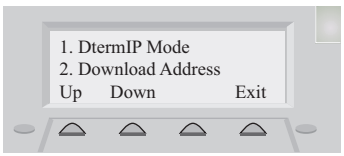
[User Menu]



STEP 4: Open the Administrator Menu by pressing "Hold" + "#" + "0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]



Up / Down

Administrator Menu List

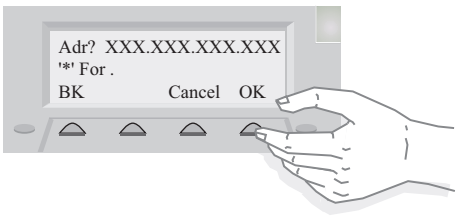
1. DtermIP Mode
2. Download Address
3. Area ID
4. Port
5. Download
6. SoftReset
7. Factory Value
8. Type of Service
9. Language
0. Next Page (P1 >> P2)

A

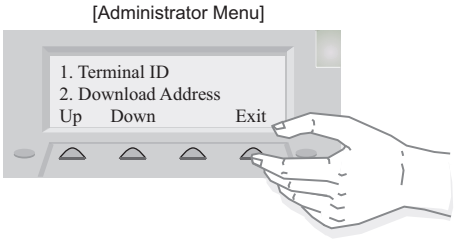
A

STEP 5: Select "2 Download Address" by pressing "2" on the Administrator Menu.

STEP 6: Set the IP address of the FTP (TFTP) server, and press OK key.

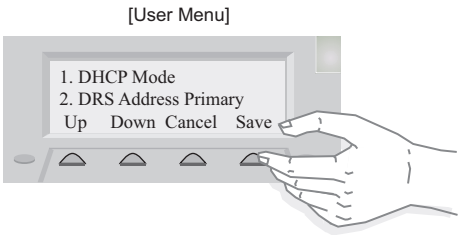


STEP 7: Return to the User Menu by pressing Exit key.



STEP 8: Press Save key to save the assigned data.

When the saving ends successfully, configuration data assignment is complete.



END

4.4.5.3 Program Downloading

The download procedure varies depending on the program to be downloaded:

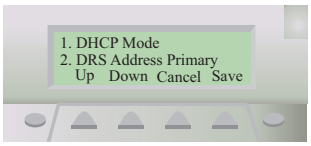
- When upgrading PtoP, refer to “Program Download 1: Upgrading PtoP”.

<Upgrading PtoP (Program Download 1)>

STEP 1: Open the User Menu by pressing "Hold"+"Transfer"+"*"+"#" while the IP Enabled Dterm is in normal operation, indicating an error message or "DHCP Connecting.../DRS(1st) Connecting..." on the display.

Two items are displayed on the IP Enabled Dterm.

[User Menu]

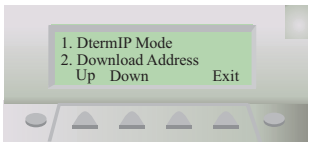


Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

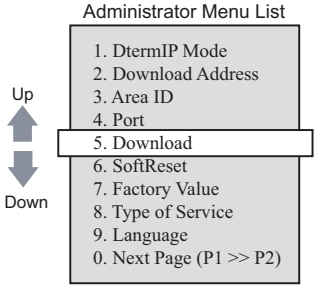
STEP 2: Open the Administrator Menu by pressing "Hold"+"#"+"0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]

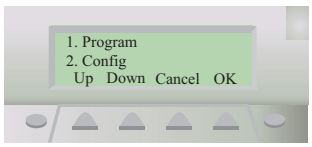


Administrator Menu List

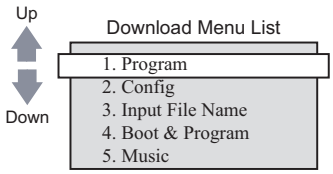


STEP 3: Select "5. Download" by pressing "5" on the menu. Download Menu is displayed.

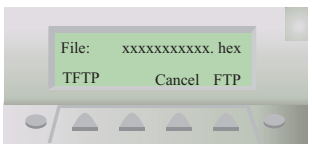
[Download Menu]



Download Menu List



STEP 4: Select "1. Program" by pressing "1" on the Download Menu. The display will change as follows.

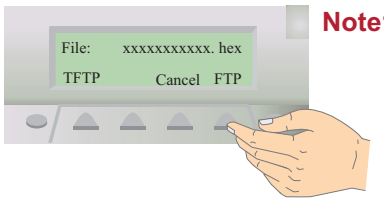


A

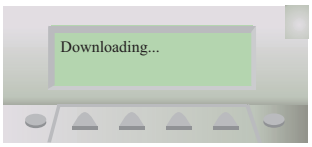
A

STEP 5: Press TFTP key (the leftmost soft key) for TFTP, or FTP key (the rightmost soft key) for FTP.

While download is in progress, "Downloading..." is displayed.



Note1

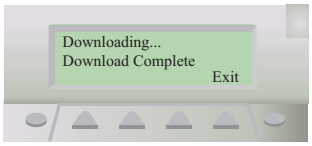


Note1: In this example, press FTP key for FTP.

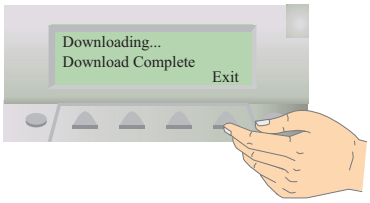
Caution: Do Not Trun OFF the power of the IP Enabled Dterm while "Downloading..." is displayed. If the power is turned OFF, there is a possibility that the IP Enabled Dterm cannot start up normally.

STEP 6: After a while, the display will change as follows indicating the download is completed.

"Download Complete" is displayed when the download is complete.



STEP 7: Press Exit key to reset the IP Enabled Dterm. The terminal starts up again with the new program.



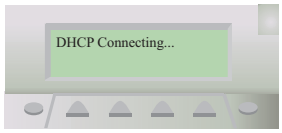
B

B

STEP 8: Wait for a moment until the IP Enabled Dterm starts up again. IP Enabled Dterm starts setup process with DRS on the LAN, indicating "DHCP Connecting.../DRS(1st) Connecting..." on the display.

While indicating "DHCP Connecting/DRS(1st) Connecting" on the display, open the User Menu by pressing "Hold" + "Transfer" + "*" + "#" on the IP Enabled Dterm.

Ex.)



or

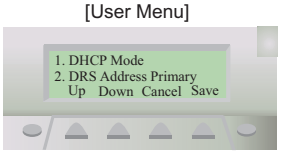


Caution: Do not Turn OFF the power of the IP Enabled Dterm before it starts up again.

Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

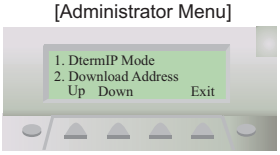
STEP 9: Open the Administrator Menu by pressing "Hold" + "#" + "0".

[User Menu]



STEP 10: Select "7. Factory Value" by pressing "7" key on the Administrator Menu.

[Administrator Menu]



Administrator Menu List

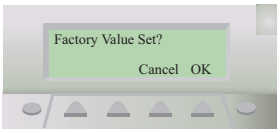
Up

Down

1. DtermIP Mode
2. Download Address
3. Area ID
4. Port
5. Download
6. SoftReset
7. Factory Value
8. Type of Service
9. Language
0. Next Page (P1 >> P2)

STEP 11: "Factory Value Set?" is displayed. Press OK key.

By pressing the OK key, the display automatically returns to the Administrator Menu.



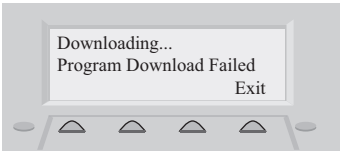
STEP 12: Reassign the configuration data to each parameter, as needed.

END

<Download Failure>

Download Failure

If the following information is displayed, the program download ended in failure. Determine the cause of the failure referring to the table below.



No.	Check Points	Actions
1	Download file exists in the specified directory?	FTP: Place the Download file in the specified directory. TFTP: Specify the directory having the Download file.
2	The file name of the download file is correct?	Rename the file as "ramhptop.hex (ramhprt.hex)/ramhp2pr.hex /ramhp2pw.out .
3	TFTP (FTP) server Address assigned in the IP Enabled Dterm is correct?	Assign the IP address of the TFTP (FTP) on the network.
4	The TFTP server and the IP Enabled Dterm exist on the same subnet (segment)?	Reconnect the TFTP server and/or the IP Enabled Dterm on the same subnet (segment).
5	The power of the IP Enabled Dterm/Telephony Server/DHCP/TFTP (FTP) server is ON? The DHCP server is functioning as a server?	Turn ON the power if the power is OFF.
6	The LAN cable for the IP Enabled Dterm/Telephony Server/DHCP/TFTP (FTP) server is securely connected?	Reconnect the cable.
7	The power of the HUB connecting to the IP Enabled Dterm/Telephony Server /DHCP/TFTP (FTP) server is ON?	Turn ON the power of the HUB.

Perform the program download again following the instructions listed above. If the download ends in failure again, there is a possibility that the memory of the IP Enabled Dterm is crashed. In this case, please inquire to maintenance personnel.

<Program Download by Specifying File Name (Additional Information)>

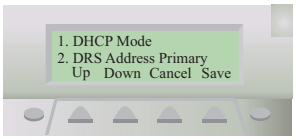
Program Download can also be executed by specifying the file name (only the file name which can be recognized by the IP Enabled Dterm) to be downloaded. Follow the procedure shown below.

Note: Set the necessary data such as “IP Address of the terminal”, “Subnet Mask”, “Gateway address” and “Download address” in advance.

STEP 1: Open the User Menu by pressing "Hold"+"Transfer"+"*"+"#" while the IP Enabled Dterm is in normal operation, indicating an error message or "DHCP Connecting.../DRS(1st) Connecting..." on the display.

Two items are displayed on the IP Enabled Dterm.

[User Menu]

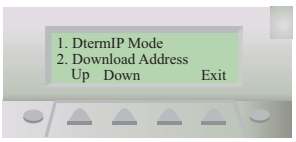


Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

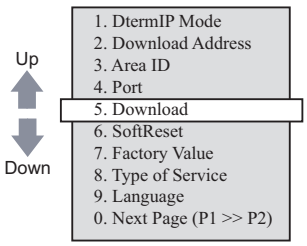
STEP 2: Open the Administrator Menu by pressing "Hold"+"#"+"0" on the User Menu.

The following Administrator Menu is displayed.

[Administrator Menu]

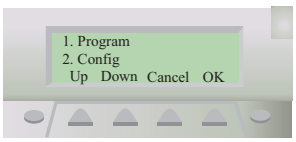


Administrator Menu List

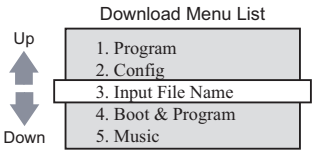


STEP 3: Select "5. Download" by pressing "5" on the menu. Download Menu is displayed.

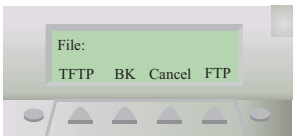
[Download Menu]



Download Menu List



STEP 4: Select "3. Input File Name" by pressing "3" on the Download Menu. The following display will appear.



Enter the file name to be downloaded by pressing "numeric keys", "*" or "#" on the terminal.

A

A

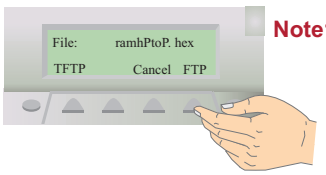
STEP 5: Enter the file name to be downloaded by pressing "numeric keys", "∗" or "#" on the terminal.

Enterable Alphanumeric Characters List

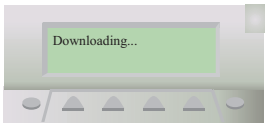
Keys	Enterable Alphanumeric Characters
1	1
2	2 → A → B → C → a → b → c → (back to 2)
3	3 → D → E → F → d → e → f → (back to 3)
4	4 → G → H → I → g → h → i → (back to 4)
5	5 → J → K → L → j → k → l → (back to 5)
6	6 → M → N → O → m → n → o → (back to 6)
7	7 → P → Q → R → S → p → q → r → s → (back to 7)
8	8 → T → U → V → t → u → v → (back to 8)
9	9 → W → X → Y → Z → w → x → y → z → (back to 9)
∗	∗ → # → . → - → _ → (back to ∗)
0	0
#	Moves the cursor one space to the right.

STEP 6: After entering the file name, press TFTP key (the leftmost soft key) for TFTP, or FTP key (the rightmost soft key) for FTP.

While download is in progress, "Downloading..." is displayed.



Note1

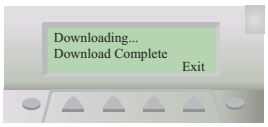


Note: In this example, press FTP key for FTP.

Caution: Do Not Turn OFF the power of the IP Enabled Dterm while "Downloading..." is displayed. If the power is turned OFF, there is a possibility that the IP Enabled Dterm cannot start up normally.

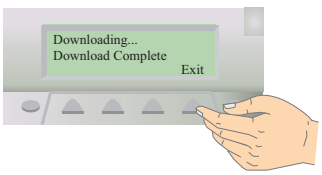
STEP 7: After a while, the display will change as follows indicating the download is completed.

"Download Complete" is displayed when the download is complete.



STEP 8: Press Exit key to reset the IP Enabled Dterm. The terminal starts up again with the new program.

At this time, configuration data saved at the previous step is retained even if the terminal is reset. Data reassignment is not required.



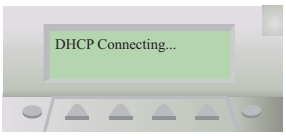
B

B

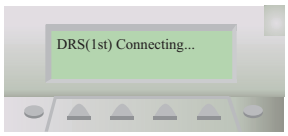
STEP 9: Wait for a while until the IP Enabled Dterm starts up again. IP Enabled Dterm starts setup process with DRS on the LAN, indicating "DHCP Connecting.../DRS(1st) Connecting..." on the display.

While indicating "DHCP Connecting.../DRS(1st) Connecting..." on the display, open the User Menu by pressing "Hold" + "Transfer" + "*" + "#" on the IP Enabled Dterm.

Ex.)



or

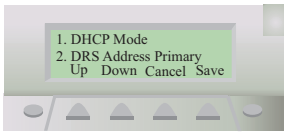


Caution: Do not Turn OFF the power of the IP Enabled Dterm before it starts up again.

Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

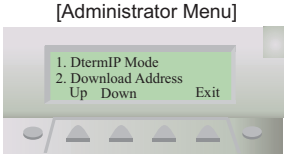
STEP 10: Open the Administrator Menu by pressing "Hold" + "#" + "0".

[User Menu]



STEP 11: Select "7. Factory Value" by pressing "7" key on the Administrator Menu.

[Administrator Menu]



Administrator Menu List

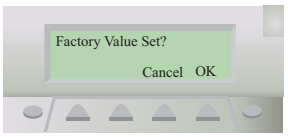
Up

Down

1. DtermIP Mode
2. Download Address
3. Area ID
4. Port
5. Download
6. SoftReset
7. Factory Value
8. Type of Service
9. Language
0. Next Page (P1 >> P2)

STEP 12: "Factory Value Set?" is displayed. Press OK key.

By pressing the OK key, the display automatically returns to the Administrator Menu.



STEP 13: Reassign the configuration data to each parameter.

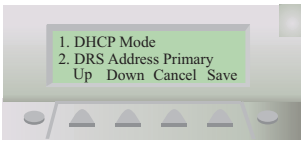
END

4.4.6 Changing Port Number

When the port number (default port number) already assigned to the IP Enabled Dterm cannot be used because of the proxy setting, etc., the default port number can be changed from the terminal according to the procedure below.

STEP 1: While the IP Enabled Dterm is in normal operation, or indicating an error message or "DHCP Connecting/DRS(1st) Connecting" on the display, open the User Menu by pressing "Hold" + "Transfer" + "*" +"#" on the IP Enabled Dterm.

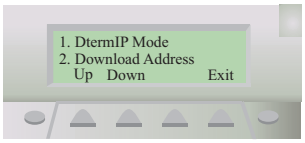
[User Menu]



Note: When using Backup DRS, "DRS(2nd) Connecting...", "DRS(3rd) Connecting...", or "DRS(4th) Connecting..." will be displayed instead of "DRS(1st) Connecting...".

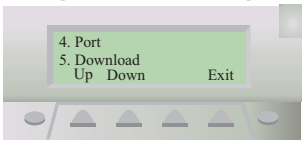
STEP 2: Open the Administrator Menu by pressing "Hold" + "#" + "0".

[Administrator Menu]



STEP 3: Select "Port" by pressing "4" key on the Administrator Menu.

[Administrator Menu]



Up

Down

Administrator Menu List

1. DtermIP Mode
2. Download Address
3. Area ID
4. Port
5. Download
6. SoftReset
7. Factory Value
8. Type of Service
9. Language
0. Next Page (P1 >> P2)

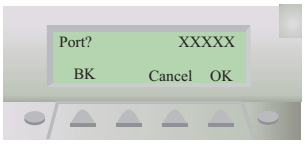
STEP 4: The followings are included in the menu list, select an item (port) from DRS Mate Port/DRS Self Port/Protims Self Port/ RTP Self Port/Voice Control Port/H245 Self Port.

<1. DRS Mate Port>
Select this when changing DRS Port Number used for receiving message from IP Enabled Dterm.
<2. DRS Self Port>
Select this when changing IP Enabled Dterm Port Number used for sending/receiving messages to/from DRS.
<3. Protims Self Port>
Select this when changing IP Enabled Dterm Port Number used for sending/receiving PROTIMS signals.
<4. RTP Self Port>
Select this when changing IP Enabled Dterm Port Number used for sending/receiving RTP data.
<5. Voice Control Port>
Select this when changing IP Enabled Dterm Port Number used for sending/receiving Voice Control.
<6. H245 Self Port>
Select this when changing IP Enabled Dterm Port Number used for sending/receiving H. 245.

A

A

STEP 5: After selecting a port to be changed in the step 4, the display changes as follows. Enter the new port number and press OK key.



Caution:

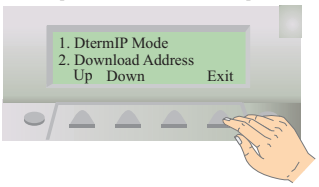
1. "Well-known port" (0-1023) cannot be used except for DRS Mate Port.
2. Changeable port numbers are as follows:
   - DRS Mate Port: 1-65535 (Default is 3456)
   - DRS Self Port: 1024-65535 (Default is 3455)
   - Protims Self Port: 1024-65535 (Default is 3458)
   - RTP Self Port: 1024-65472 (Default is 3462)
   - Voice Control Port: 1-65535 (Default is 4000)
   - H245 Self Port: 0, 1024-65504 [Default is 0 (Any Port) **Note1**]

   Note1: When assigning "0" for H245 Self Port, the desired idle port will be used.
   When another port number (other than 0) is assigned, a 32 port range is assigned, starting with that number
   For example, if 5000 is entered, ports 5000-5031 will be randomly used for the H.245 self port.
3. When changing port numbers of IP Enabled Dterm, be sure to assign a unique port number for each port. If a duplicate port number is assigned, the IP Enabled Dterm cannot start up (After the port number change is completed, an error message "Port Number Duplicate" will be issued.).
4. A total of 64 ports are used for the RTP Self Port. For example, when "3462" is assigned as a RTP Self Port, the port numbers from "3462" to "3525" are automatically used as RTP Self Ports. Therefore, at this time, the port numbers "3462"-"3525" cannot be used for other IP Enabled Dterm ports.
5. A total of 32 ports are used for H245 Self Port.
6. Odd-numbered ports cannot be assigned for the RTP Self Port

STEP 6: If more than one port number must be changed, repeat the step 4 and 5.

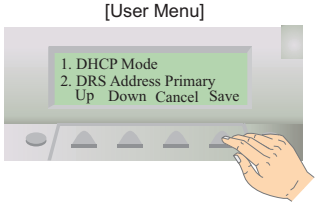
STEP 7: When the port number change is all completed, press Exit key and return to the Administrator Menu.

[Administrator Menu]



STEP 8: Press the Exit key to return to the User Menu and save the assigned data by pressing the Save key.

[User Menu]



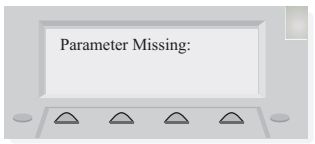
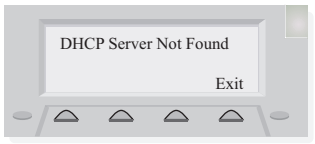
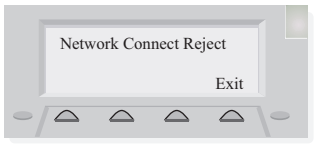
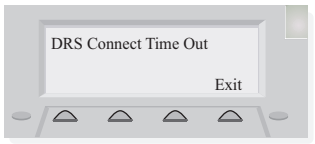
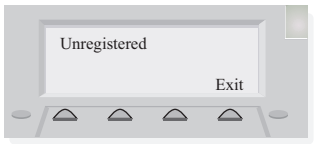
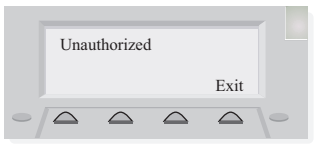
END

Note: If the error message "Port Number Duplicate" is issued at this time or after IP Enabled Dterm starts up again, reassign a unique port number to the DRS Self Port, Protims Self Port, RTP Self Port and Voice Control Port, referring to the procedure described in this section.

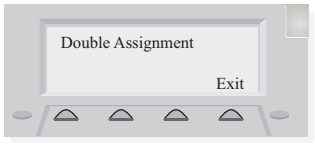
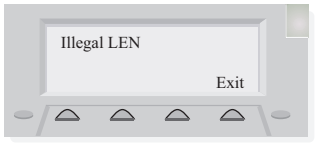
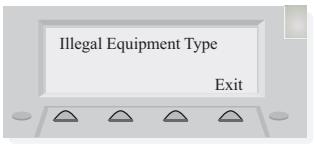
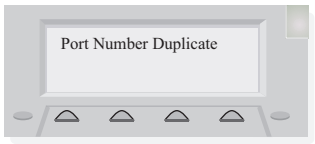
4.4.7 Error Messages

The following messages may be displayed when an error occurs during IP Enabled Dterm setup.

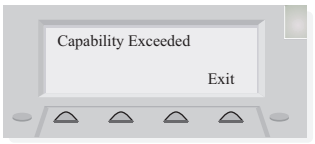
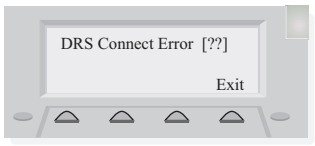
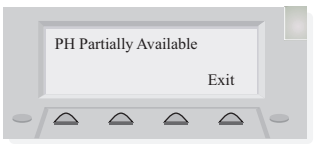
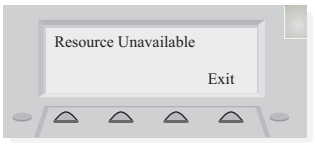
Error Message of IP Enabled Dterm (1/4)

ERROR MESSAGES	EXAMPLE	ACTION
Parameter is Abnormal 	In spite of "DHCP Disable," the IP address of the terminal has not been assigned.	• Correct the data assignment. • Check the data assignment on "config" display, saving the data again. • If the error still remains, the flash ROM may be faulty.
DHCP server cannot be found 	No answer from the DHCP server, after sending a request from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Connect a DHCP server to the same network. • Change the IP Enabled Dterm parameter to "DHCP Disable." • Connect the IP Enabled Dterm to the network.
Cannot to Connect Network 	Request was rejected by the DHCP server, after sending a request from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Investigate the reasons why the DHCP server rejected the request.
DRS Connection Timeout 	No answer from DRS, after sending "initial setup request" from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Connect the Telephony Server to the same network. • Assign the same IP address to the DRS connected to the network and the IP Enabled Dterm. • Connect the IP Enabled Dterm to the network.
IP Enabled Dterm is not Registered 	"Unregistered" is received from DRS, after sending "initial setup request" from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Assign the corresponding IP Enabled Dterm to the System.
Entered password is rejected 	An invalid password is entered when the user attempts to log in to the IP Enabled Dterm set in Login mode. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Enter the correct password again. (When an unknown station number (station number that is not stored in the System memory Card) is also entered, this message will be issued.)

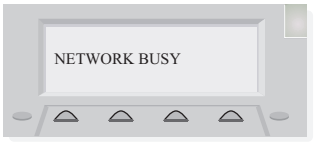
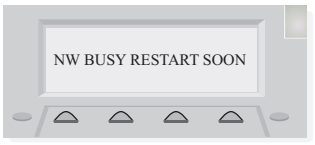
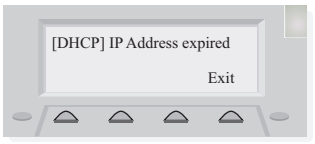
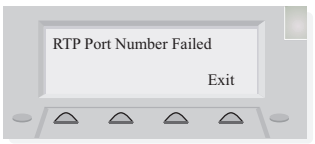
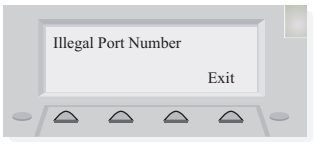
Error Messages of IP Enabled Dterm (2/4)

ERROR MESSAGES	MEANING	ACTION
IP Enabled Dterm double assignment 	"Double Assignment" was received from DRS, after sending "initial setup request" from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Change the data assigned at the System.
Illegal Line Equipment Number 	"Illegal LEN" was received from the DRS, after sending "initial setup request" from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Change the LENS of the IP Enabled Dterm at the System.
PH cannot hunted 	IP Enabled Dterm cannot hunted the proper PH, after sending "initial setup request" from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Investigate the reason why the PH cannot be used. • Ask System maintenance personnel for the reason why PH cannot be used.
Registration Module Cannot Recognize Equipment Type 	Registration Module cannot recognize the equipment type message received from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Reset the Telephony Server.
Configuration data duplicate in Port Number is downloaded or registered. 	IP Enabled Dterm doesn't work because duplicate port numbers are assigned to the DRS Self Port, Protims Self Port, RTP Self Port and Voice Control Port.	• Assign a unique port number to the DRS Self Port, Protims Self Port, RT Self Port and Voice Control Port again, referring to "5. Charging Port Number".

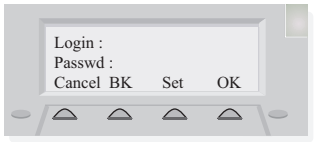
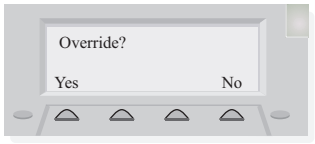
Error Messages of IP Enabled Dterm (3/4)

ERROR MESSAGES	MEANING	ACTION
Licensed Number of IP Terminals is exceeded. 	The system has reached its licensed Registration limit.	• Please contact the system maintenance personnel for further information.
Unrecognized Error Information Received 	“Unrecognized error information” is received from DRS, after sending “initial setup request” from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Inquire the indicated value in brackets to the upper equipment side.
PH cannot partially be used 	IP Enabled Dterm cannot hunt the proper PH, after sending "initial setup request" from the IP Enabled Dterm. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Ask system maintenance personnel for the reason why PH cannot be used.
Telephony Server resource not available 	Registration cannot be performed because Telephony Server's resources are not available.	• Please contact the system maintenance personnel for further information.
Telephony Server Internal Process Error 	An error concerning the Telephony Server internal process has occurred. (From this indication, configuration display can be shown by the ordinary configuration data assignment operation.)	• Please contact the system maintenance personnel for further information.

Error Messages of IP Enabled Dterm (4/4)

ERROR MESSAGES	MEANING	ACTION
IP Enabled Dterm cannot contact with the Telephony Server 	IP Enabled Dterm cannot receive the Ack message for Call Control data from the Telephony Server because of network congestion.	• Check the network status and condition. • Check the cable connection.
A Restart of the IP Enabled Dterm 	IP Enabled Dterm will be restarted automatically within five seconds, because the status that IP Enabled Dterm cannot be receive Ack message from the Telephony Server has been continued for one minute and 30 seconds.	• Check the network status and condition. • Check the cable connection.
DHCP Server failed to renew a lease for the IP address. 	Though DHCP Server attempted to renew a lease for the IP address, the server didn't send back the response.	• Check the setting at DHCP Server and cable connection.
An odd number is assigned as RTP Self Port. 	Invalid Port Number(s) is (are) assigned.	• Assign an even number as RTP Self Port.
"Well-known port" (0-1023) is used for Self Port. 	Invalid Port Number(s) is (are) assigned.	• Assign port number(s) except 0-1023 as Self Port.

Other Messages on the IP Enabled Dterm LCD

OTHER MESSAGES	MEANING
Program Downloading 	Indicates the IP Enabled Dterm is downloading data according to directions from DRS.
Login Mode of IP Enabled Dterm 	The IP Enabled Dterm is activated in Login mode.
Desired station number duplicates already registered one. 	If "Yes" is pressed: While the new IP Enabled Dterm is to be operative, the previous one turns invalid and is rebooted. If "No" is pressed: Change the station number again to start up.

4.5 DtermIP (SIP)

Use the User Menu to set the configuration data for DtermIP (SIP). On the User Menu, the following configuration data can be set.

- Network Settings : Set network-related data.
- SIP Settings : Set SIP-related data:
- Audio & Visual Settings : Set the tone and LCD display.
- Maintenance Settings : Set the maintenance data.
- Terminal Information : Display the firmware/hardware version of the telephone.

Note: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server, where DtermIP(SIP) is registered.

The LCD display can be moved to Configuration Setting screen during the following states:

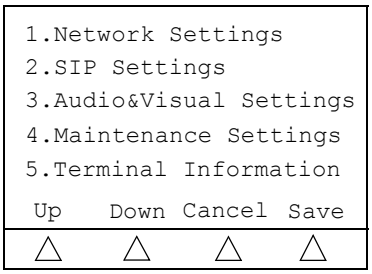
LCD Display	Description
DHCP Connecting...	While connecting to DHCP server (without VLAN).
Connecting...	While connecting to SIP server (without VLAN).
DHCP Connecting...(VLAN)	While connecting to DHCP server (with VLAN).
Connecting...(VLAN)	While connecting to SIP server (with VLAN).
Authenticating...	While authenticating with SIP server (without VLAN).
Authenticating...(VLAN)	While authenticating with SIP server (with VLAN).
Authenticating...(Cert)	While 802.1X authenticating **Note 1**
Login:/Password:	User Name Entry/Password Entry.
Override?	Desired station number duplicates already registered one.
NETWORK BUSY	No Response to the Request.
DHCP Server Not Found	DHCP server cannot be found.
DHCP IP Address expired	DHCP failed to renew a lease for the IP address.
SIP Server Not Found	SIP server cannot be found.
Parameter Missing	Errors in local setting and DHCP obtained data.
OTP Not Included	One Time Password is not entered.
Failed (Server)	Authentication with SIP server is failed (SIP Server Authentication)
Failed (Terminal)	Authentication with SIP server is failed (Terminal Authentication)
Authentication Accepted	Authentication with SIP server is completed successfully.
Download Complete!	Program Download by SIP server instruction is completed successfully.
Parameter Missing (Cert)	802.1X Authentication data error. **Note 1**
Failed (Cert)	802.1X Authentication is failed. **Note 1**
Time Display (in idle or busy state)	When the terminal in busy state, the LCD display cannot be moved to Configuration Setting screen, but it can be moved to Online Monitoring screen.

Note 1: Available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

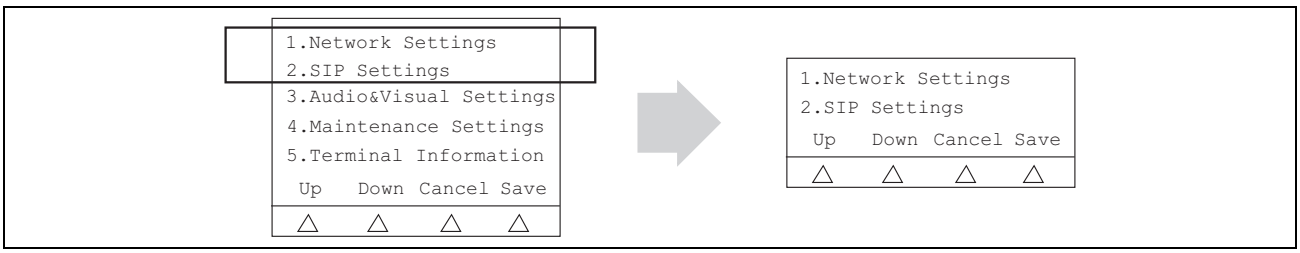
Note: The user cannot go to Configuration Setting screen from Online Monitoring screen and vice versa. For Online Monitoring, refer to 5.1.2 When Using DtermIP (SIP) in Online Monitoring section.

To open the User Menu, press “Hold” + “Transfer” + “*” + “#” during the time display.

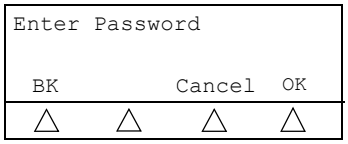
User Mode Main Menu



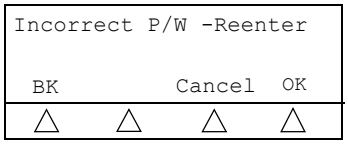
Note: Two lines of menu items can be displayed at a time. Use "Up" or "Down" key to scroll the item.



Note: When the password entry is required to display the Configuration Menu, the following display appears.



User Mode Main Menu is displayed by entering the correct password. If an invalid password is entered, the display changes as follows:



If the invalid password is entered three times, “Config Login Failed!” is displayed on the LCD. Press the EXIT key to reset the terminal. For more details on login password, see 4.5.4.5 Config Password Mode.

Parameters on User Menu

The tables below show the description of each parameter on the User Menu.

Network Settings (1 of 2)

Parameter				Description
DHCP Mode				Select whether to use DHCP protocol.
	1. Disable			DHCP is not used.
	2. Enable			DHCP is used.
IP Address				Set IP address of the DtermIP (SIP).
Default Gateway				Set IP address of the default router.
Subnetmask				Set subnet mask of the DtermIP (SIP).
DNS Address				Set IP address of the DNS server.
Advanced Settings				Set the network expansion data.
	LAN Port Settings			Set the LAN port.
		Speed & Duplex		Set the LAN Speed.
			Autonego	Autonegotiation
			100M Full	100Mbps speed and full-duplex mode
			100M Half	100Mbps speed and half-duplex mode
			10M Full	10Mbps speed and full-duplex mode
			10M Half	10Mbps speed and half-duplex mode
		VLAN Mode		Select whether to enable or disable the VLAN.
			1. Disable	VLAN is disabled.
			2. Enable	VLAN is enabled.
		VLAN ID		Specify the VLAN ID.
		VLAN Priority		Specify the VLAN Priority.
	PC Port Settings			Set the PC port.
		Speed & Duplex		Set the LAN speed for the PC port.
			Autonego	Autonegotiation
			100M Full	100Mbps speed and full-duplex mode
			100M Half	100Mbps speed and half-duplex mode
			10M Full	10Mbps speed and full-duplex mode
			10M Half	10Mbps speed and half-duplex mode
		Port VLAN Mode		Select whether to enable or disable the port VLAN (PC port).
			1. Disable	Port VLAN is disabled.
			2. Enable	Port VLAN is enabled.
		Port VLAN ID		Specify the port VLAN ID (PC port).
		Port VLAN Priority		Specify the port VLAN Priority (PC port).

Network Settings (2 of 2)

Parameter				Description
	Port Available			Select whether to enable or disable the PC port.
		1. Disable **Note 2**		PC port is disabled.
		2. Enable **Note 2**		PC port is enabled.
	EAPOL Forwarding **Note 3**			Select whether to enable or disable the EAPOL Forwarding function.
		1. Disable		EAPOL packet (from PC port) Forwarding is disabled.
		2. Enable		EAPOL packet (from PC port) Forwarding is enabled.
CDP Mode				Select whether to send the power consumption information to the hub.
	1. Disable			Power consumption information is not sent to the hub.
	2. Enable			Power consumption information is sent to the hub.
Type of Service				Set the ToS.
	1. RTP			Set the ToS for RTP.
	2. SIP			Set the ToS for SIP.
802.1X Settings **Note 4**				Set the data related to 802.1X authentication.
	1. Supplicant Mode			Set whether to enable or disable Supplicant Mode of DtermIP(SIP).
		1. Disable		Supplicant Mode of DtermIP(SIP) is disabled.
		2. Enable		Supplicant Mode of DtermIP(SIP) is enabled.
	2. EAP Method			* Not Supported.
	3. Account (MD5)			Set User ID used for EAP-MD5.
	4. Password (MD5)			Set Password for EAP-MD5.
	5. EAPOL VLAN Mode			Set whether to add VLAN tag toward the EAPOL packet.
		1. Disable		VLAN tag is not added toward the EAPOL packet.
		2. Enable		VLAN tag is added toward the EAPOL packet.
	6. Certificate Delete			* Not Supported.

Note 2: For DtermIP (SIP) with Firmware Version 2.0.4.0 or later.
For DtermIP (SIP) with Firmware Version 3.0.0.0 or later, the parameter changes as follows:
1. Automatic: Follows the data assignment on CPCP command. If no CPCP data is assigned, PC port is enabled.
2 Off: PC port is disabled.

Note 3: For DtermIP (SIP) with Firmware Version 3.0.0.0 or later.

Note 4: For DtermIP (SIP) with Firmware Version 4.1.x.x or later.

SIP Settings (1 of 3)

Parameter	Description
1. User	Set the user data.
1. User ID	Set the User ID.
2. Password	Set the password of the User ID used for user authentication.
2. Server Address & URI	Set IP address and URI of the SIP server. **Note 5**
1. 1st Server	Set IP address or fully qualified domain name (FQDN) of the first SIP server. **Note 5**
2. 2nd Server	Set IP address or fully qualified domain name (FQDN) of the second SIP server. **Note 5**
3. 3rd Server	Set IP address or fully qualified domain name (FQDN) of the third SIP server. **Note 5**
4. 4th Server	Set IP address or fully qualified domain name (FQDN) of the fourth SIP server. **Note 5**
5. RegistrarDestination **Note 6**	Set IP address or fully qualified domain name (FQDN) of the registrar destination SIP server. **Note 5**
1. 1st Server	Set IP address or fully qualified domain name (FQDN) of the first registrar destination SIP server. **Note 5**
2. 2nd Server	Set IP address or fully qualified domain name (FQDN) of the second registrar destination SIP server. **Note 5**
3. 3rd Server	Set IP address or fully qualified domain name (FQDN) of the third registrar destination SIP server. **Note 5**
4. 4th Server	Set IP address or fully qualified domain name (FQDN) of the fourth registrar destination SIP server. **Note 5**
3. Access Mode	Set the access mode to the SIP server.
1. Remote Mode	Access mode is set to “Remote”.
2. Normal Mode	Access mode is set to “Normal”.
4. SIP Server Port	Set the SIP server port.
1. 1st Server	Set the first SIP server port.
2. 2nd Server	Set the second SIP server port.
3. 3rd Server	Set the third SIP server port.
4. 4th Server	Set the fourth SIP server port.
5. RegistrarDestination **Note 6**	Set the registrar destination SIP server port.
1. 1st Server	Set the first registrar destination SIP server port.
2. 2nd Server	Set the second registrar destination SIP server port.
3. 3rd Server	Set the third registrar destination SIP server port.
4. 4th Server	Set the fourth registrar destination SIP server port.
5. Area ID	Set the country.

SIP Settings (2 of 3)

Parameter			Description
	0. Automatic		Automated Setting
	1. Japan		Japan
	2. America		North America
	3. Australia		Australia
	4. Others		Other Countries
	5. HongKong		Hong Kong
	6. Malaysia		Malaysia
	7. Singapore		Singapore
	8. Mexico		Mexico
	9. Taiwan		Taiwan
	10. Korea		Korea
	11. Brazil		Brazil
	12. China		China
	13. Thailand		Thailand
	14. Thailand(EGAT)		Thailand (EGAT)
	15. Srilanka		Sri Lanka
	16. England		England
	17. Newzealand		New Zealand
6. Encryption			Set the encryption-related data.
	1. Authentication		Select whether to enable or disable the authentication mode.
		1. Disable	Authentication mode is disabled.
		2. Enable	Authentication mode is enabled.
	2. One Time Password		Set the onetime password.
	3. Authentication Status		Display the authentication status.
7. Extra Function **Note 7**			Set the data for Retransmit Interval, Keeping Call, and Howler Tone.

SIP Settings (3 of 3)

Parameter			Description
	1. Retransmit Interval		Select Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.
		1. Standard	SIP Standard Retransmit Interval is used. (500ms,1s,2s,4s,4s,4s,4s,4s,500ms)
		2. 6 seconds	Original Retransmit Interval is used. (6s,6s,6s,6s,6s,2s)
	2. Keeping Call		Set whether call connection is kept up even if DtermIP(SIP) detects that communication failure occurs between the system and DtermIP(SIP).
		1. Disable	Call connection is not kept up even if DtermIP(SIP) detects that communication failure occurs between the system and DtermIP(SIP).
		2. Enable	Call connection is kept up even if DtermIP(SIP) detects that communication failure occurs between the system and DtermIP(SIP).
	3. Howler Tone		* Not Supported. **Note 8**
	4. Language Pattern		Select Language Pattern for day of the week and month display on DtermIP(SIP).
		1. Automatic	Day of the week and month is displayed according to Language Pattern instructed by system.
		2. Pattern 1	Day of the week and month is displayed with Display Format Pattern 1 (Standard).
		3. Pattern 2	Day of the week and month is displayed with Display Format Pattern 2 (For Europe).

Note 5: About IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

Note 6: For DtermIP (SIP) with Firmware Version 2.0.4.0 or later. Do not set this parameter except when using Firewall NAT accommodating special SIP-NAT.

Note 7: For DtermIP (SIP) with Firmware Version 4.1.x.x or later.

Note 8: The setting should be “1. Disable” (fixed).

Audio & Visual Settings (1 of 2)

Parameter	Description
1. Audio Settings	Audio-related setting.
1. Confirmation Tone	Select whether to sound Confirmation Tone.
1. Disable	Confirmation Tone is OFF.
2. Enable	Confirmation Tone is ON.
2. Music Select	Select whether to use download data or default data for music on hold.
1. Download Data	Use the downloaded music on hold.
2. Default Data	Use the default music on hold.
3. Sidetone Volume	Set the Side Tone volume.
4. Send Gain	Set the sending gain of the handset.
5. Receive Bias	Set the receiving bias of the handset.
6. Receive Gain	Set the receiving gain of the handset.
7. Ring Settings	Set the Ringer.
1. External Call	Set the Ringing Tone for External Call.
2. Internal Call	Set the Ringing Tone for Internal Call.
8. RTP Alarm **Note 9**	Determine whether to send RTP Warning Tone.
1. Automatic	DtermIP (SIP) hears RTP Warning Tone according to directions from the System.
2. ON	DtermIP (SIP) hears RTP Warning Tone.
3. OFF	DtermIP (SIP) does not hear RTP Warning Tone.
9. DTMF Play Mode **Note 9**	Determine whether to play back DTMF.
1. Automatic	DTMF is played back according to directions from the System.
2. ON	DTMF is played back.
3. OFF	DTMF is not played back
2. Visual Settings	LCD display setting.

Audio & Visual Settings (2 of 2)

Parameter		Description
1. Time Display Type		Set the time display.
	1. 12 hour Indication	12-hour (AM/PM)
	2. 24 hour Indication	24-hour
2. Local Volume		Select whether to display the local volume.
	1. Disable	Local volume is not displayed.
	2. Enable	Local volume is displayed.
3. Language		Select a language to be displayed.
	1. Automatic	The default setting.
	2. English (NEC) **Note 10**	English
	3. Portuguese (NEC) **Note 10**	Portuguese
	4. Spanish (NEC) **Note 10**	Spanish
	5. French (NEC) **Note 10**	French
	6. German **Note 11**	German
	7. Italian **Note 11**	Italian
	8. Dutch **Note 11**	Dutch
	9. Norwegian **Note 11**	Norwegian **Note 12**
	10. Danish **Note 11**	Danish
	11. Swedish **Note 11**	Swedish
	12. Greek **Note 11**	Greek
	13. English **Note 11**	English
	14. Portuguese **Note 11**	Portuguese
	15. Spanish **Note 11**	Spanish
	16. French **Note 11**	French

Note 9: For DtermIP (SIP) with Firmware Version 3.0.0.0 or later.

Note 10: "(NEC)" is displayed since Firmware Version 4.1.x.x.

Note 11: For DtermIP (SIP) with Firmware Version 4.1.x.x or later.

Note 12: When "9. Norwegian" is selected, language is displayed in English.

Maintenance Settings

Parameter	Description
1. Download Menu	Settings for the downloading.
1. Download	Download the F/W.
1. Program	Download the program.
2. Music	Download the data of music on hold.
3. Boot & Program	Download the boot and program.
4. Flash Memory Image	Download the flash memory image.
5. Config	* Not Supported
6. Certificate	* Not Supported
2. Download Address	Set IP address of the TFTP/FTP server.
2. Hard Reset	DtermIP (SIP) is reset without saving the data (hard reset).
3. Factory Value	Reset the DtermIP (SIP) to its factory defaults.
4. Simple Test Mode	Perform the phone test.
1. Test Call On	Perform the telephone call test.
2. Call Test Address	Set IP address of the destination telephone.
3. Key Test(Random)	Perform the key test (keys are randomly pressed).
4. Key Test(Seq.)	Perform the key test (keys are sequentially pressed).
5. Voice Loopback	Perform the voice loopback test.
1. Handset - Hand Speaker	Send: Handset - Receive: Handset
2. Handset - Speaker	Send: Handset - Receive: Speaker
3. Headset - Head Speaker	Send: Headset - Receive: Headset
4. Headset - Speaker	Send: Headset - Receive: Speaker
5. MIC - Handset Speaker	Send: Microphone - Receive: Handset
6. MIC - Headset Speaker	Send: Microphone - Receive: Headset
7. MIC - Speaker	Send: Microphone - Receive: Speaker
6. Speaker Test	Perform the speaker test.
1. America	You hear Dial Tone (North America) from the speaker at the maximum volume.
2. Japan	You hear Dial Tone (Japan) from the speaker at the maximum volume.
5. Config Password Mode **Note 13**	Set the control method of Configuration password.
1. Disable	Set the login password authentication to OFF.
2. Enable	Set the login password authentication to ON.
New Password?	Enter the login password for user mode.
Confirm	Re-enter the login password for user mode.
6. Auto Config	* Not Supported

Note 13: For DtermIP (SIP) with Firmware Version 3.0.0.0 or later.

Terminal Information

Parameter	Description
Hardware Version	Display the hardware version of the terminal.
MAC Address	Display the MAC address of the terminal.
Firmware Version	Display the firmware version of the terminal.

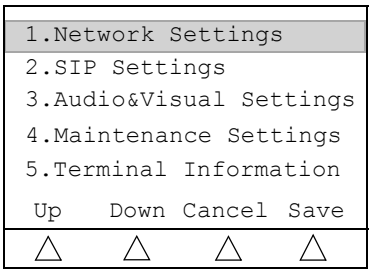
4.5.1 Network Settings

This section explains each setting on the Network Settings Menu. The Network Settings Menu has the following items:

- DHCP Mode : Select whether to use DHCP protocol.
- IP Address : Set IP address of the DtermIP (SIP).
- Default Gateway : Set IP address of the default router.
- Subnetmask : Set subnet mask of the DtermIP (SIP).
- DNS Address : Set the IP address of the DNS server.
- Advanced Settings : Set the network expansion data.

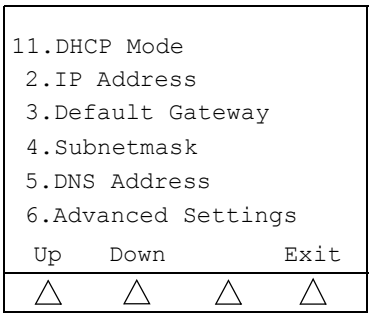
STEP 1:To open the Network Settings Menu, select “1.Network Settings” by pressing “1” key on the Main Menu.

Main Menu



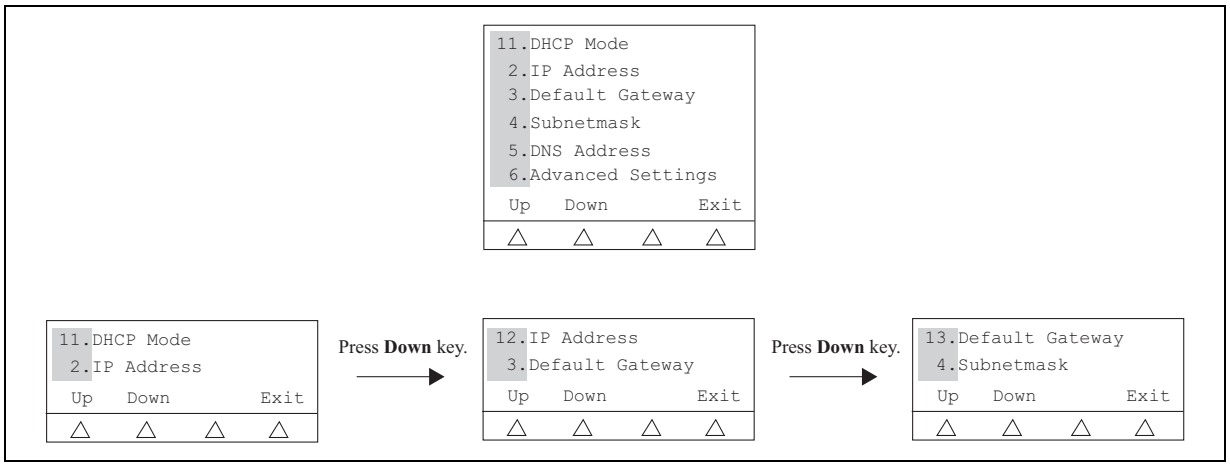
STEP 2: The Network Settings Menu appears as follows:

Network Settings Menu



Note: Press EXIT key to go back to the Main Manu.

Note: The item number(s) of higher-level menu(s) will always be displayed on the top line of each menu.

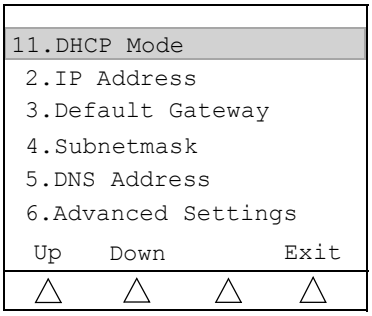


4.5.1.1 DHCP Mode

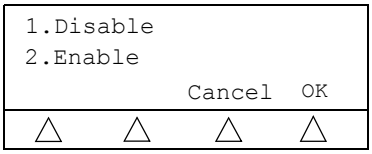
On the DHCP Mode parameter, select whether to use DHCP protocol.

STEP 1:Select “1. DHCP Mode” by pressing “1” key on the Network Settings Menu.

Network Settings Menu



STEP 2: Select either “1. Disable” or “2. Enable”. Press “1” key to disable DHCP. Press “2” key to enable DHCP.



Note: DHCP is enabled by the default setting.

Note: The currently selected DHCP mode flashes.

STEP 3: After selecting a DHCP mode, press OK key and go back to the Network Settings Menu.

STEP 4: Press EXIT key on the Network Settings Menu to return to the Main Menu.

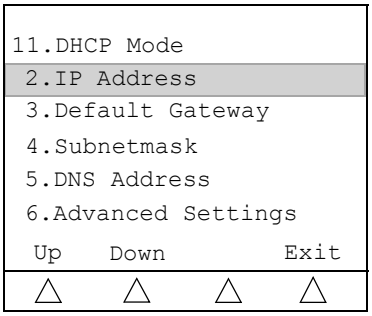
STEP 5: Press Save key on the Main Menu to save the assigned data.

4.5.1.2 IP Address

On the IP Address parameter, set IP address of the terminal.

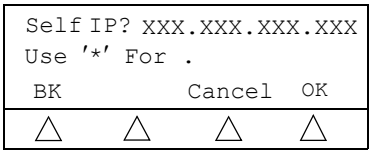
STEP 1:Select “2. IP Address” by pressing “2” key on the Network Settings Menu.

Network Settings Menu



STEP 2: Enter IP address of DtermIP (SIP). For example, to set the IP address of 10.41.208.205, enter 10*41*208*205 [separate with an asterisk (*)].

Note: Press BK key to delete an entered character, press BK key.



STEP 3: After entering IP address, press OK key and go back to the Network Settings Menu.

STEP 4: Press EXIT key on the Network Settings Menu to return to the Main Menu.

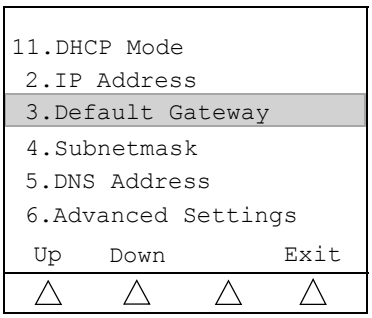
STEP 5: Press Save key on the Main Menu to save the assigned data.

4.5.1.3 Default Gateway

On the Default Gateway parameter, set IP address of the default router.

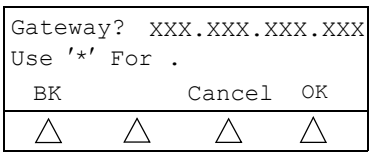
STEP 1:Select “3. Default Gateway” by pressing “3” key on the Network Settings Menu.

Network Settings Menu



STEP 2: Enter the default gateway IP address. For example, to set the IP address of 10.41.208.205, enter 10*41*208*205 [separate with an asterisk (*)].

Note: Press BK key to delete an entered character.



STEP 3: After entering IP address, press OK key and go back to the Network Settings Menu.

STEP 4: Press EXIT key on the Network Settings Menu to return to the Main Menu.

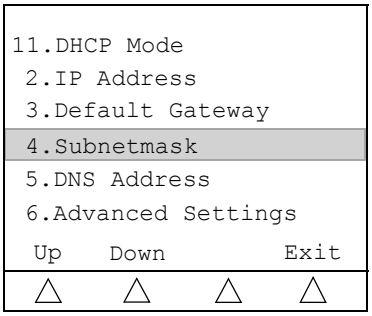
STEP 5: Press Save key on the Main Menu to save the assigned data.

4.5.1.4 Subnet Mask

On the Subnetmask parameter, set subnet mask of the terminal.

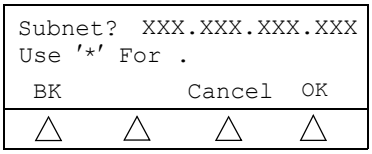
STEP 1:Select “4. Subnetmask” by pressing “4” key on the Network Settings Menu.

Network Settings Menu



STEP 2: Enter the subnet mask. For example, to set the subnet mask of 255.255.240.0, enter 255*255*240*0 [separate with an asterisk (*)].

Note: Press BK key to delete an entered character.



STEP 3: After entering the subnet mask, press OK key and go back to the Network Settings Menu.

STEP 4: Press EXIT key on the Network Settings Menu to return to the Main Menu.

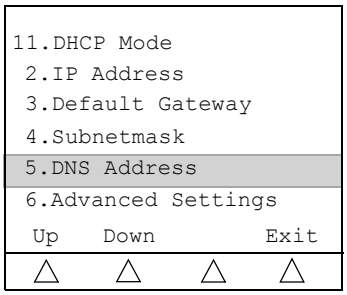
STEP 5: Press Save key on the Main Menu to save the assigned data.

4.5.1.5 DNS

On the DNS Address parameter, set IP address of the DNS server.

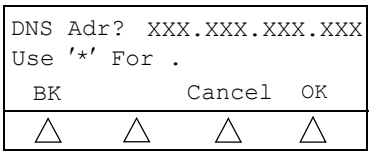
STEP 1:Select “5. DNS Address” by pressing “5” key on the Network Settings Menu.

Network Settings Menu



STEP 2: Enter IP address of the DNS server. For example, to set the IP address of 10.41.208.205, enter 10*41*208*205 [separate with an asterisk (*)].

Note: Press BK key to delete an entered character.



STEP 3: After entering IP address of DNS server, press OK key and go back to the Network Settings Menu.

STEP 4: Press EXIT key on the Network Settings Menu to return to the Main Menu.

STEP 5: Press Save key on the Main Menu to save the assigned data.

4.5.1.6 Advanced Settings

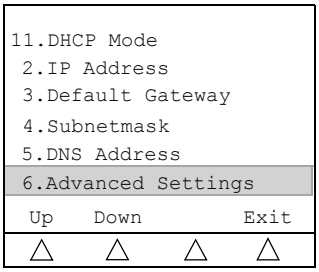
Advanced Settings parameter has the following additional parameters: LAN Port Settings, PC Port Settings, CDP Mode, Type of Service and 802.1X Settings.

<LAN Port Settings>

On the LAN Port Settings parameter, set the LAN port-related data.

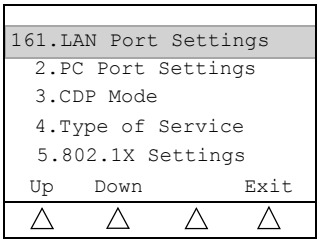
STEP 1:Select “6. Advanced Settings” by pressing “6” key on the Network Settings Menu.

Network Settings Menu



STEP 2: Advanced Settings Menu appears. Select “1. LAN Port Settings” by pressing “1” key on the Advanced Settings Menu.

Advanced Settings Menu



STEP 3: LAN Port Settings Menu appears.

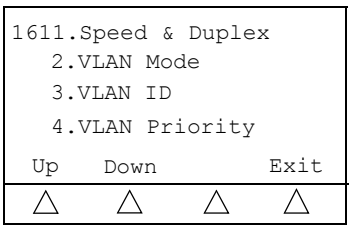
Select “1. Speed & Duplex” by pressing “1” key to set LAN speed and communication method (full-duplex or half-duplex).

Select “2. VLAN Mode” by pressing “2” key to set the VLAN Mode.

Select “3. VLAN ID” by pressing “3” key to set the VLAN ID.

Select “4. VLAN Priority” by pressing “4” key to set the VLAN Priority.

LAN Port Settings Menu



STEP 4: When “1.Speed & Duplex” is selected by pressing “1” key:

Specify the LAN speed and communication method (full-duplex or half-duplex).

Autonegotiation is set by pressing “1” key.

100Mbps speed and full-duplex mode are set by pressing “2” key.

100Mbps speed and half-duplex mode are set by pressing “3” key.

10Mbps speed and full-duplex mode are set by pressing “4” key.

10Mbps speed and half-duplex mode are set by pressing “5” key.

The default is “Autonego”.

When “2.VLAN Mode” is selected by pressing “2” key:

Select either “1.Disable” or “2.Enable”. Press “1” key to disable VLAN Mode. Press “2” key to enable VLAN Mode. The default VLAN Mode is “1. Disable”.

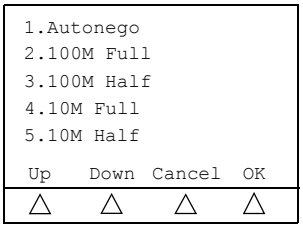
When “3.VLAN ID” is selected by pressing “3” key:

Enter VLAN ID (0-4094). The default VLAN ID is 7.

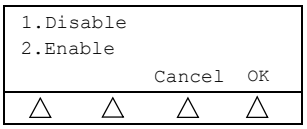
When “4.VLAN Priority” is selected by pressing “4” key:

Specify the VLAN Priority (0-7). The default VLAN Priority is 5.

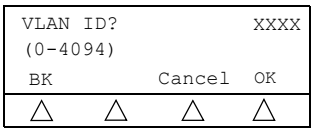
When selecting “1.Speed & Duplex”:



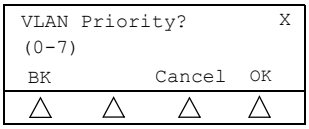
When selecting “2.VLAN Mode”:



When selecting “3.VLAN ID”:



When selecting “4.VLAN Priority”:



Note: Press BK key to delete an entered character.

STEP 5: After assigning each data, press OK key and go back to the LAN Port Setting Menu. Repeat Step 3-4 until all the necessary data is set.

STEP 6: When the all necessary data is set, press EXIT key on the LAN Port Setting Menu to go back to Advanced Settings Menu.

STEP 7: Press EXIT key on the Advanced Settings Menu to return to the Network Settings Menu.

STEP 8: Press EXIT key on the Network Settings Menu to return to the Main Menu.

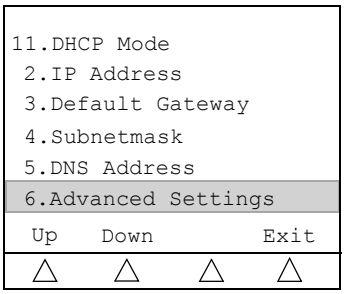
STEP 9: Press Save key on the Main Menu to save the assigned data.

<PC Port Settings>

On the PC Port Settings parameter, set the PC port-related data.

STEP 1:Select “6. Advanced Settings” by pressing “6” key on the Network Settings Menu.

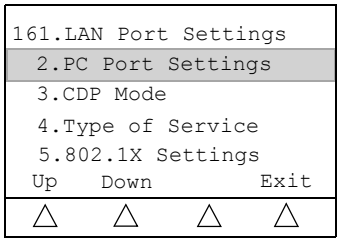
Network Settings Menu



STEP 2: Advanced Settings Menu appears. Select “2. PC Port Settings” by pressing “2” key on the Advanced Settings Menu.

Note: PC Port Settings cannot be selected on DtermIP(SIP) that does not have the PC port (ITN-4D).

Advanced Settings Menu



STEP 3: PC Port Settings Menu appears.

Select “1. Speed & Duplex” by pressing “1” key to set LAN speed and communication method (full-duplex or half-duplex) for the PC port.

Select “2. Port VLAN Mode” by pressing “2” key to set the PC port VLAN Mode.

Select “3. Port VLAN ID” by pressing “3” key to set the PC port VLAN ID.

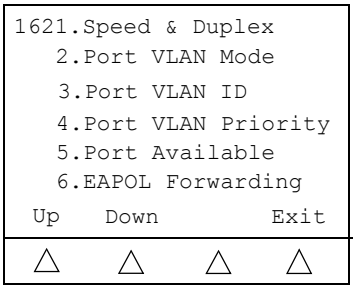
Select “4. Port VLAN Priority” by pressing “4” key to set the PC port VLAN Priority.

Select “5. Port Available” by pressing “5” key to set the PC port availability

Select “6, EAPOL Forwarding” by pressing “6” key to select whether to enable or disable the EAPOL Forwarding function.

Note: “6. EAPOL Forwarding” is displayed on DtermIP (SIP) with Firmware Version 3.0.0.0 or later.

PC Port Settings Menu



STEP 4: When “1.Speed & Duplex” is selected by pressing “1” key:

Specify the LAN speed and communication method (full-duplex or half-duplex).

Autonegotiation is set by pressing “1” key.

100Mbps speed and full-duplex mode are set by pressing “2” key.

100Mbps speed and half-duplex mode are set by pressing “3” key.

10Mbps speed and full-duplex mode are set by pressing “4” key.

10Mbps speed and half-duplex mode are set by pressing “5” key.

The default is “Autonego”.

When “2.Port VLAN Mode” is selected by pressing “2” key:

Select whether to enable or disable the port VLAN (PC port). Press “1” key to disable Port VLAN. Press “2” key to enable Port VLAN. The default VLAN Mode is “1. Disable”.

When “3.Port VLAN ID” is selected by pressing “3” key:

Enter port VLAN ID (0-4094). The default port VLAN ID is 7.

When “4.Port VLAN Priority” is selected by pressing “4” key:

Specify the port VLAN Priority (0-7). The default port VLAN Priority is 5.

When “5.Port Available” is selected by pressing “5” key:

Press “1” key to set PC Port to “Automatic” (default setting). PC Port is disabled/enabled according to directions from the System.

Press “2” key to disable the PC port.

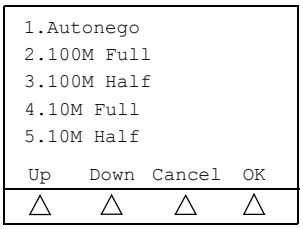
Note: For DtermIP (SIP) with Firmware Version earlier than 3.0.0.0:
Select whether to enable or disable the PC port. Press "1" key to disable the PC port. Press "2" key to enable the PC port. PC port is enabled by the default setting.

When “6.EAPOL Forwarding” is selected by pressing “6” key:

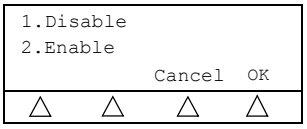
Select whether to enable or disable the EAPOL Frame Forwarding function. Press “1” key to disable the EAPOL Frame Forwarding function. Press “2” key to enable the EAPOL Frame Forwarding function.

Note: For DtermIP (SIP) with Firmware Version earlier than 4.1.x.x:
EAPOL Frame Forwarding function port is enabled by the default setting.
For DtermIP (SIP) with Firmware Version 4.1.x.x or later:
EAPOL Frame Forwarding function port is disabled by the default setting.

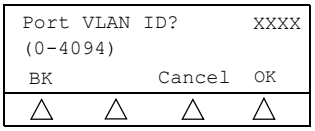
When selecting
“1.Speed & Duplex”:



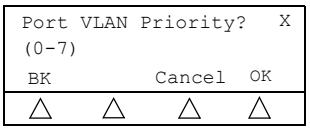
When selecting
“2.VLAN Mode”:



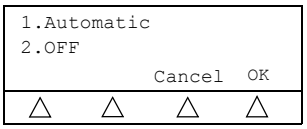
When selecting
“3.VLAN ID”:



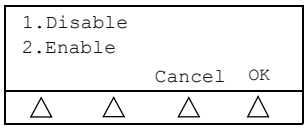
When selecting
“4.VLAN Priority”:



When selecting
“5.Port Available”:



When selecting
“6.EAPOL Forwarding”:



STEP 5: After assigning each data, press OK key and go back to the PC Port Settings Menu. Repeat Step 3-4 until all the necessary data is set.

STEP 6: When the all necessary data is set, press EXIT key on the PC Port Settings Menu to go back to Advanced Settings Menu.

STEP 7: Press EXIT key on the Advanced Settings Menu to return to the Network Settings Menu.

STEP 8: Press EXIT key on the Network Settings Menu to return to the Main Menu.

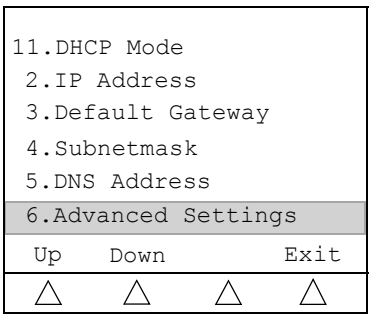
STEP 9: Press Save key on the Main Menu to save the assigned data.

<CDP Mode>

On the CDP Mode parameter, set whether to send the power consumption information to the hub.

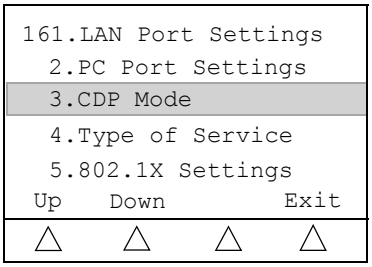
STEP 1:Select “6. Advanced Settings” by pressing “6” key on the Network Settings Menu.

Network Settings Menu

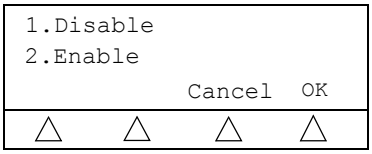


STEP 2: Advanced Settings Menu appears. Select “3. CDP Mode” by pressing “3” key on the Advanced Settings Menu.

Advanced Settings Menu



STEP 3: Select whether to send the power consumption information to the hub. When selecting “1. Disable”, power consumption information is not sent to the hub. When selecting “2. Enable”, power consumption information is sent to the hub. CDP Mode is enabled by the default setting.



Note: The currently enabled CDP Mode flashes.

STEP 4: After CDP Mode is set, press OK key and go back to the Advanced Settings Menu.

STEP 5: Press EXIT key on the Advanced Settings Menu to return to the Network Settings Menu.

STEP 6: Press EXIT key on the Network Settings Menu and go back to the Main Menu.

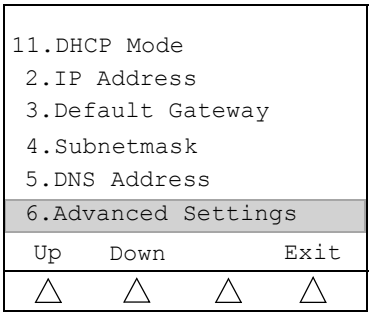
STEP 7: Press Save key on the Main Menu to save the assigned data.

<Type of Service>

On the Type of Service parameter, set the ToS of RTP and SIP.

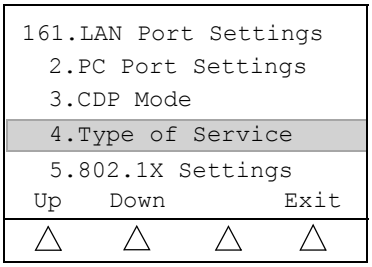
STEP 1:Select “6. Advanced Settings” by pressing “6” key on the Network Settings Menu.

Network Settings Menu

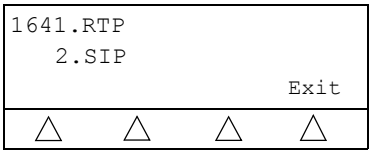


STEP 2: Advanced Settings Menu appears. Select “4. Type of Service” by pressing “4” key on the Advanced Settings Menu.

Advanced Settings Menu



STEP 3: When setting ToS of RTP, select “1. RTP” by pressing “1” key. When setting ToS of SIP, select “2. SIP” by pressing “2” key.



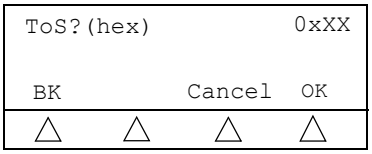
STEP 4: When “1. RTP” is selected, set ToS [0x00-0xFF (default: 0xA0)] of RTP. When “2. SIP” is selected, set ToS [0x00-0xFF (default: 0xC0)] of SIP. **Note 14**

Note 14: An input character or number changes depending on the number of times the digit key is pressed. For details, see the following table. For example, if the digit key “2” is pressed one time, “2” is displayed on the LCD. Then, press “2” again, “A” is displayed on the LCD.

Key Entry Method

Digit Key	The Number of Times Key is Pressed			
	1	2	3	4
1	1			
2	2	A	B	C
3	3	D	E	F
4	4			
5	5			
6	6			
7	7			
8	8			
9	9			
0	0			

Note: Press BK key to delete an entered character.



STEP 5: Press OK key and go back to the display of Step 3. Repeat Step 3-4 until all the necessary data is set.

STEP 6: When the all necessary data is set, press EXIT key and go back to the Advanced Settings Menu.

STEP 7: Press EXIT key on the Advanced Settings Menu to return to the Network Settings Menu.

STEP 8: Press EXIT key on the Network Settings Menu and go back to the Main Menu.

STEP 9: Press Save key on the Main Menu to save the assigned data.

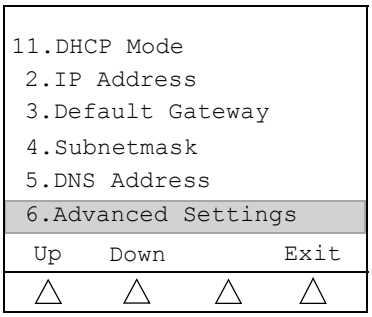
<802.1X Settings>

On the 802.1X Settings parameter, set the data related to 802.1X authentication.

Note: This parameter is available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

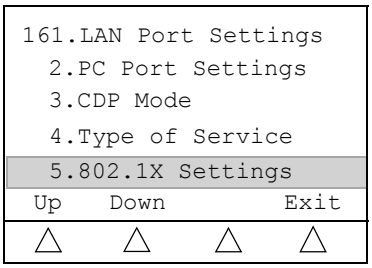
STEP 1:Select “6. Advanced Settings” by pressing “6” key on the Network Settings Menu.

Network Settings Menu



STEP 2: Advanced Settings Menu appears. Select “5. 802.1X Settings” by pressing “5” key on the Advanced Settings Menu.

Advanced Settings Menu



STEP 3: 802.1X Settings Menu appears.

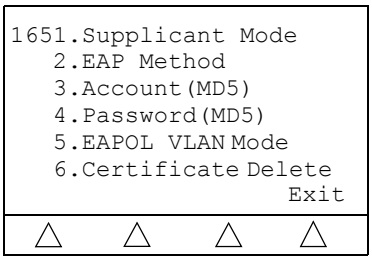
Select “1. Supplicant Mode” by pressing “1” key to enable or disable the Supplicant Mode.

Select “3. Account (MD5)” by pressing “3” key to set User ID used for EAP-MD5.

Select “4. Password (MD5)” by pressing “4” key to set password used for EAP-MD5.

Select “5. EAPOL VLAN Mode” by pressing “5” key to enable EAPOL VLAN Mode.

802.1X Settings Menu



Note: “2. EAP Method” and “6. Certificate Delete” are not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 4: - When using Supplicant Mode of DtermIP(SIP):

When “1. Supplicant Mode” is selected by pressing “1” key.

Select whether to disable or enable Supplicant Mode. Press “1” key to disable the Supplicant Mode. Press “2” key to enable the Supplicant Mode.

Supplicant Mode is disabled at default setting. The currently selected mode flashes.

When “3. Account (MD5)” is selected by pressing “3” key.

Set the User ID used for EAP-MD5 by pressing Dial keys [up to 32 characters (“0-9”, “A-Z”, “a-z”, “*”, “#”, “.”, “-”, or “_”)]. Display is scrolled when up to 24 characters are set. **Note 15**

When “4. Password (MD5)” is selected by pressing “4” key.

Set the password used for EAP-MD5 by pressing Dial keys [up to 32 characters (“0-9”, “A-Z”, “a-z”, “*”, “#”, “.”, “-”, or “_”)]. Display is scrolled when up to 24 characters are set. The entered password is indicated in a string of “*” on the display. **Note 15**

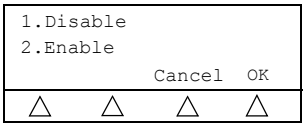
When “5. EAPOL VLAN Mode” is selected by pressing “5” key.

Select whether to disable or enable EAPOL VLAN Mode. Press “1” to disable the EAPOL VLAN Mode (not to add the VLAN tag toward the EAPOL packet). Press “2” to enable the EAPOL VLAN Mode (to add the VLAN tag toward the EAPOL packet). EAPOL VLAN Mode is enabled by the default setting. **Note 16**

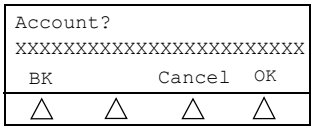
- When connecting PC equipped with Supplicant function to the DtermIP(SIP) PC port:

No data setting is required on 802.1X Settings. **Note 17**

When selecting “1. Supplicant Mode”:



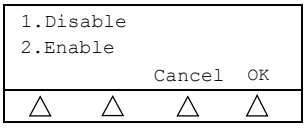
When selecting “3. Account (MD5)”:



When selecting “4. Password (MD5)”:



When selecting “5. EAPOL VLAN Mode”:



Note: “2EAP Method” and “6. Certificated Delete” are not supported by DtermIP (SIP) with Firmware Version.

Note: Press BK key to delete an entered character.

STEP 5: Press OK key and go back to the display of Step 3. Repeat Step 3-4 until all the necessary data is set.

STEP 6: When the all necessary data is set, press EXIT key and go back to the Advanced Settings Menu.

STEP 7: Press EXIT key on the Advanced Settings Menu to return to the Network Settings Menu.

STEP 8: Press EXIT key on the Network Settings Menu and go back to the Main Menu.

STEP 9: Press Save key on the Main Menu to save the assigned data.

Note 15: An input character or number changes depending on the number of times the digit key is pressed. For details, see the following table. For example, if the digit key “2” is pressed seven times, “2” is displayed on the LCD. Then, press “2” again, “a” is displayed on the LCD. This key entry method is available only when entering the following:

- Account (MD5)
- Password (MD5)
- URI of the SIP server
- File name

Key Entry Method

Digit Key	The Number of Times Key is Pressed								
	1	2	3	4	5	6	7	8	9
1	1								
2	a	b	c	A	B	C	2		
3	d	e	f	D	E	F	3		
4	g	h	i	G	H	I	4		
5	j	k	l	J	K	L	5		
6	m	n	o	M	N	O	6		
7	p	q	r	s	P	Q	R	S	7
8	t	u	v	T	U	V	8		
9	w	x	y	z	W	X	Y	Z	9
0	0								
*	*	#	.	-	_				

Note 16: To enable EAPOL VLAN Mode, the following data setting is also required on “LAN Port Settings”. For the details of LAN Port Settings, refer to “<LAN Port Settings>”. Select Main Menu → 1. Network Settings → 6. Advanced Settings → 1. LAN Port Settings.

- 2. VLAN Mode: Set “2. Enable”.
- 3. VLAN ID: Enter VLAN ID (0-4094).
- 4. VLAN Priority: Specify the VLAN Priority (0-7).

Note 17: When connecting the PC equipped with Supplicant function to the DtermIP(SIP) PC port, no data setting is required on 802.1X Settings. However, the following data setting is required on “PC Port Settings”. For the details of PC Port Settings, refer to “<PC Port Settings>”.

To relay the EAPOL packet via DtermIP(SIP):

Select Main Menu → 1. Network Settings → 6. Advanced Settings → 2. PC Port Settings.

- 6. EAPOL Forwarding: Set “2. Enable”.
- To add the VLAN tag (including EAPOL packet) toward the packet received from the PC:

  Select Main Menu → 1. Network Settings → 6. Advanced Settings → 2. PC Port Settings.
- 2. Port VLAN Mode: Set “2. Enable”.
- 3. Port VLAN ID: Enter VLAN ID (0-4094).
- 4. Port VLAN Priority: Specify the VLAN Priority (0-7).

Note: The following Operation System of PC equipped with Supplicant function can be connected to the DtermIP(SIP) PC port.

- Microsoft® Windows 7®
- Microsoft® Windows Vista®

4.5.2 SIP Settings

This section explains each setting on the SIP Settings Menu. The SIP Settings Menu has the following items:

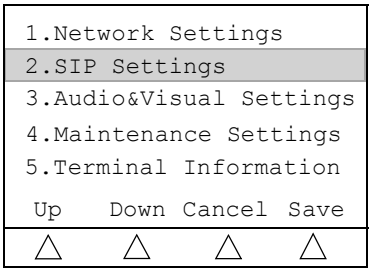
- User : Set the user data.
- Server Address & URI : Set IP address and URI of the SIP server. **Note 18**
- Access Mode : Set the access mode to the SIP server.
- SIP Server Port : Set the SIP server port.
- Area ID : Set the country.
- Encryption : Set the encryption data.
- Extra Function : Set the additional functions.

Note: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server where DtermIP(SIP) is registered.

Note 18: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

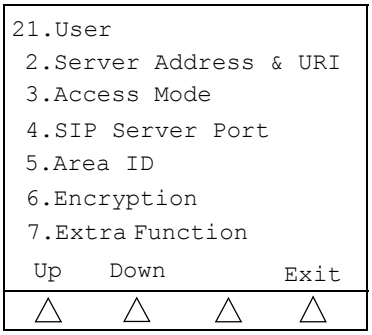
STEP 1:To open the SIP Settings Menu, select "2.SIP Settings" by pressing "2" key on the Main Menu.

Main Menu



STEP 2: The SIP Settings Menu appears as follows:

SIP Settings Menu

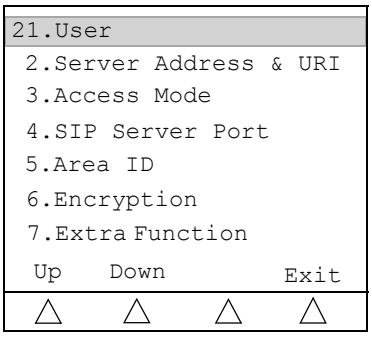


4.5.2.1 User

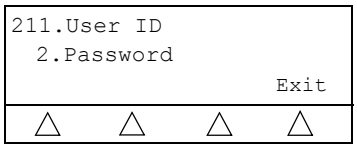
On the User parameter, set the User ID and the password used for user authentication.

STEP 1:Select “1. User” by pressing “1”key on the SIP Settings Menu.

SIP Settings Menu

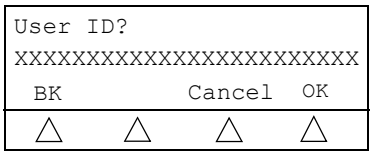


STEP 2: When setting the User ID, select “1. User ID” by pressing “1” key. When setting the password of the User ID used for user authentication, select “2. Password” by pressing “2” key.

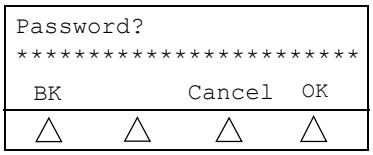


STEP 3: When “1. User ID” is selected:
Enter the User ID [up to 32 digits (0-9, *, #)].
When “2. Password” is selected:
Enter the password of the User ID.
[Up to 10 digits (0-9, *, #)] for DtermIP (SIP) with Firmware Version earlier than 4.1.x.x.
[Up to 24 digits (0-9, *, #)] for DtermIP (SIP) with Firmware Version 4.1.x.x. or later
The entered password is indicated in a string of “*” on the display.

When entering the User ID:



When entering the password of the User ID:



Note: Press BK key to delete an entered character.

STEP 4: After entering the User ID and the password, press OK key and go back to the display of Step 2.

STEP 5: Press EXIT key on the display of Step 2 to go back to the SIP Settings Menu.

STEP 6: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

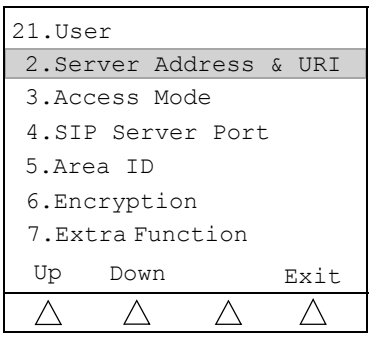
STEP 7: Press Save key on the Main Menu to save the assigned data.

4.5.2.2 Server Address & URI

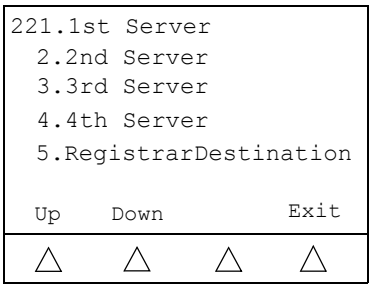
On the Server Address & URI parameter, set IP address and URI of the SIP server.

STEP 1:Select “2. Server Address & URI” by pressing “2” key on the SIP Settings Menu.

SIP Settings Menu



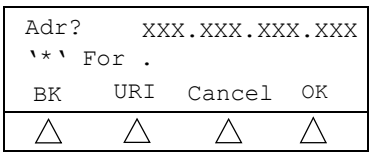
STEP 2: Press “1”, “2”, “3” or “4” key to select a SIP server whose IP address or domain name is to be set.



STEP 3: If specifying SIP server by entering IP address, enter IP address of the specified SIP Server. For example, to set the IP address of 10.41.208.205, enter 10*41*208*205 [separate with an asterisk (*)].

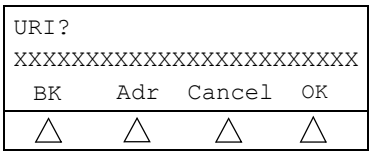
Note: The default value is “0.0.0.0”.

Note: About IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.



Note: Press BK key to delete an entered character.

STEP 4: If specifying SIP server by entering Fully Qualified Domain Name (FQDN), press the URI key. The display changes as follows. Enter FQDN of the SIP server. A maximum of 128 characters ("0-9", "A-Z", "a-z", "*", "#", ".", "-" or "_") can be entered as a domain name. **Note 20**



Note 19: An input character or number changes depending on the number of times the digit key is pressed. For details, see the following table. For example, if the digit key "2" is pressed seven times, "2" is displayed on the LCD. Then, press "2" again, "a" is displayed on the LCD. This key entry method is available only when entering the following:

- Account (MD5)
- Password (MD5)
- URI of the SIP server
- File name

Note: When "Adr" is pressed, the display returns to IP address setting screen.

Note 20: To delete an entered character, press BK key.

Key Entry Method

Digit Key	The Number of Times Key is Pressed								
	1	2	3	4	5	6	7	8	9
1	1								
2	a	b	c	A	B	C	2		
3	d	e	f	D	E	F	3		
4	g	h	i	G	H	I	4		
5	j	k	l	J	K	L	5		
6	m	n	o	M	N	O	6		
7	p	q	r	s	P	Q	R	S	7
8	t	u	v	T	U	V	8		
9	w	x	y	z	W	X	Y	Z	9
0	0								
*	*	#	.	-	_				

STEP 5: Press OK key and go back to the display of Step 2. Repeat Step 2-4 until all the necessary servers are set.

STEP 6: When all the necessary data is set, press EXIT key on the display of Step 2 to go back to the SIP Settings Menu.

STEP 7: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

STEP 8: Press Save key on the Main Menu to save the assigned data.

<Register Destination (Server Address & URI)>

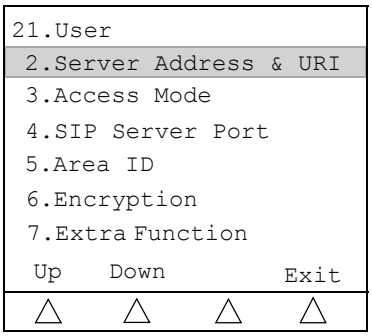
Set IP address and URI of the register destination SIP server.

Note: "RegistrarDestination" parameter is available for DtermIP (SIP) with Firmware Version 2.0.4.0 or later. Do not set this parameter except when using Firewall NAT accommodating special SIP-NAT.

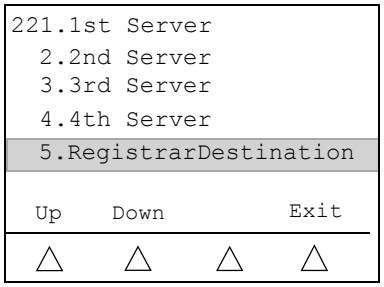
Note: About IP address of SIP server (Telephony Server), refer to "Registration Destination of IP Devices/Stations" in System Description.

STEP 1:Select "2. Server Address & URI" by pressing "2" key on the SIP Settings Menu.

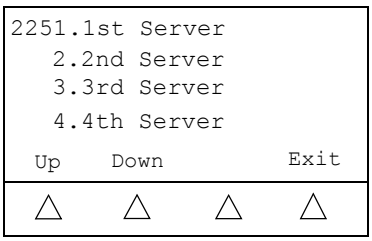
SIP Settings Menu



STEP 2: Select "5. Registrar Destination" by pressing "5" key.



STEP 3: Press "1", "2", "3" or "4" key to select a SIP server whose IP address or domain name is to be set.

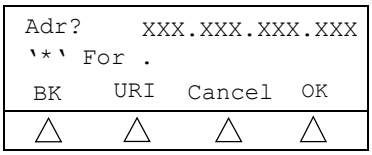


STEP 4: If specifying SIP server by entering IP address, enter IP address of the specified SIP Server. For example, to set the IP address of 10.41.208.205, enter 10*41*208*205 [separate with an asterisk (*)].

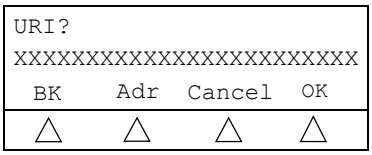
Note: Press BK key to delete an entered character.

Note: The default value is “0.0.0.0”.

Note: About IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.



STEP 5: If specifying SIP server by entering Fully Qualified Domain Name (FQDN), press the URI key. The display changes as follows. Enter FQDN of the SIP server. A maximum of 128 characters (“0-9”, “A-Z”, “a-z”, “*”, “#”, “.”, “-” or “_”) can be entered as a domain name.



Note 21: An input character or number changes depending on the number of times the digit key is pressed. For details, see the following table. For example, if the digit key “2” is pressed seven times, “2” is displayed on the LCD. Then, press “2” again, “a” is displayed on the LCD. This key entry method is available only when entering the following:

- Account (MD5)
- Password (MD5)
- URI of the SIP server
- File name

Note: When “Adr” is pressed, the display returns to IP address setting screen.

Note: Press BK key to delete an entered character.

Key Entry Method

Digit Key	The Number of Times Key is Pressed								
	1	2	3	4	5	6	7	8	9
1	1								
2	a	b	c	A	B	C	2		
3	d	e	f	D	E	F	3		
4	g	h	i	G	H	I	4		
5	j	k	l	J	K	L	5		
6	m	n	o	M	N	O	6		
7	p	q	r	s	P	Q	R	S	7
8	t	u	v	T	U	V	8		
9	w	x	y	z	W	X	Y	Z	9
0	0								
*	*	#	.	-	_				

STEP 6: Press OK key and go back to the display of Step 2. Repeat Step 2-4 until all the necessary servers are set.

STEP 7: When all the necessary data is set, press EXIT key on the display of Step 2 to go back to the SIP Settings Menu.

STEP 8: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

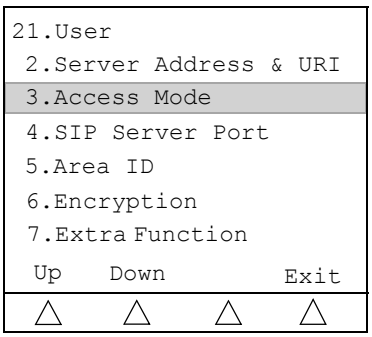
STEP 9: Press Save key on the Main Menu to save the assigned data.

4.5.2.3 Access Mode

On the Access Mode parameter, set the access mode to the SIP server.

STEP 1:Select “3. Access Mode” by pressing “3” key on the SIP Settings Menu.

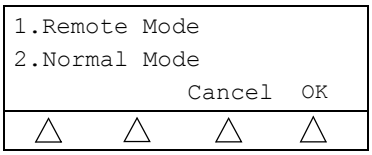
SIP Settings Menu



STEP 2: Specify the access mode to the SIP server. When selecting “1. Remote Mode”, the mode is set to “Remote”. When selecting “2. Normal Mode”, the mode is set to “Normal”.

Note: Normal Mode is set by the default setting.

Note: The currently enabled access mode flashes.



STEP 3: Press OK key and go back to the SIP Settings Menu.

STEP 4: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

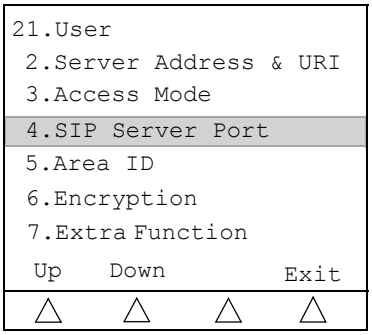
STEP 5: Press Save key on the Main Menu to save the assigned data.

4.5.2.4 SIP Server Port

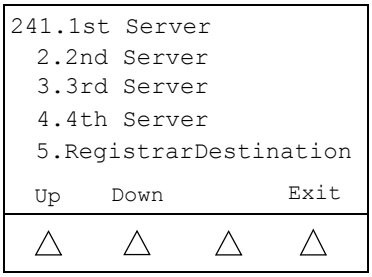
On the SIP Server Port parameter, set the port number of the SIP server.

STEP 1:Select “4. SIP Server Port” by pressing “4” key on the SIP Settings Menu.

SIP Settings Menu

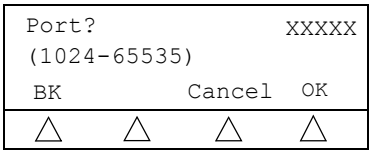


STEP 2: Press “1”, “2”, “3” or “4” key to select a SIP server whose port number is set.



Note: Enter the port number (1024-65535) of the specified SIP server.

Note: The default port number is 5060.



Note: To delete an entered character, press BK key.

STEP 3: Press OK key and go back to the display of Step 2. Repeat Step 2-3 until all the necessary servers are set.

STEP 4: When the all necessary data is set, press EXIT key on the display of Step 2 to go back to the SIP Settings Menu.

STEP 5: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

STEP 6: Press Save key on the Main Menu to save the assigned data.

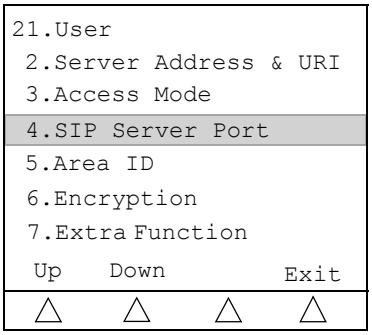
<Register Destination (SIP Server Port)>

Set the port number of the register destination SIP server.

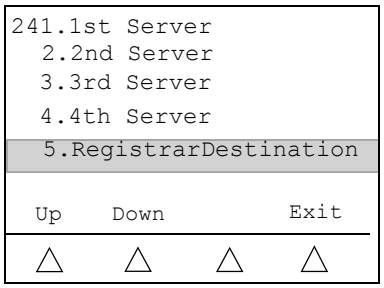
Note: "RegistrarDestination" parameter is available for DtermIP (SIP) with Firmware Version 2.0.4.0 or later. Do not set this parameter except when using Firewall NAT accommodating special SIP-NAT.

STEP 1:Select "4. SIP Server Port" by pressing "4" key on the SIP Settings Menu.

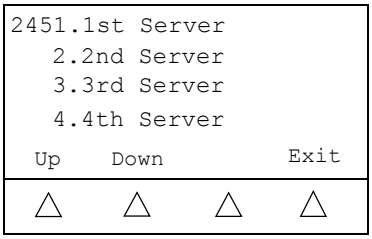
SIP Settings Menu



STEP 2: Select "5. Registrar Destination" by pressing "5" key.

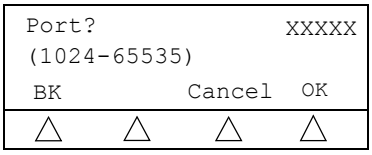


STEP 3: Press "1", "2", "3" or "4" key to select a SIP server whose IP address and domain name are set.



STEP 4: Enter the port number (1024-65535) of the specified SIP server.

Note: The default port number is 5060.



Note: Press BK key to delete an entered character.

STEP 5: Press OK key and go back to the display of Step 2. Repeat Step 2-3 until all the necessary servers are set.

STEP 6: When the all necessary data is set, press EXIT key on the display of Step 2 to go back to the SIP Settings Menu.

STEP 7: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

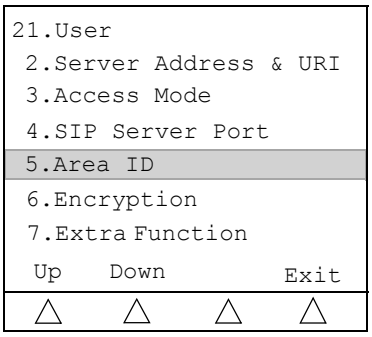
STEP 8: Press Save key on the Main Menu to save the assigned data.

4.5.2.5 Area ID

On the Area ID parameter, specify the country.

STEP 1:Select “5. Area ID” by pressing “5” key on the SIP Settings Menu.

SIP Settings Menu

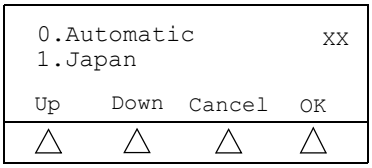


STEP 2: Select a country by pressing each country code. The default setting is “Automatic”.



Code	Country	Code	Country
0	: Automated Setting	9	: Taiwan
1	: Japan	10	: Korea
2	: North America	11	: Brazil
3	: Australia	12	: China
4	: Other Countries	13	: Thailand
5	: Hong Kong	14	: Thailand (EGAT)
6	: Malaysia	15	: Sri Lanka
7	: Singapore	16	: England
8	: Mexico	17	: New Zealand

STEP 3: The Country code to be selected is displayed as follows:



STEP 4: Press OK key and go back to the SIP Settings Menu.

STEP 5: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

STEP 6: Press Save key on the Main Menu to save the assigned data.

4.5.2.6 Encryption

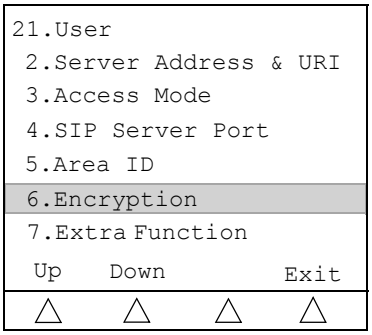
Encryption parameter has the following additional parameters: Authentication Mode, One Time Password and Authentication Status.

<Authentication Mode>

On the Authentication Mode parameters, select whether to enable or disable the authentication mode.

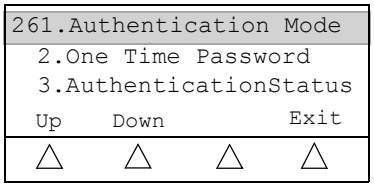
STEP 1:Select “6. Encryption” by pressing “6” key on the SIP Settings Menu.

SIP Settings Menu



STEP 2: Encryption Menu appears. Select “1. Authentication Mode” by pressing “1” key on the Encryption Menu.

Encryption Menu

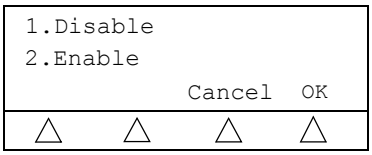


STEP 3: Select whether to authenticate with SIP server.

When selecting “1. Disable”, disable the authentication mode.

When selecting “2. Enable”, enable the authentication mode.

Authentication Mode is disabled by the default setting.



Note: The currently enabled Authentication Mode flashes.

STEP 4: After Authentication Mode is set, press OK key and go back to the Encryption Menu.

STEP 5: Press EXIT key on the Encryption Menu to return to the SIP Settings Menu.

STEP 6: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

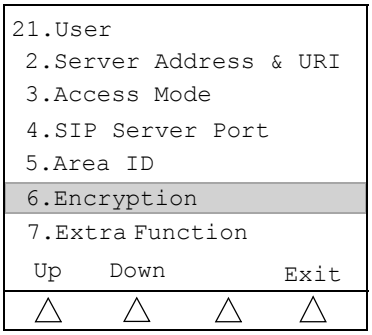
STEP 7: Press Save key on the Main Menu to save the assigned data.

<One Time Password>

On the One Time Password parameters, set the onetime password.

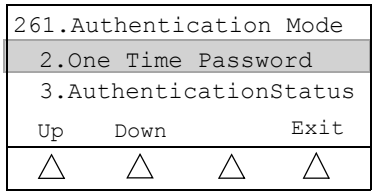
STEP 1: Select “6. Encryption” by pressing “6” key on the SIP Settings Menu.

SIP Settings Menu

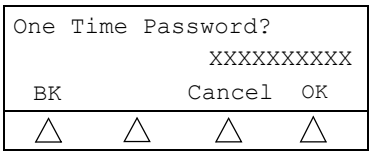


STEP 2: Encryption Menu appears. Select “2. One Time Password” by pressing “2” key on the Encryption Menu.

Encryption Menu



STEP 3: Enter the onetime password [up to 10 digits (0-9, *, #)]. The entered password is indicated in a string of “*” on the display.



Note: Press BK key to delete an entered character.

STEP 4: After entering the onetime password, press OK key and go back to the Encryption Menu.

STEP 5: Press EXIT key on the Encryption Menu to return to the SIP Settings Menu.

STEP 6: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

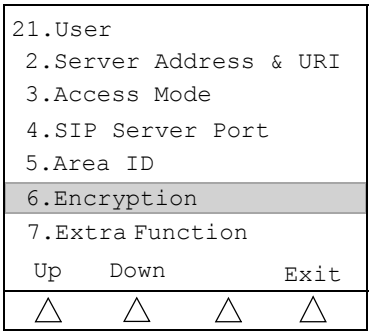
STEP 7: Press Save key on the Main Menu to save the assigned data.

<Authentication Status>

On the Authentication Status parameter, display the authentication status.

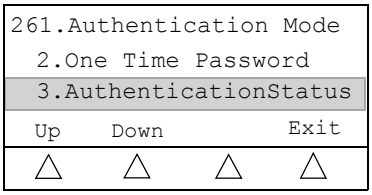
STEP 1:Select “6. Encryption” by pressing “6” key on the SIP Settings Menu.

SIP Settings Menu

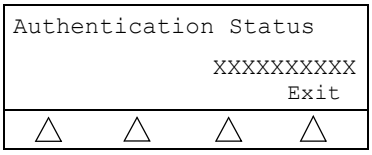


STEP 2: Encryption Menu appears. Select “3. Authentication Status” by pressing “3” key on the Encryption Menu.

Encryption Menu



STEP 3: Display the authentication status.
“Acceptable” is displayed when the authentication with SIP server has been finished and the T-PASS is saved in DtermIP(SIP). “Not Acceptable” is displayed when the authentication with SIP server has not been finished.



STEP 4: After displaying the authentication status, press EXIT key and go back to the Encryption Menu.

4.5.2.7 Extra Function

On the Extra Function parameter, set additional functions such as Retransmit Interval, Keeping Call, and Language Pattern.

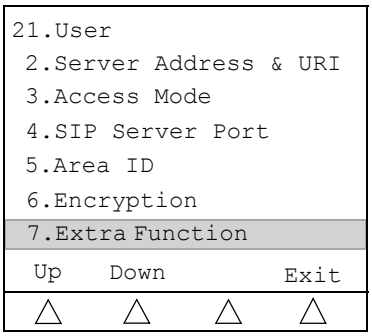
<Retransmit Interval>

On the Retransmit Interval parameter, set retransmit interval of REGISTER and SUBSCRIBE message during the registration process.

Note: This parameter is available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

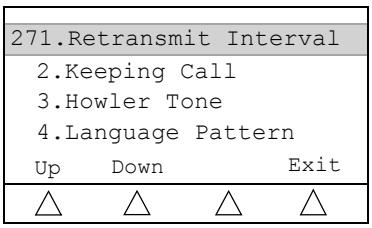
STEP 1:Select "7. Extra Function" by pressing "7" key on the SIP Settings Menu.

SIP Settings Menu



STEP 2: Extra Function Menu appears. Select "1. Retransmit Interval" by pressing "1" key on the Extra Function Menu.

Extra Function Menu

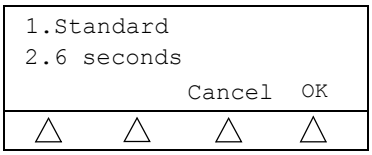


Note: "1. Retransmit Interval", "2. Keeping Call" and "4. Language Pattern" are available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

Note: "3. Howler Tone" is not supported by DtermIP(SIP) with Firmware Version 4.1.x.x. The setting should be "1. Disable" (fixed).

STEP 3: Retransmit Interval Menu appears.
Select “1. Standard” by pressing “1” key to apply the standard interval.
Select “2. 6 seconds” by pressing “2” key to apply 6 second - Interval.
“1. Standard” is applied at default setting.

Note: The currently applied interval flashes.



STEP 4: After Retransmit Interval is set, press OK key and go back to the Extra Function Menu.

STEP 5: Press EXIT key on the Extra Function Menu to return to the SIP Settings Menu.

STEP 6: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

STEP 7: Press Save key on the Main Menu to save the assigned data.

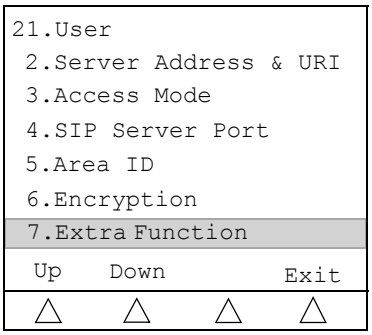
<Keeping Call>

On the Keeping Call parameter, set whether call connection is kept up even if DtermIP(SIP) detects that communication failure occurs between the system and DtermIP(SIP).

Note: This parameter is available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

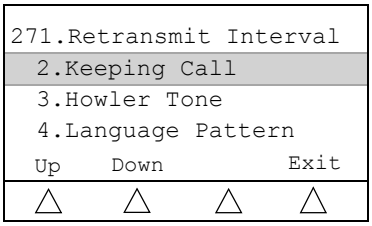
STEP 1:Select “7. Extra Function” by pressing “7” key on the SIP Settings Menu.

SIP Settings Menu



STEP 2: Extra Function Menu appears. Select “2. Keeping Call” by pressing “2” key on the Extra Function Menu.

Extra Function Menu

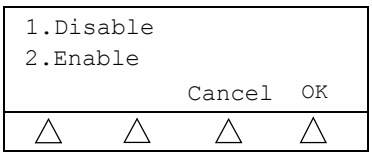


Note: “1. Retransmit Interval”, “2. Keeping Call” and “4. Language Pattern” are available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

Note: “3. Howler Tone” is not supported by DtermIP(SIP) with Firmware Version 4.1.x.x. The setting should be “1. Disable” (fixed).

STEP 3: Keeping Call Menu appears.
Select “1. Disable” by pressing “1” key to disable Keeping Call.
Select “2. Enable” by pressing “2” key to enable Keeping Call. **Note 22**
Keeping Call is enabled at default setting.

Note: The currently selected item flashes.



STEP 4: After Keeping Call is set, press OK key and go back to the Extra Function Menu.

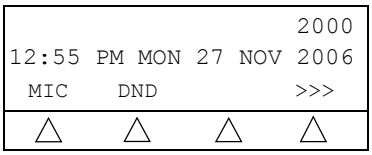
STEP 5: Press EXIT key on the Extra Function Menu to return to the SIP Settings Menu.

STEP 6: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

STEP 7: Press Save key on the Main Menu to save the assigned data.

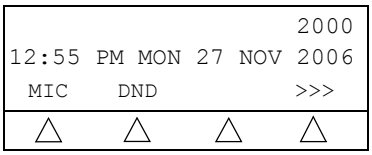
Note 22: When communication failure occurs between the system and DtermIP(SIP) that enables Keeping Call function, DtermIP(SIP) displays as follows.

- When DtermIP(SIP) station is engaging in a call



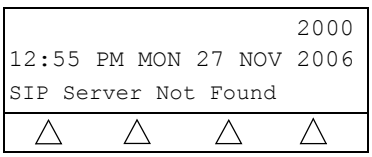
Destination number, date and time, and Soft keys are displayed on the DtermIP(SIP).

- When communication failure occurs between the system and DtermIP (SIP)



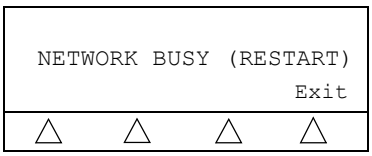
Display on the DtermIP(SIP) is not changed. Line is connected.

If any keys except Volume Control key are pressed after the communication failure



"SIP Server Not Found" is displayed on DtermIP(SIP) about thirty seconds later. However, line is still connected.

- When DtermIP(SIP) station goes on-hook after finishing the call



"NETWORK BUSY (RESTART)" is displayed on DtermIP(SIP). Then DtermIP(SIP) is reset thirty seconds later.

- When the communication failure is detected at DtermIP(SIP), key operations except the Volume Control key become invalid. Thus, Call Hold and Call Forwarding are also invalid.
- When the communication failure is detected at DtermIP(SIP) while DtermIP (SIP) is operating Call Hold or Call Forwarding, the call is not kept up. "NETWORK BUSY (RESTART)" is displayed on DtermIP(SIP), then DtermIP(SIP) is reset thirty seconds later.
- When DtermIP(SIP) that uses headset while engaging in a call, the call is kept up even if the system is failed.

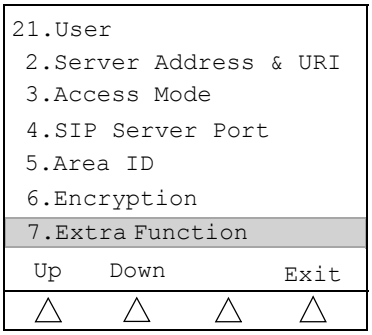
<Language Pattern>

On the Language Pattern parameter, set Language Pattern for display format: Automatic, Pattern 1 (Standard) and Pattern 2 (For Europe).

Note: This parameter is available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

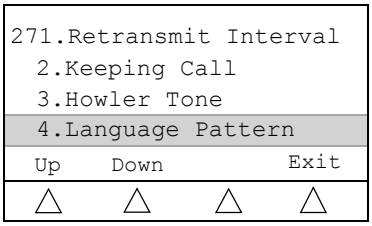
STEP 1:Select "7. Extra Function" by pressing "7" key on the SIP Settings Menu.

SIP Settings Menu



STEP 2: Extra Function Menu appears. Select "4. Language Pattern" by pressing "4" key on the Extra Function Menu.

Extra Function Menu



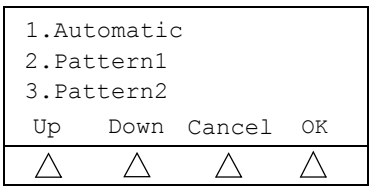
Note: "1. Retransmit Interval", "2. Keeping Call" and "4. Language Pattern" are available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

Note: "3. Howler Tone" is not supported by DtermIP(SIP) with Firmware Version 4.1.x.x. The setting should be "1. Disable" (fixed).

STEP 3: Language Pattern Menu appears.

Select “1. Automatic” by pressing “1” key to activate Automatic Language Pattern.
Select “2. Pattern1” by pressing “2” key to activate Language Pattern 1 (Standard).
Select “3. Pattern2” by pressing “3” key to activate Language Pattern 2 (For Europe).
Default Language Pattern is set as “1. Automatic”.

Note: The currently selected item flashes.



STEP 4: After Language Pattern is set, press OK key and go back to the Extra Function Menu.

STEP 5: Press EXIT key on the Extra Function Menu to return to the SIP Settings Menu.

STEP 6: Press EXIT key on the SIP Settings Menu and go back to the Main Menu.

STEP 7: Press Save key on the Main Menu to save the assigned data.

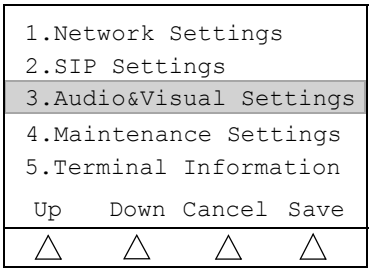
4.5.3 Audio & Visual Settings

This section explains each setting on the Audio & Visual Settings Menu. The Audio & Visual Settings Menu has the following items:

- Audio Settings : Audio-related setting.
- Visual Settings : LCD display setting.

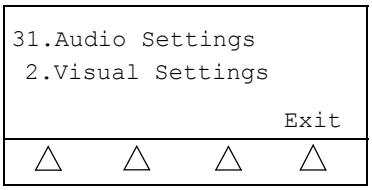
STEP 1:To open the Audio & Visual Settings Menu, select “3.Audio&Visual Settings” by pressing “3” key on the Main Menu.

Main Menu



STEP 2: The Audio & Visual Settings Menu appears as follows:

Audio & Visual Settings Menu



4.5.3.1 Audio Settings

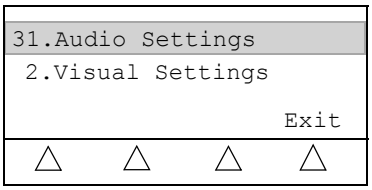
Audio Settings parameter has the following additional parameters: Confirmation Tone, Music Select, Sidetone Volume, Send Gain, Receive Bias, Receive Gain, Ring Settings, RTP Alarm and DTMF Play Mode.

<Confirmation Tone>

On the Confirmation Tone parameter, select whether to enable the confirmation tone.

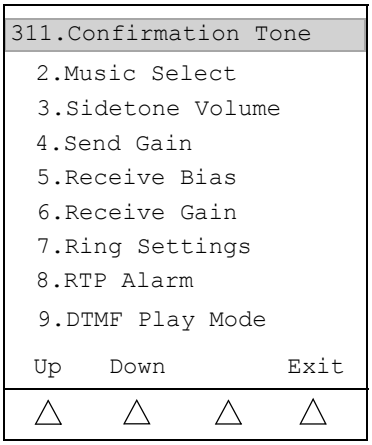
STEP 1:Select “1. Audio Settings” by pressing “1” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu

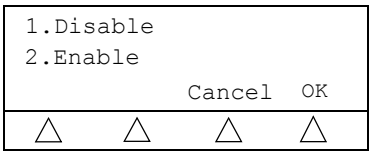


STEP 2: Audio Settings Menu appears. Select “1. Confirmation Tone” by pressing “1” key.

Audio Settings Menu



STEP 3: Select whether to enable the confirmation tone. To disable the confirmation tone, select “1. Disable” by pressing “1”key. To enable the confirmation tone, select “2. Enable” by pressing “2” key. The confirmation tone is enabled by the default setting.



STEP 4: Press OK key and go back to the Audio Settings Menu.

STEP 5: Press EXIT key on the Audio Setting Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

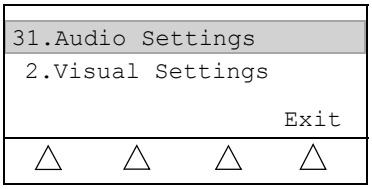
STEP 7: Press Save key on the Main Menu to save the assigned data.

<Music Select>

On the Music Select parameter, select whether to use the download data or default data for music on hold.

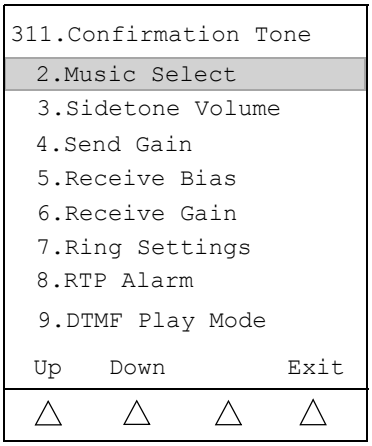
STEP 1:Select “1. Audio Settings” by pressing “1” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu



STEP 2: Audio Settings Menu appears. Select “2. Music Select” by pressing “2” key.

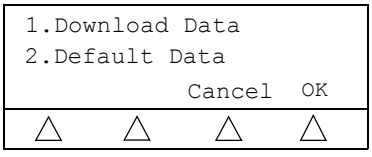
Audio Settings Menu



STEP 3: Select whether to use the download data or default data for music on hold.
When selecting “1. Download Data”, the download data is used for music on hold. When selecting “2. Default Data”, the default data is used for music on hold.

Note: The currently enabled music select flashes.

Note: Default Data (Minuet) is set by the default setting.



STEP 4: Press OK key and go back to the Audio Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

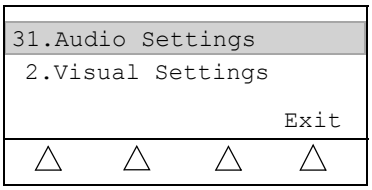
STEP 7: Press Save key on the Main Menu to save the assigned data.

<Sidetone Volume>

On the Sidetone Volume parameter, set the volume of the side tone.

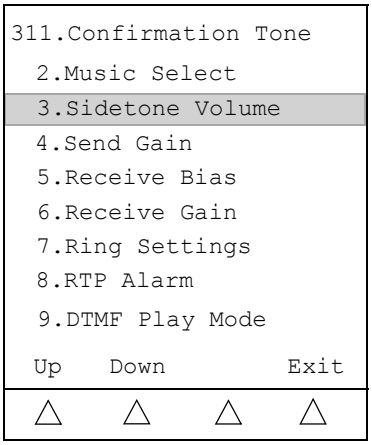
STEP 1:Select “1. Audio Settings” by pressing “1” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu

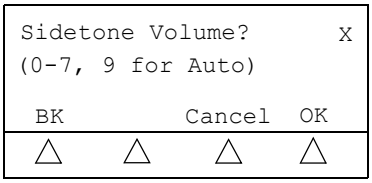


STEP 2: Audio Settings Menu appears. Select “3. Sidetone Volume” by pressing “3”.

Audio Settings Menu



STEP 3: Specify the side tone volume [(lower) 0-7 (higher), 9 (Automatic)]. The default value is “9”.



Entered Value	Volume [dB]
0	-54 (minimum)
1	-48
2	-42
3	-36
4	-30
5	-24
6	-18
7	-12 (maximum)
9	Automatic

Note: Press BK key to delete an entered digit.

STEP 4: Press OK key and go back to the Audio Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

STEP 7: Press Save key on the Main Menu to save the assigned data.

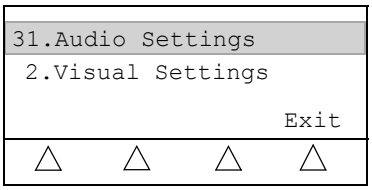
<Send Gain>

On the Send Gain parameter, set the sending gain of the handset.

Note: The sending/receiving gain from the System has higher priority than the setting value from the terminal.

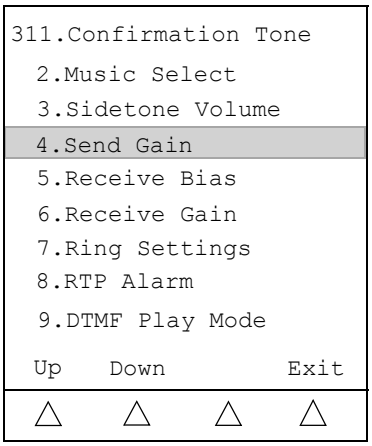
STEP 1:Select “1. Audio Settings” by pressing “1” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu

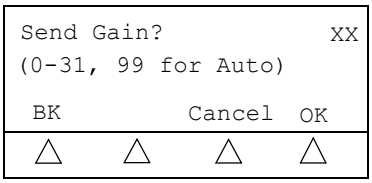


STEP 2: Audio Settings Menu appears. Select “4. Send Gain” by pressing “4” key.

Audio Settings Menu



STEP 3: Specify the sending gain of the handset [(lower) 0-31 (higher), 99 (Automatic)]. The default value is “99”.



Gain Value	Country
0	(minimum volume)
~	~
23	
24	North America Australia
25	
26	
27	
28	
29	
30	
31	(maximum volume)
99	Automatic

Note: Press BK key to delete an entered digit.

STEP 4: Press OK key and go back to the Audio Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

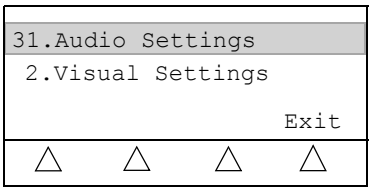
STEP 7: Press Save key on the Main Menu to save the assigned data.

<Receive Bias>

On the Receive Bias parameter, set the receiving bias of the handset.

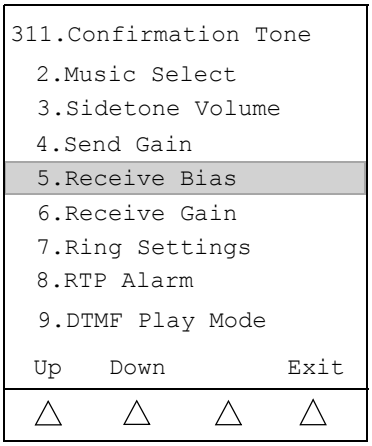
STEP 1:Select “1. Audio Settings” by pressing “1” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu

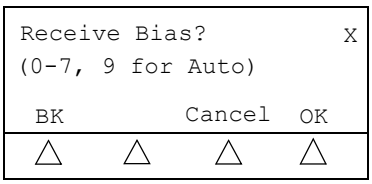


STEP 2: Audio Settings Menu appears. Select “5. Receive Bias” by pressing “5” key.

Audio Settings Menu



STEP 3: Specify the receiving bias of the handset [(lower) 0-7 (higher), 9 (Automatic)]. The default value is “9”.



Receive Bias	dB
7	-6
6	-4
5	-2
4	0
3	6
2	4
1	2
0	0
9	Automatic

Note: Press BK key to delete an entered digit.

STEP 4: Press OK key and go back to the Audio Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

STEP 7: Press Save key on the Main Menu to save the assigned data.

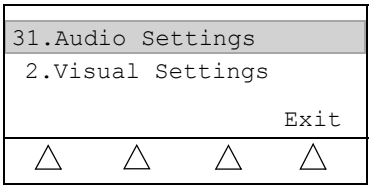
<Receive Gain>

On the Receive Gain parameter, set the receiving gain of the handset.

Note: The sending/receiving gain from the System has higher priority than the setting value from the terminal.

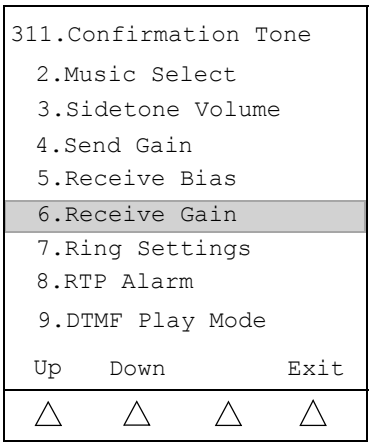
STEP 1:Select “1. Audio Settings” by pressing “1” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu

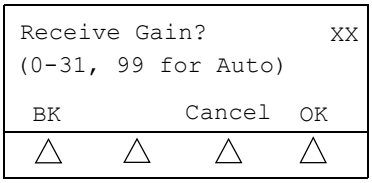


STEP 2: Audio Settings Menu appears. Select “6. Receive Gain” by pressing “6” key.

Audio Settings Menu



STEP 3: Specify the receiving gain of the handset [(lower) 0-31 (higher), 99 (Automatic)]. The default value is "99".



Gain Value	Country
0	(minimum volume)
~	~
16	
17	Australia
18	
19	
20	
21	
22	North America
23	
24	
~	~
31	(maximum volume)
99	Automatic

Note: Press BK key to delete an entered digit.

STEP 4: Press OK key and go back to the Audio Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

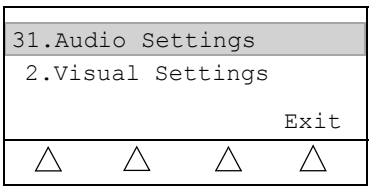
STEP 7: Press Save key on the Main Menu to save the assigned data.

<Ring Settings>

On the Ring Settings parameter, set the Tone Type to each Ringer Pattern.

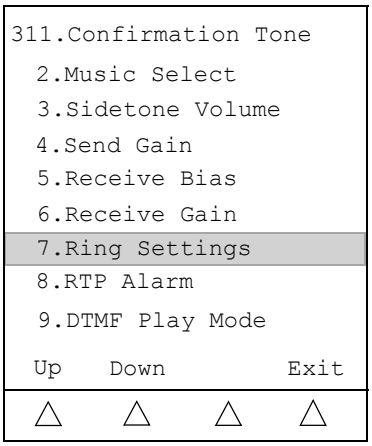
STEP 1:Select "1. Audio Settings" by pressing "1" key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu

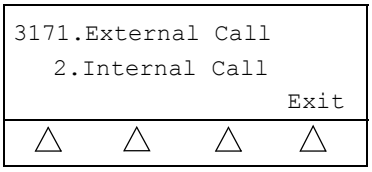


STEP 2: Audio Settings Menu appears. Select “7. Ring Settings” by pressing “7” key.

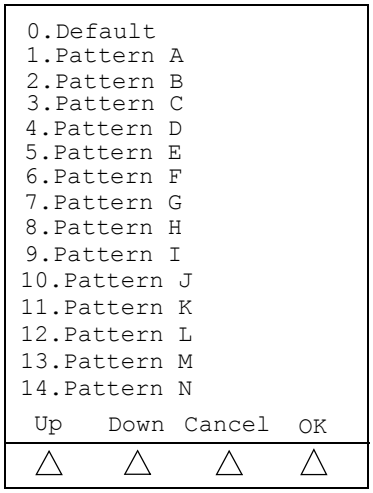
Audio Settings Menu



STEP 3: Select a Ringer Pattern (Ringing Tone for External Call or Ringing Tone for Internal Call) to be set.



STEP 4: Set a tone type for the Ringer Pattern specified at Step 3. “0. Default” is set for all the Ringer Patterns by the default setting.



Tone Type No.	1st Frequency [Hz]	2nd Frequency [Hz]	Tone Kind
Pattern A	520	660	16 Hz modulation
Pattern B	520	660	8 Hz modulation
Pattern C	1400	1100	Door Phone
Pattern D	1100		No modulation
Pattern E	540		No modulation
Pattern F	1100	1400	16 Hz modulation
Pattern G	660	760	16 Hz modulation
Pattern H	1100		Envelope
Pattern I			Door Phone Melody
Pattern J			Melody 1
Pattern K			Melody 2
Pattern L			Melody 3
Pattern M			Melody 4
Pattern N			Melody 5

STEP 5: Press OK key to go back to the display of Step 3. Repeat Step 3-4 until all the necessary Ringer Patterns are set.

STEP 6: When the all necessary data is set, press EXIT key on the display of Step 3 and go back to the Audio Settings Menu.

STEP 7: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 8: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

STEP 9: Press Save key on the Main Menu to save the assigned data.

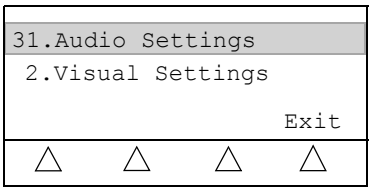
<RTP Alarm>

On the RTP Alarm parameter, determine whether to send RTP Warning Tone to the terminal.

Note: This parameter is available for DtermIP (SIP) with Firmware Version 3.0.0.0 or later.

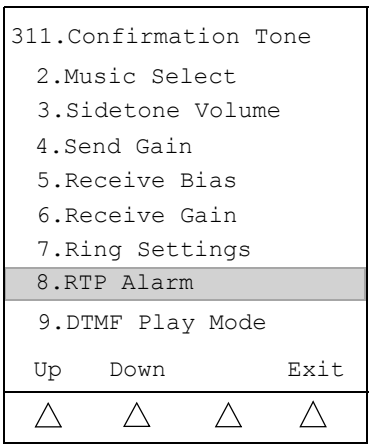
STEP 1:Select “1. Audio Settings” by pressing “1” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu



STEP 2: Audio Settings Menu appears. Select “8. RTP Alarm” by pressing “8” key.

Audio Settings Menu



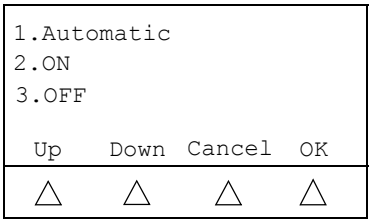
STEP 3: Select whether to send RTP Warning Tone to the terminal.

When selecting “1. Automatic”, RTP Warning Tone is sent to the terminal according to directions from the System.

When selecting “2.ON”, RTP Warning Tone is sent to the terminal.

When selecting “3.OFF”, RTP Warning Tone is not sent to the terminal.

Note: “Automatic” has been set by the default.



STEP 4: Press OK key and go back to the Audio Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

STEP 7: Press Save key on the Main Menu to save the assigned data.

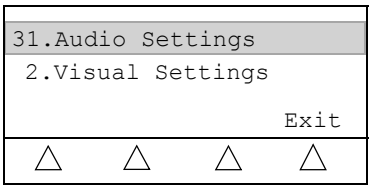
<DTMF Play Mode>

On the DTMF Play Mode parameter, determine whether to play back the DTMF tone.

Note: This parameter is available for DtermIP (SIP) with Firmware Version 3.0.0.0 or later.

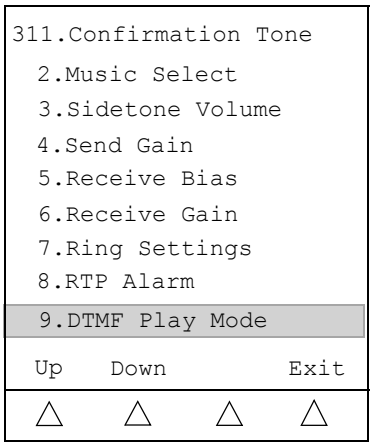
STEP 1:Select “1. Audio Settings” by pressing “1” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu



STEP 2: Audio Settings Menu appears. Select “9. DTMF Play Mode” by pressing “9” key.

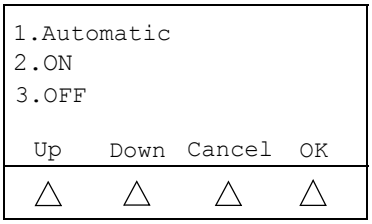
Audio Settings Menu



STEP 3: Select whether to play back the DTMF tone.

When selecting “1. Automatic”, DTMF tone is played back according to directions from the System.
When selecting “2.ON”, DTMF tone is played back.
When selecting “3.OFF”, DTMF tone is not played back.

Note: “Automatic” has been set by the default.



STEP 4: Press OK key and go back to the Audio Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

STEP 7: Press Save key on the Main Menu to save the assigned data.

4.5.3.2 Visual Settings

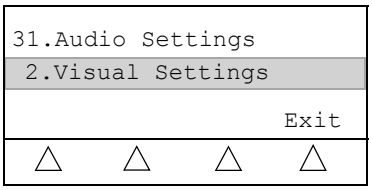
Visual Settings parameter has the following additional parameters: Time Display Type, Local Volume and Language.

<Time Display Type>

On the Time Display Type parameters, set the time display on the LCD.

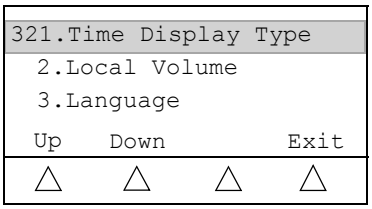
STEP 1:Select “2. Visual Settings” by pressing “2” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu

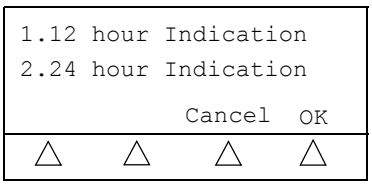


STEP 2: Visual Settings Menu appears. Select “1. Time Display Type” by pressing “1” key.

Visual Settings Menu



STEP 3: Select either 12-hour (AM/PM) or 24-hour time indication. The default setting is 12-hour time indication.



Note: The currently enabled item flashes.

STEP 4: Press OK key and go back to the Visual Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

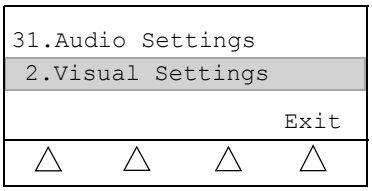
STEP 7: Press Save key on the Main Menu to save the assigned data.

<Local Volume>

On the Local Volume parameters, set whether to display the local volume indication on the LCD.

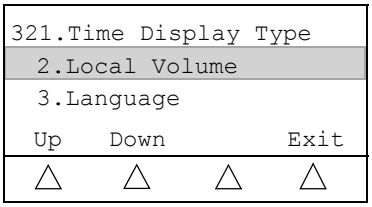
STEP 1:Select “2. Visual Settings” by pressing “2” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu

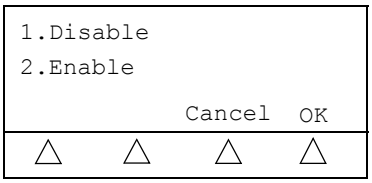


STEP 2: Visual Settings Menu appears. Select “2. Local Volume” by pressing “2” key.

Visual Settings Menu



STEP 3: Not to display the local volume indication, select “1. Disable” by pressing “1” key. To display the local volume indication, select “2. Enable” by pressing “2” key. The default setting is “Enable”.



Note: The currently enabled item flashes.

STEP 4: Press OK key and go back to the Visual Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

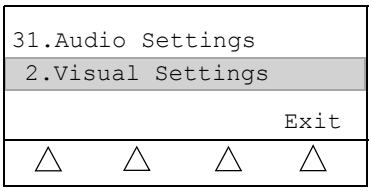
STEP 7: Press Save key on the Main Menu to save the assigned data.

<Language>

On the Language parameters, specify a language to be displayed on the LCD.

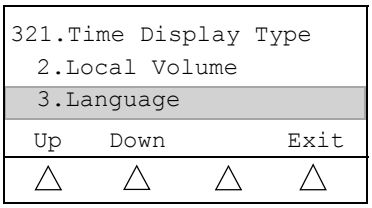
STEP 1:Select “2. Visual Settings” by pressing “2” key on the Audio & Visual Settings Menu.

Audio & Visual Settings Menu



STEP 2: Visual Settings Menu appears. Select “3. Language” by pressing “3” key.

Visual Settings Menu



STEP 3: Select a language to be displayed on the LCD. The selectable languages are English (NEC), Portuguese (NEC), Spanish (NEC), and French (NEC) for DtermIP (SIP) with Firmware Version earlier than 4.1.x.x.
For DtermIP (SIP) with Firmware Version 4.1.x.x or later, the selectable languages are German, Italian, Dutch, Norwegian, Danish, Swedish, Greek, English, Portuguese, Spanish, and French in addition to above. “1. Automatic” is set by the default setting.

Note: When Norwegian is selected, language is displayed in English.



Note: The currently enabled language flashes, and the number of language is displayed upper right for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

STEP 4: Press OK key and go back to the Visual Settings Menu.

STEP 5: Press EXIT key on the Audio Settings Menu to go back to the Audio & Visual Settings Menu.

STEP 6: Press EXIT key on the Audio & Visual Settings Menu and go back to the Main Menu.

STEP 7: Press Save key on the Main Menu to save the assigned data.

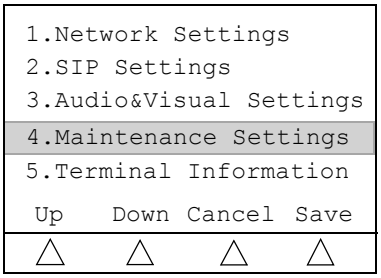
4.5.4 Maintenance Settings

This section explains each setting on the Maintenance Settings Menu. The Maintenance Settings Menu has the following items:

- Download Menu : Set the downloading-related data.
- Hard Reset : Reset DtermIP (SIP) without saving the data (hard reset).
- Factory Value : Reset the DtermIP (SIP) to its factory defaults.
- Simple Test Mode : Perform the phone test.
- Config Password Mode : Set the control method of Configuration Password.

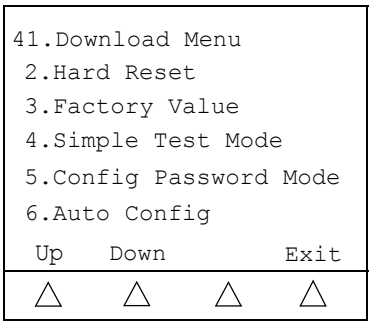
STEP 1: To open the SIP Settings Menu, select “4. Maintenance Settings” by pressing “4” on the Main Menu.

Main Menu



STEP 2: The Maintenance Settings Menu appears as follows:

Maintenance Settings Menu



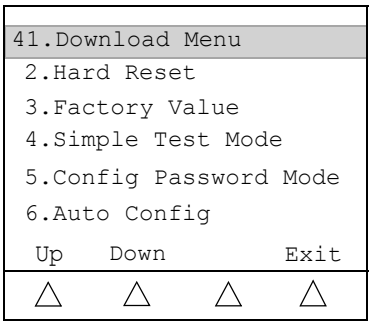
Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

4.5.4.1 Download Menu

On the Download Menu parameters, set IP address of the TFTP/FTP server and download program or music on hold file.

STEP 1:Select “1. Download Menu” by pressing “1” key on the Maintenance Settings Menu.

Maintenance Settings Menu

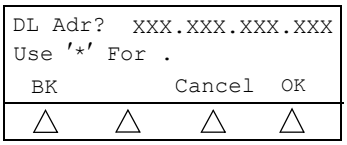


Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 2: Select “2. Download Address” by pressing “2” key. At this time, if the IP address of the TFTP/FTP server has already been assigned, go to Step 5.



STEP 3: Enter IP address of the TFTP/FTP server. For example, to set the IP address of 10.41.208.205, enter 10*41*208*205 [separate with an asterisk (*)].



Note: Press BK key to delete an entered character.

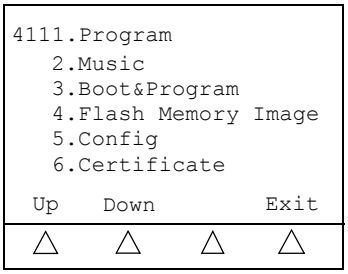
STEP 4: Press OK key to save the assigned IP address, and go back to the display of Step 2.

STEP 5: Select “1. Download” by pressing “1” key.



STEP 6: The following display appears.

Note: If the Download Address parameter is not assigned, no reaction occurs.

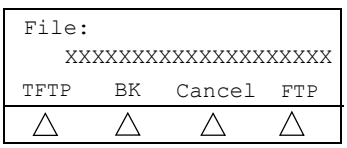


Select “1. Program” by pressing “1” key to download the program.
Select “2. Music” by pressing “2” key to download the data of music on hold.
Select “3. Boot&Program” to download the boot and program (application).
Select “4. Flash Memory Image” to download the data image on the flash memory.

Note: When the data of music on hold is downloaded by “2. Music”, the downloaded data is set as “312. Music Select” data on Audio Settings Menu after the data download is completed.

Note: “5. Config” and “6. Certificate” are not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 7: The default file name is displayed on the LCD. If it is necessary to change the file name to be downloaded, change the file name. A maximum of 20 characters (“0-9”, “A-Z”, “a-z”, “*”, “#”, “.”, “-” or “_”) can be entered as a file name. **Note 23**



Note: Press BK key to delete an entered character.

Note 23: An input character or number changes depending on the number of times the digit key is pressed. For details, see the following table. For example, if the digit key “2” is pressed seven times, “2” is displayed on the LCD. Then, press “2” again, “a” is displayed on the LCD. This key entry method is available only when entering the following:

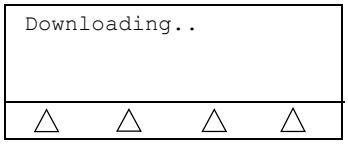
- Account (MD5)
- Password (MD5)
- URI of the SIP server
- File name

Key Entry Method

Digit Key	The Number of Times Key is Pressed								
	1	2	3	4	5	6	7	8	9
1	1								
2	a	b	c	A	B	C	2		
3	d	e	f	D	E	F	3		
4	g	h	i	G	H	I	4		
5	j	k	l	J	K	L	5		
6	m	n	o	M	N	O	6		
7	p	q	r	s	P	Q	R	S	7
8	t	u	v	T	U	V	8		
9	w	x	y	z	W	X	Y	Z	9
0	0								
*	*	#	.	-	_				

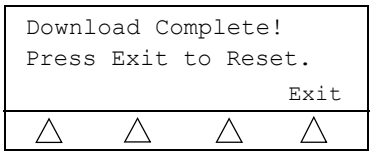
STEP 8: After specifying the file name to be downloaded, press TFTP or FTP key to start the downloading.

During the downloading process.

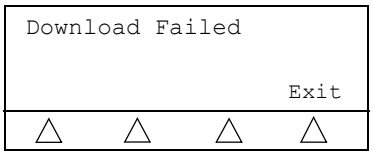


STEP 9: When the downloading process is completed, the display changes as follows:

When the downloading ended successfully:



When the downloading ended in failure:



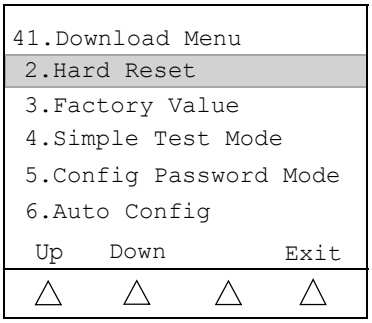
STEP 10: When pressing EXIT key while “Download Complete!” is displayed, the terminal will be reset (hard reset). When pressing EXIT key while “Download Failed” is displayed, the display of STEP 6 will appear again.

4.5.4.2 Hard Reset

On the Hard Rest parameters, reset the terminal without saving the data.

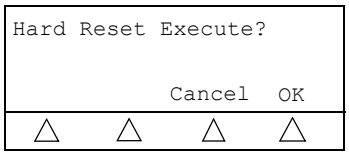
STEP 1: Select “2. Hard Reset” by pressing “2” key on the Maintenance Settings Menu.

Maintenance Settings Menu



Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 2: Press OK key to reset the terminal (hard reset). At this time, the setting data is not saved.

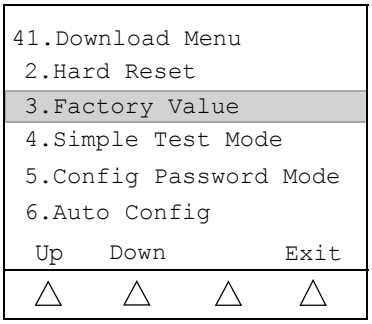


4.5.4.3 Factory Value

On the Factory Value parameters, reset the terminal to its factory defaults.

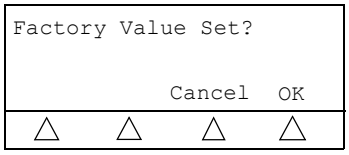
STEP 1: Select “3. Factory Value” by pressing “3” key on the Maintenance Settings Menu.

Maintenance Settings Menu



Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 2: Press OK key to reset the terminal to its factory defaults.



Note: After resetting the terminal to its factory defaults, new data is saved when Save key is pressed on the Main Menu.

4.5.4.4 Simple Test Mode

Simple Test Mode parameter has the following additional parameters: Test Call On, Call Test Address, Key Test (Random), Key Test (Seq.), Voice Loopback and Speaker Test.

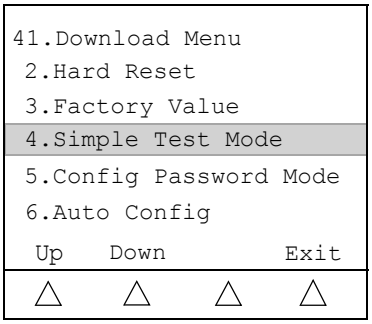
<Test Call On>

On the Test Call On parameters, perform the telephone call test.

Note: The Call Test Address parameter must be assigned before starting the test. Refer to <Call Test Address>.

STEP 1: Select "4. Simple Test Mode" by pressing "4" key on the Maintenance Settings Menu.

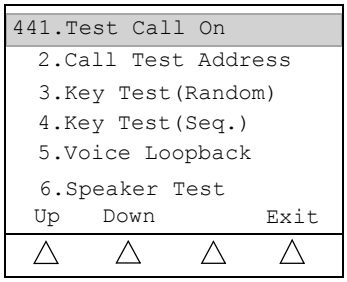
Maintenance Settings Menu



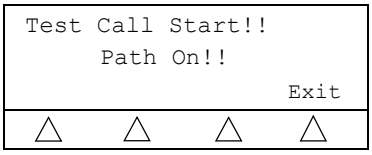
Note: "6. Auto Config" is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 2: Select "1. Test Call On" by pressing "1" key on the Simple Test Mode Menu.

Simple Test Mode Menu



STEP 3: The telephone call test is started. The display changes as follows:

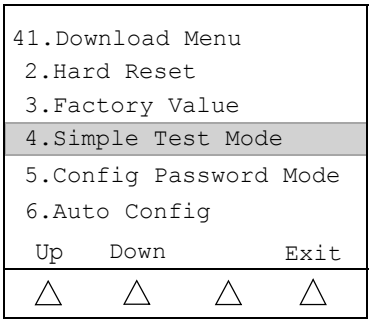


<Call Test Address>

On the Call Test Address parameters, set IP address of the destination terminal for performing the telephone call test.

STEP 1: Select “4. Simple Test Mode” by pressing “4” key on the Maintenance Settings Menu.

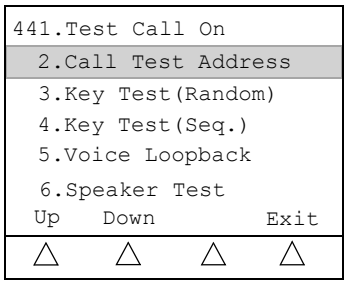
Maintenance Settings Menu



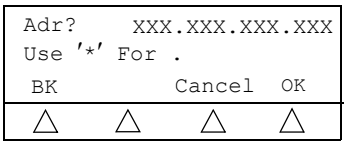
Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 2: Select “2. Call Test Address” by pressing “2” key on the Simple Test Mode Menu.

Simple Test Mode Menu



STEP 3: Enter IP address of the destination terminal. For example, to set the IP address of 10.41.208.205, enter 10*41*208*205 [separate with an asterisk (*)].



Note: Press BK key to delete an entered character.

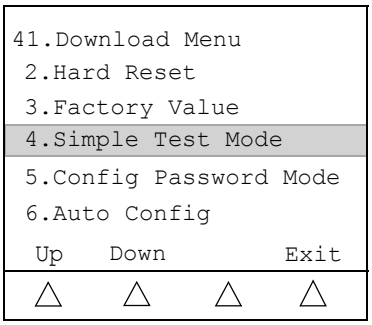
STEP 4: Press OK key to enable the entered IP address, and go back to the Simple Test Mode Menu.

<Key Test (Random)>

On the Key Test (Random) parameters, perform the key test (keys are randomly pressed).

STEP 1: Select “4. Simple Test Mode” by pressing “4” key on the Maintenance Settings Menu.

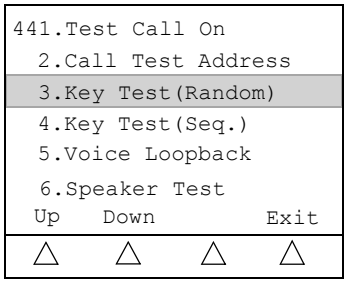
Maintenance Settings Menu



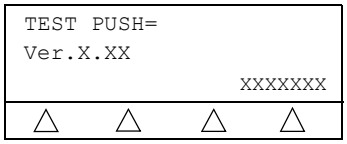
Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 2: Select “3. Key Test (Random)” by pressing “3” key on the Simple Test Mode Menu.

Simple Test Mode Menu



STEP 3: The Key Test (Random) screen is displayed. Perform the key test (keys are randomly pressed).



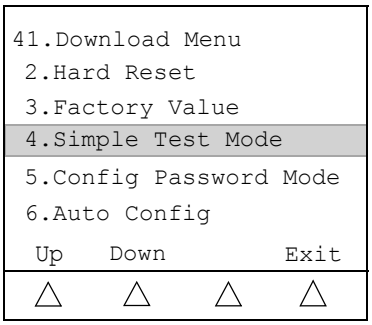
STEP 4: To end the key test, go off-hook. The display returns to the Simple Test Mode Menu.

<Key Test (Seq.)>

On the Key Test (Seq.) parameters, perform the key test (keys are sequentially pressed).

STEP 1: Select “4. Simple Test Mode” by pressing “4” key on the Maintenance Settings Menu.

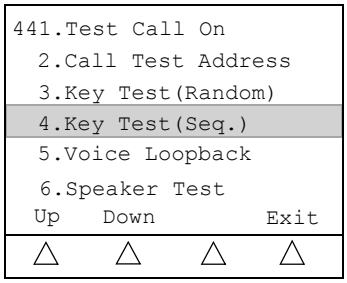
Maintenance Settings Menu



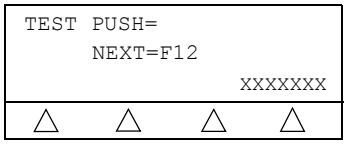
Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 2: Select “4. Key Test (Seq.)” by pressing “4” key on the Simple Test Mode Menu.

Simple Test Mode Menu



STEP 3: The Key Test (Seq.) screen is displayed. Perform the key test (keys are sequentially pressed).



STEP 4: To end the key test, go off-hook. The display returns to the Simple Test Mode Menu.

<Voice Loopback>

On the Voice Loopback parameters, perform the voice loopback test.

STEP 1: Select "4. Simple Test Mode" by pressing "4" key on the Maintenance Settings Menu.

Maintenance Settings Menu

```
41.Download Menu
 2.Hard Reset
 3.Factory Value
 4.Simple Test Mode
 5.Config Password Mode
 6.Auto Config
  Up    Down          Exit
```

Note: "6. Auto Config" is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

STEP 2: Select "5. Voice Loopback" by pressing "5" key on the Simple Test Mode Menu.

Simple Test Mode Menu

```
441.Test Call On
  2.Call Test Address
  3.Key Test(Random)
  4.Key Test(Seq.)
  5.Voice Loopback
  6.Speaker Test
 Up    Down          Exit
```

STEP 3: Determine how to perform the loopback test.

Key No.	Send (Speak)	Receive (Hear)
1	Handset	Handset
2	Handset	Speaker
3	Headset	Headset
4	Headset	Speaker
5	Microphone	Handset
6	Microphone	Headset
7	Microphone	Speaker

```
1.Handset - Hand Speaker
2.Handset - Speaker
3.Headset - Head Speaker
4.Headset - Speaker
5.MIC - Handset Speaker
6.MIC - Headset Speaker
7.MIC - Speaker
  Up    Down          Exit
```

STEP 4: The display changes as follows:

```
Loopback Test Start!!
XXXX-XXXX
                    Exit
```

STEP 5: After the loopback test is completed, press EXIT key.

<Speaker Test>

On the Speaker Test parameters, perform the speaker test.

STEP 1: Select “4. Simple Test Mode” by pressing “4” key on the Maintenance Settings Menu.

Maintenance Settings Menu

```
41.Download Menu
 2.Hard Reset
 3.Factory Value
 4.Simple Test Mode
 5.Config Password Mode
 6.Auto Config
  Up    Down          Exit
```

Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

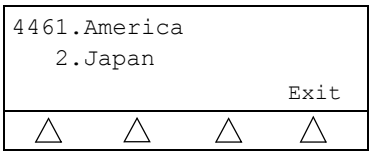
STEP 2: Select “6. Speaker Test” by pressing “6” key on the Simple Test Mode Menu.

Simple Test Mode Menu

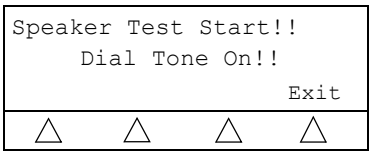
```
441.Test Call On
  2.Call Test Address
  3.Key Test(Random)
  4.Key Test(Seq.)
  5.Voice Loopback
  6.Speaker Test
  Up    Down          Exit
```

STEP 3: Select either “1. America” (by pressing “1” key) or “2. Japan” (by pressing “2” key).

Note: Dial Tone sounds immediately after pressing “1” or “2” key.



STEP 4: The display changes as follows. You hear Dial Tone from the speaker at the maximum volume.



STEP 5: After hearing the Dial Tone, press EXIT key to go back to the Simple Test Mode Menu.

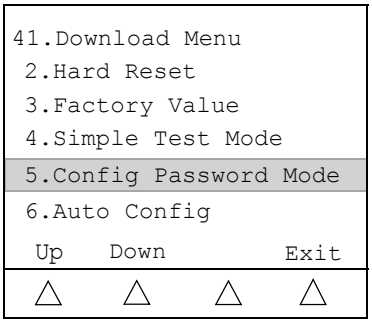
4.5.4.5 Config Password Mode

On the Config Password Mode parameter, set the control method of Configuration Password.

Note: This parameter is available for DtermIP (SIP) with Firmware Version 3.0.0.0 or later.

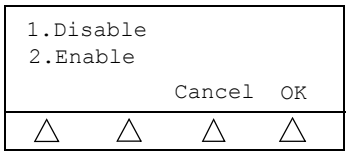
STEP 1: Select “5. Config Password Mode” by pressing “5” key on the Maintenance Settings Menu.

Maintenance Settings Menu



Note: “6. Auto Config” is not supported by DtermIP (SIP) with Firmware Version 4.1.x.x.

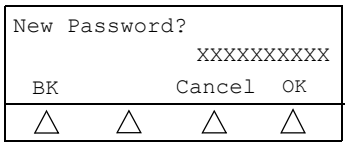
STEP 2: Select either “1. Disable” (by pressing “1” key) or “2. Enable” (by pressing “2” key). When “1. Disable” is selected, password authentication for User Mode is set to OFF. When “2. Enable” is selected, password authentication for User Mode is set to ON.



Note: “1. Disable” is set by the default setting.

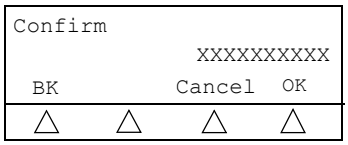
When “1. Disable” is selected, go to the STEP 5.
When “2. Enable” is selected, go to the next step (STEP 3).

STEP 3: Enter the login password [up to 20 digits (0-9, *, #)]. The entered password is indicated in a string of "*" on the display.

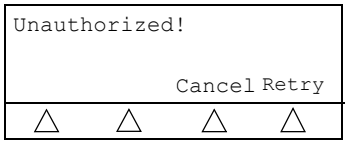


Note: To delete an entered character, press BK key.

STEP 4: Press OK key. The following display appears. Enter the same password again for confirmation.



Note: If the password entered here differs from the password entered in STEP 3, the following message will be displayed. To re-enter the correct password, press Retry key.



STEP 5: Press OK key to go back to the Maintenance Settings Menu.

STEP 6: Press EXIT key on the Maintenance Settings to go back to the Main Menu.

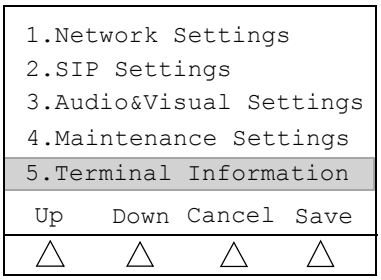
STEP 7: Press Save key on the Main Menu to save the assigned data.

4.5.5 Terminal Information

This section explains each setting on the Terminal Information Menu. The Terminal Information Menu is used to display the hardware version, firmware version and MAC address of the terminal.

STEP 1: To open the Terminal Information Menu, select “5. Terminal Information” by pressing “5” key on the Main Menu.

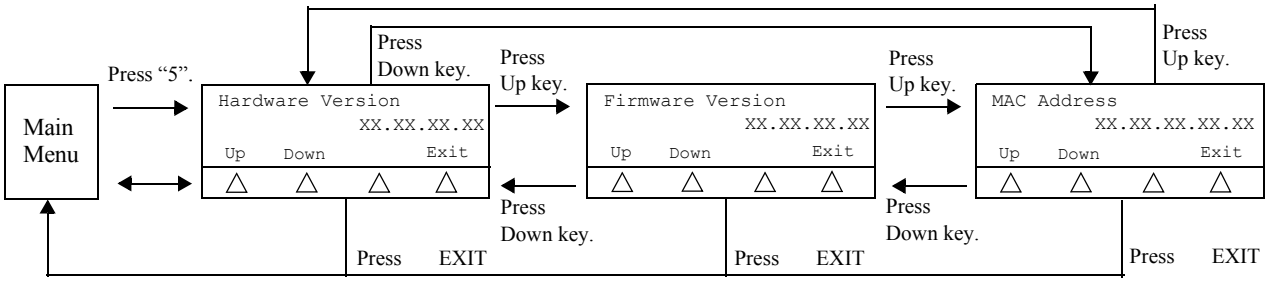
Main Menu



STEP 2: The Terminal Information Menu appears as follows:

Hardware Version : Display the hardware version of the terminal.
Firmware Version : Display the firmware version of the terminal.
MAC Address : Display the MAC address of the terminal.

Terminal Information Menu



5. Other Features of Terminal Operation

5.1 Online Monitoring

5.1.1 When Using DT800 Series/DT700 Series

Online Monitoring menu supports displaying the information of configuration parameter settings and the voice related data (QoS settings) on the LCD of DT830 Series/DT820 Series/DT700 Series. In addition, ping command is available to check the network connection. The following three menus are supported:

- QoS - - - - - - - - - -The number of voice (RTP) packet-loss events, codec type, and payload cycle on the call can be checked.
- System Information - - -The current settings value of the parameters in configuration menu can be checked.
- Ping - - - - - - - - - -Send ping command to specified IP address.

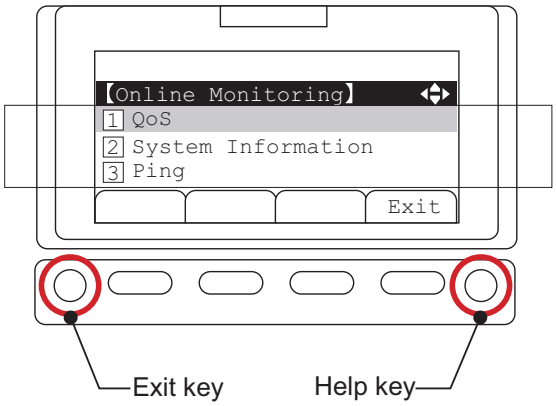
<How to Start/Exit Online Monitoring Menu>

This section explains how to start/exit Online Monitoring menu:

[1] Start Online Monitoring Menu

While the LCD displays “Connecting...”, pressing the “Help” key (lower right of the LCD) for over one second will open Online Monitoring Menu when the LCD displays the login screen for login mode or the time display.

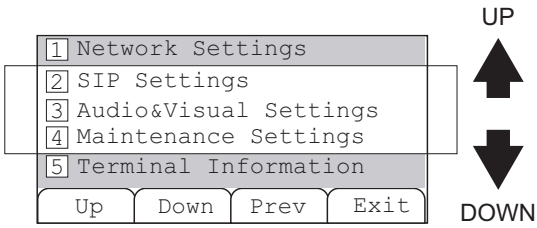
Online Monitoring Menu



** An example for DT830 (Standard LCD)*

Pressing the software key for “Up” and “Down” will scroll one line up/down.

Menu List



** An example for System Information menu.*

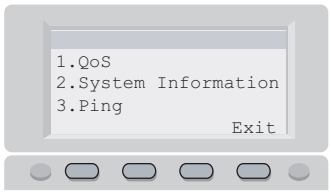
[2] Exit Online Monitoring Menu

Pressing the “Exit” key (lower left of the LCD) or the software key for “Exit” will close the Online Monitoring Menu.

[3] Operation in Online Monitoring Menu

- The following sections explain the terminal operation in Online Monitoring menu using DT830/ DT830G as an example procedure.
- Pressing the software keys for “Up” and “Down” will scroll one line up and down (**Note 1**). Cursor key cannot scroll the menu.

Note 1: The software keys for “Up” and “Down” are displayed only when scrolling is required for the menu list.



DT830 Series (Standard LCD)

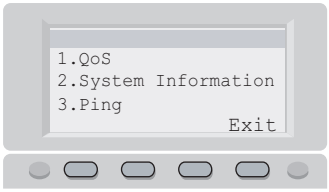
- Use digit keys corresponding to the menu number to select the target menu. Enter key is not available to confirm the selecting menu.

<QoS>

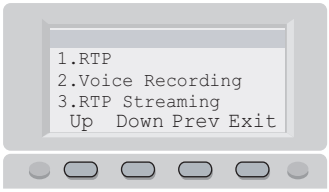
To display RTP packet related information by QoS menu, follow the steps below.

STEP 1: Open [Online Monitoring] menu referring to <How to Start/Exit Online Monitoring Menu>.

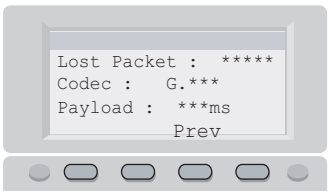
STEP 2: Select "1. QoS."



STEP 3: Select "1. RTP."



STEP 4: The LCD lists packet loss, code, and payload information.



- Lost Packet: The number of packet-loss in receiving RTP packet is displayed (8 digits). **Note 2**, **Note 3**
- Codec: Codec type (G.711μ, G.711A, G.729a, or G.722) applied in the call is displayed. **Note 4**
- Payload: Payload size (10 ms, 20 ms, 30 ms, or 40 ms) applied in the call is displayed. **Note 4**

STEP 5: To display Online Monitoring's other menu, press the software key for "Prev." To close Online Monitoring menu, refer to <How to Start/Exit Online Monitoring Menu>.

END

Note 2: The maximum number to be displayed is "99999999". Even if the number of packet-loss events exceeds 99999999, "99999999" is displayed on the LCD.

Note 3: When a call is in progress, the LCD displays the number of packet-loss in receiving RTP packet for five seconds, then after that, counts up the number again for another five seconds.
In other state, the total number of packet-loss in receiving RTP packet for the last call is displayed. When starting a new call, the number of packet-loss events for the last call is cleared and the counting for the new call is started.

Note 4: The display patterns for Codec and Payload are as follows:

Codec	Payload
G.711μ	10, 20, 30, 40
G.711A	10, 20, 30, 40
G.729a	10, 20, 30, 40
G.722 **Note 5**	20, 40

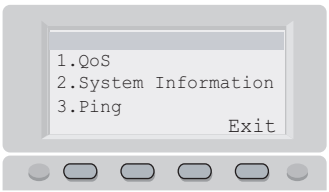
Note 5: Not supported for DT820.

<System Information>

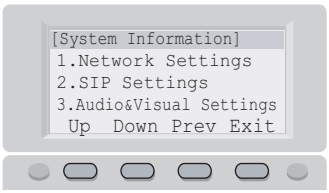
To display the current configuration settings by System Information menu, follow the steps below.

STEP 1: Open [Online Monitoring] menu referring to <How to Start/Exit Online Monitoring Menu>.

STEP 2: Select “2. System Information.”



STEP 3: The LCD displays the System Information menu.



A

System Information Menu List

For DT830 Series FW 5.0.0.0 or later

Up / Down

1. Network Settings
2. SIP Settings
3. Audio&Visual Settings
4. Maintenance Settings
5. Terminal Information
6. LLDP Receive Information
7. Voice Rec Settings
8. Certificate Information

For DT820 Series FW 3.0.0.0 or later

1. Network Settings
2. SIP Settings
3. Audio&Visual Settings
4. Maintenance Settings
5. Terminal Information
6. LLDP Receive Information
7. Voice Rec Settings
8. License Information
9. Certificate Information

For DT830 Series FW 3.0.0.0 or later

1. Network Settings
2. SIP Settings
3. Audio&Visual Settings
4. Maintenance Settings
5. Terminal Information
6. LLDP Receive Information
7. Voice Rec Settings

For DT820 Series

1. Network Settings
2. SIP Settings
3. Audio&Visual Settings
4. Maintenance Settings
5. Terminal Information
6. LLDP Receive Information
7. License Information

Note: For DT700 Series, LCD displays from “1.Network Settings” to “6.LLDP Receive Information”.

A

- Select “Network Settings.”
  to display the network related parameters assigned in “Network Settings” in [Config] menu.
  → Go to [1] Network Settings.
- Select “SIP Settings.”
  to display the SIP server related parameters assigned in “SIP Settings” of [Config] menu.
  → Go to [2] SIP Settings.
- Select “Audio&Visual Settings.”
  to display the sound and LCD indication related parameters assigned in “Audio&Visual Settings” of [Config] menu.
  → Go to [3] Audio & Visual Settings.
- Select “Maintenance Settings.”
  to display the maintenance related parameters assigned in “Maintenance Settings” of [Config] menu.
  → Go to [4] Maintenance Settings.
- Select “Terminal Information.”
  to display the parameters available to list in “Terminal Information” of [Config] menu.
  → Go to [5] Terminal Settings.
- Select “LLDP Receive Information.”
  to display the parameters available to list in “LLDP Receive Information” of [Config] menu.
  → Go to [6] LLDP Settings.
- Select “Voice Rec Settings” to display the status of availability in “Voice Rec Settings” of [Config] menu. **Note 6**
- Select “License Information” to display the status of availability in “License Settings” of [Config] menu. **Note 7**
- Select “Certificate Information” to display the status of availability in “Certificate Information” of [Config] menu. **Note 8**

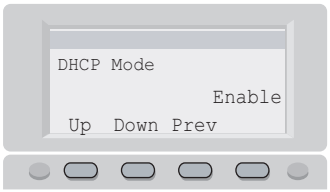
Note 6: This parameter is displayed for DT830 Series FW3.0.0.0 or later and DT820 Series FW3.0.0.0 or later.

Note 7: This parameter is displayed for DT820 Series.

Note 8: This parameter is displayed for DT830 Series FW5.0.0.0 or later and DT820 Series FW3.0.0.0 or later.

[1] Network Settings

STEP 1: When “1. Network Settings” is selected, the LCD displays the following “DHCP Mode.”

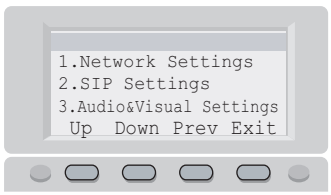


STEP 2: Switch the page to display other parameters by pressing the software key for “Up” and “Down.”

- DHCP Mode - - - - - - - - - - - Whether to use DHCP
- IP Address- - - - - - - - - - - - - IP address of terminal **Note 9**
- Default Gateway - - - - - - - - IP address of default gateway
- Subnet Mask - - - - - - - - - - - Subnet mask **Note 9**
- DNS Address- - - - - - - - - - - IP address of DNS server
- VLAN Mode - - - - - - - - - - - Whether to use VLAN on terminal
- VLAN ID - - - - - - - - - - - - - VLAN ID on terminal
- VLAN Priority- - - - - - - - - - VLAN Priority on terminal
- Speed & Duplex- - - - - - - - - Communication speed of LAN port (10M, 100M, Full/Half-Duplex, Auto negotiation)
- PC Port VLAN Mode - - - - - Whether to use VLAN of PC port
- PC Port VLAN ID - - - - - - - VLAN ID of PC port
- PC Port VLAN Priority - - - - VLAN Priority of PC port
- PC Port Speed & Duplex - - - Communication speed of PC port (10M, 100M, Full/Half-Duplex, Auto negotiation)
- PC Port Available- - - - - - - - Whether to use PC port **Note 10**
- EAPOL Forwarding - - - - - - Whether to forward EAPOL from PC port
- CDP Mode - - - - - - - - - - - - Whether to inform power consumption information by CDP **Note 11**
- ToS (RTP)- - - - - - - - - - - - - ToS setting for RTP packet
- ToS (SIP) - - - - - - - - - - - - - ToS setting for SIP packet
- Supplicant Mode - - - - - - - - Whether to use Supplicant function
- EAP Method - - - - - - - - - - - 802.1X authentication method (EAP-MD5/EAP-TLS)
- EAP VLAN Mode - - - - - - - Whether to add VLAN tag to EAP packet
- 802.1X Account- - - - - - - - - User ID for MD5 authentication
- 802.1X Status - - - - - - - - - - MD5 authentication status
- SIP Self Port - - - - - - - - - - - SIP port number for the terminal
- RTP Self Port- - - - - - - - - - - RTP port number for the terminal
- VPN Status - - - - - - - - - - - - VPN connection status
- VPN Mode - - - - - - - - - - - - - VPN mode
- VPN IP Address- - - - - - - - - VPN IP address
- IKE Authentication- - - - - - - IKE authentication method (PSK/RSA)
- IPsec NAT Traversal Port- - - IPsec NAT traversal port

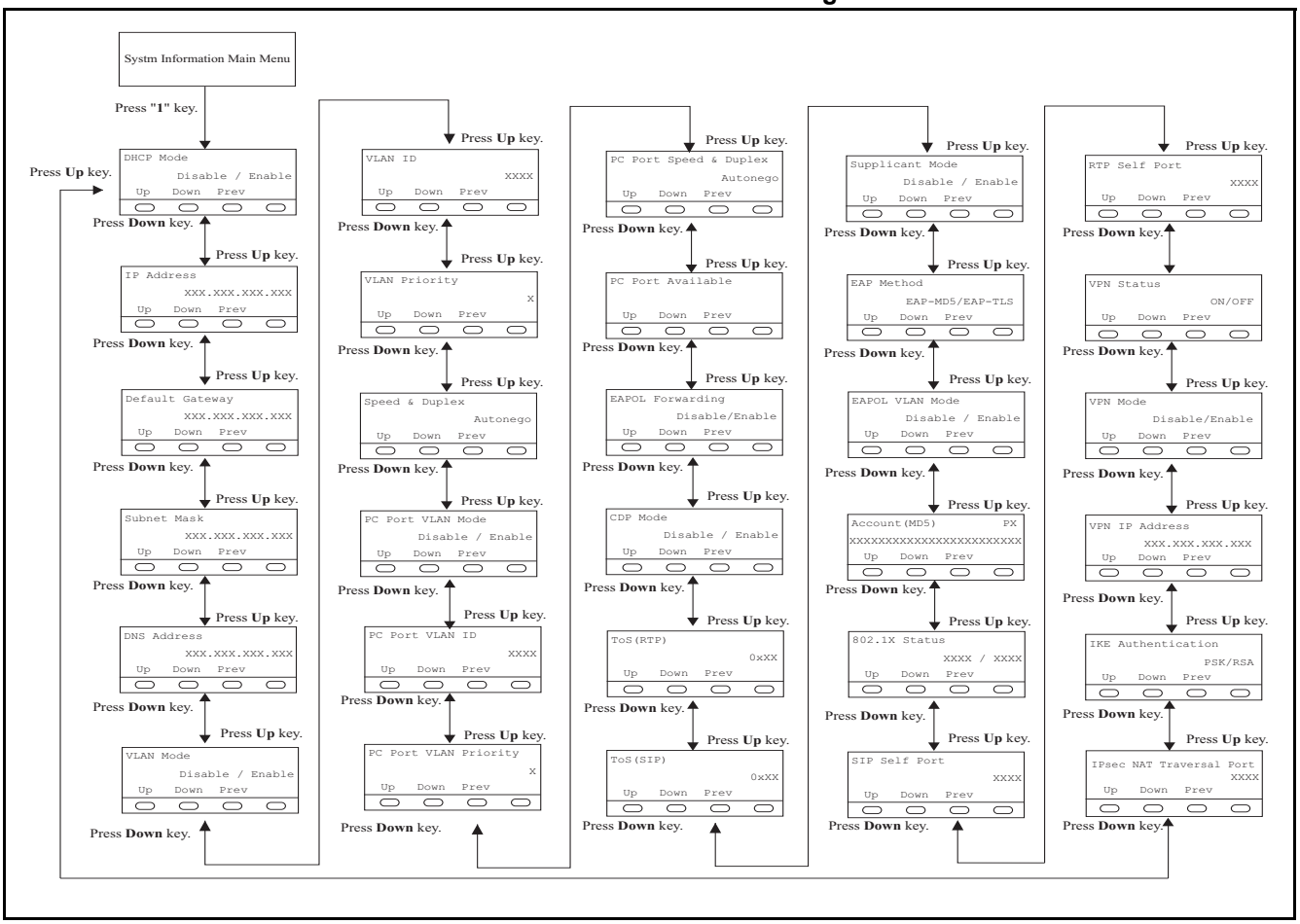
**See Parameters in Network Settings for the page switching order by Up and Down key.*

STEP 3: Pressing the software key “Prev” returns the LCD to System Information menu.



END

Parameters in Network Settings

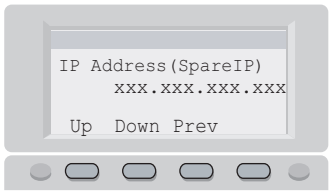


Note 9: IP address of the terminal is displayed in the following way.

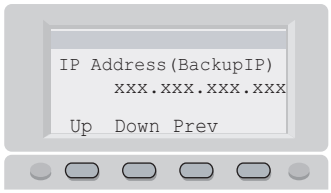
- "(DHCP)" is displayed when the parameter is obtained from DHCP server.



- "(Spare IP)" is displayed when the parameter is assigned by Spare IP function.

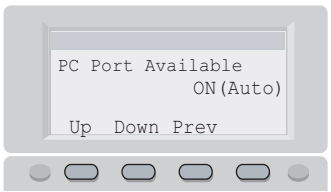


- “(Backup IP)” is displayed when the parameter is assigned by Backup IP function.

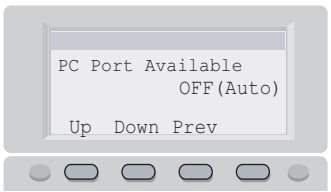


Note 10: Depending on the direction by the Telephony Server and the configuration settings, PC Port has the following three patterns of display.

(1) PC port is enabled by Telephony Server's direction.



(2) PC port is disabled by Telephony Server's direction.



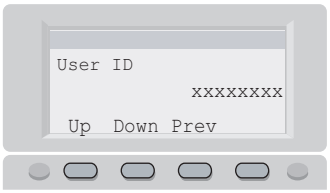
(3) PC port is disabled by configuration settings.



Note 11: DT830G/DT830/DT820/DT730G do not support CDP mode.

[2] SIP Settings

STEP 1: When "2.SIP Settings" is selected, the LCD displays the User ID for digest authentication as follows.

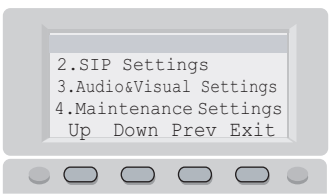


STEP 2: Switch the page to display other parameters by pressing the software key for "Up" and "Down."

- User ID - - - - - - - - - - - - User ID for digest authentication **Note 12**
- Terminal URL - - - - - - - - Terminal FQDN informed by SIP server
- Connecting Server - - - - - IP address or FQDN of the connecting SIP server **Note 12**, **Note 13**, **Note 14**
- 1st Server - - - - - - - - - - - IP address or FQDN of the 1st SIP server **Note 12**, **Note 13**, **Note 15**, **Note 16**
- 2nd Server - - - - - - - - - - IP address or FQDN of the 2nd SIP server **Note 12**, **Note 13**, **Note 15**, **Note 16**
- 3rd Server- - - - - - - - - - - IP address or FQDN of the 3rd SIP server **Note 12**, **Note 13**, **Note 15**, **Note 16**
- 4th Server- - - - - - - - - - - IP address or FQDN of the 4th SIP server **Note 12**, **Note 13**, **Note 15**, **Note 16**
- Access Mode- - - - - - - - - Access mode to SIP server (Remote/Normal)
- Port (1st) - - - - - - - - - - - Destination port number of the sending packet to 1st SIP server
- Port (2nd) - - - - - - - - - - - Destination port number of the sending packet to 2nd SIP server
- Port (3rd) - - - - - - - - - - - Destination port number of the sending packet to 3rd SIP server
- Port (4th) - - - - - - - - - - - Destination port number of the sending packet to 4th SIP server
- Area ID - - - - - - - - - - - - Country code (tone pattern)
- Authentication Mode - - - Whether to use terminal authentication
- Retransmit Interval- - - - - Re-sending timer for registration process (Standard/6 seconds)
- Keeping Call- - - - - - - - - Whether to use call hold function when communication failure occurs with the Telephony Server
- Howler Tone - - - - - - - - - Whether to ring howler tone
- NAT Traversal Mode - - - Data assignment on the terminal is prohibited.
- Network Area Name- - - - Data assignment on the terminal is prohibited.
- WAN Mate IP Address - - Data assignment on the terminal is prohibited.
- WAN SIP Mate Port - - - - Data assignment on the terminal is prohibited.
- WAN Self IP Address - - - Data assignment on the terminal is prohibited.

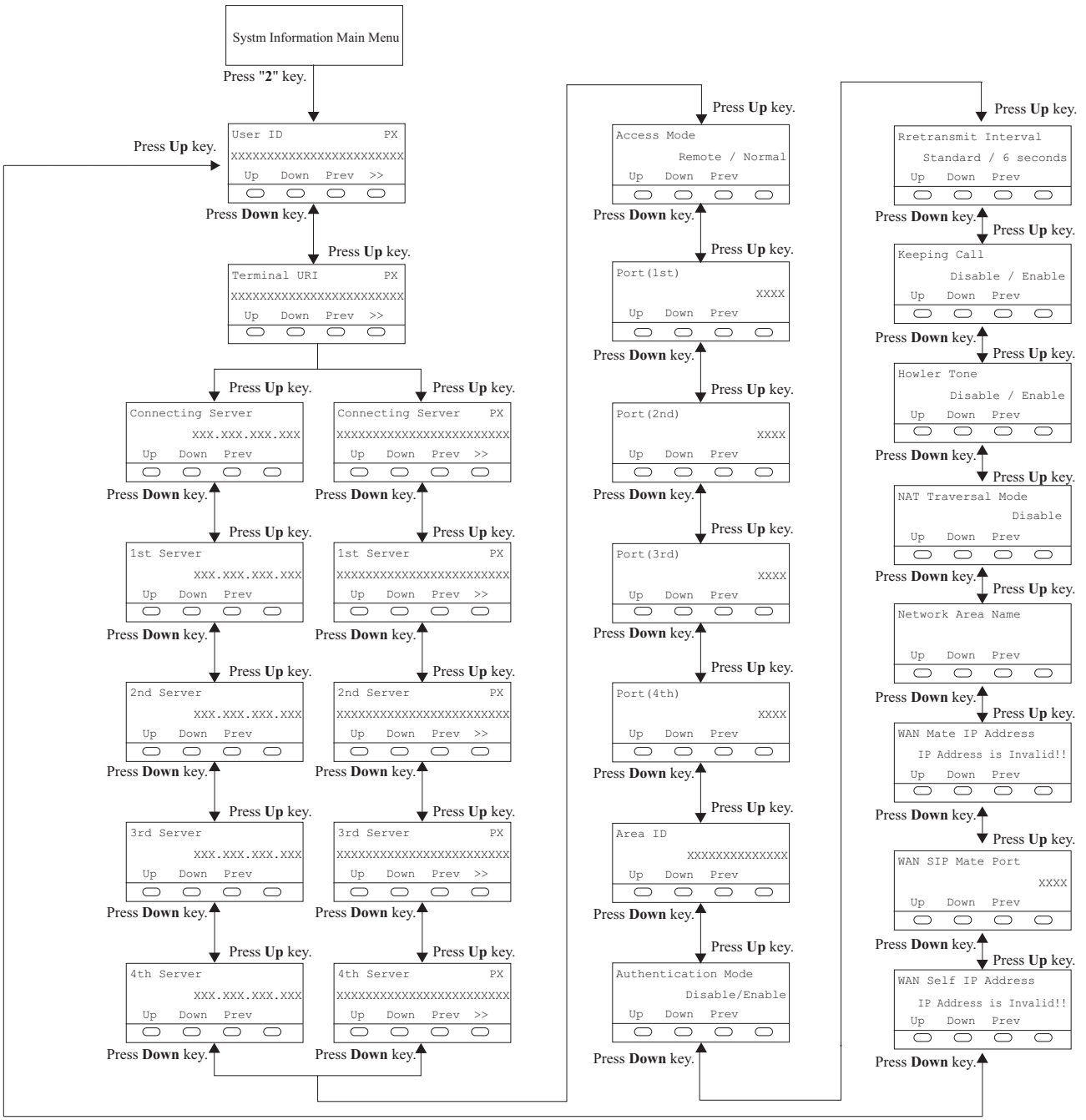
**See Parameters in SIP Settings for the page switching order by Up and Down key.*

STEP 3: Pressing the software key "Prev" returns the LCD to System Information menu.



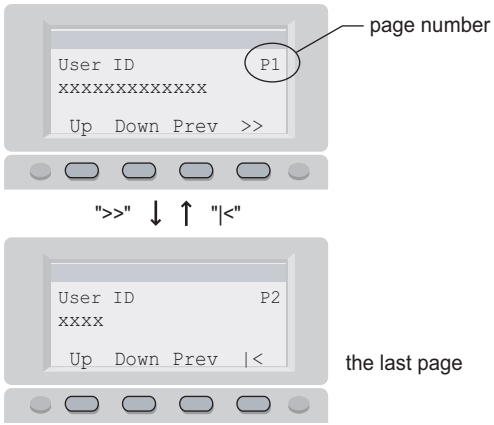
END

Parameters in SIP Settings



Note: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where the terminal is registered.

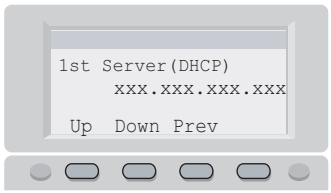
Note 12: When the assigned parameter cannot be displayed in one page, the LCD displays as follows.



Note 13: About IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

Note 14: “Connecting Server(*)” means the system that supports Location Diversity [L-55]. “(*)” is displayed when registration is completed successfully by the SIP server address specified on the address list. This mark is not displayed during registration is in progress.

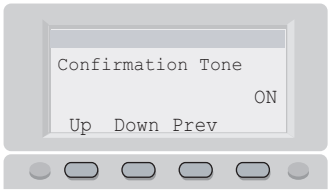
Note 15: “(DHCP)” is displayed when the parameter is obtained from DHCP server.



Note 16: SIP server’s address assigned either by DHCP server option 162 or by the configuration settings is displayed for 1st Server ~ 4th Server parameters though, when the registration process is completed successfully by the SIP server’s address specified by the address list, “IP Address is Invalid!” is displayed for 1st Server ~ 4th Server parameters recognizing the Location Diversity connection.

[3] Audio & Visual Settings

STEP 1: When “3. Audio & Visual Settings” is selected, the LCD displays the following.

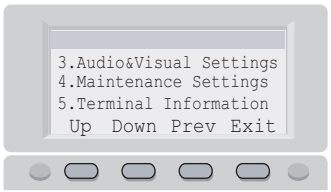


STEP 2: Switch the page to display other parameters by pressing the software key for “Up” and “Down.”

- Confirmation Tone - - - - -Whether to ring confirmation tone
- Music - - - - - - - - - - - - - -Music-on-Hold (download file or default file (Minuet))
- Sidetone Volume- - - - - - -Sidetone volume
- Send Gain - - - - - - - - - - -Sending gain for handset
- Receive Bias - - - - - - - - -Receiving bias for handset
- Receive Gain - - - - - - - - -Receiving gain for handset
- Ring (Internal call) - - - - -Ringing tone pattern for incoming station call
- Ring (External Call) - - - -Ringing tone pattern for incoming trunk call
- Volume Indication- - - - - -Whether to display the volume gage
- Language- - - - - - - - - - - -Language for date and time display
- RTP Alarm- - - - - - - - - - -Whether to ring alarm for inform packet-loss in receiving RTP **Note 17**
- DTMF Play Mode- - - - - -Whether to ring DTMF when receiving DTMF signal **Note 18**

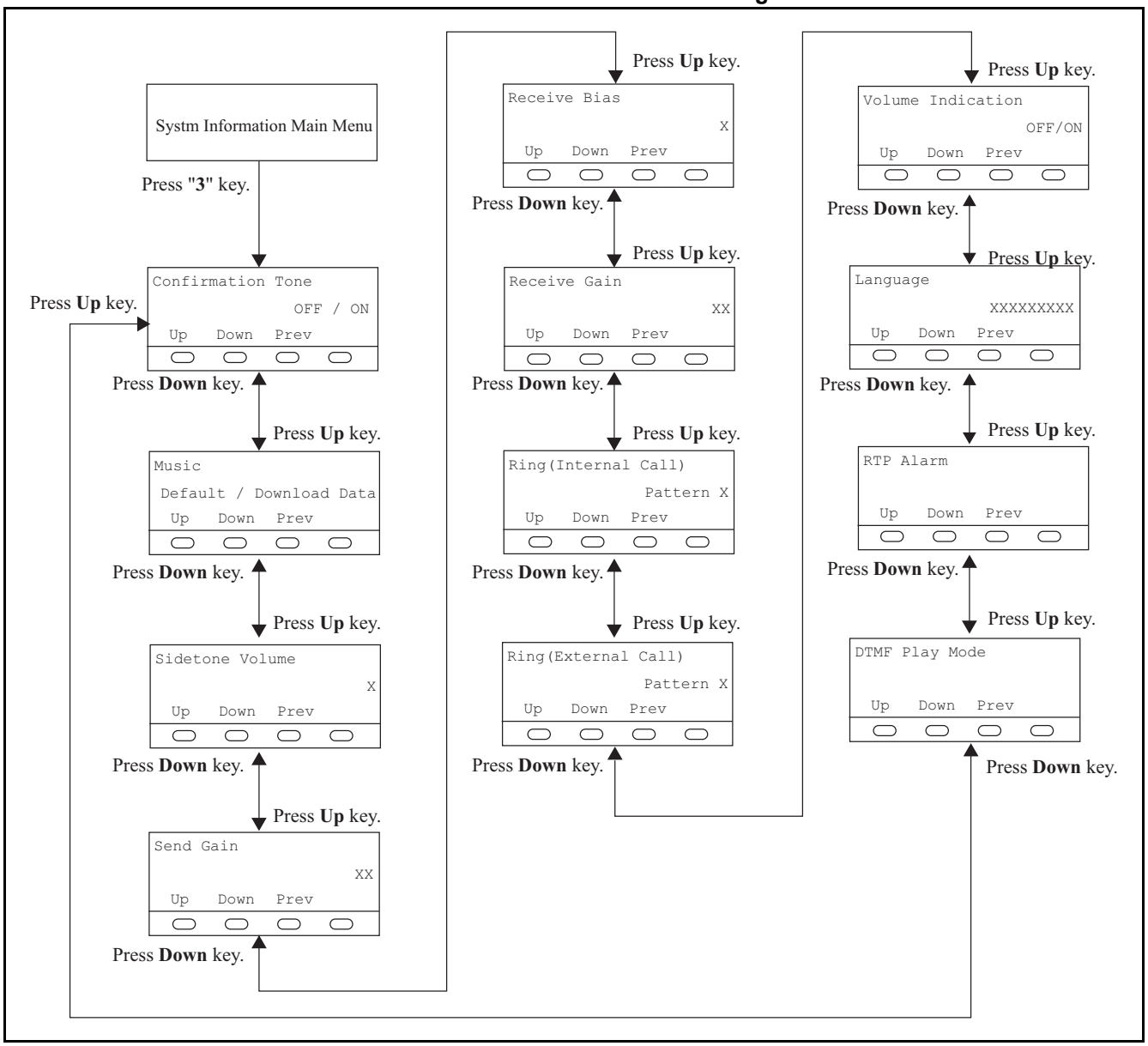
**See Parameters in Audio & Visual Settings for the page switching order by Up and Down key.*

STEP 3: Pressing the software key “Prev” returns the LCD to System Information menu.



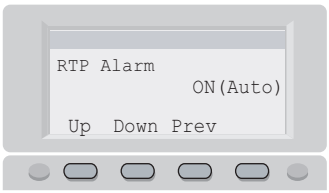
END

Parameters in Audio & Visual Settings

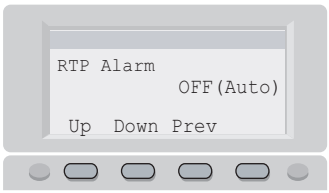


Note 17: Depending on the direction by the Telephony Server and the configuration settings, RTP Alarm parameter has the following four patterns of display.

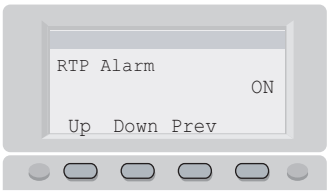
(1) RTP alarm is enabled by Telephony Server's direction.



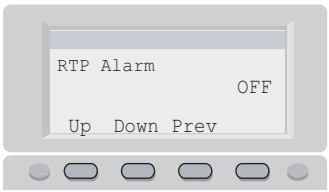
(2) RTP alarm is disabled by Telephony Server's direction.



(3) RTP alarm is enabled by configuration settings.

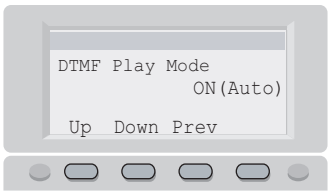


(3) RTP alarm is disabled by configuration settings.

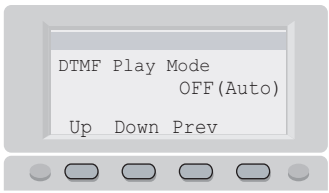


Note 18: Depending on the direction by the Telephony Server and the configuration settings, DTMF Play Mode parameter has the following four patterns of display.

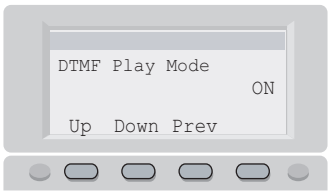
(1) DTMF is enabled by Telephony Server's direction.



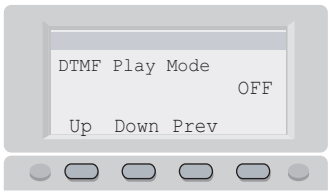
(2) DTMF is disabled by Telephony Server's direction.



(3) DTMF is enabled by configuration settings.



(3) DTMF is disabled by configuration settings.



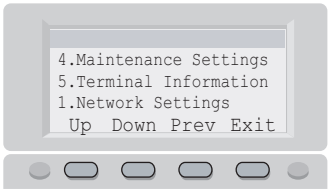
[4] Maintenance Settings

STEP 1: When “4. Maintenance Settings” is selected, the LCD displays the following.



- Download Address - - - - - - - - - - IP address of FTP/TFTP server for program and file downloading
- Download Config Version - - - - - Downloaded configuration file version
- Auto Config File Name - - - - - - - The name of a file used by Auto Config
- User Password Expired Date - - - The expiration date of the user password **Note 19**

STEP 2: Pressing the software key “Prev” returns the LCD to System Information menu.

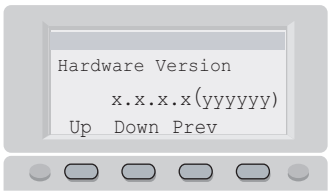


END

Note 19: User Password Expiration Date is displayed for DT830 Series FW3.0.0.0 or later and DT820 Series.

[5] Terminal Settings

STEP 1: When “5. Terminal Settings” is selected, the LCD displays the following.

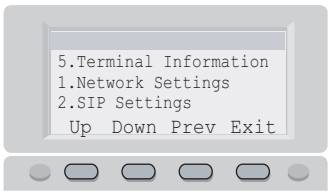


STEP 2: Switch the page to display other parameters by pressing the software key for “Up” and “Down.”

- Hardware Version - - - - - -Hardware version of terminal, destination of the unit attached
- MAC Address - - - - - - - -MAC address of terminal
- Firmware Version - - - - - -Firmware version of terminal
- Bottom Option - - - - - - - -ADA Unit version attached to terminal
- Side Option1 - - - - - - - - -Side option name of terminal
- Side Option2 - - - - - - - - -Side option name of terminal
- Terminal Type - - - - - - - -The Product name of terminal

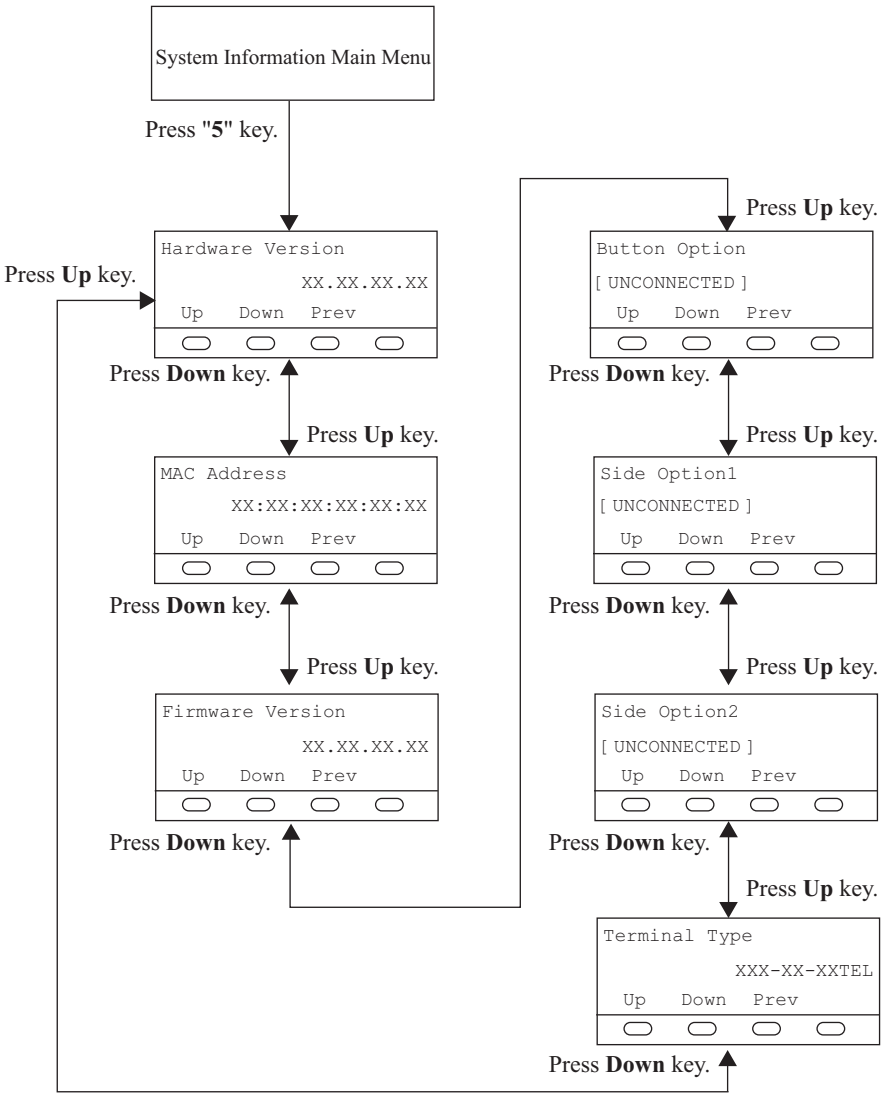
**See Parameters in Terminal Settings for the page switching order by Up and Down key.*

STEP 3: Pressing the software key “Prev” returns the LCD to System Information menu.



END

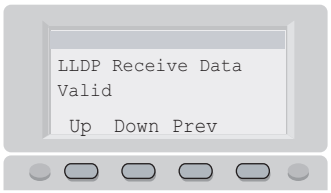
Parameters in Terminal Settings



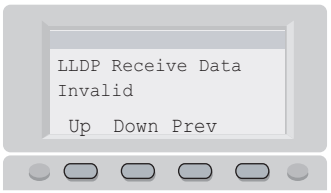
[6] LLDP Settings

STEP 1: When "6. LLDP Settings" is selected, the LCD displays the following.

[Example]
When received LLDP data is valid



[Example]
When received LLDP data is invalid



STEP 2: When the received LLDP data is valid, switch the page to display other parameters by pressing the software key for "Up" and "Down."

- Manufacturer Name- - - - - - - - - Manufacturer Name in the received LLDP packet
- Model Name - - - - - - - - - - - - - Model Name in the received LLDP packet
- System Name - - - - - - - - - - - - - TLV Element "system name" of System Name TLV in the received LLDP packet
- System Description - - - - - - - - - TLV Element "system description" of System Description TLV in the received LLDP packet
- Chassis ID - - - - - - - - - - - - - - - TLV Element "chassis ID" of Chassis ID TLV in the received LLDP packet
- Port ID - - - - - - - - - - - - - - - - - TLV Element "port ID" of Port ID TLV in the received LLDP packet
- Port Description - - - - - - - - - - - TLV Element "port description" of Port Description TLV in the received LLDP packet
- PHY Auto-nego status - - - - - - - TLV Element "auto-negotiation support/status" of MAC/PHY Configuration/Status TLV in the received LLDP packet
- Speed & Duplex - - - - - - - - - - - MAC/PHY Configuration/Status TLV operational MAU type in the received LLDP packet
- Unknown Flag (Voice)- - - - - - - Unknown Tag Flag of Network Policy TLV in the received LLDP packet
- VLAN Tag Flag (Voice)- - - - - - TLV Element "T" of Network Policy TLV in the received LLDP packet

A

A

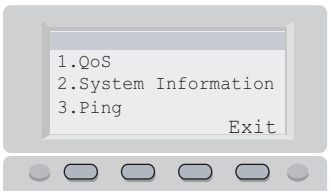
- VLAN ID (Voice)- - - - - - - - - - -TLV Element “VLAN ID” of Network Policy TLV in the received LLDP packet
- L2 Priority (Voice) - - - - - - - - - -TLV Element “L2 Priority” of Network Policy TLV in the received LLDP packet
- DSCP Value (Voice) - - - - - - - - -TLV Element “DSCP Value” of Network Policy TLV in the received LLDP packet
- Unknown Flag (VoiceSignal) - - -Unknown Tag Flag of Network Policy TLV in the received LLDP packet
- VLAN Tag Flag (VoiceSignal) - -TLV Element “T” of Network Policy TLV in the received LLDP packet
- VLAN ID (VoiceSignal) - - - - - -TLV Element “VLAN ID” of Network Policy TLV in the received LLDP packet
- L2 Priority (VoiceSignal)- - - - - -TLV Element “L2 Priority” of Network Policy TLV in the received LLDP packet
- DSCP Value (VoiceSignal)- - - - -TLV Element “DSCP Value” of Network Policy TLV
- Location ID (Civic) - - - - - - - - -Location Identification TLV
- Location ID (ECS ELIN)- - - - - -Location Identification TLV
- Asset ID - - - - - - - - - - - - - - - - -Asset ID

*See Parameters in LLDP Settings for the page switching order by Up and Down key.

Note:“No Data” means there is no valid data in the following cases:

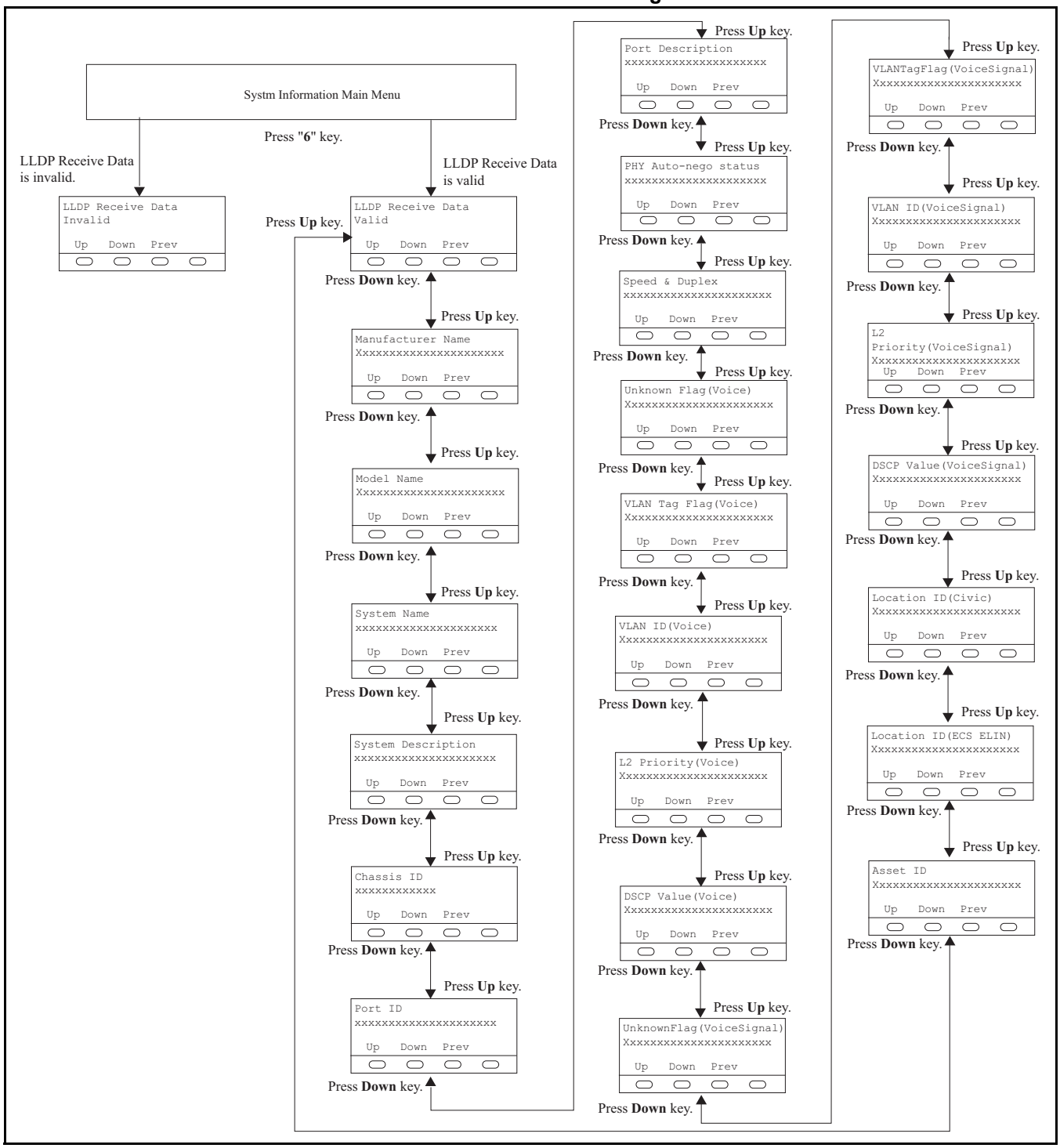
- LLDP Mode is disabled.
- The terminal does not receive LLDP packets.
- The terminal receives LLDP packets containing no relevant information.

STEP 3: Pressing the software key “Prev” returns the LCD to System Information menu.



END

Parameters in LLDP Settings

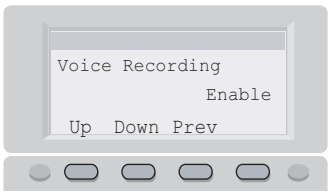


[7] Voice Rec Settings

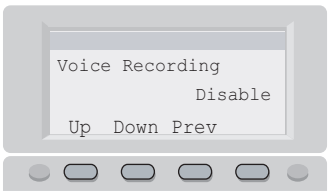
Note: Available for DT830G Series.

STEP 1: When "7. Voice Rec Settings" is selected, the LCD displays the following.

[Example]
When the Voice Recording is enabled.



[Example]
When the Voice Recording is disabled.



STEP 2: When the Voice Recording is enabled, switch the page to display other parameters by pressing the software key for "Up" and "Down."

- Recording Mode - - - - - - - - - - - Status of Recording mode **Note 20**
- Recording Segments - - - - - - - - Status of Recording Segments **Note 20**
- Auto Rec Start - - - - - - - - - - - - Whether to use voice recording feature
- Auto Delete - - - - - - - - - - - - - - Whether to delete the recording files automatically
- Rec Tone - - - - - - - - - - - - - - - - Whether to ring the recording tone
- Rec Tone Level (-dB) - - - - - - - Recording tone level
- Rec Free Space (MB) - - - - - - - Recording free space in the USB device
- Rec Total Space (MB) - - - - - - - Recording total space in the USB device
- Rec Area Status - - - - - - - - - - - Recording area status

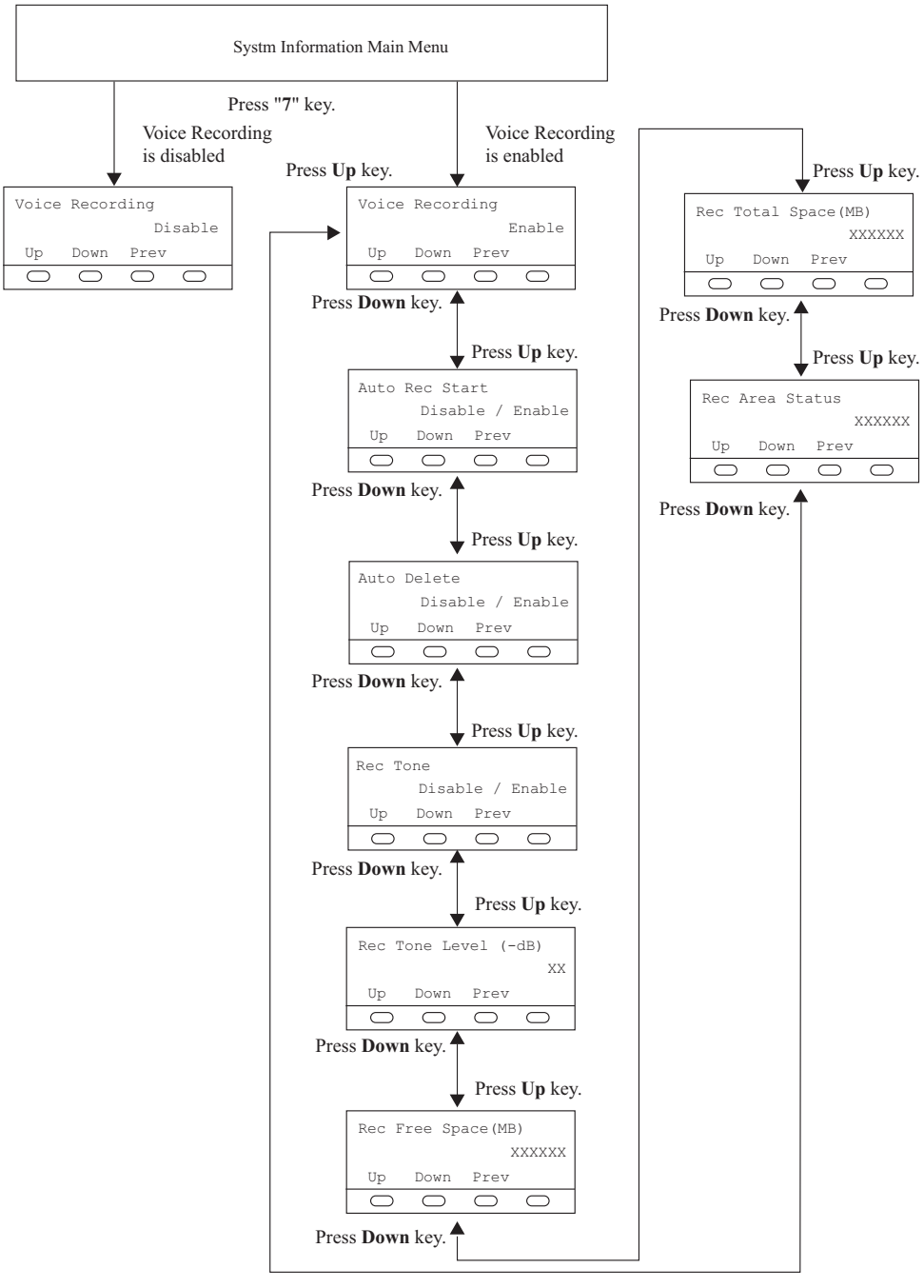
Note 20: This parameter is displayed for For DT830 with firmware version 5.0.0.0 and DT820 with firmware version 3.0.0.0.

Note: For DT830 with firmware version 5.0.0.0 and DT820 with firmware version 3.0.0.0, the following parameters are also displayed. However, the all value are invalid.

- 1st Server Address
- 1st Sv RTP (Tx) Port
- 1st Sv RTP (Rx) Port
- ToS (RTP)(1st)
- TTL(1st)
- 2nd Server Address
- 2nd Sv RTP (Tx) Port
- 2nd Sv RTP (Rx) Port
- ToS(RTP) (2nd)
- TTL (2nd)
- Rec Codec
- RTP Self Port

A

Parameters in Voice Rec Settings

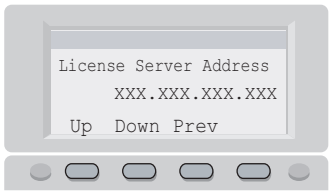


[8] License Information

Note: Available for DT820 Series.

STEP 1: When “7. License Information” is selected, the LCD displays the following.

[Example]

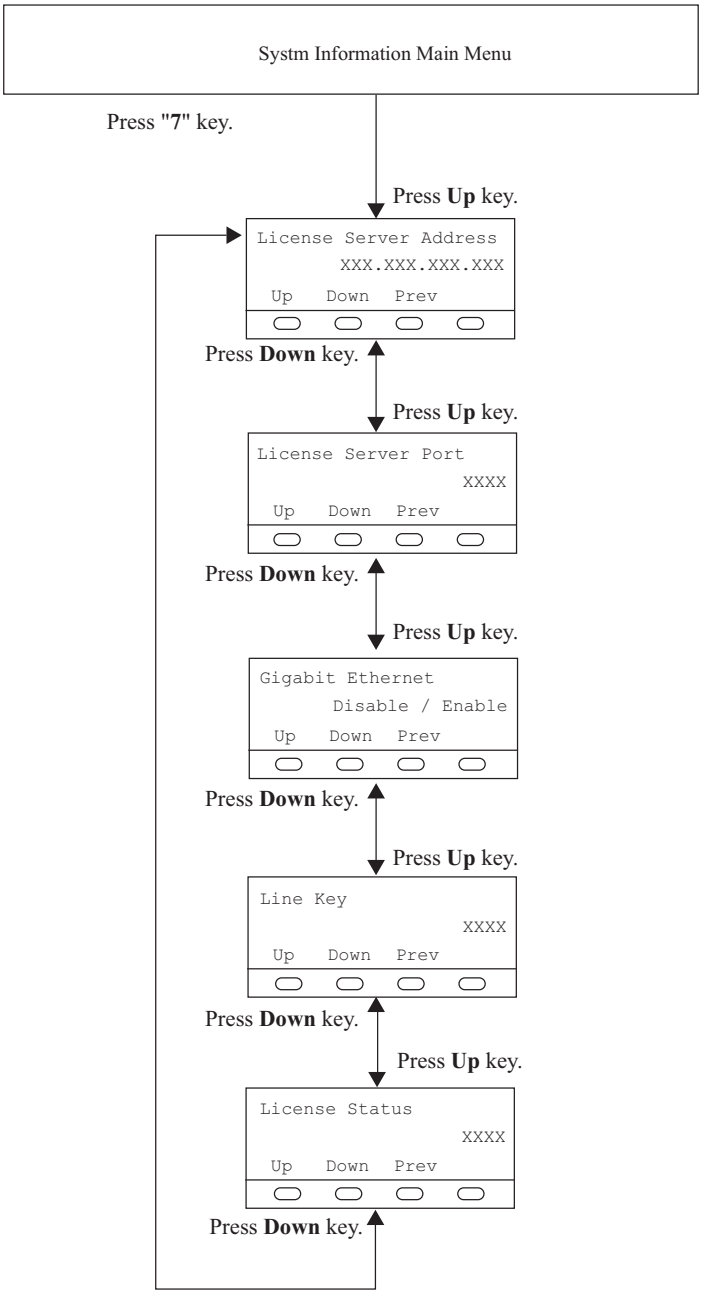


STEP 2: Switch the page to display other parameters by pressing the software key for “Up” and “Down.”

- License Server Address - - - - - - IP address of license server
- License Server Port - - - - - - - - - Port of license server
- Gigabit Ethernet - - - - - - - - - - - Whether to use Gigabit Ethernet
- Line Key - - - - - - - - - - - - - - - - Type of line key number for DESI-Less terminal
- License Status - - - - - - - - - - - - License activation status

A

Parameters in License Information

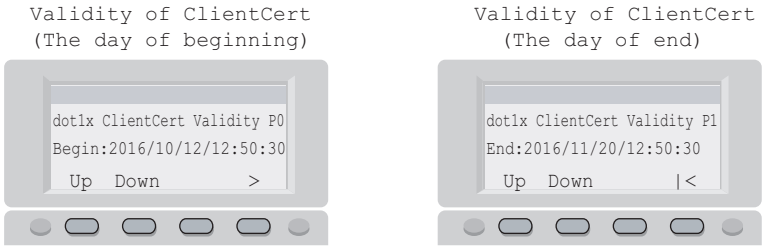


[9] Certificate Information

Note: Available for DT830 Series FW5.0.0.0 or DT820 Series FW3.0.0.0.

STEP 1: When “Certificate Information” is selected, the LCD displays the following.

[Example]

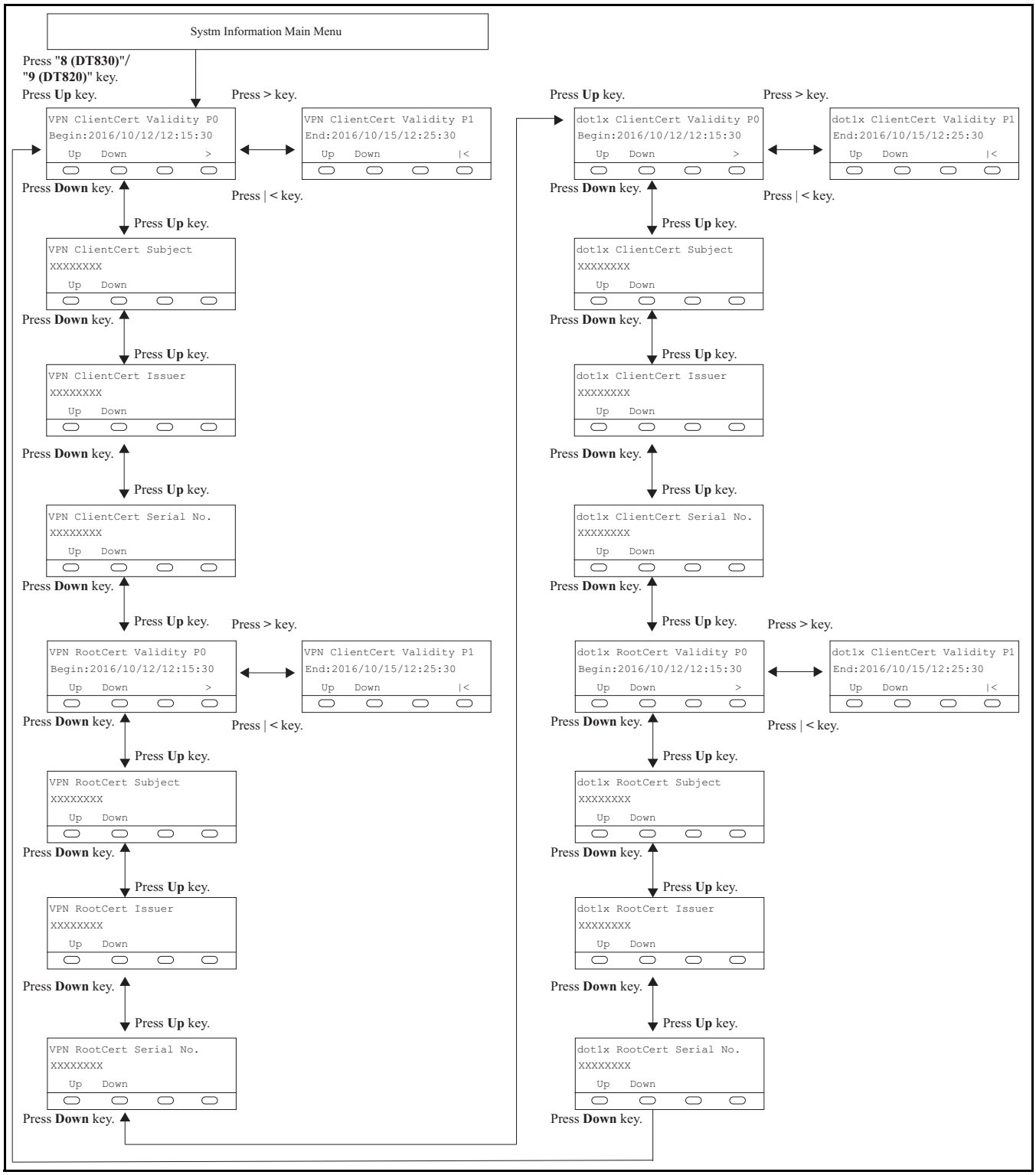


STEP 2: Switch the page to display other parameters by pressing the software key for “Up” and “Down.”

- VPN ClientCert Validity P0 - - - Validity of client certificate (Begin) for VPN
- VPN ClientCert Validity P1 - - - Validity of client certificate (End) for VPN
- VPN ClientCert Subject - - - - - - Subject of client certificate for VPN
- VPN ClientCert Issuer - - - - - - - Issuer of client certificate for VPN
- VPN ClientCert Serial No. - - - - Serial Number of client certificate for VPN
- VPN RootCert Validity P0 - - - - Validity of root certificate (Begin) for VPN
- VPN RootCert Validity P1 - - - - Validity of root certificate (End) for VPN
- VPN RootCert Subject - - - - - - - Subject of root certificate for VPN
- VPN RootCert Issuer - - - - - - - - Issuer of root certificate for VPN
- VPN RootCert Serial No. - - - - - Serial Number of root certificate for VPN
- dot1x ClientCert Validity P0 - - - Validity of client certificate (Begin) for 802.1X
- dot1x ClientCert Validity P1 - - - Validity of client certificate (End) for 802.1X
- dot1x ClientCert Subject - - - - - Subject of client certificate for 802.1X
- dot1x ClientCert Issuer - - - - - - Issuer of client certificate for 802.1X
- dot1x ClientCert Serial No. - - - Serial Number of client certificate for 802.1X
- dot1x RootCert Validity P0 - - - - Validity of root certificate (Begin) for 802.1X
- dot1x RootCert Validity P1 - - - - Validity of root certificate (End) for 802.1X
- dot1x RootCert Subject - - - - - - Subject of root certificate for 802.1X
- dot1x RootCert Issuer - - - - - - - Issuer of root certificate for 802.1X
- dot1x RootCert Serial No. - - - - Serial Number of root certificate for 802.1X

END

Parameters in Certificate Information

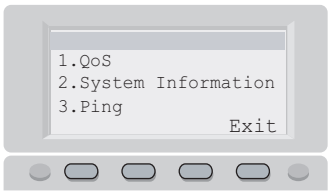


<Ping>

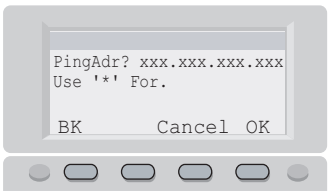
To check the network connection by sending Ping packet to specified IP address, follow the steps below.

STEP 1: Open [Online Monitoring] menu referring to <How to Start/Exit Online Monitoring Menu>.

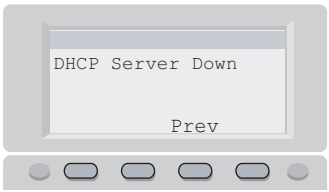
STEP 2: Select “3. Ping.”



STEP 3: Enter the destination IP address, and then press the software key for “OK.”

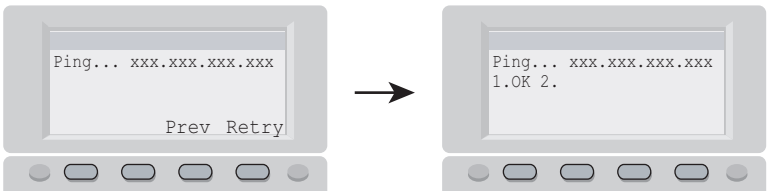


Use digit key for entering number.
Press “*” for separating each byte.



Note: When the network is disabled (e.g. IP address cannot be obtained from DHCP server), the LCD displays “DHCP Server Down” message.

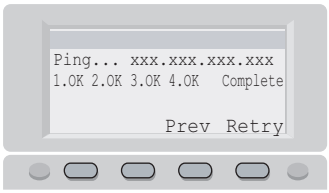
STEP 4: Ping command is started. The LCD displays the destination IP address and the processing state.



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STEP 5: "Complete" is displayed after sending Ping four times.



STEP 6: To display Online Monitoring's other menu, press the software key for "Prev." To close Online Monitoring menu, refer to <How to Start/Exit Online Monitoring Menu>.

END

5.1.2 When Using DtermIP (SIP)

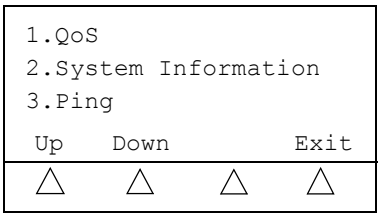
This feature allows the user to display the following information on the terminal's LCD:

- QoS : QoS information (the number of packet-loss events, codec and payload).
- System Information : The current setting data (configuration data of the terminal).
- Ping : Send Ping to the specified IP address.

Note: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server, where DtermIP(SIP) is registered.

While the terminal is in normal operation (in the states listed below), open the Online Monitoring Main screen by holding down Help key for over one second. **Note 21**

Online Monitoring Main Screen



Note: Press EXIT key to go back to the normal operation display.

Note 21: If the duration of the time that Help key is pressed is shorter than one second, "PRESS ANY SOFTKEY FOR HELP" is displayed as conventional operation.

When the terminal is in normal operation, one of the following messages are displayed on the terminal's LCD:

DHCP Connecting...	: While connecting to DHCP (without VLAN)
Connecting...	: While connecting to SIP server (without VLAN)
DHCP Connecting...(VLAN)	: While connecting to DHCP (with VLAN)
Connecting...(VLAN)	: While connecting to SIP server (with VLAN)
Authenticating...	: While authenticating with SIP server (without VLAN).
Authenticating...(VLAN)	: While authenticating with SIP server (with VLAN).
Authenticating...(Cert)	: While 802.1X authenticating. **Note 22**
Login:/Password:	: User Name Entry/Password Entry
Override?	: Desired station number duplicates already registered one.
NETWORK BUSY	: No Response to the Request.
DHCP Server Not Found	: DHCP server cannot be found.
DHCP IP Address expired	: DHCP failed to renew a lease for the IP address.

SIP Server Not Found	: SIP server cannot be found.
Parameter Missing	: Errors in local setting and DHCP obtained data.
OTP Not Included	: One Time Password is not entered.
Failed (Server)	: Authentication with SIP server is failed (SIP Server Authentication)
Failed (Terminal)	: Authentication with SIP server is failed (Terminal Authentication)
Authentication Accepted	: Authentication with SIP server is completed successfully.
Download Complete!	: Program Download by SIP server instruction is completed successfully.
Parameter Missing (Cert)	: 802.1X Authentication data error. **Note 22**
Failed (Cert)	: 802.1X Authentication is failed. **Note 22**
Time Display (in idle or busy state)	: When the terminal is in busy state, the LCD display cannot be moved to Configuration Setting screen, but it can be moved to Online Monitoring screen.

Note: Press EXIT key to go back to the normal operation display.

Note 22: Available for DtermIP (SIP) with Firmware Version 4.1.x.x or later.

5.2 Firmware Update for DT800 Series/DT700 Series

This section describes the general feature, service conditions, and operation procedure of firmware auto update function via web browser.

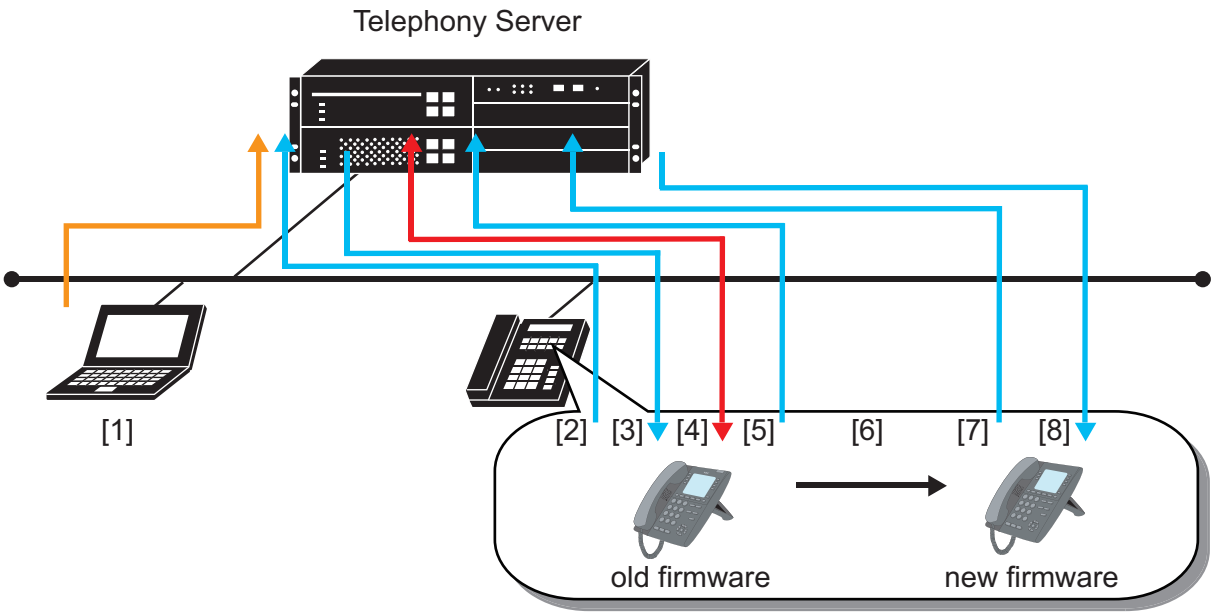
<General>

Firmware Auto Update tool supports the following three functions:

(1) By checking whether firmware updating is required or not in registration process, the station can automatically launch firmware updating.

(2) The Telephony Server can work as an FTP server for firmware updating; external FTP server is not necessary.

(3) Firmware uploading, deleting, and updating can be collectively operated by accessing the Telephony Server via a web browser.



[1] The following settings by maintenance PC are required in advance.
- Activating HTTP server by ADTM command
- Uploading firmware via a web browser
- Establishing automatic updating via the browser

[2] IP station requests registration on the Telephony Server.

[3] The Telephony Server directs the IP station to download the firmware.

[4] IP station downloads the firmware from the Telephony Server.

[5] IP station informs the Telephony Server of the downloading results.

[6] IP station updates its firmware and executes self-resetting.

[7] IP station requests registration on the Telephony Server.

[8] The Telephony Server normally starts up the IP station.

<Conditions>

(1) Internet Explorer 7 or later version is required to use this feature.

(2) It is required to activate HTTP server by ADTM in advance.

(3) ID: “ftpuser” and Password: “firmupdate” are specified for FTP user account. This “ftpuser” account cannot log in via telnet.

(4) The physical IP address of LAN1 on the Telephony Server is specified to access the HTTP server via a web browser:
- In single configuration system, IP address (ACT) is specified.
- In dual configuration system, IP address (System-0/System-1) is specified.

(5) When the system is in dual configuration, both Telephony Servers (System #0 & #1) need the setting on the browser - uploading firmware and establishing automatic updating.

(6) When uploading a file whose name has been already used by another file existing on the Telephony Server, warning message appears to ask whether to overwrite the existing file.

(7) On the file uploading window, 24MB or more size of firmware file cannot be uploaded. Any firmware files with the file name including other than single-byte of numeric and alphabet characters cannot be uploaded, either.

(8) ID: “admin” and Password: “mainte” are required for authentication on accessing the HTTP server. The password for authentication is sent/received encrypted (Basic authentication is used).

(9) The start time of Firmware Auto Update is selected from Right now to maximum 24 hours later.

(10) Back button on Internet Explorer is available to back to the former window to change the parameter settings.

(11) When the close button on Internet Explorer is clicked halfway through the setting, data change does not affect.

(12) In the setting window of Firmware Auto Update, whether the uploaded firmware file is correct cannot be checked.

(13) To execute firmware updating also to the terminals already having completed registration, only the terminals need to update are directed to start downloading one by one and reset. Terminals not executed downloading can be used continuously. (When login mode is used, login screen is shown after resetting.)

(14) Firmware update is not executed on the busy or dialing terminals. They start updating after releasing their lines. Ringing terminals start firmware updating.

(15) When the terminals try registration simultaneously over the number of download capacity, terminals start up normally after establishing registration for the mean time. After that, as soon as the number of available download space opens, the terminals start downloading one by one.

(16) When the terminal is set in login mode, firmware update is executed on login operation (after ID and Password are entered).

(17) Duration of firmware updating varies depending on the terminal type and the line speed.

(18) In the case of firmware downloading failure, terminals retry downloading twice at most. When failure occurs three times, the terminal does not update the firmware and tries registration with the former firmware. When the terminal requests registration again after power OFF/ON, the terminal tries to download three times once more.

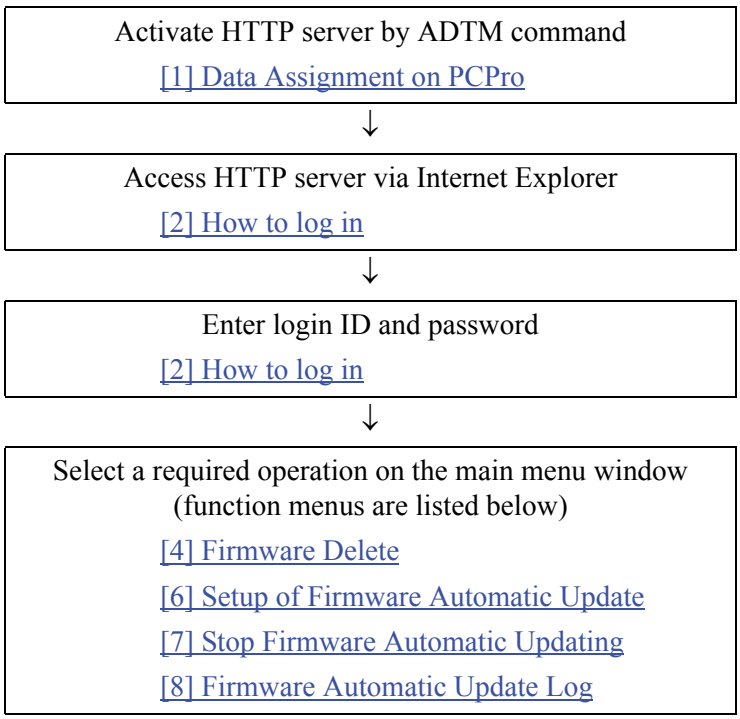
(19) In the case of firmware uploading failure, the new file is deleted. If it occurs with overwrite uploading, the old one is also deleted. In that case where both files are deleted, another uploading is required.

(20) Operation with multiple windows or tabs may cause abnormal performance depending on the executed timing. Be sure to use only one window or tab for Internet Explorer when using this Firmware Auto Update feature.

(21) This feature is not available when the system operation is handed over to SR-MGC.

<Operation Procedure>

This flow shows the Firmware Auto Update tool's basic operation and function menus concerned.



[1] Data Assignment on PCPro

STEP 1: Activate ADTM on PCPro.

STEP 2: Select the radio button “LAN1” in the box “Select LAN Interface”.

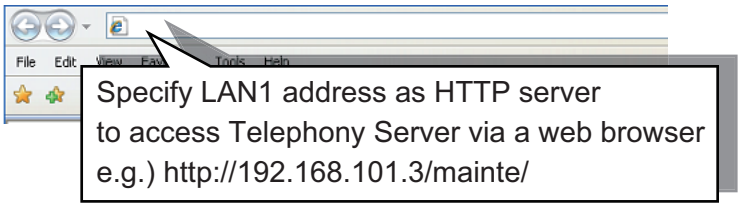
STEP 3: Select “Activation setting of Internal server” in “Options” tab, and click “Execute” button.

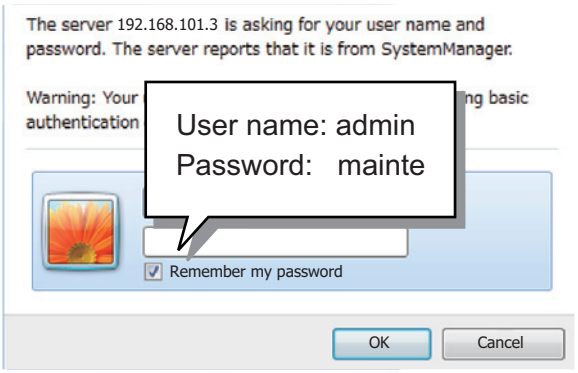
STEP 4: Click the check box “HTTP Server” to ON and click “Set” button.

[2] How to log in

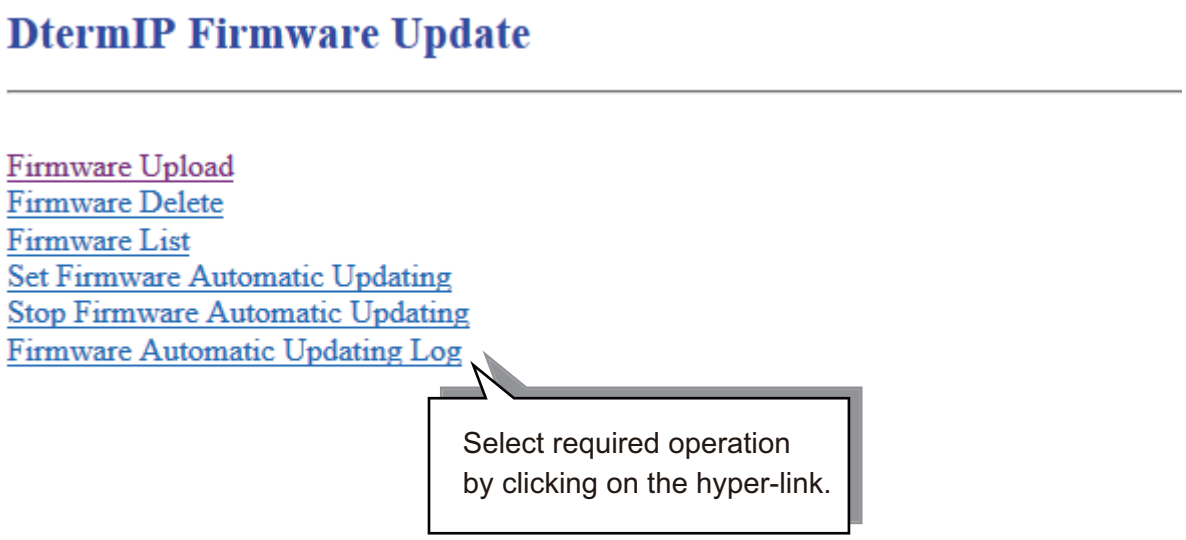
STEP 1: Enter the following URL in the address bar and press Enter key.
URL: **http://XXX/mainte/** (**Note 1**)
Then Login ID and password entry dialog opens. Enter the followings and then click “**OK**” button.
Login ID: **admin**
Password: **mainte**

Note 1: “XXX” = IP address of the Telephony Server, which varies depending on your configuration as follows.
- In the case of single configuration, enter IP address of LAN1 (ACT).
- In the case of dual configuration, enter IP address of LAN1 (System #0/System #1)



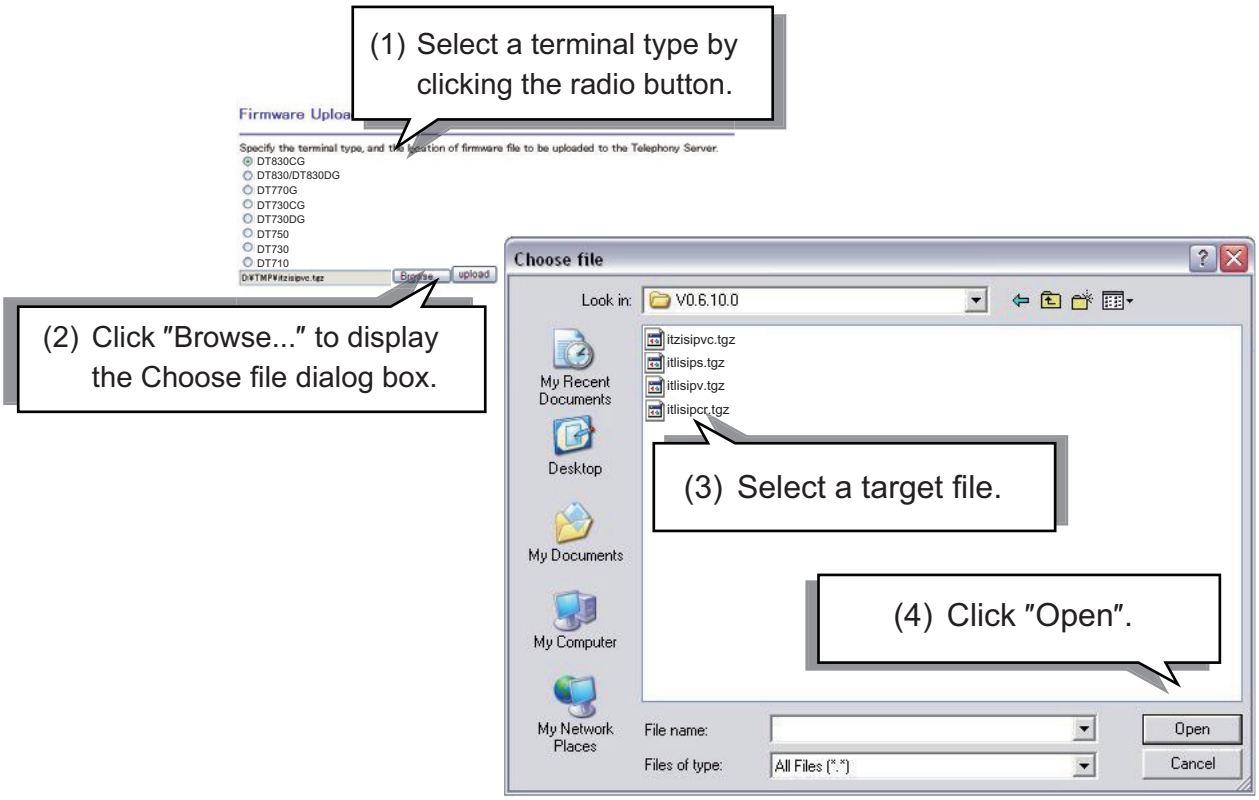


STEP 2: Dterm Firmware Update main menu window appears.



[3] Firmware Upload

STEP 1: When **Firmware Upload** is selected on the main menu window, the **Firmware Upload** window shown below appears. Select a terminal type and then click the **Browse...** button. The **Choose file** dialog appears. Select a target file to be uploaded and then click the **Open** button (**Note 2**).

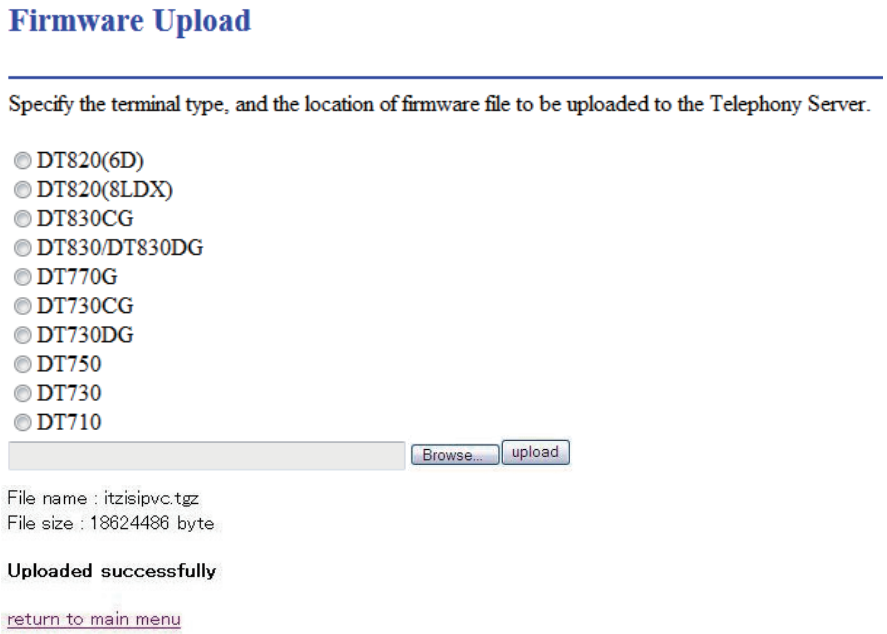


STEP 2: Confirm the selected file, and then click **upload** button.

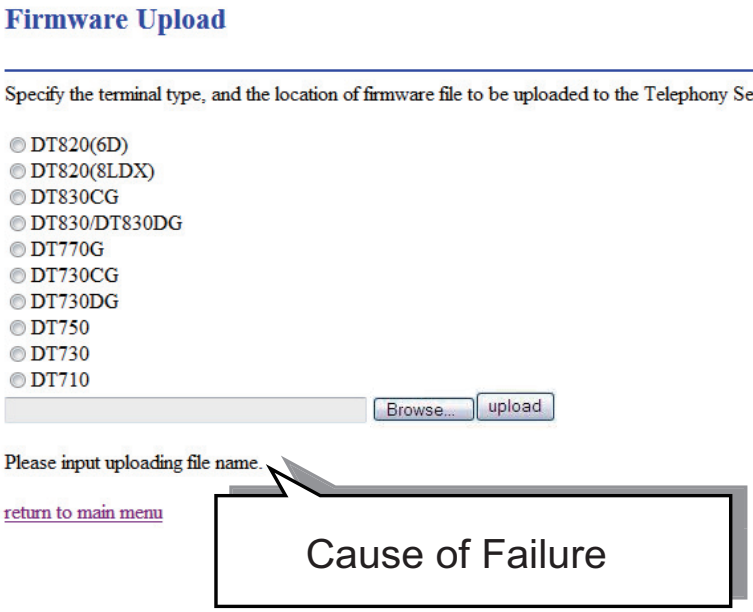
Note 2: When you try to upload a file with the same file name exists on the server, warning message appears to ask whether to overwrite the existing file.

STEP 3: Result of the file upload is displayed.

- When the upload is successful, uploaded file information (file name and file size) is displayed.

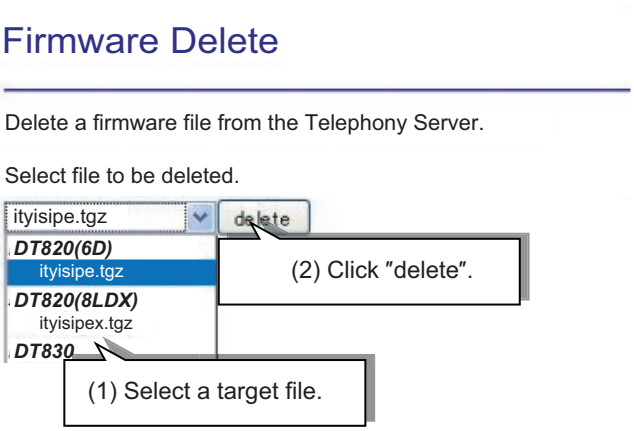


- When the upload fails, cause of the failure is displayed.



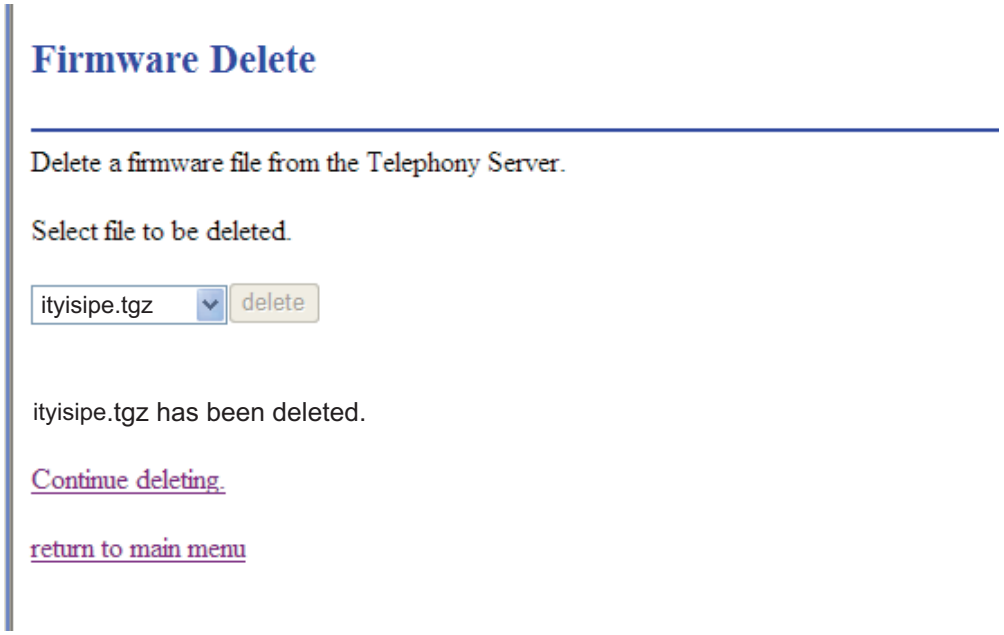
[4] Firmware Delete

STEP 1: When **Firmware Delete** is selected on the main menu window, the **Firmware Delete** window shown below appears. Select a target file to be deleted and then click the **delete** button.

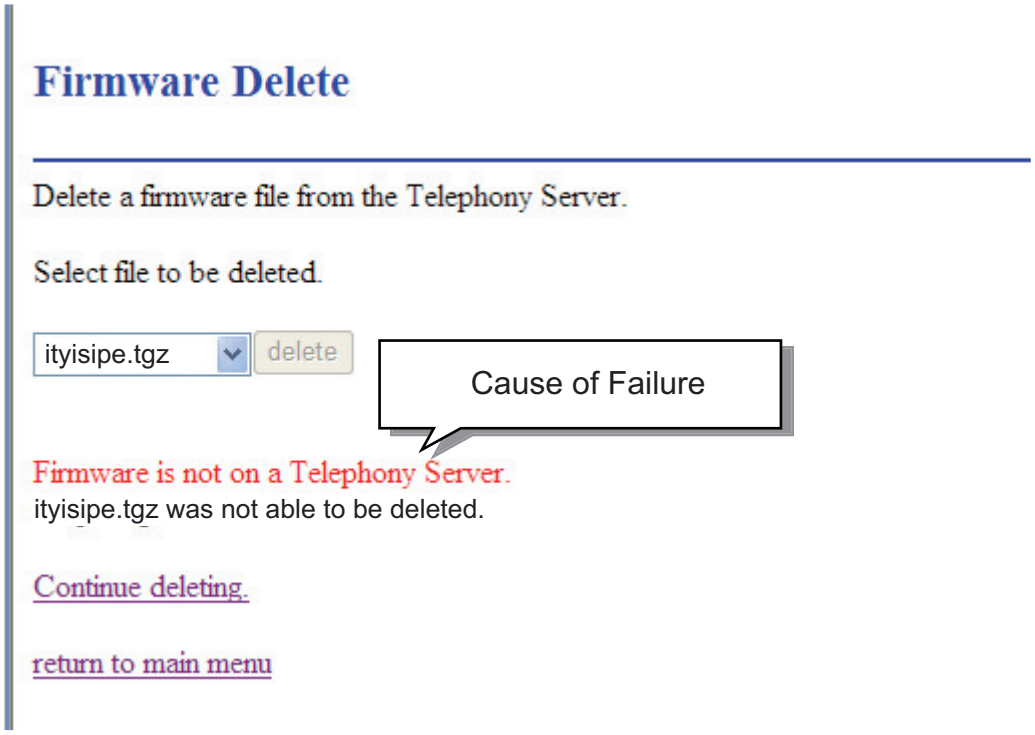


STEP 2: Result of the file deletion is displayed.

- When the file deletion is successful, the deleted file information (file name) is displayed.



- When the file deletion fails, cause of the failure is displayed.



[5] Firmware List

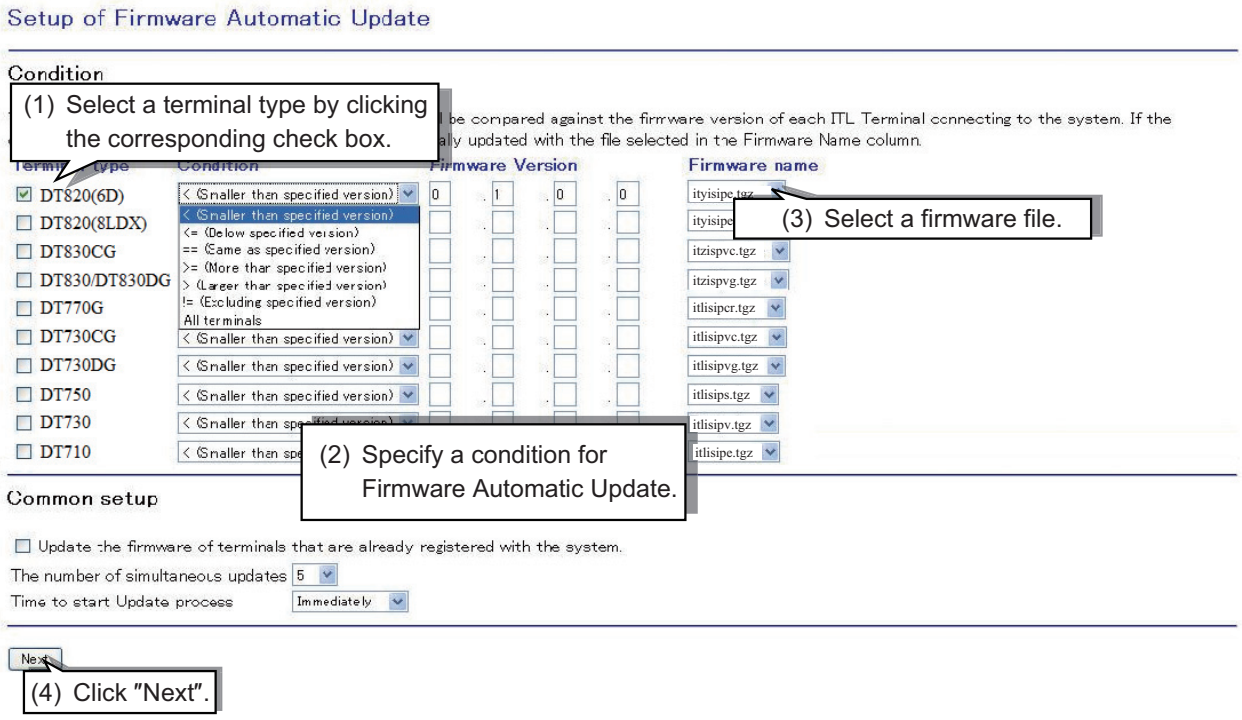
When **Firmware List** is selected on the main menu window, all the firmware files are listed.

Firmware List

Firmware name	Refix date	Size	Terminal type	Version
ityisipe.tgz	2015/10/09	5696KB	DT820(6D)	1.0.9.0
ityisipex.tgz	2015/10/09	6789KB	DT820(8LDX)	1.0.9.0
itzisipvc.tgz	2015/10/09	18188KB	DT830CG	2.0.16.0
itzisipvg.tgz	2015/09/26	14616KB	DT830/DT830DG	2.0.16.0
itlisipcr.tgz	2015/09/26	14228KB	DT770G	1.0.10.0
itlisipvc.tgz	2015/09/26	18188KB	DT730CG	2.0.16.0
itlisipvg.tgz	2015/09/26	14616KB	DT730DG	2.0.16.0
itlisips.tgz	2015/09/26	5596KB	DT750	5.0.6.0

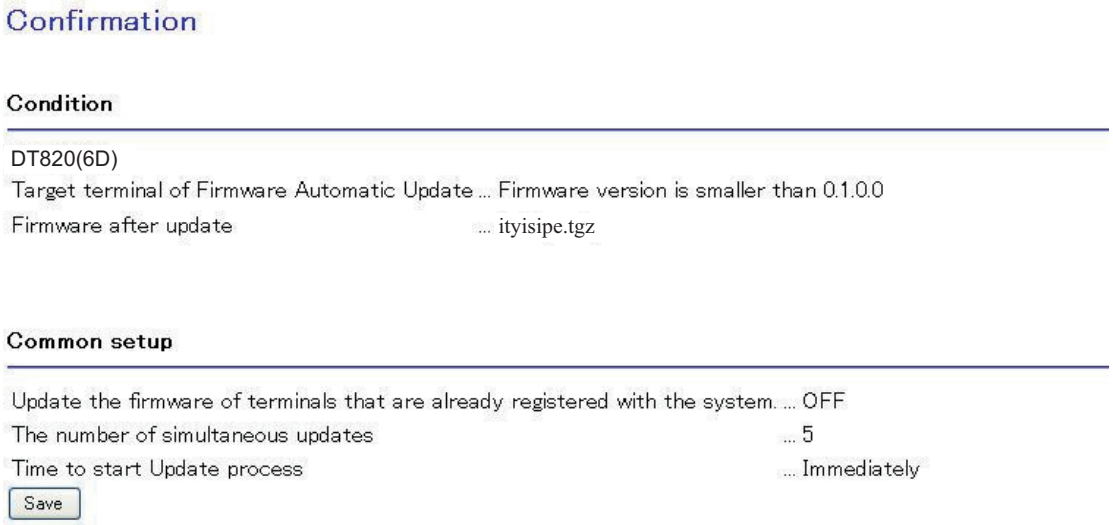
[6] Setup of Firmware Automatic Update

STEP 1: When **Set Firmware Automatic Updating** is selected on the main menu window, **Setup of Firmware Automatic Update** window shown is below. Assign the parameters for defining the Update condition to execute **Firmware Auto Update**, and then click **Next** button.



In the **Common setup** field, place a check mark on the **Update firmware of the terminals registered already** box to update the terminals which have completed the registration.

STEP 2: Conditions specified in STEP 1 appears. If there is no problem with the above settings, click the **Save** button.

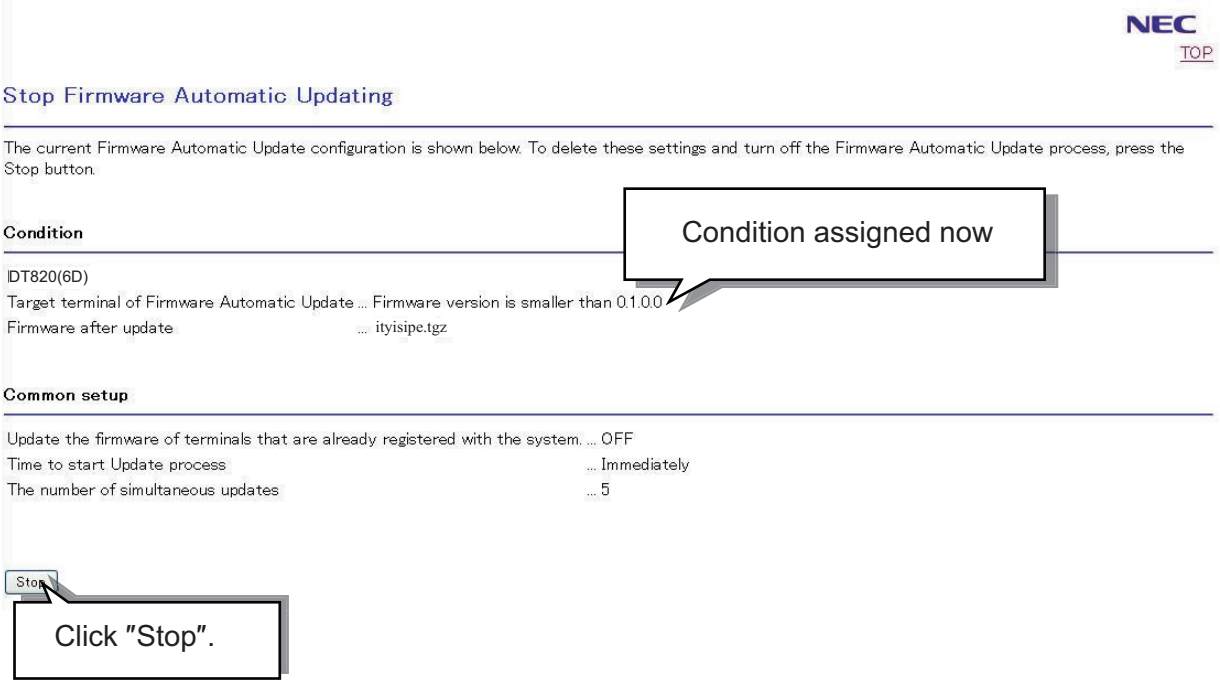


STEP 3: The setting result is displayed.

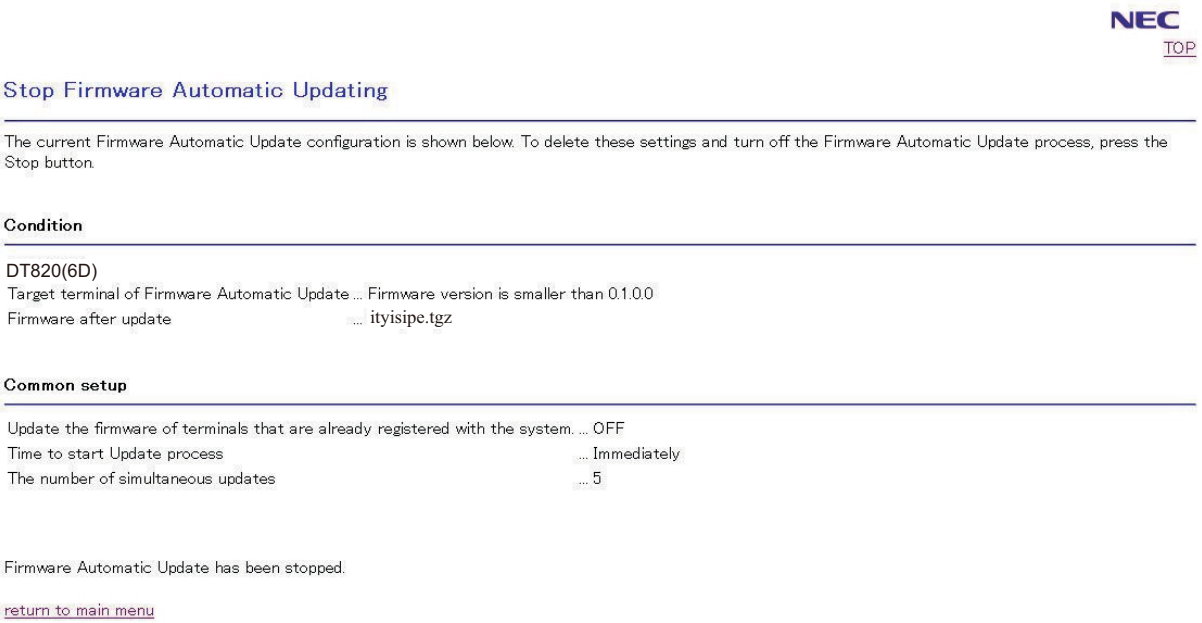


[7] Stop Firmware Automatic Updating

STEP 1:When **Stop Firmware Automatic Updating** is selected on the main menu window, Stop Firmware Automatic Updating window below appears. Currently assigned information is listed. Click **Stop** button if you want to stop Firmware Auto Update. (When Firmware Auto Update is not started, “Not set” line is displayed.)

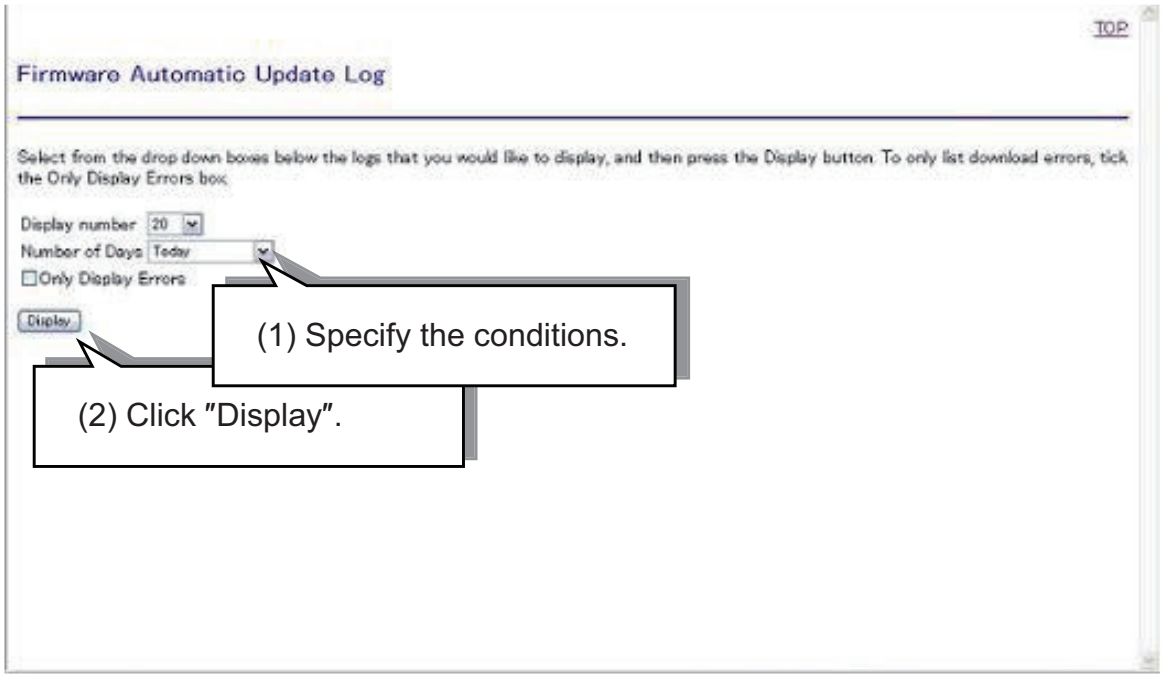


STEP 2: Result is displayed.

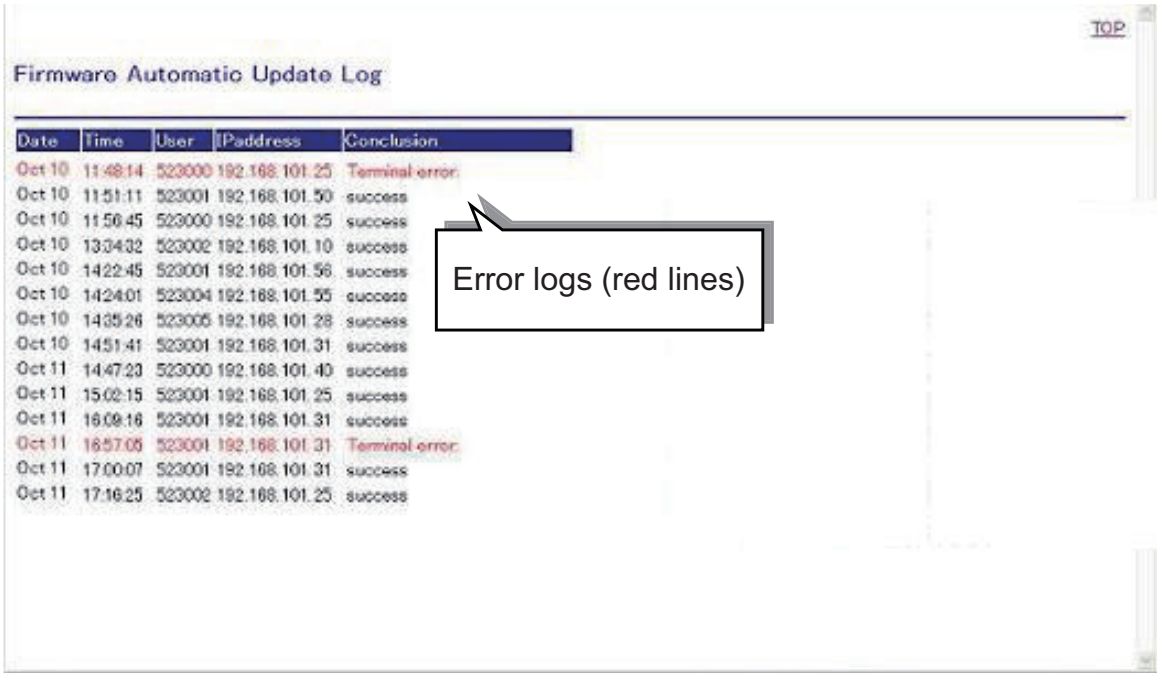


[8] Firmware Automatic Update Log

STEP 1: When **Firmware Automatic Updating Log** is selected on the main menu window, Firmware Automatic Update Log window below appears. Select the conditions and then click **DISP** button.



STEP 2: Logs are displayed (error log is displayed in different color).



Note: Use the Internet Explorer's function to search or to save the logs on a file.

Note: See the table below for the meaning of the message displayed on the Conclusion row:

Conclusion	Meanings	Countermeasures
success	Succeeded in executing the selected operation.	-
Terminal busy.	Failed in downloading the file because the terminal is in busy state.	Release the call.
File does not exist.	Corresponding download file cannot be found.	• Execute "Firmware Upload" again. • Execute "Setup of Firmware automatic update" again.
Hardware version error.	Hardware version error is detected.	This tool does not support the selected terminal.
Terminal error.	Other error is detected.	• Execute downloading again. • There is a possibility of terminal's hardware failure.
Config file parse error.	Error is detected on the auto update setting file.	Check the setting on "Setup of Firmware automatic update" again to make sure the condition is correct. **This error is output only when the condition is equal (==) between the current firmware version and the update firmware version.*
Config file read error.	Error is detected on the auto update setting file.	Check the setting on "Setup of Firmware automatic update" again to make sure the condition is correct. **This error is output when any irregular characters or numbers are entered.*

5.3 How to Create Terminal Phonebook File for DT800 Series/DT700 Series

This section explains how to create terminal phonebook file in CSV format.

To use terminal phonebook file, see the follows:

- DT830 Series: 4.1.2.26 File Downloading.
- DT820: 4.2.2.24 File Downloading
- DT700 Series: 4.3.2.23 File Downloading

[1] File Format

File name	Directory.csv (fixed)
Character code	Unicode (UTF-8)

[2] Data Assignment

<Group setting data>

The table below shows one entry of group setting data. 20 entries of group data need to be assigned on a CSV file.

Setting parameter	Setting value	Meaning	Available number of characters/digits	Remarks
Name	Group name	-	32 characters	Enclose the data in double quotation marks (“and”).
Ring Tone	0	Automatic	1~2 digits	
	1	Default		
	2 ~ 15	Tone Type 1 ~ Tone Type 14		
	16 ~ 18	Download 1 ~ Download 3		
Illumination	0	Automatic	1~2 digits	
	1	Default		
	2	Disable		
	3	Red		
	4	Green		
	5	Blue		
	6	Yellow		
	7	Purple		
	8	Light blue		
	9	White		
	10	Rotation		

Note: The following configuration menu reflects this data assignment.
2. Directory → 1. Personal → 3. Group Setting.

<Terminal Phonebook data (for one entry)>

The table below shows one entry of phonebook data. A CSV file can register 0 ~ 500 entries of phonebook data. No parameters for each entry can be skipped. Be sure to enter "" for a blank.

Setting parameter	Setting value	Meaning	Available number of characters/digits	Remarks
Name	Name	-	32 characters	Enclose the data in double quotation marks ("and").
Group	1 ~ 20	Group 1 ~ Group 20	1 ~ 2 digits	
Tel #1	Tel #1	-	32 characters	Enclose the data in double quotation marks ("and").
Tel #1's Category Set	0	Company	1 digit	
	1	Mobile		
	2	Voice Mail		
	3	Home		
	4	Others		
Tel #1's Priority Flag **Note 1**	0	Disable	1 digit	
	1	Enable		
Tel #2	Tel #2	-	32 characters	Enclose the data in double quotation marks ("and").
Tel #2's Category Set	0	Company	1 digit	
	1	Mobile		
	2	Voice Mail		
	3	Home		
	4	Others		
Tel #2's Priority Flag **Note 1**	0	Disable	1 digit	
	1	Enable		
Tel #3	Tel #3	-	32 characters	Enclose the data in double quotation marks ("and").
Tel #3's Category Set	0	Company	1 digit	
	1	Mobile		
	2	Voice Mail		
	3	Home		
	4	Others		
Tel #3's Priority Flag **Note 1**	0	Disable	1 digit	
	1	Enable		
Tel #4	Tel #4	-	32 characters	Enclose the data in double quotation marks ("and").
Tel #4's Category Set	0	Company	1 digit	
	1	Mobile		
	2	Voice Mail		
	3	Home		
	4	Others		
Tel #4's Priority Flag **Note 1**	0	Disable	1 digit	
	1	Enable		

Setting parameter	Setting value	Meaning	Available number of characters/digits	Remarks
Company Name	Company name	-	32 characters	Enclose the data in double quotation marks (“and”).
Ring Tone	0	Automatic	1~2 digits	
	1	Default		
	2 ~ 15	Tone Type1~Tone Type 14		
	16 ~ 18	Download1~Download 3		
Illumination	0	Automatic	1~2 digits	
	1	Default		
	2	Disable		
	3	Red		
	4	Green		
	5	Yellow		
	6	Blue		
	7	Light blue		
	8	Purple		
	9	White		
	10	Rotation		
Memory ID	0 ~ 499	-	1~3 digits	

Note: The following configuration menu reflects this data assignment.
2. Directory → 1. Personal → 2. Edit.

Note 1: For the Priority Flag of Tel #1 ~ Tel #4, be sure to assign “1 Enable” to one of Tel #1 ~ Tel #4 and “0 Disable” to the rest three.
When two or more “1 Enable” are assigned, only the first “1 Enable” takes priority. For example, when “1 Enable” is assigned to both Tel #2 and Tel #3, only the setting for Tel #2 is available and “0 Disable” is applied to Tel #3.

[2] Example Setting

<Group setting data>

Group1:

Setting item	Setting value
Group Name	GroupNEC
Ring Tone	2 (Tone Type 1)
Illumination	4 (Green)

<Terminal Phonebook data>

Terminal Phonebook 1:

Setting item	Setting value
Name	AAA
Group	0 (Group1)
Tel #1	111
Tel #1's Category Set	0 (Company)
Tel #1's Priority Flag	1 (Enable)
Tel #2	222
Tel #2's Category Set	0 (Company)
Tel #2's Priority Flag	0 (Disable)
Tel #3	333
Tel #3's Category Set	0 (Company)
Tel #3's Priority Flag	0 (Disable)
Tel #4	444
Tel #4's Category Set	0 (Company)
Tel #4's Priority Flag	0 (Disable)
Company Name	NECi
Ring Tone	0 (Automatic)
Illumination	0 (Automatic)
Memory ID	0

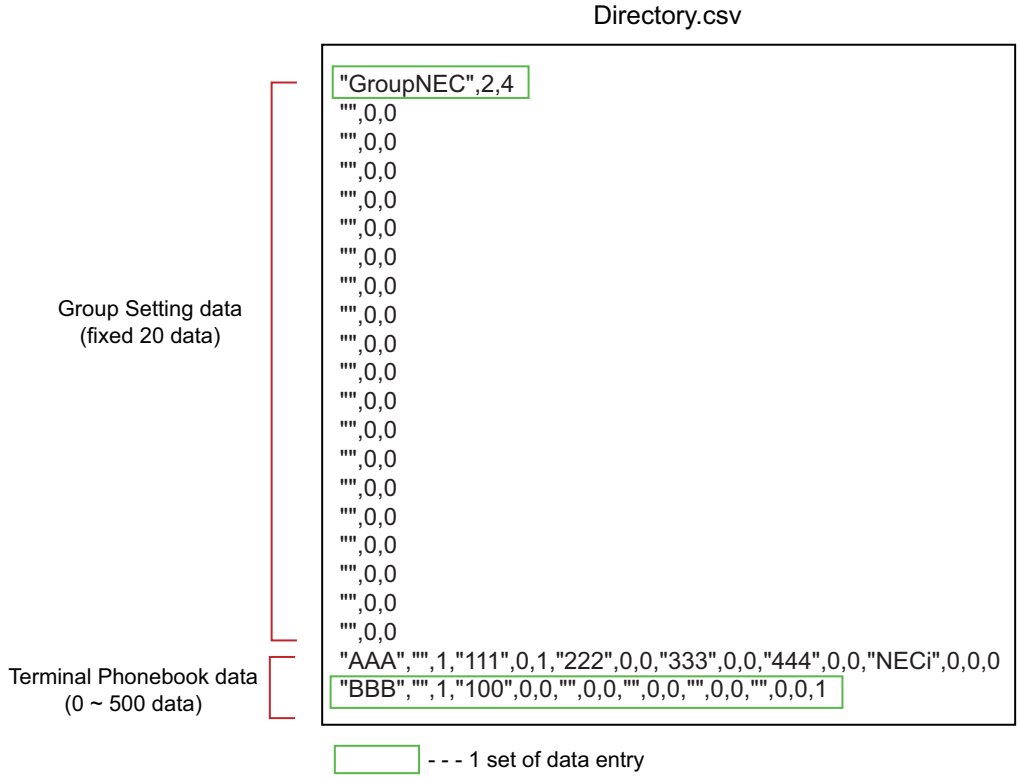
Terminal Phonebook 2:

Setting item	Setting value
Name	BBB
Group	0 (Group1)
Tel #1	100
Tel #1's Category Set	0 (Company)
Tel #1's Priority Flag	0 (Disable)
Tel #2	-
Tel #2's Category Set	0 (Company)
Tel #2's Priority Flag	0 (Disable)
Tel #3	-
Tel #3's Category Set	0 (Company)
Tel #3's Priority Flag	0 (Disable)
Tel #4	-
Tel #4's Category Set	0 (Company)
Tel #4's Priority Flag	0 (Disable)
Company Name	-
Ring Tone	0 (Automatic)
Illumination	0 (Automatic)
Memory ID	1

Note: This example table extracts the CSV format "Directory.csv" shown in How to Create CSV File.

[3] How to Create CSV File

Write 20 of Group Setting data (fixed) from the first line through the 20th line, and then proceed to write 0 ~ 500 of Terminal Phonebook data. Separate the value by a comma mark (,) for each parameter and insert a linefeed for each set of data entry.



Note: Once the CSV file for terminal phonebook is edited on Microsoft Excel application, DT830 cannot use the CSV file by downloading it again.

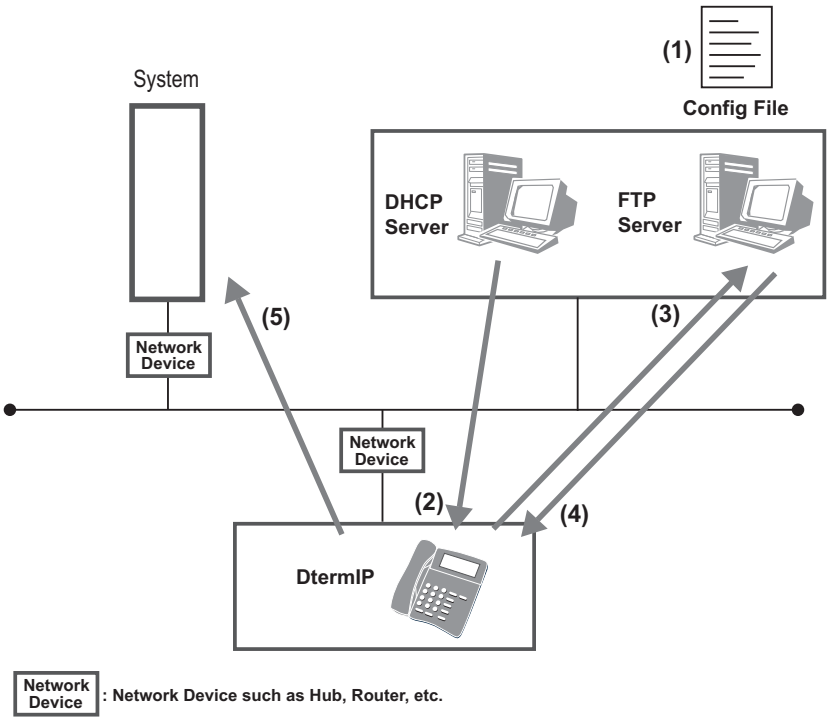
Note: Be sure not to add Byte Order Mark (BOM).

5.4 AutoConfig Feature of DtermIP

Note: "DRS (Device Registration Server)" used in this section refers to the Telephony Server. The Telephony Server acts as DRS, where DtermIP/IP Enabled Dterm is registered.

5.4.1 Overview

AutoConfig feature is a method to automatically set the configuration data to DtermIP with a DHCP and FTP Server.



(1) Create the Config file for DtermIP and store it into the FTP server. Turn the DtermIP ON, and connect it to the network.

(2) DtermIP obtains the FTP server address and the Config file name from the DHCP server.

(3) DtermIP accesses the FTP server and downloads the Config file specified by the DHCP server.

(4) If the downloaded file data is not same as the existing configuration data in the memory of DtermIP, the downloaded config file data is saved and DtermIP is reset.

(5) After the reset, DtermIP repeats the Step 2 and 3 with the data saved in Step 4. If the downloaded file data is same as the data in the DtermIP memory, DtermIP can access the System.

5.4.2 Setting Procedure

[1] Prepare the DHCP, FTP server and DtermIP

Set up a DHCP and FTP server. DtermIP must be used with factory default settings. Even if the network segment where the DtermIP exists is different with the segment of the DHCP or FTP servers, DtermIP must be able to access the DHCP and FTP servers' segment.

[2] Create the Config file.

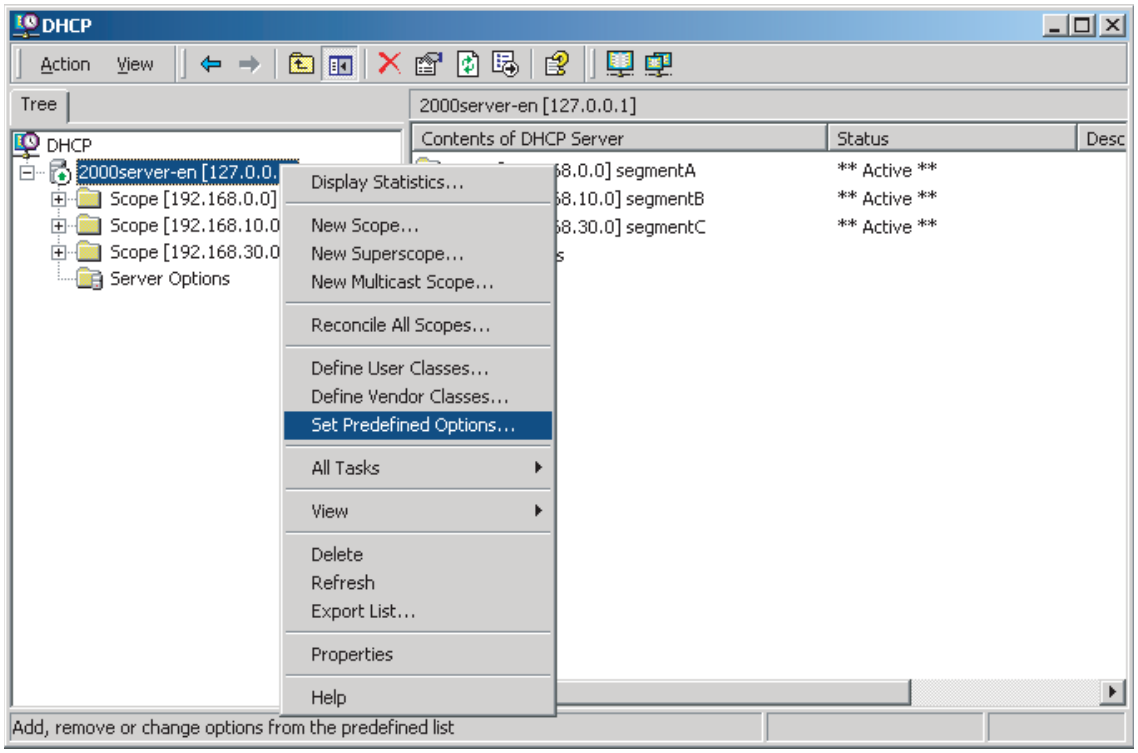
Use the application software "Config Setup APL" to create the Config file. Refer to the Config Setup APL Instruction Manual for installation and use of the Config Setup APL.

Store the Config file (XX.ini) created by Config Setup APL into the download folder of the FTP server.

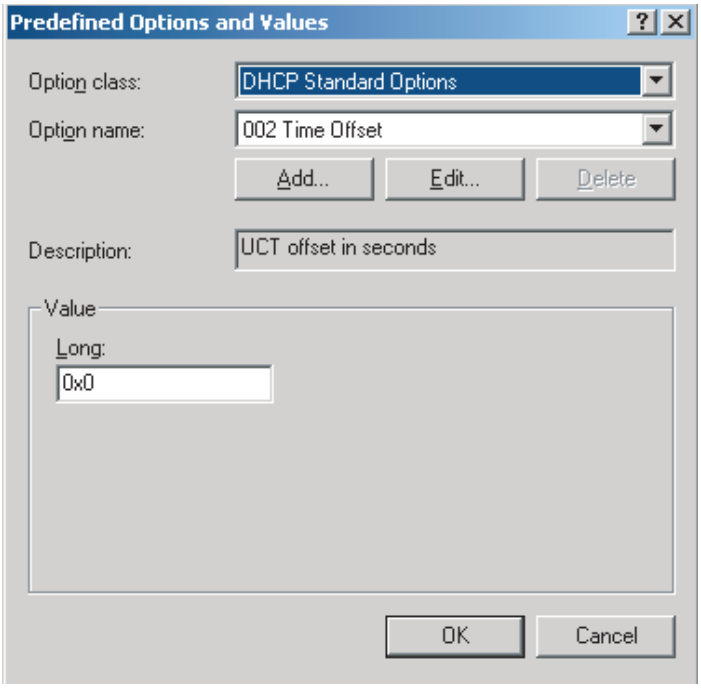
When setting different configuration data to two or more segments, each segment requires Config files differently. These files are stored into the download folder of the FTP server. Only one Config file for each segment can be downloaded through the AutoConfig feature.

[3] Add DHCP Option ID.

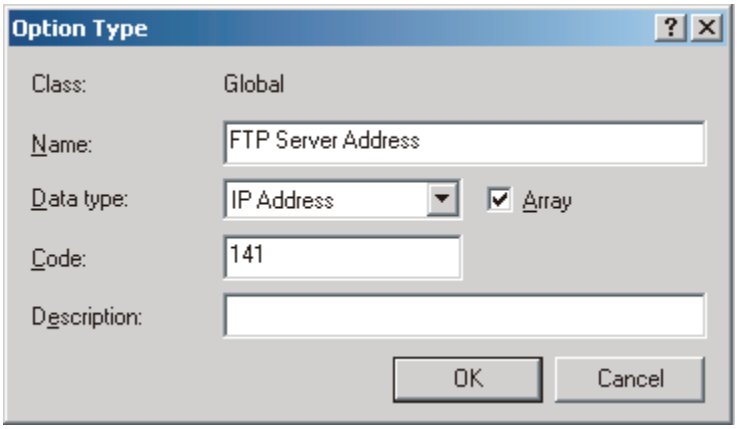
STEP 1: Highlight and right-click on the server, and then select "Setting Predefined Option".



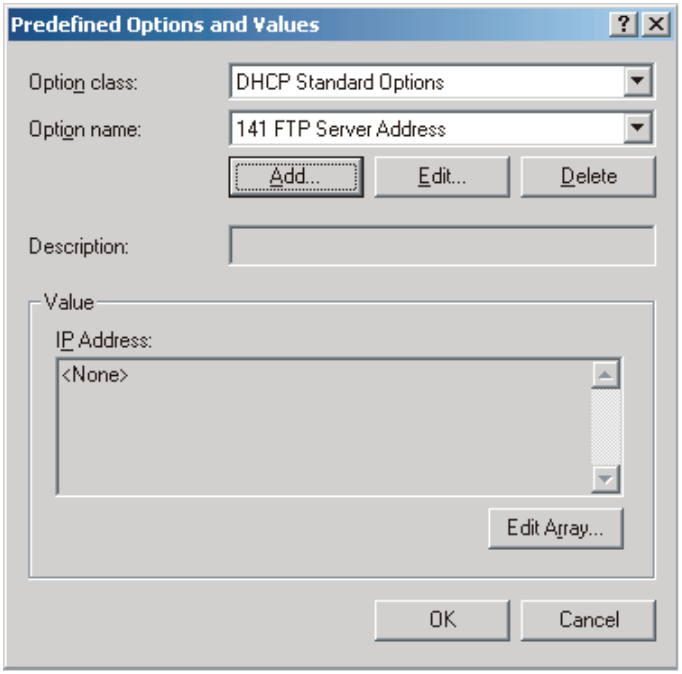
STEP 2: On the “Predetermined Option and Values” screen, click the Add button.



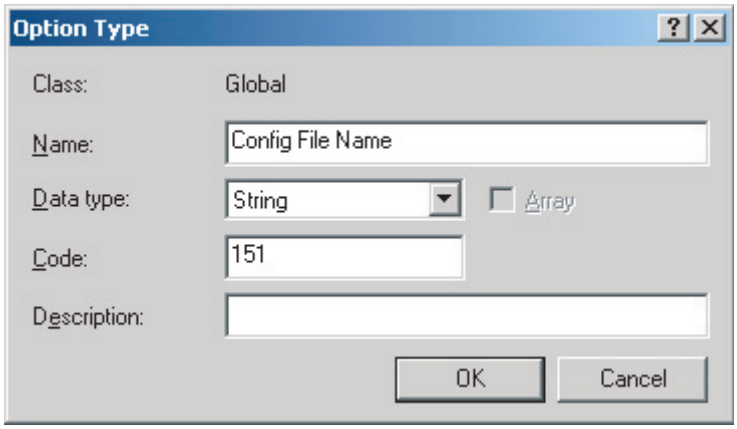
STEP 3: Type “FTP Server Address” in the Name box and select “IP Address” as the Data Type. Place a check-mark in the Array checkbox. Enter 141 in the Code box, and click the OK button.



STEP 4: Click the Add button when returned to the “Predetermined Options and Values” screen.

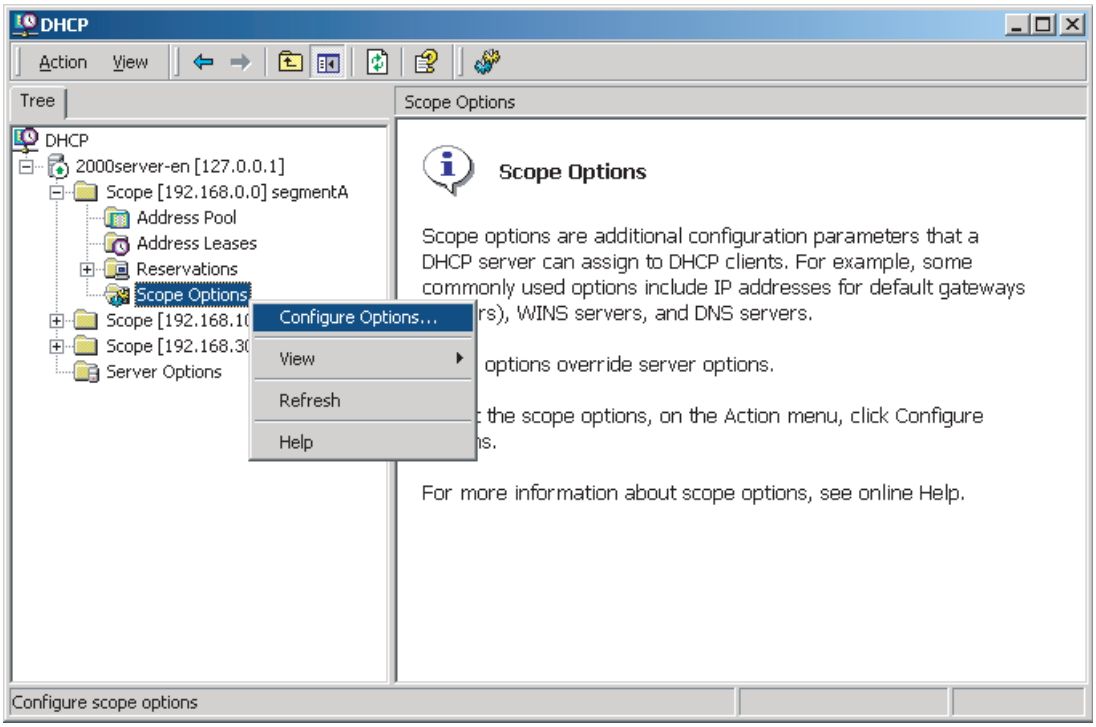


STEP 5: Type “Config File Name” in the Name box and select “String” as the Data Type. Enter “151” in the Code box, and click the OK button.

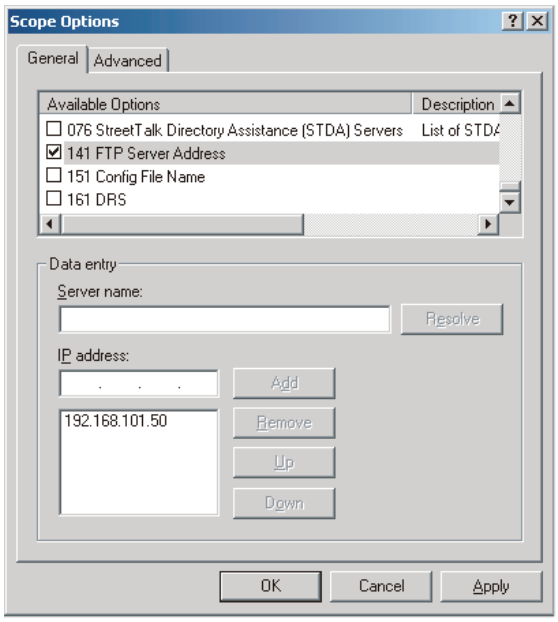


STEP 6: The “Predetermined Options and Values” screen is displayed again. Click the OK button.

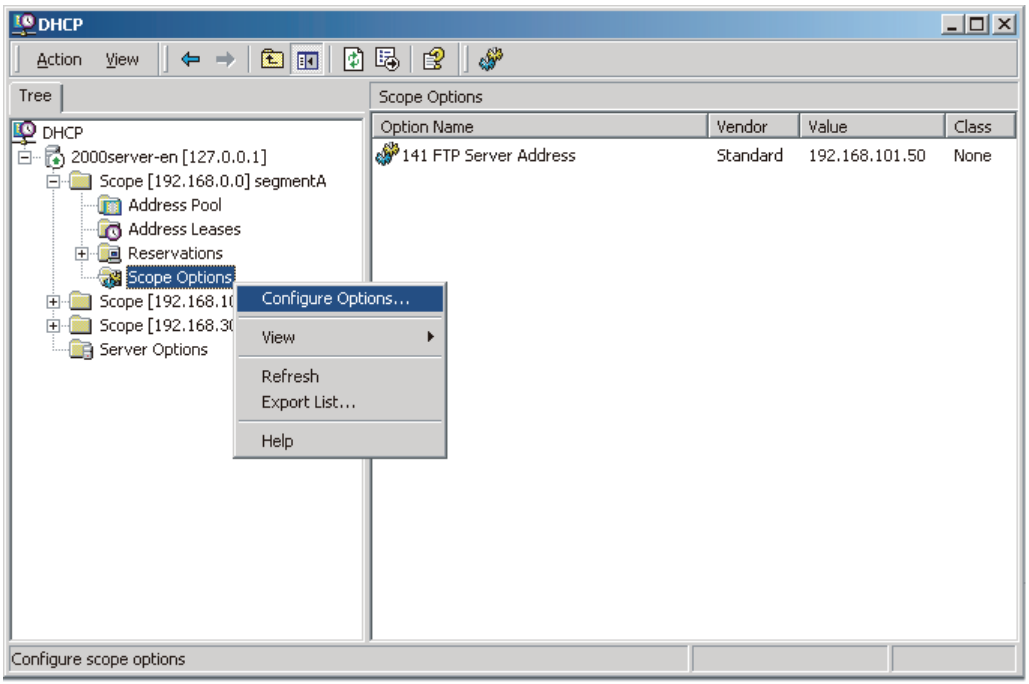
STEP 7: To add option to each Scope, highlight and right-click on the “Scope Options”, and select “Configuration Options”.



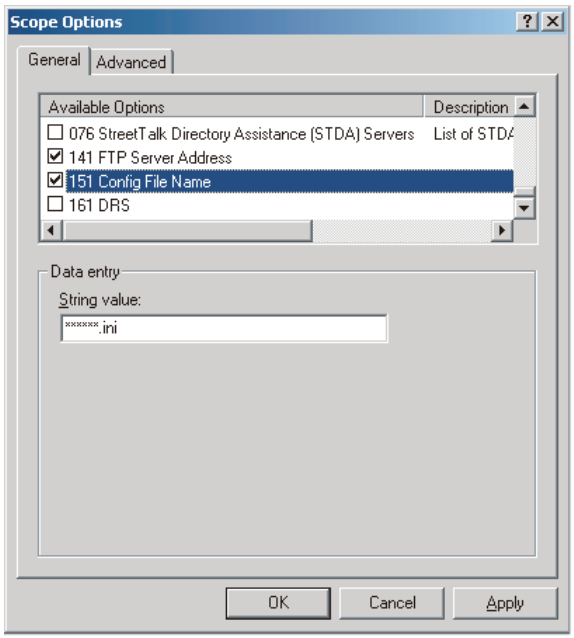
STEP 8: On the “Scope Options” screen, mark a checkmark in the checkbox next to “141 FTP Server Address”. Enter the address of FTP Server in the IP address box, and click the Add button. After clicking the Add button, click the OK button.



STEP 9: Confirm that FTP server address is listed on the line of "141 FTP Server Address". Then, highlight and right-click on the "Scope Option", and select "Configuration Options" again.

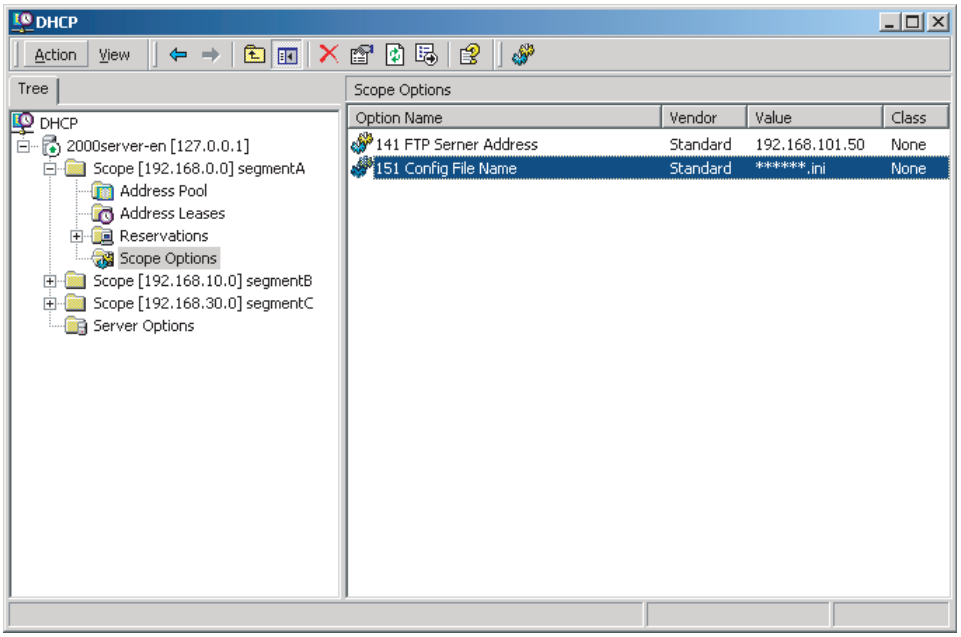


STEP 10: On the "Scope Options" screen, mark a checkmark in the checkbox next to "151 Config File Name" and enter the Config file name to be downloaded in the String Value field. At this time, the extension must be "ini".



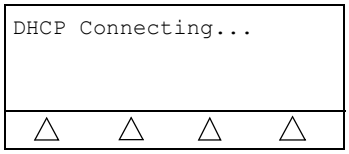
STEP 11: Go back to the DHCP screen, and confirm that the specified file name is listed on the line of "151 Config File Name".

Note: If another scope setting needs to be set, go back to the Step 9 and make the option setting for another scope.

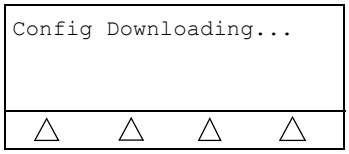


[4] Power ON the DtermIP, and connect it to the network.

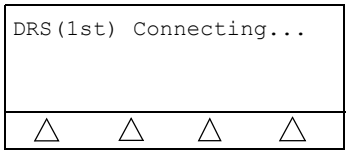
STEP 1: Power ON the DtermIP, and connect it to the network. Wait for a while until the following message is displayed.



STEP 2: DtermIP acquires the FTP server address and the Config file name from the DHCP server. After acquiring them from the DHCP server, the following message will be displayed.



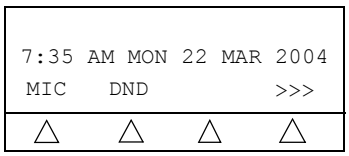
STEP 3: DtermIP accesses the FTP server, downloads the configuration data. After the downloading is complete, the downloaded Configuration data file and the current DtermIP configuration data file are compared. If there is a change, the DtermIP will reset and return to step 1. The following message is displayed if the Configuration data files are the same.



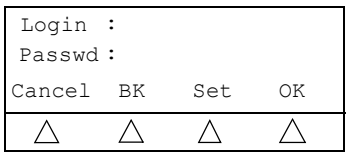
STEP 4: The following message is displayed when the DtermIP can connect to the DRS.



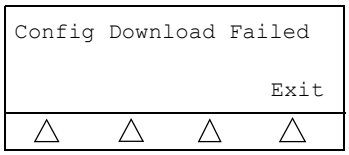
STEP 5: The time is displayed.



Note: When DtermIP is registered in the Login Mode or MAC address is not set, Login screen appears before the display of STEP 4.



Note: If the configuration data file cannot be downloaded properly in the STEP 2, the following message appears.



5.4.3 Applied Setting

The procedure described in "5.4.2 Setting Procedure" is for basic operation of the AutoConfig feature. Additional steps are required when the following conditions are met:

- When VLAN is used:
- When the AutoConfig feature is used only for the first time:
- When an operational DtermIP is moved to a new network segment:
- When the configuration data of DtermIP is changed individually:
- When the configuration setting on start-up is changed:

(1) When VLAN is used:

When using VLAN, note the following:

- When different VLAN IDs are used in two or more segments, it is necessary to use the two scopes (VLAN is disabled for one scope and VLAN is enabled for another) on a segment basis. Also, the same FTP server address of DHCPOption and Config file name must be set to the two scopes.
- DtermIP needs to be able to access the FTP server and the DHCP server even if VLAN is enabled and disabled.

(2) When the AutoConfig feature is used only for the first time:

When the AutoConfig feature is used only for the first time, and from them on, FTP server is not accessed, follow the procedure below.

STEP 1: Create the Config file sets AutoConfig Mode is disabled, by using Config Setup APL.

STEP 2: Set the FTP server address and Config file name to DHCPOption, and then connect the DtermIP to the network.

STEP 3: DtermIP acquires OptionID from the DHCP server and downloads the Config file from the FTP server.

STEP 4: The Configuration data is saved and DtermIP is reset.

STEP 5: Although DtermIP acquires OptionID from the DHCP server after the reset, DtermIP does not access the FTP server because AutoConfig Mode is disabled. DtermIP accesses the DRS and displays the time in the usual way.

(3) When an operational DtermIP is moved to a new network segment:

When an operational DtermIP is moved to another segment, note the following.

- AutoConfig Mode of DtermIP should be enabled.
  When Config Mode of DtermIP is disabled and VLAN or Speed&Duplex is set, DtermIP may not be able to access each server. At this time, it is necessary to initialize the DtermIP to the factory default settings.

- DtermIP must be operational. When moving a DtermIP which cannot access the DHCP or DRS, it is necessary to initialize the DtermIP to the factory default setting.

(4) When the configuration data of DtermIP is changed individually:

When changing the configuration data of DtermIP individually (such as Language, Music Select, etc.), it is necessary to change the data manually from the User Menu or Administrator Menu.

(5) When the configuration setting on start-up is changed:

When the configuration setting on start-up is changed, follow the procedures below.

STEP 1: Edit the Config file by using Config Setup APL, and then store the Config file in the FTP server.

STEP 2: Send a reset from the System to DtermIP.

STEP 3: DtermIP downloads the new Config file through the AutoConfig feature, and save it.

Note: When AutoConfig Mode is disabled, the AutoConfig feature can be performed again by changing the Config file name of DHCPOption.

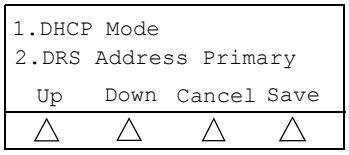
Note: When the network is restructured (change of VLAN ID or Speed&Duplex setting for the network equipment, etc.), it does after the procedure to above-mentioned STEP3.

5.4.4 Enable/Disable AutoConfig Mode from DtermIP Menu

The following shows how to enable/disable AutoConfig Mode from the DtermIP Configuration Menu.

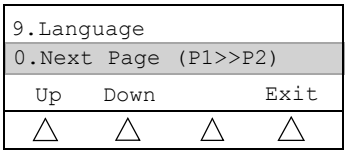
STEP 1: Open the User Menu by pressing “Hold” + “Transfer” + “*” + “#” on the terminal while indicating time, an error message, or “DHCP Connecting.../DRS (1st) Connecting...”.

[User Menu]



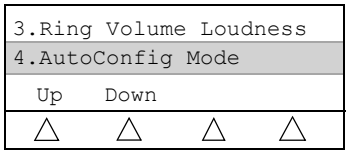
STEP 2: Open the Administrator Menu (Page 1) by pressing “Hold”+“#”+“0” on the User Menu. Select “0. Next Page (P1 >> P2)” by pressing “0” on the Administrator Menu (Page 1).

[Administrator Menu (Page1)]



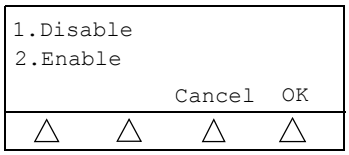
STEP 3: The Administrator Menu (Page 2) is displayed. For Dterm Series *i*, select “4. AutoConfig Mode” by pressing “4”.

[Administrator Menu (Page2)]



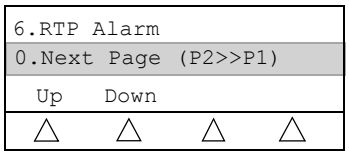
(Dterm Series *i*)

STEP 4: The display changes as follows. When disabling the AutoConfig Mode, choose “1. Disable” by pressing “1”. When enabling the AutoConfig Mode, choose “2. Enable” by pressing “2”. Then press OK key.



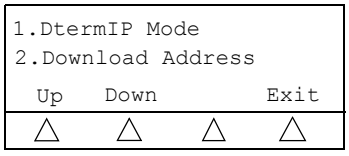
STEP 5: Go back to the Administrator Menu (Page 1) by pressing “0” key on the Page 2. Then, go back to the User Menu by pressing the EXIT key. On the User Menu, press the Save key to save the setting data.

[Administrator Menu (Page2)]



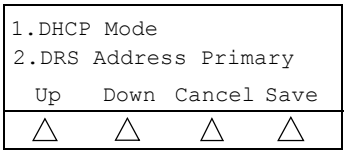
Press “0” key.

[Administrator Menu (Page1)]



Press “Exit” key.

[User Menu]



Press “Save” key.

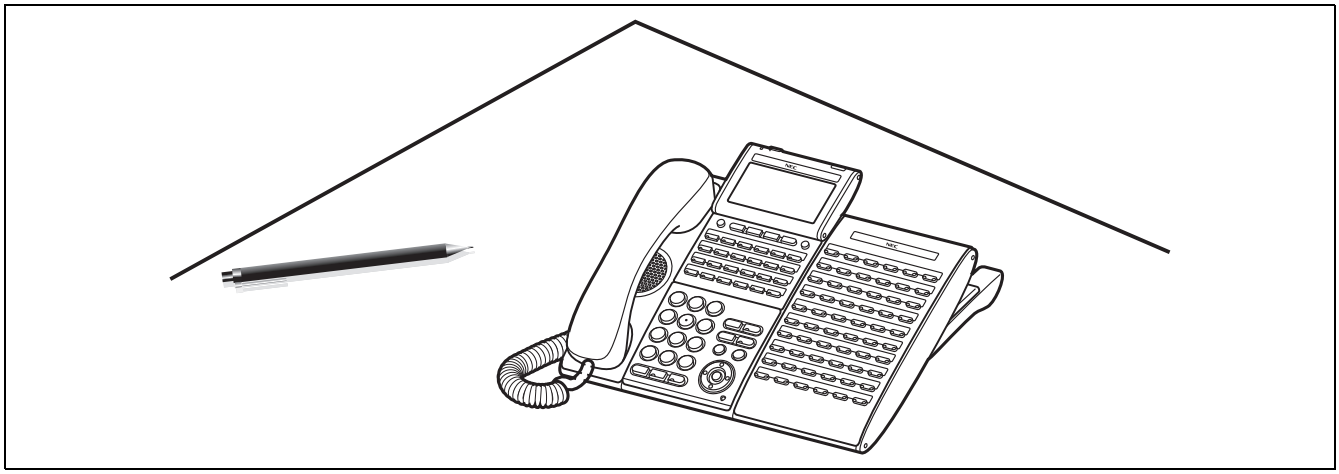
CHAPTER 4
OPTIONAL EQUIPMENT FOR MULTI-LINE TELEPHONE

1. DSS Console

1.1 Overview

The purpose of this guide is to provide technicians with information associated with the Direct Station Selection (DSS) console. The figure below shows the outer view of DSS console.

Outer View of DSS Console



1.1.1 Functional Outline

The DSS console is used as a DSS console (Direct Station Selection (DSS)/Busy Lamp Field (BLF) or Add-On Module (ADM)) depending on the following two factors:

- ☐ Level Number (even or odd) of the allocated LENS for the DSS console
- ☐ Office Data Programming

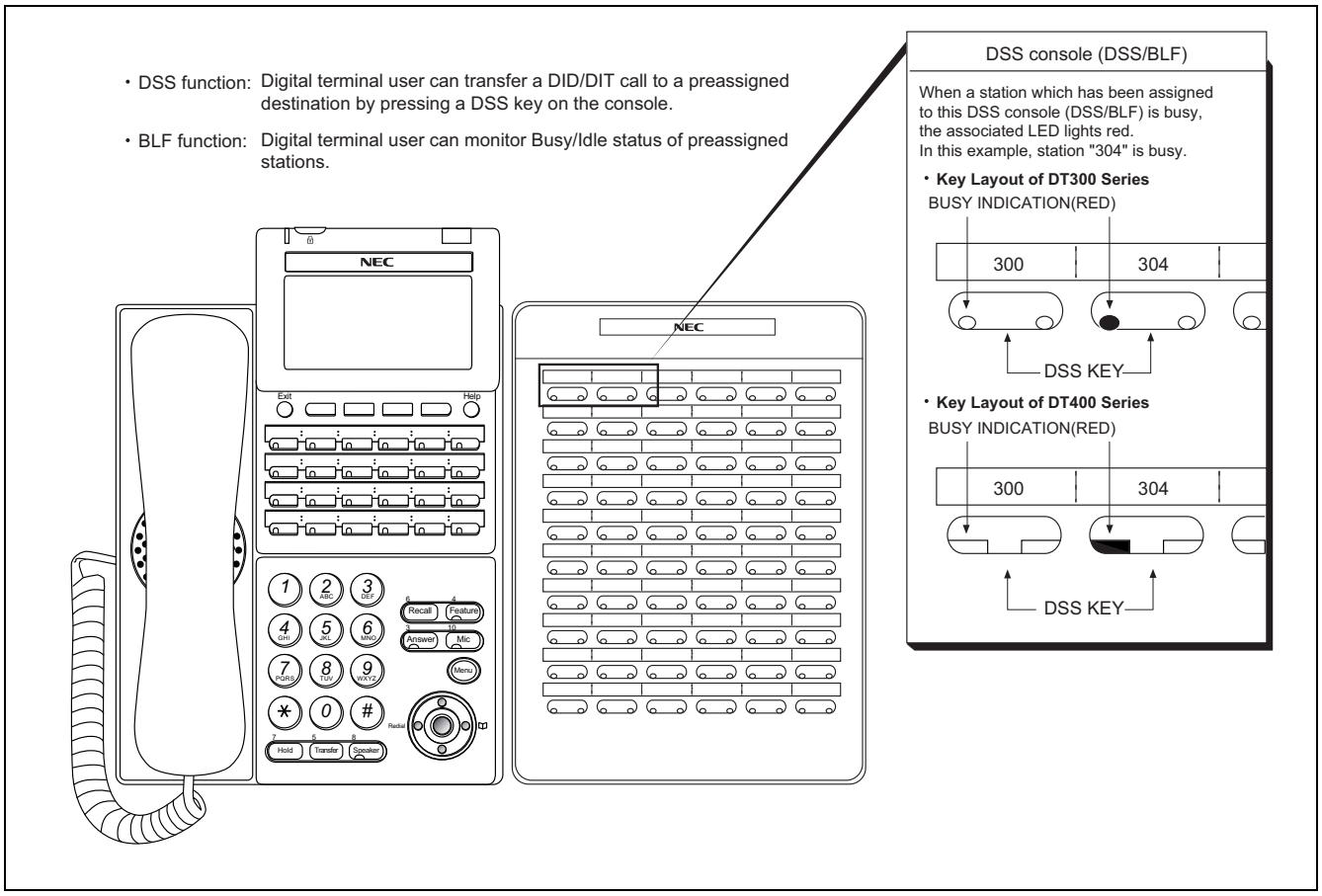
Note: For office data programming, refer to Direct Station Selection (DSS) Console [D-149] in Data Programming Manual - Business.

Direct Station Selection/Busy Lamp Field (DSS/BLF) Mode

A DSS console can be connected to each Digital terminal. The DSS console expands the Line keys of a Digital terminal, in the DSS/BLF mode. When the DSS console receives a call, the Digital terminal user can transfer the incoming call to an assigned destination by pressing the appropriate key on the console, while the caller is automatically placed on hold. This mode is called Direct Station Selection (DSS). Also each key on the console has a Light Emitting Diode (LED) so that DSS console can indicate the Busy/Idle status of each assigned station. This mode is called Busy Lamp Field (BLF) mode.

The figure below shows a DT300 Series as an example.

Direct Station Selection (DSS) / Busy Lamp Field (BLF) Mode



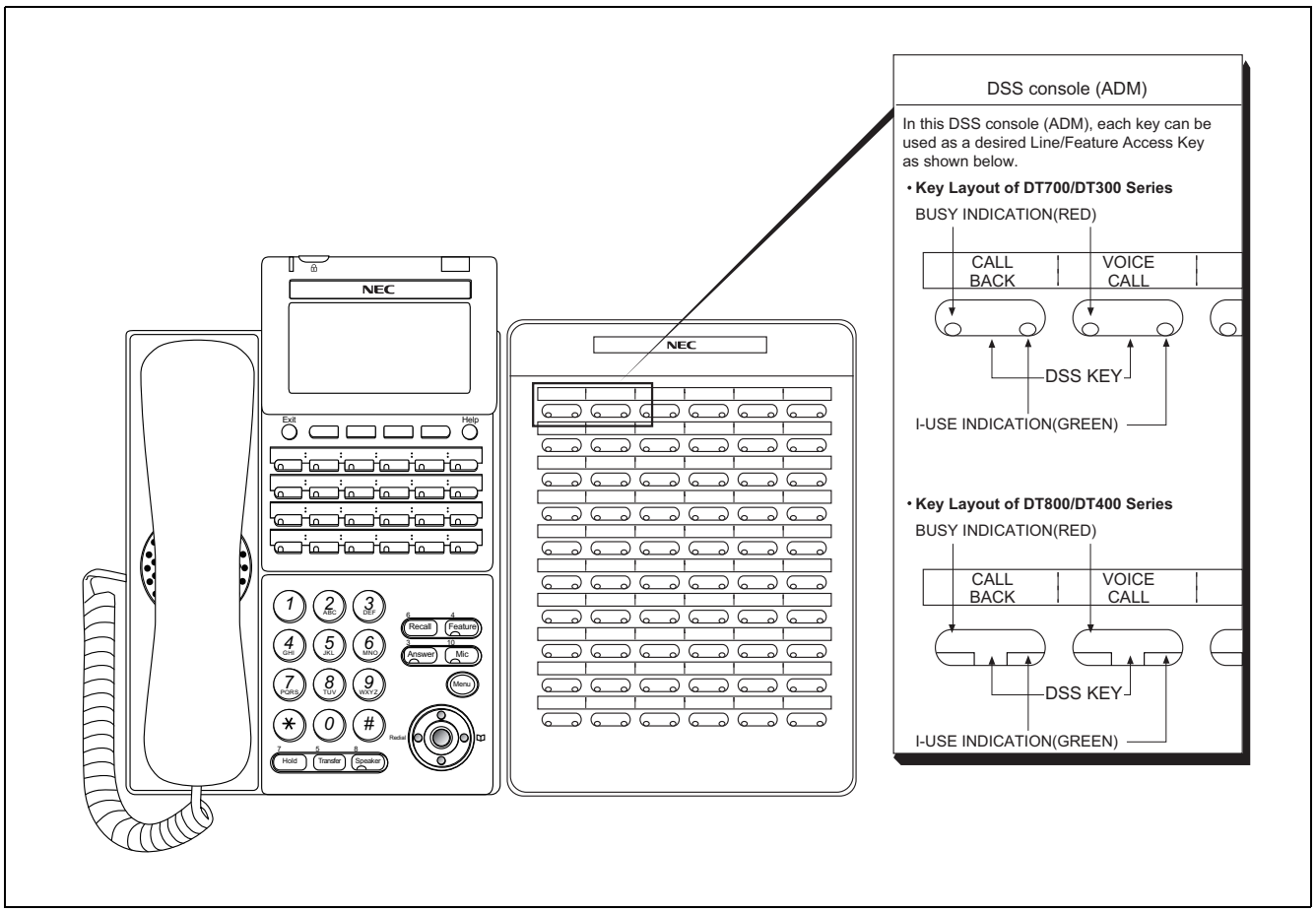
Add-On Module (ADM) Mode

A DSS console expands the Line/Feature Access Keys of a terminal, in the ADM mode. A maximum of 60 keys (Line Keys including Multi-Line Keys and Feature keys) are available in addition to the existing Line/Feature Access Keys on each terminal.

The figure below shows a DT700 Series as an example.

Note: When a DSS console is used in combination with a DT800/DT700 Series terminal, the DSS console activates in ADM mode only.

Add-On Module (ADM) Mode



Relationship between the Mode Designation and Mounting Level Numbers

MODE	ALLOWABLE LEVEL NUMBERS	
DSS mode	Even Number	LV0, LV2, LV4, LV6
ADM mode	Odd Number	LV1, LV3, LV5, LV7

1.2 Specifications

The following tables show the specifications for DSS consoles.

Specifications for DSS Console

- DT800/DT400/DT700/DT300 Series

ITEM	SPECIFICATIONS	
Number of Keys	× 60	
Number of Light Emitting Diodes (LEDs)	× 60 (RED)	× 60 (GREEN)
Allowable Cable Length (For DT400/DT300 Series)	Power supply from System	850 m (2788.7 ft.)
	Local Power Supply	1200 m (3937.0 ft.) • AC adapter is required.
Interface Card to the Telephony Server (For DT400/DT300 Series)	DT400 Series: CH-16ELCA DT300 Series: CH-16ELCA, PA-16ELCN, PA-16ELCJ-B (For Dterm Series *i* mode only)	
Dimensions	Width	137.0 mm (5.4 in.)
	Depth	224.0 mm (8.8 in.)
	Height (1)	57.0 mm (2.2 in.) • When tilt legs are folded.
	Height (2)	82.0 mm (3.2 in.) • When tilt legs are raised.
Weight	0.6 kg	

Note: When using DSS console with DT800/DT700 Series, be sure to prepare the AC adapter.

- Dterm Series *i*

ITEM	SPECIFICATIONS	
Number of Keys	× 60	
Number of Light Emitting Diodes (LEDs)	× 60 (RED)	× 60 (GREEN)
Allowable Cable Length	1200 m (3937.0 ft.) *Local Power Supply • AC adapter is required.	
Interface Card to the Telephony Server	PA-16ELCN, PA-16ELCJ-B	
Dimensions	Width	175.0 mm (6.9 in.)
	Depth	226.8 mm (8.9 in.)
	Height	68.2 mm (2.7 in.) • When tilt legs are folded.
Weight	0.69 kg	

Cable Distance Limitation

- DT400/DT300 Series

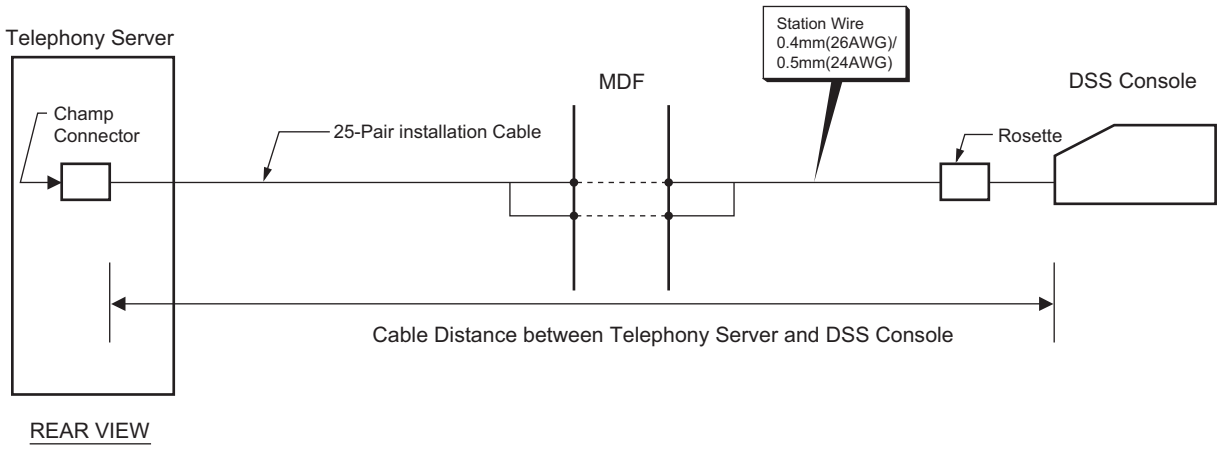
CABLE LOCATION		CABLE	0.4 mm/26 AWG		0.5 mm/24 AWG	
		UNIT	METERS	FEET	METERS	FEET
Telephony Server - DSS Console	Power supply from System		540	1771.7	850	2788.7
	Local Power Supply (With AC Adapter)		700	2296.6	1200	3937.0

- Dterm Series *i*

CABLE LOCATION		CABLE	0.4 mm/26 AWG		0.5 mm/24 AWG	
		UNIT	METERS	FEET	METERS	FEET
Telephony Server - DSS Console	Local Power Supply (With AC Adapter)		700	2296.6	1200	3937.0

Cable Distance Definition

• As illustrated below, the allowable cable distance includes the 25-pair installation cable.



1.3 Installation Procedure

1.3.1 Mounting the DSS Console to the DT800/DT700/DT400/DT300 Series Terminal

This section describes mounting procedure of the DSS console to the DT800/DT700/DT400/DT300 Series Terminal.

Tools Required

Basic Tools Required

- Bracket (with five screws) : for attaching the DSS console to the terminal (provided)
- Phillips screwdriver : for fastening the bracket

In addition to the above, the following tools are required depending on the combination:

Used in Combination with a DT400/DT300 Series Terminal

- Line cable : for connecting the DSS console to the rosette (provided)
- AC adapter : for power supply to the DSS console (optional)

Note: When using the terminal with local power supply, DSS console is also required to be used with local power supply.

Used in Combination with a DT800/DT700 Series Terminal

- Telephone connection cable : for connecting the DSS console to the DT800/DT700 Series terminal (provided)
- AC adapter : for power supply to the DSS console (optional)

Note: When using DSS console with DT800/DT700 Series, be sure to prepare the AC adapter.

Mounting Procedure

Note: When the 8LK Unit is connected to the terminal, install the DSS console to the right side of the 8LK Unit.

[1] Connecting the DSS console to the DT400/DT300 Series Terminal

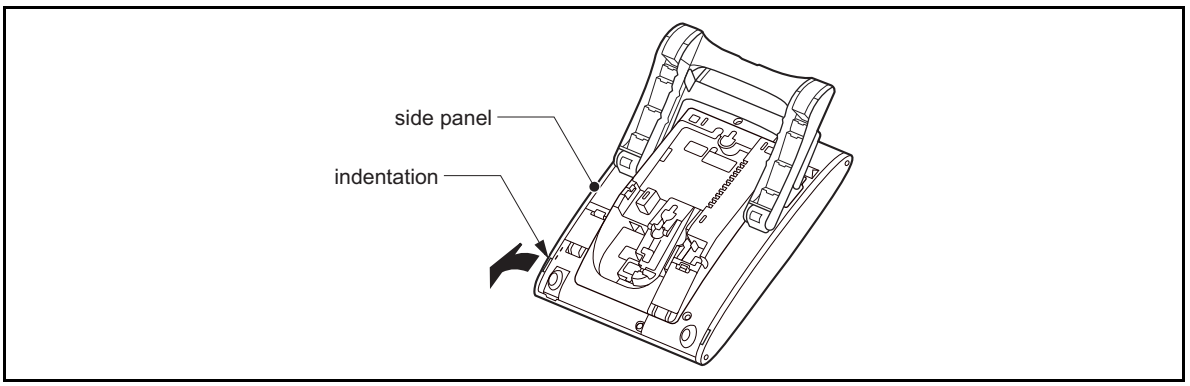
Note: The figure below shows a DT300 Series as an example.

STEP 1: Carefully insert a pointed instrument into the slot located on the right side of the face panel of the terminal.

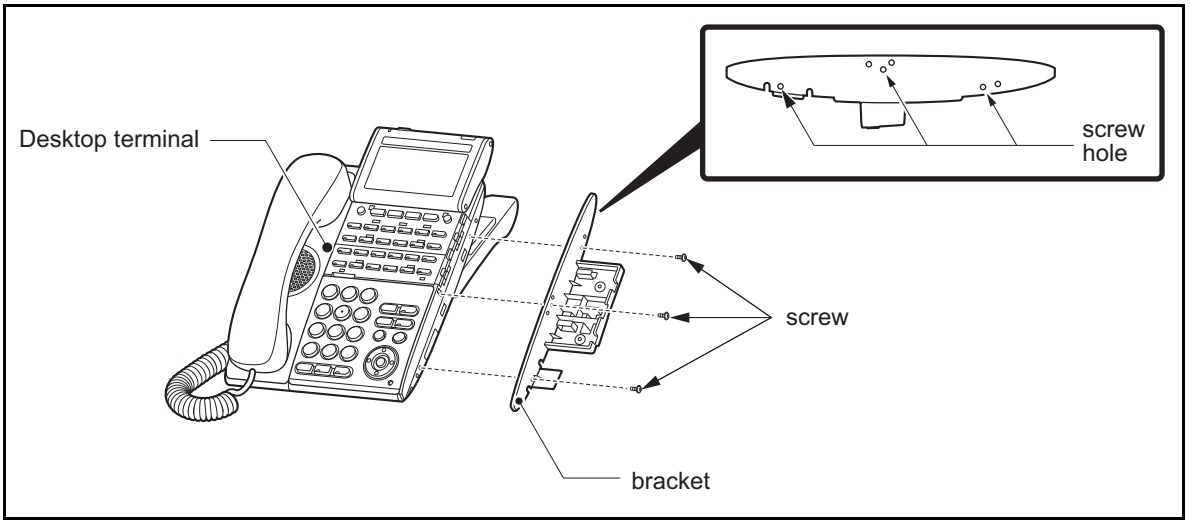
STEP 2: Gently pry out the panel, and remove the key sheet.

STEP 3: Turn the terminal upside down.

STEP 4: Put your finger in the indentation on the mounting side of the terminal and pull down to remove the side panel

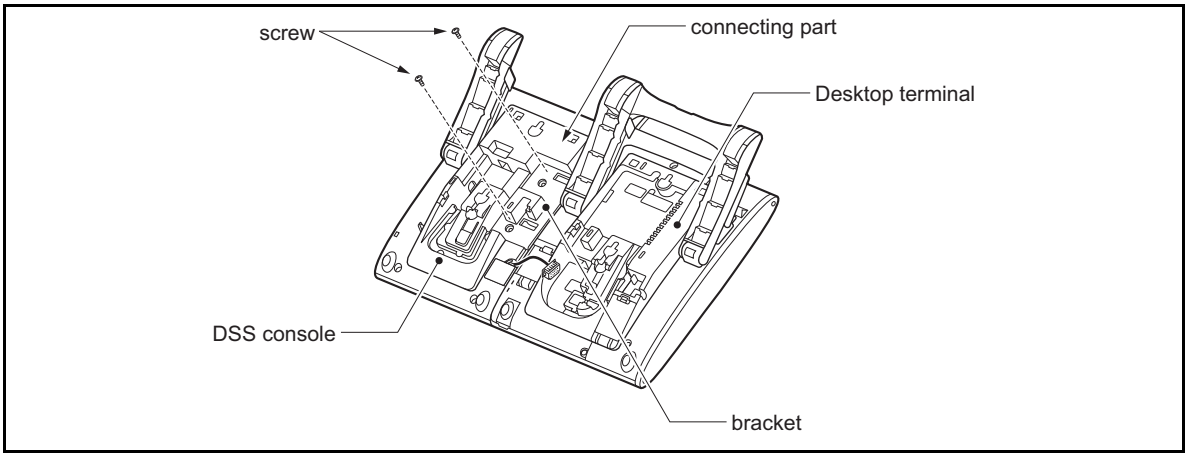


STEP 5: Attach the provided bracket to the terminal with provided three mounting screws as shown in the figure.



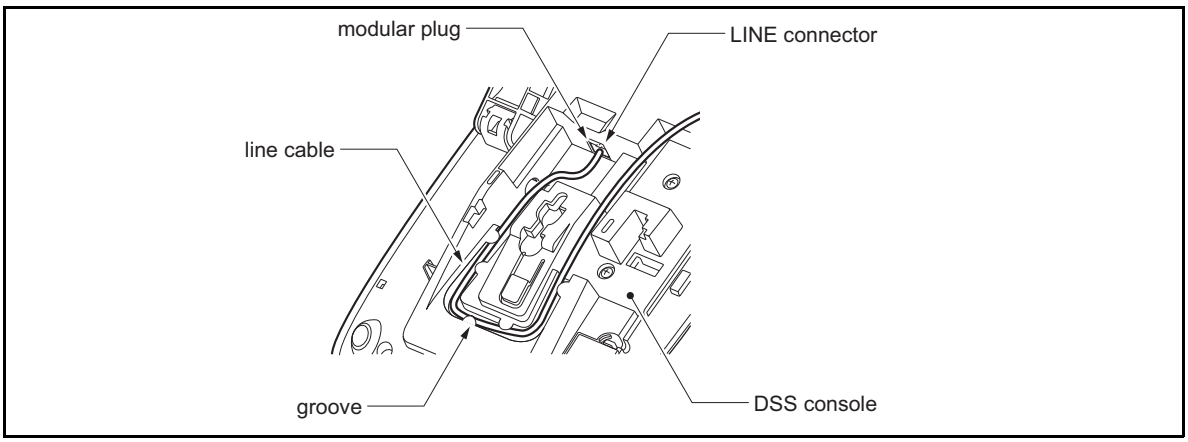
STEP 6: Turn the terminal upside down.

STEP 7: Mount the DSS console to the terminal by using the provided two screws as shown in the figure.



STEP 8: Insert the line cable modular plug into the LINE connector on the back of the terminal until you hear a click.

STEP 9: Thread the cable through the groove on the back of the terminal as shown in the figure.



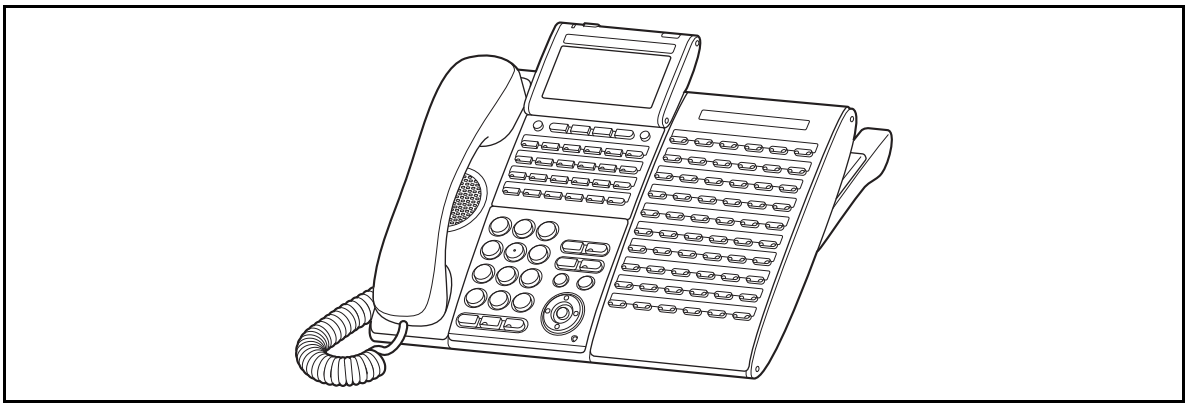
STEP 10: Level the terminal and the DSS console by adjusting the height of the tilt legs.
The angle of the tilt leg can be adjusted in four levels. For details, see [3] Adjusting the Tilt Leg.

STEP 11: Attach the side panel that you removed in STEP 4 to the right side of the DSS console.
For details, see [4] Installing the Side Panel.

STEP 12: Turn the terminal and DSS console right side up.

STEP 13: Set the key sheet in place.

STEP 14: Align the face panel correctly on the key sheet and push down the four corners until you hear a click.



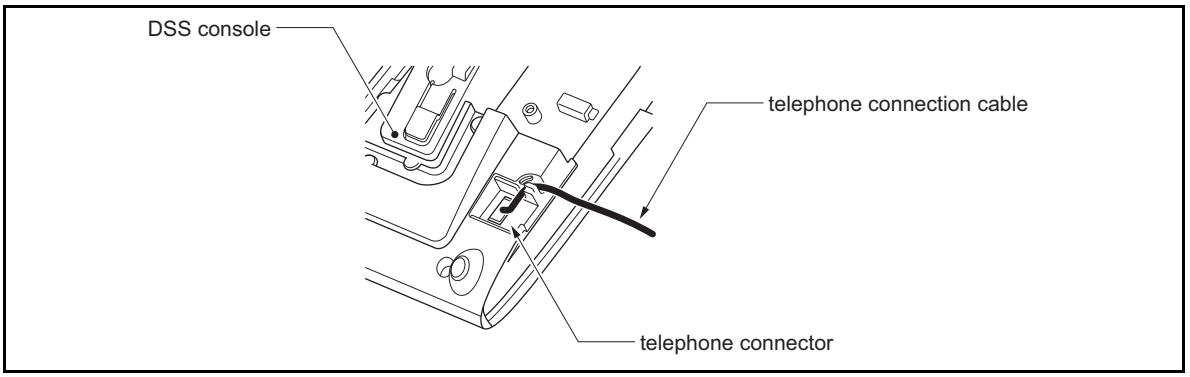
This completes the process of mounting the DSS console to the DT400/DT300 Series terminal.

[2] Connecting the DSS Console to the DT800/DT700 Series Terminal

Note: The figure below shows a DT700 Series as an example.

STEP 1: Perform STEPs 1 to 6 described in [1] Connecting the DSS console to the DT400/DT300 Series Terminal.

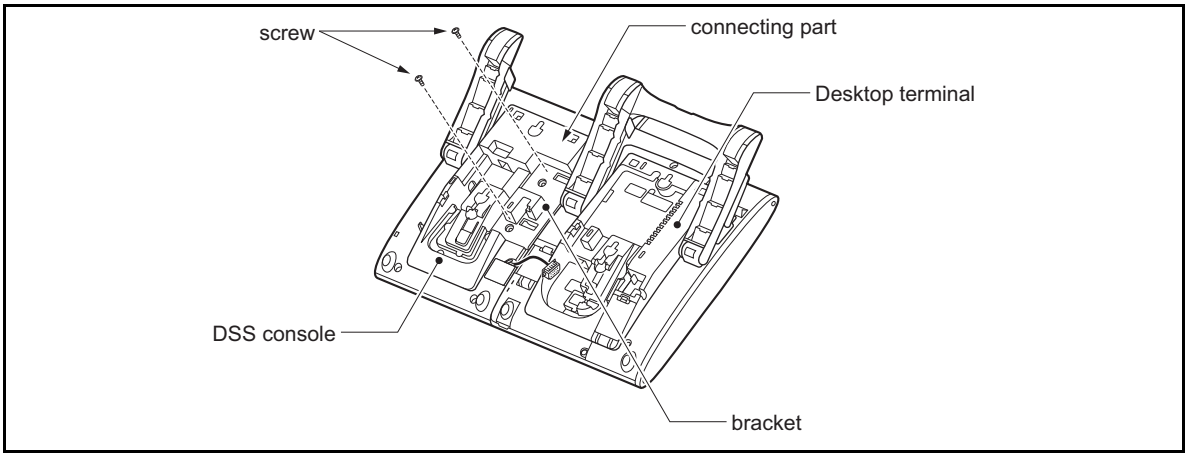
STEP 2: Insert the provided telephone connection cable plug into the telephone cable connector on the back of the DSS console as shown in the figure.



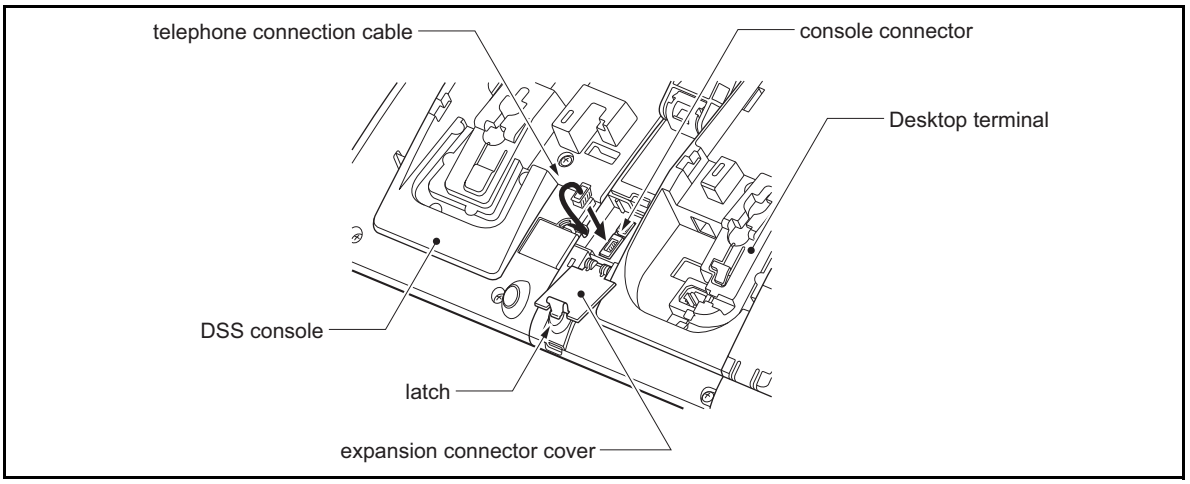
STEP 3: Thread the telephone connection cable through the groove on the back of the DSS console.

Note: When the 8LK Unit is connected to the terminal, thread the cable through the groove on the back of the 8LK as well.

STEP 4: Mount the DSS console to the terminal by using the provided two screws. Mount the DSS console to the terminal by using the provided two screws as shown in the figure.



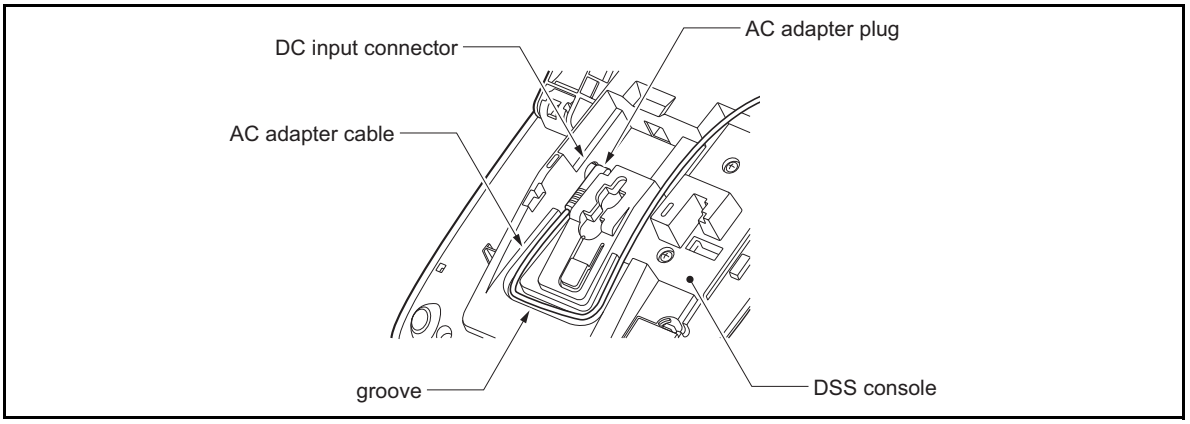
STEP 5: Pull the latch to open the expansion connector cover as shown the figure below.



STEP 6: Plug the other end of the telephone connection cable into the console connector on the back of the terminal (see the figure above).

STEP 7: Coil the excess cable and place it inside the expansion connector box. Close the cover.

STEP 8: Insert the AC adapter plug to the DC input connector on the back of the DSS console.



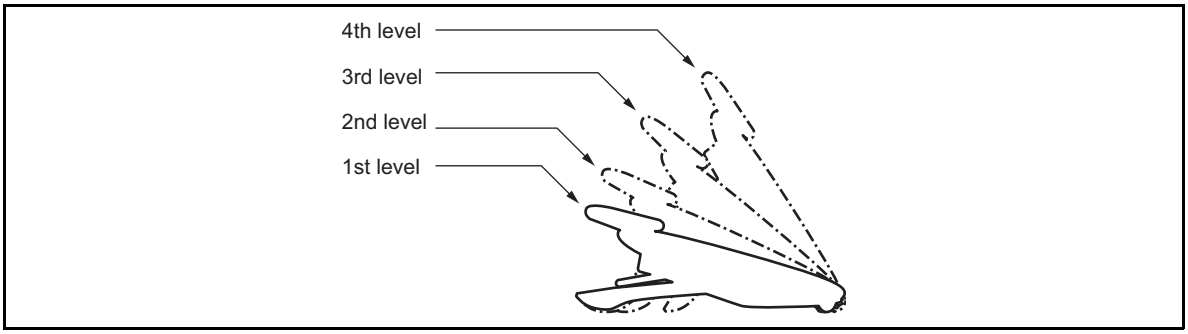
STEP 9: Thread the AC adapter cable through the groove on the back of the DSS console as shown in the figure above.

STEP 10: Perform STEPs 10 to 14 described in [1] Connecting the DSS console to the DT400/DT300 Series Terminal.

This completes the process of mounting the DSS console to the DT800/DT700 Series terminal.

[3] Adjusting the Tilt Leg

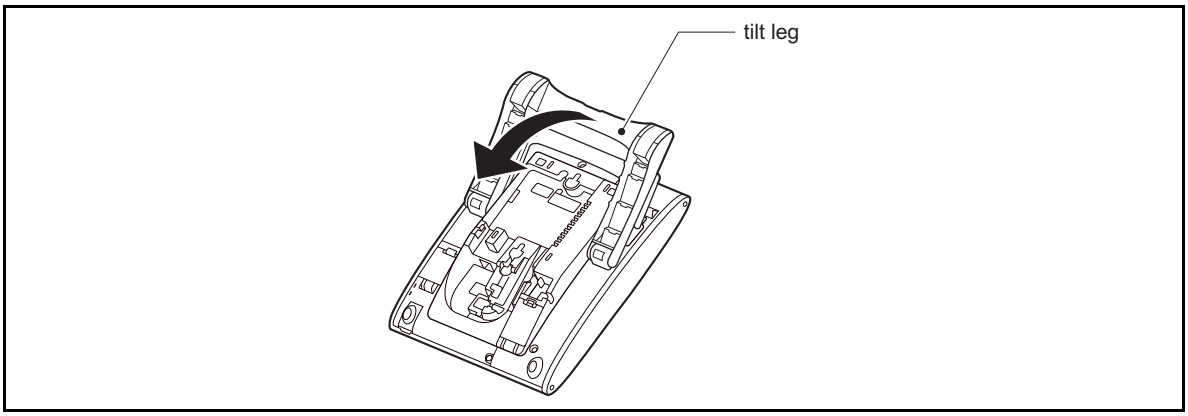
The angle of the tilt leg can be adjusted in four levels.



<Raising the angle of the tilt leg>

STEP 1: Turn the terminal upside down.

STEP 2: Pull the tilt leg toward you until you hear a click.

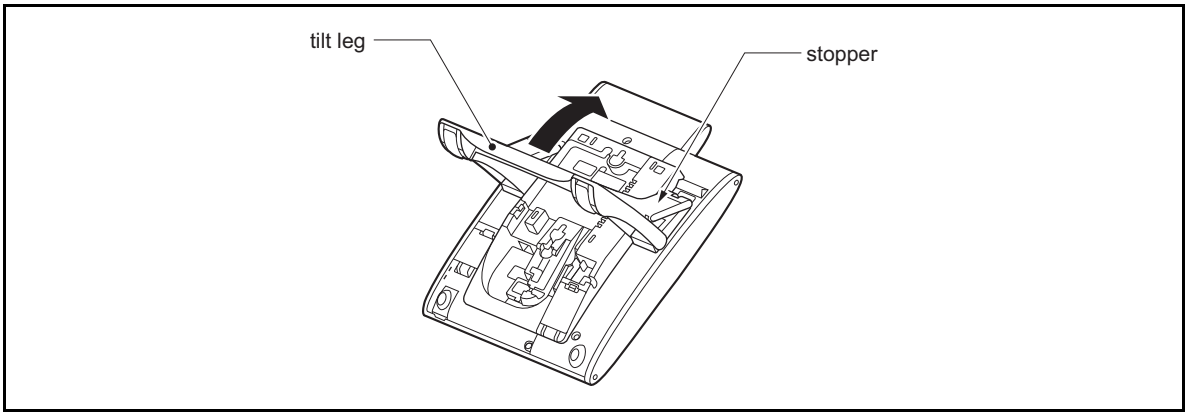


STEP 3: Turn the terminal right side up.

<Lowering the angle of the tilt leg>

STEP 1: Turn the terminal upside down.

STEP 2: While lifting the center of the stopper, push the tilt leg away from you until you hear a click.

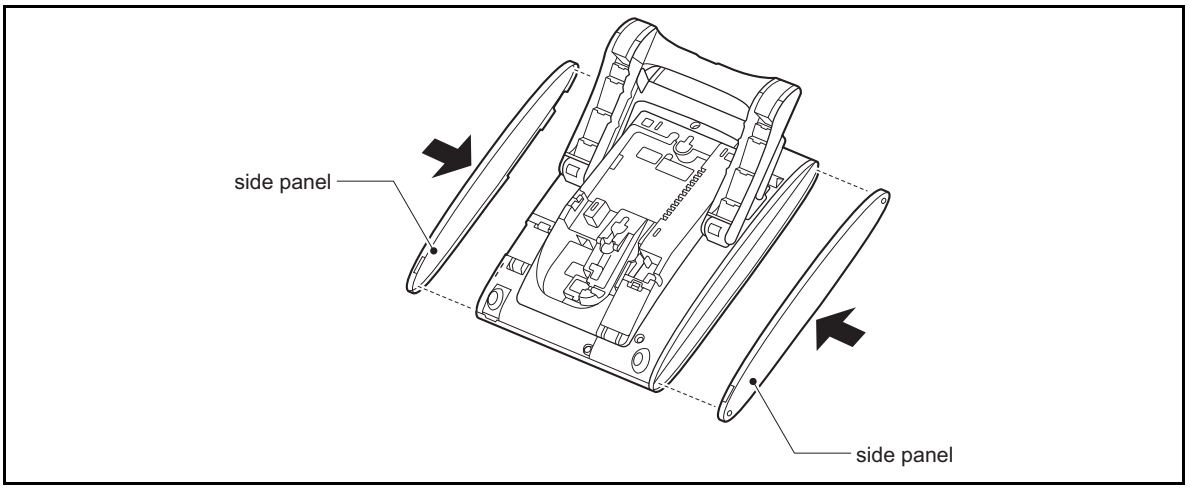


STEP 3: Turn the terminal right side up.

[4] Installing the Side Panel

STEP 1: Align the side panel on the left or right side of the terminal/DSS console.

STEP 2: Push the side panel until you hear a click.



STEP 3: Make sure it fits tightly and snugly into place.

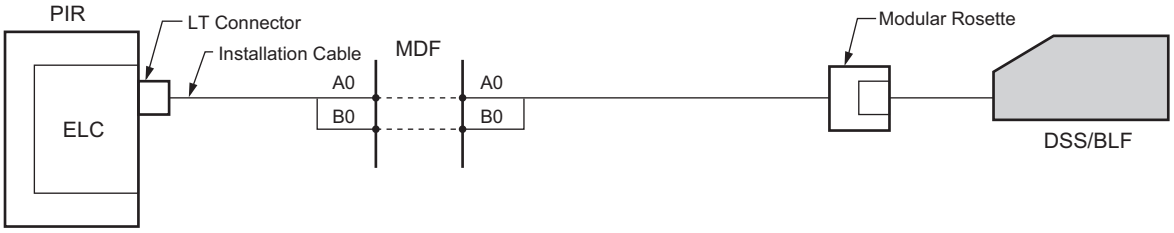
1.3.2 Connecting Diagram

Connecting Diagram of DSS Console (DSS/BLF)

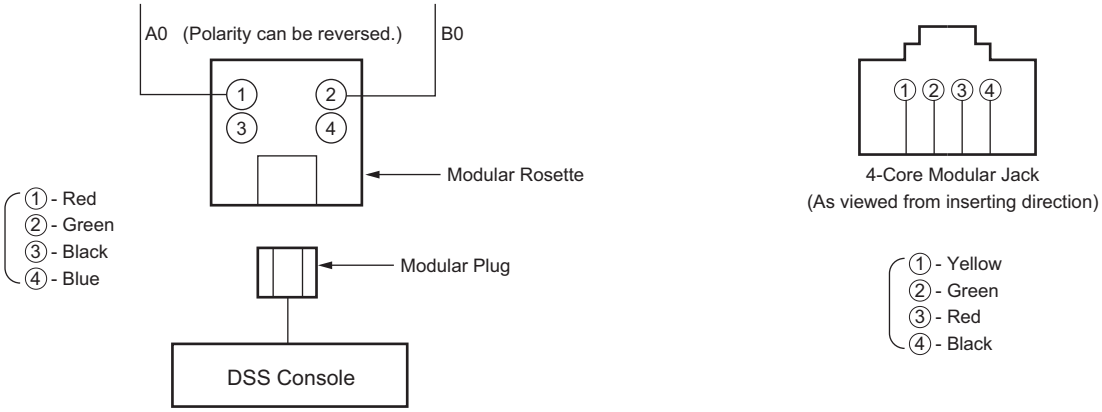
When the DSS console is used as a DSS console (DSS/BLF), connect the cables as shown below.

Connecting Diagram of DSS Console (DSS/BLF)

• Connecting Diagram



• Connection of Modular Rosette

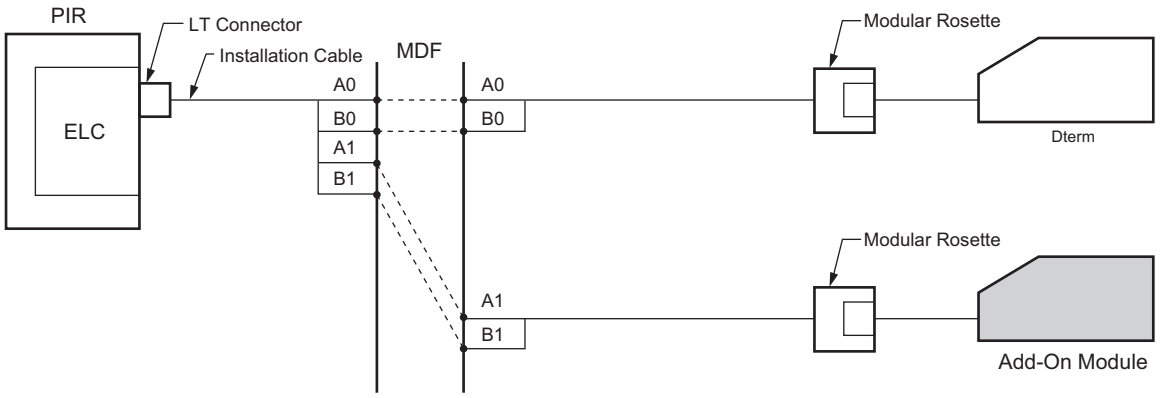


Connecting Diagram of DSS Console (ADM)

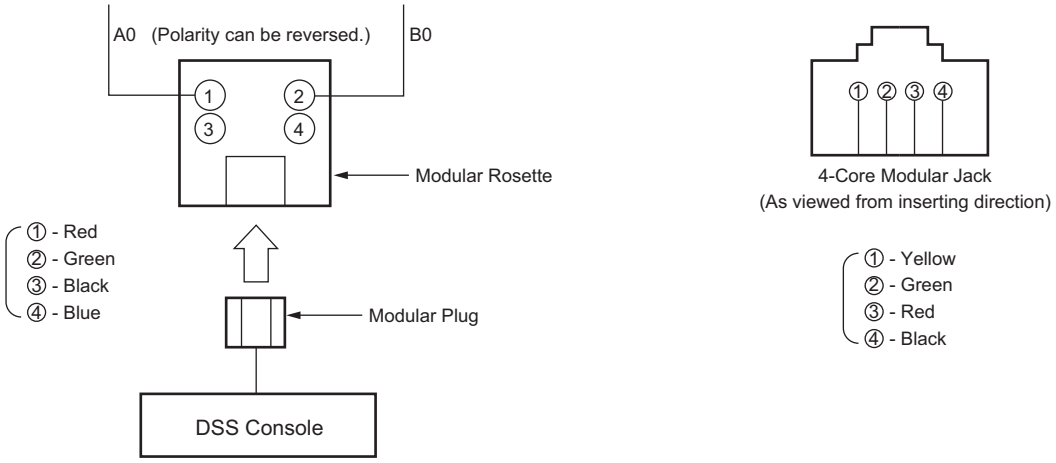
When the DSS console is used as a DSS console (ADM), connect the cables as shown below.

Connecting Diagram of DSS Console (ADM)

• Connecting Diagram



• Connection of Modular Rosette



1.3.3 Cable Lead Accommodation

The cable leads are shown in the figure below. This figure illustrates an example of cable lead accommodations. For more information on each card, refer to the related manual.

Cable Lead Accommodation (Example)

(1) PA-16ELCJ/PA-16ELCJ-B (ELC)

26	B0	1	A0
27	B1	2	A1
28	B2	3	A2
29	B3	4	A3
30	B4	5	A4
31	B5	6	A5
32	B6	7	A6
33	B7	8	A7
34	B8	9	A8
35	B9	10	A9
36	B10	11	A10
37	B11	12	A11
38	B12	13	A12
39	B13	14	A13
40	B14	15	A14
41	B15	16	A15
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

(2) PA-DAIG-A/PA-DAIJ-A

26		1	
27	E	2	E
28		3	
29	RB	4	RA
30	POUTB	5	POUTA
31		6	
32		7	
33	TB	8	TA
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

2. Wireless Headset

2.1 Overview

Wireless Headset enables you to answer a call, having a conversation, or disconnect the call with hooking operations. Following shows the supported wireless headsets and cables for the terminal.

Terminal	Wireless Headset	Supported Cable
DT830/DT820	W710	APD-80
DT830G/DT830/ DT730G/DT730	WT100/Voyager Legend CS	APN-91

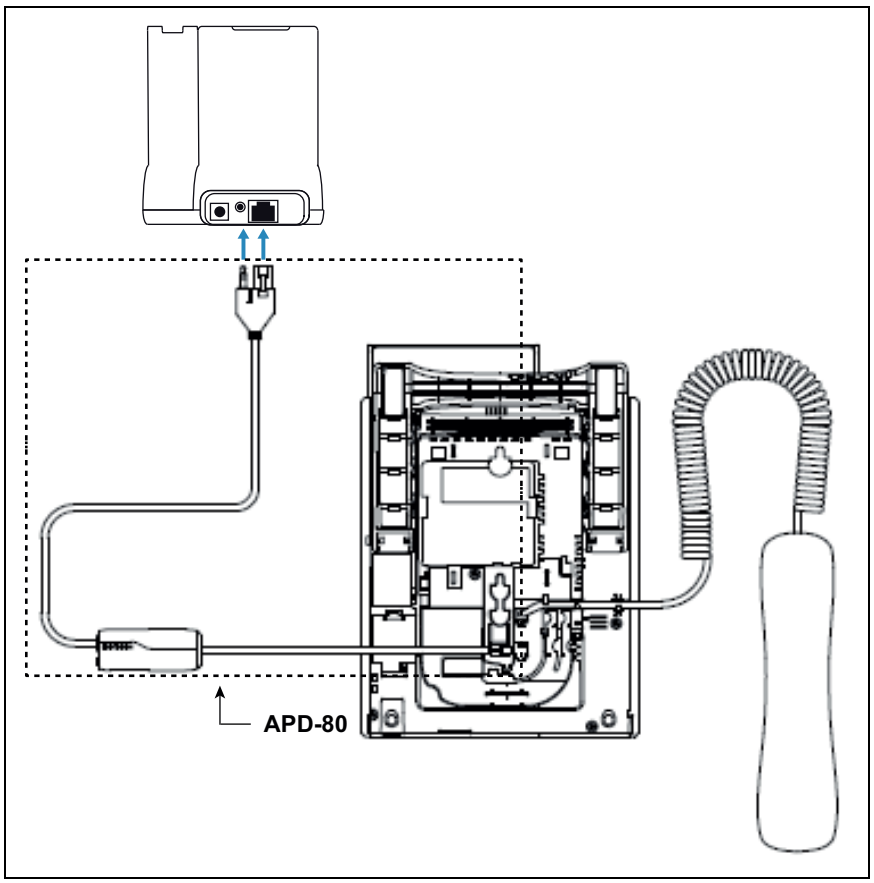
2.2 Connecting Diagram of Wireless Headset

2.2.1 APD-80

The following shows the connecting diagram using wireless headset cable (APD-80.)

Note: APD-80 is supported for DT830 with firmware version 5.0.0.0 and DT820 with firmware version 3.0.0.0.

Wireless Headset Connection



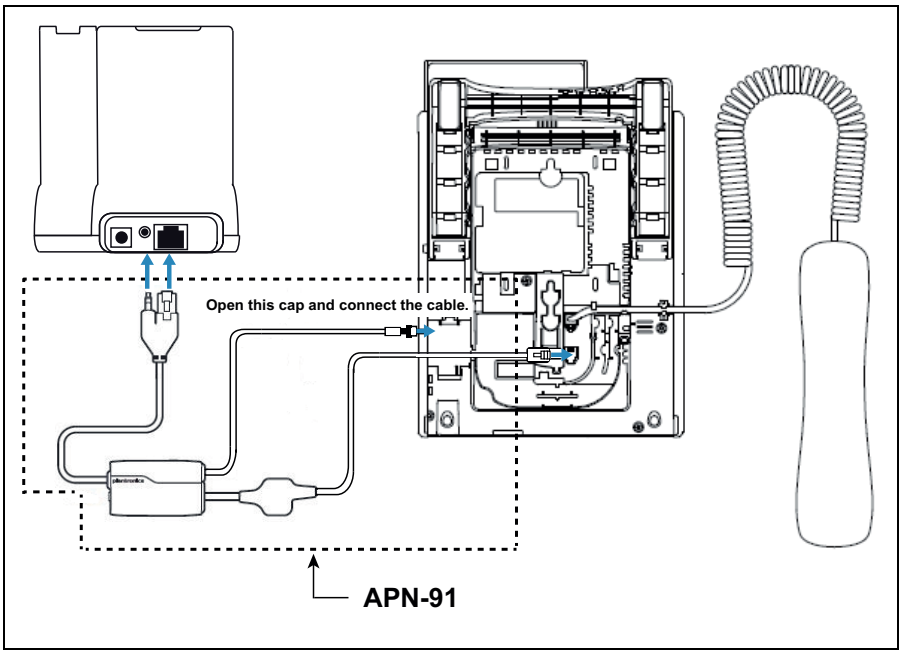
Note: For the details on how to connect a telephone and Wireless Headset, see the manual attached to the product.

2.2.2 APN-91

The following shows the connecting diagram using wireless headset cable (APN-91.)

Note: APN-91 is supported for DT830G, DT830, DT730G and DT730.

Wireless Headset Connection



Note: For the details on how to connect a telephone and Wireless Headset, see the manual attached to the product.

2.3 Precautions

2.3.1 When Using DT830 Series

(1) Assign FKY=125 (Headset/Handset Key) to the Feature key (KYN=1-24) by using the AKYD command.

Note: When using DSS Console, assign this key to the Feature key (KYN=1-16). Also, this key data cannot be assigned to the optional line key units (such as 8LK Unit, DSS console, etc.)

2.3.2 When Using DT820 Series

(1) Assign FKY=125 (Headset/Handset Key) to the Feature key (KYN=1-24) by using the AKYD command.

(2) When a party hangs up on the end of the call, the Wireless Headset user may hear signal tones. However, it does not affect the operation for the devices.

2.3.3 When Using DT700 Series

(1) DT730 (ITL-32D-1) and DT730 (ITL-8LD-1) are not supported.

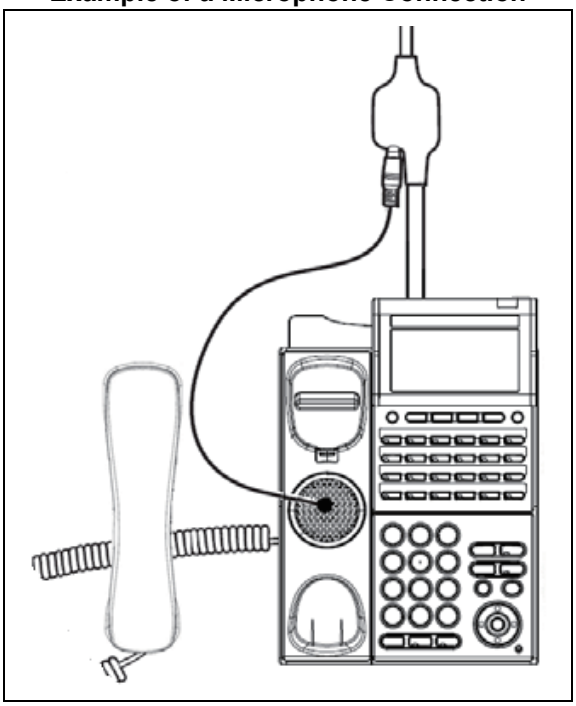
(2) Before using Wireless Headset, be sure to assign LKP=3 (32 Line/Feature keys) with the ADKS command.

(3) Assign FKY=125 (Headset/Handset Key) to the Feature key (FKY=25) by using the AKYD command.

(4) To activate a ringer tone when an incoming call arrives on the Wireless Headset, put an attached microphone on the center of the telephone speaker. After the ringing tone (0.1 seconds or more ON/one second or more OFF) is detected on the telephone, the ringing tone sounds from the headset. The ringing volume must be set to 10 levels or more. The following diagram shows an example of a microphone connection.

Note: When you have set a downloaded ringer tone, the ringer tone is not available on the Wireless Headset.

Example of a Microphone Connection



Note: When you attach the microphone to the telephone, remove the sticker of the microphone and connect the sticker to the center of the speaker correctly. After that, connect the microphone plug to the cable jack. For the details, see the manual attached to the Headset.

2.3.4 When Using DT400 Series

(1) DT410 Series are not supported.

(2) Assign FKY=125 (Headset/Handset Key) to the Feature key (KYN=1-24) by using the AKYD command.

2.3.5 When Using DT300 Series

(1) Wireless Headset (WT100-EHS-NE) is recommended for DT330 Series.

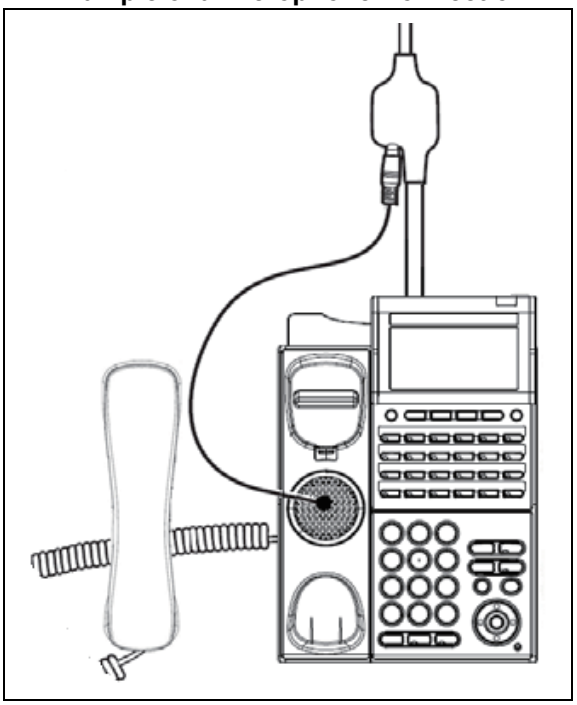
(2) DT310 Series, DT330 (DTL-32D-1), and DT330 (DTL-8LD-1) are not supported.

(3) Before using Wireless Headset, be sure to assign LKP=3 (32 Line/Feature keys) with the ADKS command.

(4) Assign FKY=125 (Headset/Handset Key) to the Feature key (FKY=25) by using the AKYD command.

(5) To activate a ringer tone when an incoming call arrives on the Wireless Headset, put an attached microphone on the center of the telephone speaker. After the ringing tone (0.1 seconds or more ON/one second or more OFF) is detected on the telephone, the ringing tone sounds from the headset. The ringing volume must be set to 10 levels or more. The following diagram shows an example of a microphone connection.

Example of a Microphone Connection



Note: When you attach the microphone to the telephone, remove the sticker of the microphone and connect the sticker to the center of the speaker correctly. After that, connect the microphone plug to the cable jack. For the details, see the manual attached to the Headset.

3. 16 LD LCD Add-on Module (16LD ADM)

3.1 Overview

This section explains the installation, general features, service conditions and interactions of 16LD Add-on module (Described as 16LD ADM hereinafter). 16LD ADM can be used in two different modes. One is DSS mode and the other is Phone book mode. DSS mode operates as an option unit for Non-IP terminals and IP Terminals and it enables the 16 LCD display Line/Feature key expansion. This terminal normally operates as DSS mode, but it can be switched over to Phone book mode by pressing the DIR/EXIT button located in bottom of the 16LD ADM terminal.

Dterm Series Connected with 16LD ADM



Dterm
and
Dterm IP



DtermIP
DESI-less



DtermIP INASET

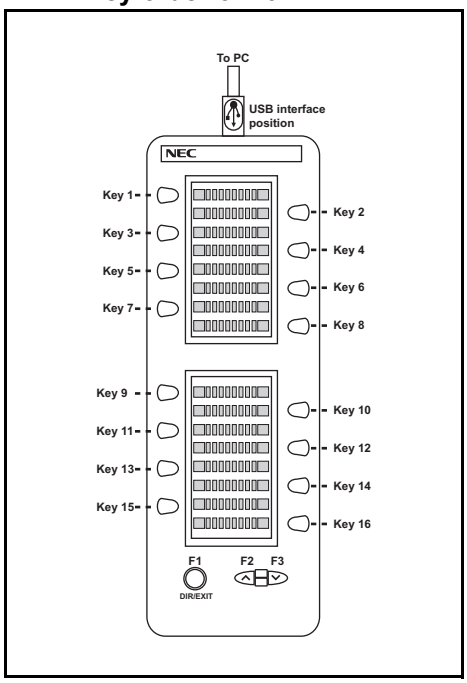
3.2 Specifications

Specification of 16LD ADM is listed below.

No.	Item	D16(LD)-R/RA(WH/BK)ADM
1	DSS key (Key 1 - Key 16)	16
2	Function key (F1, F2 and F3)	F2/F3: The button for contrast adjustment × 2 (Up/Down) F1: Directory/EXIT key × 1
3	LCD display	LUC1475A ASCII code and “Katakana” Character 2 (10 × 7 dot) and 8 (5 × 7dot) × 8 lines (per display) × 2
4	PC Interface	USB (Type-B) connector × 1
5	Body color	Black or White
6	Body PWB-Interface PWB connect cable	20-pin (Length: 39cm)
7	Bit switch for model change	8 bit × 1
8	Body size	W82.3 × H91.2 × D199.5
9	Line length (System - terminal)	Non-IP connection: 920 meter (48V), 150 meter (24V) IP connection: 100 meters
10	Appending accessories	Fitting metal piece × 1, Screw × 4

Key order of 16LD ADM is shown below.

Key order of 16LD ADM



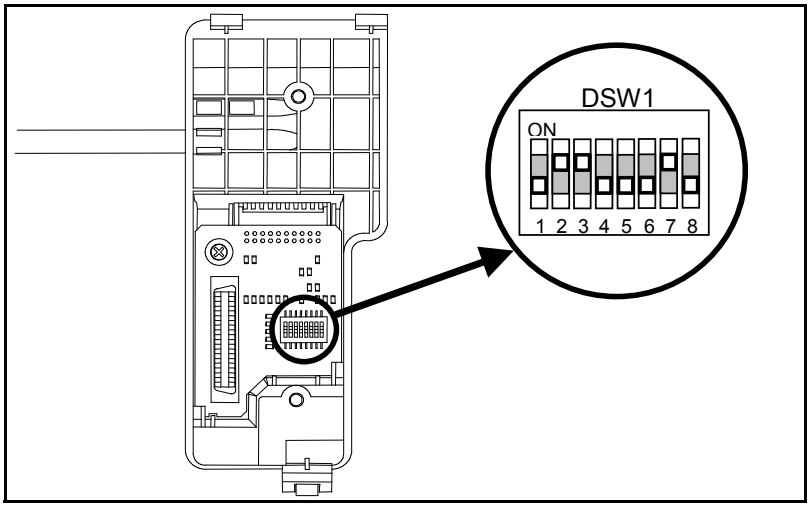
3.3 Installation of 16LD ADM

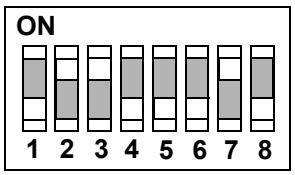
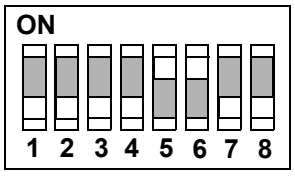
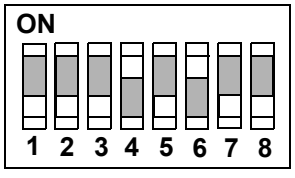
Installation procedure of 16LD ADM is shown here. Connection with the DtermIP with 16LD LCD is shown here as an example.

STEP 1: Follow the procedure listed below.

(1) Set the dip switch (DSW1) on the interface of the Add-On Module to the required position.

DSW1 Position



Series	Keyset Name	Dip-Switch Position
Dterm Series *i*	DTR-8/8D/16D-2*(WH/BL)TEL DTR-16LD-2*(WH/BL)TEL DTR-16D-2*(BL)TEL	
DtermIP	ITR-8D/16D-2(WH/BL)TEL ITR-8D/16D-2A(WH/BL)TEL	
	ITR-8D/16D-2P(WH/BL)TEL ITR-8D/16D-2U(WH/BL)TEL ITR-8D/16D/32D-3*(WH/BL)TEL ITR-16LD-3*(WH/BL)TEL	
INASET	ITR-320C-1*(BK)TEL ITR-320G-1*(BK)TEL ITR-240G-1*(BK)TEL	

Note: "*" indicates the Destination code.(Example: A=Australia, U=Europe)

(2) Turn the terminal over which will have the 16-Button Add-On Module installed.

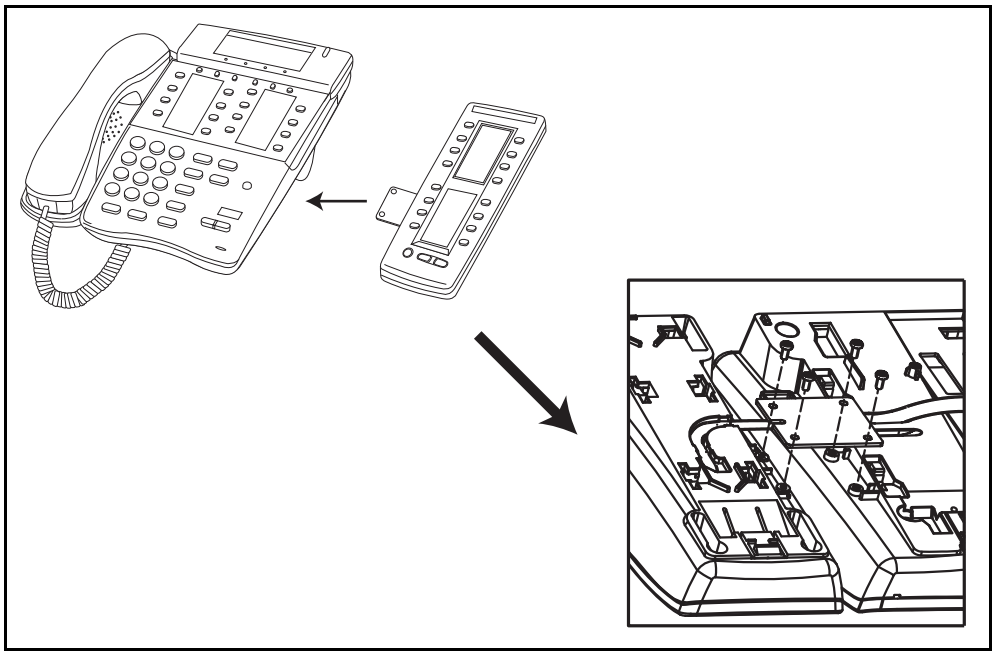
(3) If only one adapter is to be installed on the phone, the module should be installed on the right-hand side of the phone(beneath the handset). If a second adapter is required at a later time, the Module connection will need to be moved to the left in order to accommodate the adapter cable.

(4) Plug the 16-Button Add-On Module into the connector on the bottom of the terminal.

(5) Push the cable from the module into the cable channel.

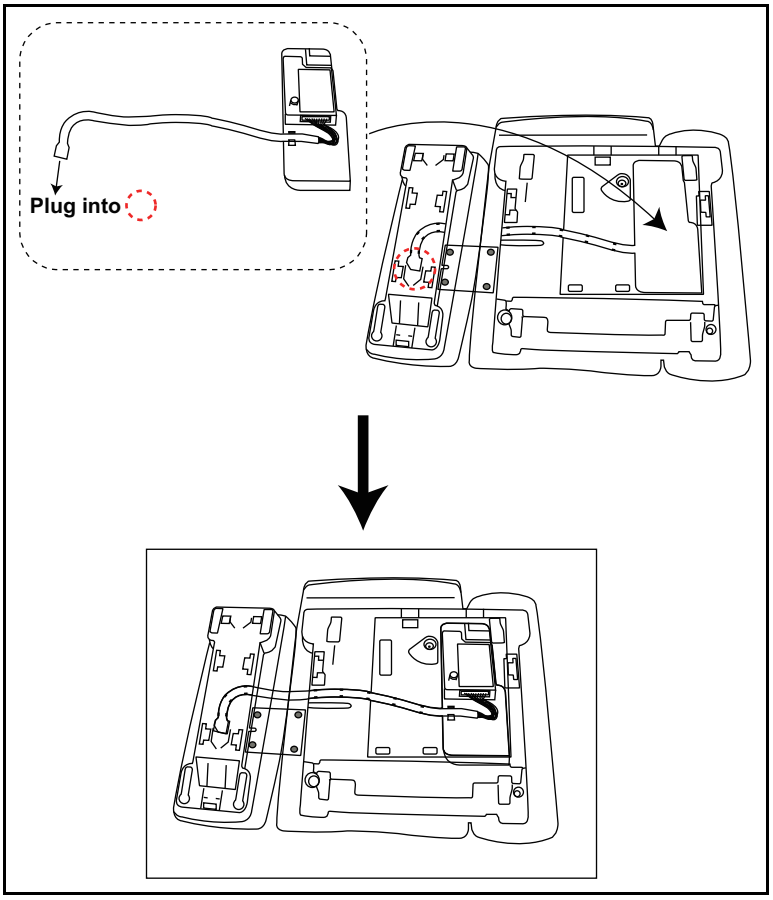
(6) Install the connector plate provided with the 16-Button Add-On Module to join the two sets together.

STEP 2: Secure 16LD ADM unit to the terminal by using the Phillip's head screw driver.

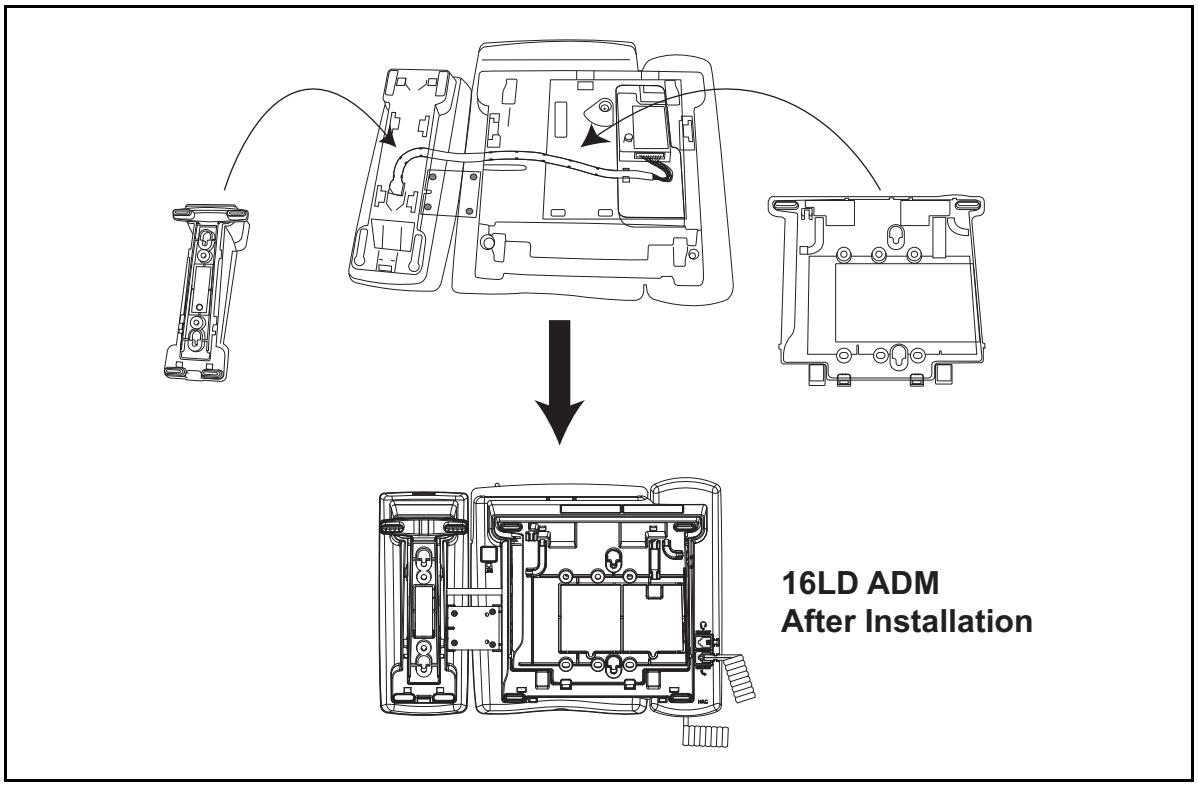


Note: This metal plate will not connect to ITR-320C/320G/240G Inaset series terminals.

STEP 3: Plug in the 16LD ADM module lines on the backside of 16LD ADM module, and mount other side onto the terminal side.

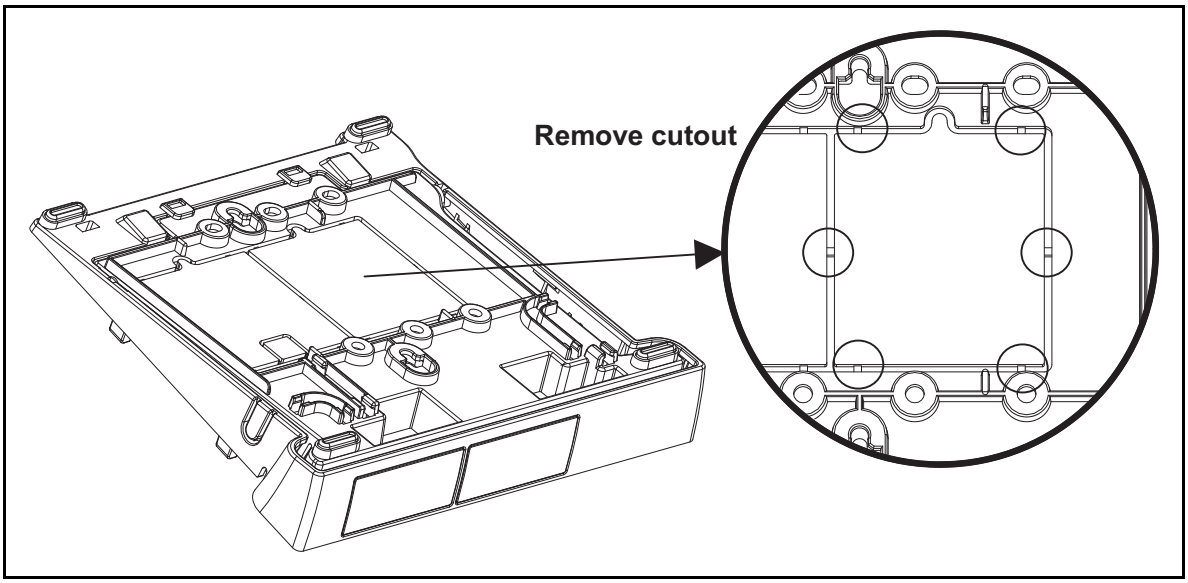


STEP 4: Mount the tilt leg cover onto terminal as shown in the figure below.

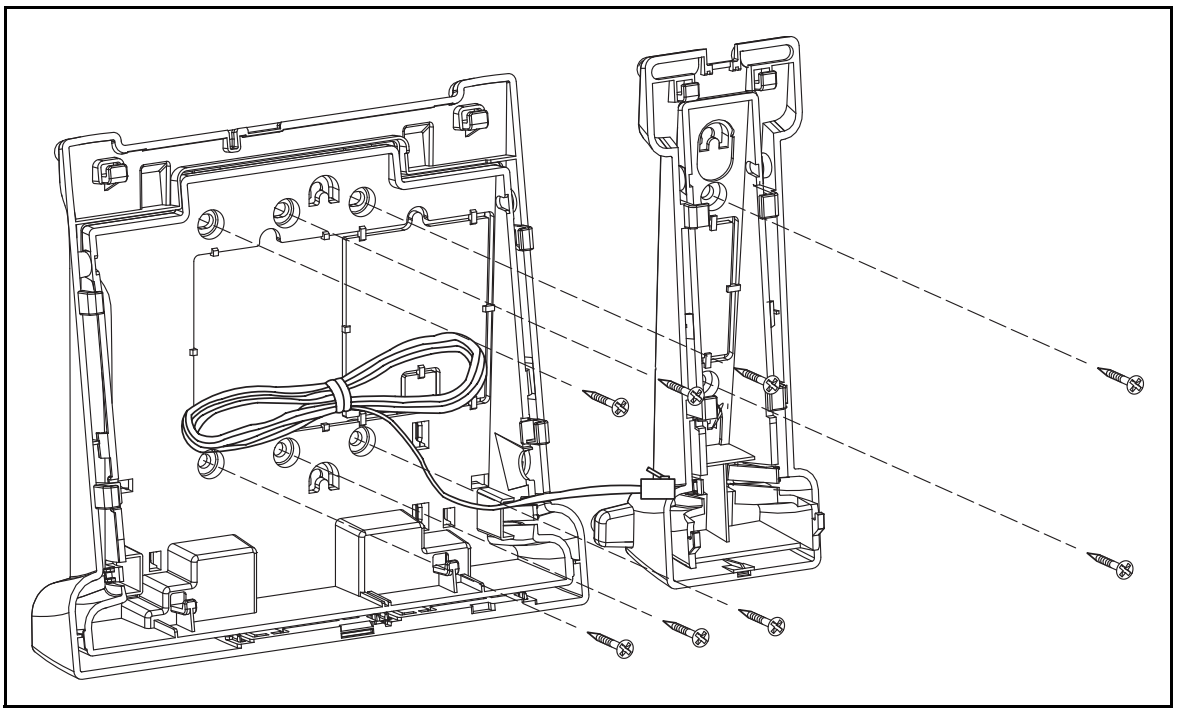


STEP 5: Wall Mounting

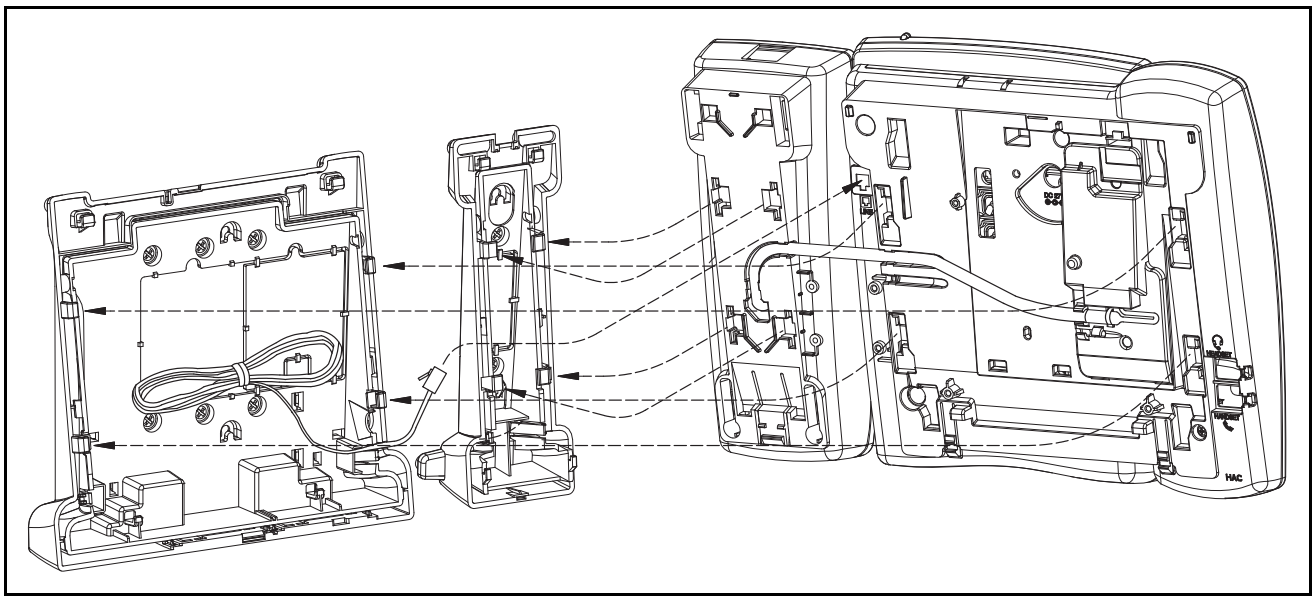
(1) On the terminals base, remove the cutout corresponding to the position that the 16ADM adapter attachment unit will be installed on the under side of the terminal.



(2) Turn the Base Cover upside down as illustrated and feed the line cord threw the terminal base cutout. Mount the both wall units using the 8 screws for proper support.



(3) Install the telephone and the 16-Button Add-On Module over the four tabs on the Base Covers, push down until it locks into place.



3.4 Feature Description of 16LD ADM When Used as DSS Mode

This section explains the function of 16LD ADM unit when it is used as DSS mode. 16LD ADM can operate as an option unit of DtermIP. In DSS mode, 16LD ADM provides additional 16 Line/Feature key with LCD display and it can operate as a line key or DSS key (To be assigned by ADKS command). It can be used either as a multi line key or a Feature key when it is used in line key mode (To be assigned by AKYD command). Key information can be displayed on LCD. It has a USB port as a personal computer interface. The function corresponding with DSS mode are as follows. AKYD command only supports 32 buttons in maximum, so connection is only available to the terminal with 16 feature programming keys in maximum.

<Terminal connectability>

Refer to the table below for the terminal connectability.

Terminal connectability

Series	Name	Connectability
PBX Model-B Non-IP TEL (Dterm Series *i*)	DTR-8-2*(WH/BK) TEL	X
	DTR-8D-2*(WH/BK) TEL	X
	DTR-16D-2*(WH/BK) TEL	X
	DTR-32D-1*(WH/BK) TEL	N
	DTR-16LD-2*(WH/BK) TEL	X
PBX Model-B DtermIP	ITR-8D-2*(WH/BK) TEL	C
	ITR-16D-2*(WH/BK) TEL	C
	ITR-8D-3*(WH/BK) TEL	C
	ITR-16D-3*(WH/BK) TEL	C
	ITR-32D-3*(WH/BK) TEL	N
	ITR-16LD-3*(WH/BK) TEL	C
PBX Model-B Back-Light TEL (Dterm Series *i*)	DTR-16D(BL)-2*(WH/BK) TEL	X
INASET	ITR-320C-1*(BK) TEL	C
	ITR-320G-1*(BK) TEL	C
	ITR-240G-1*(BK) TEL	C

Symbols:

X: *Available with factory setting*
C: *Conditionally available (Bit switch setting is required)*
N: *Not available*

<Service Conditions>

(1) Firmware upgrade of supported terminal is necessary to operate this feature. Behavior when terminal is connected without the firmware upgrade is shown in the table below.

Behavior of terminal before and after the firmware upgrade

Item	Non-IP terminal		IP terminal (Includes INASET)	
	Before F/W upgrade	After F/W upgrade	Before F/W upgrade	After F/W upgrade
Basic operation (16 button addition and LCD data display)	X	X	N	X
Confirmation Tone	N	X	N	X
Firmware upgrade	X	X	X	X
Contrast adjustment (link operation by the side of terminal)	N	X	N	X

X = *Available with factory setting*
C = *Conditionally available (Bit switch setting is required)*
N = *Not available*

(2) LCD can display the name data assigned to each key by receiving data from the system.

(3) Confirmation tone is available.

(4) Available to connect to Non-IP terminal or IP terminal, setting needs to be done with the bit switch when connecting the IP terminals. Refer to the table above " <Terminal connectability>" for detailed explanation of supported terminals.

(5) The display contrast of the LCD can be changed either by two adjustment button of the 16LD ADM itself or by the volume control button of the telephone side. (except for INASET 320G)

(6) Tilting and wall mounting is available.

(7) Terminal back-light function is not supported.

(8) Low-power consumption mode is not supported.

(9) 16LD ADM firmware can be upgraded by connecting to PC via USB port.

(10) When there is no phone book function, phone book feature cannot be provided by pressing the DIR/EXIT button.

(11) Maximum numbers of 16LD ADM to be accommodated per system is 4096. (4096 per node when FCCS network is used.)

(12) Activating SP-PHD is required for this feature.

(13) System LM and IP terminals supporting this feature will be needed to operate this feature.

(14) ELC circuit card and firmware listed below is required to operate this feature.

- Circuit card: PA-16ELCJ-B (SP-3833 16ELCJB PROG-I, version 1.0 or later)

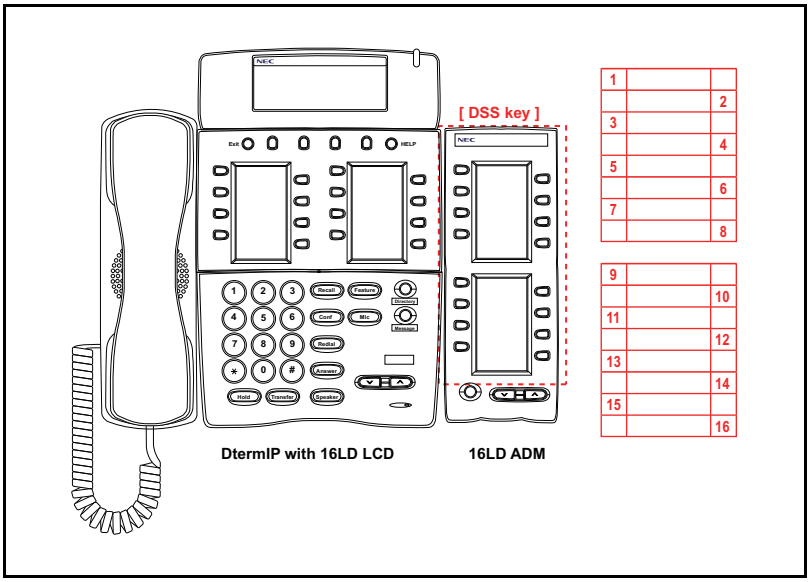
(15) Key information cannot be displayed on 16LD ADM while the 16LD ADM is in phone book mode, because LCD of 16LD ADM is controlled locally while it is in phone book mode.

<Line Key Pattern>

This section explains the key pattern of 16LD ADM. The key pattern of 16LD ADM will be as shown below no matter what terminal to be connected.

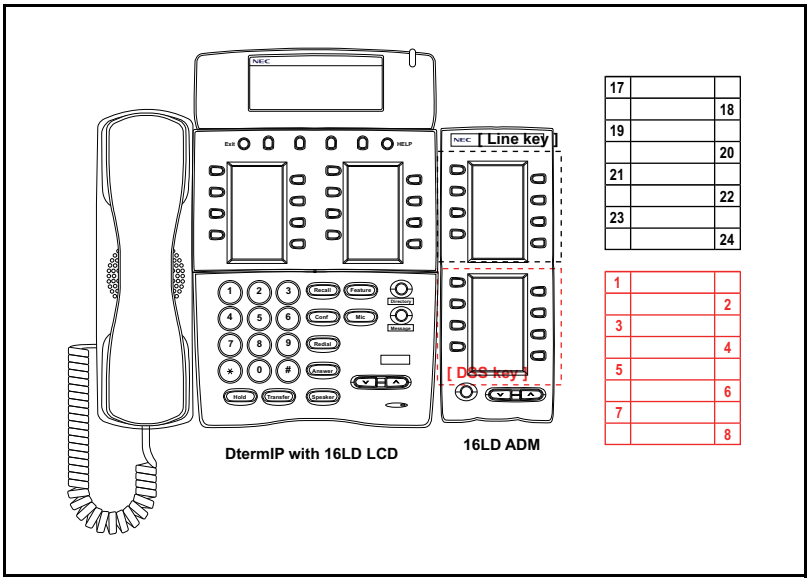
(1) Pattern 1 (16 line keys + 16 DSS keys)

Key number 1 to key number 16 of 16LD ADM will be the DSS key 1 to DSS key 16.



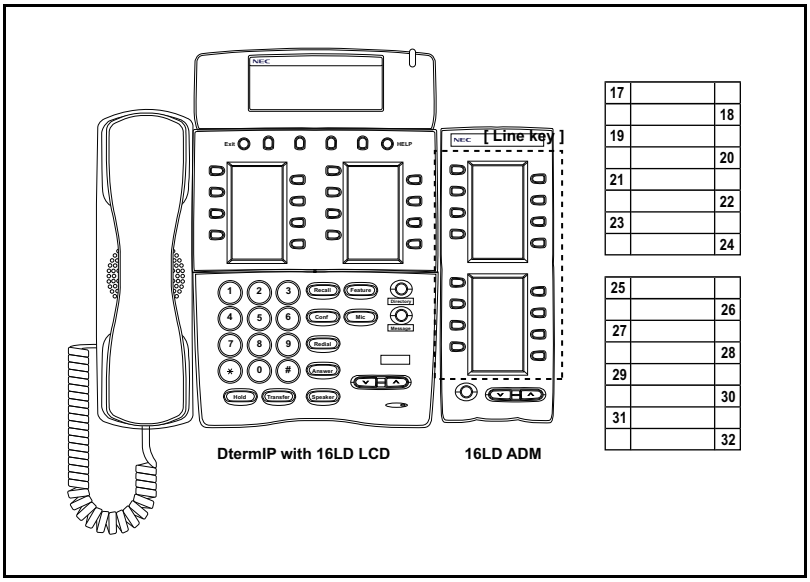
(2) Pattern 2 (24 line keys + 8 DSS keys)

Key number 1 to key number 8 of 16LD ADM will be the Line key 17 to Line key 24 and key number 9 to key number 16 of the 16LD ADM will be DSS key 1 to DSS key 8.



(3) Pattern 3 (32 Line keys)

Key number 1 to key number 16 of 16LD ADM will be the Line key 17 to Line key 32.



3.5 Feature Description of 16LD ADM When Used as Phonebook Mode

16LD ADM can also operate as a phone book. Caller is available to originate a call just by pressing the pre-assigned key for the destination to be called. Phone book data will be assigned to the terminal from the application installed in a PC via USB interface.

<Terminal connectability>

Refer to the table below for the terminal connectability.

Terminal connectability

Series	Name	Connectability
PBX Model-B Non-IP TEL (Dterm85)	DTR-8-2*(WH/BK) TEL	X
	DTR-8D-2*(WH/BK) TEL	X
	DTR-16D-2*(WH/BK) TEL	X
	DTR-32D-1*(WH/BK) TEL	N
	DTR-16LD-2*(WH/BK) TEL	X
PBX Model-B DtermIP	ITR-8D-2*(WH/BK) TEL	C
	ITR-16D-2*(WH/BK) TEL	C
	ITR-8D-3*(WH/BK) TEL	C
	ITR-16D-3*(WH/BK) TEL	C
	ITR-32D-3*(WH/BK) TEL	N
	ITR-16LD-3*(WH/BK) TEL	C
PBX Model-B Back-Light TEL (Dterm85)	DTR-16D(BL)-2*(WH/BK) TEL	X
INASET	ITR-320C-1*(BK) TEL	C
	ITR-320G-1*(BK) TEL	C
	ITR-240G-1*(BK) TEL	C

Symbols:

X: *Available with factory setting*
C: *Conditionally available (Bit switch setting is required)*
N: *Not available*

<Service Conditions>

(1) Phone book call origination feature is provided by the Phonebook mode of 16LD ADM.

(2) Prime Line will be seized when one touch call origination is operated.

(3) When call origination has been attempted while the station is in pre-line selected state, or while the station is already originating a call, the line currently in use will be used to originate a call.

(4) Call origination is not available while Prime Line is terminating a call.

(5) Call origination is not available while Prime Line has been used by another terminal.

(6) When caller has pressed the key with no data assigned in directory, 16LD ADM is shifted to idle state and turn to DSS mode.

<Interaction>

(1) This feature uses digit buffering process of dynamic dial pad feature, therefore service condition of dynamic dial pad feature applies.

<Programming>

(1) Data setting on system side is not necessary when using the directory mode, because the control of 16LD ADM will be separated from the system once the DIR/EXIT key is pressed.

<Operating Procedure when using the Add-On Module>

Using ADM Directory

STEP 1: Press “DIR/Exit” key to enter the Phonebook Directory.

The top row of the ADM LCD will show the total number of stored entries (stored/100 maximum entries).

Note: “Other” in the bottom row will indicate the list which the prefix is not alphabet, such a digits or symbols which you saved.

STEP 2: Select the 1st letter of the saved Index that you would like to search. Use the Up and Down arrow keys to scroll the saved phonebook entries.

Note: If there are not any saved entries for the selected index abbreviation, “No saved entries for this index” will be displayed.

(a) The “Scroll saved entries” button can be used to search/scroll other saved entries.

(b) The “Back” button will return you to the previous menu.

STEP 3: Selecting a listed entry will show the stored “Name” and “Telephone number” information

Note: Use the Up and Down arrows to scroll the alphabetized entries if the desired entries are not displayed in the LCD display.

STEP 4: Select the desired name to which you would like to initiate a call.

Note: The ADM will default back to the DSS screen when the ADM unit is idle for 20 seconds (no operation from user).

Note: The “DIR/Exit” key will default the ADM back to the DSS screen from any menu.

Making a call from “Dialed #” History

STEP 1: Press “DIR/Exit” to enter the Phonebook Directory.

STEP 2: Selecting the “Dialed #” will show the history of the last 16 dialed calls.

STEP 3: Select the Dialed History entry that you want to make call.

Deleting a Dialed Number Entry

STEP 1: From the Dial History Menu select the Delete Button

STEP 2: Select the entry that you wish to delete.

STEP 3: Press "ALL?" button (All Clear) or Name side button (One Entry Clear), if you want to delete all entries.

Select OK at the confirmation message.

APPENDIX A Power Consumption for DT800/DT700 Series Terminals

The table below shows the power consumption of the DT800 Series terminals, which support only IEEE802.3at Type 1.

DT800 Series Terminal Power Chart

DT800 Series/ DT700 Series	IEEE 802.3at Type 1	Label Indication (Maximum Current with All Options)				Maximum Current Without Options			
		48 VDC		24 VDC		48 VDC		24 VDC	
ITZ-24CG-3	Class 3	230 mA	11.0 W	450 mA	11.0 W	102 mA	4.9 W	204 mA	4.9 W
ITZ-24DG-3	Class 3	230 mA	11.0 W	450 mA	11.0 W	102 mA	4.9 W	204 mA	4.9 W
ITZ-12CG-3	Class 3	230 mA	11.0 W	450 mA	11.0 W	102 mA	4.9 W	204 mA	4.9 W
ITZ-12DG-3	Class 3	230 mA	11.0 W	450 mA	11.0 W	102 mA	4.9 W	204 mA	4.9 W
ITZ-24D-3	Class 2	130 mA	6.2 W	260 mA	6.2 W	81 mA	3.9 W	162 mA	3.9 W
ITZ-12D-3	Class 2	130 mA	6.2 W	260 mA	6.2 W	81 mA	3.9 W	162 mA	3.9 W
ITZ-8LDG-3	Class 2	125 mA	6.0 W	250 mA	6.0 W	91 mA	4.4 W	182 mA	4.4 W
ITZ-8LD-3	Class 2	130 mA	6.2 W	260 mA	6.2 W	81 mA	3.9 W	162 mA	3.9 W
ITY-8LDX-1	Class 1	75 mA	3.6 W	- Note 1		75 mA	2.7 W	- Note 1	
ITY-32LDG-1	Class 1	75 mA	3.6 W	- Note 1		75 mA	2.7 W	- Note 1	
ITY-6LD-1	Class 1	75 mA	3.6 W	- Note 1		75 mA	2.7 W	- Note 1	
ITY-6DG-1	Class 1	75 mA	3.6 W	- Note 1		75 mA	2.7 W	- Note 1	

Note: Label Indication:
DT830 - Maximum watts when adding options or modular upgrades.

Note 1: AC adapter is not used for DT820. Therefore, 24 VDC is not supported.

IEEE802.3at Type 1 Class Specifications

IEEE802.3at Type 1	Minimum	Maximum
Class 4	-	-
Class 3	6.49 W	12.95 W
Class 2	3.84 W	6.49 W
Class 1	0.44 W	3.84 W
Class 0	0.44 W	12.95 W

The table below shows the power consumption of the DT700 Series terminals, which support only IEEE802.3af.

DT700 Series Terminal Power Chart

DT700 Series	IEEE 802.3af	Label Indication (Maximum Current with All Options)				Maximum Current Without Options			
		48 VDC		24 VDC		48 VDC		24 VDC	
ITL-320C-2	Class 3	160 mA	7.7 W	290 mA	7.0 W	111 mA	5.3 W	192 mA	4.6 W
ITL-32D-1	Class 2	130 mA	6.2 W	235 mA	5.6 W	90 mA	4.3 W	153 mA	3.7 W
ITL-8LD-1	Class 2	130 mA	6.2 W	235 mA	5.6 W	81 mA	3.9 W	137 mA	3.3 W
ITL-8LDE-1	Class 1	68 mA	3.3 W	122 mA	2.9 W	68 mA	3.3 W	122 mA	2.9 W
ITL-24D-1	Class 2	130 mA	6.2 W	235 mA	5.6 W	81 mA	3.9 W	137 mA	3.3 W
ITL-12D-1	Class 2	130 mA	6.2 W	235 mA	5.6 W	81 mA	3.9 W	137 mA	3.3 W
ITL-12PA-1	Class 2	130 mA	6.2 W	235 mA	5.6 W	102 mA	4.9 W	175 mA	4.2 W
ITL-6DE-1	Class 1	68 mA	3.3 W	122 mA	2.9 W	68 mA	3.3 W	122 mA	2.9 W
ITL-2E-1	Class 1	68 mA	3.3 W	122 mA	2.9 W	68 mA	3.3 W	122 mA	2.9 W

Note: Label Indication:
DT730/DT750 — Maximum watts when adding options or modular upgrades.
DT730 — Maximum watts when ITL-12D-1 is changed to ITL-8LD-1 or ITL-24D-1.

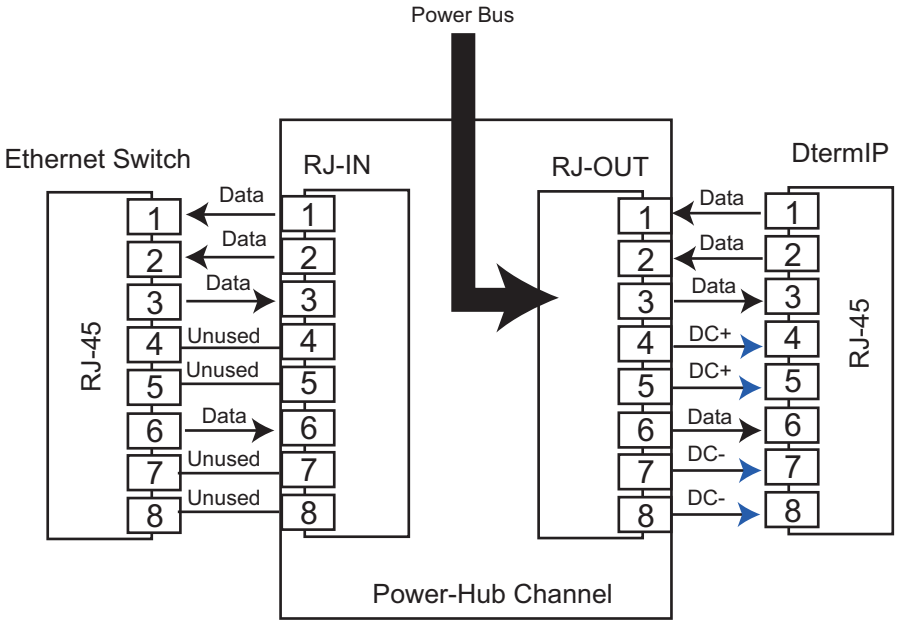
IEEE802.3af Class Specifications

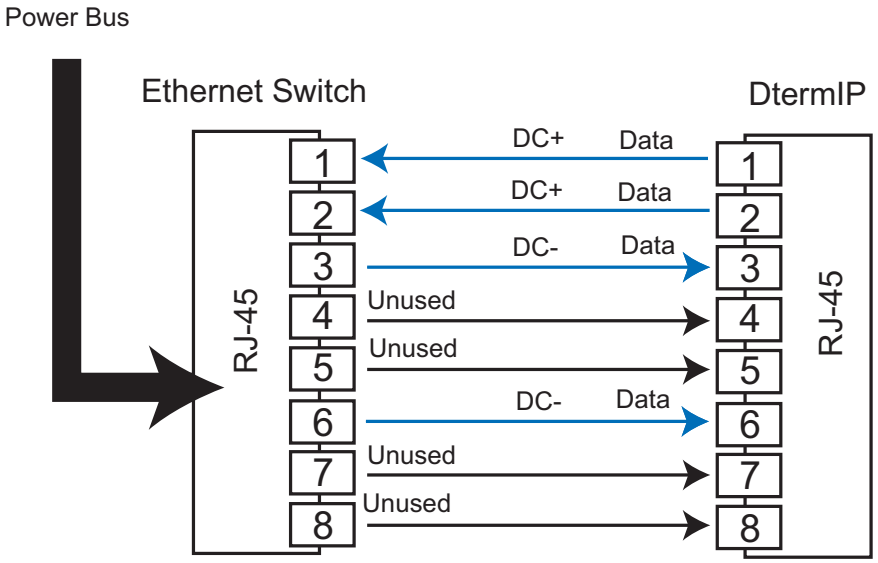
IEEE802.3af	Minimum	Maximum
Class 4	-	-
Class 3	6.49 W	12.95 W
Class 2	3.84 W	6.49 W
Class 1	0.44 W	3.84 W
Class 0	0.44 W	12.95 W

APPENDIX B Power Over Ethernet Specifications for Terminals

Terminals can detect automatically the activation of spare Line Power Feeding or Phantom Power feeding. No manual intervention is required by administrator.

The following are cable specifications:





Power Over Ethernet InLine Power Adapter (ILPA-R)

The SW1 located in the bottom of ILPA is used as the Power Switch. The settings of the terminals required for the PoE switch conditions are as follows:

Terminal/ILPA to PoE Switch Conditions

TREMINALS		INLINE POWER ADAPTER SWITCH CONDITION	PoE SWITCH PROTOCOL
TYPES	PoE SWITCH CONDITION		
ITR-4D-3	802.3af	CDP (Position 1)	Cisco Discovery Protocol (CDP)
ITR-4D-3	802.3af	NDP (Position 2)	NEC Discovery Protocol (NDP) for Power Patch and BF200/24 (PoE)
ITR-xx-1 ITR-xx-2 DTR-xx with IP-R	NDP (Position 1)	802.3af (Position 1)	802.3af
ITR-8D-3 ITR-16D-3 ITR-16LD-3 ITR-32D-3	802.3af (Position 1)	NDP (Position 2)	NEC Discovery Protocol (NDP) for Power Patch and BF200/24(PoE)
INASET Classic	NDP (Position 1)	802.3af (Position 1)	802.3af
INASET 240G INASET 320G INASET 320C	802.3af (Position 1)	NDP (Position 2)	NEC Discovery Protocol (NDP) for Power Patch and BF200/24(PoE)

Table APP-1 ILPA Power Switch Setting

SWITCH POSITION	CONDITION	NOTE
Position 1 (Default)	- CDP - 802.3af (example BF210/24(PE))	Set to this switch position when PoE switch supports either CDP or 802.3af.
Position 2	NDP for Power Patch and BF200/24(PoE)	Set to this switch position when PoE switch supports either NDP or 802.3af.

Power Over Ethernet DtermIP Version 3

Power consumption of the terminals required for connecting to PoE switch are as follows:

Power Consumption

NEC IP TERMINAL	PoE ETHERNET CONSUMPTION
ITR-8D-3	6.4 W (MAX)
ITR-16D-3	6.4 W (MAX)
ITR-32D-3	6.4 W (MAX)
ITR-16LD-3	6.4 W (MAX)
INASET240G	5.3 W (MAX)
INASET320G	8 W (MAX)
INASET320C	8 W (MAX)

Note: The above PoE consumption is noted on terminals without optional adapters installed.

Note: 4D IP Version 3 doesn't support Optional adapter add-on.

The Power Switch is located in the bottom of the IP terminal. In INASET, SW1 is used as the Power Switch. In ITR-xxD-3, SW2 is used as the Power Switch. The settings are as follows:

DtermIP Version 3 Switch Conditions

SWITCH POSITION	CONDITION	NOTES
Position 1 (Default)	- 802.3af Support - Local Power Supply via AC/DC power adapter	Example of compliant AF switch would be the BF210/24 (PE).
Position 2	CDP	

Note: 4D IP Version 3 only support 802.3af and doesn't have power switch on the terminal.

Power Over Ethernet for DtermIP Version1/2 and Dterm Series i with IP-R

Power consumption of the terminals required for connecting to PoE switch are as follows:

Power Consumption

NEC IP TERMINAL	PoE ETHERNET CONSUMPTION
ITR-8D-1	6.4 W (MAX)
ITR-8D-2	6.4 W (MAX)
DTR-8D with IP-R	6.4 W (MAX)
ITR-16D-1	6.4 W (MAX)
ITR-16D-2	6.4 W (MAX)
ITR-16D with IP-R	6.4 W (MAX)
ITR-32D with IP-R	6.4 W (MAX)

The Power Switch is located in the bottom of the IP terminal. In IP-R and ITR-xxD-1, SW1 is used as the Power Switch. In ITR-xxD-2, SW2 is used as the Power Switch. The settings are as follows:

DtermIPv1, DtermIPv2, IP-R PoE Switch Conditions

SWITCH POSITION	CONDITIONS	NOTES
Position 1	- Local Power supply via AC/DC power adapter. - Power Patch Panel (NDP) - BF200/24(PoE) compatible	May cause communication error when an ordinary hub is used after NEC Power Patch panel.
Position 2 (Default)	CDP	

The following is a sheet for PoE Switch and IP terminals correspondence.

Device Correspondence Table

IP Terminals and Adapters				Power over Ethernet		
				Cisco - Catalyst - Power Patch Panel	NEC - NEC Power Patch Panel -BF200/24 (PoE) PowerDsine - 4000Series (NEC OEM)	802.3af Compliant PoE switch (Example: BF210/24(PE))
Product Name	**Voltage**	**Current**	**Power Consumption**	**CDP**	**NEC Power Supply Method**	**IEEE 802.3af compliant**
IP-R	48V	133mA	6.4W	Available	Available	Available via ILPA
ITR-2	48V	133mA	6.4W	Available	Available	Available via ILPA
INASET	48V	219mA	10.5W	Not available	Available	Available via ILPA
INASET 240G	48V	110mA	5.3W	Available	Available via ILPA	Available
INASET 320G	48V	167mA	8W	Available	Available via ILPA	Available
INASET 320C	48V	167mA	8W	Available	Available via ILPA	Available
ITR-8D-3	48V	92mA	6.4W	Available	Available via ILPA	Available
ITR-16D-3	48V	92mA	6.4W	Available	Available via ILPA	Available
ITR-32D-3	48V	92mA	6.4W	Available	Available via ILPA	Available
ITR-16LD-3	48V	80mA	6.4W	Available	Available via ILPA	Available
ITR-8D-3 + D16(LD)-R	48V	98mA	6.4W	Available	Available via ILPA	Available
ITR-16D-3 + D16(LD)-R	48V	98mA	6.4W	Available	Available via ILPA	Available
ITR-16LD-3 + D16(LD)-R	48V	86mA	6.4W	Available	Available via ILPA	Available

UNIVERGE SV9500
Peripheral Equipment Description (Multi-Line Telephone)

NWD-165798-001

Revision Sheet

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