UNIVERGE SV9500

FP95-111 V1

DT800/DT400 Series
Information Compendium

NWD-175751-001
ISSUE 1.0

Overview of This Document

This document is compiled with the DT800/DT400 Series-related information from the following SV9500 manuals.

The table below shows the manuals contained in this document and information about DT800/DT400 Series information explained in each manual.

Manual			Information Described in the Manual	Page
Manual Name	Chapter	Section/Command		
System Description	Chapter 2	Terms in Manuals	Terminal lineup of DT800/DT400 Series	3-5
Data Programming Manual - Business	Chapter 2	ASSIGNMENT OF BASIC OFFICE DATA	Soft key assignment for DT800/DT400 Series	6-15
	Chapter 3	BUSINESS FEATURES DESI-Less Terminal [D-169]	Description of 11characters display for DESI-less terminal	
Data Programming Manual - ACD	Chapter 2	GENERAL INFORMATION	Description of DT800/DT400 Series for “Availability of telephony devices for ACD/OAI system”	16-26
	Chapter 3	INSTALLATION	Description of DT800/DT400 Series for Key Pads	
Data Programming Manual - OAI	Chapter 2	SYSTEM OUTLINE	Description of DT800/DT400 Series for “Availability of telephony devices for ACD/OAI system”	27-31
Command Manual	Chapter 2	ADKS	Description of DT800/DT400 Series for Key Number Appearance	32-106
		ADSL/N	Description of soft key 8 characters display on LCD and soft key 11 characters display for DESI-less terminal	
		AKYD/AKYD_T	Key data information for DT800/DT400 Series	
		ASYDL/N	Description of system data for the features related to DT800/DT400 Series	
Operations and Maintenance Manual	Chapter 7	ATDL	Description of DT800 Series for the list of download file name	107-112
Peripheral Equipment Description (Multi-Line Telephone)	Chapter 2	DIGITAL TERMINAL	Description of digital terminal (DT400 Series)	113-393
	Chapter 3	IP STATION	Description of IP terminal (DT800 Series)	
	APPENDIX B	Power Consumption for DT800/DT700 Series Terminals	Power consumption for DT800 Series	
Peripheral Equipment Description (UG50)	Chapter 1	Telephones Related Conditions	Accommodating condition for DT400 Series	393-395

System Description

2.2. Terminal Name

In this manual, the following terminals are mentioned as each common term unless these types need to be identified.

<table>
<tr><th colspan="5">GENERIC TERMS USED IN THIS MANUAL</th><th colspan="2">TERMINAL NAMES</th></tr>
<tr><td rowspan="15">Desktop terminal</td><td colspan="4" rowspan="3">Digital terminal</td><td>Dterm</td><td>Dterm Series i</td></tr>
<tr><td rowspan="2">DT300 Series</td><td>DT310</td></tr>
<tr><td>DT330</td></tr>
<tr><td rowspan="12">IP station</td><td colspan="3" rowspan="5">IP terminal</td><td rowspan="2">DT400 Series</td><td>DT410</td></tr>
<tr><td>DT430</td></tr>
<tr><td>IP Enabled Dterm</td><td>Dterm Series i with IP adapter Note 1</td></tr>
<tr><td colspan="2">DtermIP INASET Note 1</td></tr>
<tr><td>DtermIP</td><td>DtermIP (Proprietary Protocol)</td></tr>
<tr><td rowspan="7">SIP terminal</td><td rowspan="3">Softphone</td><td>Softphone (Proprietary Protocol)</td><td rowspan="2">DtermSP30</td><td>DtermSP30 (Proprietary Protocol)</td></tr>
<tr><td>Softphone (SIP)</td><td>DtermSP30 (SIP)</td></tr>
<tr><td colspan="2">Soft Client SP350</td></tr>
<tr><td colspan="2" rowspan="6">SIP Multiple Line terminal</td><td>DtermIP</td><td>DtermIP (SIP)</td></tr>
<tr><td rowspan="5">DT700 Series</td><td>DT710</td></tr>
<tr><td>DT730</td></tr>
<tr><td>DT730G</td></tr>
<tr><td>DT750</td></tr>
<tr><td>DT770G</td></tr>
<tr><td rowspan="2">DT800 Series</td><td>DT830</td></tr>
<tr><td>DT830G</td></tr>
<tr><td colspan="3">Standard SIP terminal Note 2</td><td colspan="2">Third-party SIP terminal</td></tr>
<tr><td colspan="4" rowspan="2">Wireless terminal</td><td colspan="3">WLAN Handset (MH Series)</td><td colspan="2">MH250</td></tr>
<tr><td colspan="3" rowspan="2">PS</td><td colspan="2">PHS</td></tr>
<tr><td colspan="2">PCS</td></tr>
</table>

Note 1: This terminal provides users with all features currently available on DtermIP (Proprietary Protocol).

Note 2: SIP Handler can also control Standard SIP Video terminals and Standard SIP Voice terminals which are controlled by SP. Standard SIP terminals require connection tests of NEC. When service conditions of Standard SIP terminals vary depending on controlling device, Standard SIP terminals are mentioned as shown below.

<table>
<tr><th>GENERIC TERMS USED IN THIS MANUAL</th><th>CONTROLLING DEVICE</th><th colspan="2">TERMINAL NAMES</th></tr>
<tr><td rowspan="4">Standard SIP terminal</td><td rowspan="2">SP</td><td rowspan="2">SP Controlled SIP terminal</td><td>SP Controlled SIP Voice terminal</td></tr>
<tr><td>SP Controlled SIP Video terminal</td></tr>
<tr><td rowspan="2">SIP Handler</td><td rowspan="2">SIP Handler Controlled SIP terminal</td><td>SIP Handler Controlled SIP Voice terminal</td></tr>
<tr><td>SIP Handler Controlled SIP Video terminal</td></tr>
</table>

Data Programming Manual - Business

5.6 Soft Key Assignment

In addition to the programmable Line/Feature Key, DT800 Series, DT700 Series, DtermIP, DT400 Series, DT300 Series, Dterm Series *i* can use four Soft keys. Each key works variably according to the current state of station. For example, a Soft key provides a function of VOICE (Voice Call) when hearing Ringback Tone (after dialing the Called Station Number), etc.

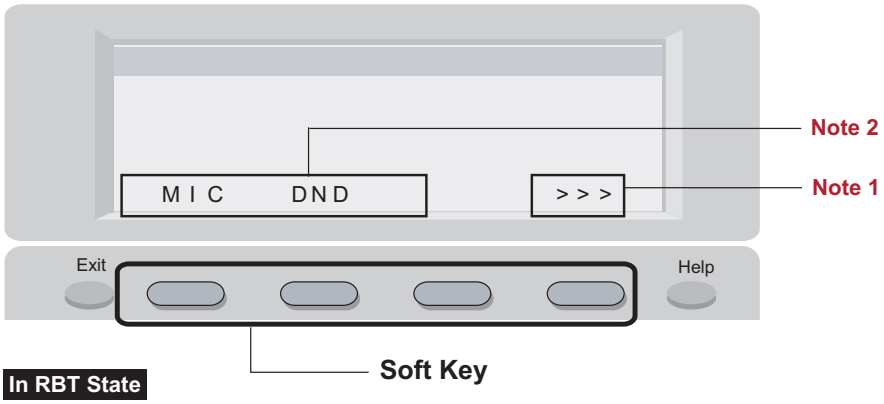
Note: For adding a new node to the system in which the soft key data is already assigned by the ADSLN command (*1), SKP (soft key pattern) and SN (status number) must be reassigned by the ADSLN command. (To reassign them, press [Get], [Del] and then [Set] buttons in that order.)

*(*1) It corresponds to the following situations:*

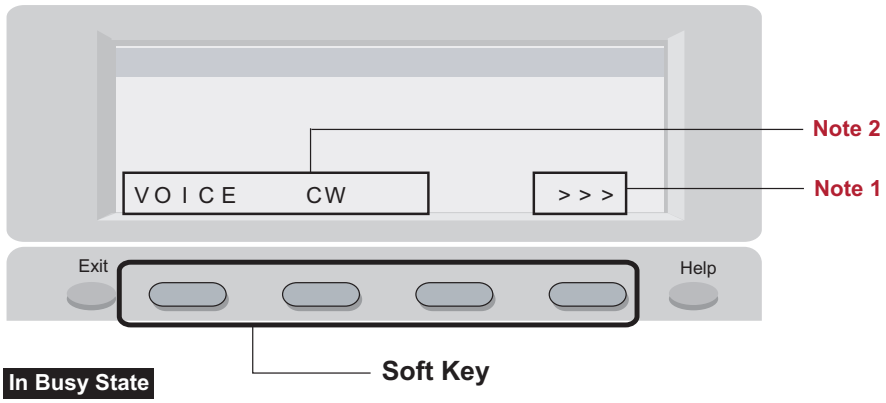
- *a new node is added to the existing standalone system and that system is upgraded to FCCS system.*
- *a new node is added to the existing FCCS system.*

An example of using Soft keys is shown below:

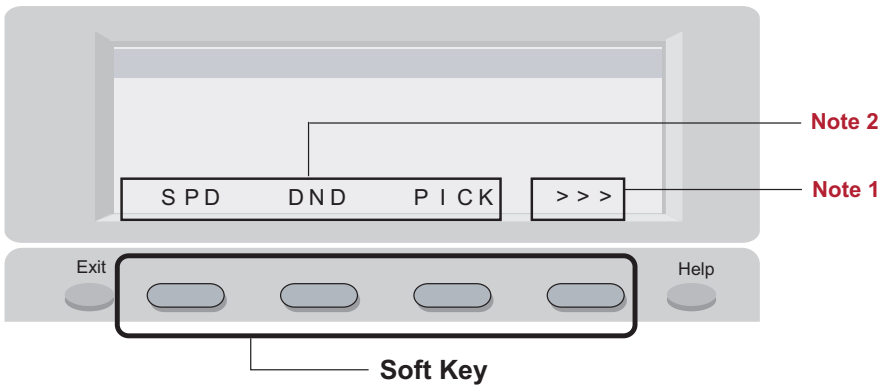
In Idle State



In RBT State



In Busy State



Note 1: ">>>" key is used to go to the next page. (Soft key data can be programmed across four pages to be turned over manually).

Note 2: For DT800 Series, eight digits characters with a frame are displayed on LCD in default settings. When you assign the system data (ASYDL/N, System Data 1, Index 1258, Bit 2=1), six digits characters without a frame will be displayed. For other terminals other than DT800 Series, the soft key indication characters are displayed as six digits without a frame. For details, see Command Manual.

Programming

The Soft key data can be assigned by taking the following procedure:

Note: The data assignment of ADSLN must be all deleted before assigning ADSL. If the data of ADSLN is assigned, an "Input error" might be caused.

ASYDL - Assign Telephone Number Display Pattern
System Data 1, Index 513 = 01 (LDM)
System Data 1, Index 672, Bit 0
0 = Telephone Number is displayed on the top line of LCD
1 = Telephone Number is displayed on the middle line of LCD
System Data 1, Index 1258, Bit 2 (Display the Soft key on the LCD as eight digits with a frame) **Note 2**, **Note 3**
0 = Enable
1 = Disable

Note 2: For DT800 Series only. When the data is changed by AFDD command, LCD displays the Soft key as six digits without a frame.

Note 3: For the language settings except for Japanese, NEC English, or Extension Languages, LCD displays the Soft key as six digits without a frame.

AFDD - Assign the characters to be displayed on the LCD, corresponding to each Soft Key function. For each function, default data can be used for each display, therefore use this command only when customizing the display characters.
FKY: Specify the service function by using the corresponding Function Key Code (1 - 320). (For details on Function Key Code allocation, refer to the Command Manual)
DISP: Assign the desired characters (a maximum of six letters or numbers) for the service specified by FKY above.

ADSL - Assign the Soft Key Pattern tables that determine each case of indication on the LCD bottom line (dedicated Soft Key display area). The function of each Soft Key is variable, according to the state of the Desktop terminal (idle or originating, busy, in speech, etc.). Therefore, taking this into consideration, create the desired number of tables for Soft Key Pattern. **Note 4**
SKP: Assign the Soft Key Pattern number (a maximum of 16 patterns [0 - 15] are assignable).
Note that SKP 0 is reserved for the Key Pattern to be commonly used on a system basis. For details on SKP 0 allocation, refer to Command Manual.
SN: Assign each Status Number for "SKP".
0 = Idle
1 = Originating (Dial Tone Connection)
2 = Originating (Ringback Tone Connection)
3 = Called Station Busy (Busy Tone Connection)
4 = Communication in progress
5 = Consultation Hold
6 = Trunk Busy (Busy Tone Connection)
8 = Consultation Hold when Called Station is busy
9 = While in Three-party Conference
15 = Others
SKN: Enter Soft Key Number (0 - 15 **Note 5**)
FKY: Assign the service function for each SKN by using the Function Key Code. (For details on Function Key Code allocation, refer to the Command Manual)

Note 4: A set of four Soft Keys can be developed over four pages. Soft Key Number 0/4/8/12 is for the first key, 1/5/9/13 for second key, 2/6/10/14 for third key, and 3/7/11/15 for fourth key.

DISP - Display Message on LCD

The soft key indication is displayed when DISP has been assigned by the AFDD command.

Note: The soft key indication characters are displayed as six digits when using AFDD command.

Note: When the soft key indication is assigned by AFDD command, the data assignment of AFDD command has priority.

ADKS - Register each SKP (Soft Key Pattern) data to the desired Desktop terminal(s).
- TN: Assign the Tenant Number of the Desktop terminal
- STN: Assign the Station Number of the Desktop terminal
- SKP: Specify the desired Soft Key Pattern, referring to SKP of ADSL.
- LKP: Assign the Key Pattern of the Desktop terminal.
  - 1 = 16 Line/Feature Buttons + 16 DSS Keys
  - 2 = 24 Line/Feature Buttons + 8 DSS Keys
  - 3 = 32 Line/Feature Buttons
- PG: Specify the page scroll key allocation
  - 0 = Page scroll key on the fourth Soft Key
  - 1 = Page scroll key on any Line/Feature Key

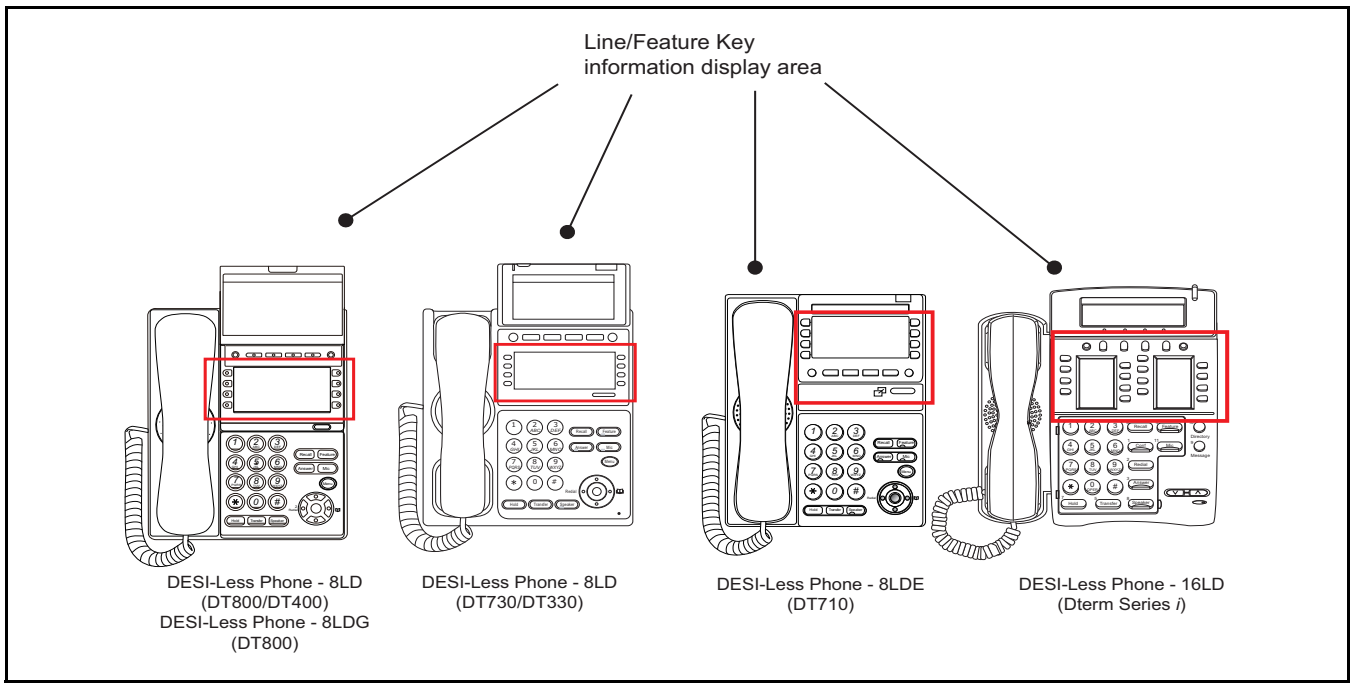
AKYD - Assign "Soft Key Assignment" Key to Line/Feature Key. **Note 6**
- KYN: Key Number [1-40]
- KYI: 1 = Feature Key
- FKY: 122 = Soft Key Assignment

Note 5: This data assignment enables the Desktop terminal users to change the Soft Key data assignment.

D-169 DESI-Less Terminal

General Description

DESI-Less Phone refers to Desktop terminals with Line/Feature key information display area. The information assigned on each Line/Feature key is displayed on the corresponding LCD.



Operating Procedure

Refer to the User's Guide or Operation Manual of each terminal.

Service Conditions

1. When Line/Feature key data is changed by PCPro, periodic refresh for Line/Feature key information display area is required. By assigning ASYDL SYS1 INDEX674 bit5=1, periodic refresh is executed every 90 seconds.

Note: When periodic refresh is out of service (ASYDL SYS1 INDEX674 bit5=1), even when the display information is changed by ANDD or ALGSL/ALGSN commands, the displayed information on the LCD is not refreshed automatically. Execute one of the followings to update the display:
- Pull out and push in the modular/LAN cable of the terminal
- Re-login
- Initialize the ELC card on which the terminal is accommodated
- Initialize the system

2. System data ASYD SYS1 INDEX78 bit4, INDEX389 bit0-bit4, and ASLG command setting can change the language to be displayed on the LCD.

Note: Refer to [M-117] Multilingual Display for the data assignment of ASLG command.

3. The table below shows the number of characters to be displayed on the LCD of each key:

Line/Feature key information	Maximum number of characters to be displayed
Line key (Information about name and number)	8 characters
SPD key (Information about name and number)	8 characters
Feature key (Feature name of software key)	11 characters **Note 1**

Note 1: For the terminals other than DT800/DT700/DT400/DT300 Series, the maximum number of characters will be 6. Also, when the feature name is changed by Line key, SPD key, or AFDD command, the maximum number of characters will be 6.

4. When the number of characters exceeds the limit, system data (ASYD SYS1 INDEX241 bit6) can change the display option. **Note 2**
5. When a line is assigned on any Line/Feature key, the displayed information on Line/Feature key information display area can be chosen by the system data (ASYDL SYS1 INDEX673 bit5) to show name or number. However, when name information is not assigned, Telephone Number (if registered) or Station Number is displayed.
6. When a feature is assigned on any Line/Feature key, the same feature name with software key is displayed. When no feature is assigned, the FKY code is displayed. In both cases, you can modify the feature name by AFDD/AFDDN command. **Note 2**

Note 2: When periodic refresh is in service (ASYDL SYS1 INDEX674 bit5=0), the display is updated in about a minute after changing the office data.

7. Icons are displayed on the LCD corresponding to each Line/Feature key. They work according to the LED control of Line/Feature key.
8. Only for DESI-Less terminals in DT830/DT730/DT430/DT330, an icon for page scrolling is provided. Page icon moves you forward through pages to cover total 32 features/lines corresponding to 8LD/8LDE/8LDG per page.

Interactions

Speed Calling - One Touch -D on DESI-Less Phone

The followings are the conditions for the Name Display function of [S-26D] Speed Calling - One Touch -D on DESI-Less Phone.

1. When SPD key is assigned on any Line/Feature key, Line/Feature key information display area shows the name information of Speed Calling. When name information is not assigned for Speed Calling, the LCD displays the Speed Calling number or the feature name on a system base (ASYDL SYS1 INDEX674 bit6). However, when [D-165] Dialed Number Privacy Mode is in-service (ASYDL SYS1 INDEX674 bit7=1), "*" is displayed instead of Speed Calling number.
2. Name Display for Speed Calling is only available on DESI-Less Phone.

3. Name information can only be assigned, modified, or deleted on the stations using DESI-Less Phone (**Note 3**). Assignment from PCPro is not supported.

Note 3: Refer to the User's Guide or Operation Manual of the terminal for the assignment procedure.

4. Alphanumeric characters and special characters are available to use for name information entry. Euro characters (uppercase, lowercase) are supported on DT800 Series/DT700 Series/DT400 Series/DT300 Series.
5. Up to 4096 stations can assign the name information of Speed Calling per system.
6. Assigned name information can be saved by the maintenance command MEM_HDD. For Digital terminals accommodated on ELC card, use BOSD command to backup Speed Calling number and use MEM_HDD command to backup Speed Calling name information. See the table below.

Terminal Type	Speed Calling number	Speed Calling name information
IP station	MEM_HDD	MEM_HDD
Digital terminal	BOSD	MEM_HDD

7. When station data is deleted, name information of related station is also deleted.
8. Because Speed Calling name information is assigned toward a key, the name data is not cleared/changed by changing the assigned number.
9. Assigned name information is only used for the display on Line/Feature key information display area. The display when the terminal is dialing, hearing RBT, or being connected corresponds to the assigned number.
10. Name information entry is available only when the station is idle or ringing. Even when My Line is not used, name information entry does not work during other key operation.
11. Station user can continue assignment operation when a call terminates during name information entry. However, when digit code or any keys irrelevant to name information entry is pressed, the terminal exits the assignment and then acts as operated.
12. When 30 seconds of no key operation is detected, the station goes back to idle state discarding the name information entry.
13. SPD key data can be changed as many times as desired by pressing the SPD key again, unless any digit code or software key is pressed.
14. A blank space can be entered by pressing INS key or "→" key.
15. Name information will be deleted when SET key is pressed without entering any data.

Dialed Number Privacy Mode

By assigning ASYDL SYS1 INDEX674 bit7=1, [D-165] Dialed Number Privacy Mode can be activated with DESI-Less Phone under the following conditions.

1. The icon on DESI-Less Phone indicates as follows in each dial mode:
   - Normal Mode: No information
   - Privacy Mode 1: ■ (steady)
   - Privacy Mode 2: ■ (flashing)
2. When ASYDL SYS1 INDEX674 bit6=1 (Speed Calling number is displayed on the LCD of SPD key), Speed Calling number display can act together with the Dialed Number Privacy Mode depending on the system data setting (**Note 4**):

<Example>
When "12345" is registered to SPD key and ASYDL SYS1 INDEX674 bit7=1 (Dial mode works on Speed Calling number display):

- Normal Mode: "12345" is displayed.
- Privacy Mode 1, 2: "SPD" is displayed. **Note 5**

Note 4: Regardless of the ASYDL SYS1 INDEX674 bit7 setting, the feature name "SPD" is displayed when ASYDL SYS1 INDEX674 bit6=0.

Note 5: "Speed Call" is displayed when 11 characters is enabled (ASYDL SYS1 INDEX 684 bit 0 = 0).

Programming

STEP 1: **ASYD** - System Data 1, INDEX241, bit6: How to handle the characters/numbers when the number of digits exceeds the limit (8 digits) to display on the LCD of Line/Feature key information display area.
0 = The first 7 digits + an asterisk (*) are displayed (i.e. CALL-FO*)
1 = An asterisk (*) + the last 7 digits are displayed (i.e. *LLCALLS)

System Data 1, INDEX78, bit4 and INDEX389 bit0-bit4: Language displayed on the LCD

	INDEX78	INDEX389				
	b4	b4	b3	b2	b2	b0
English	0	0	0	0	0	0
Portuguese	0	0	0	0	0	1
Spanish	0	0	0	0	1	0
French	0	0	0	0	1	1

Note: Refer to [M-117] Multilingual Display for the data assignment of ASLG command.

STEP 2: **ASYDL** -
System Data 1, INDEX673, bit5: Choose the information to be displayed on DESI-Less Phone.
0/1 = Name/Number
System Data 1, INDEX674, bit5: Periodic refresh for display information on DESI-Less Phone.
0/1 = ON/OFF

STEP 3: **ASYDL/ASYDN** -
System Data 1, INDEX684, bit0: 11 characters indication for Feature key information
0/1 = ON/OFF

Note: Available for DT800/DT700/DT400/DT300 Series.

System Data 1, INDEX684, bit1: DESI-Less icon display
0/1 = ON/OFF

STEP 4: **ASFC/ASFCN** - Assign a Service Feature Restriction Class that allows SFI 259 to the station (DT710 DESI-Less)

DAY/NIGHT: Day/Night Mode
TN: Tenant Number
SFI: 259 (DT710 DESI-Less (The terminal display is switched to Home display by pressing Feature key))
SFC: Service Feature Restriction Class
RES: 0/1 (Restricted/Allowed)

Note: Assign this data when using DT710 DESI-Less.

Note: Reboot the terminal after assigning this data.

<Data Programming for Line key information (My Line, Sub Line, Virtual Line)>

For the data programming of name information, refer to [N-28] Name Display - System.

<Data Programming for Feature key information>

Refer to AFDD/AFDDN command in Command Manual.

<Data Programming for SPD key information>

STEP 1: **ASYDL** - System Data 1, INDEX674
bit6: Display for SPD key on DESI-Less Phone. 0/1 = Feature name/Speed Calling number
bit7: Dialed Number Privacy Mode works with Speed Calling number display. 0/1 = OFF/ON

STEP 2: **AKYD** - Assign the Feature key data of Desktop terminal.
KYN: Key number
FKI: 1 (Function key)
FKY: 165 (SPD Name Assign)

STEP 3: **ADSL** - Assign the Software key data of Desktop terminal.
SN: 0 (Idle)
SKN: Software key number
FKY: 165 (SPD Name Assign)

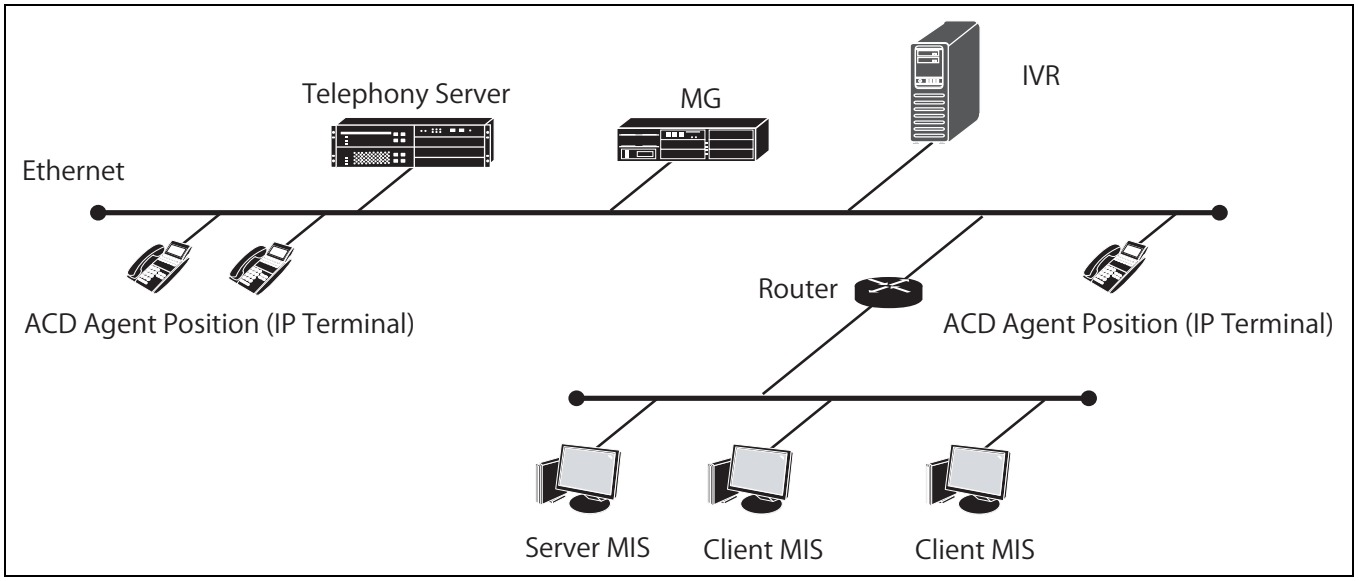
Note: Assign the name information of Speed Calling by pressing the SPD Name Assign key on DESI-Less terminal's Line/Feature key. For the assignment procedure, refer to User's Guide or Operation Guide of each terminal.

Data Programming Manual - ACD

2.3 System Configuration

2.3.1 Outline of System Configuration

The ACD system can be implemented in the Built-in Type configuration, with which the ACDP is built in the MGC of the Telephony Server.
The configuration of the ACD system is defined as follows.



Note: "Ethernet" is a registered trademark of XEROX CORPORATION.

2.3.2 Equipment/Terminals Accommodating in ACD/OAI System

The following equipment and terminals can be used in the ACD/OAI system.

In a Single-path connection, an audio breakup occurs at the start/end of the monitoring when IP devices are used. To prevent this problem, enable Silent Monitor (Multi-path Monitor).

Note: To enable Silent Monitor (Multi-path Monitor), the following are required, set "1" for ASYDL/ASYDN, SYS 1, Index 874, Bit 0 to enable Multi-path Monitor Connection.

Availability of Telephony Devices for ACD/OAI System

X: Available, C: Conditionally Available, N: Not Available, -: Not Applicable

Terminal/Equipment			ACD	OAI	Silent Monitor		Remarks
					Agent/ Super-visor	Oppo-site Party	
Digital terminal	DT400 Series	DT430	C	C	N	N	DESI-Less terminal is not supported.
		DT410	N	×	N	N	
	DT300 Series	DT330	C	C	N	N	DESI-Less terminal is not supported.
		DT310	N	×	N	N	
	Dterm Series *i*		×	×	N	N	
IP terminal	DtermIP		×	×	×	×	**Note 1**, **Note 2**
	Dterm Series *i* with IP adapter		×	×	×	×	**Note 1**
Softphone	Soft Client SP350		×	×	×	×	**Note 1**, **Note 2**, **Note 3**
	DtermSP30 **Note 4**		×	×	×	×	**Note 1**, **Note 2**
SIP Multiple Line terminal	DT800 Series	DT830	C	C	C	×	DESI-Less terminal is not supported. **Note 1**, **Note 2**, **Note 3**
		DT830G	×	×	×	×	**Note 1**, **Note 2**, **Note 3**
	DT700 Series	DT770G	N	N	N	N	
		DT750	N	×	N	×	**Note 1**, **Note 2**, **Note 3**
		DT730	C	C	C	×	DESI-Less terminal is not supported. **Note 1**, **Note 2**, **Note 3**
		DT730G	×	×	×	×	**Note 1**, **Note 3**
		DT710	N	×	N	×	**Note 1**, **Note 2**, **Note 3**
	DtermIP (SIP)		×	×	N	N	**Note 1**

X: Available, C: Conditionally Available, N: Not Available, -: Not Applicable

Terminal/Equipment			ACD	OAI	Silent Monitor		Remarks
					Agent/ Supervisor	Opposite Party	
SIP terminal	SP Controlled	WLAN Handset (MH Series)	N	×	N	N	MH250
		Standard SIP Voice terminal (Third-party SIP terminal)	N	N	N	N	
		Standard SIP Video terminal (Third-party SIP terminal)	N	N	N	N	
	SIP Handler Controlled	Standard SIP Voice terminal (Third-party SIP terminal)	C	C	N	N	**Note 5**, **Note 10**, **Note 11**,
		Standard SIP Video terminal (Third-party SIP terminal)	N	N	N	N	
PS	PHS/PCS		N	×	N	N	
VS32 **Note 6**	VS32 CARD [SCA-VS32VA]		×	×	-	-	with Voice Compression (VC) **Note 7**
	VS32 BOX [MG-VS32VA]						
Analog MC	Analog 2MC		×	×	-	N	
	8LC Card [SCA-8LCC/SCA-8LCC-EMEA]		×	×	-	N	
	8LC Card [SCA-8LCA/SCA-8LCA-EMEA]						
MC&MG-COT	MCMG Card [SCA-4LC2COTA]		×	×	-	N	
	MCMG Box [MG-4LC2COTA]						
	MC&MG-COT with PFT		×	×	-	N	
	MCMG Card [SCA-7COTA]		×	×	-	N	
MG-COT	MG-COT Card [SCA-6COTC]		×	×	-	N	
	MG-COT Card [SCA-6COTB]		×	×	-	N	
	MG-COT Card [SCA-6COTA]		×	×	-	N	
MG(BRI)	MG(BRI) Card [SCA-2BRIA]		×	×	-	N	
	MG(BRI) Box [MG-2BRIA]						
	MG-BRI		×	×	-	×	**Note 2**

X: Available, C: Conditionally Available, N: Not Available, -: Not Applicable

Terminal/Equipment		ACD	OAI	Silent Monitor		Remarks
				Agent/ Super-visor	Oppo-site Party	
MG(PRI)	MG(PRI) Card [SCA-24PRIA]	×	×	-	×	Note 2, Note 7, Note 12
	MG(PRI) Box [MG-24PRIA]					
	MG(PRI) Card [SCA-30PRIA]	×	×	-	×	Note 2, Note 7, Note 13
	MG(PRI) Box [MG-30PRIA]					
MG-T1(SIP)	MG-T1(SIP) Card [SCA-24DTIA]	-	-	-	N	
MG(SIP)	MG-SIP16 Card [SCA-16SIPMGA]	×	×	-	×	Note 2, Note 8
	MG-SIP16 Box [MG-16SIPMGA]					Note 2, Note 8
	MG-SIP16 Card [SCA-16SIP-MG(US)]	×	×	-	×	Note 8
	MG-SIP96	×	×	-	×	Note 8
	MG-SIP128 [MG-128SIPMGG (SC) -B/MG-128SIPMGG]	×	×	-	×	Note 8
	MG-SIP128 [MG-128SIPMGJ (PN) -B/MG-128SIPMGJ]	×	×	-	×	Note 8
IPG Digital		N	N	N	N	
IPG Analog		N	N	N	N	
Internal PHC		×	×	-	N	CCIS over IP Note 9
Circuit card accommodated in PIR	PRT	×	×	-	×	
	BRT	×	×	-	N	
	COT	×	×	-	N	
	Three-party Conference Trunk	×	×	-	N	CFT embedded in PIR

X: Available, C: Conditionally Available, N: Not Available, -: Not Applicable

Terminal/Equipment				ACD	OAI	Silent Monitor		Remarks
						Agent/ Super-visor	Oppo-site Party	
UG50	Multi-slot	ELC	UG50 (DLC)	×	×	×	×	
		LC	UG50 (LC) [Proprietary Protocol/SIP]	×	×	-	N	
		PRT	UG50 (PRT 1.5M) [Proprietary Proto-col/SIP]	C	C	-	C	Available for Propri-etary Protocol only.
			UG50 (PRT 2M) [Proprietary Proto-col/SIP]	N	N	-	N	
		COT	UG50 (COT-TYPE1)	×	×	-	N	
			UG50 (COT-TYPE2) [Proprietary Proto-col/SIP]	×	×	-	N	
	IPG	UG50-IPG (Digital)		N	N	-	N	
		UG50-IPG (Analog)		N	N	-	N	
	Retrofit	LC	UG50-2MC	×	×	-	N	
			UG50-8LC	×	×	-	N	
		PRT	UG50-24PRIA [Proprietary Proto-col/SIP]	C	C	-	C	Available for Propri-etary Protocol only.
			UG50-30PRIA [Proprietary Proto-col/SIP]	N	N	-	N	
		MC&MG-COT	UG50-4LC2COTA	×	×	-	N	
			UG50-6COT [Proprietary Proto-col/SIP]	×	×	-	N	

Note: VoIP Encryption [V-27] is not available for ACD/OAI system.

Note: When using Hotel features in the ACD/OAI system, these features are only available with administration station.

Note 1: When ACD/OAI keys which have assigned with AOKC command are pressed continuously, no tone is provided.

Note 2: When the party you are calling does not support Silent Monitor (Multi-Path Monitor), Single-Path Monitor is used. When the following terminals/equipment uses Silent Monitor (Multi-Path Monitor), the firmware shown below is required.

Terminal/Equipment	Available Firmware
DtermSP30	Software Version 18 or later (Proprietary Protocol only)
DT830	Firmware Issue 3.0.0.0 or later
DT830G	Firmware Issue 3.0.0.0 or later
DT710	Firmware Issue 5.0.0.0 or later
DT730	Firmware Issue 5.0.0.0 or later
DT730G	Firmware Issue 1.0.0.0 or later
DT750	Firmware Issue 5.0.0.0 or later
Soft Client SP350	R5 or later
MG(PRI) Card [SCA-24PRIA] (Proprietary Protocol mode)	Available since first version
MG(PRI) Box [MG-24PRIA] (Proprietary Protocol mode)	
MG(PRI) Card [SCA-24PRIA] (SIP mode)	Firmware SP-3884 MG PRI PROG-A Issue 21 or later
MG(PRI) Box [MG-24PRIA] (SIP mode)	
MG(PRI) Card [SCA-30PRIA] (SIP mode)	
MG(PRI) Box [MG-30PRIA] (SIP mode)	
MG-SIP16	Available since first version
MG-SIP16 Card [SCA-16SIP-MG(US)]	
MG-SIP16 [SCA-16SIPMG(US)-B]	
MG-SIP96	
MG-SIP128 [MG-128SIPMGG]	
MG-SIP128 [MG-128SIPMGG (SC) -B]	
MG-SIP128 [MG-128SIPMGJ]	
MG-SIP128 [MG-128SIPMGJ (PN) -B]	
MG-SIP16 Card [SCA-16SIPMGA]	Firmware SP-3905 MG SIP (16) PROG-A 02.01.00.00 or later
MG-SIP16 Box [MG-16SIPMGA]	

Terminal/Equipment	Available Firmware
UG50 (PRT 1.5M) [Proprietary Protocol/SIP]	Available since first version
UG50 (PRT 2M) [Proprietary Protocol/SIP]	
UG50-24PRIA [Proprietary Protocol/SIP]	
UG50-30PRIA [Proprietary Protocol/SIP]	

Note 3: To enable Silent Monitor (Multi-path Monitor) connection on SIP Multiple Line terminal, set “1” for ASYDL/ASYDN, SYS1, INDEX 679, Bit 1(Multiple Session for SIP Multiple Line Terminals is enabled). You need to re-register the terminals to reflect the change.

Note 4: DtermSP30(SIP) can be used as ACD Agent Position. When using DtermSP30 with Thin-Client terminal, refer to the Softphone User Guide and the manual of the Thin-Client terminal. DtermSP30 (VPCC mode) is available to use with Thin-Client terminal since version 18. Under the condition that a USB handset (with hook switch) is used along with DtermSP30, the SPEAKER key will light up when the handset user goes Off-Hook. It does not affect the terminal's operation.

Note 5: NEC Connection test is required in advance.

Note 6: The following firmware is required to be equipped on VS32.

Terminal/Equipment	Available Firmware
VS32 CARD [SCA-VS32VA]	SP-3891 CA-VS32 PROG-A or later
VS32 BOX [MG-VS32VA]	

Note 7: In ACD/OAI system, this equipment is available also in SIP mode. Check the firmware version in the below table. UG50 is not supported.

Terminal/Equipment	Available Firmware
MG(PRI) Card [SCA-24PRIA]	SP-3884 MG PRI PROG-A Issue 21 or later
MG(PRI) Box [MG-24PRIA]	
MG(PRI) Card [SCA-30PRIA]	
MG(PRI) Box [MG-30PRIA]	

Note 8: To use Silent Monitor (Multi-Path Monitor) connection on SIP Multiple Line terminal, enable “multisession” of set command on the MG side. For details on the setting of the configuration command, refer to Peripheral Equipment Description (IP Devices).

Note 9: Internal PHC does not support all the monitoring related functions including silent monitoring (Multi-Path Monitor).

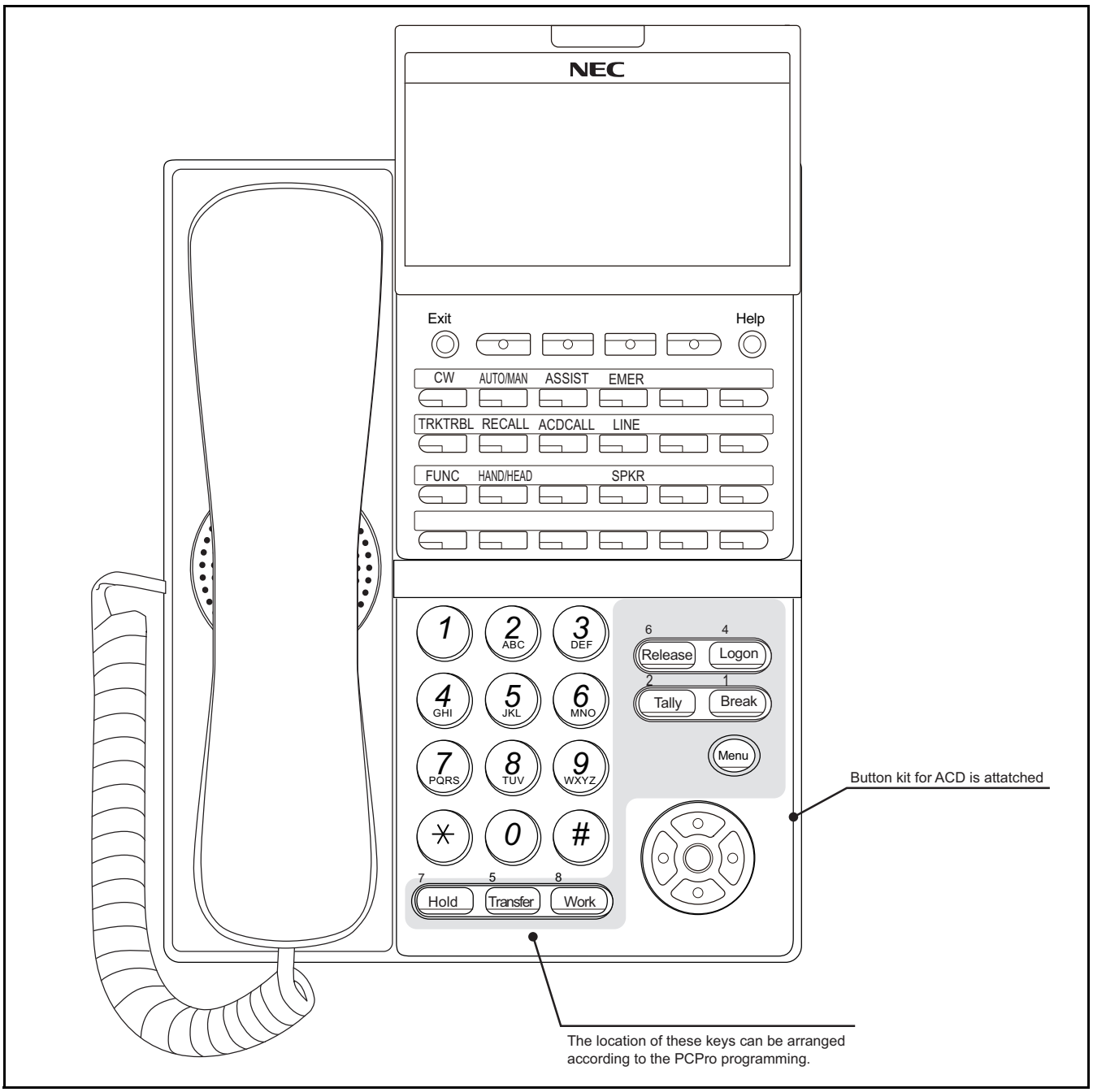
3. INSTALLATION PROCEDURES

3.1 Peripheral Equipment Installation

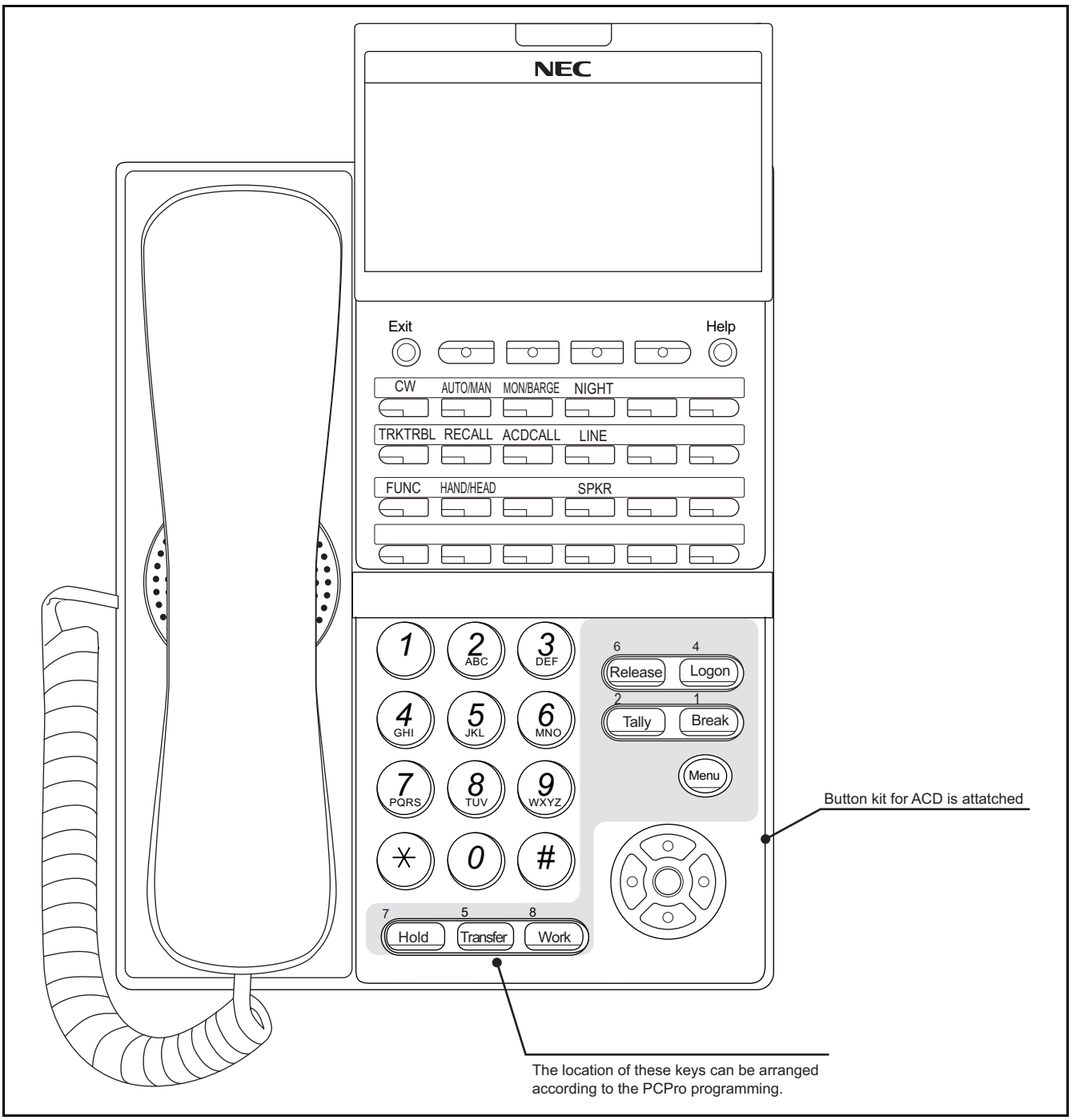
This section explains the installation procedures of the following peripheral equipment for the ACD System.

- 11.1 ACD Agent Position
- 3.1.2 ACD Supervisory Position
- 3.1.3 MIS
- 3.1.4 Emergency Recorder
- 3.1.5 Announcement Machine
- 3.1.6 IVR/Host

Key Pads on ACD Agent Position Keyboard (DT800 Series/DT400 Series)



Key Pads on Supervisory Position Keyboard (DT800 Series/DT400 Series)

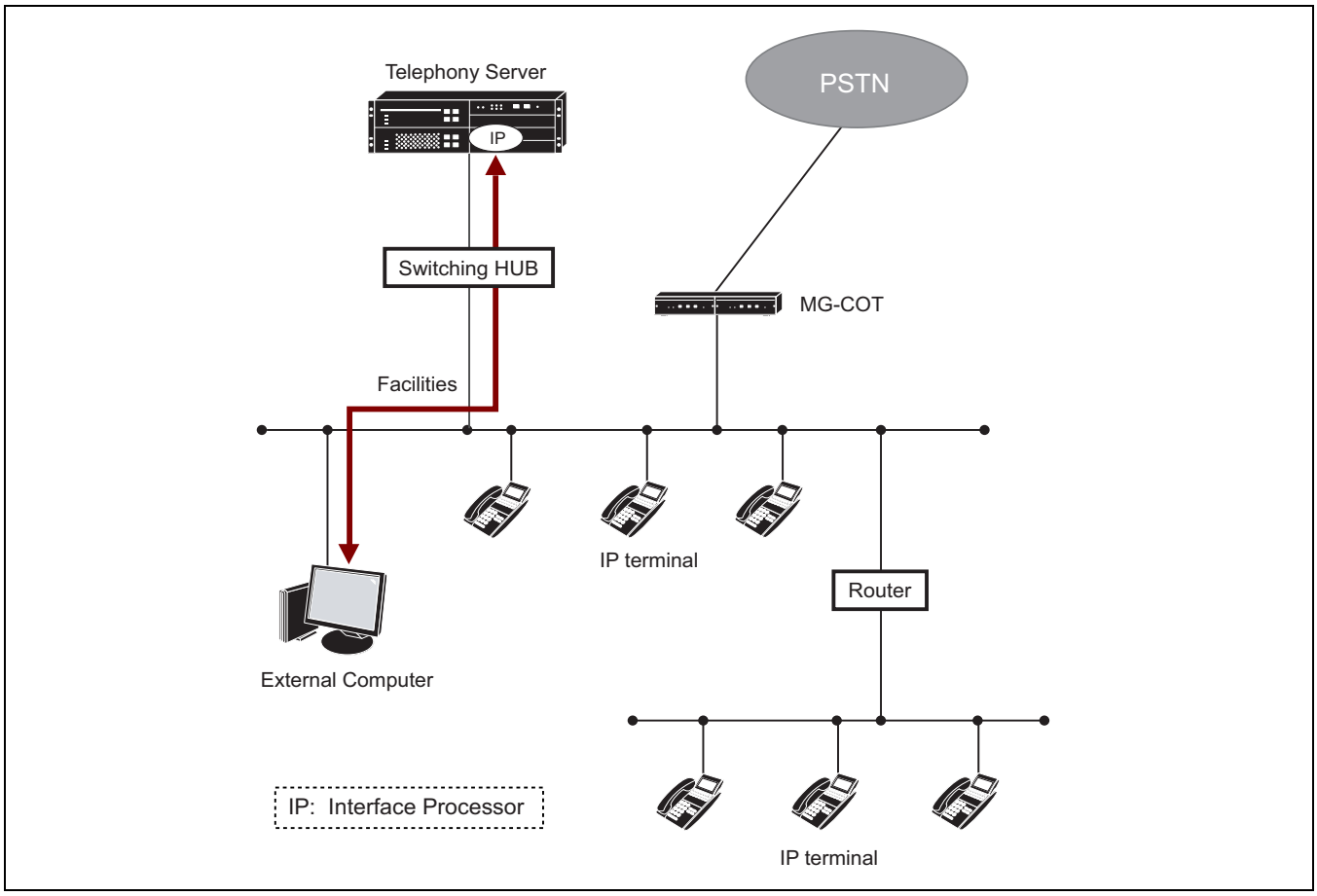


Data Programming Manual - OAI

3. SYSTEM CONFIGURATION

The OAI System can be implemented in the Built-in Type configuration: the Interface Processor (IP) is built in the CPU of the Telephony Server. The configuration of the OAI System is as follows:

System Configuration



Note: A sufficient number of channels for IPPAD should be provided in advance in order to prevent channels from all-busy state.
When there is shortage of the IPPAD channels, IP terminal cannot answer the incoming call.

The following equipment and terminals can be used in the ACD/OAI system.

In a Single-path connection, an audio breakup occurs at the start/end of the monitoring when IP devices are used. To prevent this problem, enable Silent Monitor (Multi-path Monitor).

Note: To enable Silent Monitor (Multi-path Monitor), the following are required, set "1" for ASYDL/ASYDN, SYS 1, Index 874, Bit 0 to enable Multi-path Monitor Connection.

Availability of Telephony Devices for ACD/OAI System

X: Available, C: Conditionally Available, N: Not Available, -: Not Applicable

Terminal/Equipment			ACD	OAI	Silent Monitor		Remarks
					Agent/ Supervisor	Opposite Party	
Digital terminal	DT400 Series	DT430	C	C	N	N	DESI-Less terminal is not supported.
		DT410	N	×	N	N	
	DT300 Series	DT330	C	C	N	N	DESI-Less terminal is not supported.
		DT310	N	×	N	N	
	Dterm Series *i*		×	×	N	N	
IP terminal	DtermIP		×	×	×	×	**Note 1**, **Note 2**
	Dterm Series *i* with IP adapter		×	×	×	×	**Note 1**
Softphone	Soft Client SP350		×	×	×	×	**Note 1**, **Note 2**, **Note 3**
	DtermSP30 **Note 4**		×	×	×	×	**Note 1**, **Note 2**

X: Available, C: Conditionally Available, N: Not Available, -: Not Applicable

Terminal/Equipment			ACD	OAI	Silent Monitor		Remarks
					Agent/ Supervisor	Opposite Party	
SIP Multiple Line terminal	DT800 Series	DT830	C	C	C	×	DESI-Less terminal is not supported. **Note 1**, **Note 2**, **Note 3**
		DT830G	×	×	×	×	**Note 1**, **Note 2**, **Note 3**
	DT700 Series	DT770G	N	N	N	N	
		DT750	N	×	N	×	**Note 1**, **Note 2**, **Note 3**
		DT730	C	C	C	×	DESI-Less terminal is not supported. **Note 1**, **Note 2**, **Note 3**
		DT730G	×	×	×	×	**Note 1**, **Note 3**
		DT710	N	×	N	×	**Note 1**, **Note 2**, **Note 3**
	DtermIP (SIP)		×	×	N	N	**Note 1**
SIP terminal	SP Controlled	WLAN Handset (MH Series)	N	×	N	N	MH250
		Standard SIP Voice terminal (Third-party SIP terminal)	N	N	N	N	
		Standard SIP Video terminal (Third-party SIP terminal)	N	N	N	N	
	SIP Handler Controlled	Standard SIP Voice terminal (Third-party SIP terminal)	C	C	N	N	**Note 5**, **Note 10**, **Note 11**,
		Standard SIP Video terminal (Third-party SIP terminal)	N	N	N	N	
PS	PHS/PCS		N	×	N	N	
VS32 **Note 6**	VS32 CARD [SCA-VS32VA-B/ SCA-VS32VA]		×	×	-	-	with Voice Compression (VC) **Note 7**
	VS32 BOX [MG-VS32VA]						

Note: VoIP Encryption [V-27] is not available for ACD/OAI system.

Note: When using Hotel features in the ACD/OAI system, these features are only available with administration station.

Note 1: When ACD/OAI keys which have assigned with AOKC command are pressed continuously, no tone is provided.

Note 2: When the party you are calling does not support Silent Monitor (Multi-Path Monitor), Single-Path Monitor is used. When the following terminals/equipment uses Silent Monitor (Multi-Path Monitor), the firmware shown below is required.

Terminal/Equipment	Available Firmware
DtermSP30	Software Version 18 or later (Proprietary Protocol only)
DT830	Firmware Issue 3.0.0.0 or later
DT830G	Firmware Issue 3.0.0.0 or later
DT710	Firmware Issue 5.0.0.0 or later
DT730	Firmware Issue 5.0.0.0 or later
DT730G	Firmware Issue 1.0.0.0 or later
DT750	Firmware Issue 5.0.0.0 or later
Soft Client SP350	R5 or later
MG(PRI) Card [SCA-24PRIA] (Proprietary Protocol mode)	Available since the first version
MG(PRI) Box [MG-24PRIA] (Proprietary Protocol mode)	
MG(PRI) Card [SCA-24PRIA] (SIP mode)	Firmware SP-3884 MG PRI PROG-A Issue 21 or later
MG(PRI) Box [MG-24PRIA] (SIP mode)	
MG(PRI) Card [SCA-30PRIA] (SIP mode)	
MG(PRI) Box [MG-30PRIA] (SIP mode)	
MG-SIP16	Available since the first version
MG-SIP16 Card [SCA-16SIPMG(US)]	
MG-SIP16 [SCA-16SIPMG(US)-B]	
MG-SIP96	
MG-SIP128 [MG-128SIPMGG]	
MG-SIP128 [MG-128SIPMGG-B]	
MG-SIP128 [MG-128SIPMGJ]	
MG-SIP128 [MG-128SIPMGJ-B]	

Command Manual

ADKS: Assignment of Dterm Key Status Data

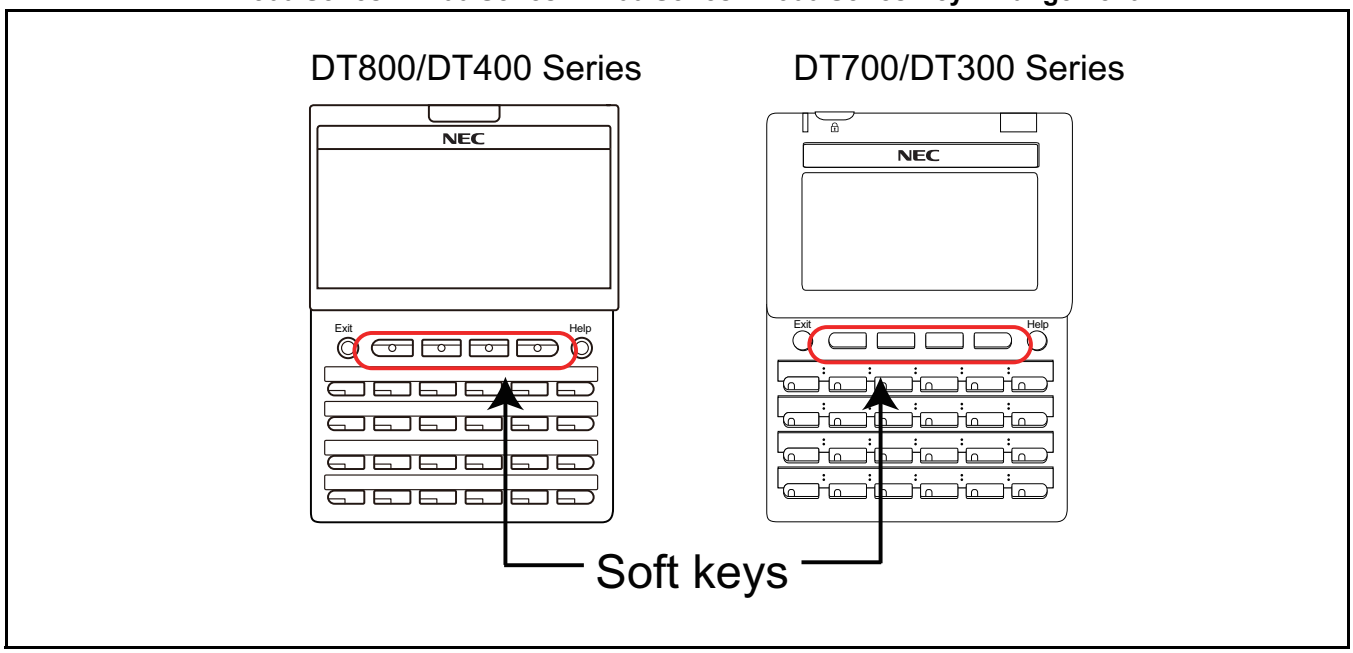
1. General

This command assigns the soft key pattern (that is assigned by the ADSL command) onto a Desktop terminal. Additionally, Line/Feature key and DSS key arrangement on the Desktop terminal can be specified.

2. Precautions

1. There are four soft keys on DT800 Series/DT700 Series/DT400 Series (excluding DT410: 2–button type)/ DT300 Series (excluding DT310: 2/12–button type and DT710: 2–button type) shown on page 299, DtermIP INASET shown on page 300, Dterm Series *i* shown on page 301, Dterm Series *i* (DTR-8D-1R/DTR-16D-1R/DTR-32D-1R) shown on page 302. The function of the soft key varies, depending on the status and current functions involved that are displayed on the bottom line of LCD.

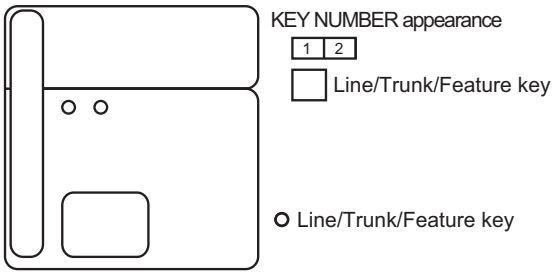
DT800 Series/DT700 Series/DT400 Series/DT300 Series Key Arrangement



Key Number Appearance of DT800/700/400/300 Series

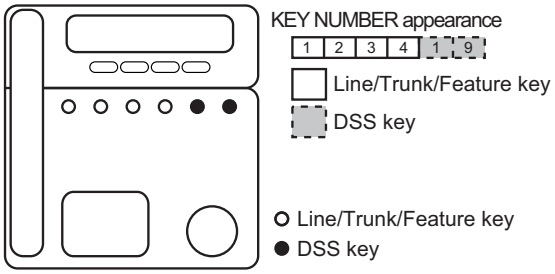
(1) 2 Buttons

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)
- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)
- Line Key Pattern=3 (32 Line/Feature keys)

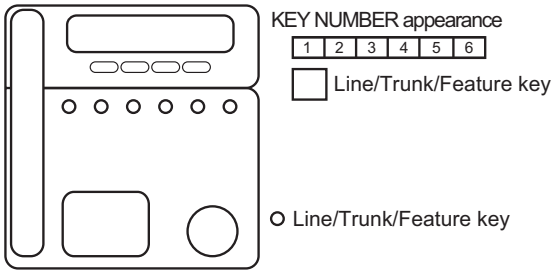


(2) 6 Buttons

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)

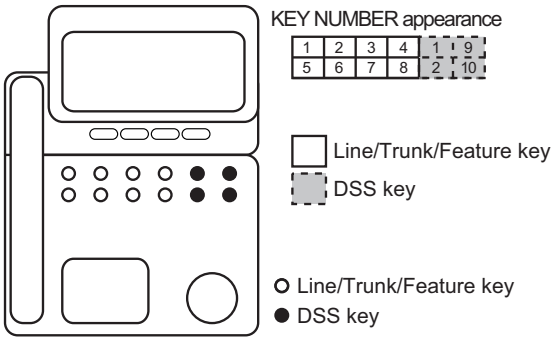


- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)
- Line Key Pattern=3 (32 Line/Feature keys)

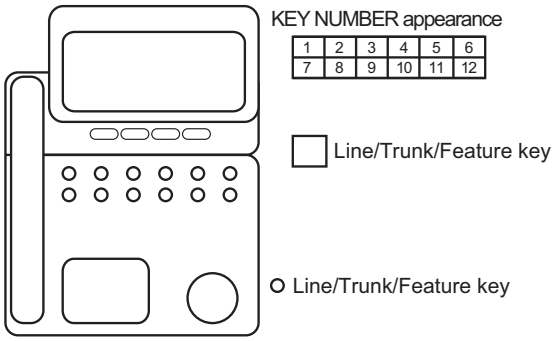


(3) 12 Buttons

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)



- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)
- Line Key Pattern=3 (32 Line/Feature keys)

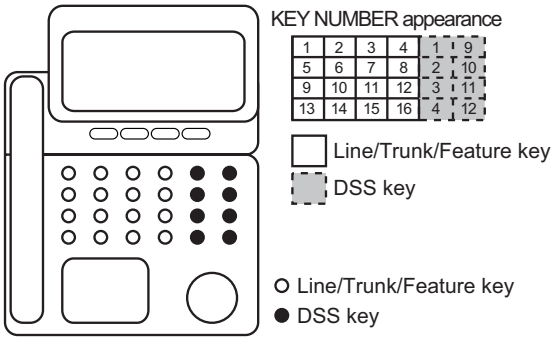


Note: The KEY NUMBER appearance for DT770G is same as DT710 (2-button type).

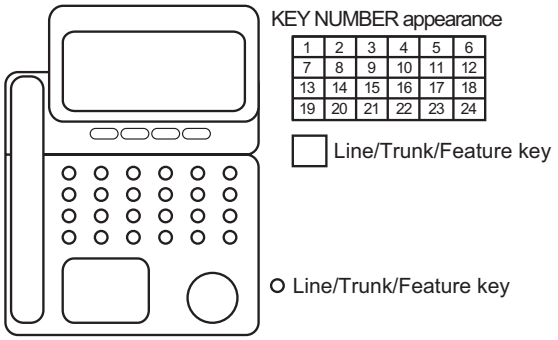
Key Number Appearance of DT800/700/400/300 Series

(4) 24 Buttons

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)

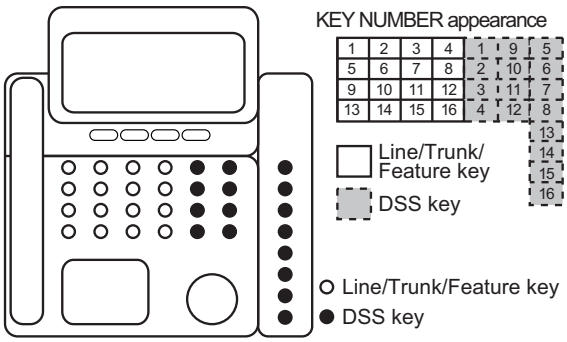


- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)
- Line Key Pattern=3 (32 Line/Feature keys)

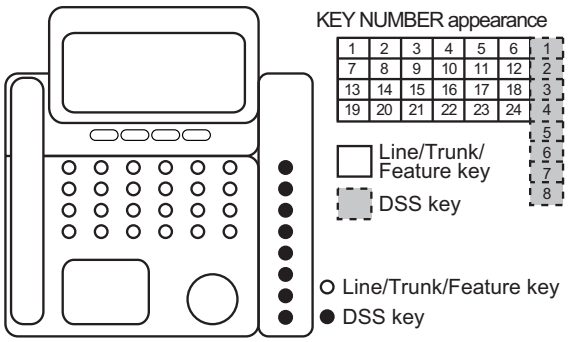


(5) 24 Buttons +8LK Unit

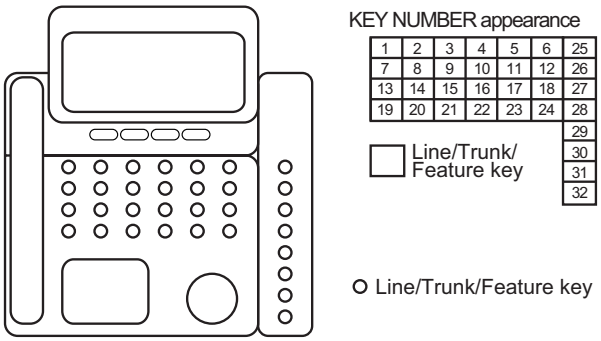
- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)



- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)



- Line Key Pattern=3 (32 Line/Feature keys)

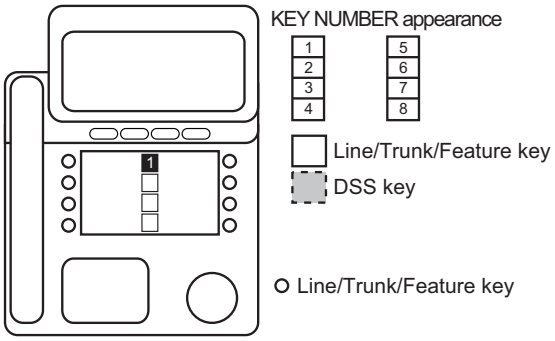


Key Number Appearance of DT800/700/400/300 Series

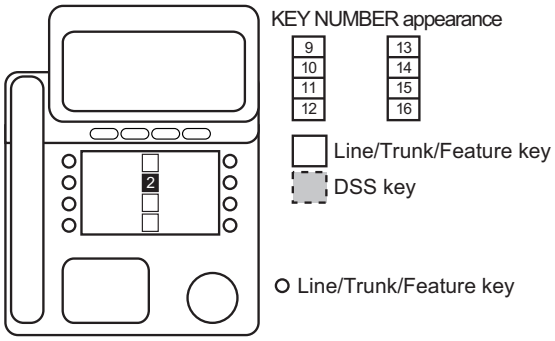
(6) 8 Buttons (DESI–Less)

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)

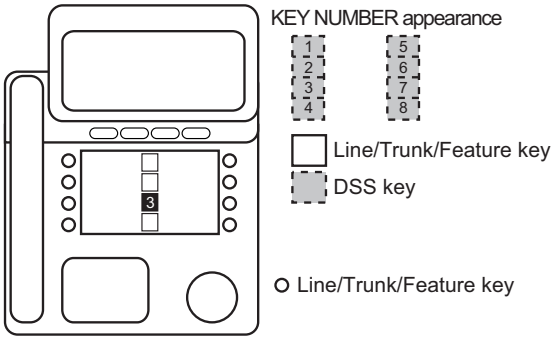
- Page 1



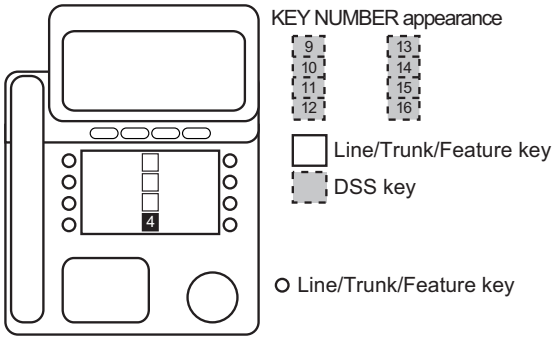
- Page 2



- Page 3



- Page 4

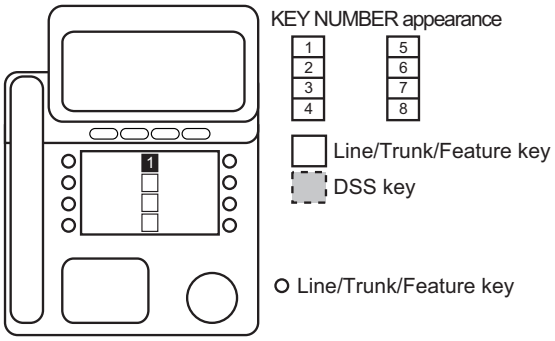


Key Number Appearance of DT800/700/400/300 Series

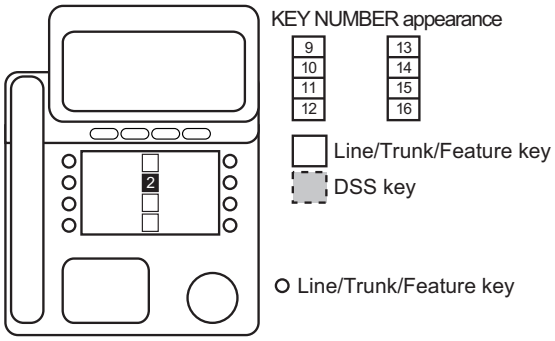
(6) 8 Buttons (DESI–Less)

- Line Key Pattern=2 (16 Line/Feature keys + 16 DSS keys)

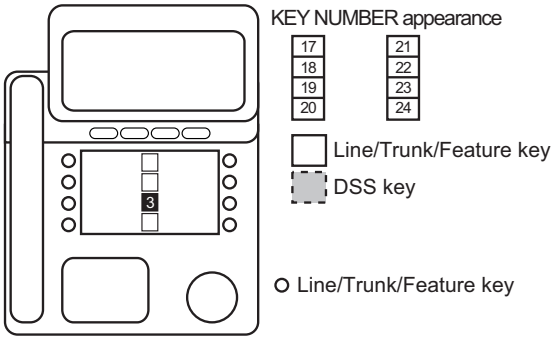
- Page 1



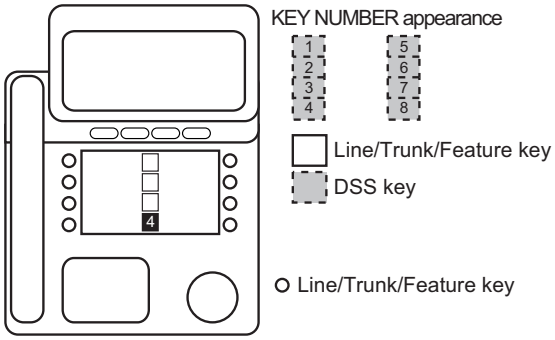
- Page 2



- Page 3



- Page 4

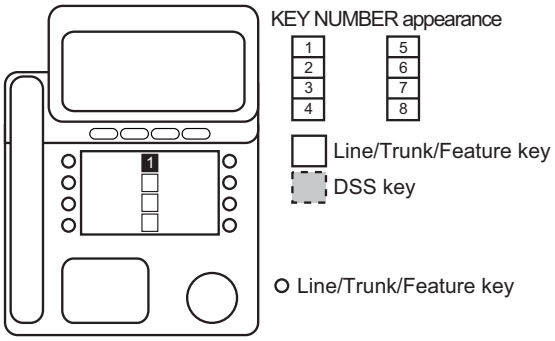


Key Number Appearance of DT800/700/400/300 Series

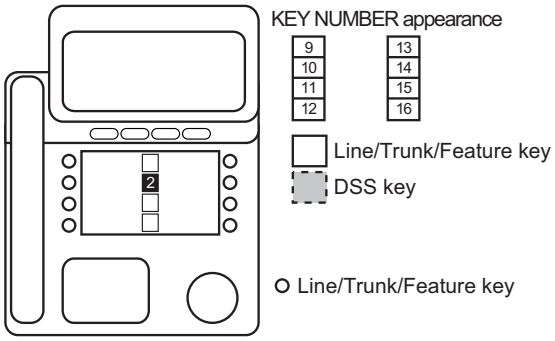
(6) 8 Buttons (DESI–Less)

- Line Key Pattern=3 (32 Line/Feature keys)

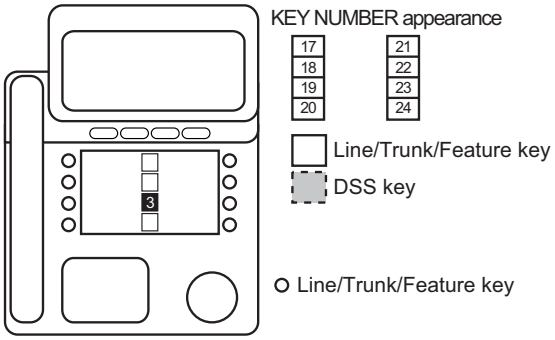
- Page 1



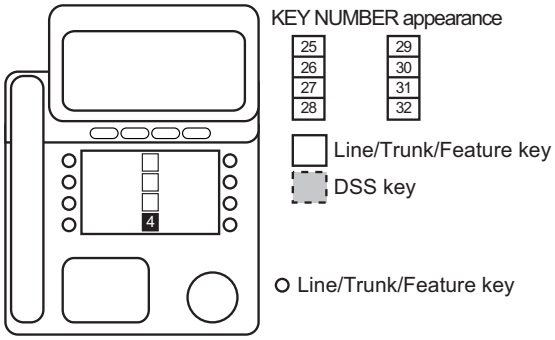
- Page 2



- Page 3



- Page 4



ADSL: Assignment of Dterm Soft Key on LCD

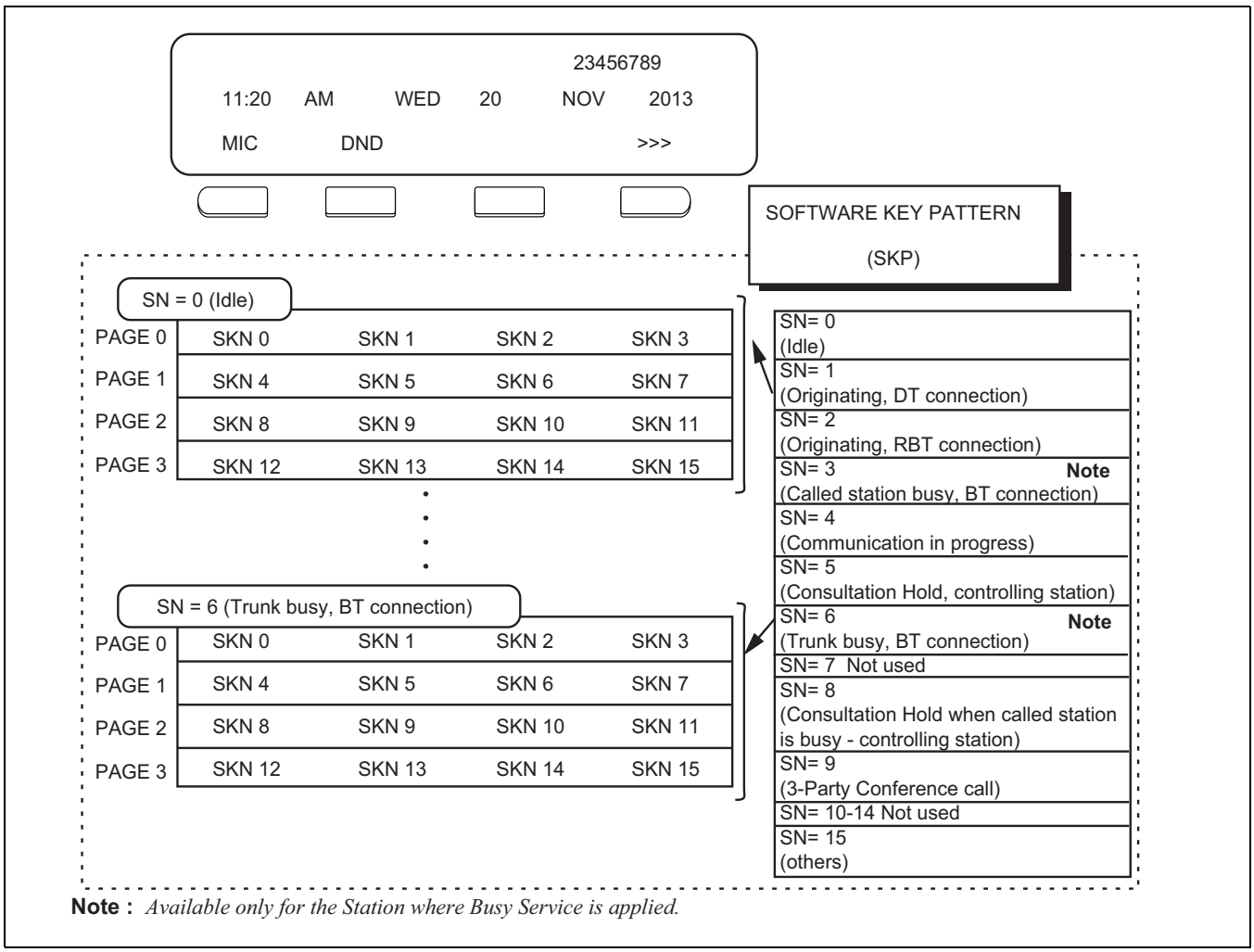
1. General

This command creates an additional soft key pattern for a Desktop terminal.

2. Precautions

1. Four soft keys appear on a Desktop terminal, and each soft key has four pages. This allows each soft key to have four different functions. A station user may turn the soft key pages over by pressing the page scroll key, that may be indicated by >>>.
2. The soft key allows different functions to be assigned depending on the call status of the Desktop terminal station.
3. This command creates the maximum of 16 customized key patterns.
4. Soft Key Number (SKN) is the guide number to assign the function data (FKY) onto each soft key of all the pages. SKN within a Soft Key Pattern (SKP) is shown in the following.

Soft Key Pattern



Note : *Available only for the Station where Busy Service is applied.*

5. After system initialization is performed, the soft key cannot be used for one minute.

6. When the soft key data is set on a system basis, SKP=0 is assigned by this command.

7. The priority order for displaying the data in the Feature key area (the third line or the lowest line) is as follows.

PPRIORITY ORDER		DISPLAYED DATA	DESCRIPTION
1		Services set to the Feature key data	The application service that is set to the Feature key
2		Services set to the Feature key data	Only when the station is idle/originating and the service set to the Feature key
3		Soft key assigned via Feature key	When the soft key data is in the middle of being set via the Feature key (FKY=122)
4	(a)	Soft key data used on a station basis	The soft key data assigned via the ADSL (SKP=0) and ADKS command.
	(b)	Soft key used on a system basis	The soft key data is assigned via the ADSL (SKP=0).
	(c)	Default soft key data by ROM data	Default soft key data (a) or (b) data shown above is not programmed.

8. The LCD display changes after a minute when the soft key data is assigned to all stations in a system using this command or the characters for the LCD display are changed using the AFDD command.

9. When the soft key data is programmed for the busy station, the LCD display does not change until the station becomes idle.

10. The same function data (FKY) cannot be assigned to both soft key and Feature key.

11. The created soft key pattern, that is assigned at SKP≠0, is applied to a Desktop terminal by designating the programmed SKP number in ADKS. As for the key pattern data in SKP=0, ADKS is not necessary. If SKP=0 is designated in ADKS, default key pattern data (refer to Figure "Soft Key Pattern") is applied to the Desktop terminal.

12. The data assignment of ADSLN must be all deleted before assigning ADSL. If the data of ADSLN is assigned, an “Input error” might be caused.

3. Data Entry Instructions

SKP: Soft Key Pattern [0-15]

Assign arbitrary number from 0 through 15.

0=soft key pattern shared in a system

1-15=soft key pattern allotted to each station

SN: Status Number [0-15]

0=Idle

1=Originating (Dial Tone connection)

2=Originating (Ringback Tone connection)

3=Called station busy (Busy Tone connection) **Note 1**

4=Communication in progress (Converse)

5=Consultation Hold (Controlling station)

6=Trunk busy (Busy Tone connection) **Note 1**

7=Not used

8=Consultation Hold when Called Station is Busy (Controlling station)

9=3-Party Conference Call

10-14=Not used

15=Others

Note 1: Available only for the Station where Busy Service is applied.

SKN: Soft Key Number [0-15]

Soft key number (SKN) appears on the PCPro.

FKY: Function Key Number [0-320]

See Page 357 for 11 Characters Display, and see Page 360 for DESI-Less Terminal.

Note: The default characters are shown in the Default Display.

Note: Use FKY 0 when not assigning a Function Key Number (FKY) to a Soft Key Number (SKN)

DISP: Display Message on LCD

The soft key indication is displayed when DISP has been assigned by the AFDD command.

Note: The soft key indication characters are not displayed as eight digits with a frame when using AFDD command.

Note: When the soft key indication is assigned by AFDD command, the data assignment of AFDD command has priority.

FKY (ADSL) Note 2, Note 3, Note 5

X: Available

FKY	SERVICE NAME	DEFAULT DISPLAY (6 digits)	DEFAULT DISPLAY (8 digits)	STATE										
				SN 0	SN 1	SN 2	SN 3	SN 4	SN 5	SN 6	SN 7	SN 8	SN 9	SN 15
1	Call Forwarding-Busy Line	FDB	CF-Busy	-	X	-	-	-	-	-	-	-	-	-
2	Call Forwarding-All Calls	FDA	CF-All	-	X	-	-	-	-	-	-	-	-	-
3	Executive Right of Way	E_OVR	Exe-Over	-	-	-	X	-	-	-	-	-	-	-
4	Call Waiting	CW	CallWait	-	-	-	X	-	-	-	-	-	-	-
5	Call Back	CB	CallBack	-	-	-	X	-	-	-	-	X	-	-
6	-	-		-	-	-	-	-	-	-	-	-	-	-
7	Save and Repeat	S&R	Save&Rep	X	X	X	X	X	-	X	-	-	-	-
8	-	-		-	-	-	-	-	-	-	-	-	-	-
9	Boss-Secretary-Message Waiting Lamp Control; Set	MW SET	MSG Wait	-	X	-	-	-	-	-	-	-	-	-
10	Call Hold	C_HOLD	CallHold	-	-	-	-	X	-	-	-	-	-	-
11	Boss-Secretary-Message Waiting Lamp Control; Can-	MWOFF	no MSGwt	-	X	-	-	-	-	-	-	-	-	-
12	Call Pickup-Group	PICK	PickUp	-	X	-	-	-	-	-	-	-	-	-
13	Three-way Calling	CONF	Conf.	-	-	-	-	-	X	-	-	-	-	-
14	Voice Call	VOICE	Voice	-	-	X	-	-	-	-	-	-	-	-
15	Speed Calling-System	S-SPD	SysSpeed	-	X	-	-	-	-	-	-	-	-	-
16	-	-		-	-	-	-	-	-	-	-	-	-	-
17	CAS SHF	CAS	CAS SHF	-	X	X	X	X	X	X	-	-	-	X
18	-	-		-	-	-	-	-	-	-	-	-	-	-
19	UCD Busy Out	UCDBO	Busy Out	X	-	-	-	X	-	-	-	-	-	-
20	-	-		-	-	-	-	-	-	-	-	-	-	-
21	Flash Button	FLASH	Flash	-	X	X	X	X	X	X	X	-	-	X
22	Call Forwarding-Don't An-	FDN	CF-NoAns	-	X	-	-	-	-	-	-	-	-	-
23, 24	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	ISDN Malicious Call (Australia and U.A.E. only)	C_RPT	MC-Trace	-	-	-	-	X	-	-	-	-	-	-
26	Speed Calling-Station	G_SPD	GrpSpeed	-	X	-	-	-	-	-	-	-	-	-
27-33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	OAI Key Code 1	OAI 1	OAI-1		X			X						
35	OAI Key Code 2	OAI 2	OAI-2		X			X						
36	OAI Key Code 3	OAI 3	OAI-3		X			X						
37	OAI Key Code 4	OAI 4	OAI-4		X			X						
38	OAI Key Code 5	OAI 5	OAI-5		X			X						
39	OAI Key Code 6	OAI 6	OAI-6		X			X						
40	OAI Key Code 7	OAI 7	OAI-7		X			X						
41	OAI Key Code 8	OAI 8	OAI-8		X			X						
42	OAI Key Code 9	OAI 9	OAI-9		X			X						
43	OAI Key Code 10	OAI 10	OAI-10		X			X						
44	OAI Key Code 11	OAI 11	OAI-11		X			X						
45	OAI Key Code 12	OAI 12	OAI-12		X			X						
46	OAI Key Code 13	OAI 13	OAI-13		X			X						

FKY	SERVICE NAME	DEFAULT DISPLAY (6 digits)	DEFAULT DISPLAY (8 digits)	STATE										
				SN 0	SN 1	SN 2	SN 3	SN 4	SN 5	SN 6	SN 7	SN 8	SN 9	SN 15
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	Privacy Release	P-RLS	Priv.Rel	X	-	-	-	X	-	-	-	-	-	-
49	-	-	-	-		-	-	-	-	-	-	-	-	-
50	Do Not Disturb	DND	NoDist	X	X	X	-	X	-	-	-	-	-	-
51	Microphone	MIC	Mic	X	X	X	X	X	X	X	X	X	X	X
52-54	-	-	-	-		-	-	-	-	-	-	-	-	-
55	PAGE	BPAGE	Page	X	X	X	X	X	X	X	X	-	-	X
56-58	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	Release Key	RLS	Release	X	X	X	X	X	X	X	X	X	X	X
60	Manual Signaling Key	SIG	Signal		-	-	-	X	-	-	-	-	-	-
61-82	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	Retain Conference	CKEEP	CallKeep	-	-	-	-	X	-	-	-	-	-	-
84	Serial Call	SCALL	Serial	-	-	-	-	X	-	-	-	-	-	-
85	Internal Zone Paging	IZP	IZpaging	-	X	-	-	-	X	-	-	-	-	X
86		-	-	-	-	-	-	-	-	-	-	-	-	-
87	Wake Up Set	WUS	Wake Up	X	-	-	-	-	-	-	-	-	-	-
88	Wake Up Reset	WUR	NoWakeUp	X	-	-	-	-	-	-	-	-	-	-
89	Do Not Disturb Set	DDS	NoDist	X	-	-	-	-	-	-	-	-	-	-
90	Do Not Disturb Reset	DDR	Disturb	X	-	-	-	-	-	-	-	-	-	-
91	Room Cut Off Set	RCS	R-CutOff	X	-	-	-	-	-	-	-	-	-	-
92	Room Cut Off Reset	RCR	No RCOff	X	-	-	-	-	-	-	-	-	-	-
93	Message Waiting Set	MWS	MSG Wait	X	-	-	-	-	-	-	-	-	-	-
94	Message Waiting Reset	MWR	No MSGwt	X	-	-	-	-	-	-	-	-	-	-
95	Check In	C/I	CheckIn	X	-	-	-	-	-	-	-	-	-	-
96	Check Out	C/O	CheckOut	X	-	-	-	-	-	-	-	-	-	-
97	Status	STS	Status	X	-	-	-		-	-	-	-	-	-
98	Audit	AUD	Audit	X	-	-	-	-	-	-	-	-	-	-
99	Enter	ENT	Enter	X	-	-	-		-	-	-	-	-	-
100	Clear Enter	CE	ClearEnt	X	-	-	-		-	-	-	-	-	-
101	END	END	End	X		-	-	-		-	-	-	-	
102-112	-	-	-	-	-	-	-	-	-	-	-	-	-	-
113	Call ID Change Display	IDCHG	IDChange	X	-	-	-	X	X	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115	Call Pickup Expand	GPICK	G-PickUp	-	X	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-	-	-
117	Ringer Mute	RMUTE	RingMute	-	X	X	X	X	X	X	X	X	X	X
118, 119	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120	Next Page of Soft Keys (Scroll	>>>	>>>	X	X	X	X	X	X	X	X	X	X	X
121	Previous Page of Software Keys (Back Scroll Key)	<<<	<<<	X	X	X	X	X	X	X	X	X	X	X
122	-				-	-	-	-	-	-	-	-	-	-

FKY	SERVICE NAME	DEFAULT DISPLAY (6 digits)	DEFAULT DISPLAY (8 digits)	STATE										
				SN 0	SN 1	SN 2	SN 3	SN 4	SN 5	SN 6	SN 7	SN 8	SN 9	SN 15
123	Off Hook Ringing	OHR	OffHook	X	X	X	X	X	X	X	X	X	X	X
124	MUTE	MUTE	Mute	-	-	-	-	X	-	-	X	-	-	-
125	Headset/Handset **Note 4**	HSET	Headset	X	X	X	X	X	X	X	X	X	X	X
126	Transfer to Sub Station	PS	PS key	X	-	-	-	-	-	-	-	-	-	-
127	Boss Move	B_MV	BossMove	X	-	-	-	-	-	-	-	-	-	-
128	Call Block	IDRST	C-Block	X	X	-	-	X	-	-	-	-	-	-
129	Call Trace	RPT	C-Trace	-	X	-	-	X	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-	-	-	-	-	-
131	Disconnect	DISC	Disc	-	-	-	-	-	X	-	-	-	X	-
132	Call Redirect (North America on-	REDIR	Redirect	X	-	X	-	-	-	-	-	-	-	X
133	Remote Call Hold (North Ameri-	RHOLD	Remote	-	-	-	-	-	-	-	-	-	-	X
134	-	-	-	-	-	-	-	-	-	-	-	-	-	-
135	-	-	-	-	-	-	-	-	-	-	-	-	-	-
136	Selectable Station Call Pickup	S PCK	Sel-Pick	-	X	-	-	-	-	-	-	-	-	-
137	Selectable Station Call Pickup	GSPCK	GSelPick	-	X	-	-	-	-	-	-	-	-	-
138-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
142	LOGOUT for IP Enabled Dterm	L-OUT	Logout	X	-	-	-	-	-	-	-	-	-	-
143-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
146	Expanded Speed Calling-Station	ESPD	Ex-Speed	-	X	-	-	-	-	-	-	-	-	-
147	-	-	-	-	-	-	-	-	-	-	-	-	-	-
148	Call Forwarding-Logout	FDL	CFLogout	-	X	-	-	-	-	-	-	-	-	-
149	Message Audible Alert (North America)	MSGA	MSGAlert											
150	-	-	-	-	-	-	-	-	-	-	-	-	-	-
151	MA-ID Setting	MAID	MA-IDSet	X	X	-	-	-	-	-	-	-	-	-
152-155	-	-	-	-	-	-	-	-	-	-	-	-	-	-
156	Visitor Key	VISIT	Visitor	X	-	-	-	-	-	-	-	-	-	-
157	-	-	-	-	-	-	-	-	-	-	-	-	-	-
158	Call Park Deluxe Hold/Retrieve-	PARK1	Park-1	-	X	-	-	X	-	-	-	-	-	-
159	Call Park Deluxe Hold/Retrieve-	PARK2	Park-2	-	X	-	-	X	-	-	-	-	-	-
160	Call Park Deluxe Hold/Retrieve-	PARK3	Park-3	-	X	-	-	X	-	-	-	-	-	-
161	Call Park Deluxe Hold/Retrieve-	PARK4	Park-4	-	X	-	-	X	-	-	-	-	-	-
162	Call Park Deluxe Hold/Retrieve-	PARK5	Park-5	-	X	-	-	X	-	-	-	-	-	-
163	Privacy Key	PVCY	Secret	X	X	X	X	X	X	X	X	X	X	X
164	-	-	-	-	-	-	-	-	-	-	-	-	-	-
165	SPD Name Assign	SPD	SPD Name	X	-	-	-	-	-	-	-	-	-	-
166	-	-	-	-	-	-	-	-	-	-	-	-	-	-
167	Mobility Access	MACC	Mob-ACS	X	X	-	-	-	-	-	-	-	-	-
168-176	-	-	-	-	-	-	-	-	-	-	-	-	-	-
177	Language Change	LANG	Language	X	-	-	-	-	-	-	-	-	-	-
178	Call History	iCall	History	X	-	-	-	-	-	-	-	-	-	-
179	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FKY	SERVICE NAME	DEFAULT DISPLAY (6 digits)	DEFAULT DISPLAY (8 digits)	STATE										
				SN 0	SN 1	SN 2	SN 3	SN 4	SN 5	SN 6	SN 7	SN 8	SN 9	SN 15
180	Phone book	Pbook	P.Book	X	-	-	-	-	-	-	-	-	-	-
181-183	-	-	-	-	-	-	-	-	-	-	-	-	-	-
184	Power Saving	PWRsv	PWR.save	X										
185-189	-	-	-	-	-	-	-	-	-	-	-	-	-	-
190	Display Reversing	RVERS	Reverse	X	X	X	X	X	X	X	X	X	X	X
191-192	-	-	-	-	-	-	-	-	-	-	-	-	-	-
193	Line Information Change Display	IDCHG	Myline	X	-	-	-	-	-	-	-	-	-	-
194-197	-	-	-	-	-	-	-	-	-	-	-	-	-	-
198	Large Font	LgFont	LgFont	X	X	X	X	X	X	X	X	X	X	X
199-320	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note 2: For DT800 Series, eight digits characters with a frame are displayed on LCD in default settings. When you assign the system data (ASYDL/N, System Data 1, Index 1258, Bit 2=1), six digits characters without a frame will be displayed. For other terminals other than DT800 Series, the soft key indication characters are displayed as six digits without a frame.

Note 3: The soft key indication characters are displayed as six digits without a frame when using AFDD command.

Note 4: When assigning the HEADSET Feature key, enter the related data to all Status Numbers (SN).

Note 5: For eight digits characters display, the soft key indication characters are displayed in mixed case only when the language is assigned as “English for NEC” or “Extension Languages (English_002.txt)” by ASLG command.

FKY (11 Characters Display for DESI-Less Terminal) Note 6, Note 7, Note 9

FKY	SERVICE NAME	11 CHARACTERS DISPLAY FOR DESI-LESS TERMINAL
1	Call Forwarding-Busy Line	CF-BusyLine
2	Call Forwarding-All Calls	CF-AllCalls
3	Executive Right of Way	Exe-Over
4	Call Waiting	CallWaiting
5	Call Back	Call Back
6	-	-
7	Save and Repeat	Save&Repeat
8	-	-
9	Boss-Secretary-Message Waiting Lamp Control; Set	MSG Waiting
10	Call Hold	Call Hold

FKY	SERVICE NAME	11 CHARACTERS DISPLAY FOR DESI-LESS TERMINAL
11	Boss-Secretary-Message Waiting Lamp Control; Cancel	No MSG Wait
12	Call Pickup-Group	Call Pickup
13	Three-way Calling	Conference
14	Voice Call	Voice Call
15	Speed Calling-System	Sys-Speed
16	-	-
17	CAS SHF	CAS SHF
18	-	-
19	UCD Busy Out	UCD BusyOut
20	-	-
21	Flash Button	Flash
22	Call Forwarding-Don't Answer	CF-NoAnswer
23, 24	-	-
25	ISDN Malicious Call (Australia and U.A.E. only)	MC-Trace
26	Speed Calling-Station	Group Speed
27-33	-	-
34	OAI Key Code 1	OAI-1
35	OAI Key Code 2	OAI-2
36	OAI Key Code 3	OAI-3
37	OAI Key Code 4	OAI-4
38	OAI Key Code 5	OAI-5
39	OAI Key Code 6	OAI-6
40	OAI Key Code 7	OAI-7
41	OAI Key Code 8	OAI-8
42	OAI Key Code 9	OAI-9
43	OAI Key Code 10	OAI-10
44	OAI Key Code 11	OAI-11
45	OAI Key Code 12	OAI-12
46	OAI Key Code 13	OAI-13
47	-	-
48	Privacy Release	Privacy Rel
49	-	-
50	Do Not Disturb	No Disturb
51	Microphone	Microphone
52-54	-	-
55	PAGE	Page
56-58	-	-
59	Release Key	Release
60	Manual Signaling Key	Signaling
61-82	-	-
83	Retain Conference	Call Keep
84	Serial Call	Serial Call
85	Internal Zone Paging	IZ Paging
86	-	-

FKY	SERVICE NAME	11 CHARACTERS DISPLAY FOR DESI-LESS TERMINAL
87	Wake Up Set	Wake Up
88	Wake Up Reset	No Wake Up
89	Do Not Disturb Set	No Disturb
90	Do Not Disturb Reset	Disturb
91	Room Cut Off Set	RoomCutOff
92	Room Cut Off Reset	No R-CutOff
93	Message Waiting Set	MSG Wait
94	Message Waiting Reset	No MSG Wait
95	Check In	Check In
96	Check Out	Check Out
97	Status	Status
98	Audit	Audit
99	Enter	Enter
100	Clear Enter	Clear Enter
101	END	End
102-112	-	-
113	Call ID Change Display	ID Change
114	-	-
115	Call Pickup Expand	CroupPickUp
116	-	-
117	Ringer Mute	Ringer Mute
118, 119	-	-
120	Next Page of Soft Keys (Scroll Key)	>>>
121	Previous Page of Software Keys (Back Scroll Key)	<<<
122	-	-
123	Off Hook Ringing	OffHookRing
124	MUTE	Mute
125	Headset/Handset **Note 8**	Headset
126	Transfer to Sub Station	PS Key
127	Boss Move	Boss Move
128	Call Block	Call Block
129	Call Trace	Call Trace
130	-	-
131	Disconnect	Disconnect
132	Call Redirect (North America only)	Redirect
133	Remote Call Hold (North America only)	Remote Hold
134	-	-
135	-	-
136	Selectable Station Call Pickup	SelectPick
137	Selectable Station Call Pickup Group	GSelectPick
138-141	-	-
142	LOGOUT for IP Enabled Dterm	Logout
143-145	-	-
146	Expanded Speed Calling-Station	Ex-Speed

FKY	SERVICE NAME	11 CHARACTERS DISPLAY FOR DESI-LESS TERMINAL
147	-	-
148	Call Forwarding-Logout	CF-Logout
149	Message Audible Alert (North America)	MSG-Alert
150	-	-
151	MA-ID Setting	MA-ID Set
152-155	-	-
156	Visitor Key	Visitor
157	-	-
158	Call Park Deluxe Hold/Retrieve-1	CallPark-1
159	Call Park Deluxe Hold/Retrieve-2	CallPark-2
160	Call Park Deluxe Hold/Retrieve-3	CallPark-3
161	Call Park Deluxe Hold/Retrieve-4	CallPark-4
162	Call Park Deluxe Hold/Retrieve-5	CallPark-5
163	Privacy Key	Num Secret
164	-	-
165	SPD Name Assign	SPD Name
166	-	-
167	Mobility Access	Mob-Access
168-176	-	-
177	Language Change	Language
178	Call History	CallHistory
179	-	-
180	Phone book	Phone Book
181-183	-	-
184	Power Saving	Power Save
185-189	-	-
190	Display Reversing	Reverse
191-192	-	
193	Line Information Change Display	Myline Disp
194-197	-	-
198	Large Font	Large Font
199-320	-	-

Note 6: For DT800/DT700/DT400/DT300 Series, 11 digits characters are displayed on LCD in default settings. When you assign the system data (ASYDL/N, System Data 1, Index 684, Bit 0=1), six digits characters will be displayed. For other terminals, six digits characters are displayed.

Note 7: The soft key indication characters are displayed as six digits when using AFDD command.

Note 8: When assigning the HEADSET Feature key, enter the related data to all Status Numbers (SN).

Note 9: For 11 digits characters display, the soft key indication characters are displayed in mixed case only when the language is assigned as “English for NEC” or “Extension Languages (English_002.txt)” by ASLG command.

ADSLN: Assignment of Dterm Soft Key on LCD for NDM

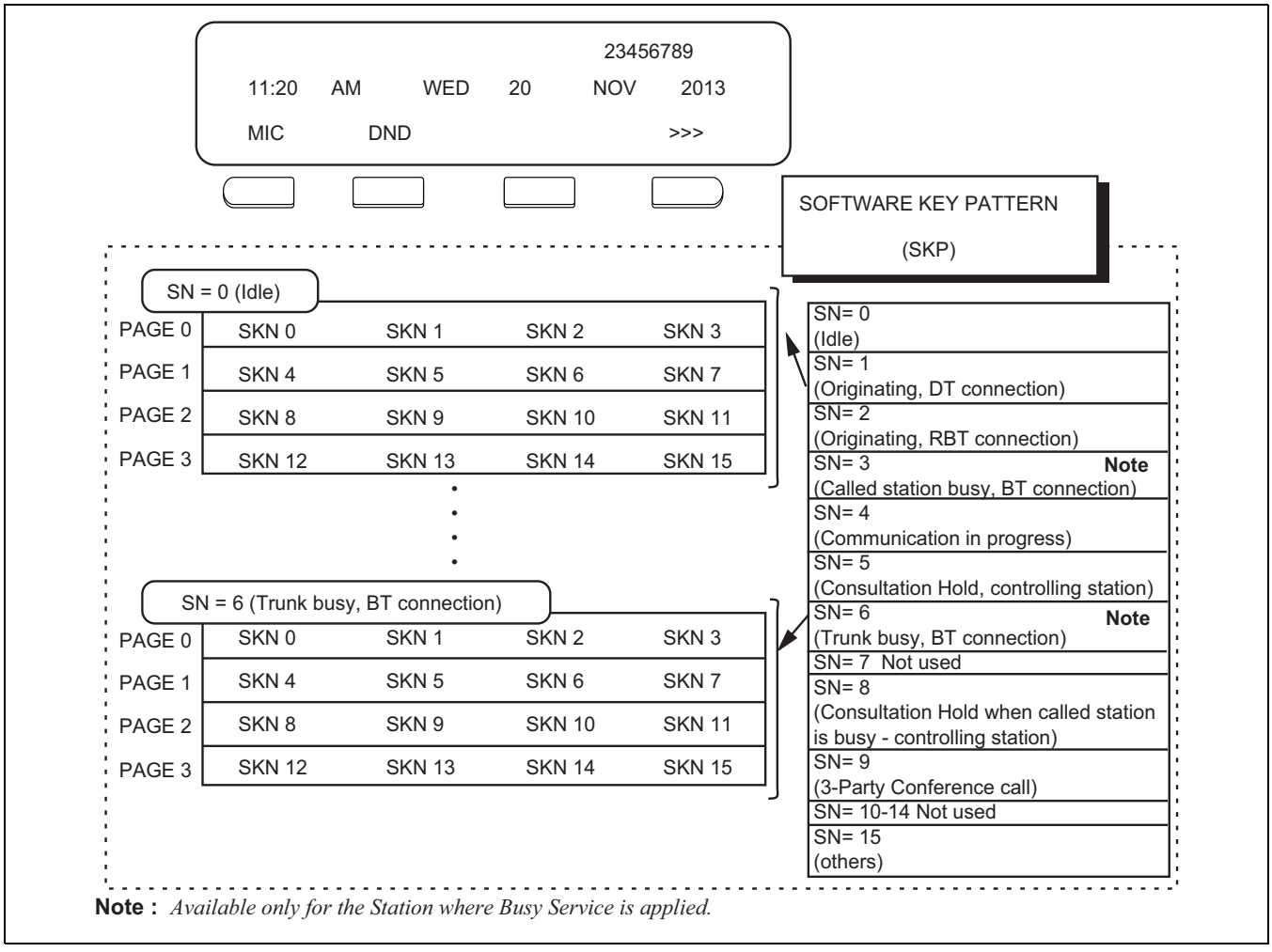
1. General

This command creates an additional soft key pattern for a Desktop terminal.

2. Precautions

1. Four soft keys appear on a Desktop terminal, and each soft key has four pages. This allows each soft key to have four different functions. A station user may turn the soft key pages over by pressing the page scroll key, that may be indicated by >>>.
2. The soft key allows different functions to be assigned depending on the call status of the Desktop terminal station.
3. This command creates the maximum of 16 customized key patterns.
4. Soft Key Number (SKN) is the guide number to assign the function data (FKY) onto each soft key of all the pages. SKN within a Soft Key Pattern (SKP) is shown in the following:

Soft Key Pattern



Note : *Available only for the Station where Busy Service is applied.*

5. After system initialization is performed, the soft key cannot be used for one minute.

6. When the soft key data is set on a system basis, SKP=0 is assigned by this command.

7. The priority order for displaying the data in the Feature key area (the third line or the lowest line) is as follows.

PPRIORITY ORDER		DISPLAYED DATA	DESCRIPTION
1		Services set to the Feature key data	The application service that is set to the Feature key
2		Services set to the Feature key data	Only when the station is idle/originating and the service set to the Feature key
3		Soft key assigned via Feature key	When the soft key data is in the middle of being set via the Feature key (FKY=122)
4	(a)	Soft key data used on a station basis	The soft key data assigned via the ADSLN (SKP=0) and ADKS command.
	(b)	Soft key used on a system basis	The soft key data is assigned via the ADSLN (SKP=0).
	(c)	Default soft key data by ROM data	Default soft key data (a) or (b) data shown above is not programmed.

8. The LCD display changes after a minute when the soft key data is assigned to all stations in a system using this command or the characters for the LCD display are changed using the AFDD command.

9. When the soft key data is programmed for the busy station, the LCD display does not change until the station becomes idle.

10. The same function data (FKY) cannot be assigned to both soft key and Feature key.

11. The created soft key pattern, that is assigned at SKP≠0, is applied to a Desktop terminal by designating the programmed SKP number in ADKS. As for the key pattern data in SKP=0, ADKS is not necessary. If SKP=0 is designated in ADKS, default key pattern data (refer to Figure "Soft Key Pattern") is applied to the Desktop terminal.

12. Soft key data must be reassigned after constructing FCCS network.

13. The data assignment of ADSL must be all deleted before assigning ADSLN.

14. For adding a new node to the system in which the soft key data is already assigned by the ADSLN command (**Note 1**), SKP (soft key pattern) and SN (status number) must be reassigned by the ADSLN command. (To reassign them, press [Get], [Del] and then [Set] buttons in that order.)

Note 1: It corresponds to the following situations:
• a new node is added to the existing standalone system and that system is upgraded to FCCS system.
• a new node is added to the existing FCCS system.

3. Data Entry Instructions

SKP: Soft Key Pattern [0-15]

Assign arbitrary number from 0 through 15.

0=soft key pattern shared in a system

1-15=soft key pattern allotted to each station

SN: Status Number [0-15]

0=Idle

1=Originating (Dial Tone connection)

2=Originating (Ringback Tone connection)

3=Called station busy (Busy Tone connection) **Note 1**

4=Communication in progress (Converse)

5=Consultation Hold (Controlling station)

6=Trunk busy (Busy Tone connection) **Note 1**

7=Not used

8=Consultation Hold when Called Station is Busy (Controlling station)

9=3-Party Conference Call

10-14=Not used

15=Others

Note 1: Available only for the Station where Busy Service is applied.

SKN: Soft Key Number [0-15]

Soft key number (SKN) appears on the PCPro.

FKY: Function Key Number [0-320]

See page 368, for 11 Characters Display for DESI-Less Terminal, see page 372.

Note: FKY 0 is used when a Function Key Number (FKY) is not assigned to a Soft Key Number (SKN).

Note: The default characters are shown in the Default Display.

DISP: Display Message on LCD

The soft key indication is displayed when DISP has been assigned by the AFDDN command.

Note: The soft key indication characters are not displayed as eight digits when using AFDD command.

Note: When the soft key indication is assigned by AFDD command, the data assignment of AFDD command has priority.

FKY (ADSL) Note 2, Note 3, Note 5

X: Available

FKY	SERVICE NAME	DEFAULT DISPLAY (6 digits)	DEFAULT DISPLAY (8 digits)	STATE										
				SN 0	SN 1	SN 2	SN 3	SN 4	SN 5	SN 6	SN 7	SN 8	SN 9	SN 15
1	Call Forwarding-Busy Line	FDB	CF-Busy	-	X	-	-	-	-	-	-	-	-	-
2	Call Forwarding-All Calls	FDA	CF-All	-	X	-	-	-	-	-	-	-	-	-
3	Executive Right of Way	E_OVR	Exe-Over	-	-	-	X	-	-	-	-	-	-	-
4	Call Waiting	CW	CallWait	-	-	-	X	-	-	-	-	-	-	-
5	Call Back	CB	CallBack	-	-	-	X	-	-	-	-	X	-	-
6	-	-		-	-	-	-	-	-	-	-	-	-	-
7	Save and Repeat	S&R	Save&Rep	X	X	X	X	X	-	X	-	-	-	-
8	-	-		-	-	-	-	-	-	-	-	-	-	-
9	Boss-Secretary-Message Waiting Lamp Control; Set	MW SET	MSG Wait	-	X	-	-	-	-	-	-	-	-	-
10	Call Hold	C_HOLD	CallHold	-	-	-	-	X	-	-	-	-	-	-
11	Boss-Secretary-Message Waiting Lamp Control; Can-	MWOFF	no MSGwt	-	X	-	-	-	-	-	-	-	-	-
12	Call Pickup-Group	PICK	PickUp	-	X	-	-	-	-	-	-	-	-	-
13	Three-way Calling	CONF	Conf.	-	-	-	-	-	X	-	-	-	-	-
14	Voice Call	VOICE	Voice	-	-	X	-	-	-	-	-	-	-	-
15	Speed Calling-System	S-SPD	SysSpeed	-	X	-	-	-	-	-	-	-	-	-
16	-	-		-	-	-	-	-	-	-	-	-	-	-
17	CAS SHF	CAS	CAS SHF	-	X	X	X	X	X	X	-	-	-	X
18	-	-		-	-	-	-	-	-	-	-	-	-	-
19	UCD Busy Out	UCDBO	Busy Out	X	-	-	-	X	-	-	-	-	-	-
20	-	-		-	-	-	-	-	-	-	-	-	-	-
21	Flash Button	FLASH	Flash	-	X	X	X	X	X	X	X	-	-	X
22	Call Forwarding-Don't An-	FDN	CF-NoAns	-	X	-	-	-	-	-	-	-	-	-
23, 24	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	ISDN Malicious Call (Australia and U.A.E. only)	C_RPT	MC-Trace	-	-	-	-	X	-	-	-	-	-	-
26	Speed Calling-Station	G_SPD	GrpSpeed	-	X	-	-	-	-	-	-	-	-	-
27-33	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	OAI Key Code 1	OAI 1	OAI-1		X			X						
35	OAI Key Code 2	OAI 2	OAI-2		X			X						
36	OAI Key Code 3	OAI 3	OAI-3		X			X						
37	OAI Key Code 4	OAI 4	OAI-4		X			X						
38	OAI Key Code 5	OAI 5	OAI-5		X			X						
39	OAI Key Code 6	OAI 6	OAI-6		X			X						
40	OAI Key Code 7	OAI 7	OAI-7		X			X						
41	OAI Key Code 8	OAI 8	OAI-8		X			X						
42	OAI Key Code 9	OAI 9	OAI-9		X			X						
43	OAI Key Code 10	OAI 10	OAI-10		X			X						
44	OAI Key Code 11	OAI 11	OAI-11		X			X						
45	OAI Key Code 12	OAI 12	OAI-12		X			X						
46	OAI Key Code 13	OAI 13	OAI-13		X			X						

FKY	SERVICE NAME	DEFAULT DISPLAY (6 digits)	DEFAULT DISPLAY (8 digits)	STATE										
				SN 0	SN 1	SN 2	SN 3	SN 4	SN 5	SN 6	SN 7	SN 8	SN 9	SN 15
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	Privacy Release	P-RLS	Priv.Rel	X	-	-	-	X	-	-	-	-	-	-
49	-	-	-	-		-	-	-	-	-	-	-	-	-
50	Do Not Disturb	DND	NoDist	X	X	X	-	X	-	-	-	-	-	-
51	Microphone	MIC	Mic	X	X	X	X	X	X	X	X	X	X	X
52-54	-	-	-	-		-	-	-	-	-	-	-	-	-
55	PAGE	BPAGE	Page	X	X	X	X	X	X	X	X	-	-	X
56-58	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	Release Key	RLS	Release	X	X	X	X	X	X	X	X	X	X	X
60	Manual Signaling Key	SIG	Signal		-	-	-	X	-	-	-	-	-	-
61-82	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	Retain Conference	CKEEP	CallKeep	-	-	-	-	X	-	-	-	-	-	-
84	Serial Call	SCALL	Serial	-	-	-	-	X	-	-	-	-	-	-
85	Internal Zone Paging	IZP	IZpaging	-	X	-	-	-	X	-	-	-	-	X
86		-	-	-	-	-	-	-	-	-	-	-	-	-
87	Wake Up Set	WUS	Wake Up	X	-	-	-	-	-	-	-	-	-	-
88	Wake Up Reset	WUR	NoWakeUp	X	-	-	-	-	-	-	-	-	-	-
89	Do Not Disturb Set	DDS	NoDist	X	-	-	-	-	-	-	-	-	-	-
90	Do Not Disturb Reset	DDR	Disturb	X	-	-	-	-	-	-	-	-	-	-
91	Room Cut Off Set	RCS	R-CutOff	X	-	-	-	-	-	-	-	-	-	-
92	Room Cut Off Reset	RCR	No RCOff	X	-	-	-	-	-	-	-	-	-	-
93	Message Waiting Set	MWS	MSG Wait	X	-	-	-	-	-	-	-	-	-	-
94	Message Waiting Reset	MWR	No MSGwt	X	-	-	-	-	-	-	-	-	-	-
95	Check In	C/I	CheckIn	X	-	-	-	-	-	-	-	-	-	-
96	Check Out	C/O	CheckOut	X	-	-	-	-	-	-	-	-	-	-
97	Status	STS	Status	X	-	-	-		-	-	-	-	-	-
98	Audit	AUD	Audit	X	-	-	-	-	-	-	-	-	-	-
99	Enter	ENT	Enter	X	-	-	-		-	-	-	-	-	-
100	Clear Enter	CE	ClearEnt	X	-	-	-		-	-	-	-	-	-
101	END	END	End	X		-	-	-		-	-	-	-	
102-112	-	-	-	-	-	-	-	-	-	-	-	-	-	-
113	Call ID Change Display	IDCHG	IDChange	X	-	-	-	X	X	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-	-	-
115	Call Pickup Expand	GPICK	G-PickUp	-	X	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-	-	-
117	Ringer Mute	RMUTE	RingMute	-	X	X	X	X	X	X	X	X	X	X
118, 119	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120	Next Page of Soft Keys (Scroll	>>>	>>>	X	X	X	X	X	X	X	X	X	X	X
121	Previous Page of Software Keys (Back Scroll Key)	<<<	<<<	X	X	X	X	X	X	X	X	X	X	X
122	-				-	-	-	-	-	-	-	-	-	-

FKY	SERVICE NAME	DEFAULT DISPLAY (6 digits)	DEFAULT DISPLAY (8 digits)	STATE										
				SN 0	SN 1	SN 2	SN 3	SN 4	SN 5	SN 6	SN 7	SN 8	SN 9	SN 15
123	Off Hook Ringing	OHR	OffHook	X	X	X	X	X	X	X	X	X	X	X
124	MUTE	MUTE	Mute	-	-	-	-	X	-	-	X	-	-	-
125	Headset/Handset **Note 4**	HSET	Headset	X	X	X	X	X	X	X	X	X	X	X
126	Transfer to Sub Station	PS	PS key	X	-	-	-	-	-	-	-	-	-	-
127	Boss Move	B_MV	BossMove	X	-	-	-	-	-	-	-	-	-	-
128	Call Block	IDRST	C-Block	X	X	-	-	X	-	-	-	-	-	-
129	Call Trace	RPT	C-Trace	-	X	-	-	X	-	-	-	-	-	-
130	-	-	-	-	-	-	-	-	-	-	-	-	-	-
131	Disconnect	DISC	Disc	-	-	-	-	-	X	-	-	-	X	-
132	Call Redirect (North America on-	REDIR	Redirect	X	-	X	-	-	-	-	-	-	-	X
133	Remote Call Hold (North Ameri-	RHOLD	Remote	-	-	-	-	-	-	-	-	-	-	X
134	-	-	-	-	-	-	-	-	-	-	-	-	-	-
135	-	-	-	-	-	-	-	-	-	-	-	-	-	-
136	Selectable Station Call Pickup	S PCK	Sel-Pick	-	X	-	-	-	-	-	-	-	-	-
137	Selectable Station Call Pickup	GSPCK	GSelPick	-	X	-	-	-	-	-	-	-	-	-
138-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
142	LOGOUT for IP Enabled Dterm	L-OUT	Logout	X	-	-	-	-	-	-	-	-	-	-
143-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
146	Expanded Speed Calling-Station	ESPD	Ex-Speed	-	X	-	-	-	-	-	-	-	-	-
147	-	-	-	-	-	-	-	-	-	-	-	-	-	-
148	Call Forwarding-Logout	FDL	CFLogout	-	X	-	-	-	-	-	-	-	-	-
149	Message Audible Alert (North America)	MSGA	MSGAlert											
150	-	-	-	-	-	-	-	-	-	-	-	-	-	-
151	MA-ID Setting	MAID	MA-IDSet	X	X	-	-	-	-	-	-	-	-	-
152-155	-	-	-	-	-	-	-	-	-	-	-	-	-	-
156	Visitor Key	VISIT	Visitor	X	-	-	-	-	-	-	-	-	-	-
157	-	-	-	-	-	-	-	-	-	-	-	-	-	-
158	Call Park Deluxe Hold/Retrieve-	PARK1	Park-1	-	X	-	-	X	-	-	-	-	-	-
159	Call Park Deluxe Hold/Retrieve-	PARK2	Park-2	-	X	-	-	X	-	-	-	-	-	-
160	Call Park Deluxe Hold/Retrieve-	PARK3	Park-3	-	X	-	-	X	-	-	-	-	-	-
161	Call Park Deluxe Hold/Retrieve-	PARK4	Park-4	-	X	-	-	X	-	-	-	-	-	-
162	Call Park Deluxe Hold/Retrieve-	PARK5	Park-5	-	X	-	-	X	-	-	-	-	-	-
163	Privacy Key	PVCY	Secret	X	X	X	X	X	X	X	X	X	X	X
164	-	-	-	-	-	-	-	-	-	-	-	-	-	-
165	SPD Name Assign	SPD	SPD Name	X	-	-	-	-	-	-	-	-	-	-
166	-	-	-	-	-	-	-	-	-	-	-	-	-	-
167	Mobility Access	MACC	Mob-ACS	X	X	-	-	-	-	-	-	-	-	-
168-176	-	-	-	-	-	-	-	-	-	-	-	-	-	-
177	Language Change	LANG	Language	X	-	-	-	-	-	-	-	-	-	-
178	Call History	iCall	History	X	-	-	-	-	-	-	-	-	-	-
179	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FKY	SERVICE NAME	DEFAULT DISPLAY (6 digits)	DEFAULT DISPLAY (8 digits)	STATE										
				SN 0	SN 1	SN 2	SN 3	SN 4	SN 5	SN 6	SN 7	SN 8	SN 9	SN 15
180	Phone book	Pbook	P.Book	X	-	-	-	-	-	-	-	-	-	-
181-183	-	-	-	-	-	-	-	-	-	-	-	-	-	-
184	Power Saving	PWRsv	PWR.save	X										
185-189	-	-	-	-	-	-	-	-	-	-	-	-	-	-
190	Display Reversing	RVERS	Reverse	X	X	X	X	X	X	X	X	X	X	X
191-192	-	-	-	-	-	-	-	-	-	-	-	-	-	-
193	Line Information Change Display	IDCHG	Myline	X	-	-	-	-	-	-	-	-	-	-
194-197	-	-	-	-	-	-	-	-	-	-	-	-	-	-
198	Large Font	LgFont	LgFont	X	X	X	X	X	X	X	X	X	X	X
199-320	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note 2: For DT800 Series, eight digits characters with a frame are displayed on LCD in default settings. When you assign the system data (ASYDL/N, System Data 1, Index 1258, Bit 2=1), six digits characters without a frame will be displayed. For other terminals other than DT800 Series, the soft key indication characters are displayed as six digits without a frame.

Note 3: The soft key indication characters are displayed as six digits when using AFDD command without a frame.

Note 4: When assigning the HEADSET Feature key, enter the related data to all Status Numbers (SN).

Note 5: For eight digits characters display, the soft key indication characters are displayed in mixed case only when the language is assigned as “English for NEC” or “Extension Languages (English_002.txt)” by ASLG command.

FKY (11 Characters Display for DESI-Less Terminal) Note 6,Note 7, Note 9

FKY	SERVICE NAME	11 CHARACTERS DISPLAY FOR DESI-LESS TERMINAL
1	Call Forwarding-Busy Line	CF-BusyLine
2	Call Forwarding-All Calls	CF-AllCalls
3	Executive Right of Way	Exe-Over
4	Call Waiting	CallWaiting
5	Call Back	Call Back
6	-	-
7	Save and Repeat	Save&Repeat
8	-	-
9	Boss-Secretary-Message Waiting Lamp Control; Set	MSG Waiting
10	Call Hold	Call Hold
11	Boss-Secretary-Message Waiting Lamp Control; Cancel	No MSG Wait
12	Call Pickup-Group	Call Pickup
13	Three-way Calling	Conference
14	Voice Call	Voice Call
15	Speed Calling-System	Sys-Speed
16	-	-
17	CAS SHF	CAS SHF
18	-	-
19	UCD Busy Out	UCD BusyOut
20	-	-
21	Flash Button	Flash
22	Call Forwarding-Don’t Answer	CF-NoAnswer
23, 24	-	-
25	ISDN Malicious Call (Australia and U.A.E. only)	MC-Trace
26	Speed Calling-Station	Group Speed
27-33	-	-
34	OAI Key Code 1	OAI-1
35	OAI Key Code 2	OAI-2
36	OAI Key Code 3	OAI-3
37	OAI Key Code 4	OAI-4
38	OAI Key Code 5	OAI-5
39	OAI Key Code 6	OAI-6
40	OAI Key Code 7	OAI-7
41	OAI Key Code 8	OAI-8
42	OAI Key Code 9	OAI-9
43	OAI Key Code 10	OAI-10
44	OAI Key Code 11	OAI-11
45	OAI Key Code 12	OAI-12
46	OAI Key Code 13	OAI-13
47	-	-
48	Privacy Release	Privacy Rel
49	-	-

FKY	SERVICE NAME	11 CHARACTERS DISPLAY FOR DESI-LESS TERMINAL
50	Do Not Disturb	No Disturb
51	Microphone	Microphone
52-54	-	-
55	PAGE	Page
56-58	-	-
59	Release Key	Release
60	Manual Signaling Key	Signaling
61-82	-	-
83	Retain Conference	Call Keep
84	Serial Call	Serial Call
85	Internal Zone Paging	IZ Paging
86	-	-
87	Wake Up Set	Wake Up
88	Wake Up Reset	No Wake Up
89	Do Not Disturb Set	No Disturb
90	Do Not Disturb Reset	Disturb
91	Room Cut Off Set	RoomCutOff
92	Room Cut Off Reset	No R-CutOff
93	Message Waiting Set	MSG Wait
94	Message Waiting Reset	No MSG Wait
95	Check In	Check In
96	Check Out	Check Out
97	Status	Status
98	Audit	Audit
99	Enter	Enter
100	Clear Enter	Clear Enter
101	END	End
102-112	-	-
113	Call ID Change Display	ID Change
114	-	-
115	Call Pickup Expand	CroupPickUp
116	-	-
117	Ringer Mute	Ringer Mute
118, 119	-	-
120	Next Page of Soft Keys (Scroll Key)	>>>
121	Previous Page of Software Keys (Back Scroll Key)	<<<
122	-	-
123	Off Hook Ringing	OffHookRing
124	MUTE	Mute
125	Headset/Handset **Note 8**	Headset
126	Transfer to Sub Station	PS Key
127	Boss Move	Boss Move
128	Call Block	Call Block
129	Call Trace	Call Trace

FKY	SERVICE NAME	11 CHARACTERS DISPLAY FOR DESI-LESS TERMINAL
130	-	-
131	Disconnect	Disconnect
132	Call Redirect (North America only)	Redirect
133	Remote Call Hold (North America only)	Remote Hold
134	-	-
135	-	-
136	Selectable Station Call Pickup	SelectPick
137	Selectable Station Call Pickup Group	GSelectPick
138-141	-	-
142	LOGOUT for IP Enabled Dterm	Logout
143-145	-	-
146	Expanded Speed Calling-Station	Ex-Speed
147	-	-
148	Call Forwarding-Logout	CF-Logout
149	Message Audible Alert (North America)	MSG-Alert
150	-	-
151	MA-ID Setting	MA-ID Set
152-155	-	-
156	Visitor Key	Visitor
157	-	-
158	Call Park Deluxe Hold/Retrieve-1	CallPark-1
159	Call Park Deluxe Hold/Retrieve-2	CallPark-2
160	Call Park Deluxe Hold/Retrieve-3	CallPark-3
161	Call Park Deluxe Hold/Retrieve-4	CallPark-4
162	Call Park Deluxe Hold/Retrieve-5	CallPark-5
163	Privacy Key	Num Secret
164	-	-
165	SPD Name Assign	SPD Name
166	-	-
167	Mobility Access	Mob-Access
168-176	-	-
177	Language Change	Language
178	Call History	CallHistory
179	-	-
180	Phone book	Phone Book
181-183	-	-
184	Power Saving	Power Save
185-189	-	-
190	Display Reversing	Reverse
191-192	-	
193	Line Information Change Display	Myline Disp
194-197	-	-
198	Large Font	Large Font
199-320	-	-

Note 6: For DT800/DT700/DT400/DT300 Series, 11 digits characters are displayed on LCD in default settings. When you assign the system data (ASYDL/N, System Data 1, Index 684, Bit 0=1), six digits characters will be displayed. For other terminals, six digits characters are displayed.

Note 7: The soft key indication characters are displayed as six digits when using AFDD command.

Note 8: When assigning the HEADSET Feature key, enter the related data to all Status Numbers (SN).

Note 9: For 11 digits characters display, the soft key indication characters are displayed in mixed case only when the language is assigned as “English for NEC” or “Extension Languages (English_002.txt)” by ASLG command.

4. Data Sheet

SOFT KEY PATTERN (SKP)	STATUS NUMBER (SN)	SOFT KEY NUMBER (SKN)	FUNCTION KEY CODE (FKY)	DISPLAY MESSAGE ON LCD (DISP)	REMARKS
		0			
		1			
		2			
		3			
		4			
		5			
		6			
		7			
		8			
		9			
		10			
		11			
		12			
		13			
		14			
		15			

AKYD: Assignment of Key Data for Dterm

1. General

This command assigns the following key data corresponding to each Line/Feature key on a Desktop terminal.

- Line Key Data
- Function Key Data
- Intercom Key Data
- DSS Key Data

2. Precautions

1. Desktop terminals (DT800 Series, DT700 Series, DT400 Series, DT300 Series, Dterm Series i, DtermIP INASET, and IP Enabled Dterm) have default key data. If the default data is to be used, assignment in AKYD is not necessary. For the default key data, refer to Precautions 6. The following shows the specification pertaining to data assignment for the Desktop terminal. **Note 1**

Note 1: Be sure to assign My Line data by this command when using 4-button/8-button type Desktop terminal (including Cradle type).

Key Data Assignment (AKYD)

TYPE OF TERMINAL		LINE/FEATURE KEY	NUMBER OF BUTTONS
DT800 Series: DT830	12-button type	KYN=1-12	12
	24-button type	KYN=1-24	24
	8-button type (DESI-LESS) **Note 3,**	KYN=1-32 (8 x 4=32)	32 (virtual)
DT800 Series: DT830G	12–button type (12DG)	KYN=1–12	12
	12–button type (12CG) (with Color LCD)	KYN=1–12	12
	24–button type (24DG)	KYN=1–24	24
	24–button type (24CG) (with Color LCD)	KYN=1–24	24
DT700 Series: DT710	2-button type (without LCD)	KYN=1-2	2
	6-button type	KYN=1-6	6
	8-button type (DESI-LESS) **Note 3, Note 4**	KYN=1-8	8 (virtual)

Key Data Assignment (AKYD)

TYPE OF TERMINAL		LINE/FEATURE KEY	NUMBER OF BUTTONS
DT700 Series: DT730	12-button type	KYN=1-12	12
	12-button type (with PSA Unit) **Note 2**	KYN=1-12	12
	24-button type	KYN=1-24	24
	24-button type (with 8LK Unit)	KYN=1-32 (24+8)	32
	8-button type (DESI-LESS) **Note 3**	KYN=1-32 (8 x 4=32)	32 (virtual)
DT700 Series: DT730G	12–button type (12DG)	KYN=1–12	12
	12–button type (12CG) (with Color LCD)	KYN=1–12	12
	24–button type (24DG)	KYN=1–24	24
	24–button type (24CG) (with Color LCD)	KYN=1–24	24
DT700 Series: DT750	Color LCD display type	KYN=1-32 (8 x 4=32)	32 (virtual)
DT700 Series: DT770G	Cradle type	KYN=1-2	2
DT400 Series: DT410	2-button type (without LCD)	KYN=1-2	2
	6-button type	KYN=1-6	6
DT400 Series: DT430	12-button type	KYN=1-12	12
	24-button type	KYN=1-24	24
	8-button type (DESI-LESS) **Note 3**	KYN=1-32 (8 x 4=32)	32 (virtual)
DT300 Series: DT310	2-button type (without LCD)	KYN=1-2	2
	6-button type	KYN=1-6	6
	12-button type (without LCD) **Note 5**	KYN=1-12	12
DT300 Series: DT330	12-button type	KYN=1-12	12
	12-button type (with PSA Unit) **Note 2**	KYN=1-12	12
	12-button type Cordless Terminal	KYN=1-12	12
	24-button type	KYN=1-24	24
	24-button type (with 8LK Unit)	KYN=1-32 (24+8)	32
	8-button type (DESI-LESS) **Note 3**	KYN=1-32 (8 x 4=32)	32 (virtual)
DtermIP INASET Classic	8-button type	KYN=1-8	8

Key Data Assignment (AKYD)

TYPE OF TERMINAL		LINE/FEATURE KEY	NUMBER OF BUTTONS
DtermIP INASET 240G	4-button type	KYN=1-16	16 (virtual)
DtermIP INASET 320G	8-button type	See Figure "DtermIP INASET"	32 (virtual)
DtermIP INASET 320C	8-button type	See Figure "DtermIP INASET"	32 (virtual)
DtermIP INASET 320C (XML version)	8-button type	KYN=1-16	16 (virtual)
Dterm Series *i*/ IP Enabled Dterm	4-button type	KYN=1-4	4
	8-button type	KYN=1-8	8
	16-button type	KYN=1-16	16
	32-button type	See Page 711	32

Note 2: Analog PSTN Adapter (PSA) Unit enables a Desktop terminal to switch to Public Switched Telephone Network (PSTN) when power failure occurs.

Note 3: DT800 Series: DT830 (8-button type)/DT700 Series: DT730 (8-button type)/DT710 (8-button type) DT400 Series: DT430 (8-button type) and DT300 Series: DT330 (8-button type), which are enabled to display programmable Line/Feature key information on its Liquid Crystal Display (LCD), will hereafter be called DESI-LESS.

Note 4: Dterm Series i mode is not supported.

Note 5: Available only in North America.

2. Before assigning the key data for a Desktop terminal using this command, be sure to assign the station data of the Desktop terminal using the ASDT command (TN, STN, TEC=12 (Desktop terminal)). The station number assigned by the ASDT command is referred to as My Line. **Note 6**

Note 6: This My Line corresponds to the physical port associated with the LENS of an ELC card.

3. By assigning another station line to a Line/Feature key using this command, an incoming call terminated to a station line other than My Line can be answered or can be transferred as in the case of the My Line. A station line other than My Line is referred to as a Sub Line. A Sub Line can be assigned not only to a Desktop terminal but to any conventional telephone. In addition, the station data for My Line and Sub Line must be assigned by the ASDT command before the key data is assigned. When Sub Line and My Line belong to different tenants, use the ATNR command to clear the Tenant-to-Tenant Restriction.

4. A Multi-Line key (the key for My Line and Sub Line) on the Desktop terminal can be assigned as Prime Line. If a separate Prime Line is not assigned, My Line can serve as the Prime Line. When the user goes off-hook, the Prime Line is automatically selected on the Desktop terminal.

5. A Virtual Line can be assigned as a Sub Line of the Desktop terminal. The Virtual Line can be used the same way as the My Line for outgoing calls and other service operations. **Note 7**

Note 7: Virtual Line-A virtual LENS exists only in memory, but does not exist physically. Data can be assigned but no hardware is required. For example, LENS=000311. The virtual LENS is assigned by the ASDT command in the same way as an ordinary line (the telephone class is TEC=18: Virtual Line).

6. If the station user accepts the default key data setting, the data assignment of this command is not required. The default data for each Line/Feature key is shown below.

Default Data for Each Line/Feature key (AKYD)

KEY NO.	DEFAULT DATA	KEY NO.	DEFAULT DATA
1	Call Pickup	9	Prime Line
2	Call Forwarding-Busy Line / Don't Answer	10	Speed Calling One-Touch
3	Call Forwarding-All Calls	11	Speed Calling One-Touch
4	Executive Right-of Way	12	Speed Calling One-Touch
5	Voice Call	13	Speed Calling One-Touch
6	Message Reminder	14	Speed Calling One-Touch
7	Save and Repeat	15	Speed Calling One-Touch
8	Last Number Call	16	Speed Calling-System

However, the key data for all the keys must be assigned if any key is changed from the default settings. For the key data settings of 24/32-button Desktop terminal, if there is no data assignment to KYN 1-16, the default data is applied to KYN 1-16. Also, the key data turns back to the default settings if the data assigned by this command is deleted. **Note 8**

Note 8: KYN 13-16 do not exist for DT800 Series: DT830 (12-button type)/DT830G (12-button type (12DG/12CG))/DT700 Series: DT730 (12-button type)/DT730G (12-button type (12DG/12CG))/DT400 Series: DT430 (12-button type) and DT300 Series: DT330 (12-button type). Assignment of key data is mandatory for Desktop terminal with 8 keys or less.

7. The ability to assign Sub Line appearances across Module Groups is available when ASYD command SYS1, INDEX 321, b0=1 is assigned. For more information, refer to Expanded Multiple Line Operation-D [E-26] of Data Programming Manual- Business. (This feature is available for Dterm Series *i* and DT830 Series/DT700 Series/DT400 Series/DT300 Series terminals only.)

8. Expanded Multiple Line Operation-D [E-26] service is available only when KD=0 (Line) is entered. This service is not available when KD=1 (Intercom) or KD=2 (DSS key) is assigned.

9. When assigning key data to the Line/Feature key, take the following precautions:

   (a) There is no default key data provided for Desktop terminal (8-button type/24-button type/32-button type). The key data for all of the Line/Feature keys must be programmed.

   (b) My Line key must be programmed.

   For 8-button type, My Line key must be assigned within KYN=1-8, and KYN=9-16 should be assigned KYI=0 (Not used).

For 24-button type/32-button type, My Line key must be assigned within KYN=1-24. Use TP 1/3 to assign KYI=0 (Not used) to KYN=33-40. If assigning My Line beyond KYN=17, key data must be assigned to any key within KYN=1-16.

(c) Unused Line/Feature key should be assigned as KYI=0 (Not used).

(d) The following features are basically assigned to Flex keys:

FKY=8: Last Number Call
FKY=13: CONF (Three-Way Calling)
FKY=15: DIRECTORY (Speed Calling-System)
FKY=18: TRANSFER (Call Transfer-All Calls)
FKY=20: HOLD (Non-Exclusive Hold/Exclusive Hold)
FKY=27: Originate (ORG) (Only for Dterm Series *i* [DTR-8D-1R/DTR-16D-1R/DTR-32D-1R])
FKY=28: ANSWER
FKY=49: Speed Calling-One Touch
FKY=51: MIC
FKY=52: SPEAKER
FKY=57: RECALL
FKY=147: MESSAGE

10. If assigning My Line when using a 16 or less -button type terminal, My Line must be assigned to any key within the number of existing keys.

11. The applicable Tenant Number (TN) range is designated by the ASYD command, SYS1, INDEX 8.

12. The number of available Line/Feature keys differs according to LKP parameter in ADKS command. For the details, refer to ADKS command.

13. FKY=49: Speed Calling-One Touch can be assigned to a maximum of 16 consecutive Key Numbers (KYNS). **Note 9**

Note 9: Speed Calling-One Touch data can be saved by BOSD command, with the exception of IP stations, which use the MEM_HDD command.

14. FKY=49: Speed Calling-One Touch cannot be programmed to fixed function keys (Flex keys).

15. For Call Forwarding-Busy Line and Call Forwarding-Don't Answer, refer to ASYD, SYS1, INDEX 5 (separate/common access for CF-Busy Line and CF-Don't Answer). If common access codes are assigned, only one key is required to activate the features. If separate access codes are assigned, separate Feature keys must be assigned.

16. <DT800 Series/DT700 Series/Dterm Series *i*> **Note 10**
FKY=55: One-Touch changeover (PAGE) should be assigned when registering destination numbers greater than 16 digits as one-touch speed calling codes.

<DT400 Series/DT300 Series>
FKY=55: One-Touch changeover (PAGE) should be assigned when registering destination numbers greater than 20 digits as one-touch speed calling codes.

Note 10: Each one-touch button is assigned a two-page memory (Page 0 and Page 1). One destination number can be assigned on a page basis. When originating an outgoing call, the page of one-touch button can be designated by this Feature key.

17. In conjunction with intercom service, take the following precautions:

    (a) Before assigning the Intercom key data using this command, assign the Intercom Group data using the command AICD/ADIM.

    (b) When providing the Intercom service, assign "The response priority when the SPEAKER button is pressed or the station goes off-hook" in the parameter PRI. When not providing the Intercom service, assign PRI=0.

18. When key data is assigned for a Digital terminal by this command, the corresponding ELC card must be reinitialized (by flipping the MB key OFF → ON). When key data is assigned for an IP Multi Line terminal/SIP Multiple Line terminal, the terminal is automatically reset. **Note 11**

Note 11: When key data is assigned while the telephone is being used (making a call, on call, receiving a call with My Line, etc.), the telephone is reset after it becomes idle. When the telephone is in headset mode (headset key lamp is ON), the telephone is not automatically reset. Reset the telephone with manual operation or by the DISD command, after this data assignment.

19. A maximum of eight soft keys can be assigned via Soft Key Assignment Feature key (FKY=122). **Note 12**

Note 12: Six soft keys available at the maximum when page scroll key soft key is displayed on the LCD.

20. Soft key data to be assigned via Soft Key Assignment Feature key (FKY=122) is not available for each different condition on the Desktop terminal.

21. The same function data cannot be assigned to both Feature key and soft key.

22. FKY 34 to 47 programmed in this command must be set to all nodes providing ACD service for FCCS Network.

23. The conditions of the Cordless Terminal DT330 (12BT)) are as follows.

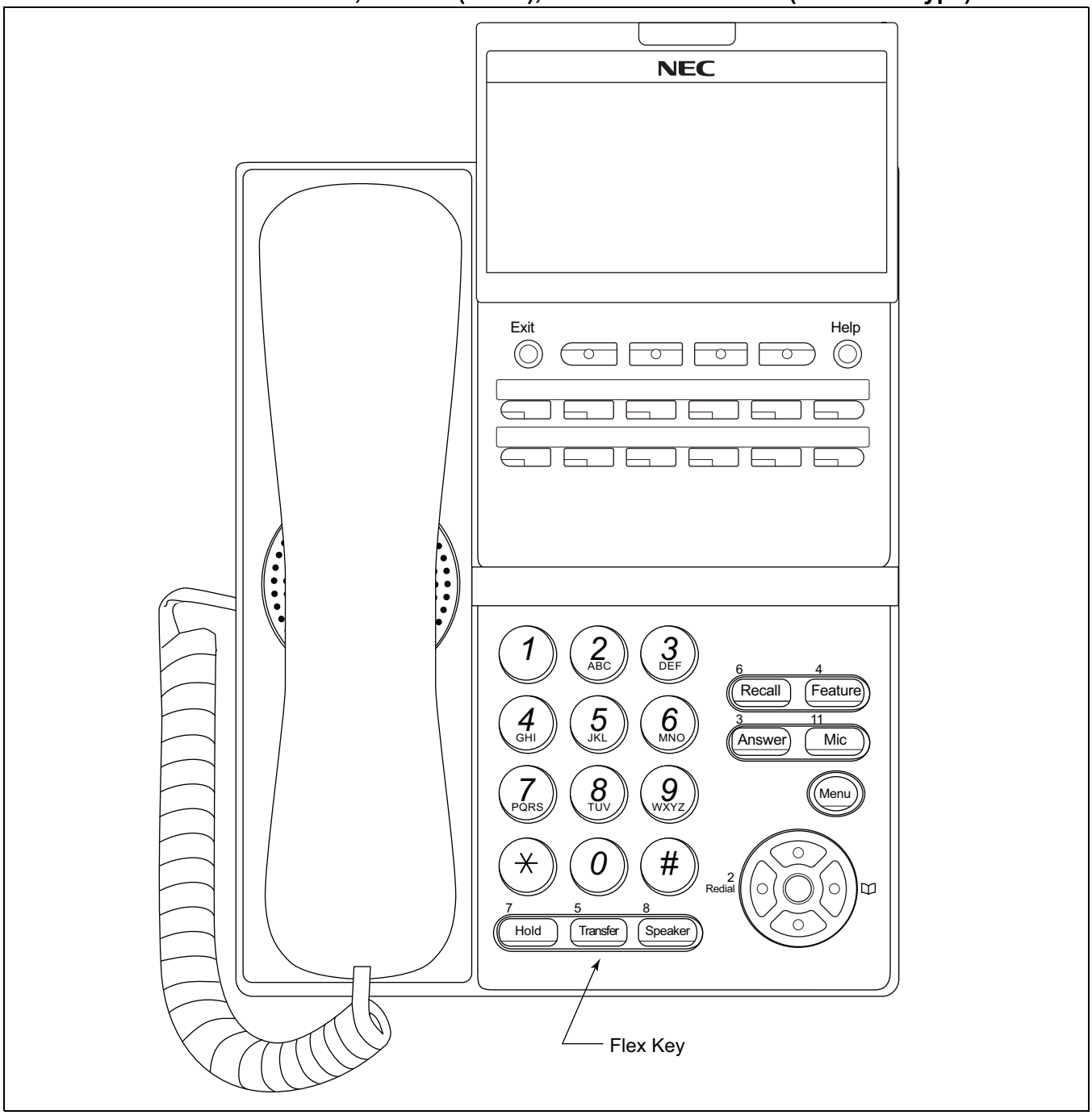
    - The Line keys (KYN1-8) are the same settings between the Bluetooth Cradle and the Bluetooth Handset. When the Line key of the Bluetooth Cradle is changed to other function, the Line key of Bluetooth Handset is changed to the same function. Different functions cannot be assigned between the Bluetooth Cradle and the Bluetooth Handset.

    - When the Flex key of the Bluetooth Cradle is changed to other function, the Flex key of Bluetooth Handset is changed to the same function. Different functions cannot be assigned between the Bluetooth Cradle and the Bluetooth Handset.

Note: However, the Transfer key on the Bluetooth Handset cannot be assigned to other function, because being used as the key for clearing the display of message such as "Base Unit in Use" in an idle state (equivalent to the Exit key of the Bluetooth Cradle). And the CALL key and the DISC key cannot be assigned for other feature.

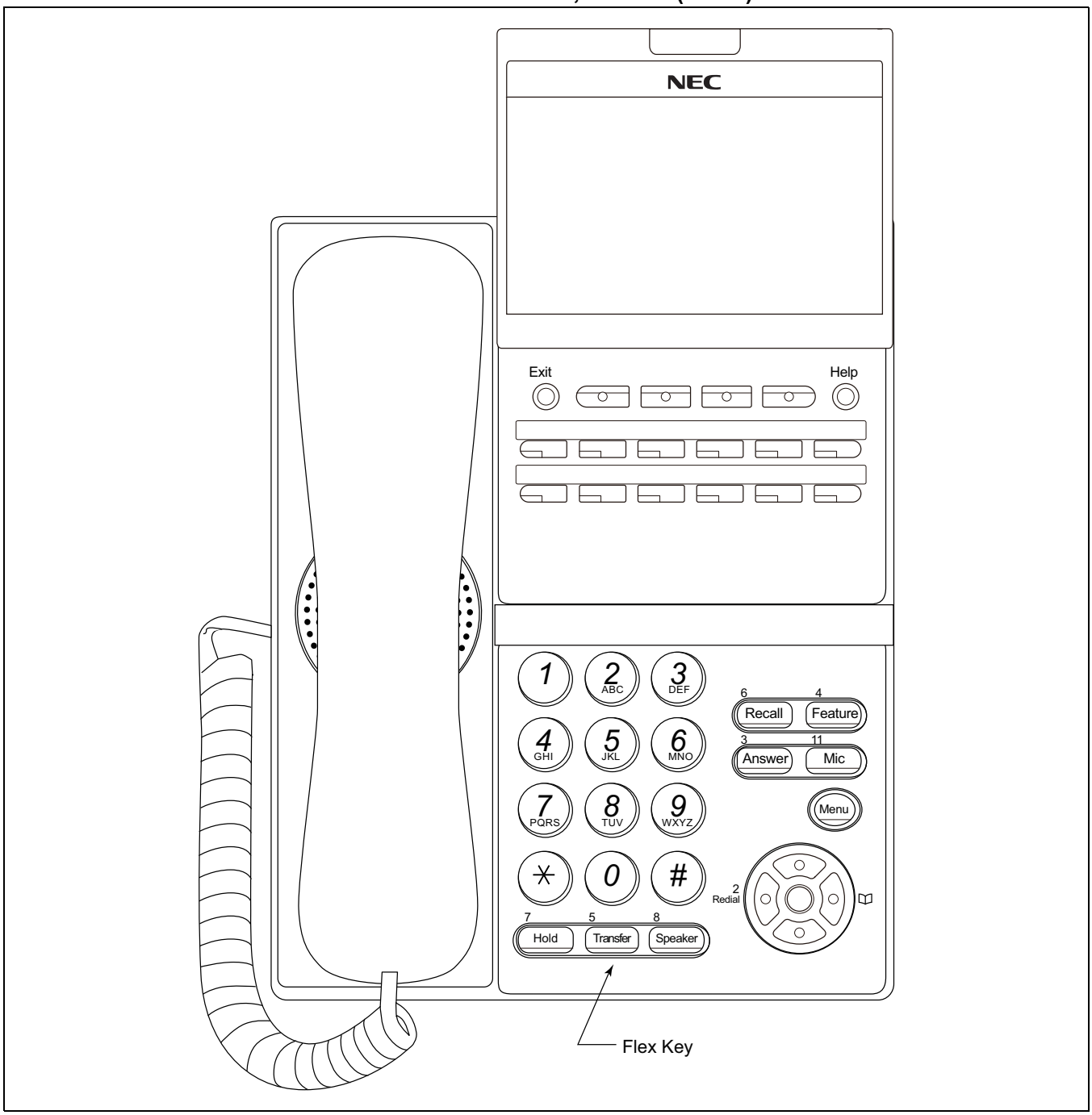
Note: DT330 (12BT) is currently not supported on IPG.

DT800 Series: DT830, DT830G(12DG), DT400 Series: DT430 (12-button Type)



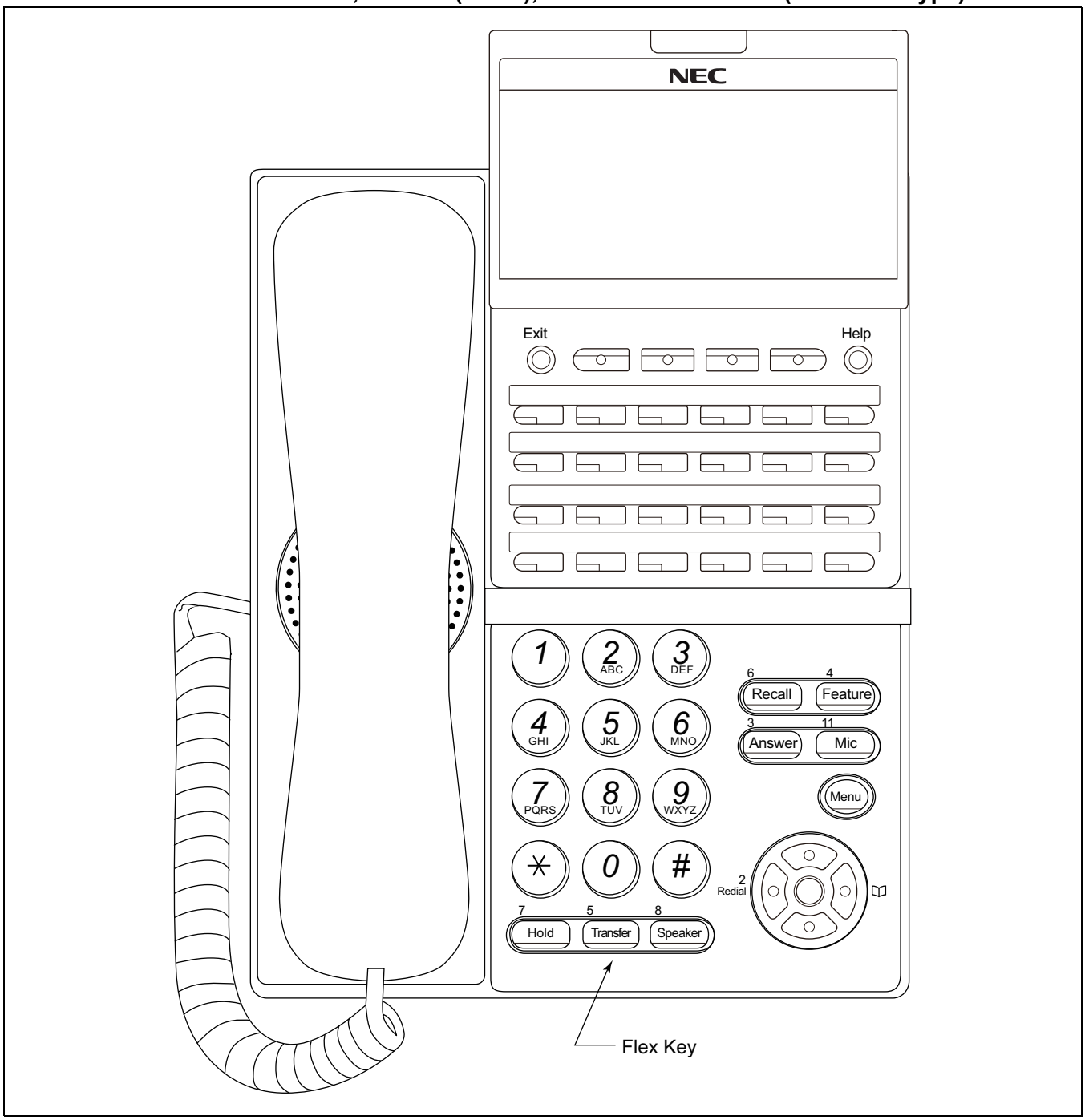
Note: You cannot assign any feature other than Redial (Last Number Call) to the Redial key on DT800 Series.

DT800 Series: DT830, DT830G(12CG)



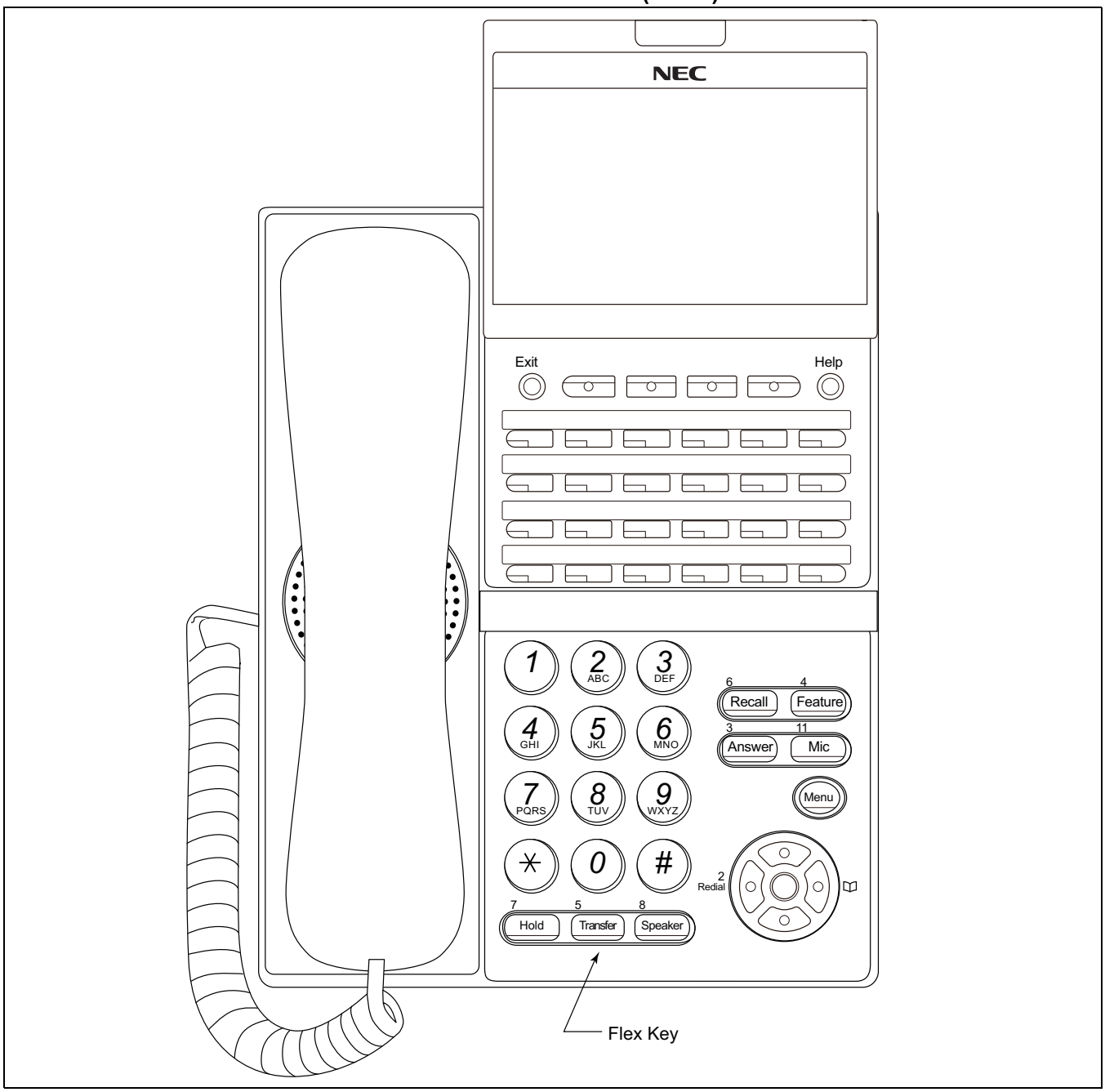
Note: You cannot assign any feature other than Redial (Last Number Call) to the Redial key on DT800 Series.

DT800 Series: DT830, DT830G(24DG), DT400 Series: DT430 (24-button Type)



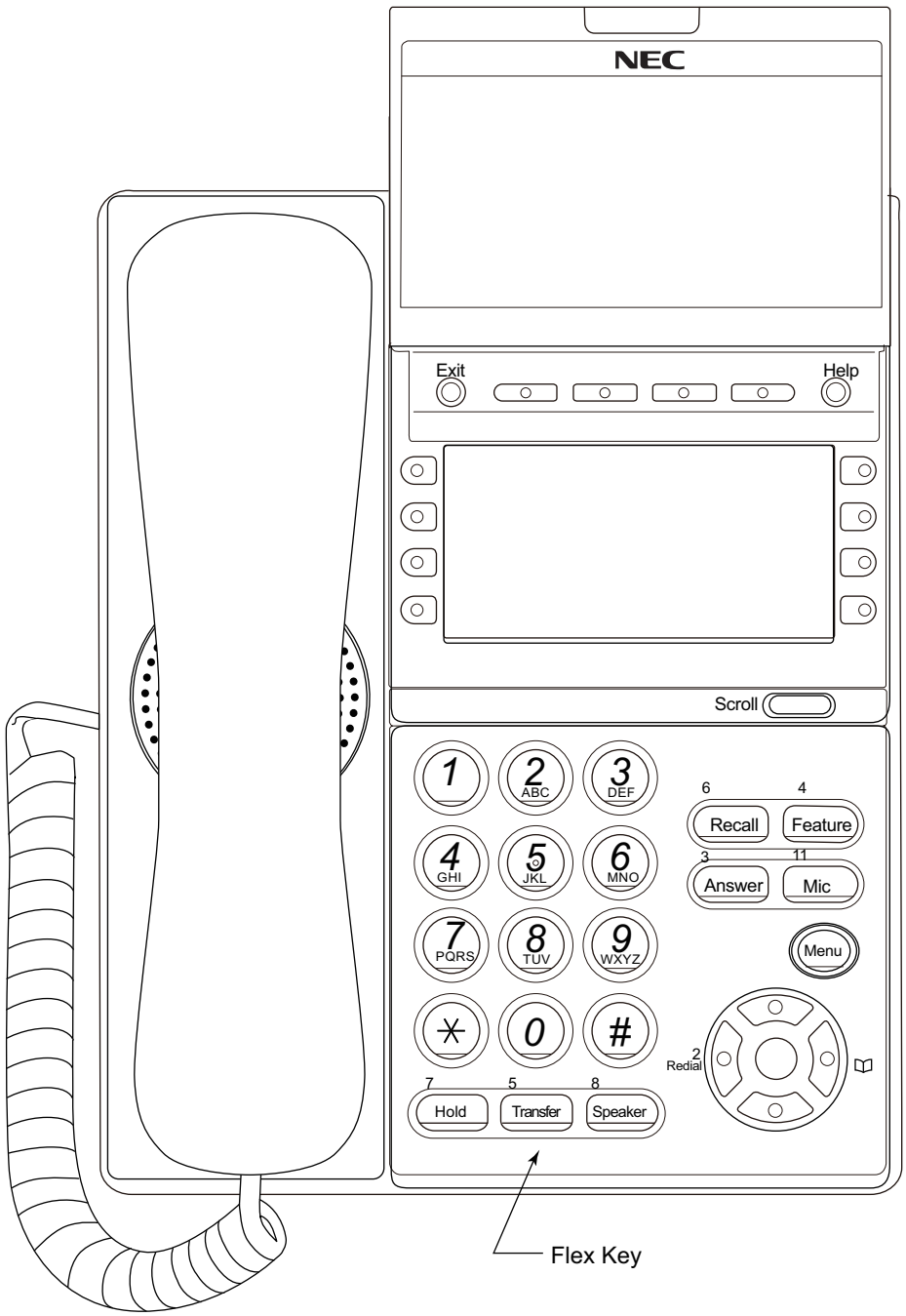
Note: You cannot assign any feature other than Redial (Last Number Call) to the Redial key on DT800 Series.

DT800 Series: DT830G(24CG)



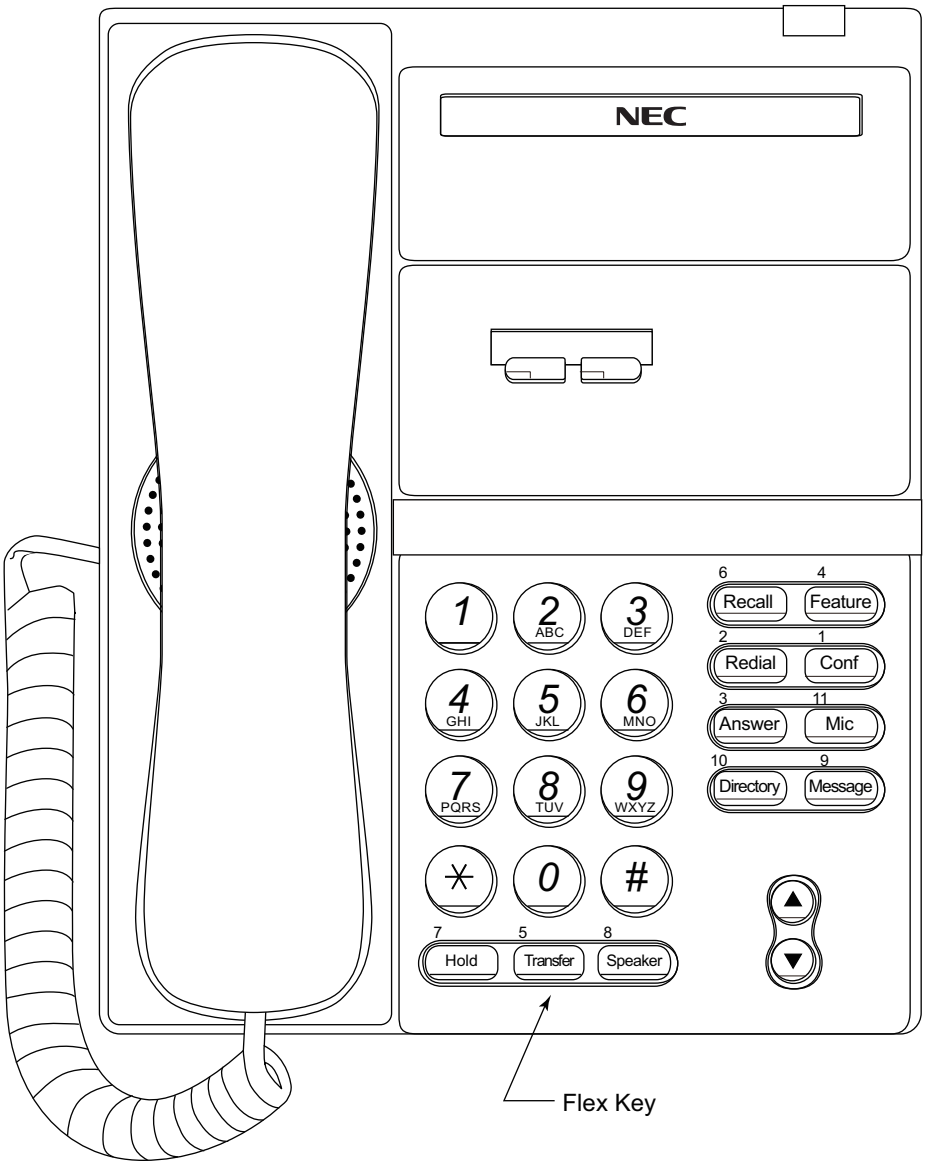
Note: You cannot assign any feature other than Redial (Last Number Call) to the Redial key on DT800 Series.

DT800 Series: DT830/DT400 Series: DT430 (8-button Type DESI-LESS)

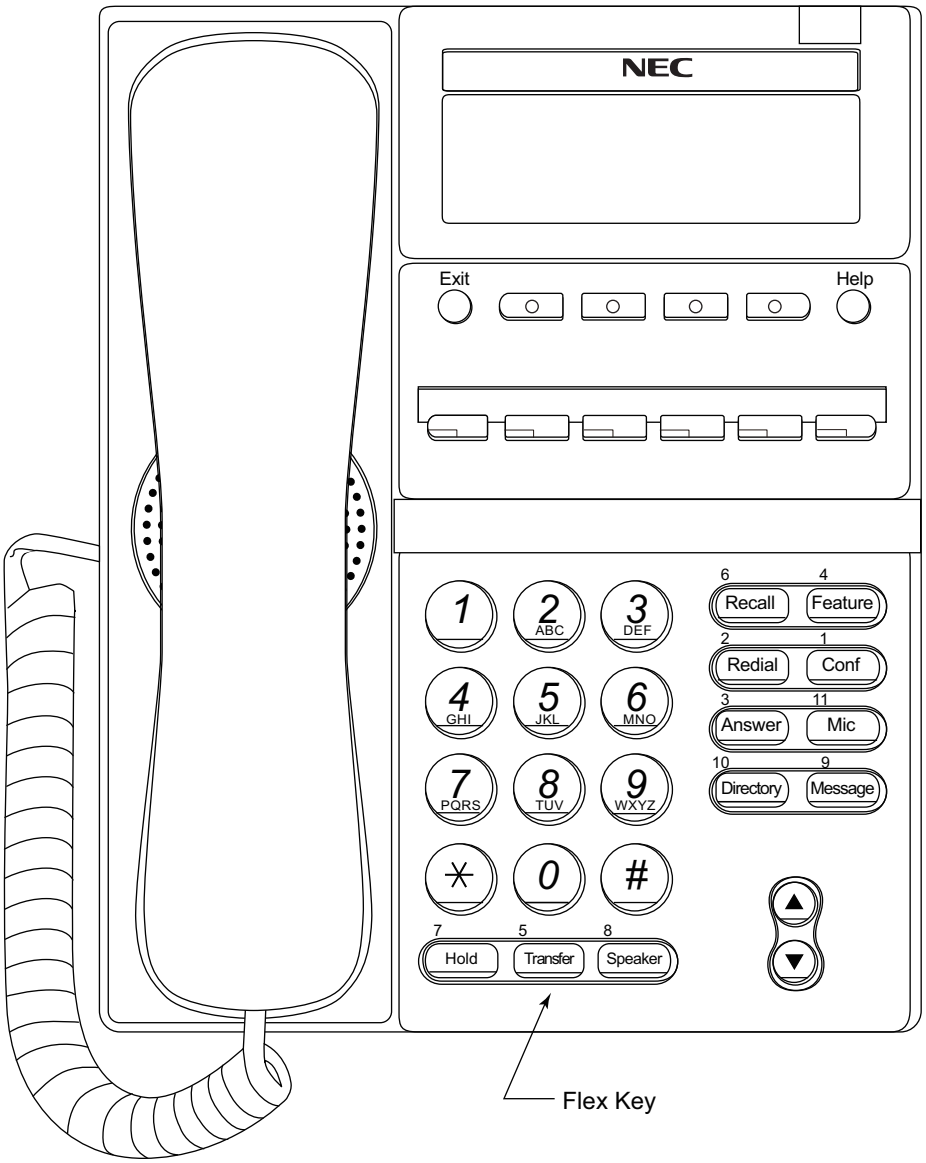


Note: You cannot assign any feature other than Redial (Last Number Call) to the Redial key on DT800 Series.

DT400 Series: DT410 (2-button Type without LCD)



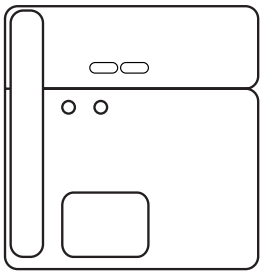
DT400 Series: DT410 (6-button Type)



Key Number Appearance of DT800/DT700/DT400/DT300 Series

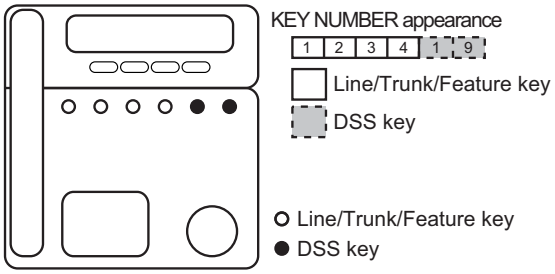
(1) 2 Buttons

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)
- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)
- Line Key Pattern=3 (32 Line/Feature keys)

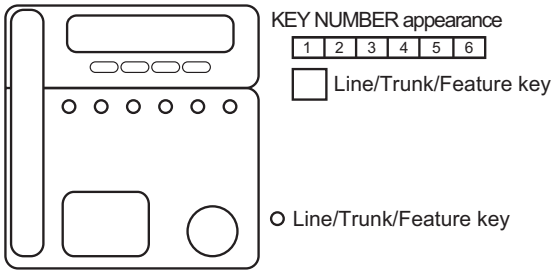


(2) 6 Buttons

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)

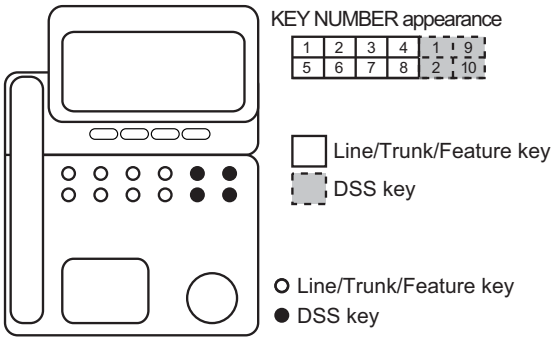


- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)
- Line Key Pattern=3 (32 Line/Feature keys)

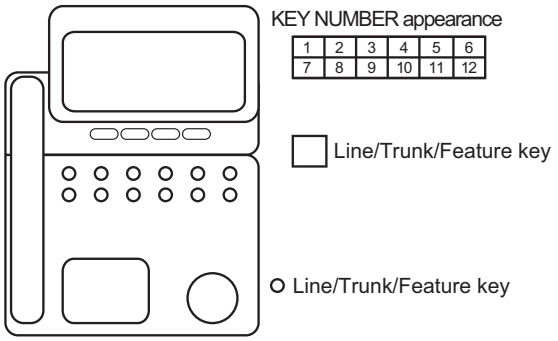


(3) 12 Buttons

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)



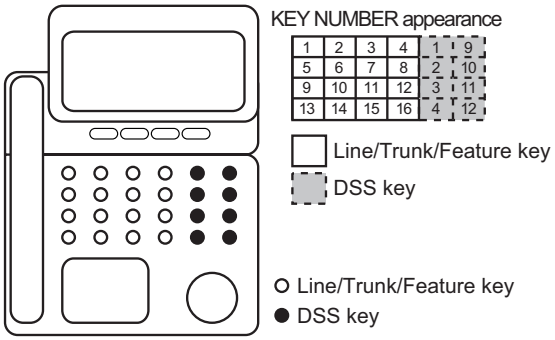
- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)
- Line Key Pattern=3 (32 Line/Feature keys)



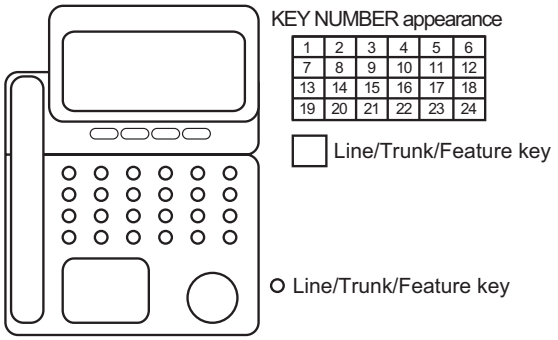
Key Number Appearance of DT800/DT700/DT400/DT300 Series

(4) 24 Buttons

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)

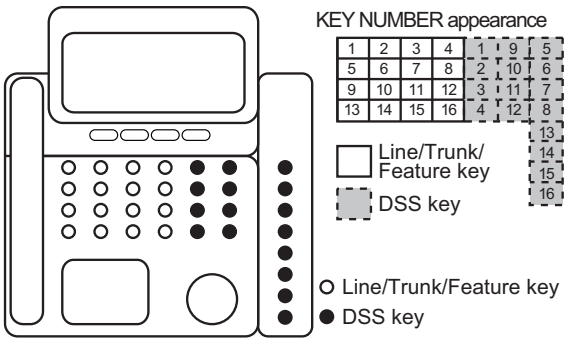


- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)
- Line Key Pattern=3 (32 Line/Feature keys)

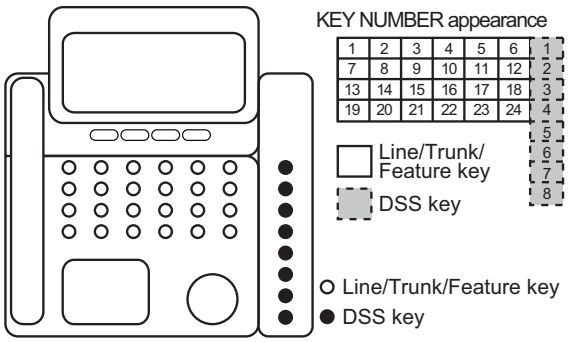


(5) 24 Buttons +8LK Unit

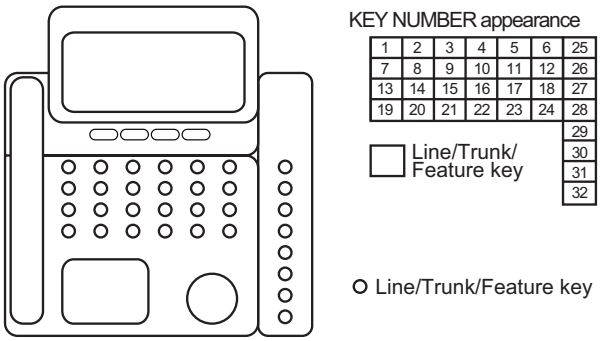
- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)



- Line Key Pattern=2 (24 Line/Feature keys + 8 DSS keys)



- Line Key Pattern=3 (32 Line/Feature keys)

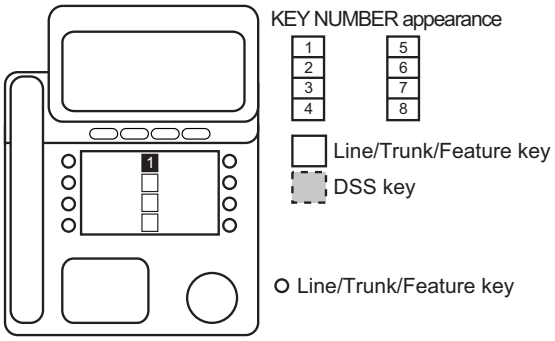


Key Number Appearance of DT800/DT700/DT400/DT300 Series

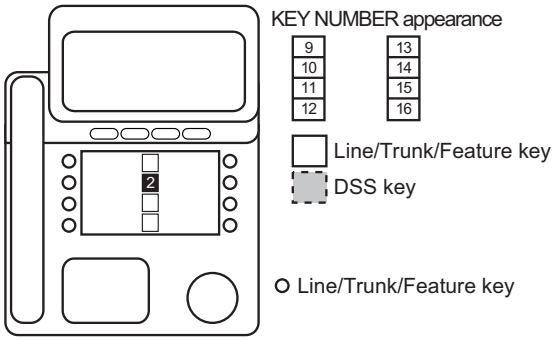
(6) 8 Buttons (DESI–Less)

- Line Key Pattern=1 (16 Line/Feature keys + 16 DSS keys)

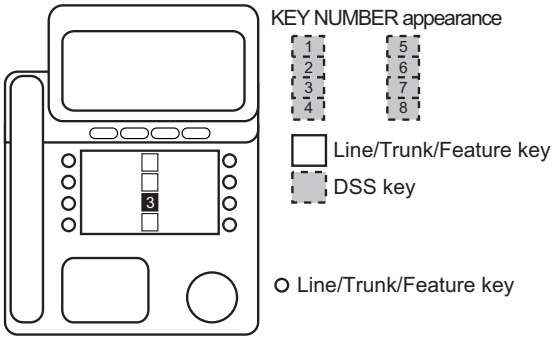
- Page 1



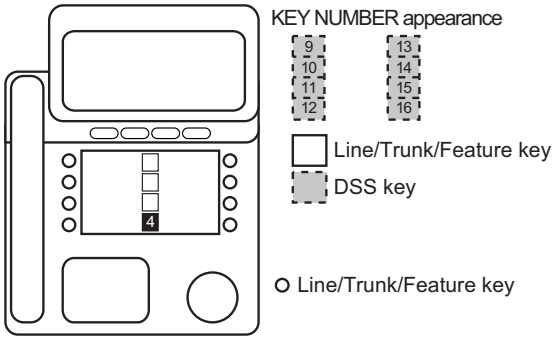
- Page 2



- Page 3



- Page 4

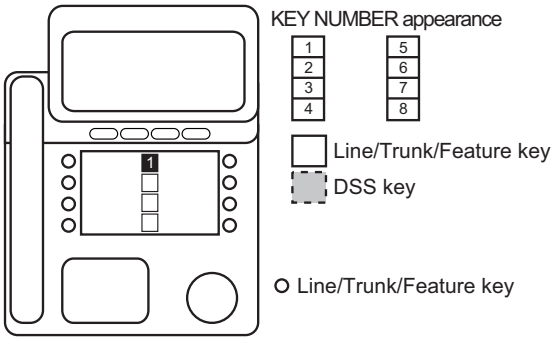


Key Number Appearance of DT800/DT700/DT400/DT300 Series

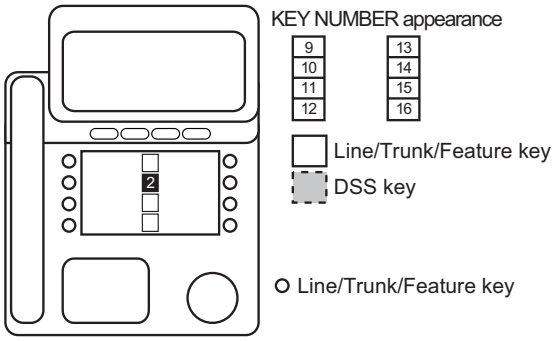
(6) 8 Buttons (DESI–Less)

- Line Key Pattern=2 (16 Line/Feature keys + 16 DSS keys)

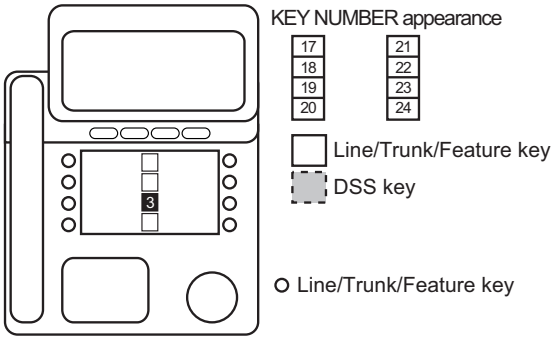
- Page 1



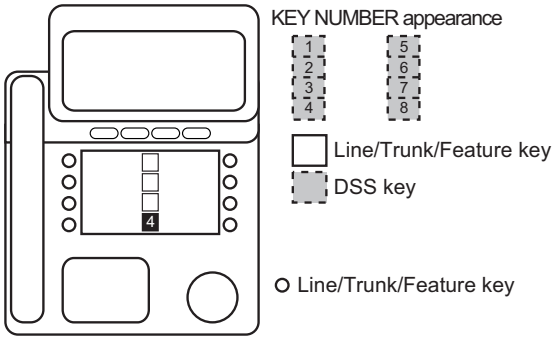
- Page 2



- Page 3



- Page 4

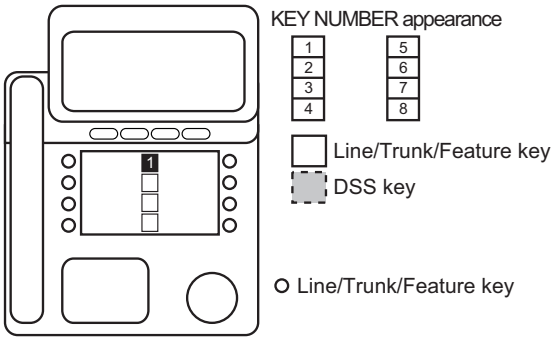


Key Number Appearance of DT800/DT700/DT400/DT300 Series

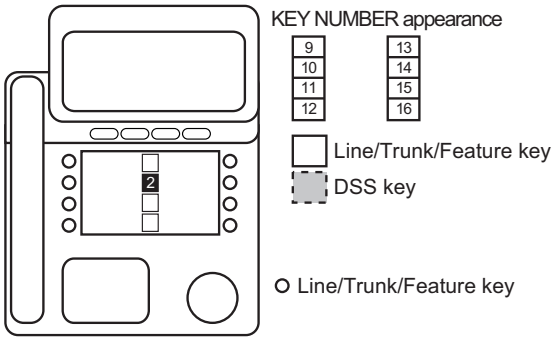
(6) 8 Buttons (DESI–Less)

- Line Key Pattern=3 (32 Line/Feature keys)

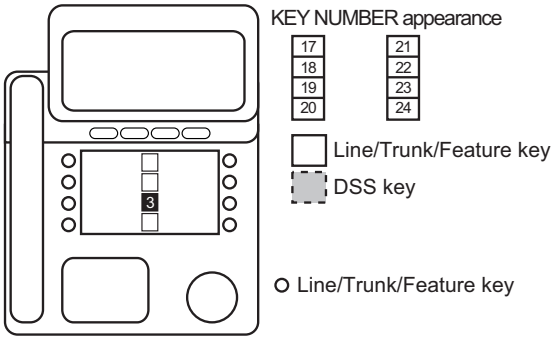
- Page 1



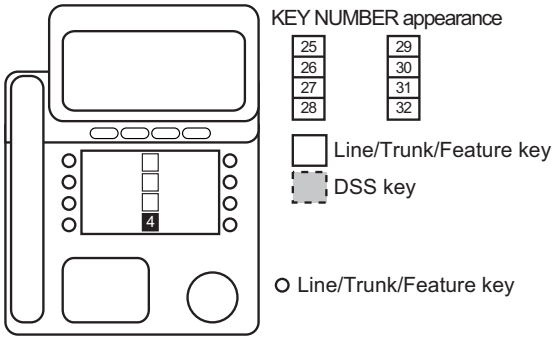
- Page 2



- Page 3



- Page 4



List of Function Key Number (FKY)

FKY	Service Name	Related SFI	Remarks
1	Call Forwarding-Busy Line	SFI 9	SFI 9 (Call Forwarding-Busy Line)
2	Call Forwarding-All Calls	SFI 7	SFI 7 (Call Forwarding-All Calls)
3	Executive Right-of-Way	SFIs 3, 4, 11	SFI 3 (Executive Right-of-Way [Calling]) SFI 4 (Executive Right-of-Way [Called]) SFI 11 (Data Line Security)
4	Call Waiting	SFIs 5, 6, 11	SFI 5 (Call Waiting-Originating [Calling]) SFI 6 (Call Waiting-Originating [Called]) SFI 11 (Data Line Security)
5	Call Back	SFI 2	SFI 2 (Call Back)
6	*Message Reminder		
7	*Save and Repeat		
8	Last Number Called	SFI 44	SFI 44 (Last Number Call Redial)
9	Boss-Secretary-Message Waiting Lamp Control; Set	SFIs 74, 82	SFI 74 (Message Waiting Lamp Setting from the ATT or Station [Called]) SFI 82 (Message Waiting Lamp Setting from the Station [Calling])
10	Call Hold	SFI 10	SFI 10 (Call Hold)
11	Boss-Secretary-Message Waiting Lamp Control; Cancel	SFIs 74, 82	SFI 74 (Message Waiting Lamp Setting from the ATT or Station [Called]) SFI 82 (Message Waiting Lamp Setting from the Station [Calling])
12	Call Pickup-Group		
13	Three-Way Calling		
14	Voice Call		
15	Speed Calling-System	SFI 12	SFI 12 (Speed Calling-System)
16	Function		
17	*CAS SHF		
18	*Call Transfer-All Calls		
19	*UCD Busy Out		
20	*Non-Exclusive Hold/Exclusive Hold (Hold)		
21	*Flash Button		
22	*Call Forwarding-Don't Answer	SFI 8	SFI 8 (Call Forwarding Don't Answer)
23	-		
24	-		
25	ISDN Malicious Call Trace	SFI 120	SFI 120 (ISDN Malicious Call Trace) **Note:** Australia and U.A.E. only
26	Speed Calling-Station	SFI 19	SFI 19 (Individual Speed Calling)
27	Originate (ORG)		

FKY	Service Name	Related SFI	Remarks
28	Answer (ANS)		
29	Data (DATA)		
30	Display/Auto (DSPY/AUTO)		
31	Data Transfer (DTX)		
32	-		
33	Message Waiting Lamp (MW)		
34	OAI Key Code 1 (Break)		
35	OAI Key Code 2 (Auto/Man)		**Note:** Automatic/Manual answer key, toggles between Automatic Answer Mode and Manual Answer Mode.
36	OAI Key Code 3		
37	OAI Key Code 4 (Work)		
38	OAI Key Code 5 (Night)		
39	OAI Key Code 6 (Trunk Trouble)		
40	OAI Key Code 7 (Tally)		
41	OAI Key Code 8		
42	OAI Key Code 9		
43	OAI Key Code 10		
44	OAI Key Code 11		
45	OAI Key Code 12		
46	OAI Key Code 13		
47	UCD Call Waiting Lamp (Business)/END (Hotel)/OAI Key Code 14		
48	Privacy Release		
49	*Speed Calling-One Touch		
50	Do Not Disturb	SFI 114	SFI 114 (Display on a Desktop terminal when DND is set: 0/1=RST/DND)
51	*Microphone		
52	Speaker		
53	-		
54	-		
55	*PAGE		
56	-		
57	*Recall		
58	-		
59	Release Key		
60	*Manual Signaling Key		

FKY	Service Name	Related SFI	Remarks
61	-		
:			
65	-		
66	Record		
67	Address		
68	-		
69	Stop Recording		
70	Continue Recording		
71	Erase		
72	-		
73	Listen		
74	-		
75	Call Park Group-D Key 1		
76	Call Park Group-D Key 2		
77	Call Park Group-D Key 3		
78	Call Park Group-D Key 4		
79	Call Park Group-D Key 5		
80	Call Park Group-D Key 6		
81	Call Park Group-D Key 7		
82	Call Park Group-D Key 8		
83	Retain Conference		
84	*Serial Call		
85	Internal Zone Paging	SFI 134	SFI 134 (Internal Zone Page Calling)
86	-		
87	Wake Up Set		**Note:** For a guest station (Desktop terminal) in a Hotel system, this FKY is used for WU status lamp.
88	Wake Up Reset		
89	DND (Do Not Disturb) Set		**Note:** For a guest station (Desktop terminal) in a Hotel system, this FKY is used for DND status lamp.
90	DND (Do Not Disturb) Reset		
91	Room Cut Off Set		**Note:** For a guest station (Desktop terminal) in a Hotel system, this FKY is used for RC status lamp.
92	Room Cut Off Reset		
93	Message Waiting Set		**Note:** For a guest station (Desktop terminal) in a Hotel system, this FKY is used for MW status lamp.
94	Message Waiting Reset		
95	Check In		

FKY	Service Name	Related SFI	Remarks
96	Check Out		
97	Status		
98	Audit		
99	Enter		
100	Clear Enter		
101	End		
102	-		
:			
112	-		
113	Call ID Change Display		
114	-		
115	Call Pickup Expand		
116	Call Hold Conference		
117	*Ringer Mute		
118	Call Return		
119	-		
120	Next Page of Software Keys (Scroll Key)		
121	Previous Page of Software Keys (Back Scroll Key)		
122	Soft Key Assignment		
123	Off Hook Ringing (OFR)		
124	Mute (MUTE)		
125	Headset/Handset		
126	Transfer to Sub Station		
127	Boss Move		
128	Call Block		
129	Call Trace	SFI 170	SFI 170 (Call Trace)
130	Calling Party CLIR/CLIP Control (Australia only)		
131	Disconnect Key		
132	Call Redirect (North America only)		
133	Remote Call Hold (North America only)		
134	-		
135	-		
136	Selectable Station Call Pickup	SFI 183	SFI 183 (Selectable Station Call Pickup)
137	Selectable Station Call Pickup Group	SFI 183	SFI 183 (Selectable Station Call Pickup)
138	-		

FKY	Service Name	Related SFI	Remarks
139	-		
140	-		
141	-		
142	Logout (for DtermIP)		
143	Voice Coding Mode Change		
144	Voice Coding Select		
145	-		
146	Expanded Speed Calling-Station/Group		
147	Message		
148	Call Forwarding-Logout	SFI 198	SFI 198 (Call Forwarding-Logout)
149	Message Audible Alert (North America only)		
150	-		
151	MA-ID Setting	SFI 213	SFI 213 (MA-ID Setting)
152	-		
153	Day/Night Mode		
154	Multi-Internal Zone Paging (North America only)		
155	-		
156	Visitor Key		
157	Change of Handset		
158	Call Park Deluxe-Hold/Retrieve-1	SFI 220 SFI 68	SFI 220 (Call Park Deluxe Entry/Retrieve) SFI 68 (Call Park-Called)
159	Call Park Deluxe-Hold/Retrieve-2		
160	Call Park Deluxe-Hold/Retrieve-3		
161	Call Park Deluxe-Hold/Retrieve-4		
162	Call Park Deluxe-Hold/Retrieve-5		
163	Privacy Key		
164	-		Feature C-7D enhancement
165	SPD Name Assign		
166	Call Pickup Preview		
167	Mobility Access	SFI 234	SFI 234 (Mobility Access)
168	Hotel One-Touch Calling Service Key 1		
169	Hotel One-Touch Calling Service Key 2		
170	Hotel One-Touch Calling Service Key 3		
171	Hotel One-Touch Calling Service Key 4		
172	Hotel One-Touch Calling Service Key 5		

FKY	Service Name	Related SFI	Remarks
173	Hotel One-Touch Calling Service Key 6		
174	Hotel One-Touch Calling Service Key 7		
175	Hotel One-Touch Calling Service Key 8		
176	-		
177	Language Change Key (LANG)		
178	Call History	SFI 238	SFI 238 (Call History)
179	Conference Disconnect key (North America only.)		
180	Phone book	SFI 245 SFI 246	SFI 245 (Local Phone book) SFI 246 (System Phone book)
181	Link Down Notice		
182	-		
183	Call Park Group -D Hold Key		
184	Power Saving		
185	Call Pickup Key Group-1		
186	Call Pickup Key Group-2		
187	Call Pickup Key Group-3		
188	Call Pickup Key Group-4		
189	Call Pickup Key Group-5		
190	Display Reversing		RVERS
191	-		
192	Mobile Service		
193	Line Information Change Display		
194	Record (USB)		Not Used
195	Connect (Smart Device)		
196	Path (Smart Device)		
197	Security		
198	Large Font		
199-320			

AKYD_T: Assignment of Key Data for Dterm – Telephone Number

1. General

This command assigns the Line key, Function key, Intercom key, and DSS key data corresponding to each Line/Feature key on a Desktop terminal. The station data of AKYD command can be assigned by using Telephone Number.

2. Precautions

1. Only the Telephone numbers assigned by the ALGSN command can be used. Telephone numbers by the ALGSL command are not available in this command.

2. When logging into a Local Node (LN), only the Telephone numbers allocated to the stations within the logged–in node can be used in this command. Also, when logging into the NCN, data memory of any node in the network can be written.

3. Prior to this command, Telephone numbers must be allocated by using the ALGSN command. Only the Telephone numbers assigned by the ALGSN command can be used. Telephone numbers by the ALGSL command are not available in this command.

4. Desktop terminals (DT800 Series, DT700 Series, DT400 Series, DT300 Series, Dterm Series *i,* DtermIP INASET, and IP Enabled Dterm) have default key data. If the default data is to be used, assignment in AKYD/AKYD_T is not necessary. For the default data, refer to Precautions 9. **Note 1**

Note 1: Be sure to assign MY LINE data by AKYD/AKYD_T command when using 4–button/8–button type Desktop terminal (including Cradle type).

The following shows the specification pertaining to data assignment for the Desktop terminal.

Key Data Assignment (AKYD_T)

TYPE OF TERMINAL		LINE/FEATURE KEY	NUMBER OF BUTTONS
DT800 Series: DT830	12-button type	KYN=1-12	12
	24-button type	KYN=1-24	24
	8-button type (DESI-LESS) **Note 3,**	KYN=1-32 (8 x 4=32)	32 (virtual)
DT800 Series: DT830G	12–button type (12DG)	KYN=1–12	12
	12–button type (12CG) (with Color LCD)	KYN=1–12	12
	24–button type (24DG)	KYN=1–24	24
	24–button type (24CG) (with Color LCD)	KYN=1–24	24
DT700 Series: DT710	2-button type (without LCD)	KYN=1-2	2
	6-button type	KYN=1-6	6
	8-button type (DESI-LESS) **Note 3, Note 4**	KYN=1-8	8 (virtual)

TYPE OF TERMINAL		LINE/FEATURE KEY	NUMBER OF BUTTONS
DT700 Series: DT730	12-button type	KYN=1-12	12
	12-button type (with PSA Unit) **Note 2**	KYN=1-12	12
	24-button type	KYN=1-24	24
	24-button type (with 8LK Unit)	KYN=1-32 (24+8)	32
	8-button type (DESI-LESS) **Note 3**	KYN=1-32 (8 x 4=32)	32 (virtual)
DT700 Series: DT730G	12–button type (12DG)	KYN=1–12	12
	12–button type (12CG) (with Color LCD)	KYN=1–12	12
	24–button type (24DG)	KYN=1–24	24
	24–button type (24CG) (with Color LCD)	KYN=1–24	24
DT700 Series: DT750	Color LCD display type	KYN=1-32 (8 x 4=32)	32 (virtual)
DT700 Series: DT770G	Cradle type	KYN=1-2	2
DtermIP INASET	8-button type	KYN=1-8	8
DT400 Series: DT410	2-button type (without LCD)	KYN=1-2	2
	6-button type	KYN=1-6	6
DT400 Series: DT430	12-button type	KYN=1-12	12
	24-button type	KYN=1-24	24
	8-button type (DESI-LESS) **Note 3**	KYN=1-32 (8 x 4=32)	32 (virtual)
DT300 Series: DT310	2-button type (without LCD)	KYN=1-2	2
	6-button type	KYN=1-6	6
	12-button type (without LCD) **Note 5**	KYN=1-12	12
DT300 Series: DT330	12-button type	KYN=1-12	12
	12-button type (with PSA Unit) **Note 2**	KYN=1-12	12
	12-button type Cordless Terminal	KYN=1-12	12
	24-button type	KYN=1-24	24
	24-button type (with 8LK Unit)	KYN=1-32 (24+8)	32
	8-button type (DESI-LESS) **Note 3**	KYN=1-32 (8 x 4=32)	32 (virtual)

Note 2: Analog PSTN Adapter (PSA) Unit enables a Desktop terminal to switch to Public Switched Telephone Network (PSTN) when power failure occurs.

Note 3: DT800 Series: DT830 (8-button type)/DT700 Series: DT730 (8-button type)/DT710 (8-button type) DT400 Series: DT430 (8-button type) and DT300 Series: DT330 (8-button type), which are enabled to display programmable Line/Feature key information on its Liquid Crystal Display (LCD), will hereafter be called DESI-LESS.

Note 4: Dterm Series i mode is not supported.

Note 5: Available only in North America.

5. Before assigning the key data for a Desktop terminal using this command, be sure to assign the station data of the Desktop terminal using the ASDT command (TN, STN, TEC=12 (Desktop terminal)). The station number assigned by the ASDT command is referred to as MY LINE. **Note 6**

Note 6: This My Line corresponds to the physical port associated with the LENS of an ELC card.

6. By assigning another station line to a Line/Feature key using this command, an incoming call terminated to a station line other than My Line can be answered or can be transferred as in the case of the My Line. A station line other than My Line is referred to as a Sub Line. A Sub Line can be assigned not only to a Desktop terminal but to any conventional telephone. In addition, the station data for My Line and Sub Line must be assigned by the ASDT command before the key data is assigned. When the Sub Line and the My Line belong to different tenants, use the ATNR command to clear the Tenant–to–Tenant Restriction.

7. A Multi–Line key (the key for My Line and Sub Line) on the Desktop terminal can be assigned as Prime Line. If a separate Prime Line is not assigned, the My Line can serve as the Prime Line. When the user goes off–hook, the Prime Line is automatically selected on the Desktop terminal.

8. A Virtual Line can be assigned as a Sub Line of the Desktop terminal. The Virtual Line can be used the same way as the My Line for outgoing calls and other service operations. **Note 7**

Note 7: Virtual Line–A virtual LENS exists only in memory, but does not exist physically. Data can be assigned but no hardware is required.

Example: LENS=000311. The virtual LENS is assigned by the ASDT command in the same way as an ordinary line. (The telephone class is **TEC=18**: Virtual Line)

9. If the station user accepts the default key data settings, the data assignment of this command is not required. The default data for each Line/Feature key is shown below.

Default Data for Each Line/Feature Key

KEY NO.	DEFAULT DATA	KEY NO.	DEFAULT DATA
1	Call Pickup	9	Prime Line
2	Call Forwarding–Busy Line / Don't Answer	10	Speed Calling One–Touch
3	Call Forwarding–All Calls	11	Speed Calling One–Touch
4	Executive Right of way	12	Speed Calling One–Touch
5	Voice Call	13	Speed Calling One–Touch
6	Message Reminder	14	Speed Calling One–Touch
7	Save And Repeat	15	Speed Calling One–Touch
8	Last Number Call	16	Speed Calling–System

However, the key data for all the keys must be assigned even a key is changed from the default settings. For the key data settings of 24/32–button Desktop terminal, if there is no data assignment to KYN 1–16, the default data is applied to KYN 1–16. Also, the key data turns back to the default settings if the data assigned by this command is deleted. **Note 8**

Note 8: KYN 13-16 do not exist for DT800 Series: DT830 (12-button type)/DT830G (12-button type (12DG/12CG))/DT700 Series: DT730 (12-button type)/DT730G (12-button type (12DG/12CG))/DT400 Series: DT430 (12-button type) and DT300 Series: DT330 (12-button type). Assignment of key data is mandatory for Desktop terminal with 8 keys or less.

10. The ability to assign Sub Line appearances across Module Groups is available when ASYD command SYS1, INDEX 321, b0=1 is assigned. For more information, refer to Expanded Multiple Line Operation-D [E-26] of Data Programming Manual- Business. (This feature is available for Dterm Series *i* and DT800 Series/DT700 Series/DT400 Series/DT300 Series terminals only.)

11. When assigning key data to the Line/Feature key, take the following precautions:

    (a) There is no default key data provided for Desktop terminal (8-button type/24-button type/32-button type). The key data for all of the Line/Feature keys must be programmed.

    (b) My Line key must be programmed.

    For 8-button type, My Line key must be assigned within KYN=1-8, and KYN=9-16 should be assigned KYI=0 (Not used).

    For 24-button type/32-button type, My Line key must be assigned within KYN=1-24. Use TP 1/3 to assign KYI=0 (Not used) to KYN=33-40. If assigning My Line beyond KYN=17, key data must be assigned to any key within KYN=1-16.

    (c) Unused Line/Feature keys should be assigned as KYI=0 (Not used).

    (d) The following function keys are basically fixed:

    FKY=8:Last Number Call
    FKY=13:CONF (Three–Way Calling)
    FKY=15:DIRECTORY (Speed Calling–System)
    FKY=18:TRANSFER (Call Transfer–All Calls)
    FKY=20:HOLD (Non–Exclusive Hold/Exclusive Hold)
    FKY=27:Originate (ORG) (Only for Dterm Series *i* [DTR–8D–1R/DTR–16D–1R/DTR–32D–1R])

FKY=28:ANSWER
FKY=49:Speed Calling–One Touch
FKY=51:MIC
FKY=52:SPEAKER
FKY=57:RECALL
FKY=147: MESSAGE

12. If assigning My Line when using a 16 or less-button type terminal, My Line must be assigned to any key within the number of existing keys.

13. The applicable Tenant Number (TN) range is designated by the ASYD command, SYS1, INDEX 8.

14. The number of available Line/Feature keys differs according to LKP parameter in ADKS command. For the details, refer to ADKS command.

15. The FKY=49: Speed Calling–One Touch can be assigned to a maximum of 16 consecutive Key Numbers (KYNS). **Note 9**, **Note 10**

Note 9: Speed Calling–One Touch data can be saved by the BOSD command.

Note 10: Speed Calling–One Touch data must be assigned to the Key Numbers (KYN) in the consecutive order.

16. Speed Calling–One Touch feature cannot be programmed on the fixed function keys (Flex keys).

17. For Call Forwarding–Busy Line and Call Forwarding–Don't Answer, refer to ASYD, SYS1, INDEX 5 (separate/common access for CF–Busy Line and CF–Don't Answer). If common access codes are assigned, only one key is required to activate the features. If separate access codes are assigned, separate Feature keys must be assigned.

18. <DT800 Series/DT700 Series/Dterm Series *i*> **Note 11**
FKY=55: One-Touch changeover (PAGE) should be assigned when registering destination numbers greater than 16 digits as one-touch speed calling codes.

<DT400 Series/DT300 Series>
FKY=55: One-Touch changeover (PAGE) should be assigned when registering destination numbers greater than 20 digits as one-touch speed calling codes.

Note 11: Each one–touch button is assigned a two–page memory (Page 0 and Page 1). One destination number can be assigned on a page basis. When originating an outgoing call, the page of one–touch button can be designated by this Feature key.

19. In conjunction with intercom service, take the following precautions:

    (a) Before assigning the Intercom key data using this command, assign the Intercom Group data using the command AICD/ADIM.

    (b) When providing the Intercom service, assign "The response priority when the SPEAKER button is pressed or the station goes off–hook" in the parameter PRI. When not providing the Intercom service, assign PRI=0.

20. When using this command to assign Digital terminal's key data, ELC card must be reinitialized (MB switch UP-DOWN).

21. When key data is assigned for a Digital terminal by this command, the corresponding ELC card must be reinitialized (by flipping the MB key OFF → ON). When key data is assigned for an IP Multi Line terminal/SIP Multiple Line terminal, the terminal is automatically reset. **Note 12**

Note 12: When key data is assigned while the telephone is being used (making a call, on call, receiving a call with My Line, etc.), the telephone is reset after it becomes idle. When the telephone is in headset mode (headset key lamp is ON), the telephone is not automatically reset. Reset the telephone with manual operation or by the DISD command, after this data assignment.

22. A maximum of eight soft keys can be assigned via Soft Key Assignment Feature key (FKY=122). **Note 13**

Note 13: Six soft keys available at the maximum when page scroll key soft key is displayed on the LCD.

23. Soft key data to be assigned via Soft Key Assignment Feature key (FKY=122) is not available for each different condition on the Desktop terminal.

24. The same function data cannot be assigned to both Feature key and soft key.

25. Expanded Multiple Line Operation-D [E-26] service is available only when KD=0 (Line) is entered. This service is not available when KD=1 (Intercom) or KD=2 (DSS key) is assigned.

26. FKY 34 to 47 programmed in this command must be set to all nodes to be provided ACD service for FCCS Network.

27. The conditions of the Cordless Terminal DT330 (12BT)) are as follows.

    - The Line keys (KYN1-8) are the same settings between the Bluetooth Cradle and the Bluetooth Handset. When the Line key of the Bluetooth Cradle is changed to other function, the Line key of Bluetooth Handset is changed to the same function. Different functions cannot be assigned between the Bluetooth Cradle and the Bluetooth Handset.

    - When the Flex key of the Bluetooth Cradle is changed to other function, the Flex key of Bluetooth Handset is changed to the same function. Different functions cannot be assigned between the Bluetooth Cradle and the Bluetooth Handset.

Note: However, the Transfer key on the Bluetooth Handset cannot be assigned to other function, because being used as the key for clearing the display of message such as "Base Unit in Use" in an idle state (equivalent to the Exit key of the Bluetooth Cradle). And the CALL key and the DISC key cannot be assigned for other feature.

TP: Type of Desktop Terminal [0–5]

The data assigned to the parameter TP may differ depending on the parameter KYI, or KYI2. See the following table.

DATA	MEANING	
	DT800 Series/DT400 Series/ DT700 Series/DT300 Series	**Dterm Series *i***
0	2/6/8/12–button type (Flex keys remain the same)	4/8/16–button type
1	24–button type or 24–button type with Add on Module (Flex keys remain the same)	32–button type with Add on Module
2 **Note 6**	2/6/8/12–button type (Changes occur to Flex keys)	4/8/16–button type + Flex keys
3 **Note 7**	24–button type or 24–button type with Add on Module (Changes occur to Flex keys)	32–button type with Add on Module + Flex keys
4	Not used.	
5		

Note 6: When no data is assigned to KYN2, the system recognizes as TP=0.

Note 7: (1) When no data is assigned to KYN=17 or later/KYN2, the system recognizes as TP=0.
(2) When data is assigned to KYN=17 or later and no data is assigned to KYN2, the system recognizes as
TP=1.

List of Function Key Number (FKY)

FKY	Service Name	Related SFI	Remarks
1	Call Forwarding–Busy Line	SFI 9	SFI 9 (Call Forwarding–Busy Line)
2	Call Forwarding–All Calls	SFI 7	SFI 7 (Call Forwarding–All Calls)
3	Executive Right–of–Way	SFIs 3, 4, 11	SFI 3 (Executive Right–of–Way [Calling]) SFI 4 (Executive Right–of–Way [Called]) SFI 11 (Data Line Security)
4	Call Waiting	SFIs 5, 6, 11	SFI 5 (Call Waiting–Originating [Calling]) SFI 6 (Call Waiting–Originating [Called]) SFI 11 (Data Line Security)
5	Call Back	SFI 2	SFI 2 (Call Back)
6	*Message Reminder		
7	*Save and Repeat		
8	Last Number Called	SFI 44	SFI 44 (Last Number Call Redial)
9	Boss–Secretary–Message Waiting Lamp Control; Set	SFIs 74, 82	SFI 74 (Message Waiting Lamp Setting from the ATT or Station [Called]) SFI 82 (Message Waiting Lamp Setting from the Station [Calling])
10	Call Hold	SFI 10	SFI 10 (Call Hold)
11	Boss–Secretary–Message Waiting Lamp Control; Cancel	SFIs 74, 82	SFI 74 (Message Waiting Lamp Setting from the ATT or Station [Called]) SFI 82 (Message Waiting Lamp Setting from the Station [Calling])
12	Call Pickup–Group		
13	Three–Way Calling		
14	Voice Call		
15	Speed Calling–System	SFI 12	SFI 12 (Speed Calling–System)
16	Function		
17	*CAS SHF		
18	*Call Transfer–All Calls		
19	*UCD Busy Out		
20	*Non–Exclusive Hold/Exclusive Hold (Hold)		
21	*Flash Button		
22	*Call Forwarding–Don't Answer	SFI 8	SFI 8 (Call Forwarding Don't Answer)
23	–		
24	–		
25	ISDN Malicious Call Trace	SFI 120	SFI 120 (ISDN Malicious Call Trace) **Note:** Australia and U.A.E. only
26	Speed Calling–Station	SFI 19	SFI 19 (Individual Speed Calling)
27	Originate (ORG)		

FKY	Service Name	Related SFI	Remarks
28	Answer (ANS)		
29	Data (DATA)		
30	Display/Auto (DSPY/AUTO)		
31	Data Transfer (DTX)		
32	–		
33	Message Waiting Lamp (MW)		
34	OAI Key Code 1 (Break)		
35	OAI Key Code 2 (Auto/Man)		**Note:** Automatic/Manual answer key, toggles between Automatic Answer Mode and Manual Answer Mode.
36	OAI Key Code 3		
37	OAI Key Code 4 (Work)		
38	OAI Key Code 5 (Night)		
39	OAI Key Code 6 (Trunk Trouble)		
40	OAI Key Code 7 (Tally)		
41	OAI Key Code 8		
42	OAI Key Code 9		
43	OAI Key Code 10		
44	OAI Key Code 11		
45	OAI Key Code 12		
46	OAI Key Code 13		
47	UCD Call Waiting Lamp (Business)/END (Hotel)/OAI Key Code 14		
48	Privacy Release		
49	*Speed Calling–One Touch		
50	Do Not Disturb	SFI 114	SFI 114 (Display on Desktop terminal when DND is set: 0/1=RST/DND)
51	*Microphone		
52	Speaker		
53	–		
54	–		
55	*PAGE		
56	-		
57	*Recall		
58	–		
59	Release Key		
60	*Manual Signaling Key		

FKY	Service Name	Related SFI	Remarks
61	–		
:			
65	–		
66	Record		
67	Address		
68	–		
69	Stop Recording		
70	Continue Recording		
71	Erase		
72	–		
73	Listen		
74	–		
75	Call Park Group–D Key 1		
76	Call Park Group–D Key 2		
77	Call Park Group–D Key 3		
78	Call Park Group–D Key 4		
79	Call Park Group–D Key 5		
80	Call Park Group–D Key 6		
81	Call Park Group–D Key 7		
82	Call Park Group–D Key 8		
83	Retain Conference		
84	*Serial Call		
85	Internal Zone Paging	SFI 134	SFI 134 (Internal Zone Page Calling)
86	–		
87	Wake Up Set		**Note:** For a guest station (Desktop terminal) in a Hotel system, this FKY is used for WU status lamp.
88	Wake Up Reset		
89	DND (Do Not Disturb) Set		**Note:** For a guest station (Desktop terminal) in a Hotel system, this FKY is used for DND status lamp.
90	DND (Do Not Disturb) Reset		
91	Room Cut Off Set		**Note:** For a guest station (Desktop terminal) in a Hotel system, this FKY is used for RC status lamp.
92	Room Cut Off Reset		
93	Message Waiting Set		**Note:** For a guest station (Desktop terminal) in a Hotel system, this FKY is used for MW status lamp.
94	Message Waiting Reset		
95	Check In		

FKY	Service Name	Related SFI	Remarks
96	Check Out		
97	Status		
98	Audit		
99	Enter		
100	Clear Enter		
101	End		
102	–		
:			
112	–		
113	Call ID Change Display		
114	–		
115	Call Pickup Expand		
116	Call Hold Conference		
117	*Ringer Mute		
118	Call Return		
119	–		
120	Next Page of Software Keys (Scroll Key)		
121	Previous Page of Software Keys (Back Scroll Key)		
122	Soft Key Assignment		
123	Off Hook Ringing (OFR)		
124	Mute (MUTE)		
125	Headset/Handset		
126	Transfer to Sub Station		
127	Boss Move		
128	Call Block		
129	Call Trace	SFI 170	SFI 170 (Call Trace)
130	Calling Party CLIR/CLIP Control (Australia only)		
131	Disconnect Key		
132	Call Redirect (North America only)		
133	Remote Call Hold (North America only)		
134	–		
135	–		
136	Selectable Station Call Pickup	SFI 183	SFI 183 (Selectable Station Call Pickup)
137	Selectable Station Call Pickup Group	SFI 183	SFI 183 (Selectable Station Call Pickup)
138	–		

FKY	Service Name	Related SFI	Remarks
139	–		
140	–		
141	–		
142	Logout (for DtermIP)		
143	Voice Coding Mode Change		
144	Voice Coding Select		
145	–		
146	Expanded Speed Calling–Station/Group		
147	Message		
148	Call Forwarding–Logout	SFI 198	SFI 198 (Call Forwarding–Logout)
149	Message Audible Alert (North America only)		
150	–		
151	MA–ID Setting	SFI 213	SFI 213 (MA–ID Setting)
152	–		
153	Day/Night Mode		
154	Multi–Internal Zone Paging (North America only)		
155	–		
156	Visitor Key		
157	Change of Handset		
158	Call Park Deluxe–Hold/Retrieve–1	SFI 220 SFI 68	SFI 220 (Call Park Deluxe Entry/Retrieve) SFI 68 (Call Park–Called)
159	Call Park Deluxe–Hold/Retrieve–2		
160	Call Park Deluxe–Hold/Retrieve–3		
161	Call Park Deluxe–Hold/Retrieve–4		
162	Call Park Deluxe–Hold/Retrieve–5		
163	Privacy Key		
164	–		
165	SPD Name Assign		
166	–		
167	Mobility Access	SFI 234	SFI 234 (Mobility Access)
:	–		
177	Language Change Key (LANG)		
178	Call History	SFI 238	SFI 238 (Call History)
179	Conference Disconnect key (North America only.)		

FKY	Service Name	Related SFI	Remarks
180	Phone book	SFI 245 SFI 246	SFI 245 (Local Phone book) SFI 246 (System Phone book)
181	Link Down Notice		
182	–		
183	Call Park Group -D Hold Key		
184	Power Saving		
185	Call Pickup Key Group-1		
186	Call Pickup Key Group-2		
187	Call Pickup Key Group-3		
188	Call Pickup Key Group-4		
189	Call Pickup Key Group-5		
190	Display Reversing		RVERS
191	–		
192	Mobile Service		
193	Line Information Change Display		
194	Record (USB)		Not Used
195	Connect (Smart Device)		
196	Path (Smart Device)		
197	Security		
198	Large Font		
199-320	–		

∗: *This service is activated without releasing service restriction by ASFC.*

List of Ring Information

RG (0–7)	RINGING		DELAY TIME
	DAY	NIGHT	
0	NO (No Ringing)	No Ringing	
1	YES (Ringing)	No Ringing	0 seconds.
2	NO (No Ringing)	Ringing	0 seconds.
3	Not used	Not used	
4	YES (Ringing)	Ringing	30 seconds.
5	YES (Ringing)	Ringing	20 seconds.
6	YES (Ringing)	Ringing	10 seconds.
7	YES (Ringing)	Ringing	0 seconds.

ASYDL: Assignment of System Data into Local DM (LDM)

1. General

The ASYDL command assigns the system data for the Local Data Memory (LDM). The capacity of LDM data and the FPC of the self-node within FCCS Network, can be assigned by this command.

2. Precautions

1. The data assigned by this command is valid in each Local Node (LN).
2. The ASYDL command contains the following indexes:

   SYS1, INDEX 512-1535
   SYS2, INDEX 16-79 (Not used at present)

3. Be careful not to mistakenly set unused data bits to ON in order to prevent unexpected results.

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 512 - 1535	DATA (DATA) 00 - FF (HEX)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS
			DATA 0/1	BIT	
1	683		0	b_0-b_5	Not used.
				b_6-b_7	The lines to display Line Information. In the case of DT710 (8-button type)/DT830/DT730/DT750 b_6 b_7 0 0 2nd line 1 0 3rd line In the case of DT410/DT310 (6-button type)/DT430/DT330/DT710 (6-button type) b_6 b_7 0 0 1st line 1 0 2nd line
	684			b_0	11 characters indication for Feature key information on DESI-Less Terminal. 0/1 = In service/Out of service **Note:** Available for DT800/DT700/DT400/DT300 Series.
				b_1	DESI-Less icon display. 0/1 = In service/Out of service
			0	b_2-b_7	Not used.
	685-687	00			Not used.
	688			b_0	Hunting/PS Out of Zone Processing when called PS is Out of Zone 0/1 = Hunting/PS Out of Zone Processing
			0	b_1-b_7	Not used.
	689-690	00			Not used.
	691			b_0-b_1	Not used.
				b_2	Destination of Instant Message. 0 : WLAN Handset (MH Series) only. 1 : WLAN Handset (MH Series) and Soft Phone (SIP).
			0	b_3-b_7	Not used.
	692-699	00			Not used.

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 512 - 1535	DATA (DATA) 00 - FF (HEX)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS
			DATA 0/1	BIT	
1	1248			b_0	Caller ID Display - Sub Line 0/1 = Out of service/In service **Note:** When this System Data is changed, the following operations are required. • Digital terminal: Initializing corresponding ELC card • IP terminal: Restarting Terminal
				b_1	Automatic Hold [A-68] 0/1 = Out of service/In service **Note:** When this System Data is changed, the following operations are required. • Digital terminal: Initializing corresponding ELC card • IP terminal: Restarting Terminal
				b_2	Auto-login through MAC Authentication when the login screen of SIP Multi Line terminal remains displayed for five minutes. 0/1=Unavailable/Available
				b_3	Retention of Customized Terminal Settings 0/1 = Out of service (Default)/In service
				b_4	Mixed Display of Caller ID Display - Sub Line 0/1=Out of service/In service
			0	b_5 - b_7	Not Used.
	1249			b_0 - b_3	Setting of time display pattern for Desktop terminal.**Note 1** **Note:** The terminals accommodated to IPG (Digital) or UG50 cannot change the Time Display Pattern. **Note:** When this System Data is changed, the following operations are required. • Digital terminal: Initializing corresponding ELC card • IP terminal: Restarting Terminal **Note:** This system data is available for DT800/DT700/DT400/DT300 Series. For DT400/DT300 Series, the ELC card (CH-16ELCA or later) is required.
				b_4 - b_7	Not Used.

Note 1: The following table shows the Time Display Pattern (SYS1, INDEX1249, Bit0-3). When you assign the other parameters than the parameters shown below, the Display Pattern of the terminal will be 0 (12 hour (Default)).

Bit				Display Pattern	Indication Example
b3	b2	b1	b0		
0	0	0	0	0 (12 hour (Default))	10:30 AM WED 6 NOV 2013
0	0	0	1	1 (12 hour)	6 NOV WED 10:30 AM
0	0	1	0	2 (12 hour)	10:30 AM NOV 6 WED
0	0	1	1	3 (12 hour)	11-6 WED 10:30 AM
0	1	0	0	4 (12 hour)	10:30 AM WED 6 NOV
0	1	0	1	5 (24 hour)	6 NOV WED 10:30
0	1	1	0	6 (24 hour)	10:30 NOV 6 WED
0	1	1	1	7 (24 hour)	11-6 WED 10:30
1	0	0	0	8 (24 hour)	10:30 WED 6 NOV

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 512 - 1535	DATA (DATA) 00 - FF (HEX)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS
			DATA 0/1	BIT	
1	1258		0	b_0	Not used.
				b_1	Terminal cooperation with mobile phone. 0/1 = Enabled/Disabled **Note:** For IP station, when the system data has been changed, restart the terminal after 30 seconds.
				b_2	Soft key eight digits display with a frame. 0/1 = Enabled/Disabled **Note:** For IP station, when the system data has been changed, restart the terminal after 30 seconds.
			0	b_3-b_7	Not used.
	1259-1261	00			Not used.
	1262		0	b_0 - b_2	Not used.
				b_3	Retrieving a Call in Call Park Group -D Hold from a Fixed Line 0/1 = Disabled/Enabled
				b_4	Fixed Line Used for Retrieving a Call in Call Park Group -D Hold 0/1 = Prime Line/My Line **Note:** When setting this parameter, you must enable "Retrieving a Call in Call Park Group -D Hold from a Fixed Line" (ASYDL, System Data 1, Index 1262, Bit 3 = 1). This setting is not required if My Line is assigned as Prime Line.
				b_5	Terminal save power mode change based on a time schedule 0/1= Enabled/Disabled
			0	b_6- b_7	Not used.
	1263	00			Not used.

ASYDN: Assignment of System Data in Network Data Memory

1. General

This command specifies the system data for the FCCS Network.

2. Precautions

1. The data assigned by this command determines the service condition that affects the other nodes in the FCCS Network.
2. Data for ASYDN assigned at Network Control Node (NCN) has priority over data for ASYDL assigned at the Local Node (LN) in the FCCS Network.
3. The ASYDN command consists of SYS1, INDEX 0 - 1535.
4. For detailed information, see the Data Programming Manual - FCCS.
5. Be careful not to mistakenly set unused data bits to ON in order to prevent unexpected results.

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0 - 1535	DATA (DATA) 00 - FF (HEX)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS	MDATA
			DATA 0/1	BIT		
1	683			b_0-b_5	Not used.	
				b_6-b_7	The lines to display Line Information. In the case of DT710 (8-button type)/DT830/DT730/DT750 b_6 b_7 0 0 2nd line 1 0 3rd line In the case of DT410/DT310 (6-button type)/DT430/DT330/DT710 (6-button type) b_6 b_7 0 0 1st line 1 0 2nd line	
	684			b_0	11 characters indication for Feature key information on DESI-Less Terminal. 0/1 = In service/Out of service **Note:** Available for DT800/DT700/DT400/DT300 Series.	
				b_1	DESI-Less icon display. 0/1 = In service/Out of service	
			0	b_2-b_7	Not used.	
	685-699	00			Not used.	
	700-701	00			Not used.	

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0 - 1535	DATA (DATA) 00 - FF (HEX)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS	MDATA
			DATA 0/1	BIT		
1	1241-1243	00			Not used.	
	1244		0	b_0-b_3	Not used.	
				b_4-b_5	Speeding up the processing (Assign/Change/Delete) by the ASDT command. b_5 b_4 0 0=Normal speed 0 1=Reduction in process time by 80% 1 0=Reduction in process time by 70% (recommended) 1 1=Reduction in process time by 40%	
			0	b_6-b_7	Not used.	
	1245-1247	00			Not used.	
	1248			b_0	Caller ID Display - Sub Line 0/1 = Out of service/In service **Note:** When this system data is changed, restart the terminal.	
			0	b_1-b_2	Not used.	
				b_3	Retention of Customized Terminal Settings 0/1 = Out of service (Default)/In service	
				b_4	Mixed Display of Caller ID Display - Sub Line 0/1=Out of service/In service	
			0	b_5-b_7	Not used.	
	1249			b_0 - b_3	Setting of Time Display Pattern for Desktop terminal. **Note 2** **Note:** The terminals accommodated to IPG (Digital) or UG50 cannot change the Time Display Pattern. **Note:** When this system data is changed, restart the terminal. **Note:** This system data is available for DT800/DT700/DT400/DT300 Series. For DT400/DT300 Series, the ELC card (CH-16ELCA or later) is required.	
				b_4 - b_7	Not Used.	

Note 2: The following table shows the Time Display Pattern (SYS1, INDEX1249, Bit0-3). When you assign the other parameters than the parameters shown below, the Display Pattern of the terminal will be 0 (12 hour (Default)).

Bit				Display Pattern	Indication Example
b3	b2	b1	b0		
0	0	0	0	0 (12 hour (Default))	10:30 AM WED 6 NOV 2013
0	0	0	1	1 (12 hour)	6 NOV WED 10:30 AM
0	0	1	0	2 (12 hour)	10:30 AM NOV 6 WED
0	0	1	1	3 (12 hour)	11-6 WED 10:30 AM
0	1	0	0	4 (12 hour)	10:30 AM WED 6 NOV
0	1	0	1	5 (24 hour)	6 NOV WED 10:30
0	1	1	0	6 (24 hour)	10:30 NOV 6 WED
0	1	1	1	7 (24 hour)	11-6 WED 10:30
1	0	0	0	8 (24 hour)	10:30 WED 6 NOV

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0 -1535	DATA (DATA) 00 - FF (HEX)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS	(MDATA)
			DATA 0/1	BIT		
1	1258		0	b_0	Not used.	
				b_1	Terminal cooperation with mobile phone. 0/1 = Enabled/Disabled **Note:** For IP station, when the system data has been changed, restart the terminal after 30 seconds.	
				b_2	Soft key eight digits display with a frame. 0/1 = Enabled/Disabled **Note:** For IP station, when the system data has been changed, restart the terminal after 30 seconds.	
			0	b_3-b_7	Not used.	
	1259-1261	00			Not used.	
	1262		0	b_0 - b_2	Not used.	
				b_3	Retrieving a Call in Call Park Group -D Hold from a Fixed Line 0/1 = Disabled/Enabled	
				b_4	Fixed Line Used for Retrieving a Call in Call Park Group - D Hold 0/1 = Prime Line/My Line **Note:** When setting this parameter, you must enable "Retrieving a Call in Call Park Group -D Hold from a Fixed Line" (ASYDN, System Data 1, Index 1262, Bit 3 = 1). This setting is not required if My Line is assigned as Prime Line.	
			0	b_5	Terminal save power mode change based on a time schedule 0/1= Enabled/Disabled	
			0	b_6- b_7	Not used.	
	1263	00			Not used.	

Operation and Maitenance Manual

ATDL: Assignment of Terminal for Download

1. General

This command assigns the data for downloading new firmware or configuration files to IP terminals.

For convenience, firmware and configuration files for IP terminals are hereinafter called, collectively, the "download file".

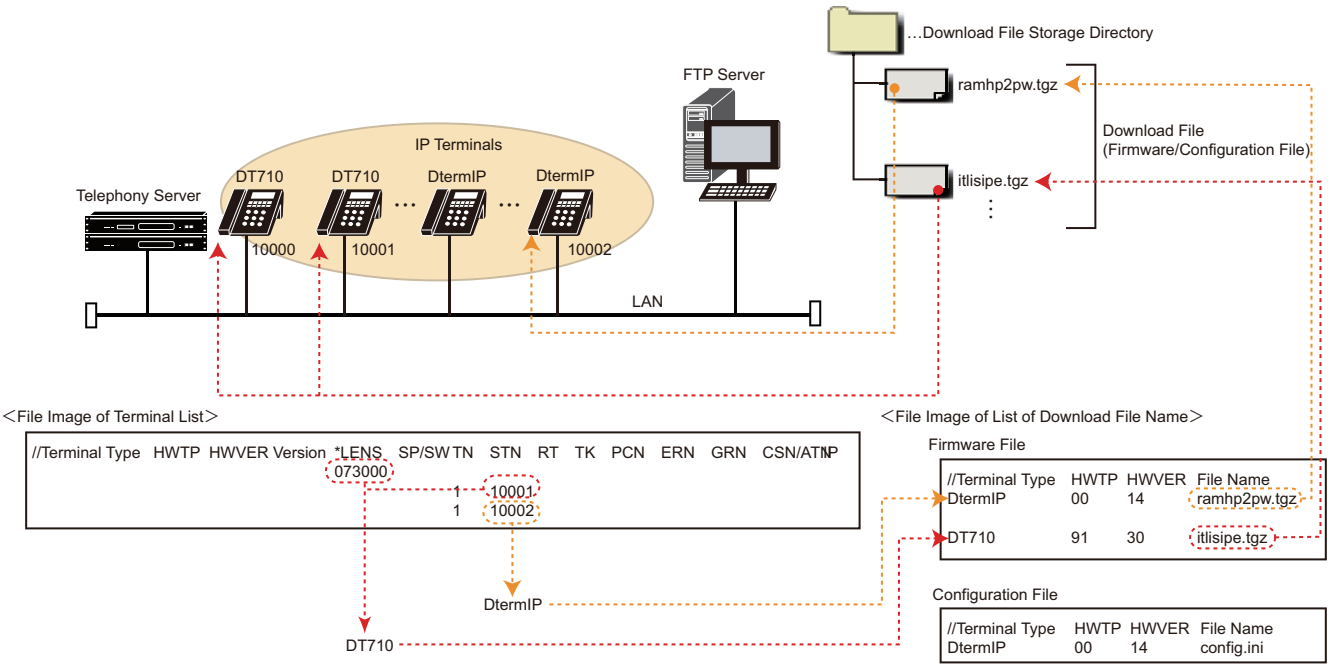
Note: Be sure to upload the required new download files to the FTP server using ADTM command before executing the download procedure by this command.

2. Precautions

(1) The following files can be imported or exported by this command: **Note 1**

(a) File of List of Download File Name
Specify the file name of the download file for each type of terminals. When downloading a configuration file, name the download file the same as the configuration file.

(b) File of Terminal List
Input information on all terminals that execute downloading.



Note 1: When editing these files, note the following:

- Use UTF-16 encoding for the text file used by this command.
- Add "//" at the top of the line to make it a comment line.
- For editing the file with Excel, see the section of Editing Import/Export File with Excel.

1. Download File Name

The following table shows which IP terminals/equipment are available for this command and the necessary information (Terminal Type, Hardware Type (HWTP), Hardware Version (HWVER) and default File Name) to execute downloading to each type of IP terminals/equipment.

×: Available N: Not Available

Terms in Manual	Product Name	EMEA Product Name	Terminal Type on PCPro	Avail-abil-ity	HWTP	HWVER	File Name (Default)
Analog 2MC	SN8029 MC2A-A	-	-	N	-	-	-
	SN8029 MC2A-B	-	Analog MC Note 1	×	21	-	2amcmwlist.txt
8LC Card	SCA-8LCA SCA-8LCA-EMEA	-	8MC SIP Note 1	×	B1	-	8amcmwlist.txt
MG(PRI) (1.5M) Box [MG-24PRIA]	MG-24PRIA	-	MG-PRI1.5 SIP	×	A8	-	mgprimwlist.txt
MG(PRI) (2M) Box [MG-30PRIA]	MG-30PRIA	-	MG-PRI2.0 SIP	×	A9	-	
MG(PRI) (1.5M) Card [SCA-24PRIA]	SCA-24PRIA	SCA-PRI-SHA24	MG-PRI1.5 SIP	×	A8	-	
MG(PRI) (2M) Card [SCA-30PRIA]	SCA-30PRIA	-	MG-PRI2.0 SIP	×	A9	-	
MG-SIP16 Card [SCA-16SIPMGA]	SCA-16SIPMGA Note 5	-	MG(SIP)	×	66	-	mgsipmwlist.txt
MG-SIP16 Box [MG-16SIPMGA]	MG-16SIPMGA Note 5	-		×	66	-	
MG-SIP16 Card [SCA-16SIPMG(US)]	SCA-16SIPMG(US) Note 6	-		×	66	-	
MG-SIP96	MG-SIP96 Note 7	-		×	66	-	
MG-SIP128 [MG-128SIPMGG (SC) - B]	MG-128SIPMGG	-	MG(SIP)	×	66	-	mgsipmwlist.txt
MG-SIP128 [MG-128SIPMGG]	MG-128SIPMGG Note 8	-		×	66	-	
MG-SIP128 [MG-128SIPMGJ (PN) - B]	MG-128SIPMGJ	-		×	66	-	
MG-SIP128 [MG-128SIPMGJ]	MG-128SIPMGJ Note 9	-		×	66	-	

Terms in Manual	Product Name	EMEA Product Name	Terminal Type on PCPro	Avail-abil-ity	HWTP	HWVER	File Name (Default)
MG-T1(SIP) Card	[SCA-24DTIA]	-	MG-T1[SIP]	×	AF	-	mgdtimwlist.txt
MG-T1(SIP) Box	[MG-24DTIA]	-					
MG(BRI) Box [MG-2BRIA]	MG-2BRIA	-	MG-BRI SIP Note 1	×	A3	-	mgbrisiplist.txt
MG(BRI) Card [SCA-2BRIA]	SCA-2BRIA	-					
MCMG Box [MG-4LC2COTA]	MG-4LC2COTA	-	-	N	67	-	mcmgmwlist.txt
MCMG Card [SCA-4LC2COTA]	SCA-4LC2COTA	-	-	N		-	
MG-COT Card [SCA-6COTA]	SCA-6COTA	-	-	N	6B	-	mgcotmwlist.txt
MG-COT Card [SCA-6COTC]	SCA-6COTC	SCA-6COTB	-	N		-	
VS32 Conference Server [MG-VS32VA]	MG-VS32VA	-	-	N	C1	-	vs32atdl.txt
VS32 Conference Server [SCA-VS32VA]	SCA-VS32VA	-	-	N	C1	-	
IP Enabled Dterm (Dterm Series *i*)	(IP Adapter) North America/Other Countries except Australia: IP-R UNIT Australia: IP-RA UNIT (Telephone) DTR-8D/16LD/16D/32D	-	Dterm Series *i* w/ IP Adaptor	×	11	12	ramhp2pr.hex
DtermIP (Proprietary Protocol) Note 2	ITR-4D/8D/16D/16LD/32D	-	DtermIP	×	11	14	ramhp2pw.out
DtermIP (SIP) Note 3	ITN-4D/8D/16D/32D Note 4	-	Dterm-SIP(ITN)	×	91	20	appsipe.tgz

Terms in Manual	Product Name	EMEA Product Name	Terminal Type on PCPro	Availability	HWTP	HWVER	File Name (Default)
DT700 Series	DT710	-	DT710	×	91	30	itlisipe.tgz
	DT730	-	DT730	×	91	33	itlisipv.tgz
	DT730G (12/24DG)	-	DT730DG	×	91	51	itlisipvg.tgz
	DT730G (12/24CG)	-	DT730CG	×	91	52	itlisipvc.tgz
	DT750	-	DT750	×	91	34	itlisips.tgz
	DT770G	-	DT770G	×	91	54	itlisipcr.tgz
DT800 Series	DT830	-	DT830/ DT830DG	×	91	61	itzisipvg.tgz
	DT830G (12/24DG)	-		×	91	61	
	DT830G (12/24CG)	-	DT830CG	×	91	62	itzisipvc.tgz
DtermIP INASET (Classic) **Note 3**	ITR-LC	-	DtermIP Inaset	×	13	11	dpPtoP1E.ini
DtermIP INASET240G **Note 3**	ITR-240G (Countries except Australia)	-	Inaset240G	×	13	21	dp24GP1E.ini
DtermIP INASET320C **Note 3**	North America/Other Countries except Australia: ITR-320C-1 Australia: ITR-320C-1A	-	Inaset320C	×	13	31	dp32CP1E.ini
DtermIP INASET320G **Note 3**	ITR-320G-1 (North America only)	-	Inaset320G	×	13	41	dp32GP1E.ini
DtermIP INASET320C (XML version)	ITR-320C-1M	-	-	×	13	51	dp32CP1ME.ini
DtermSP30 (Proprietary Protocol)	Dterm SP30 AE-	-	-	**N**	15	00	-
DtermSP30 (SIP)	Dterm SP30 FE-	-	-	**N**	93	93	-
Soft Client SP350	Soft Client SP350	-	-	**N**			-

Note 1: For this terminal, Internal FTP Server cannot be used.

Note 2: When upgrading this terminal from 2.99 (or below) to 3.01 (or higher), Internal FTP option cannot be used.

Note 3: When using this terminal, only External FTP is supported.

Note 4: Available firmware version is 3.0.0.0 or later.

Note 5: Available firmware version is SP-3905 MG SIP (16) PROG-A Issue 5 or later

Note 6: Available firmware version is SP-3988 MG SIP(16) PROG-G Issue 3 or later.

Note 7: Available firmware version is SP-3987 MGSIP PROG-B Issue 3 or later.

Note 8: Available firmware version is SP-4051 MGSIP PROG-G Issue 1 or later.

Note 9: Available firmware version is SP-4032 MGSIP PROG-E Issue 1 or later.

Note: This command does not support the following Terminal Types even if they are displayed in List of Download File Name. Do not use the following Terminal Types and their additional information in the list.

Terminal Type	HWTP	HWVER	File Name
Dterm Series i with IP Adaptor	00	12	ramhp2pr.hex
DtermIP	00	14	ramhp2pw.out
IP-CS(3ch)	31	-	BPRG_IPBSA.DAT
IP-CS(6ch)	32	-	BPRG_IPBSA.DAT
IP-ZT	34	00	BPRG_IPZT.DAT
IPVPS	51	00	-
Analog MG	61	-	-
T1 MG	62	-	-

2. Editing Import/Export File with Excel

This section explains the procedure to edit the file with Excel.

Note: The file may not be created properly if the procedures are not performed as provided in this section.

Note: The appearance of each image for Excel may differ according to your Excel settings and environment.

STEP 1: Activate Excel.

Peripheral Equipment Description (Multi-Line Telephone)

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). The installation cable must be 24 AWG (0.5 mm diameter) or larger.

DT400 Series, DT300 Series, Dterm Series *i*



DT400 Series*



DT300 Series*

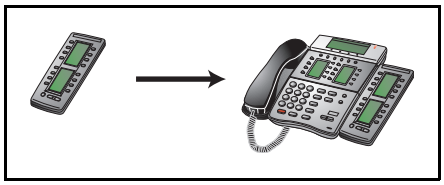


Dterm Series *i* **
Note 1

* 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



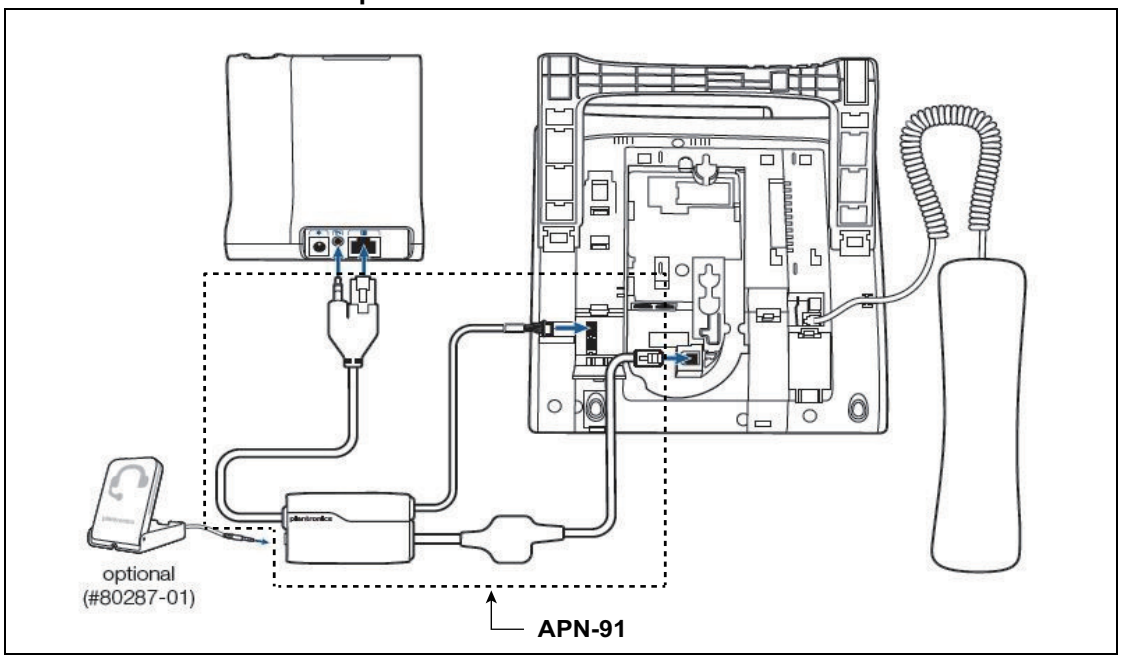
1.1.1 DT400 Series

(1) 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

(2) The following shows the service conditions specific to Plantronics Wireless Headset with EHS cable. Wireless Headset enables you to answer a call, having a conversation, or disconnect the call with hooking operations. The following diagram shows the example of a Wireless Headset connection.

Example of a Wireless Headset Connection



Note: For the details on how to connect a telephone and Wireless Headset, see the manual attached to Plantronics EHS cable.

(a) Wireless Headset is available for DT400 Series (DT430).

(b) Assign FKY=125 (Headset/Handset Key) to the Feature key (KYN=1-24) by using the AKYD command.

(c) 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 steps or more.

Note: When you have set a downloaded ringer tone, the ringer tone is not available on the Wireless Headset.

(3) Smart Device integration (terminal cooperation with a mobile phone using Bluetooth adapter) is available for DT400 Series (DT430). For the details, see 7.1.6.3 Precautions for the Smart Device Integration on Chapter 3.

Note: Not available for the terminals accommodated in UG50.

2. Installation Procedure

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.)

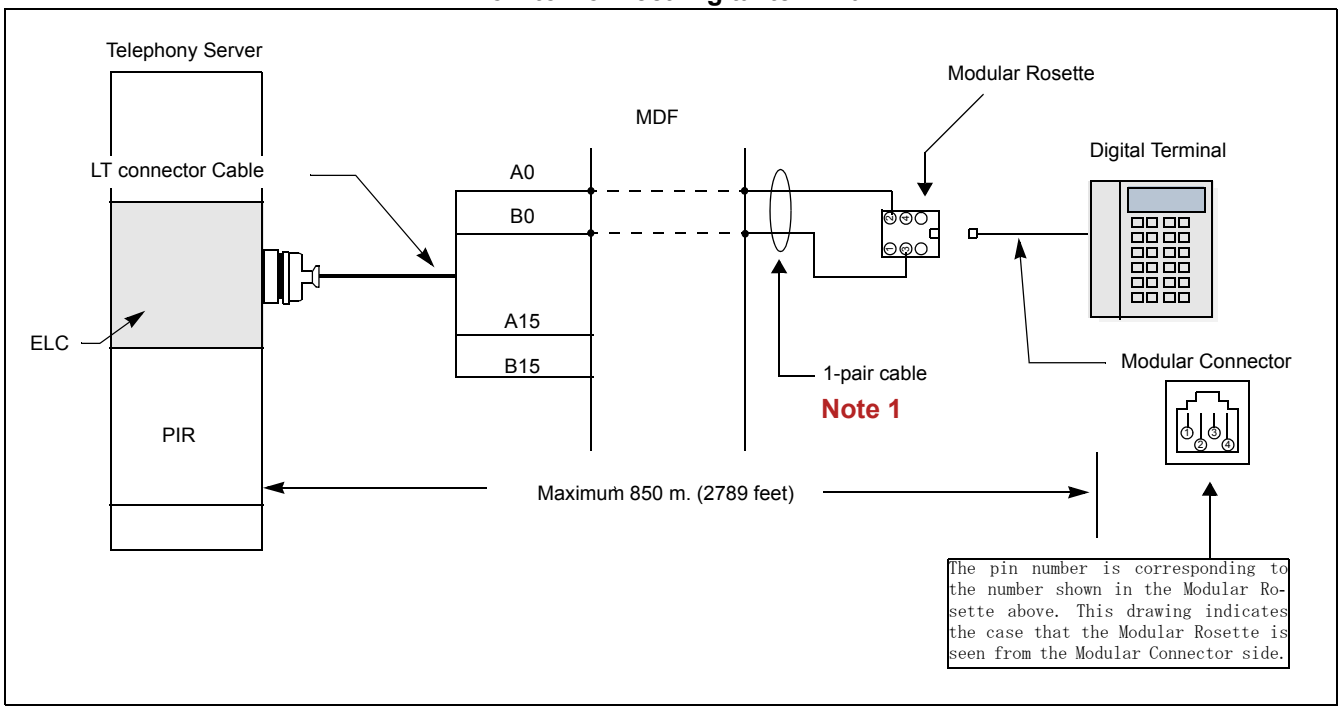
STEP 2: Install an ELC circuit card into a proper slot of PIR for connecting Digital terminals. For more information about ELC circuit card, refer to Circuit Card Description. When the Digital terminal is connected to a vacant port of the existing ELC card, this step is not necessary.

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.

For the procedure how to mount the DT400 Series/DT300 Series on the wall, refer to 3.2Wall Mounting of DT800/DT700/DT400/DT300 Series.

3. Cable Connection Diagram and Maximum Length

Power supply from the Telephony Server (Without arrestor)

	DT400/300 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

	DT400/300 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.

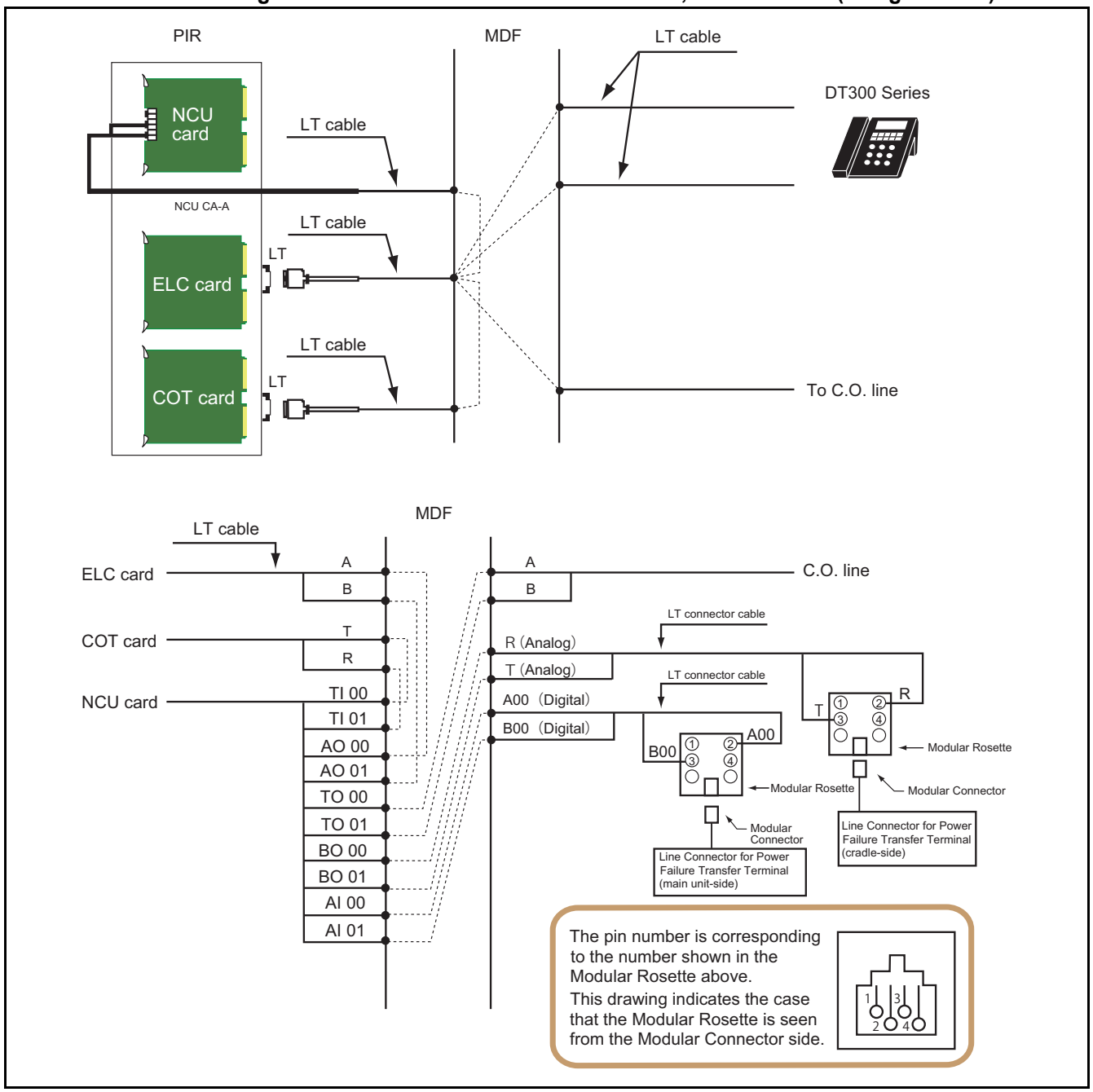
Note: When using the Bluetooth Handset with DT330, be sure to use the designated AC adapter (AC-L UNIT/AC-2R UNIT).

4. Connection Diagram for Digital Terminal as Power Failure Transfer Terminal

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

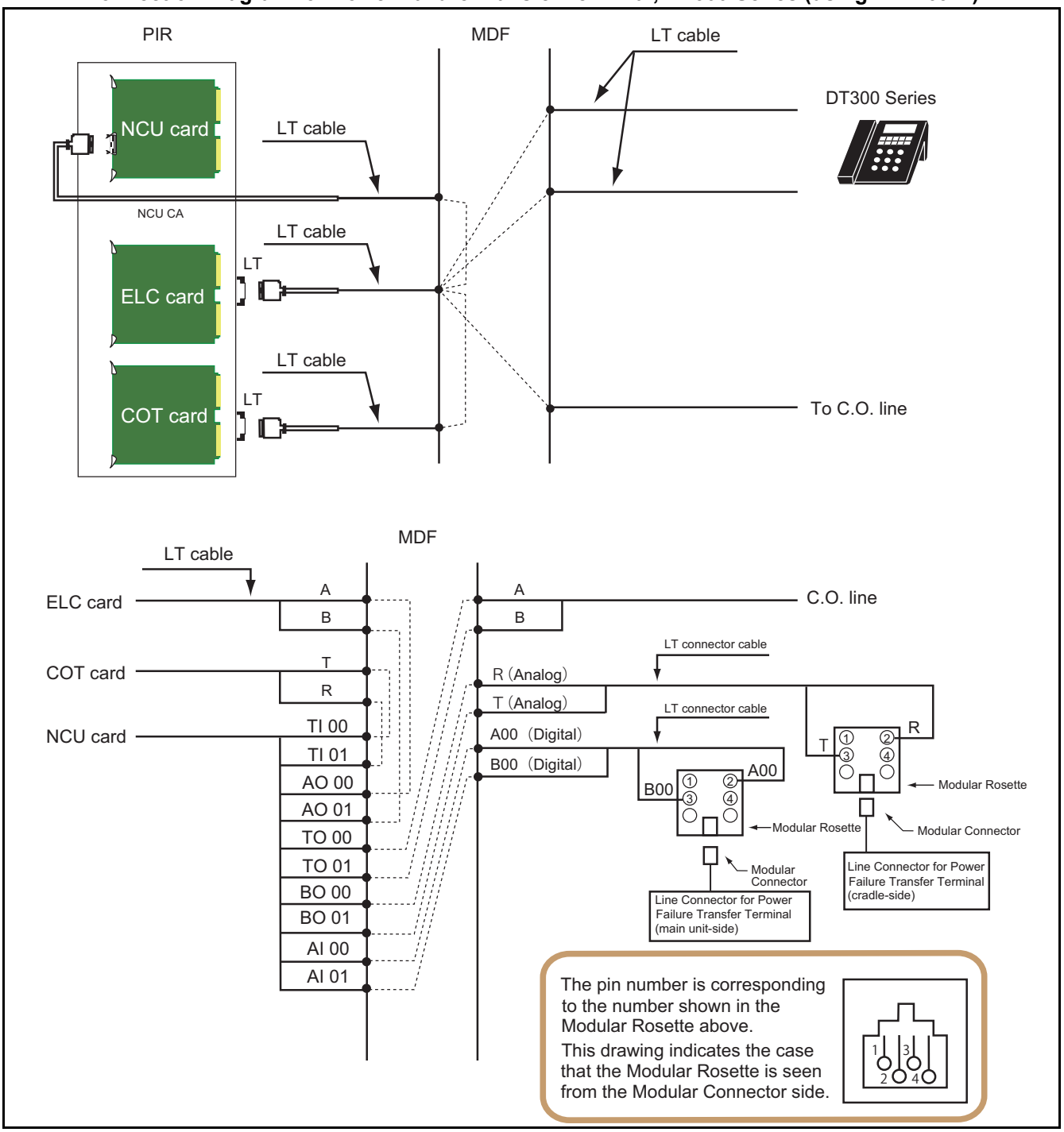
Note: NCU card (CH-M01 or PA-M69-A) is required.

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



Note: Accommodation of connector leads is depending on LENS of the circuit card.

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



Note: Accommodation of connector leads is depending on LENS of the circuit card.

1. General

1.1 Kind of IP Station

1.1.1 DT800 Series



DT800 Series

DT800 Series has a lineup of terminals with 8 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	DT830	8–button type (DESI–LESS)	32 (8x4) (virtual)
		24–button type	24
		12–button type	12
	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

- DESI–LESS Terminal (DT830)



DT830
DESI–LESS

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.

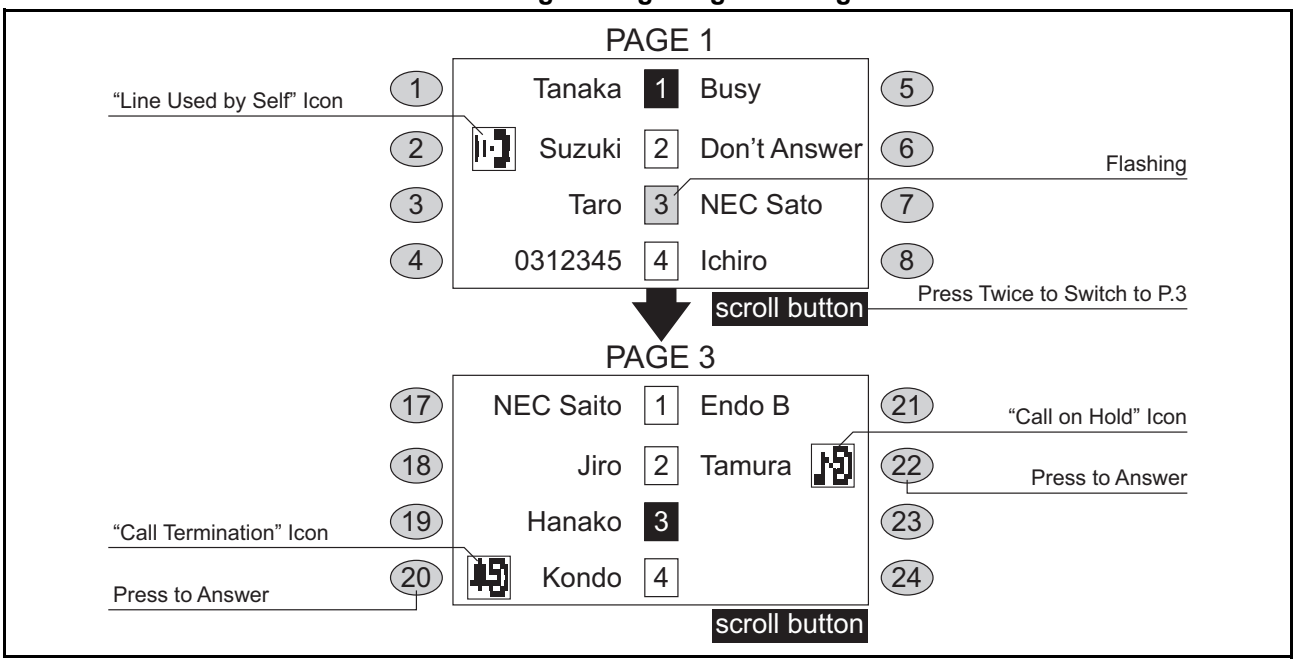
On the LCD, the pages are represented as page icons. The icon's various backgrounds display information regarding events happening on that particular page. For details, see the following table.

Icon	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.

Icon	Page	Line/Feature Key Number	Icon Background
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



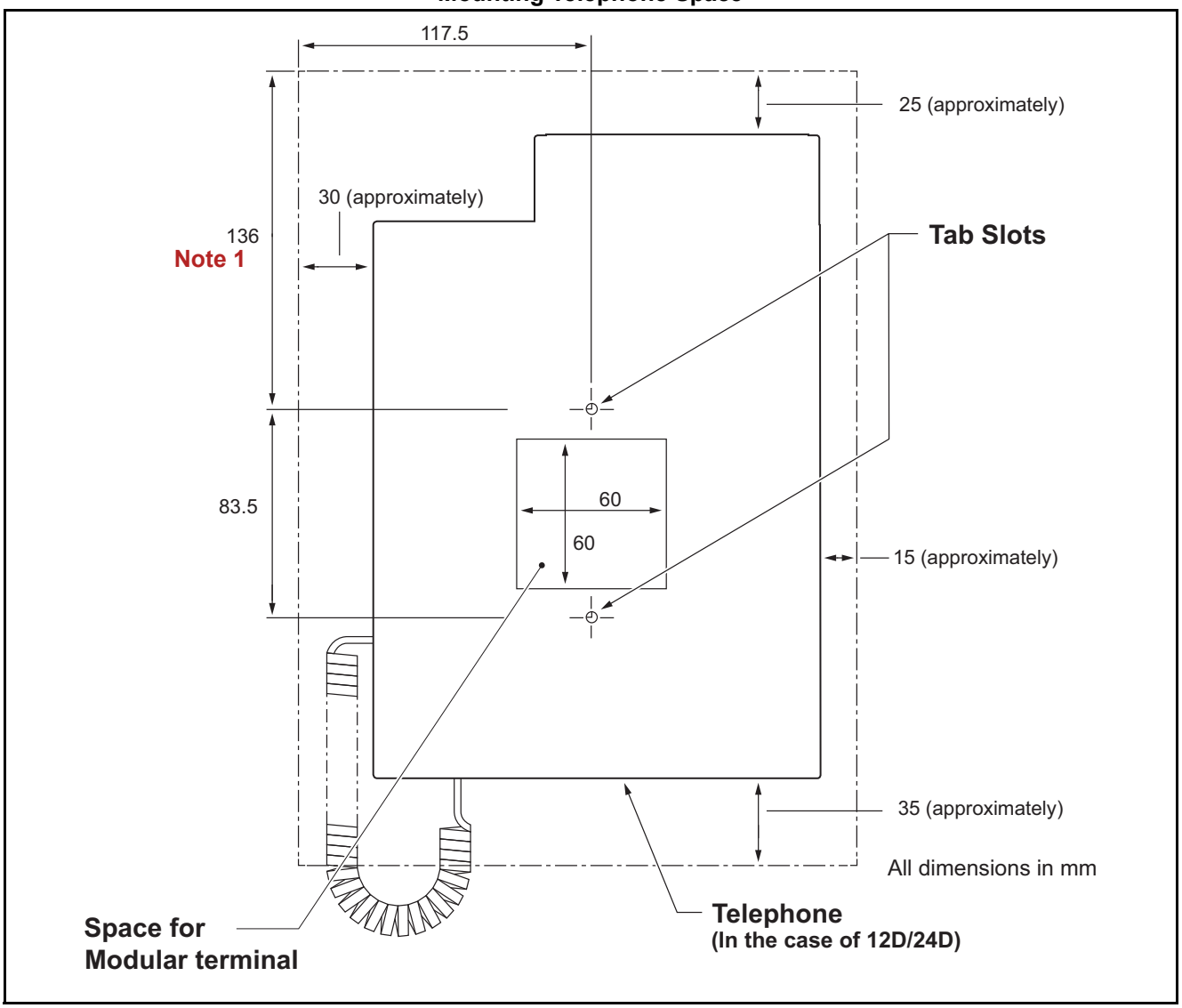
3.2 Wall Mounting of DT800/DT700/DT400/DT300 Series

A wall mount unit (WM-L UNIT) is used to mount DT800/DT700/DT400/DT300 Series (DT830/DT830G/DT730/DT730G/DT710/DT430/DT330/DT410/DT310) 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. 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.

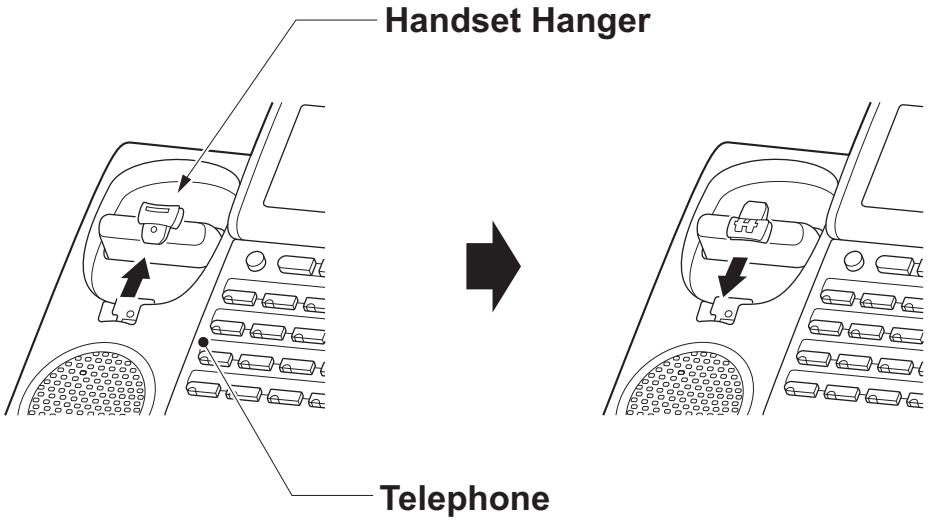
Mounting Telephone Space



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

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

STEP 7: 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.

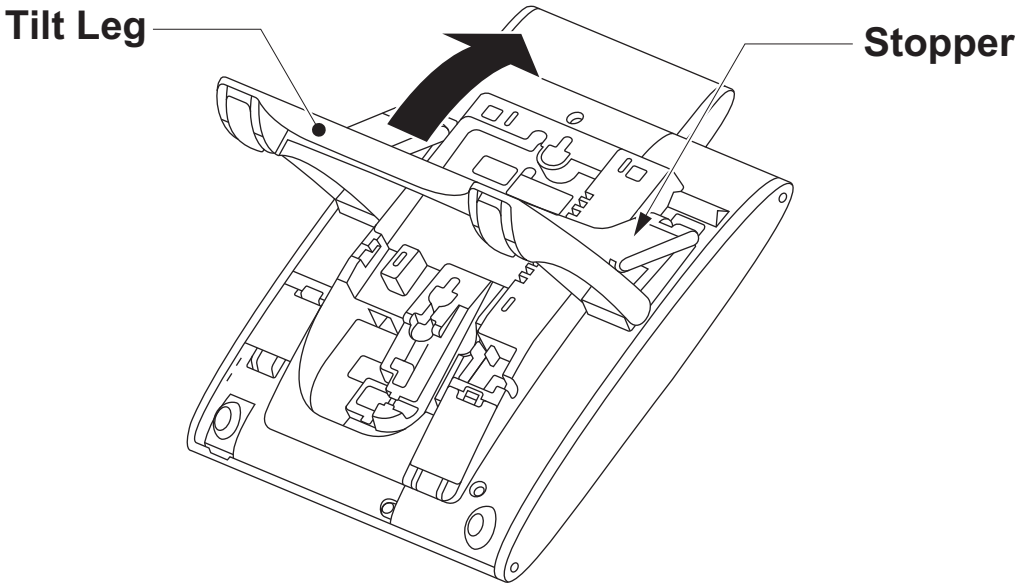


STEP 8: Turn the telephone set upside down and widen the tilt leg.

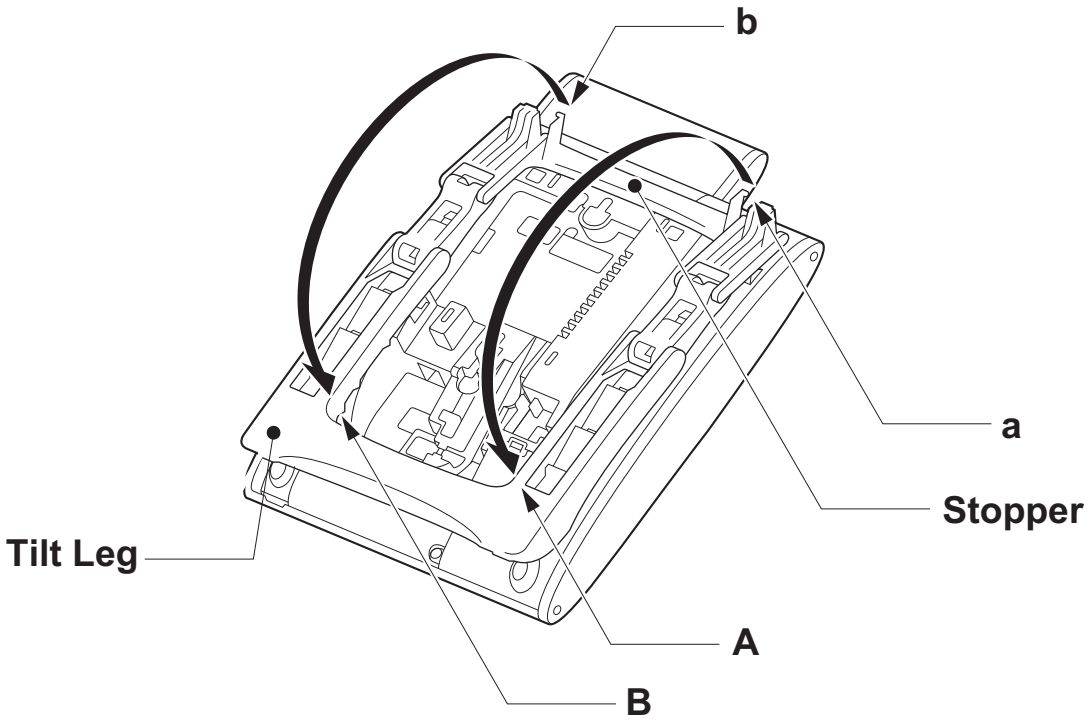
[1] Turn the telephone set upside down.

[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.



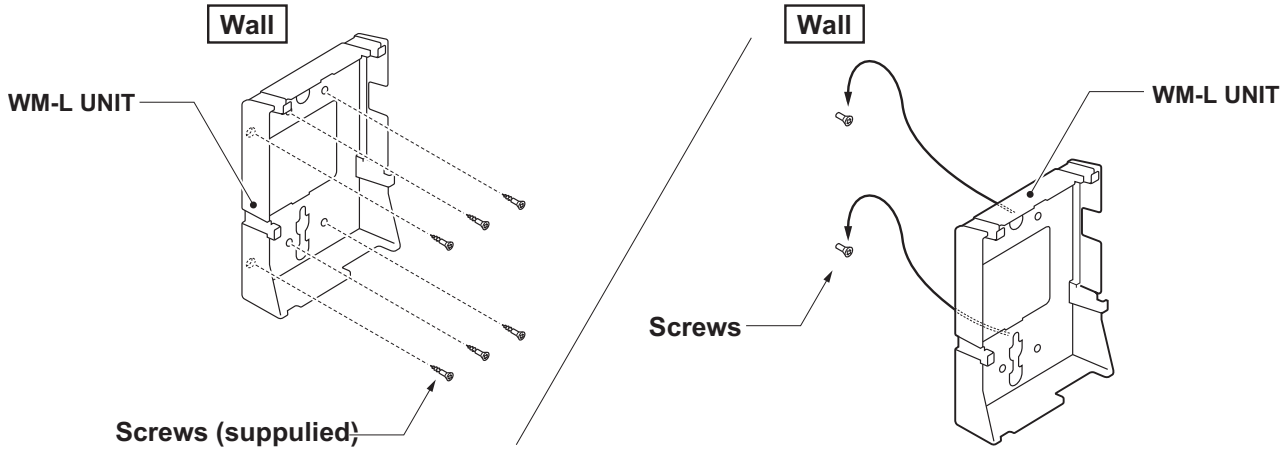
[4] Remove the indicated portions (a and b) of the stopper from grooves (A and B) on the tilt leg and then widen the tilt leg.



STEP 9: Attach WM-L UNIT to the wall directly or the wall plate.

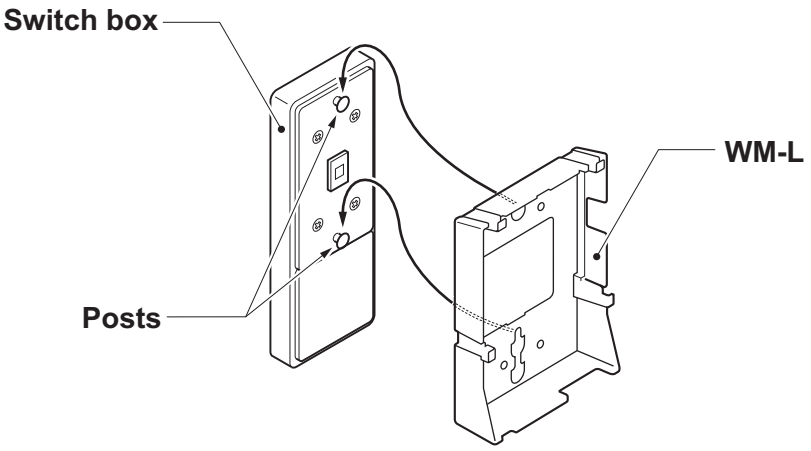
- When attaching WM-L UNIT to the wall directly:

  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:

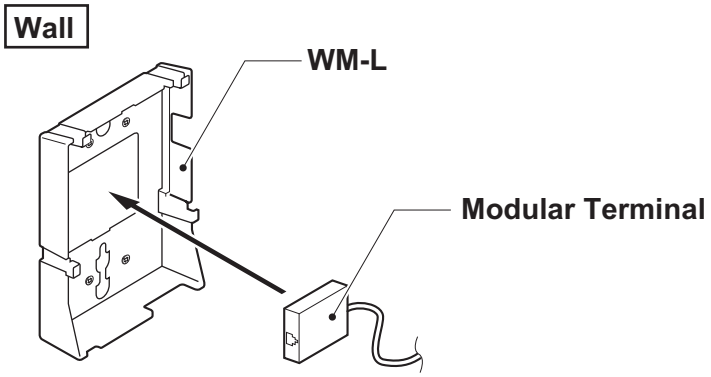
  Attach WM-L UNIT to the posts on the wall plate as shown in the figure below.



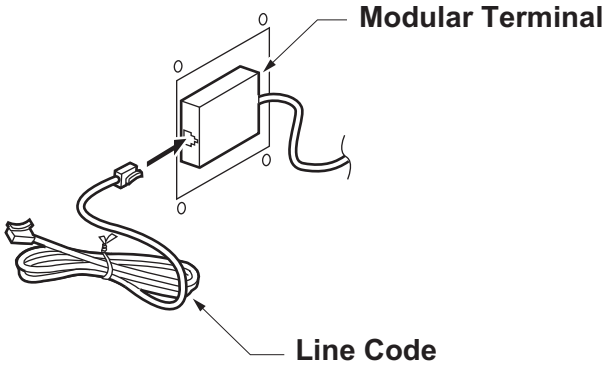
The remainder of the procedure varies between DT400/DT300 Series and DT800/DT700 Series.

- In the case of DT400/DT300 Series: Go to the next step.
- In the case of DT800/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 3.3DT800/DT700 Series Cabling.

STEP 10: 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.

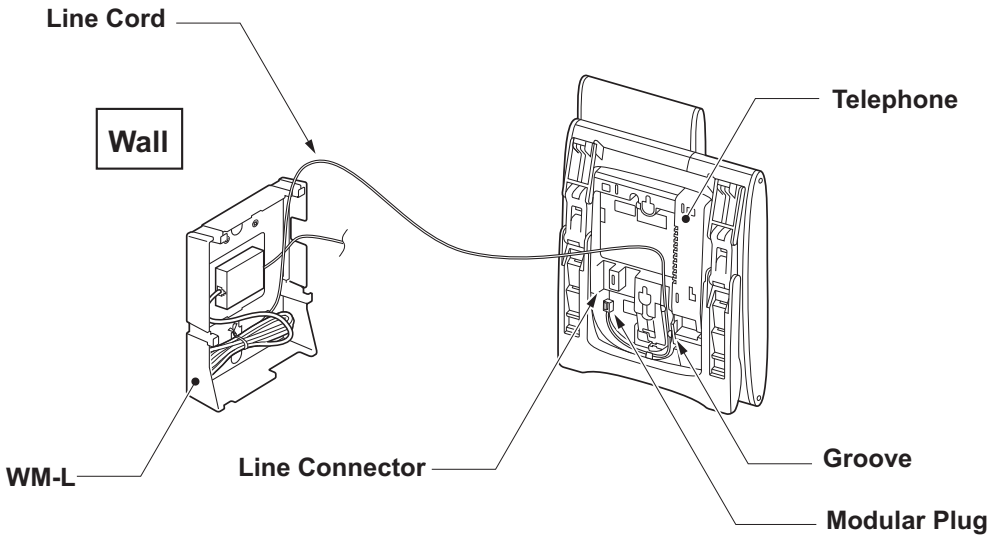


STEP 11: Insert the line cord plug (included with the telephone set) into the modular connector.



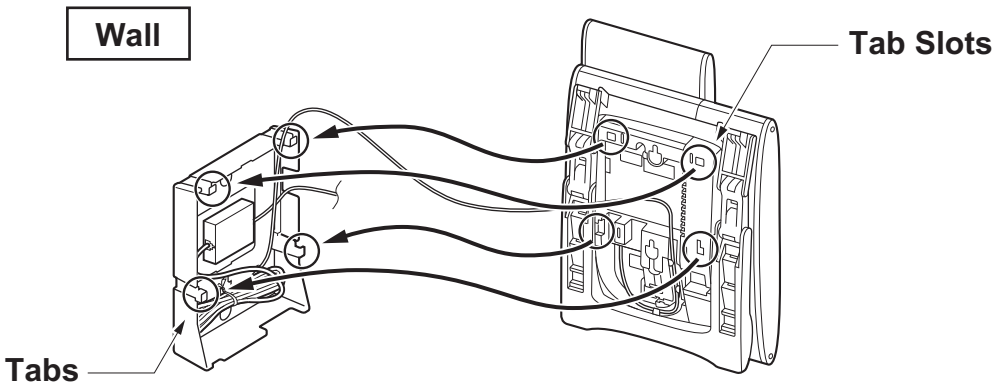
STEP 12: Insert the line cord plug into the LINE connector on the back of the telephone until you hear it clicks. Wrap the excess cord and secure it with a tie wrap.

STEP 13: Thread the coiled cord through the groove on the back of the telephone as shown in the figure below.



STEP 14: 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 DT800/DT700 Series Cabling

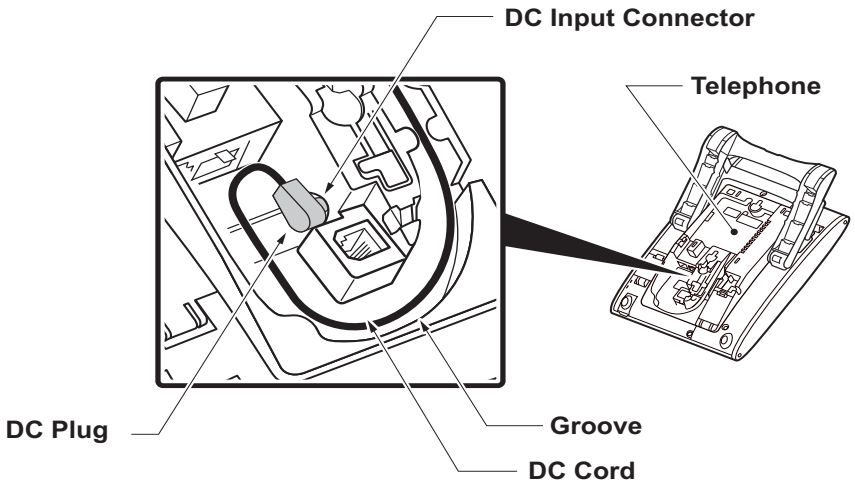
To connect DT800 Series (DT830/DT830G)/DT700 Series (DT730/DT730G/DT710) to the network device such as HUB, PoE Switch through the LAN cable, use the following procedure. Prepare LAN cables (10BASE-T/100BASE-T/TX straight-through) for connecting the telephone to network device.

- DT830G Series/DT700 Series

STEP 1: When AC adapter is used to supply power to a telephone, insert the DC plug of the AC adapter to the DC input connector on the back of the telephone.

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

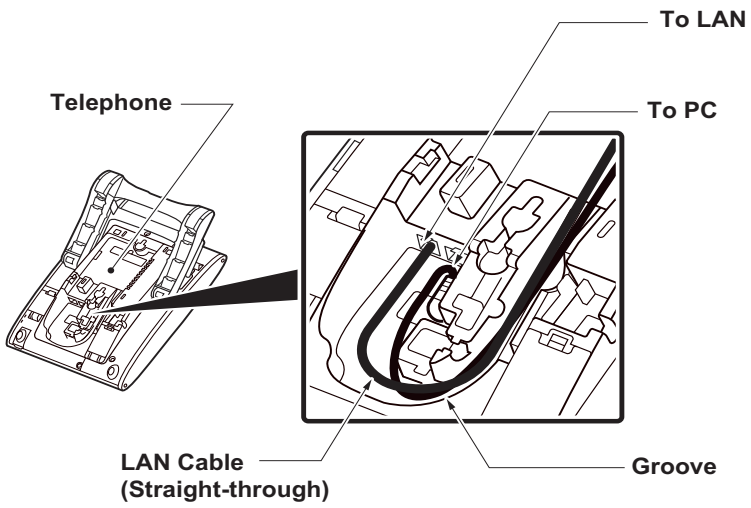
STEP 2: Thread the AC adapter through the groove on the back of the telephone.



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.

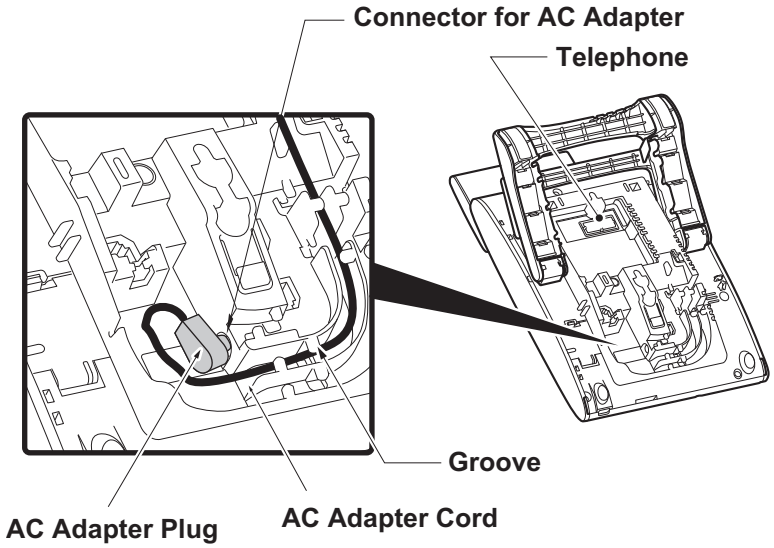
STEP 4: Thread the LAN cable through the groove on the back of the telephone.



- DT830 Series

STEP 1: When AC adapter is used to supply power to a telephone, insert AC adapter plug into the connector of AC adapter on the back of telephone.

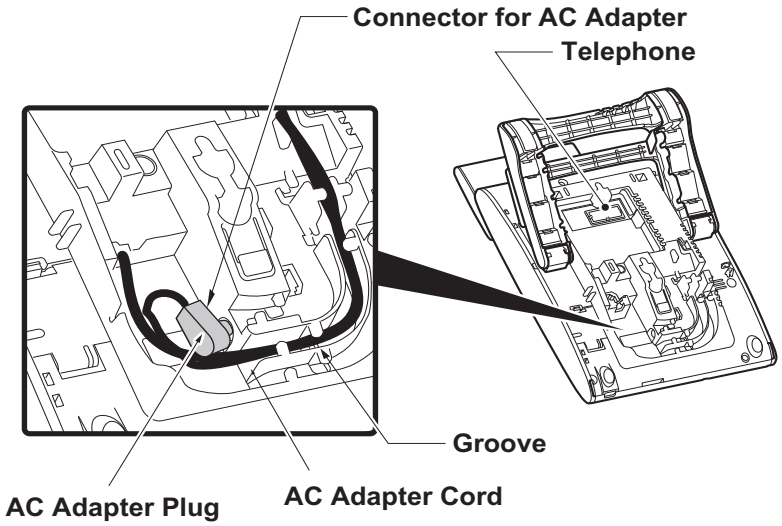
STEP 2: Fix the AC adapter cord through the groove on the back of telephone.



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.

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

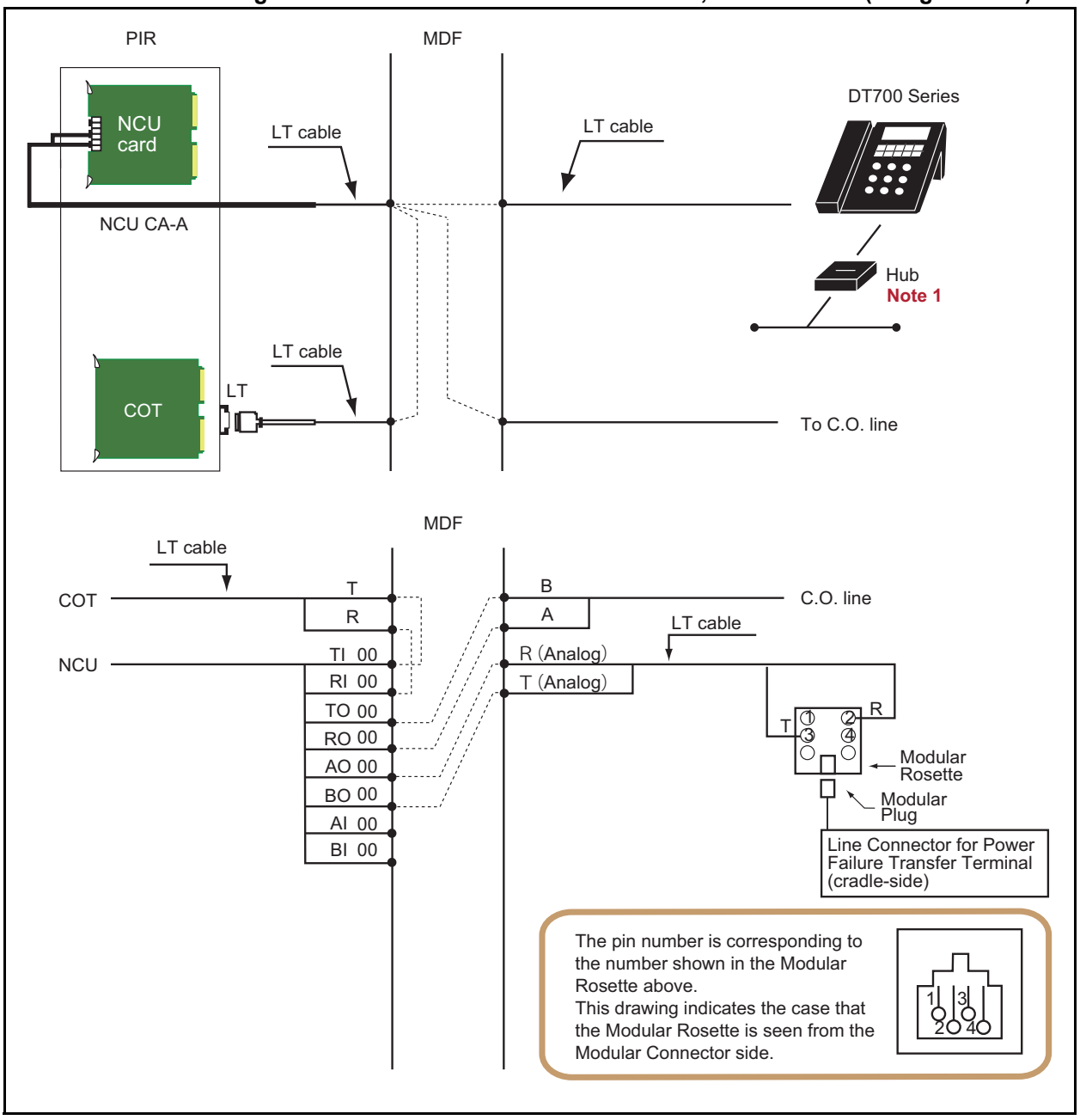


4. Connection Diagram of DT700 Series as Power Failure Transfer Terminal

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

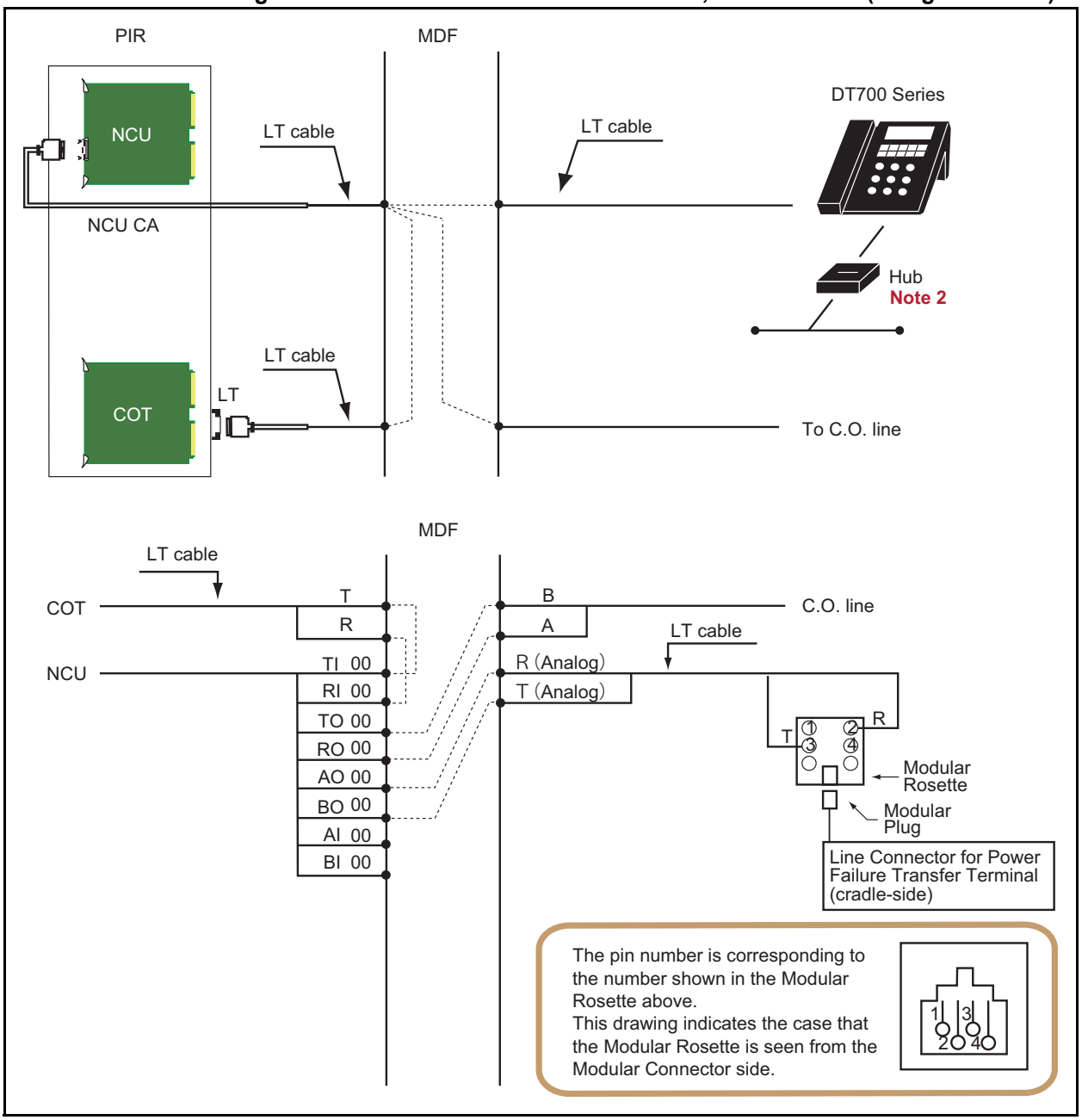
Note: NCU card (CH-M01 or PA-M69-A) is required.

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



Note 1: 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)



Note 2: When a powered Hub (PoE switch) is not used, AC adapter needs to be connected to the terminal.

7. Configuration Setup

7.1 DT800 Series

This section explains the configuration setup for DT800 Series. The following types of configuration settings are provided for DT800 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 Section 7.1.2 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 Section 7.1.2 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 DT800 Series though, they cannot be used in this version.)*

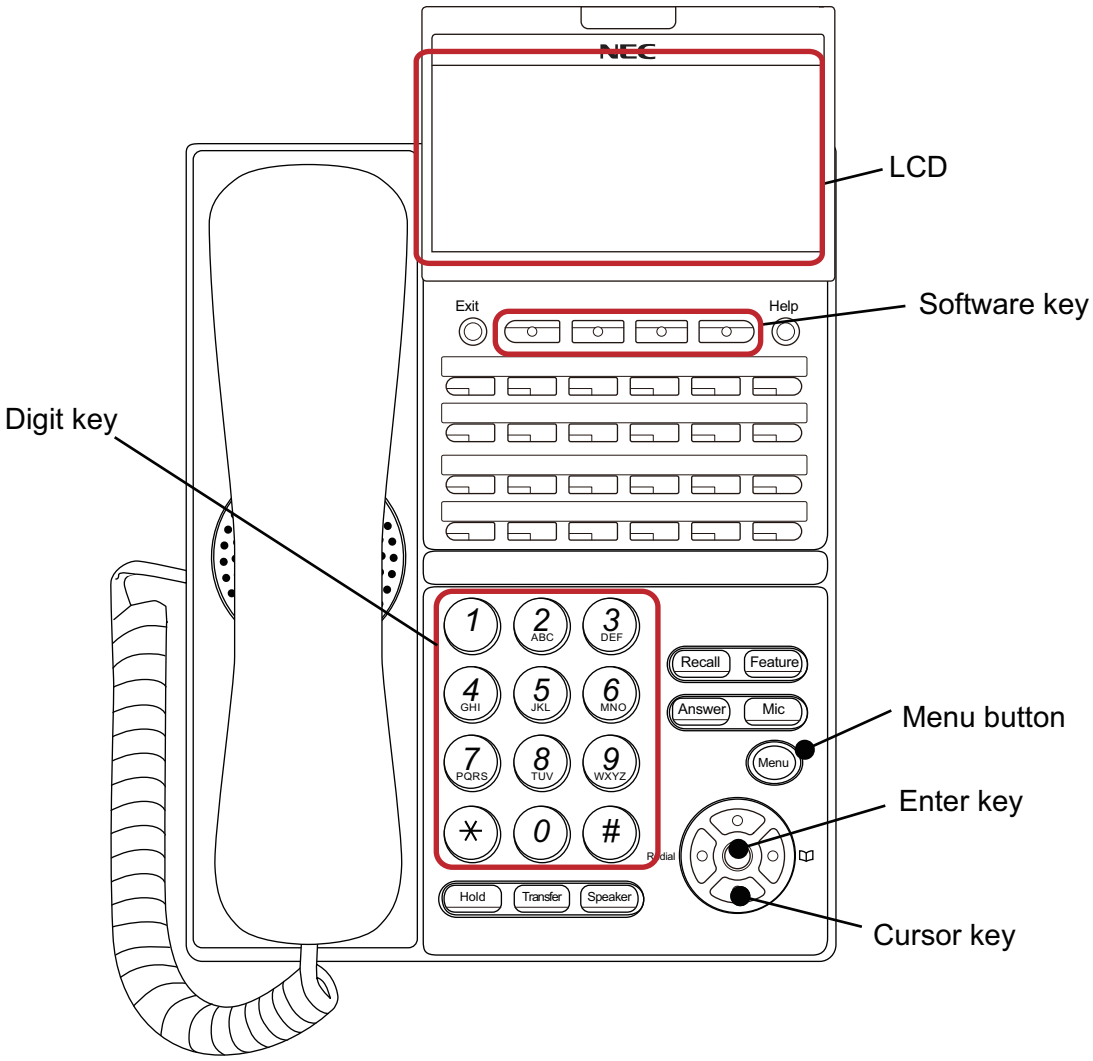
7.1.1 How to Start Configuration Setting

This section explains the operation procedure to start configuration settings on terminal and Web Programming on maintenance console.

7.1.1.1 Configuration Setup on Terminal

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

DT800 Series Overview



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

<Startup Procedure>

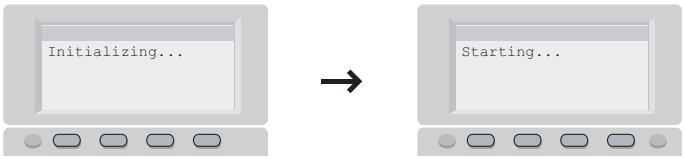
From turning ON the power to getting [Menu] and [Config] menus on the LCD are explained in this section.

[1] Power On

STEP 1: Power ON

Plug in the LAN cable to the LAN port.
(Connect optional AC/DC adapter to DC Jack (DC 24V-30V), 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.

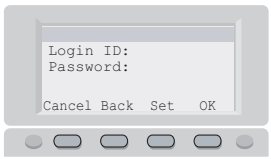
STEP 3: Shortly after the above is displayed, the following will be displayed on the LCD.



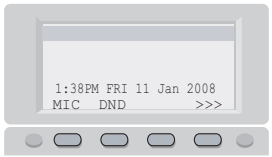
Login mode → **Go to STEP 4**

MAC authentication mode → **Go to STEP 5**

STEP 4: For login mode, the LCD displays login screen. Enter Login ID and press Set, and then enter Password. After that, press the software key for "OK."



STEP 5: After a while, LCD displays date and time.



DT830 Series (Standard LCD)
Without Home URL (**Note 2**, **Note 3**)



DT830 Series (Standard LCD)
With Home URL (**Note 1**)

Example of XML application window

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.

Note 2: 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). However, the terminal accommodated to IPG (Digital) or UG50 cannot change the Time Display Pattern.

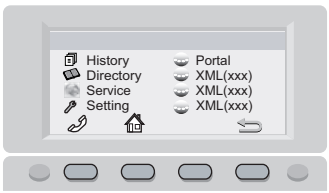
Note 3: When the time display pattern is changed, the following operations are required.
- Digital terminal: Initializing corresponding ELC card
- IP terminal: Restarting Terminal

END

[2] User Menu: [Menu]

While the LCD displays date and time (STEP 5 on the previous page), press the “Menu” key (**Note 3**) 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 3**
DT830G (Standard LCD)
Firmware version 3.0.0.0 or later **Note 3**

Note 3: “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.

[4] 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"→ "*"→ "#".

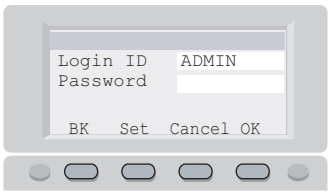


Terminals with Menu button: "Menu"+"0"

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

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

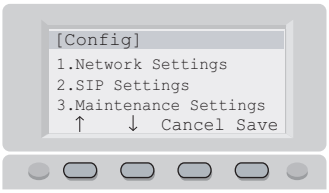
STEP 2: The LCD displays password entry screen. Enter User Name and Password, and then press the software key for "OK."



Note: Default value
Login ID: ADMIN
Password: 6633222

*Be sure to change the default password.

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



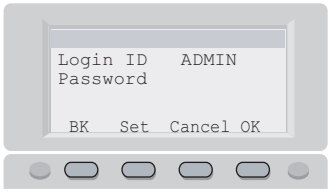
END

(b) Switch to [Config] menu after login

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

DT830 Series (Standard LCD): "0" key

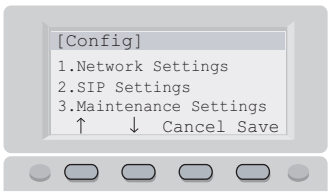
STEP 2: The LCD displays password entry screen for administrator's menu.



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

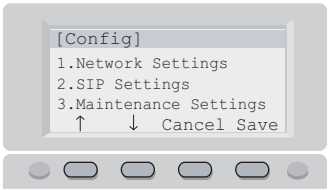
Note: Default value
User Name: ADMIN
Password: 6633222
*Be sure to change the default password.
See Section 7.1.2.14 Password Change.

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.” After existing [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.

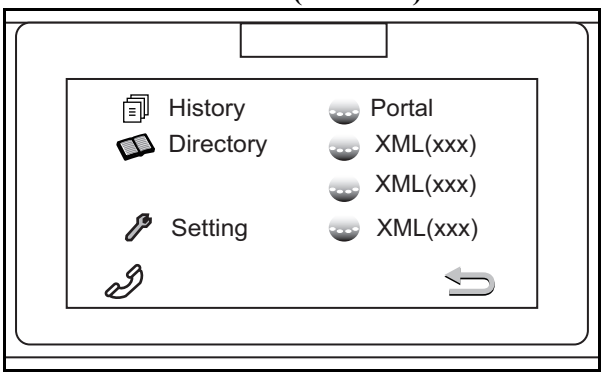
- Digit key - - - - - - - - Pressing the digit key corresponding to the menu number moves on to the next screen.

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

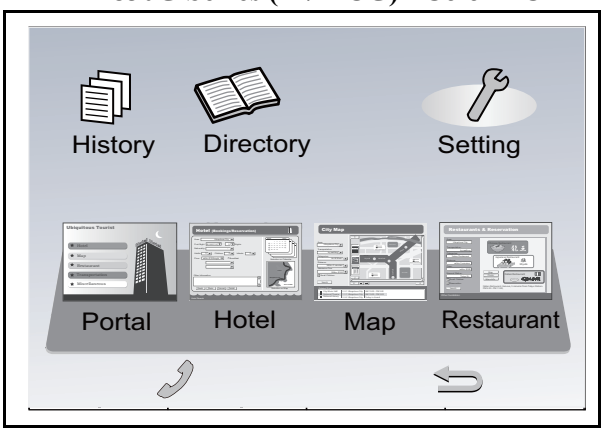
- Cursor key - - - - - - - Press the cursor key to select the target menu/parameter on the list. Then press the ENTER key or the software key for "OK" to move on to the next screen.

- 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 Series (12/24DG) <Standard LCD>



DT830G Series (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

7.1.1.2 Configuration Setup by Web Programming

Web Programming is an application software 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: 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. See Section 7.1.2.14 Password Change.*

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

STEP 2:

<Operations>

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

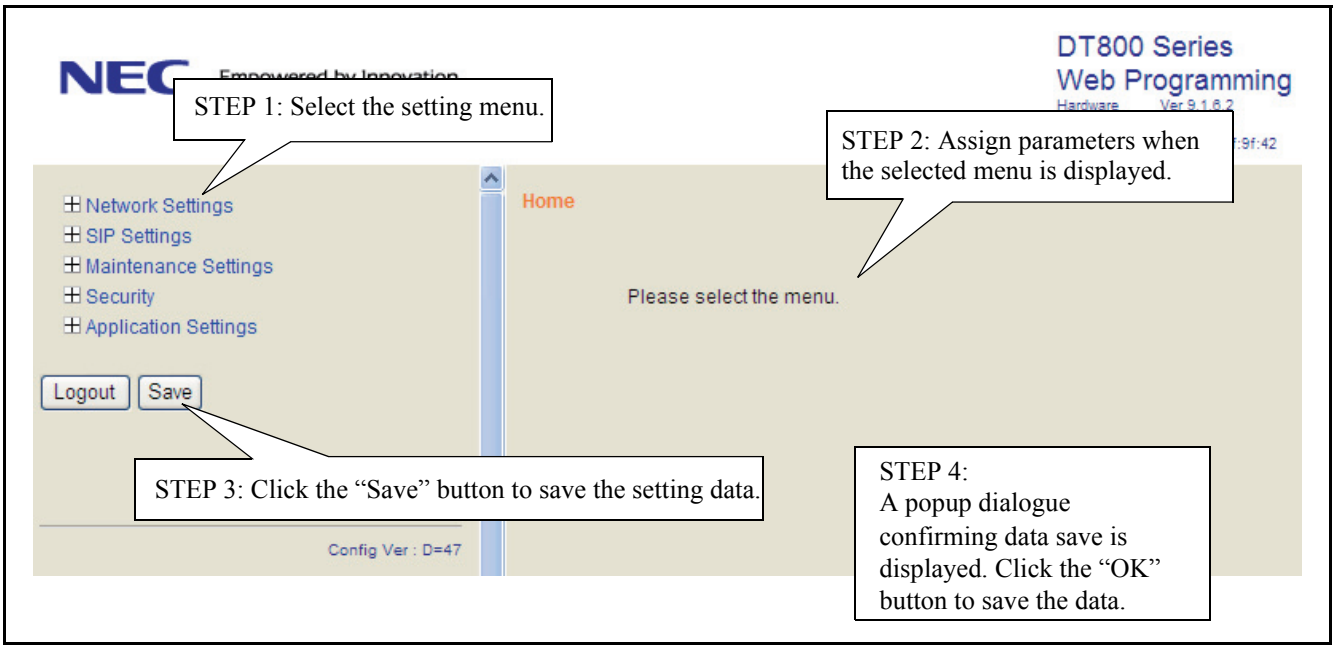
Note: The message waiting lamp of Cradle Phone blinks in yellow while logging into Web Programming.

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.


NEC
Empowered by Innovation
DT800 Series
Web Programming
Hardware Ver 9.1.6.2
STEP 1: Select the setting menu.
STEP 2: Assign parameters when the selected menu is displayed.
Network Settings
SIP Settings
Maintenance Settings
Security
Application Settings
Logout
Save
Home
Please select the menu.
STEP 3: Click the “Save” button to save the setting data.
STEP 4:
A popup dialogue confirming data save is displayed. Click the “OK” button to save the data.
Config Ver : D=47

7.1.2 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 Series and digit key operation.

	DT830G Series (Color LCD)	DT830/DT830G Series (Standard LCD)
Maximum number of lines displayed on LCD	6 lines **Note 1**	3 lines **Note 1**
Operation	Digit key	
	Cursor key	
	Software key for "↑" and "↓"	

Note 1: The maximum number of lines means the available number on condition that default value is applied for font size setting.

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

7.1.2.1 IP Address of DT800 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 DT800 Series are 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. DT800 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 settings of DT800 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. DT800 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 settings of DT800 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 DT800 Series' configuration settings:

- DT800 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 DT800 Series
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 DT800 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 DT800 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 DT800 Series 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 DT800 Series, router (default gateway), subnet mask, and SIP server address (or FQDN).

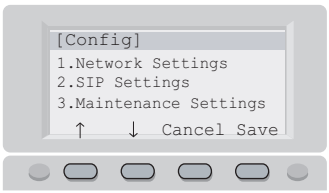
Telephony Server’s IP address (or FQDN) must be pre-assigned to DHCP Options in the following ways.

For DT800 Series/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 settings.

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 Settings on Terminal

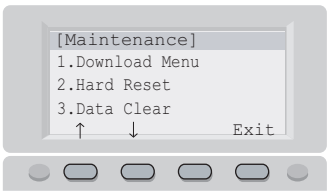
STEP 1: On [Config] main menu, select "3. Maintenance Settings."



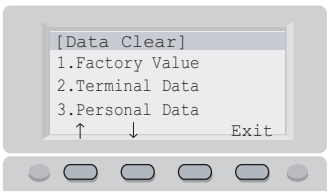
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

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

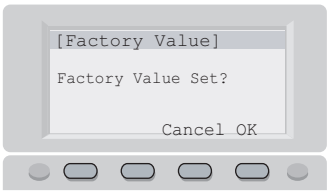
STEP 2: On [Maintenance] menu, select "3. Data Clear."



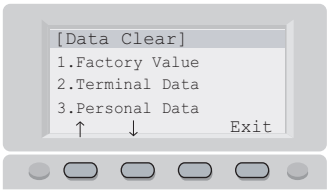
STEP 3: On [Data Clear] menu, select "1. Factory Value."



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



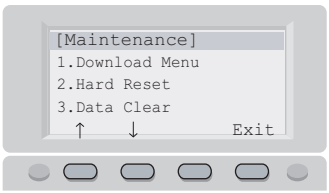
STEP 5: All the parameters return to factory default settings. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



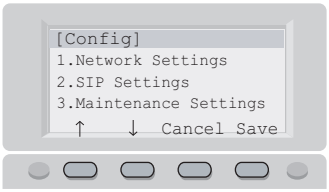
A

A

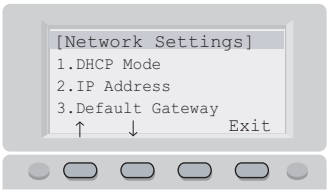
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



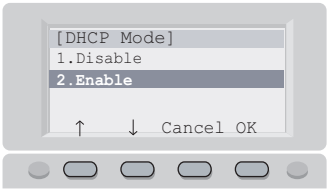
STEP 7: On [Config] menu, select "1. Network Settings."



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



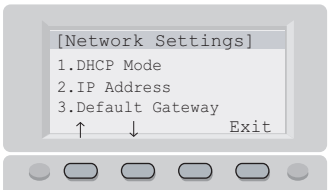
STEP 9: On [DHCP Mode] screen, verify that "2. Enable" is flashing, and then press the software key for "OK."



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:

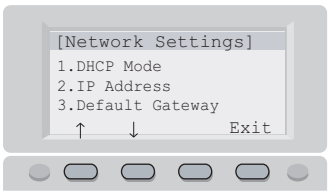
On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 14**

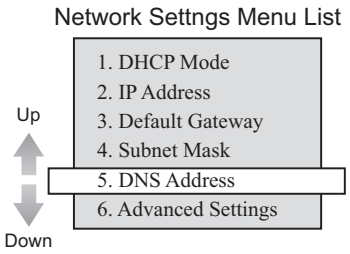
FQDN

When SIP server is specified by FQDN via DHCP server:

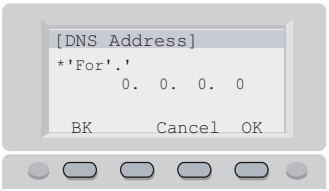
If DHCP option 162 (information for Telephony Server which DT800 Series connected to) specifies SIP server by FQDN instead of IP address, it is necessary to perform either of the following:
-Obtain DNS server's IP address from the DHCP server.
-Assign DNS Server's IP address on DT800 Series [Config] 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."





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

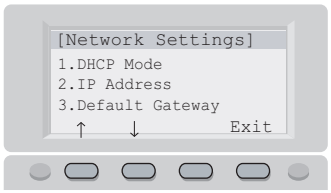


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

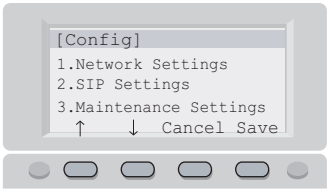
C

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 DT800 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 "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 DT800 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 DT800 Series configuration settings.
When not necessary to assign DNS server's IP address on configuration settings, 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 DT800 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.

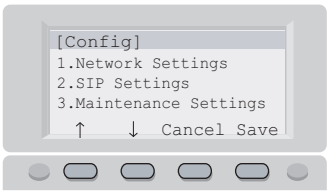
<Type 2 - System with DHCP Server (SIP Server's IP Address Is Not Assigned by DHCP Server)>

This section explains the procedure of DT800 Series 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 DT800 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 DT800 Series, SIP server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT800 Series, SIP server, DHCP.*

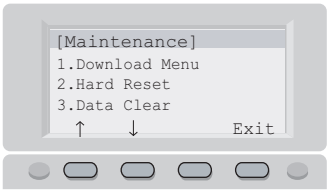
[1] Configuration Settings on Terminal

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

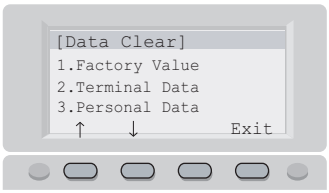


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

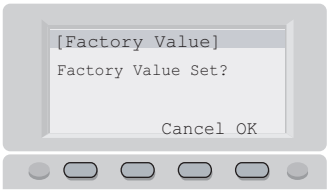
STEP 2: On [Maintenance] menu, select "3. Data Clear."



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



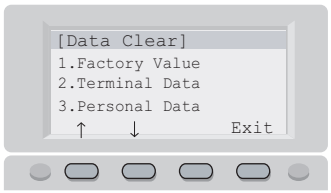
STEP 4: On [Factory Value] screen, press the software key for "OK."



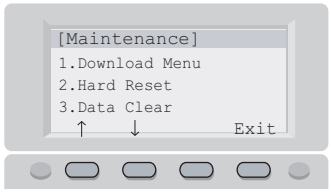
A

A

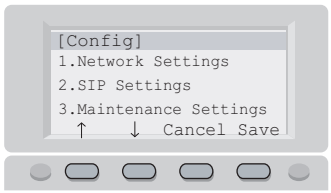
STEP 5: All the parameters return to factory default setting. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



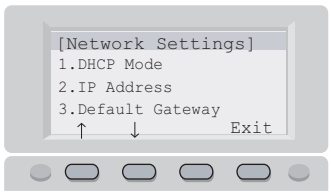
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



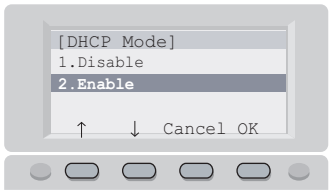
STEP 7: On [Config] menu, select "1. Network Settings."



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



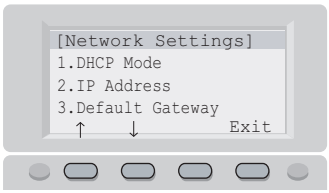
STEP 9: On [DHCP Mode] screen, verify that "2. Enable" is flashing, and then press the software key for "OK."



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**

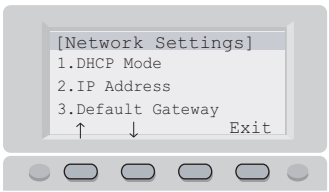
FQDN

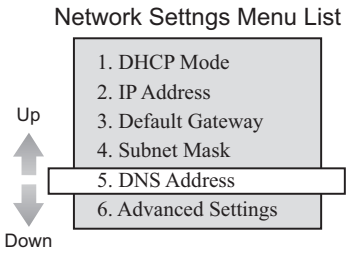
When SIP server is specified by FQDN via DHCP server:

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 DT800 Series [Config] settings. ➡ **Go to STEP 11**

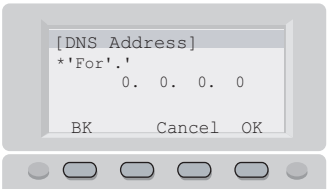
When not necessary to assign DNS server's IP address on configuration setting, ➡ **Go to STEP 14**

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.

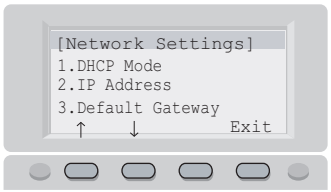


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

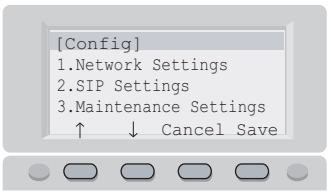
C

C

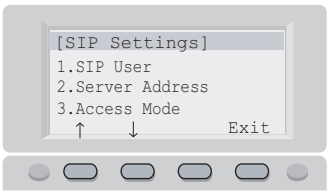
STEP 13: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



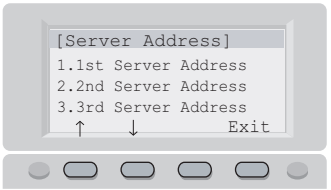
STEP 14: On [Config] menu, select "2. SIP Settings."



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



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



D

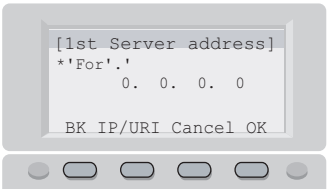
D

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:

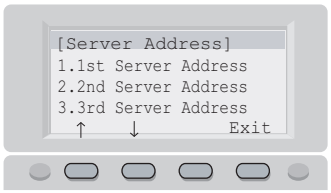


Press the software key for "IP/URI" to switch the mode to URI entry.

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

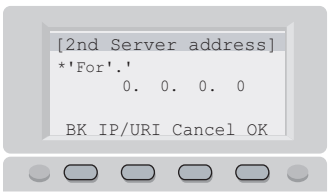
Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

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.

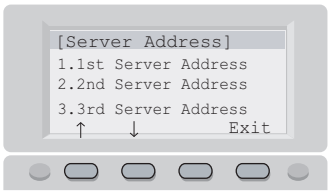


As in STEP 17, specify the SIP server by IP address or FQDN.
Press the software key for "OK" when all settings are complete and return to [Server Address] menu.

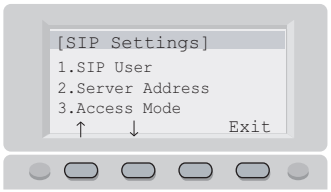
E

E

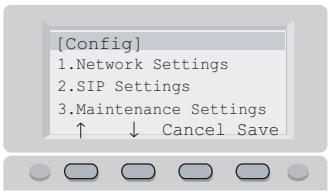
STEP 20: On [Server Address] menu, press the software key for "Exit" to return to [SIP Settings] menu.



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 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 DT800 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 DT800 Series configuration settings.
When not necessary to assign DNS server's IP address on configuration settings, 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) is available to use for domain name entry (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 DT800 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.

<Type 3 - System without DHCP Server>

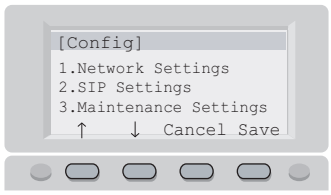
This section explains the procedure of DT800 Series data assignment for a system without DHCP server; DHCP server is not connected to the network or the system is activated in a way that does not use DHCP server.
The followings are necessary to assign in the DT800 Series' configuration setting:

- DT800 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 DT800 Series, SIP server, DHCP server.
• Do Not Unplug or Plug the LAN cable connecting to the DT800 Series, SIP server, DHCP.
• Do Not Turn OFF the power of the HUB connecting to the DT800 Series, SIP server, DHCP.

[1] Configuration Settings on Terminal

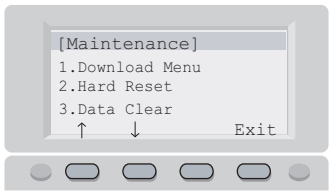
STEP 1: On [Config] main menu, select "3. Maintenance Settings."



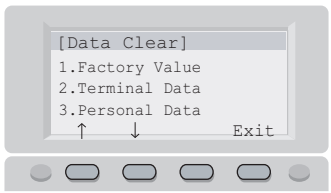
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

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

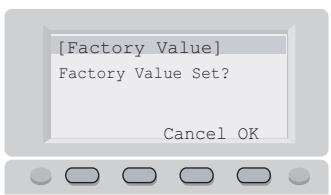
STEP 2: On [Maintenance] menu, select "3. Data Clear."



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



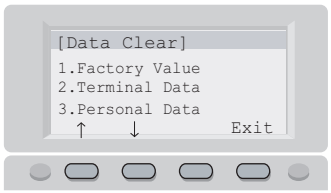
STEP 4: On [Factory Value] screen, press the software key for "OK."



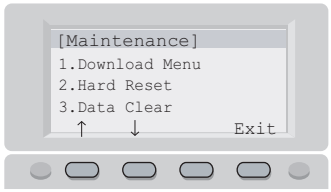
A

A

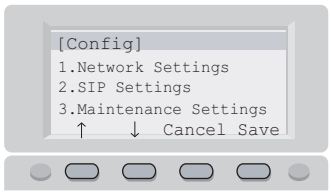
STEP 5: All the parameters return to factory default settings. On [Data Clear] menu, press the software key for "Exit" to display [Maintenance] menu.



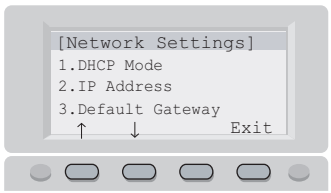
STEP 6: On [Maintenance] menu, press the software key for "Exit" to return to [Config] main menu.



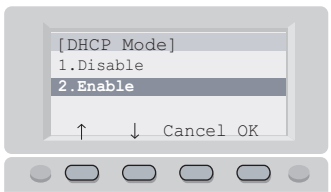
STEP 7: On [Config] menu, select "1. Network Settings."



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



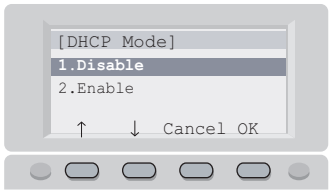
STEP 9: On [DHCP Mode] screen, "2. Enable" is flashing.



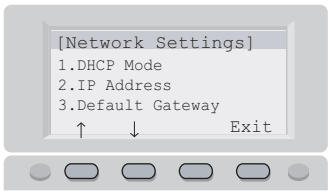
B

B

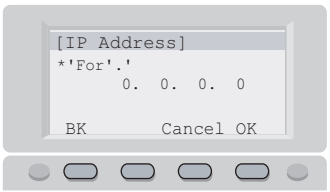
STEP 10: Select "1." and verify that "1. Disabled" line is flashing. Then press the software key for "OK."



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

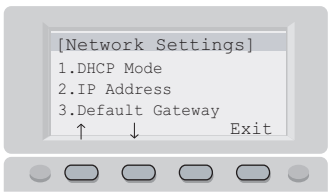


STEP 12: On [IP Address] setting screen, assign the IP address of DT800 Series terminal using number keys.

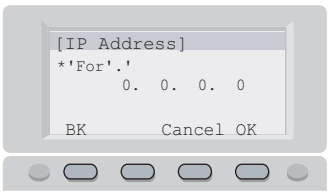


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

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 DT800 Series terminal using digit keys.

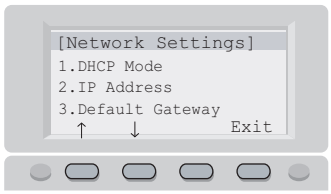


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

C

C

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



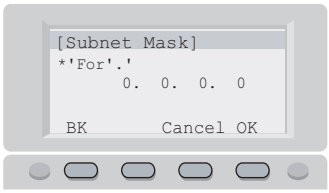
Network Settngs Menu List

Up

Down

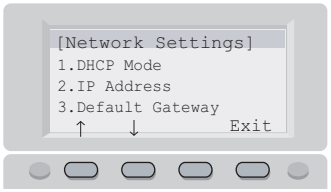
1. DHCP Mode
2. IP Address
3. Default Gateway
4. Subnet Mask
5. DNS Address
6. Advanced Settings

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



Use "*" to separate each bytes.
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:

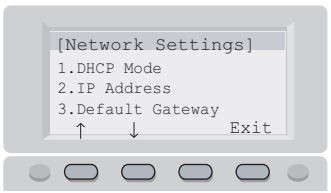
On [Network Settings] menu, press the software key for "Exit" to return to [Config] menu. ➡ **Go to STEP 22**

FQDN

When FQDN is used to specify SIP server:

Assign DNS Server's IP address on DT800 Series [Config] settings. ➡ **Go to STEP 18**

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



Network Settngs Menu List

Up

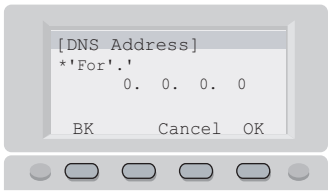
Down

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

D

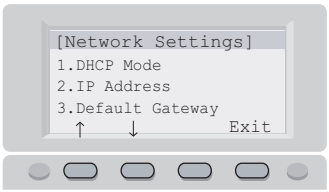
D

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

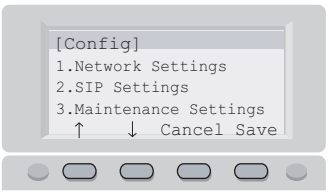


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

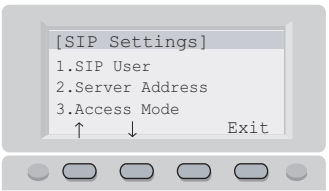
STEP 20: The LCD displays [Network Settings] menu. Press the software key for "Exit" to return to [Config] menu.



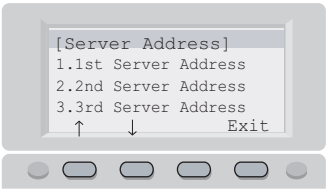
STEP 21: On [Config] menu, select "2. SIP Settings."



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



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



E

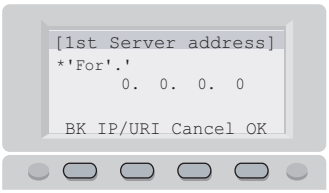
E

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

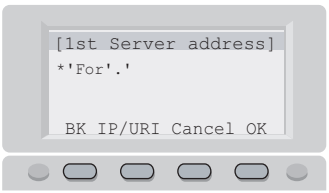
When specifying the SIP server by IP address:



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

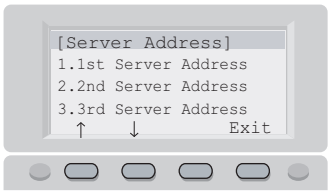
When specifying the SIP server by FQDN:



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) is available to use for domain name entry (maximum 128 characters).
Press the software key for "OK" when all settings are complete.

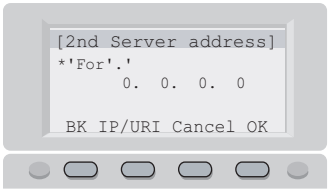
Note: DNS server's assignment is necessary when using fully qualified domain name. See "IP Address Setting for DNS Server" for details.

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.

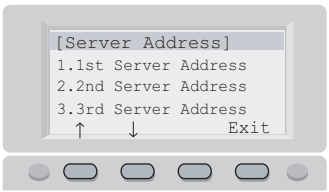


As in STEP 24, specify the SIP server by IP address or FQDN.
Press the software key for "OK" when all settings are complete and return to [Server Address] menu.

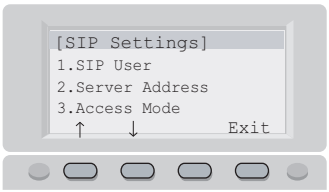
F

F

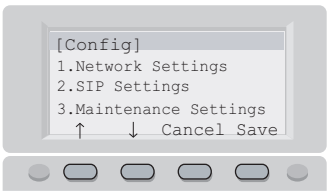
STEP 27: On [Server Address] menu, press the software key for "Exit" to return to [SIP Settings] menu.



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 DT800 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 DT800 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 DT800 Series 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 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) is available to use for domain name entry (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 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 DT800 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.

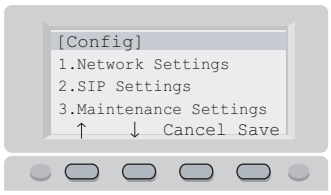
7.1.2.2 PC Port Remote Control

To use PC Port Remote Control feature assigned by PCPro programming, the following setting is also required on DT800 Series terminal side.

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

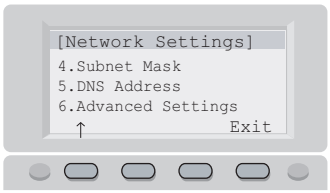
[1] Configuration Settings on Terminal

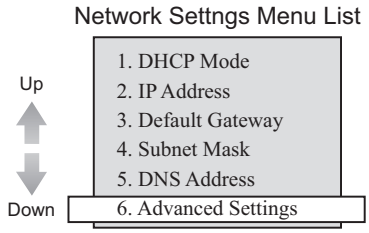
STEP 1: On [Config] menu, select "1. Network Settings."



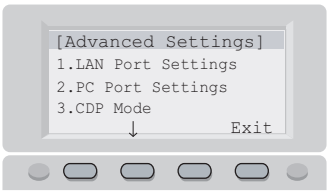
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

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





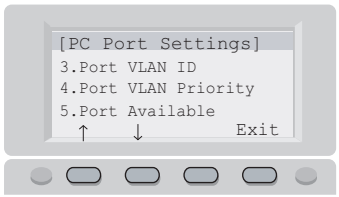
STEP 3: On [Advanced Settings] menu, select "2. PC Port Settings."

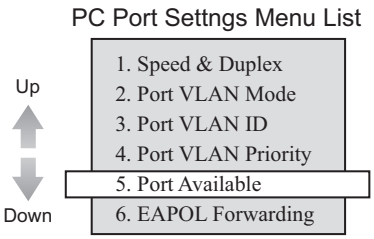


A

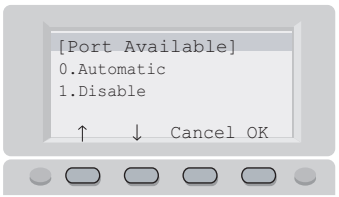
A

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:

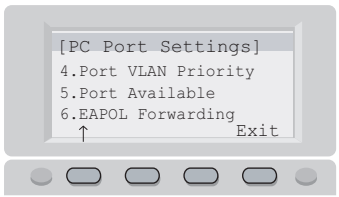
a.) When automatically setting the DT800 Series terminal's PC port status following the setting on PCPro:

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

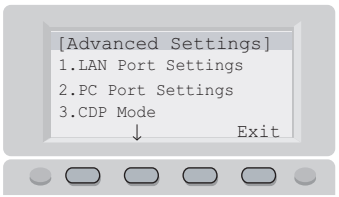
b.) When disabling the DT800 Series terminal's PC port without following the setting on PCPro:

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

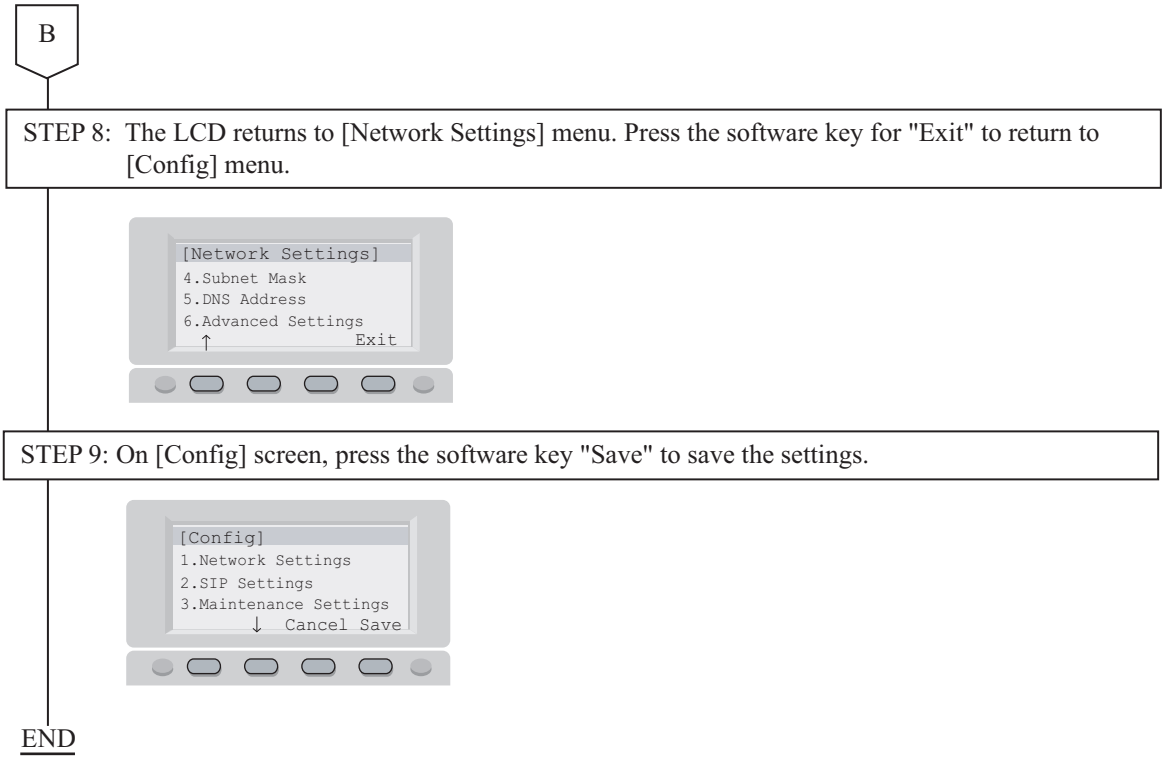
STEP 6: The LCD returns to [PC Port Settings] menu. Press the software key for "Exit."



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 DT800 Series terminal’s PC port status following the setting on PCPro
2. Disable:
   Disable the DT800 Series terminal’s PC port without following the setting on PCPro

STEP 3: Click the “save” button.

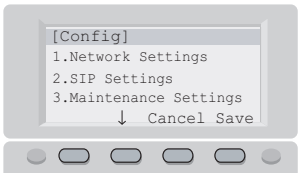
7.1.2.3 Type of Service (ToS)

ToS value can be changed on DT800 Series terminal.

Note: During operation, ToS value assigned by the Telephony Server is enabled. It is unnecessary to assign ToS value on the DT800 Series terminal side.

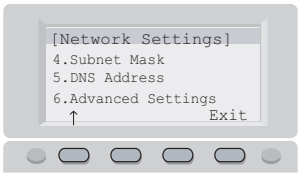
[1] Configuration Setting on Terminal

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

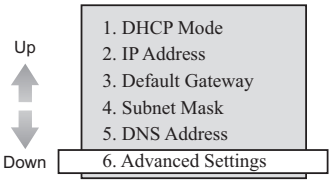


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

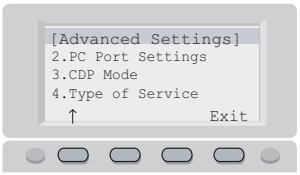
STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”



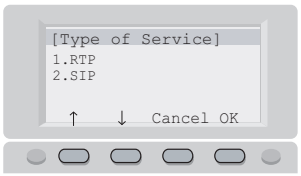
Network Settings Menu List



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)”

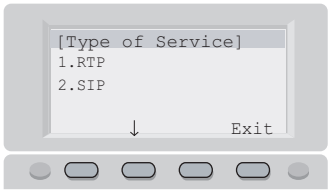
1. Press the number button “0” once.
2. Press the number button “2” three times
   (The value changes “2” > “A” > “B.”)

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

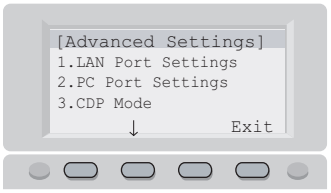
A

A

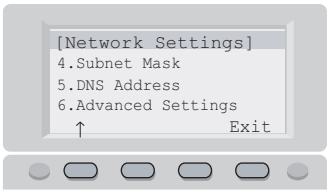
STEP 6: The LCD returns to [Type of Service] screen. Press the software key for "Exit."



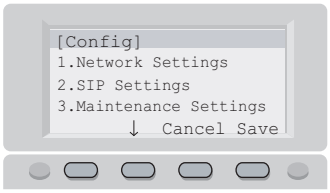
STEP 7: The LCD returns to [Advanced Settings] menu. Press the software key for "Exit."



STEP 8: The LCD returns to [Network 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 [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.

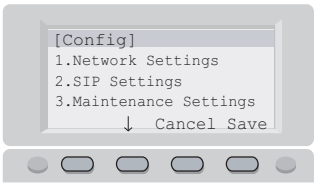
STEP 4: Click the “Save” button.

7.1.2.4 Digest Authentication

This menu assigns User ID and password for Digest Authentication.

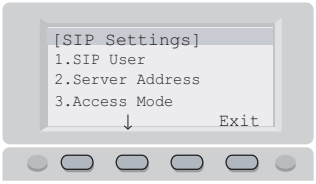
[1] Configuration Setting on Terminal

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

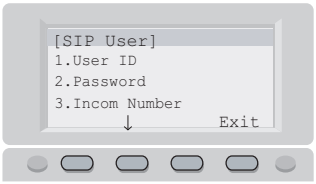


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

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.

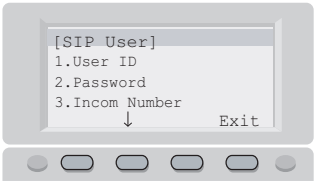


Enter User ID using the digit keys.

-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.

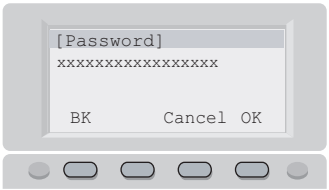
STEP 5: The LCD returns to [SIP User] menu. Select “2. Password.”



A

A

STEP 6: The LCD displays [Password] screen.



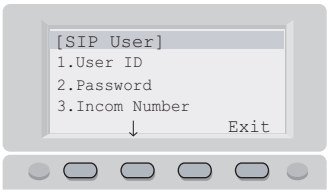
Enter Password for the User ID using the digit keys.

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

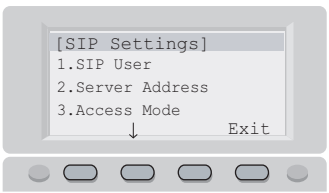
Press the software key for “OK” when all settings are complete.

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

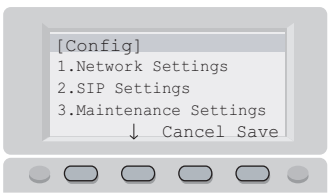
STEP 7: The LCD returns to [SIP User] menu. Press the software key for “Exit.”



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 3**

Note 3: The terminal will not display the entered value as numbers. Instead, they will be displayed as asterisks (*).

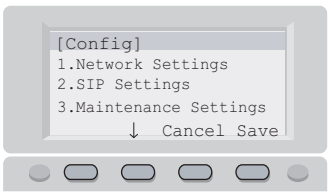
STEP 5: Click the “Save” button.

7.1.2.5 Port Number

This section explains how to change the port number used to send packets from DT800 Series to SIP server.

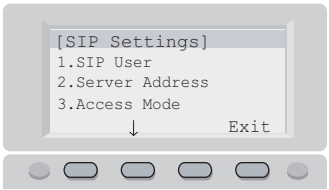
[1] Configuration Setting on Terminal

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

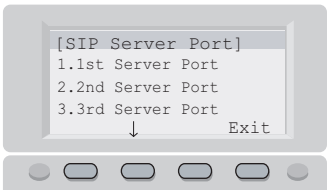


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

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.

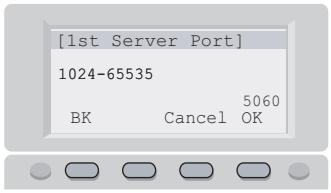
c.) Press 3. to change the port number of 3rd SIP server used to send packets.

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

A

A

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

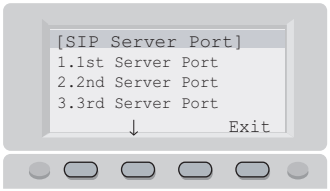


Enter User ID using the digit keys.

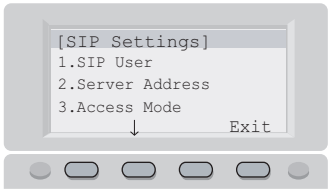
-Use digit keys.
-It is possible to enter values between 1024-65535.
-Default value is 5060.

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

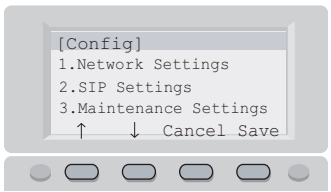
STEP 5: The LCD returns to [SIP Server Port] menu. Press the software key for “Exit.”



STEP 6: The LCD returns to [SIP Settings] menu. Press the software key for “Exit” to return to [Config] menu.



STEP 7: On [Config] screen, press the software key "Save" to save the settings. SIP server begins setup for DT800 Series.



END

[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 DT800 Series.

7.1.2.6 Area ID

DT800 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 DT800 Series usage is possible and the procedure to change the Area ID.

[1] Configuration Settings on Terminal

[Countries (Areas) Where DT800 Series Usage is Available] **Note 2**

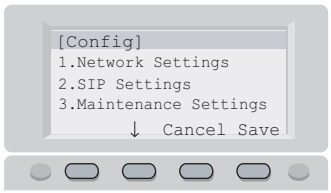
[Area ID/Country]
0. Automatic (Telephony Server side setting is applied when Automatic is selected.)
1. Japan
2. America (Canada and North America)
3. Australia
4. Others
5. Hong Kong
6. Malaysia
7. Singapore
8. Mexico
9. Taiwan
10. New Zealand
11. Korea
12. Brazil
13. China
14. Thailand
15. Thailand (EGAT)
16. Sri Lanka
17. Germany
18. Italy

[Countries (Areas) Where DT800 Series Usage is Available] **Note 2**

[Area ID/Country]
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)

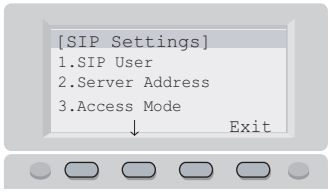
Note 2: Initial factory settings is “0. Automatic.” In other settings, the terminal side settings has priority.

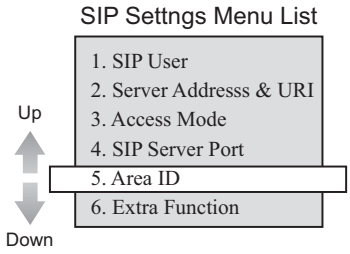
STEP 1: On [Config] menu, select “2. SIP Settings.”



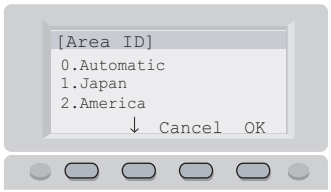
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

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





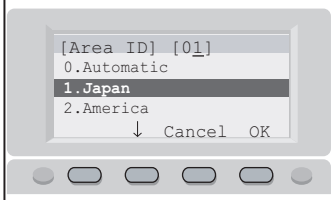
STEP 3: The LCD displays [Area ID] menu.



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.

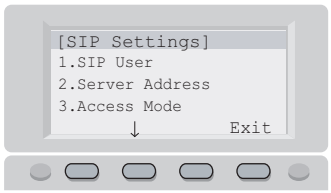
Example



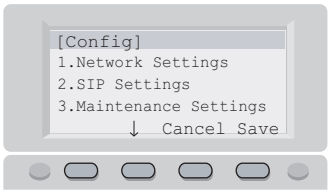
When selecting [1. Japan]:

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

[3] 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 DT800 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 DT800 Series Usage is Available]

[Area ID/Country]
34. South Africa
35. Brazil (NECU)

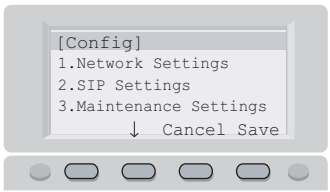
STEP 3: Click the “Save” button.

7.1.2.7 Keeping Call

User can assign data to retain an ongoing call when the network between DT800 Series and the Telephony Server is disconnected by a failure.

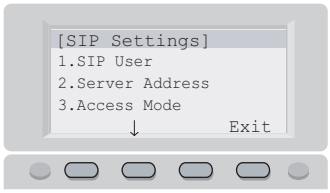
[1] Configuration Setting on Terminal

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

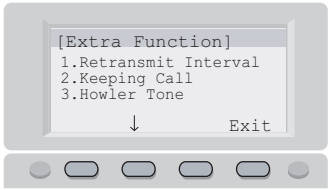


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

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



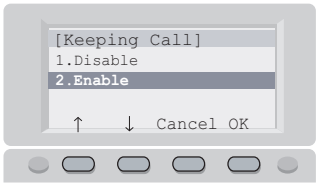
STEP 3: The LCD displays [Extra Function] menu. Select “2. Keeping Call” to display the [Keeping Cal] menu.



A

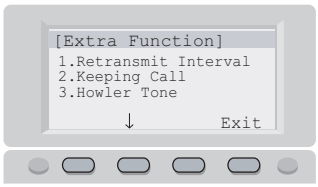
A

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

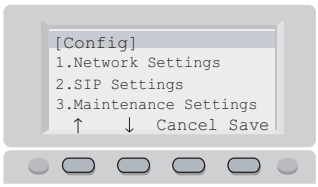


Note: When "2. Disable" is selected, an ongoing call through the handset will be kept until the appropriate terminal goes off-hook. An ongoing call through the headset or hands-free operation will be disconnected when the system detects the failure the system does not response to any information of terminal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

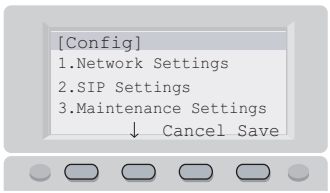
7.1.2.8 Side Tone

User can assign Sidetone Volume on DT800 Series terminal.

Note: Sidetone volume set by system takes priority over this setting.

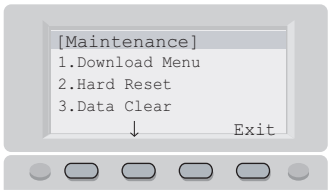
[1] Configuration Settings on Terminal

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

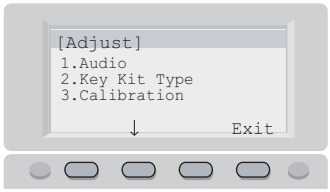


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

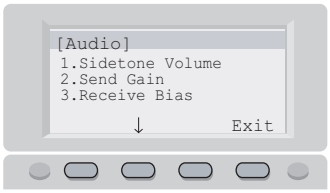
STEP 2: On [Maintenance] menu, select "4. Adjust" to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select "1. Audio."



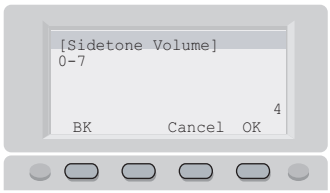
STEP 4: On [Audio] menu, select "1. Sidetone Volume."



A

A

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.

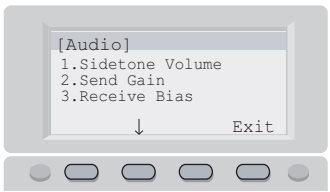


-Use digit keys 0-7.
-Press the software key for "BK" to delete entered value.

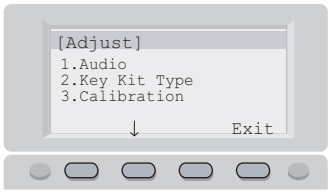
Note 1: *Sidetone volume set by system takes priority over this setting.*

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)

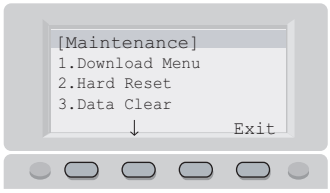
STEP 6: On [Audio] menu, press the software key for "Exit" to display [Adjust] menu.



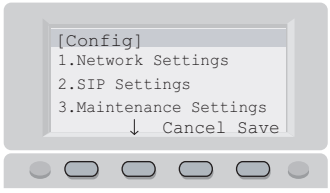
STEP 7: On [Adjust] menu, press the software key for "Exit" to display [Maintenance] menu.



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 1**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

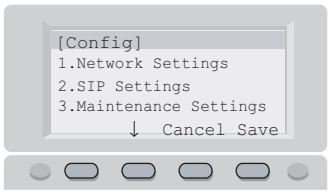
Note 3: For details on Sidetone Volume value, see [1] Configuration Settings on Terminal–STEP 5.

7.1.2.9 Handset Send Gain

User can assign Handset Send Volume on DT800 Series terminal. When the Telephony Server assigns Handset Send volume, it will have priority over the terminal side settings.

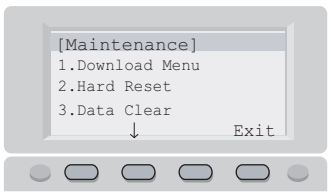
[1] Configuration Settings on Terminal

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

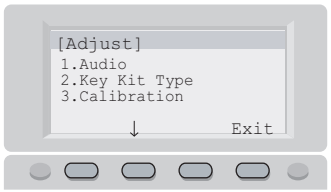


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

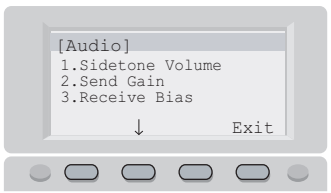
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Audio.”



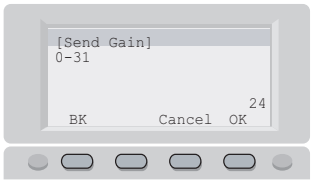
STEP 4: On [Audio] menu, select “2. Send Gain.”



A

A

STEP 5: On [Send Gain] menu, use digit keys to assign Handset volume. **Note 1**
Press the software key for "OK" when all settings are complete to return to [Audio] menu.

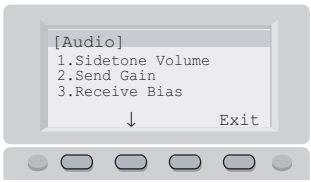


-Use digit keys 0-31.
-Press the software key for "BK" to delete entered value.

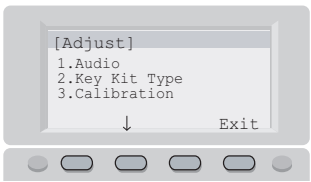
Assigned Value **Note 2**	Handset Volume
0	(Minimum Volume)
~	~
22	
23	
24	(Initial Value)
25	
26	
27	
28	
29	
30	
31	(Maximum Volume)

Note 1: Sidetone volume set by system takes priority over this setting.
Note 2: Volume becomes 2 dB higher/lower in each change of Assigned Value.

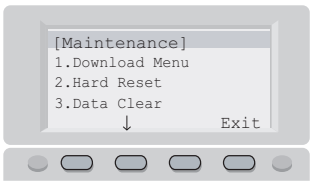
STEP 6: On [Audio] menu, press the software key for "Exit" to display [Adjust] menu.



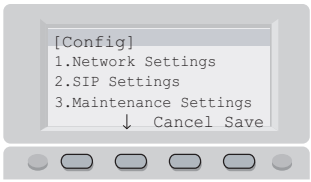
STEP 7: On [Adjust] menu, press the software key for "Exit" to display [Maintenance] menu.



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 3**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

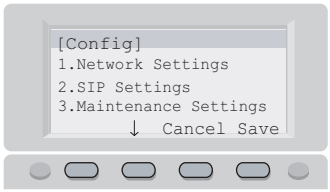
Note 3: For details on Handset Send Gain Value, see [1] Configuration Settings on Terminal–STEP 5.

7.1.2.10Handset Receive Bias

User can assign Handset Receive Volume on DT800 Series terminal.

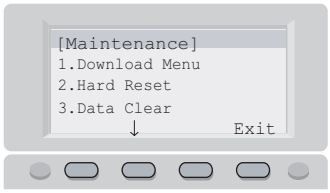
[1] Configuration Settings on Terminal

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

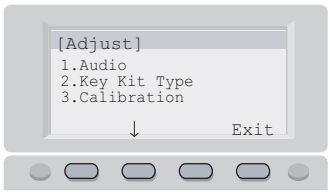


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

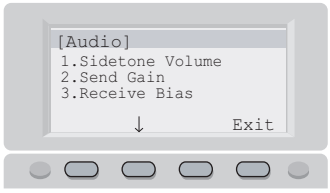
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Audio.”



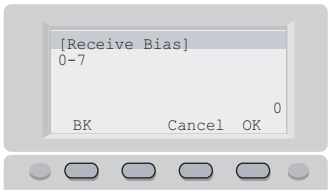
STEP 4: On [Audio] menu, select “3. Receive Bias.”



A

A

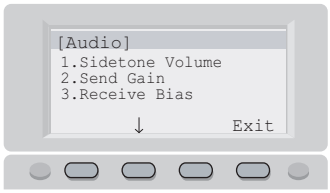
STEP 5: On [Receive Bias] menu, use digit keys to assign Handset Receive Volume.
Press the software key for “OK” when all settings are complete to return to [Audio] menu.



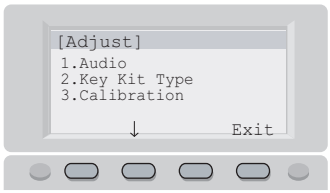
-Use digit keys 0-7.
-Press the software key for “BK” to delete entered value.

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)

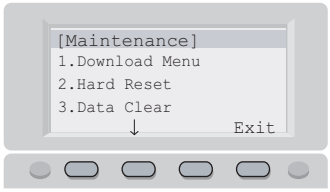
STEP 6: On [Audio] menu, press the software key for “Exit” to display [Adjust] menu.



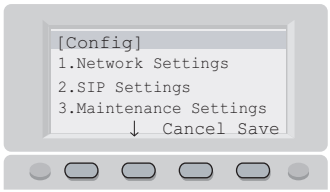
STEP 7: On [Adjust] menu, press the software key for “Exit” to display [Maintenance] menu.



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 3**

STEP 3: Click the “OK” button.

STEP 4: Click the “Save” button.

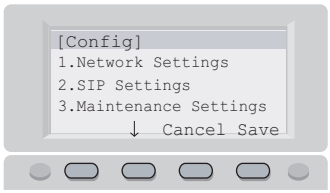
Note 3: For details on Handset Receive Bias Value, see [1] Configuration Settings on Terminal–STEP 5.

7.1.2.11 Handset Receive Gain

User can assign Handset Receive Volume on DT800 Series terminal. When the Telephony Server assigns Handset Receive volume, it will have priority over the terminal tone settings.

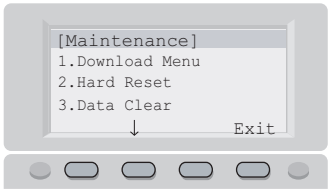
[1] Configuration Settings on Terminal

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

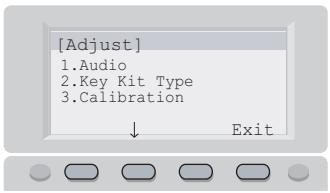


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

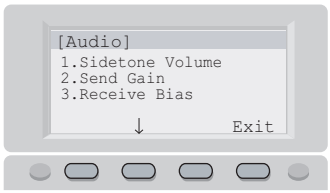
STEP 2: On [Maintenance] menu, select “4. Adjust” to display the [Adjust] menu.



STEP 3: On [Adjust] menu, select “1. Audio.”



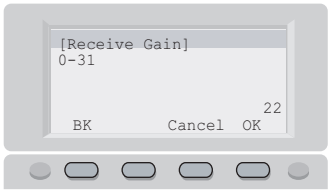
STEP 4: On [Audio] menu, select “4. Receive Gain.”



A

A

STEP 5: On [Receive Gain] menu, use digit keys to assign Handset Receive Gain. **Note 1**
Press the software key for "OK" when all settings are complete to return to [Audio] menu.



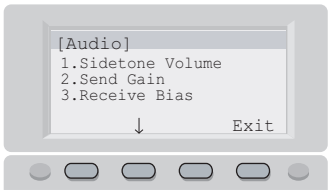
- Use digit keys 0–31.
- Press the software key for "BK" to delete entered value.

Note 1: Sidetone volume set by system takes priority over this setting.

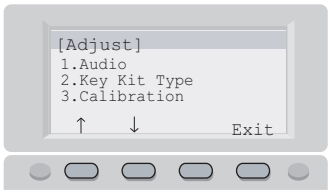
Assigned Value Note 2	Handset Volume
0	(Minimum Volume)
~	~
16	
17	
18	
19	
20	
21	
22	(Initial Value)
23	
24	
~	
31	(Maximum Volume)

Note 2: Volume becomes 2 dB higher/lower in each change of Assigned Value.

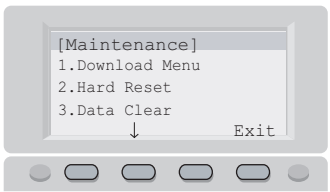
STEP 6: On [Audio] menu, press the software key for "Exit" to display [Adjust] menu.



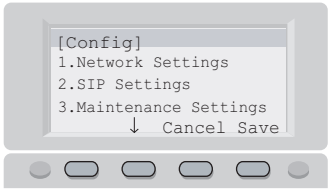
STEP 7: On [Adjust] menu, press the software key for "Exit" to display [Maintenance] menu.



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 3**

STEP 3: Click the "OK" button.

STEP 4: Click the "Save" button.

Note 3: For details on Handset Receive Gain Value, see [1] Configuration Settings on Terminal–STEP 5.

7.1.2.12IEEE802.1X Authentication

This section explains how to assign data for IEEE 802.1X authentication for DT800 Series.

DT800 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 DT800 Series' PC port, EAP packet can be forwarded from that PC via DT800 Series (EAP Forwarding Feature).

There are four connection patterns.

PATTERN 1:

- Hardware is not connected to DT800 Series terminal's PC port.
- User enables DT800 Series terminal's 802.1X Supplicant feature.
- DT800 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 users to perform either of the following:
  - Perform preventive measures on authentication switch side
  - Disable PC Port in DT800 Series' Configuration menu

PATTERN 2:

- Hardware without Supplicant feature is connected to DT800 Series terminal's PC port.
- User enables DT800 Series terminal's 802.1X Supplicant feature.
- DT800 Series operates by connecting to a switch corresponding to authentication.
- Regarding the PC connected to DT800 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 DT800 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 DT800 Series terminal's PC port.
- User enables DT800 Series terminal's 802.1X Supplicant feature.
- DT800 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 DT800 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 DT800 Series terminal's PC port.
- User disables DT800 Series terminal's 802.1X Supplicant feature.
- DT800 Series operates by connecting to a switch corresponding to authentication.
- Authentication packet (EAP packet) from the PC is sent, via DT800 Series, to the switch corresponding to authentication.
- Regarding the PC connected to DT800 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 DT800 Series, respectively:
  - Multi–Host Authentication Feature corresponding to VLAN Tag is required on authentication switch side.

Note:

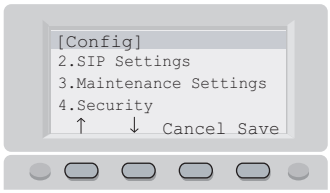
- Hardware with Supplicant feature with the following Operating System (OS) installed is available for connection to DT800 Series terminal:
  - Microsoft® Windows 2000® with Service Pack 4 or later
  - Microsoft® Windows XP® with Service Pack 2 or later
- User can choose whether to attach VLAN Tag to the EAPOL packet from DT800 Series. See <Supplicant Feature Data Assignment> for details.
- When using DT830 Series/DT830G Series, 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 DT800 Series.

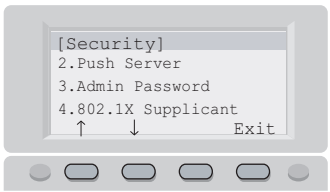
[1] Configuration Setting on Terminal

STEP 1: On [Config] main menu, select “4. Security.”

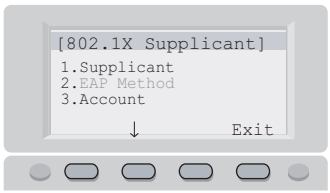


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

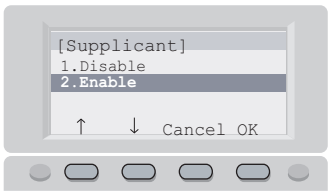
STEP 2: On [Security] menu, select “4. 802.1X Supplicant” to display the [802.1X Supplicant] menu.



STEP 3: On [802.1X Supplicant] menu, select “1. Supplicant” to display the [Supplicant] menu.



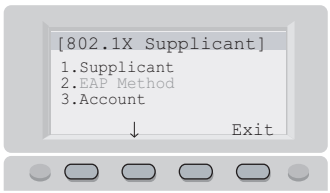
STEP 4: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



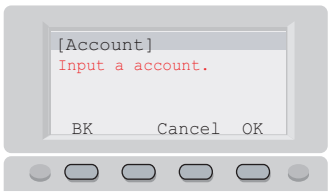
A

A

STEP 5: The LCD returns to [802.1X Supplicant] menu. Select “3. Account” to display the [Account] menu.

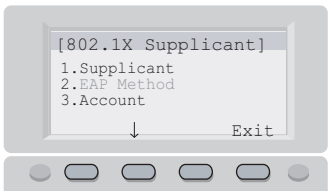


STEP 6: On [Account] menu, use digit keys to assign the User ID for EAP–MD5 authentication.

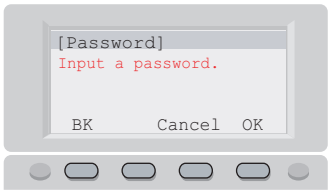


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

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.

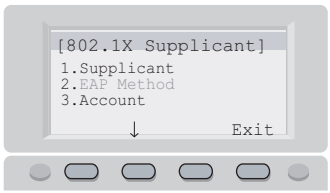


- User may enter the following characters:
  0-9, A-Z, a-z, *, #, . (period), - (hyphen) and _(underbar).
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

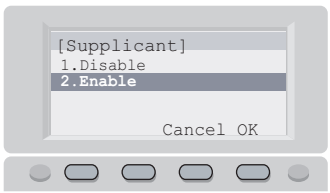
B

B

STEP 9: The LCD returns to [802.1X Supplicant] menu. Select “5” to display the [EAP VLAN Mode] menu.



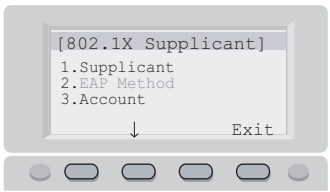
STEP 10: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



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”

STEP 11: The LCD returns to [802.1X Supplicant] menu. Press the software key for “Exit.”



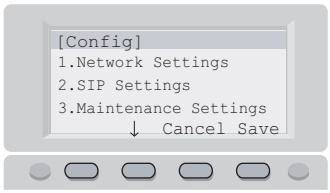
STEP 12: The LCD returns to [Security] menu. Press the software key for “Exit” to return to the [Config] menu.



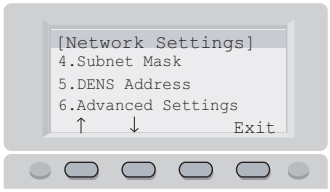
C

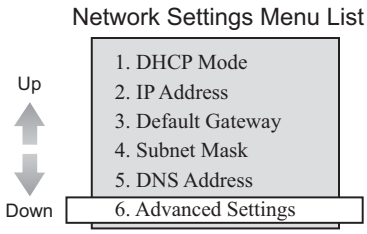
C

STEP 13: The LCD returns to [Config] menu. Select “1” to display the [Network Settings] menu.

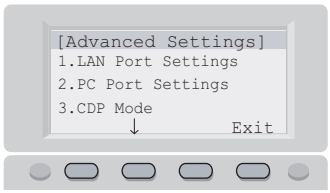


STEP 14: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

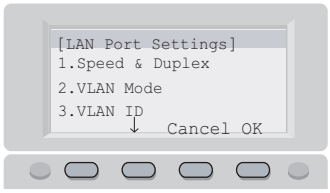




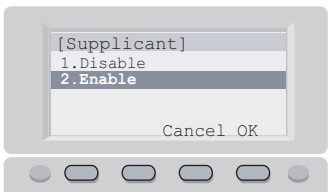
STEP 15: On [Advanced Settings] menu, select “1. LAN Port Settings.”



STEP 16: The LCD displays [LAN Port Settings] screen. Select “2” to display the [VLAN Mode] menu.



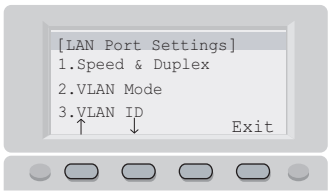
STEP 17: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



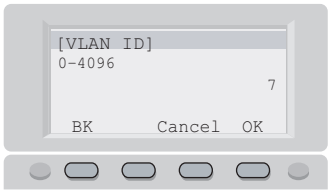
D

D

STEP 18: The LCD returns to [LAN Port Settings] screen. Select “3” to display the [VLAN ID] menu.

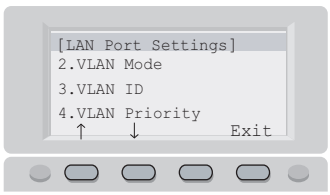


STEP 19: The LCD displays [VLAN ID] menu. Use digit keys to assign VLAN ID.

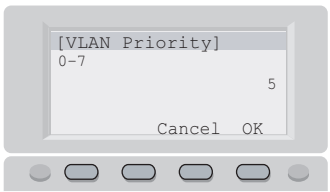


- VLAN ID value must be between 0–4094.
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

STEP 20: The LCD displays [LAN Port Settings] screen. Select “4” to display the [VLAN Priority] menu.

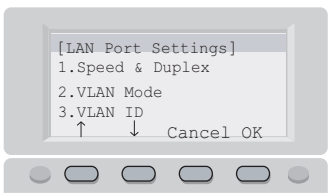


STEP 21: The LCD displays [VLAN Priority] menu. Use digit keys to assign VLAN ID.



- VLAN Priority value must be between 0–7.
- Press the software key for “OK” when all settings are complete.

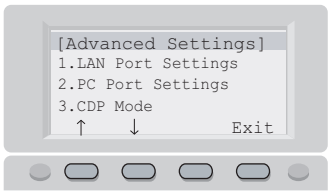
STEP 22: The LCD returns to [LAN Port Settings] screen. Press the software key for “OK” to return to [Advanced Settings] menu



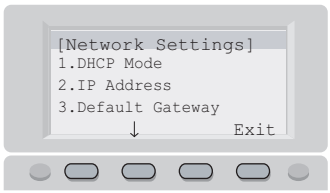
E

E

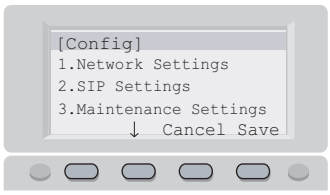
STEP 23: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



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 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] → [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 3**

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 3: When the user selects "2. Enable" in "EAP VLAN Mode," VLAN tag will be attached according to the following data settings:

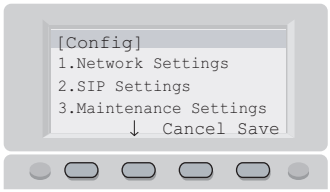
- VLAN Mode
- VLAN ID
- VLAN Priority

<Using Supplicant Mode>

This section explains the procedure to connect a PC with supplicant feature to the PC port of DT800 Series.

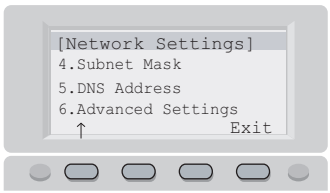
[1] Configuration Setting on Terminal

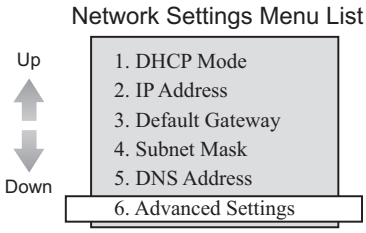
STEP 1: On [Config] menu, select “1. Network Settings.”



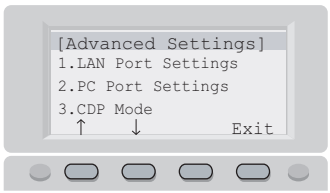
Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

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

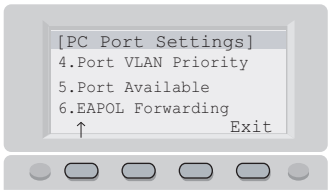




STEP 3: On [Advanced Settings] menu, select “2. PC Port Settings.”



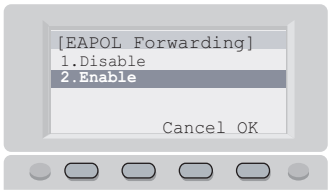
STEP 4: The LCD displays [PC Port Settings] menu. Select “6. EAPOL Forwarding.”



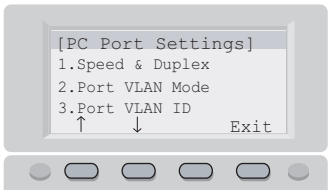
A

A

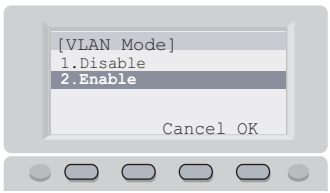
STEP 5: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



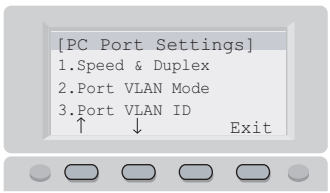
STEP 6: The LCD returns to [PC Port Settings] menu. Select “2. Port VLAN Mode.”



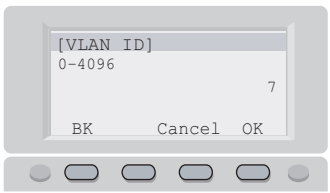
STEP 7: Select “2. Enable.” Verify that “2. Enable” line is flashing. Then, press the software key for “OK.”



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.

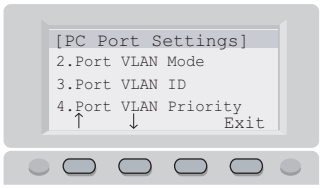


- VLAN ID value must be between 0–4094.
- Press the software key for “BK” to delete entered value.
- Press the software key for “OK” when all settings are complete.

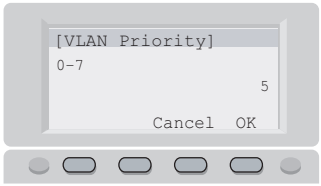
B

B

STEP 10: The LCD returns to [PC Port Settings] menu. Select “4. Port VLAN Priority.”

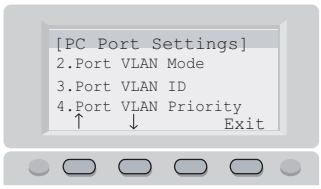


STEP 11: The LCD displays [VLAN Priority] menu. Use digit keys to assign VLAN ID.

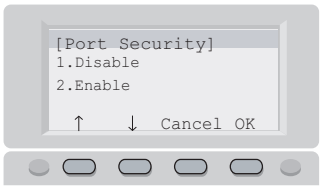


- VLAN Priority value must be between 0–7.
- Press the software key for “OK” when all settings are complete.

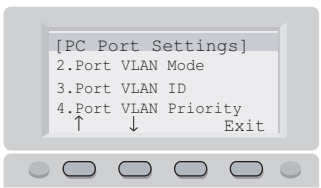
STEP 12: The LCD returns to [PC Port Settings] menu. Select “7. Port Security.”



STEP 13: The LCD displays [Port Security] menu. Select “2. Enable” and press the software key for “OK.”



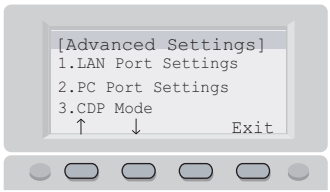
STEP 14: The LCD displays [PC Port Settings] menu. Press the software key for “Exit.”



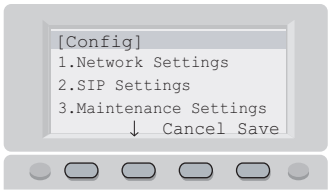
C

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.

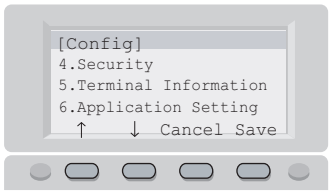
STEP 9: Click the “Save” button.

7.1.2.13Corporate Phonebook

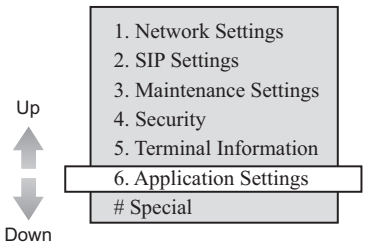
This section explains how to specify Corporate Phonebook. Referring to the following procedure, assign the URL of the target phonebook. After completing this setting, Corporate Phonebook is listed on the terminal's Directory menu.

[1] Configuration Setting on Terminal

STEP 1: On [Config] menu, select "6. Application Settings."



Configuration Menu List

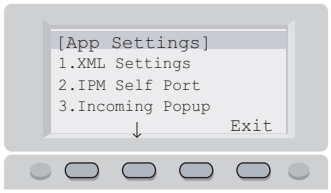


Up

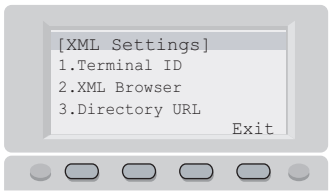
Down

Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

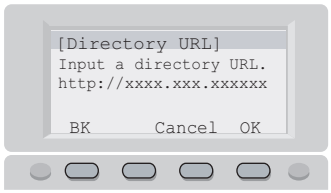
STEP 2: The LCD displays [App Settings] menu. Select "1. XML Settings."



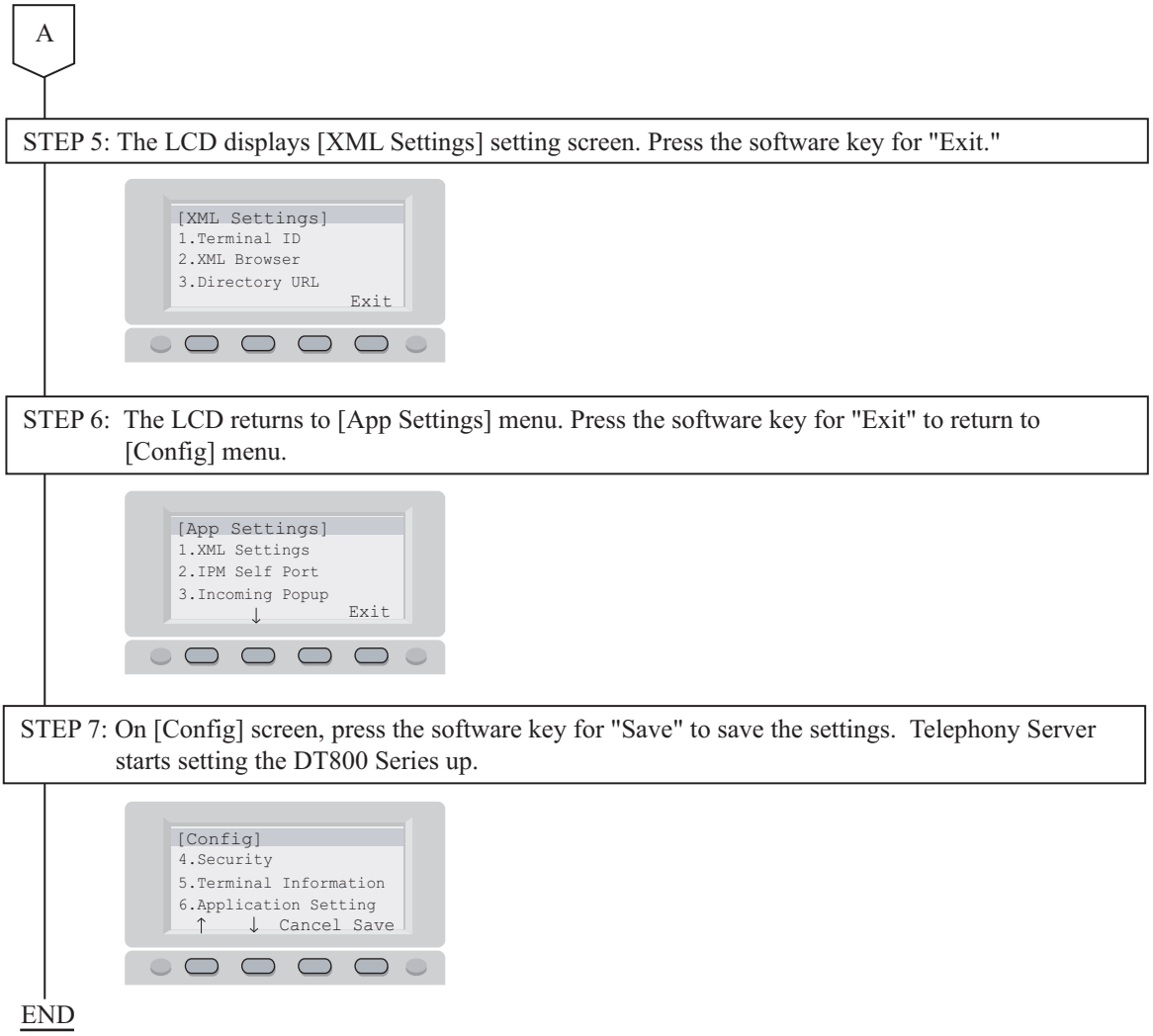
STEP 3: On [XML Settings] menu, select "3. Directory URL".



STEP 4: On [Directory URL] screen, enter the URL of Corporate Phonebook, and press the software key for "OK."



A



[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.

7.1.2.14Password Change

In this section, the user can change the password for DT800 Series terminal's local data assignment and Admin Password for Administrator Menu login. **Note 1 Note 2**

Note 1: The password for terminal authentication assigned in this section is also used for releasing Security mode.

- Password for terminal authentication
- Admin Password

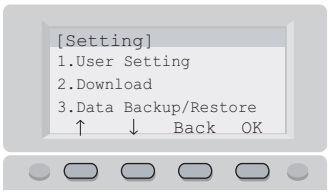
Note 2: Cautions in changing the password are as follows.

- When the terminal user forgets the assigned Admin Password for Administrator Menu login or the password for terminal authentication to assign DT800 Series 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 are cleared and get 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 "Password expiration date".

[1] Configuration Setting on Terminal

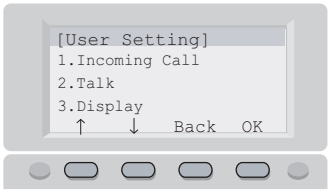
(a) Password for terminal authentication

STEP 1: Go to [Setting] menu. Select “1. User Setting.”

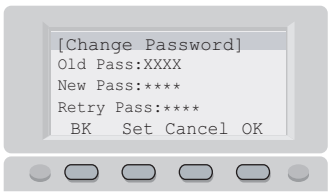


Note: For other operations, "↑" and "↓" of software key, cursor key.

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

A

A

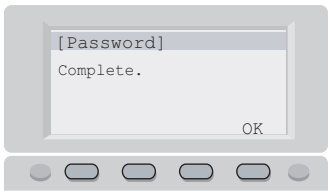
STEP 4: The LCD will display either of the following:

Error



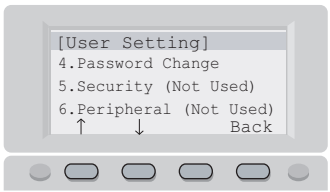
1. Press the software key for OK.
2. Return to Step 3.

Complete

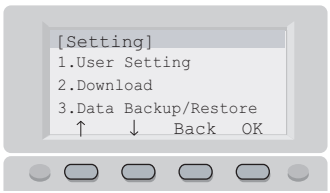


1. Press the software key for OK.
2. Proceed to Step 5.

STEP 5: The LCD returns to [User Setting] menu. Press the software key for “Back.”



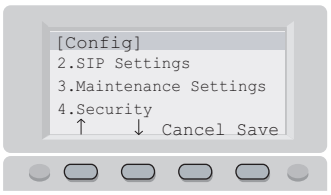
STEP 6: The LCD returns to [Setting] menu. Press the software key for “OK” to save settings.



END

(b) Admin Password

STEP 1: On [Config] menu, select “4. Security.”



Config Menu List

Up

Down

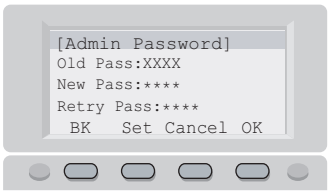
1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings
#. Special

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.



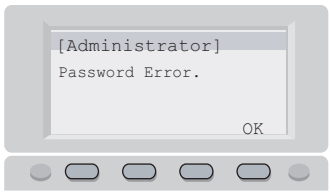
Note: Default value: Password: 6633222

A

A

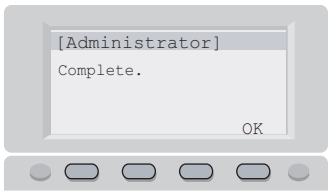
STEP 4: The LCD will display either of the following:

Error



1. Press the software key for OK.
2. Return to Step 3.

Complete

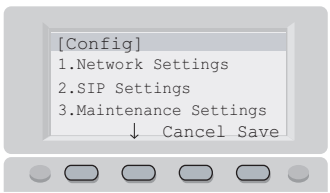


1. Press the software key for OK.
2. Proceed to Step 5.

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.

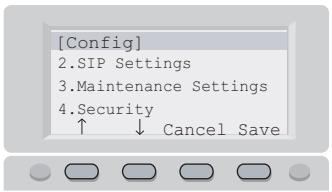


END

(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

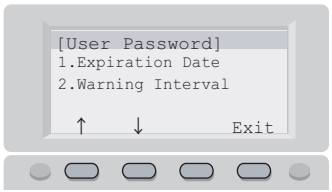
1. Network Settings
2. SIP Settings
3. Maintenance Settings
4. Security
5. Terminal Information
6. Application Settings
#. Special

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

STEP 2: The LCD displays [Security] menu. Select “7. User Password.”



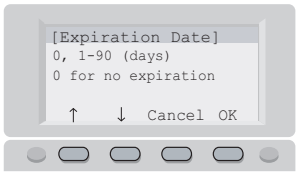
STEP 3: On [User Password] menu, select “1. Expiration Date”.



A

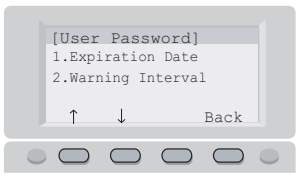
A

STEP 4: On [Expiration Date] menu, enter the expiration. Then, press the software key for OK.



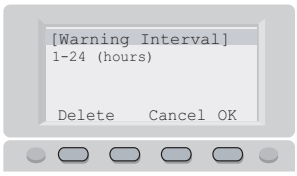
Note: 1 - 90 days are available for the expiration.
The password isn't expired by setting zero.

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.



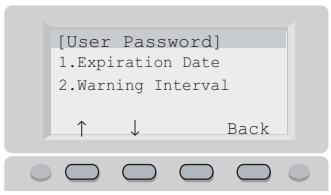


Note: When the password is expired, the warning shown in the figure is displayed while the terminal is in the idle state. Pressing the software key for OK deletes the warning and restores the time screen, but the warning is displayed repeatedly based on the assigned waring interval.

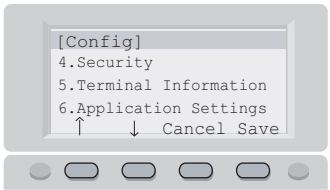
A

A

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.



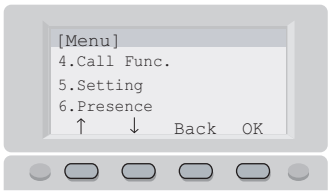
END

7.1.2.15Ringing Tone

User can change the ringing tone settings on DT800 Series terminal.

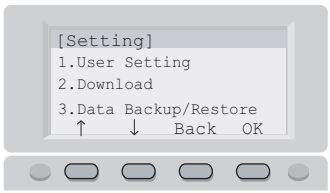
[1] Configuration Settings on Terminal

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

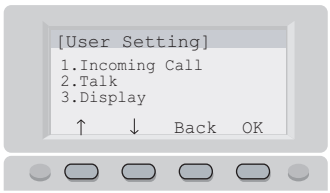


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: On [Setting] menu, select “1. User Setting.”



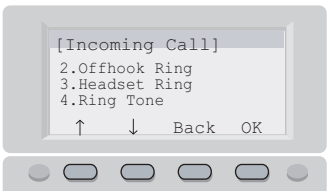
STEP 3: On [User Setting] menu, select “1. Incoming Call.”



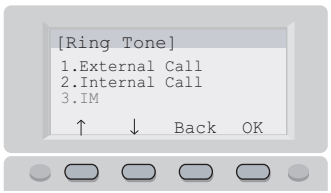
A

A

STEP 4: On [Incoming Call] menu, select “4. Ring Tone.”



STEP 5: LCD displays the [Ring Tone] menu. Select “2. Internal Call.”



See the table below for details on Ring Tone settings.

B

Ring Tone Settings

Value	Display Name	1st Frequency [Hz]	2nd Frequency [Hz]	Tone Kind
00	Automatic **Note 2**	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	-		

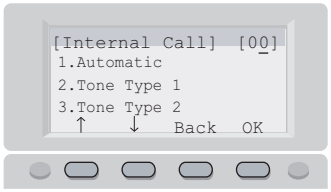
Note 2: Default is Tone Type 1 when directions from the Telephony Server do not exist.

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)

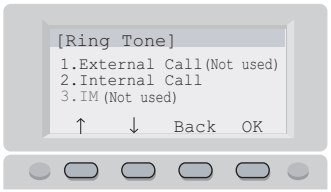
B

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.



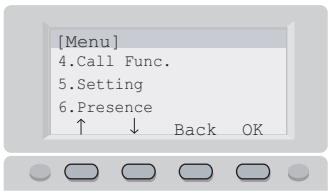
END

7.1.2.16RTP Alarm

User can Disable or Enable RTP Alarm on DT800 Series terminal.

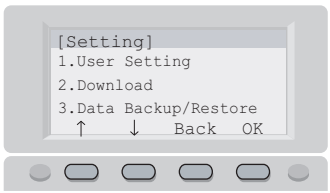
[1] Configuration Setting on Terminal

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

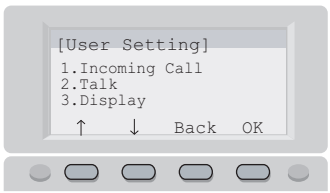


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

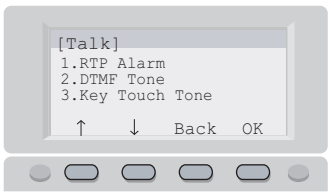
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



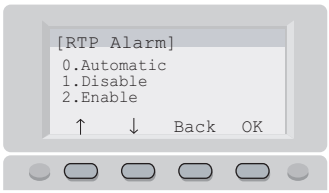
STEP 4: On [Talk] menu, select “1. RTP Alarm.”



A

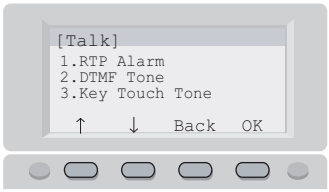
A

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 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.



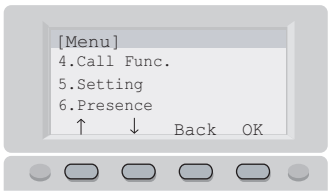
END

7.1.2.17DTMF Tone

User can Disable or Enable DTMF Tone on DT800 Series terminal.

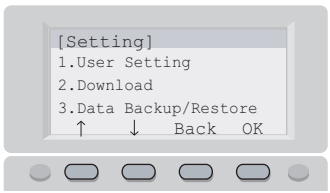
[1] Configuration Settings on Terminal

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

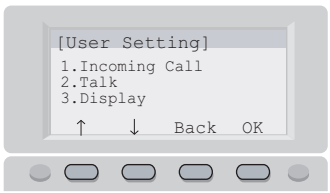


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

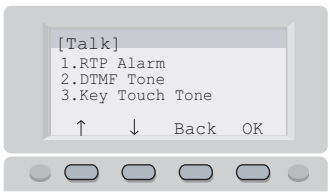
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



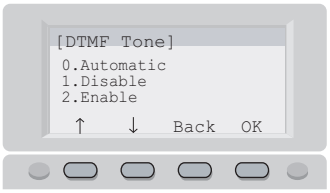
STEP 4: On [Talk] menu, select “2. DTMF Tone.”



A

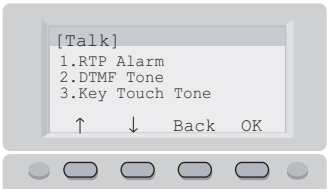
A

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. - RTP Alarm is Enabled only when settings assigned by system do not exist.
1. Disable	- Does not follow the settings 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 the upper menu.



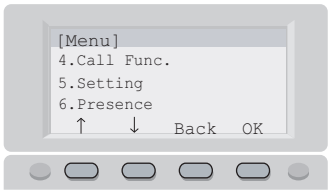
END

7.1.2.18Hold 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.

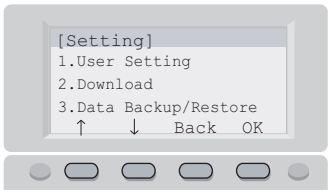
Note: To use a downloaded hold music, it needs to be downloaded in advance. For how to download the hold music, refer to Section 7.1.2.23 File Downloading.

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

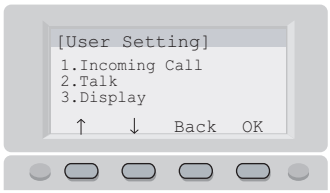


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

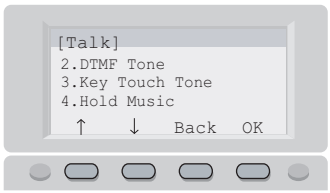
STEP 2: On [Setting] menu, select “1. User Setting.”



STEP 3: On [User Setting] menu, select “2. Talk.”



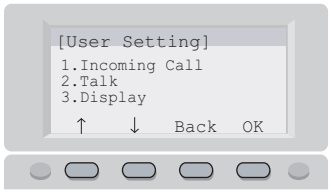
STEP 4: On [Talk] menu, select “4.Hold Music.”



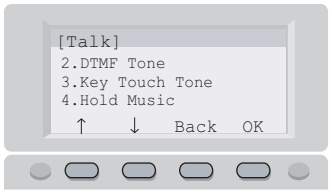
A

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

7.1.2.19Language 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. Here describes the languages supported by the terminal, and the procedure to set them.

Languages supported by the terminal

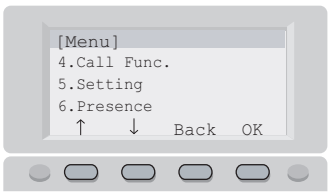
LCD	Description
0. Automatic	Telephony Server side’s language setting is applied.
1. Japanese	Japanese
2. NEC English	NEC English
3. NEC Portuguese	NEC Portuguese
4. NEC Spanish	NEC Spanish
5. NEC French	NEC French
6. German	German
7. Italian	Italian
8. Dutch	Dutch
9. Norwegian	Norwegian
10. Danish	Danish
11. Swedish	Swedish
12. Greek	Greek
13. English	English

Languages supported by the terminal

LCD	Description
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. Download 1	Downloaded languages from “Language Pack” **Note 1**
23. Download 2	
24. Download 3	
25. Download 4	

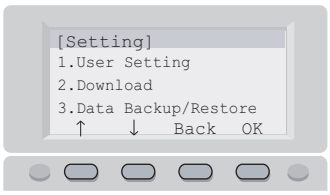
Note 1: If “Language Pack” files are not downloaded, these parameters are not displayed.

STEP 1: Go to [Menu] main menu. Select “5. Setting.”

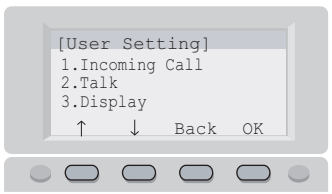


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 2: On [Setting] menu, select “1. User Setting.”



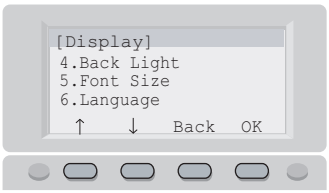
STEP 3: On [User Setting] menu, select “3. Display.”



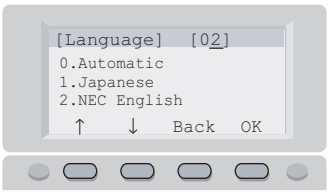
A

A

STEP 4: On [Display] menu, select “6. Language.”

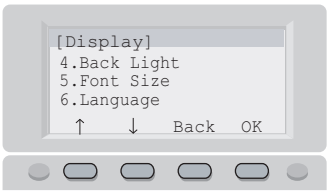


STEP 5: On [Language] menu, select the language by pressing the digit key, and then press the software key for "OK."



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.

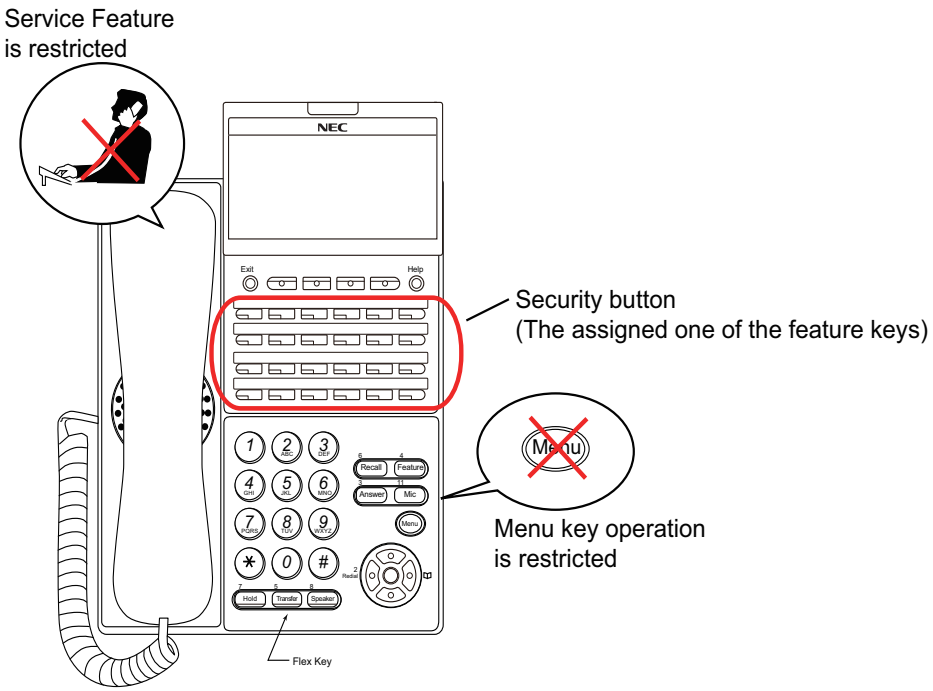


END

7.1.2.20Security Mode

Pressing the “Security” button on DT800 Series terminal starts up Security mode, which can restrict the Telephony Server provided service features and any configuration menu operation following the “Menu” key.

Note: For using this feature, assign FKY=197 (Security) by using the AKYD command.



[Service Conditions]

(1) This function is available on DT800 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 1**) are all restricted on the terminal.

Note 1: 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 forget 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) When a terminal restarts for some reason during Security mode is in service, Security mode is not cancelled.

(5) Failed in password entry three times, the terminal 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.

(6) To make a call of VOICE CALL [V-2] is available toward a called party in the Security mode. When a called party activates the Security mode with leaving its MIC to ON, the called party can converse with a calling party though terminal operation is restricted.

(7) To make a call is available toward a called 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.

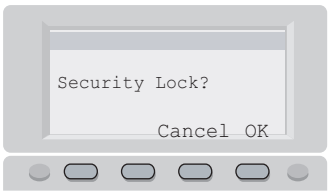
<How to Start/Release Security Mode>

[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.

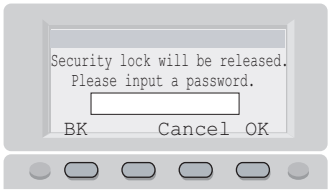


END

[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."

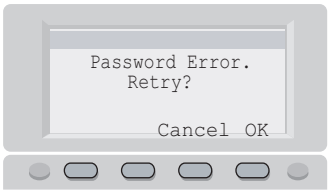


Note: Enter password of the terminal or Admin Password to release the Security lock. To change the password, refer to 7.1.2.14Password Change. Default value of each password:

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

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

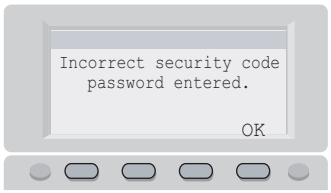
Note: The following explains for the case when error occurs in password entry.



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

- Pressing the software key for "Cancel" will return to screen saver to keep Security mode.

- Pressing the software key for "OK" will request the user to retry entering the password.



- When the user mistake entering password three times, the LCD displays "Security Violation" below.

- Pressing the software key for "OK" will return to screen saver to keep Security mode.

END - After keeping the "Security Violation" LCD for 10 minutes, password entry field will be displayed by pressing any key on the terminal.

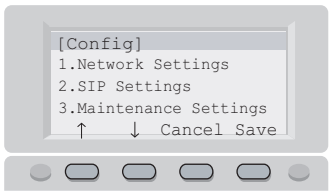
<SIP Terminal Authentication and VoIP Encryption>

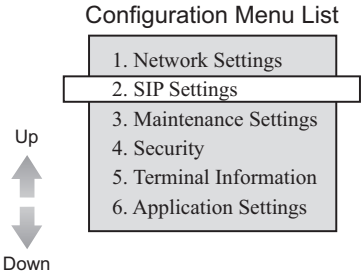
While the Security Mode is in service, terminal users can set data for SIP Terminal Authentication and VoIP Encryption.

[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.

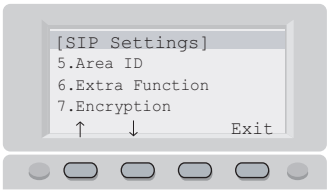
STEP 1: On [Config] menu, select "2. SIP Settings."



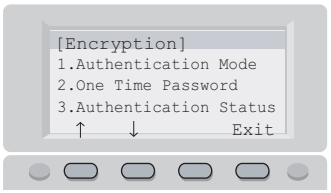


Note: For other operations,"↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available. Refer to Section <Operations> for more de-

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



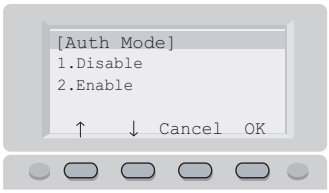
STEP 3: On [Encryption] menu, select "1. Authentication Mode."



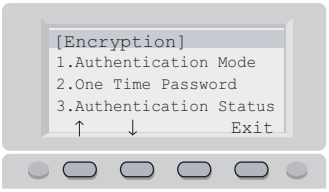
A

A

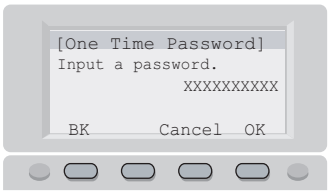
STEP 4: On [Auth Mode] menu, select “2. Enable”, then press the software key for “OK.”



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.

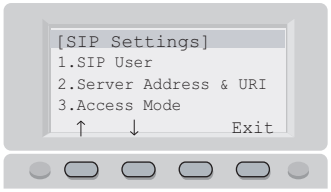
STEP 7: The LCD displays [Encryption] menu.



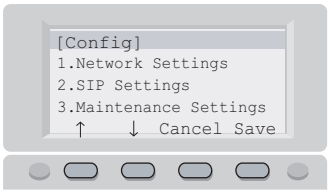
B

B

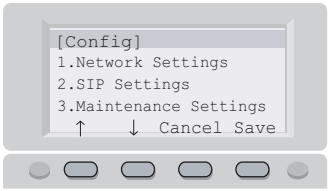
STEP 8: On [Encryption] menu, press the software key for "Exit." The LCD displays [SIP Settings] menu.



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>

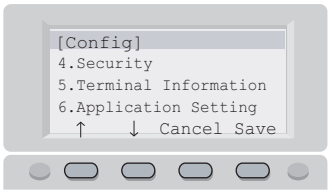
While the Security Mode is in service, terminal user can originate an emergency call to pre-assigned number by handset's off-hook operation on emergency menu.

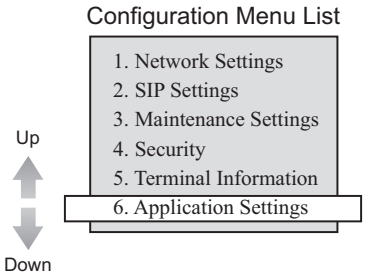
Note: When using DT800 Series/DT830G Series, if Security Lock is not set after originating an Emergency Call, Security Lock will be set after 60 minutes from releasing Security Mode.

[1] Emergency Call Number Assignment

Register the destination number for emergency call on configuration menu of terminal. Up to three destinations can be assigned.

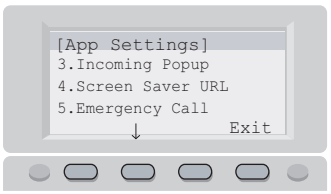
STEP 1: On [Config] menu, select "6. Application Settings."

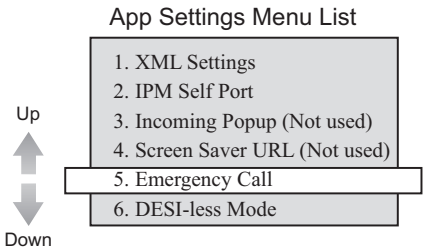




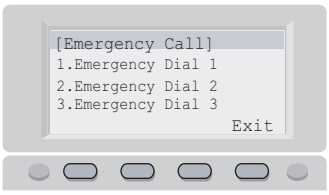
Note: For other operations,"↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available. Refer to Section <Operations> for more details.

STEP 2: The LCD displays [App Settings] menu. Select "5. Emergency Call."





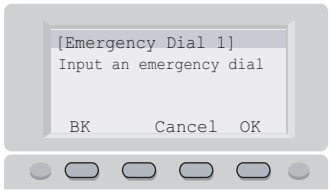
STEP 3: On [Emergency Call] menu, select "1. Emergency Dial 1."



A

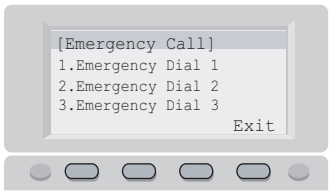
A

STEP 4: Enter the destination number for Emergency Call, and then press the software key for “OK.”

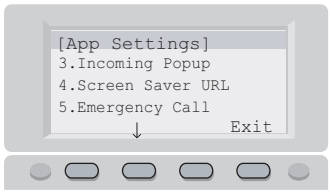


Note: This is an example for assigning the destination number for Emergency Dial 1. Perform these steps to Emergency Dial 2 and 3 in the same way if required.

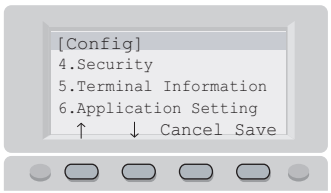
STEP 5: The LCD displays [Emergency Call] menu. Press the software key for “Exit.”



STEP 6: The LCD returns to [App Settings] menu. Press the software key for “Exit” to return to [Config] menu.



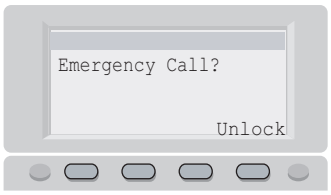
STEP 7: On [Config] menu, press the software key for “Save” to save the settings.



END

[2] Emergency Call Origination

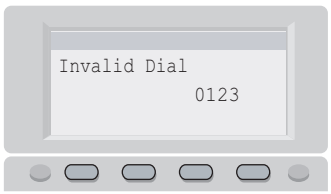
STEP 1: While the Security Mode is in service (while the LCD displaying screen saver), go off-hook the handset to display Emergency Call menu.



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

7.1.2.21LLDP and LLDP-MED

This section explains how to assign data for Link Layer Discovery Protocol (LLDP) and LLDP-Media Endpoint Discovery (LLDP-MED) on DT800 Series terminals.

DT800 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, DT800 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 1**, **Note 2**, **Note 3**), and holds the latest available LLDP packet received on the LAN port (**Note 4**). When the LLDP Auto Setting Mode is enabled, it performs self-configuration based on the information learned from the received LLDP packet.

Note 1: 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.

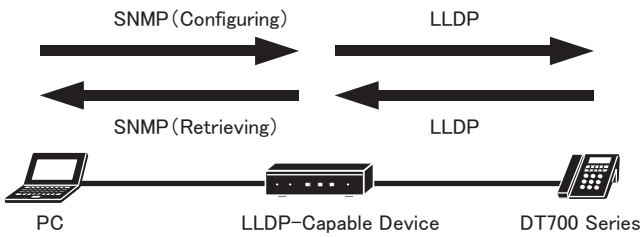
Note 2: When DT800 Series transmits LLDP packets within LLDP Packet Transmission Interval, it sets LLDP Packet Transmission Interval based on the transmitted LLDP packet in the last time and transmits packets with the interval.

Note 3: LLDP packets are not transmitted from the PC port except when the LLDP Transparent Mode is enabled.

Note 4: 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

DT800 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, DT800 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 DT800 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

DT800 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, DT800 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

DT800 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 DT800 Series terminal like those terminals adjacent to an LLDP capable switch.

When this Transparent Mode is enabled, DT800 Series transmits LLDP packets received on the LAN port to the PC port and vice versa.

Note: When the Transparent Mode is enabled, DT800 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>

(8) DT800 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)"

(9) DT800 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

(10) Settings for LLDP and LLDP-MED features will be only valid after restarting the DT800 Series terminal.

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

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

(13) 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

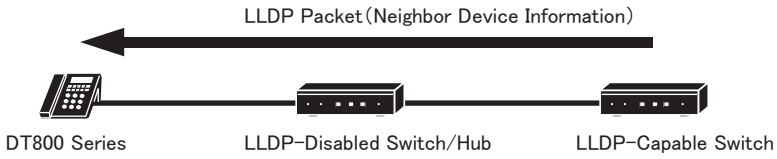
(14) Regardless of the settings for the LLDP Mode, LLDP Transparent Mode is performed based on the settings for the LLDP Transparent Mode.

(15) 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 DT800 Series starts up.

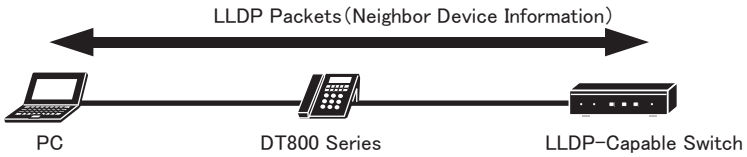
(16) VLAN IDs cannot be assigned automatically to the PC port of DT800 Series by using the LLDP Auto Setting Mode.

(17) 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.

(18) 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 DT800 Series, the DT800 Series will assume that LLDP information provided by the LLDP-capable device is the information about the one directly connected to itself.



(19) When the LLDP Transparent Mode is enabled, DT800 Series forwards LLDP packets between the LAN and PC ports. In this case, the LLDP-capable device (switch) will recognize the DT800 Series terminal and the PC connected to the terminal as its neighbor.



(20) 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	"DT800 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 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)
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 5**	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	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”
Asset ID	Asset ID	Asset ID (Property ID)	Asset ID

Note 5: 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.

(21) 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
Maximu 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) DT800 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, DT800 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 DT800 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 DT800 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 DT800 Series, but this will not activate the LLDP Auto Setting. If you need to modify the configuration data of DT800 Series, 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 DT800 Series terminal and the Telephony Server. In this case, DT800 Series 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 DT800 Series terminal after an IP address is allocated via DHCP, and then the DT800 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, DT800 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 DT800 Series.

(14) Conditions for LAN port configuration/VLAN priority

To configure VLAN priority, DT800 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 DT800 Series.

(15) Conditions for ToS mode/RTP

To configure ToS mode/RTP, DT800 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

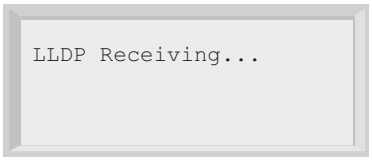
To configure ToS mode/SIP, DT800 Series needs to receive an LLDP packet containing one or more Network Policy TLVs. ToS mode/SIP is determined based on the received Network TLVs meeting the conditions below:

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

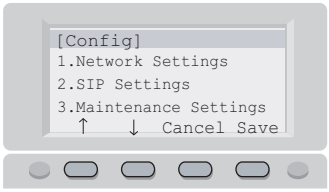
Note: For TLV definition, refer to the relevant manuals.

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

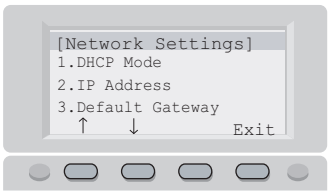


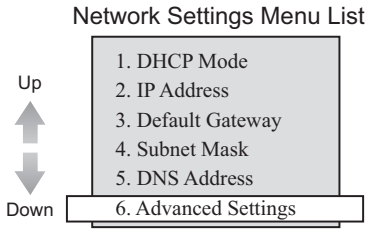
<How to Enable LLDP and LLDP-MED>

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

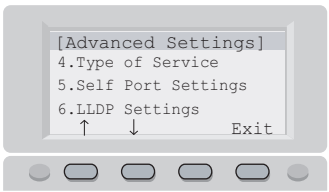


STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

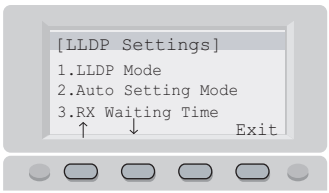




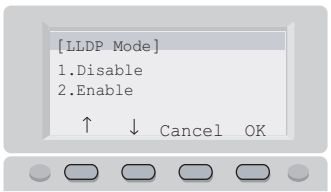
STEP 3: On [Advanced Settings] menu, select “6. LLDP Settings.”



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



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



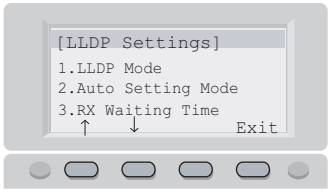
- Press the digit key “2” to transmit/receive LLDP packets.
- Press the digit key “1” not to transmit/receive LLDP packets.
- Press the software key for “OK” when the [LLDP Mode] setting is complete.

Note: “2. Enable” is set by default.

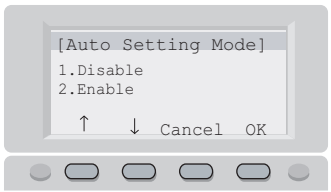
A

A

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



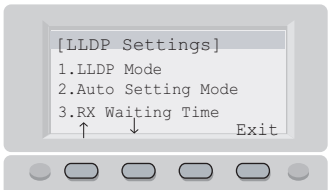
STEP 7: On [LLDP Settings] menu, select "2. Auto Setting Mode."



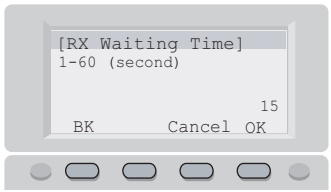
- Press the digit key "2" to enable the Auto Setting Mode.
- Press the digit key "1" to disable the Auto Setting Mode.
- Press the software key for "OK" when the [Auto Setting Mode] setting is complete.

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.



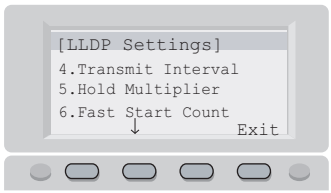
- Set the RX Waiting Time using digit keys.
- You can set 1- 60 (default time: 15) seconds.
- Press the software key for "BK" to delete the RX Waiting Time.
- Press the software key for "OK" when the [RX Waiting Time] settings is complete.

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

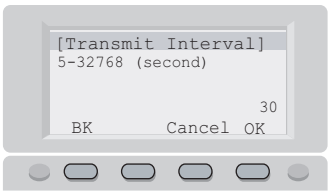
B

B

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



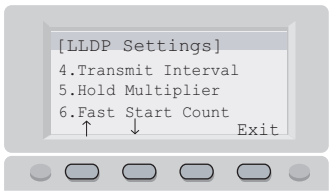
STEP 11: The LCD displays [Transmit Interval] setting screen.



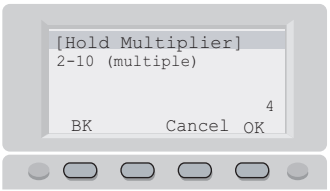
- Set intervals to transmit LLDP packets using digit keys.
- You can set 5-32768 (default interval: 30) seconds.
- Press the software key for “BK” to delete the transmitting interval.
- Press the software key for “OK” when the [Transmit Interval] setting is complete.

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. **Note 1**
- 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.

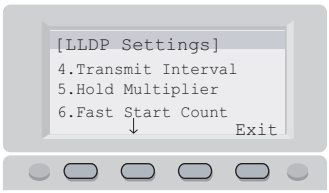
Note: This data is valid when the LLDP mode is enabled.

Note 1: 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.

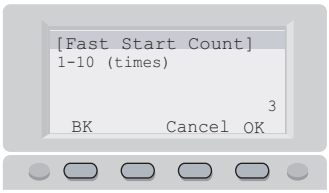
C

C

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



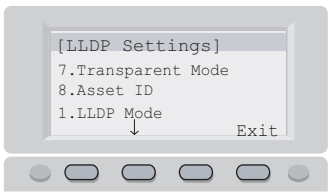
STEP 15: The LCD displays [Fast Start Count] setting screen.



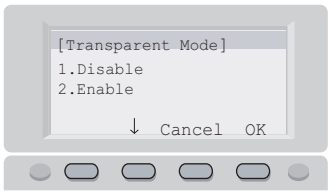
- Set the number of times to transmit LLDP packets at one-second intervals after DT800 Series starts up using digit keys.
- You can set 1-10 (default count: 3) times.
- Press the software key for “BK” to delete the number.
- Press the software key for “OK” when the [Fast Start Count] settings is complete.

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.



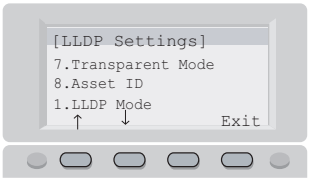
- Press the digit key “2” to enable the Transparent Mode.
- Press the digit key “1” to disable the Transparent Mode.
- Press the software key for “OK” when the [LLDP Mode] setting is complete.

Note: “2. Enable” is set by default.

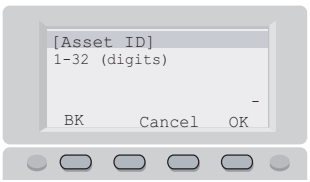
D

D

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



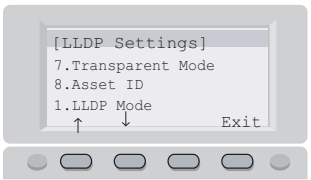
STEP 19: The LCD displays [Asset ID] setting screen.



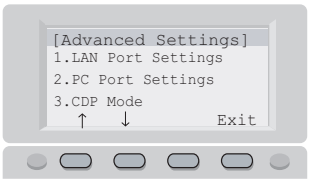
- Set the Asset ID using digit keys for the LLDP packet to be transmitted.
- You can set 1-32 digits of alphanumeric characters for the Asset ID. See [How to Enter Characters on Configuration Menu] for how to enter characters.
- Press the software key for “BK” to delete the Asset ID.
- Press the software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

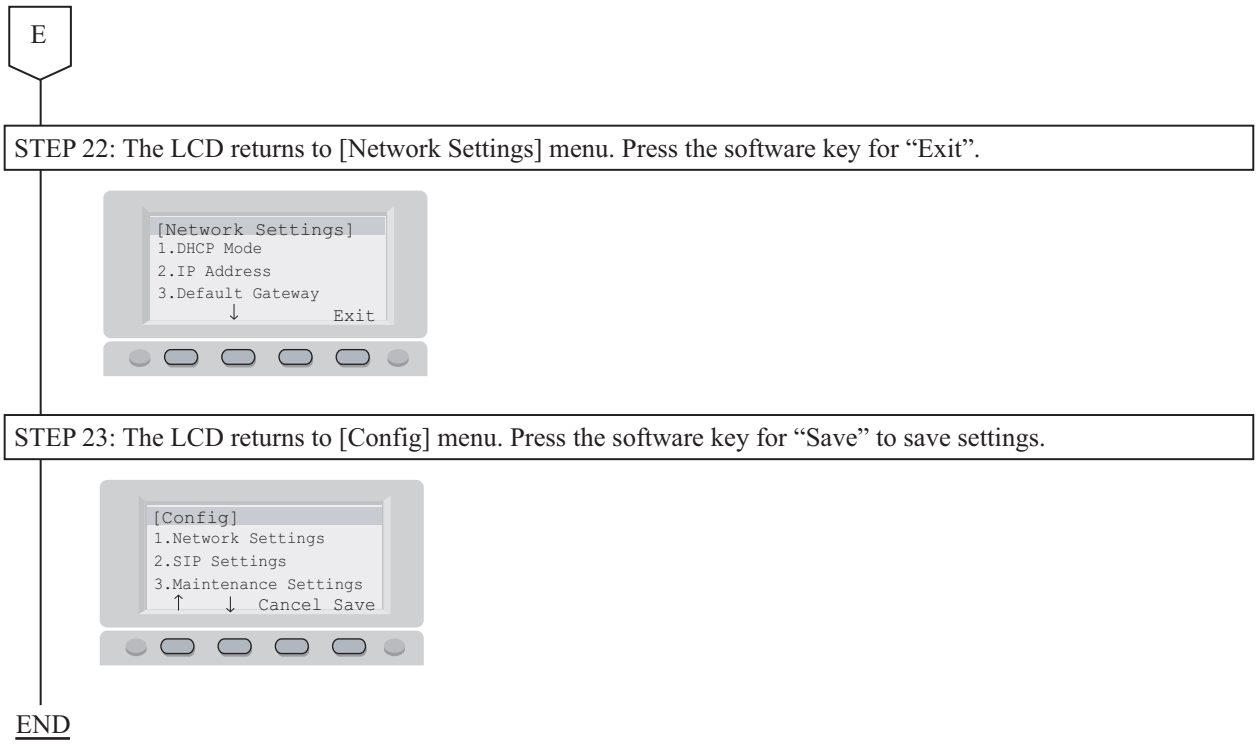
STEP 20: The LCD displays [LLDP Settings] menu. Press the software key for “Exit.”



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



E



7.1.2.22Spare/Backup IP

This section explains data assignment of Spare/Backup IP.

Even if DT800 Series fails to obtain an IP address from DHCP server, the DT800 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 Settings when substitute IP address mode is Spare IP, DT800 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

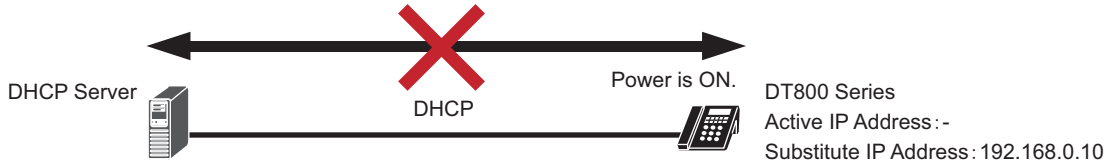
Note: It is mandatory to set IP address and Subnet Mask.

Operation with Spare IP

[1] The power of DT800 Series is OFF. A substitute IP address is set by Configuration Menu in advance.



[2] The power of DT800 Series is turned ON. DT800 Series fails to obtain an IP address because of communication failure.



[3] DT800 Series starts operating with a substitute IP address.



Backup IP

If you set the following information when substitute IP address mode is Backup IP, DT800 Series can save the following information which has been obtained from the DHCP server in advance so that DT800 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 DT800 Series is OFF.



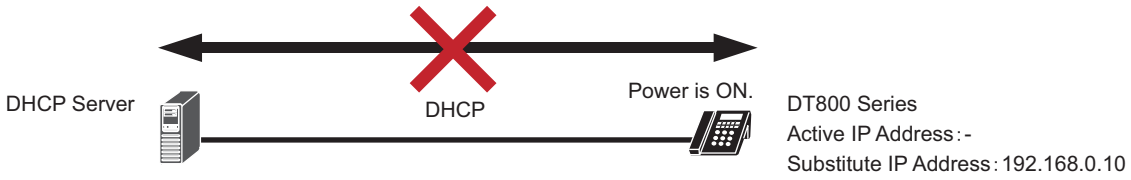
[2] The power of DT800 Series is turned ON. DT800 Series obtains an IP address from the DHCP server. DT800 Series operates with the obtained IP address. The obtained IP address is set for the configuration at the same time.



[3] The obtained IP address is saved as a substitute IP address in the configuration even after DT800 Series is turned OFF.



[4] The power of DT800 Series is turned ON. DT800 Series fails to obtain an IP address because of communication failure.



[5] DT800 Series 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 DT800 Series.

(3) Spare IP and Backup IP shares a substitute IP address information in the Configuration Settings. Even if the substitute IP address mode has been changed, DT800 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.

(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 DT800 Series obtains the new information from the DHCP server again.

(5) When DT800 Series uses the substitute IP address, DT800 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, DT800 Series attempts to connect to the next server. DT800 Series keeps using the substitute IP address without obtaining an IP address from the DHCP server.

(6) When DT800 Series fails to connect to all of the 2nd - 4th servers, an error occurs. Then DT800 Series performs retry to obtain an IP address from the DHCP server. If DT800 Series obtains an IP address successfully, DT800 Series attempts to connect to the 1st server without using the substitute IP address.

(7) DT800 Series uses the following Configuration data when the substitute IP address is in service. DT800 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.

(8) Even if the DHCP server allows DT800 Series to obtain IP address, DT800 Series does not obtain the IP address automatically. Restart the DT800 Series (by manual operation, operation from the Telephony Server or turn OFF and ON the DT800 Series).

(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 DT800 Series uses. Also network failure occurs if the DHCP server distributes the duplicated IP address of the substitute IP address which DT800 Series uses over the networks.

(10) The Spare IP/Backup IP function will become active after restarting DT800 Series.

(11) The Spare IP/Backup IP function will become active after DT800 Series data clear (Initialization, Station Data Clear).

(12) Even when DT800 Series fails to connect to the Telephony Sever, the DT800 Series 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 DT800 Series from connecting to the Telephony Server if the substitute IP address duplicates other IP addresses used for the equipment in the network.

(14) AutoConfig is 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.

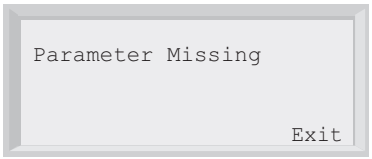
(16) The obtained data from the DHCP server last time for Backup IP will be deleted when DT800 Series data clear (Initialization, Station Data Clear) is performed. In the factory setting, DT800 Series does not have the data required for Backup IP so that Backup IP is not activated.

(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 [5. Setting] - [3. Data Backup/Restore] in the configuration menu.

(19) When the substitute IP address mode is Backup IP, DT800 Series saves an IP address obtained from the DHCP server in the Flash Memory. If the power of DT800 Series is turned OFF while saving the IP address in the Flash Memory, DT800 Series may not start up.

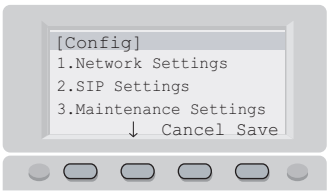
(20) When the substitute IP address is out of service, the LCD displays the following error message. DT800 Series retries to obtain the IP address from the DHCP server when the certain period of time has elapsed since the LCD displays the error, or a user of DT800 Series presses the software key for “Exit.” Configuration setting is available even when the LCD displays the error message.



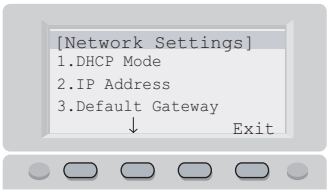
(21) When the substitute IP address mode is Backup IP, only IP addresses that are obtained through DHCP option 120 can be saved as 2nd - 4th Server Addresses. IP addresses obtained through DHCP option 162 are recognized as used for Location Diversity [L-55], and cannot be saved.

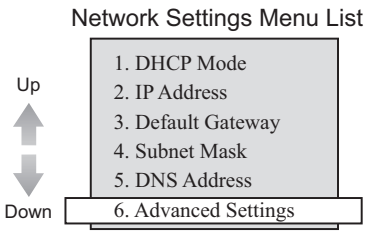
<How to Set the Substitute IP Address>

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

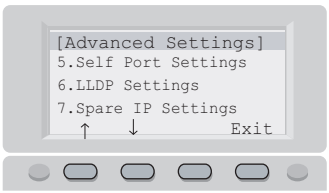


STEP 2: The LCD displays [Network Settings] menu. Select “6. Advanced Settings.”

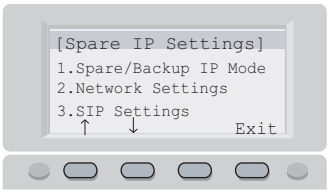




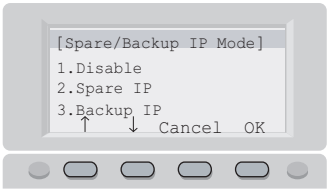
STEP 3: On [Advanced Settings] menu, select “7. Spare IP Settings.”



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.



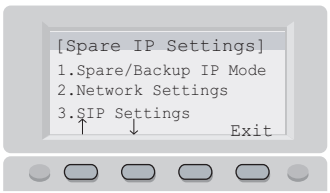
A

- 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.

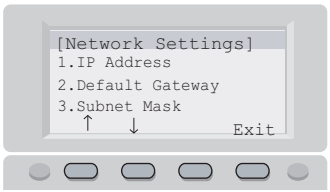
Note: This data is valid when the Spare/Backup IP is disabled.

A

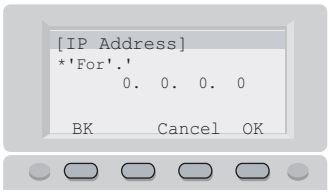
STEP 6: The LCD displays [Spare IP Settings] menu. Select “2. Network Settings.”



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



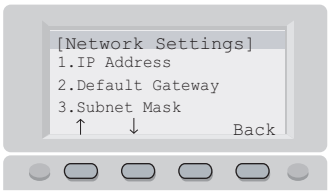
STEP 8: On [Network Settings] menu, select “1. IP Address.” Assign the IP address using the digit keys.



- 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.

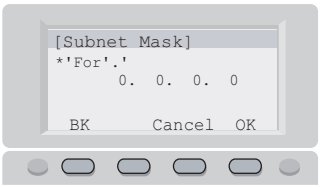
STEP 9: The LCD displays [Network Settings] menu.



B

B

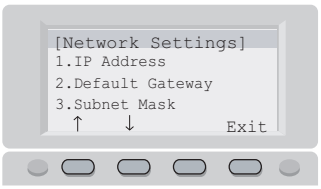
STEP 10: On [Network Settings] menu, select “3. Subnet Mask.” Assign the Subnet Mask using the digit keys.



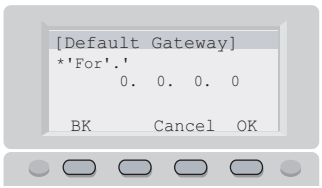
- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [Subnet Mask] setting is complete.

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.



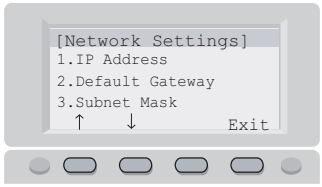
STEP 12: On [Network Settings] menu, select “2.Default Gateway.” Assign the Default Gateway address using the digit keys.



- 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 DT800 Series obtains an IP address from DHCP server. If obtained data does not have a Default Gateway address, the existing data is maintained.

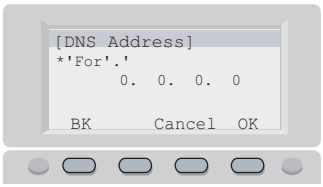
STEP 13: The LCD displays [Network Settings] menu.



C

C

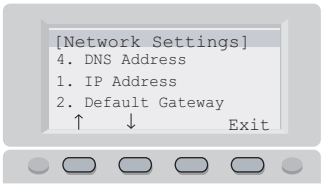
STEP 14: On [Network Settings] menu, select “4. DNS Address.” Assign the DNS address using digit keys.



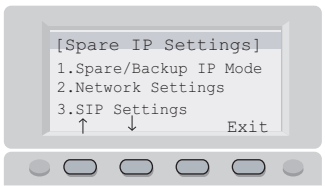
- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when the [DNS Address] setting is complete.

Note: When Backup IP is in service, this data will be overwritten by obtained DNS address if DT800 Series obtains an IP address from DHCP server. If obtained data does not have a DNS address, the existing data is maintained.

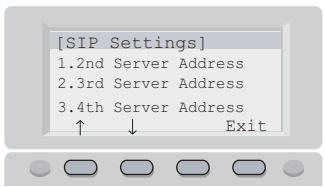
STEP 15: The LCD displays [Network Settings] menu.



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.

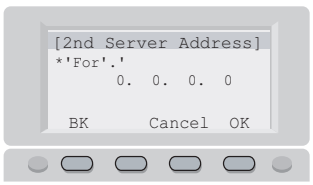
- Press the digit key “4” to Set the 2nd Server port number.
- Press the digit key “5” to Set the 3rd Server port number.
- Press the digit key “6” to Set the 4th Server port number.

D

D

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

- Setting 2nd - 4th Server Address

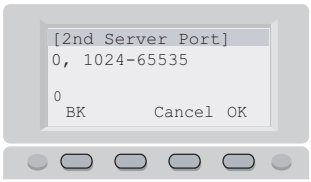


- Use "*" to separate each byte.
- Press the software key for "BK" to delete the input value.
- Press the software key for “OK” when all settings are complete.

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 DT800 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

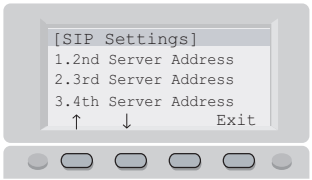


- Use digit keys.
- It is possible to enter 0 or values between 1024-65535.
- Default value is 0.
- Press the software key for “OK” when all settings are complete.

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 DT800 Series obtains an IP address from DHCP server. If obtained data does not have a SIP Server port number, the existing data is maintained.

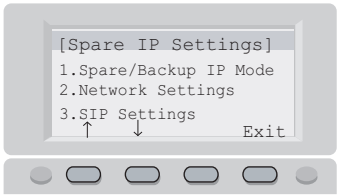
STEP 19: The LCD displays [SIP Settings] menu.



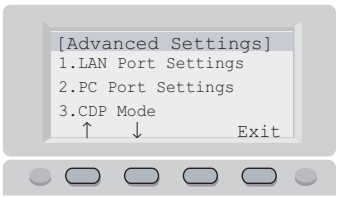
E

E

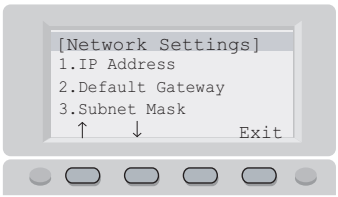
STEP 20: The LCD returns to [Spare IP Settings] menu. Press the software key for “Exit.”



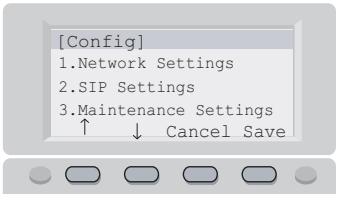
STEP 21: The LCD returns to [Advanced Settings] menu. Press the software key for “Exit.”



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

7.1.2.23File Downloading

This section explains how to update program and how to download Music-on-Hold file on DT800 Series terminal using configuration menu. FTP/TFTP server is required for file downloading.

<Before Downloading>

Before downloading program and Music-on-Hold file on terminal, prepare the following:

- DT800 Series
- Device with FTP/TFTP server function (PC)
- HUB and LAN cable for connecting DT800 Series and FTP/TFTP server to network
- Download file

TYPE		DEFAULT FILE NAME
Music-on-Hold file (**Note 1**)		MOH.wav
Ringing Tone file (**Note 1**)		Melody1.wav ~ Melody3.wav
Phonebook file		Directory.csv
Configuration file		config.tgz
Boot & Program file	DT830 Series	itzisipv.tgz
	DT830G Series (12/24DG)	itzisipvg.tgz
	DT830G Series (12/24CG)	itzisipvc.tgz
Flash memory image file		imgsip.tgz
Voice file		voice.tgz
Language Pack file (**Note 2**)		LangPack.tgz

Note 1: File with the up to 32 seconds long replay can be downloaded.

Note 2: For more information about “Language Pack file”, see Section 7.1.2.25 Font Download Feature.

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 DT800 Series, the Telephony Server, and DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DT800Series, the Telephony Server, and DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT800 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.

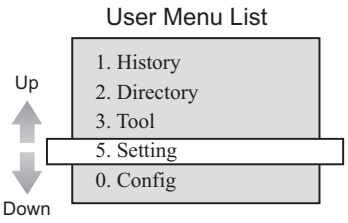
File type

→ (b) Configuration, Boot & Program, Flash memory, Voice, Translation file downloading ➡ **Go to STEP 21**

(a) Music on Hold, Ringing Tone, and Phonebook downloading

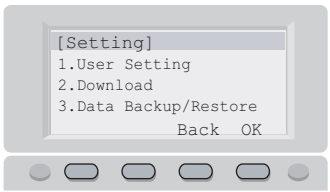
STEP 2: On the main menu [Menu] screen, select "5. Setting."



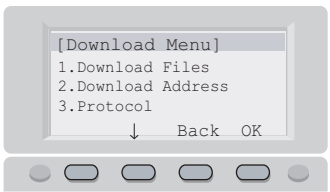


Note: For other operations, "↑" and "↓" of software key, cursor key, and touch-sensitive panel operation are also available.

STEP 3: On [Setting] menu, select "2. Donwload."



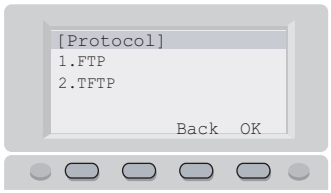
STEP 4: On [Download menu], select "3. Protocol."



A

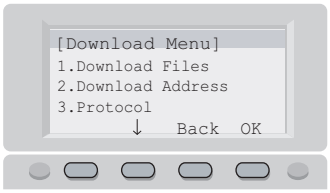
A

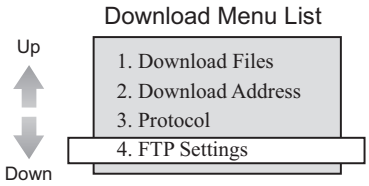
STEP 5: On [Protocol] screen, select the file server's protocol type "1. FTP" or "2. TFTP, and then press the software key for "OK."



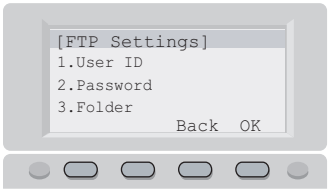
- When FTP is selected → **Go to STEP 6**
- When TFTP is selected → **Go to STEP 15**

STEP 6: The LCD displays [Download Menu]. Select "4. FTP Settings".

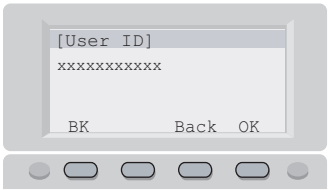




STEP 7: On [FTP Settings] menu, select "1. User ID".

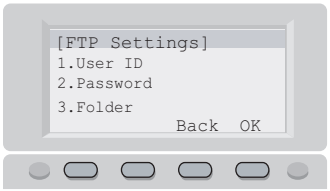


STEP 8: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."



Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

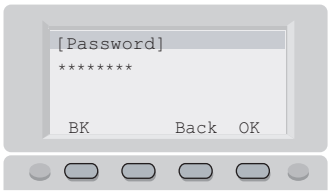
STEP 9: The LCD displays [FTP Settings] menu. Select "2. Password."



B

B

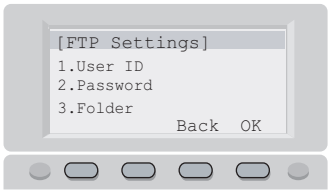
STEP 10: On [Password] screen, enter password by the digit keys, and then press the software key for "OK."



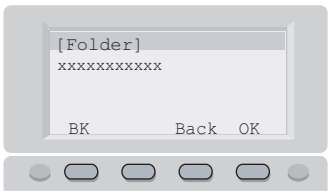
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Alphanumeric characters are available. "*" is displayed instead of the entered character.

STEP 11: The LCD displays [FTP Settings] menu. Select "3. Folder."



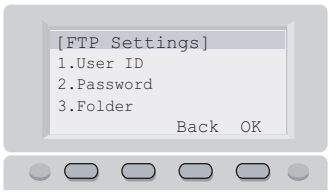
STEP 12: On [Folder] screen, enter the download file stored directory, and the press the software key for "OK."



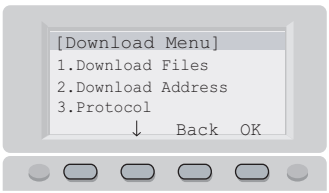
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

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

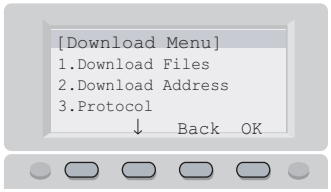
C

STEP 15: The LCD displays [Download Address] screen. Assign the IP address of FTP/TFTP server using digit keys.

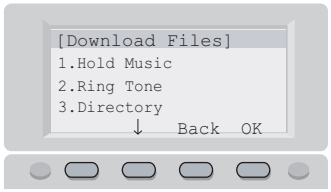


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

STEP 16: The LCD displays [Download Menu] screen. Select "1. Download Files."

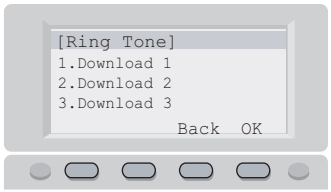


STEP 17: On [Download Files] menu, select the download file type and then press the software key for "OK."



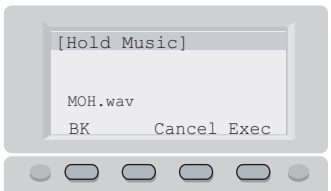
- Music-on-Hold file, select "1. Hold Music" ➡ **Go to STEP 19**
- Ringing Tone file, select "2. Ring Tone" ➡ **Go to STEP 18**
- Terminal Phonebook file, select "3. Directory" ➡ **Go to STEP 19**

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

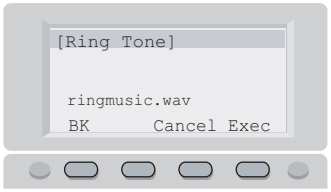
Change the download file name ➡ **Go to STEP 20**

Not change the download file name, chack the file name and press the software key for "Exec." ➡ **Go to STEP 41**

D

D

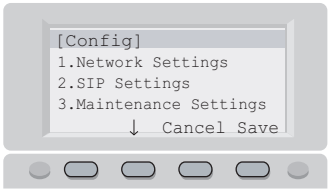
STEP 20: When you want to change the download file name, perform this step.



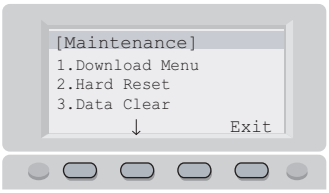
1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 41**

Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

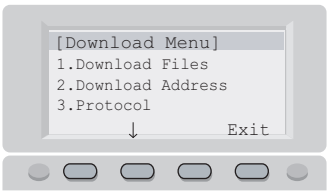
STEP 21: Following STEP 1 for (b) Configuration, Boot & Program, Flash memory, Voice, Translation file downloading, on [Config] menu, select "3. Maintenance."



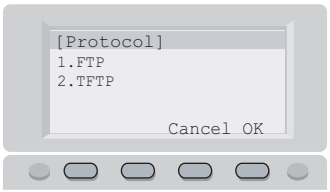
STEP 22: The LCD displays [Maintenance] menu. Select "1. Download Menu."



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."

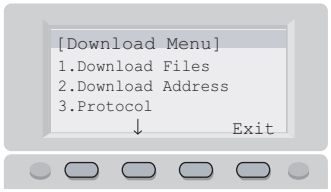


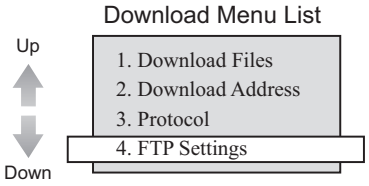
- When FTP is selected ➡ **Go to STEP 25**
- When TFTP is selected ➡ **Go to STEP 33**

E

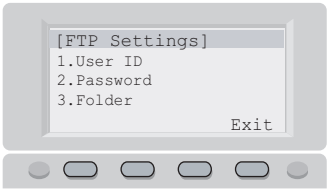
E

STEP 25: The LCD displays [Download Menu]. Select "4. FTP Settings".

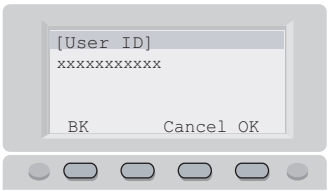




STEP 26: On [FTP Settings] menu, select "1. User ID".

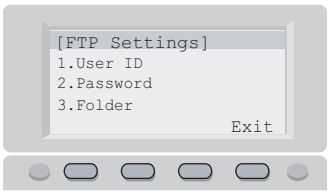


STEP 27: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."

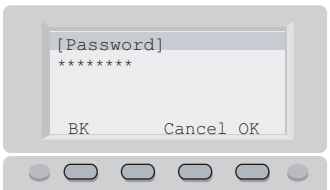


Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

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."



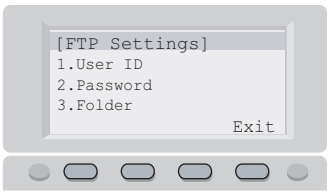
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

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."



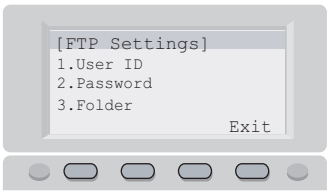
STEP 31: On [Folder] screen, enter the download file stored directory, and the press the software key for "OK."



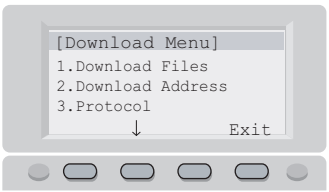
Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

Note: Specify full-path directory; from the root directory to the target file on FTP server.

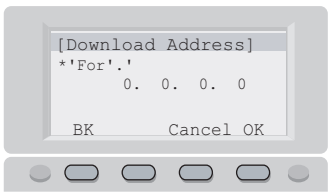
STEP 32: The LCD displays [FTP Settings] menu. Press the software key for "Exit" to return to [Download Menu].



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.

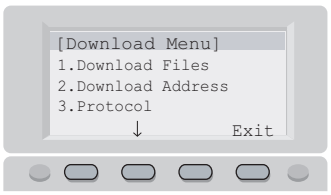


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are complete.

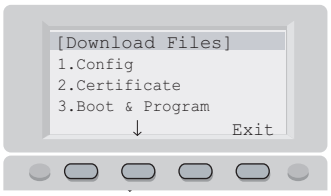
G

G

STEP 35: The LCD displays [Download Menu] screen. Select "1. Download Files."



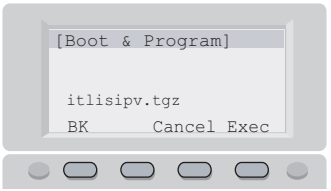
STEP 36: On [Download Files] menu, select the download file type and then press the software key for "OK."



- 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 1**

STEP 37: File name is displayed for each selected download file.

This is an example for selecting Boot & Program file.

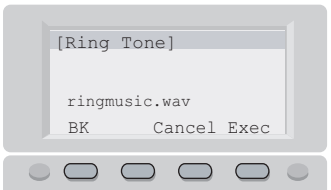


Change the download file name ➡ **Go to STEP 38**

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 466 for the default file name of each type.

STEP 38: When you want to change the download file name, perform this step.



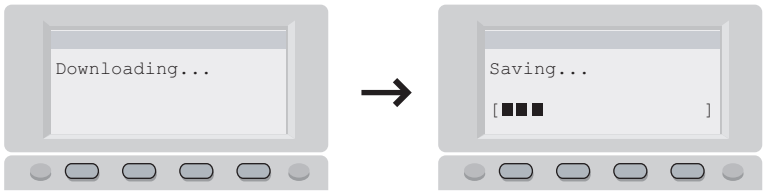
1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 39**

Note: See [How to Enter Characters on Configuration Menu] for the way to enter characters.

H

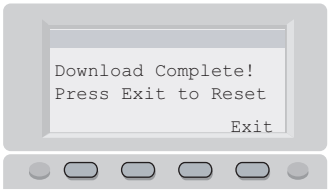
H

STEP 39: The terminal starts downloading. "Downloading..." flashes on the LCD.

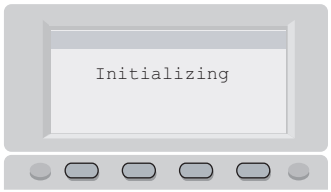


Note: Do not power off the terminal during the LCD displaying "Saving...". It may cause trouble in DT800 Series starting up.

STEP 40: The LCD displays the message below. Press the software key for "Exit" to restart the terminal.



STEP 41: DT800 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 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 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
[Flash Memory Image] for Flash memory image file download
[Voice File] for voice file download
[Language Pack] for translation data file download **Note 3**

Note: Web Programming does not support the downloading of Music-on-Hold, RingingTone, 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 4**

[User ID] : Enter User ID.
[Password] : Enter password.

Note 3: See Download file on page 205 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!*

7.1.2.24Online Monitoring

Online Monitoring menu supports displaying the information of configuration parameter settings and the voice related data (QoS settings) on the LCD of DT800 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>

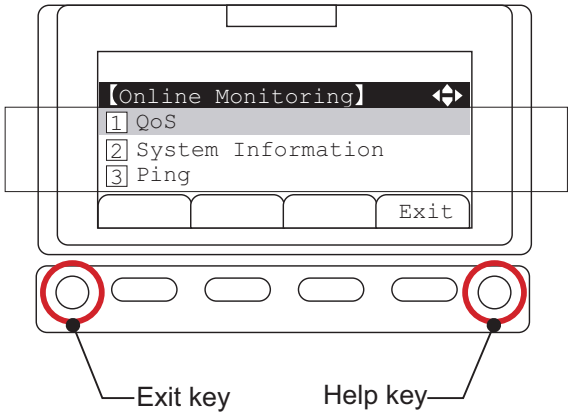
This section explains how to start/exit Online Monitoring menu:

[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 (**Note 2**) when the LCD displays the login screen for login mode or the time display.

Note 2: Refer to Section 7.1.1.1 Configuration Setup on Terminal for the startup procedure of DT800 Series.

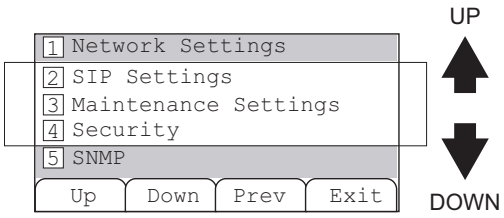
Online Monitoring Menu



** An example for DT830 Series (Standard LCD)*

Pressing the software key for "Up" and "Down" will scroll one line up/down.

Menu List



** An example for System Information menu.*

[3] Exit Online Monitoring Menu

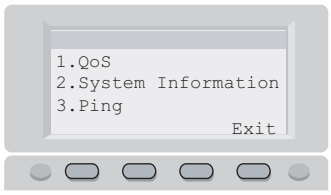
Pressing the "Exit" key (lower left of the LCD) or the software key for "Exit" will close the Online Monitoring Menu.

[4] Operation in Online Monitoring Menu

- The following sections explain the terminal operation in Online Monitoring menu using DT830/ DT830G Series as an example procedure.

- Pressing the software keys for “Up” and “Down” will scroll one line up and down (**Note 5**). Cursor key cannot scroll the menu.

Note 5: The software keys for “Up” and “Down” are displayed only when scrolling is required for the menu list.



DT830 Series (Standard LCD)

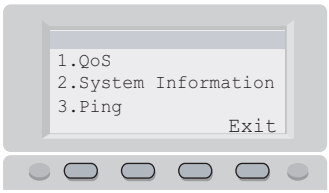
- Use digit keys corresponding to the menu number to select the target menu. Enter key is not available to confirm the selecting menu.

<QoS>

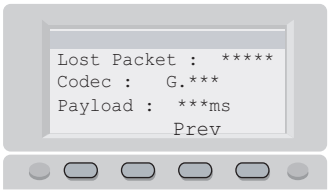
To display RTP packet related information by QoS menu, follow the steps below.

STEP 1: Open [Online Monitoring] menu referring to Section <How to Start/Exit Online Monitoring Menu>.

STEP 2: Select "1. QoS."



STEP 3: 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 1**, **Note 6**
- Codec: Codec type (G.711μ, G.711A, G.729a, or G.722) applied in the call is displayed. **Note 7**
- Payload: Payload size (10 ms, 20 ms, 30 ms, or 40 ms) applied in the call is displayed. **Note 7**

STEP 4: To display Online Monitoring's other menu, press the software key for "Prev." To close Online Monitoring menu, refer to Section <How to Start/Exit Online Monitoring Menu>.

END

Note 1: 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 2: 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 3: The display patterns for Codec and Payload are as follows:

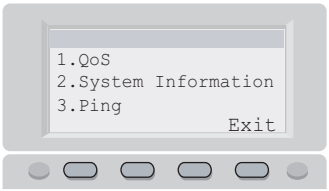
Codec	Payload
G.711μ	10, 20, 30, 40
G.711A	10, 20, 30, 40
G.729a	10, 20, 30, 40
G.722	20, 40

<System Information>

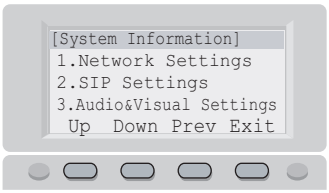
To display the current configuration settings by System Information menu, follow the steps below.

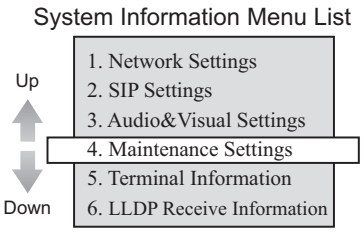
STEP 1: Open [Online Monitoring] menu referring to Section <How to Start/Exit Online Monitoring Menu>.

STEP 2: Select "2. System Information."



STEP 3: The LCD displays the System Information menu.





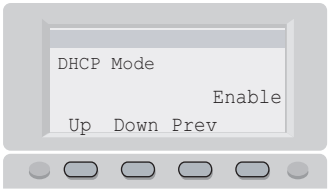
A

A

- Select “1. Network Settings.”
  to display the network related parameters assigned in “Network Settings” in [Config] menu.
  → Go to [1] Network Settings.
- Select “2. SIP Settings.”
  to display the SIP server related parameters assigned in “SIP Settings” of [Config] menu.
  → Go to [5] SIP Settings.
- Select “3. Audio&Visual Settings.”
  to display the sound and LCD indication related parameters assigned in “Audio&Visual Settings” of [Config] menu.
  → Go to [11] Audio & Visual Settings.
- Select “4. Maintenance Settings.”
  to display the maintenance related parameters assigned in “Maintenance Settings” of [Config] menu.
  → Go to [14] Maintenance Setting.
- Select “5. Terminal Information.”
  to display the parameters available to list in “Terminal Information” of [Config] menu.
  → Go to [15] Terminal Settings.
- Select “6. LLDP Receive Information.”
  to display the parameters available to list in “LLDP Receive Information” of [Config] menu.
  → Go to [16] LLDP Settings.

[1] Network Settings

STEP 1: When “1. Network Settings” is selected, the LCD displays the following “DHCP Mode.”

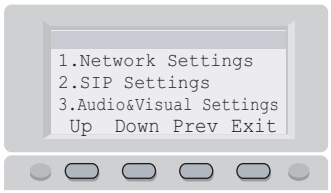


STEP 2: Switch the page to display other parameters by pressing the software key for “Up” and “Down.”

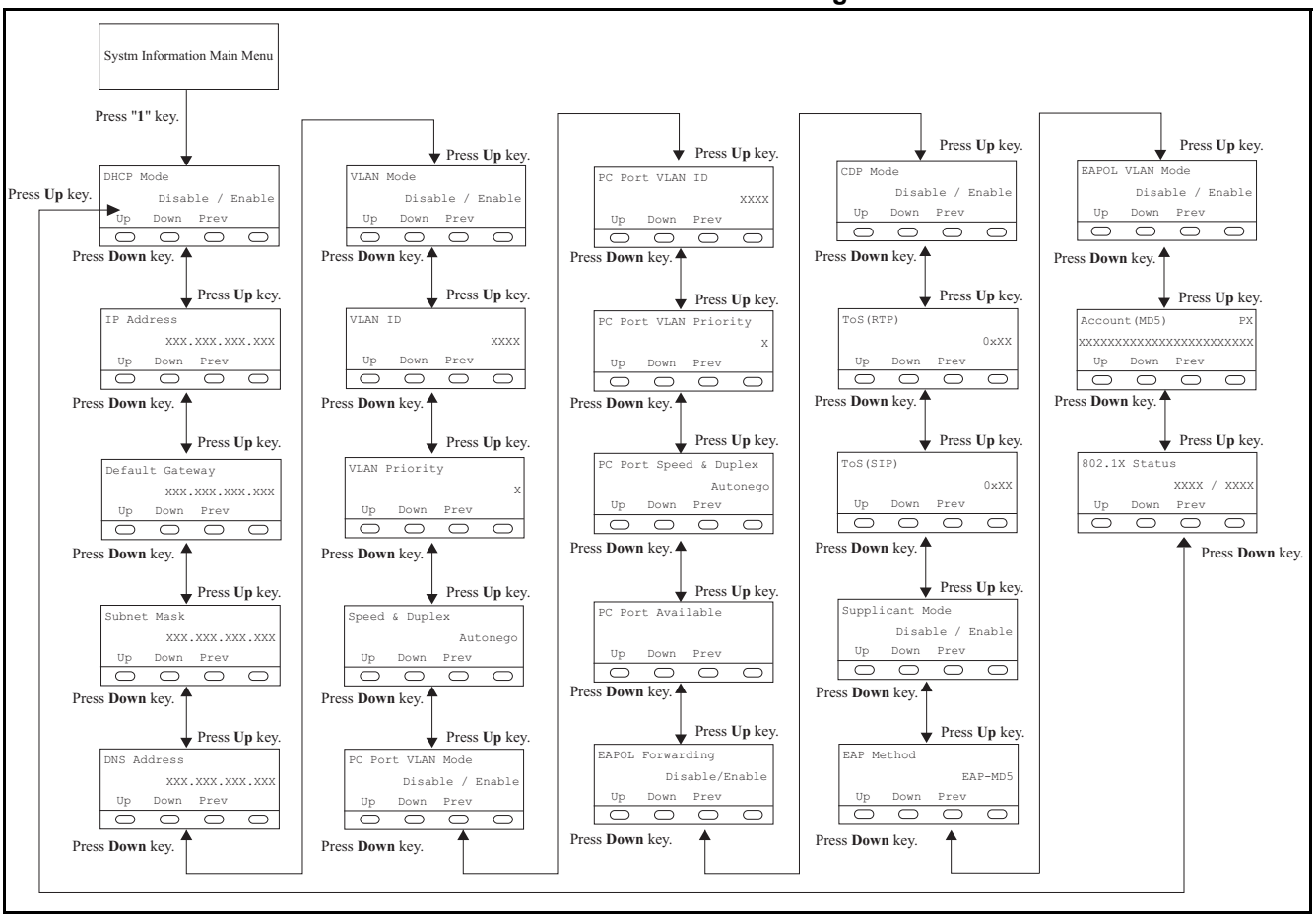
- DHCP Mode - - - - - - - - - - - Whether to use DHCP
- IP Address- - - - - - - - - - - - - IP address of terminal **Note 2**
- Default Gateway - - - - - - - - IP address of default gateway
- Subnet Mask - - - - - - - - - - - Subnet mask **Note 2**
- DNS Address- - - - - - - - - - - IP address of DNS 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 3**
- EAPOL Forwarding - - - - - - Whether to forward EAPOL from PC port
- CDP Mode - - - - - - - - - - - - Whether to inform power consumption information by CDP **Note 4**
- 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 VLAN- - - - - - - - - - - - Whether to add VLAN tag to EAP packet
- Account (MD5) - - - - - - - - - User ID for MD5 authentication
- 802.1X Status - - - - - - - - - - MD5 authentication status
- SIP Self Port - - - - - - - - - - SIP port number for DT700 Series
- RTP Self Port- - - - - - - - - - RTP port number for DT700 Series

**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.

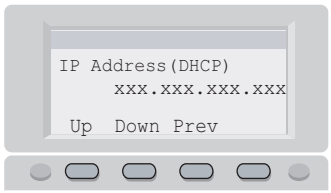


Parameters in Network Settings

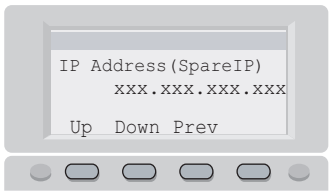


Note 1: IP address of DT800 Series is displayed in the following way.

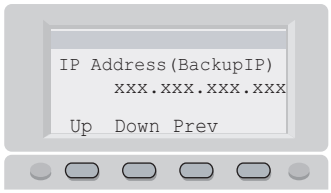
- "(DHCP)" is displayed when the parameter is obtained from DHCP server.



- "(Spare IP)" is displayed when the parameter is assigned by Spare IP function.

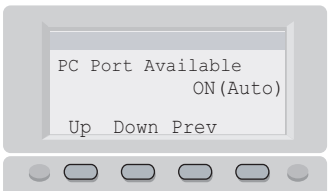


- “(Backup IP)” is displayed when the parameter is assigned by Backup IP function.

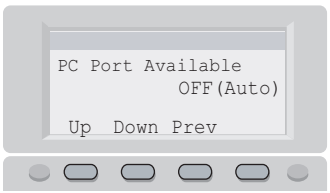


Note 2: Depending on the direction by the Telephony Server and the configuration settings, PC Port has the following three patterns of display.

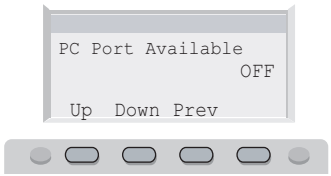
(1) PC port is enabled by Telephony Server's direction.



(2) PC port is disabled by Telephony Server's direction.



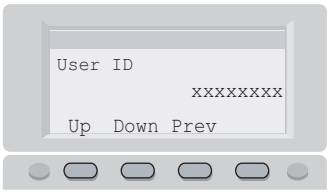
(3) PC port is disabled by configuration settings.



Note 3: DT830G does not support CDP mode.

[4] SIP Settings

STEP 1: When "2.SIP Settings" is selected, the LCD displays the User ID for digest authentication as follows.

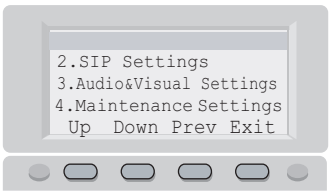


STEP 2: Switch the page to display other parameters by pressing the software key for "Up" and "Down."

- User ID - - - - - - - - - - - - - User ID for digest authentication **Note 6**
- Terminal URL - - - - - - - - - Terminal FQDN informed by SIP server
- Connecting Server - - - - - IP address or FQDN of the connecting SIP server **Note 6**, **Note 7**, **Note 8**
- 1st Server - - - - - - - - - - - IP address or FQDN of the 1st SIP server **Note 6**, **Note 7**, **Note 9**, **Note 10**
- 2nd Server - - - - - - - - - - - IP address or FQDN of the 2nd SIP server **Note 6**, **Note 7**, **Note 9**, **Note 10**
- 3rd Server - - - - - - - - - - - IP address or FQDN of the 3rd SIP server **Note 6**, **Note 7**, **Note 9**, **Note 10**
- 4th Server - - - - - - - - - - - IP address or FQDN of the 4th SIP server **Note 6**, **Note 7**, **Note 9**, **Note 10**
- 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.

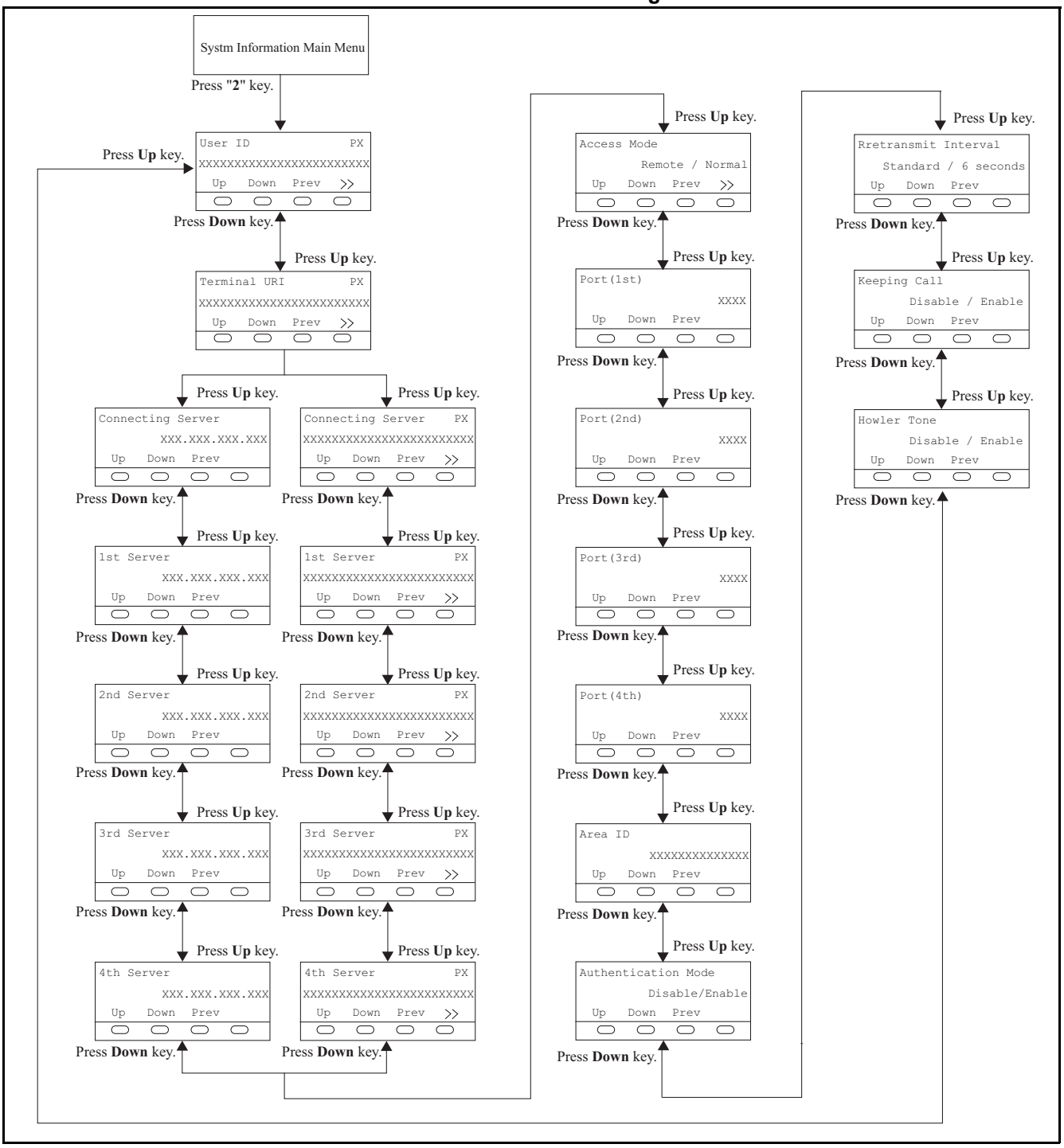
**See Parameters in SIP Settings for the page switching order by Up and Down key.*

STEP 3: Pressing the software key "Prev" returns the LCD to System Information menu.



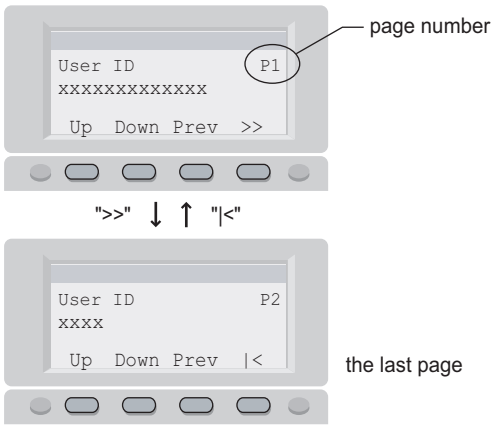
END

Parameters in SIP Settings



Note: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT800 Series terminal is registered.

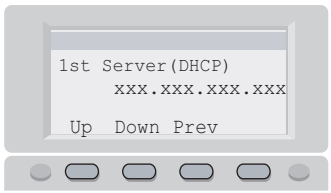
Note 5: When the assigned parameter cannot be displayed in one page, the LCD displays as follows.



Note 6: About IP address of SIP server (Telephony Server), refer to “Registration Destination of IP Devices/Stations” in System Description.

Note 7: “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.

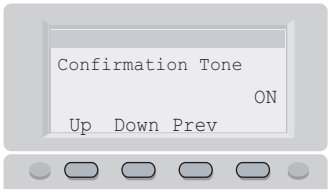
Note 8: “(DHCP)” is displayed when the parameter is obtained from DHCP server.



Note 9: 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.

[10] Audio & Visual Settings

STEP 1: When “3. Audio & Visual Settings” is selected, the LCD displays the following.

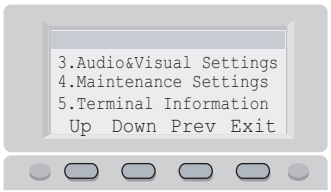


STEP 2: Switch the page to display other parameters by pressing the software key for “Up” and “Down.”

- 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 12**
- DTMF Play Mode- - - - - -Whether to ring DTMF when receiving DTMF signal **Note 13**

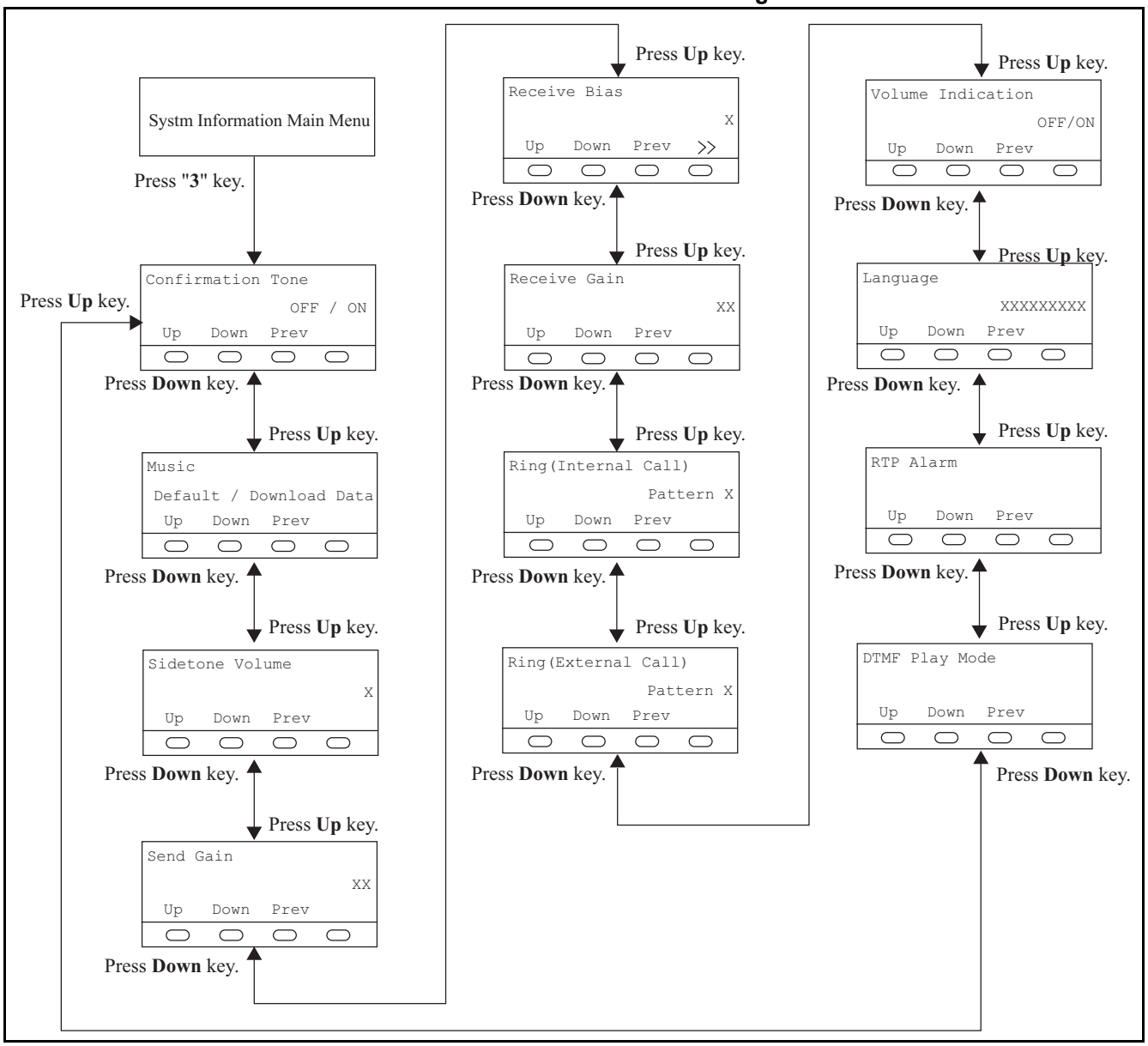
**See Parameters in Audio & Visual Settings for the page switching order by Up and Down key.*

STEP 3: Pressing the software key “Prev” returns the LCD to System Information menu.



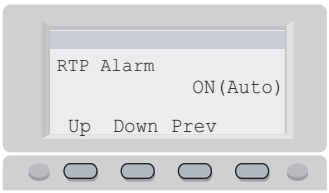
END

Parameters in Audio & Visual Settings

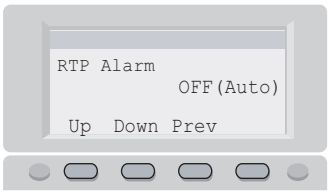


Note 11: Depending on the direction by the Telephony Server and the configuration settings, RTP Alarm parameter has the following four patterns of display.

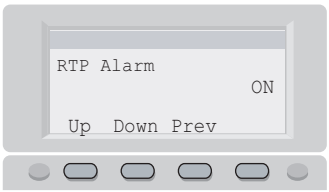
(1) RTP alarm is enabled by Telephony Server's direction.



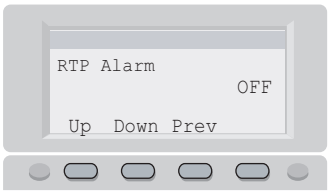
(2) RTP alarm is disabled by Telephony Server's direction.



(3) RTP alarm is enabled by configuration settings.

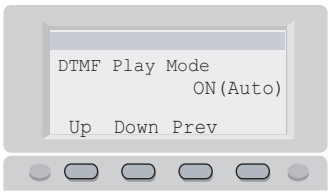


(3) RTP alarm is disabled by configuration settings.

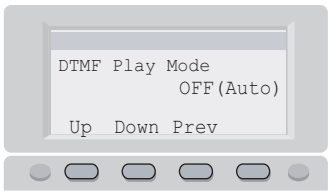


Note 12: Depending on the direction by the Telephony Server and the configuration settings, DTMF Play Mode parameter has the following four patterns of display.

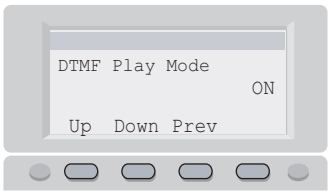
(1) DTMF is enabled by Telephony Server's direction.



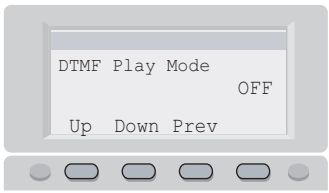
(2) DTMF is disabled by Telephony Server's direction.



(3) DTMF is enabled by configuration settings.



(3) DTMF is disabled by configuration settings.



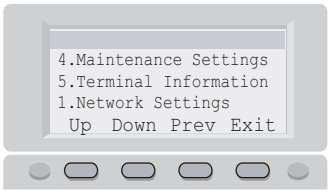
[13] Maintenance Settings

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

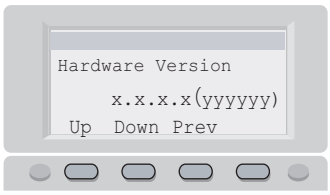
STEP 2: Pressing the software key “Prev” returns the LCD to System Information menu.



END

[14] Terminal Settings

STEP 1: When “5. Terminal Settings” is selected, the LCD displays the following.

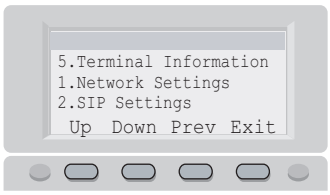


STEP 2: Switch the page to display other parameters by pressing the software key for “Up” and “Down.”

- 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

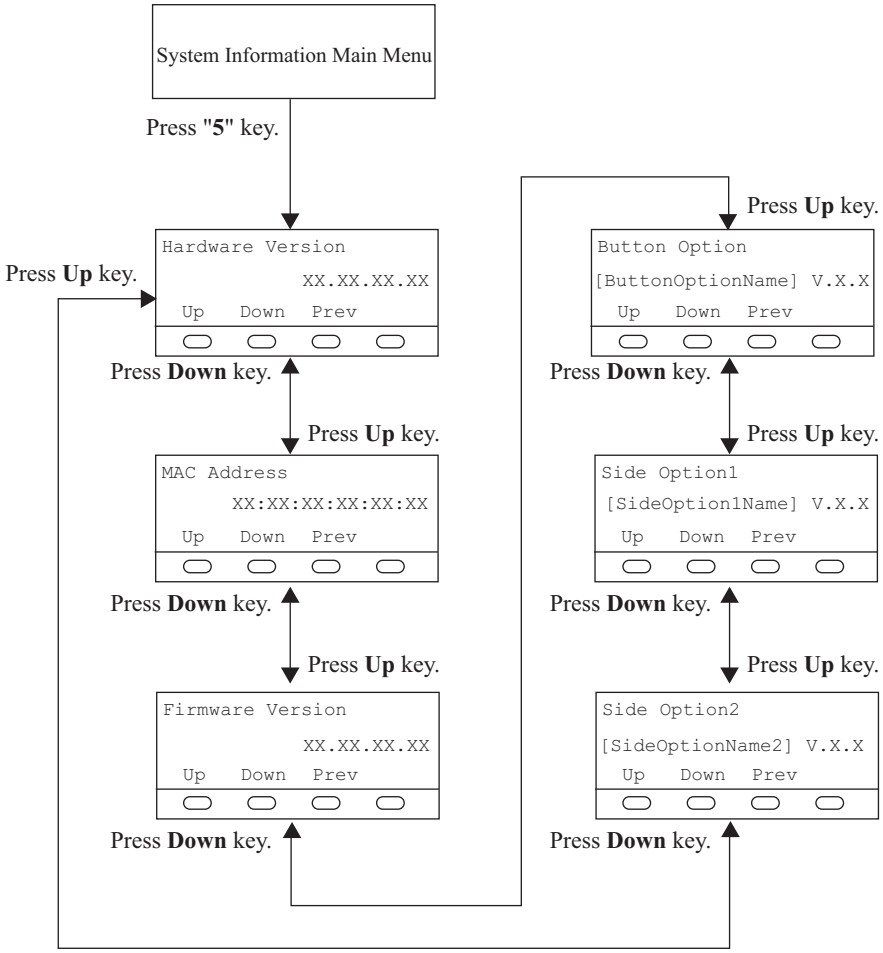
**See Parameters in Terminal Settings for the page switching order by Up and Down key.*

STEP 3: Pressing the software key “Prev” returns the LCD to System Information menu.



END

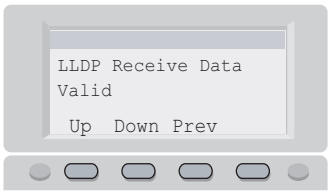
Parameters in Terminal Settings



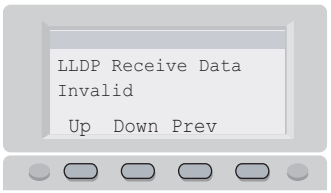
[15] LLDP Settings

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

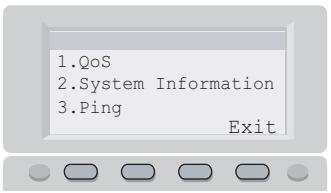
- VLAN ID (Voice)- - - - - - - - - - -TLV Element “VLAN ID” of Network Policy TLV in the received LLDP packet
- L2 Priority (Voice) - - - - - - - - - -TLV Element “L2 Priority” of Network Policy TLV in the received LLDP packet
- DSCP Value (Voice) - - - - - - - - -TLV Element “DSCP Value” of Network 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:

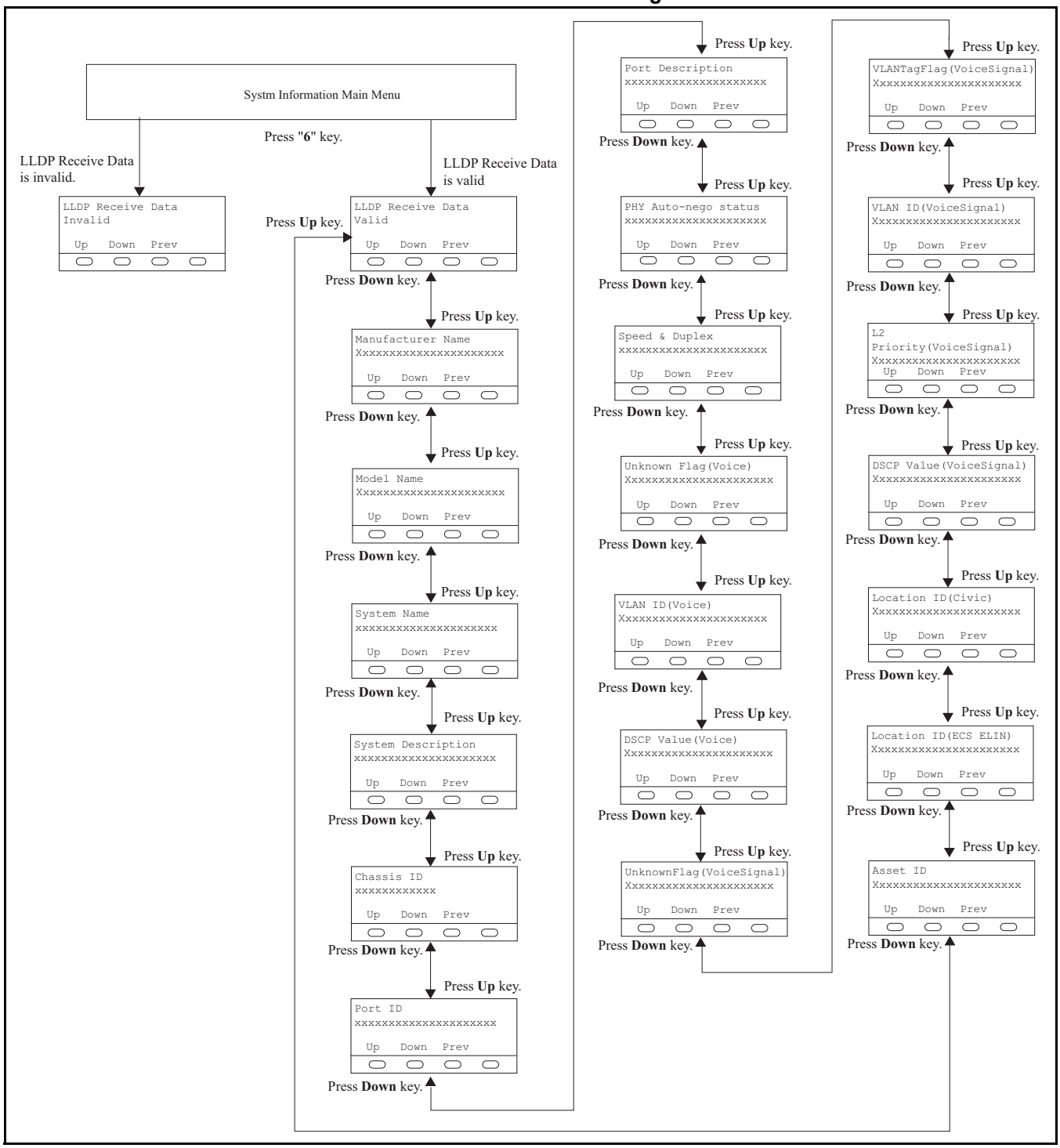
- LLDP Mode is disabled.
- DT800 Series does not receive LLDP packets.
- DT800 Series receives LLDP packets containing no relevant information.

STEP 3: Pressing the software key “Prev” returns the LCD to System Information menu.



END

Parameters in LLDP Settings

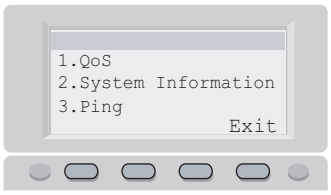


<Ping>

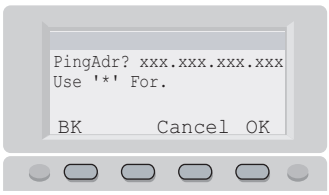
To check the network connection by sending Ping packet to specified IP address, follow the steps below.

STEP 1: Open [Online Monitoring] menu referring to Section <How to Start/Exit Online Monitoring Menu>.

STEP 2: Select "3. Ping."

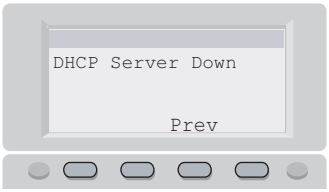


STEP 3: Enter the destination IP address, and then press the software key for "OK."

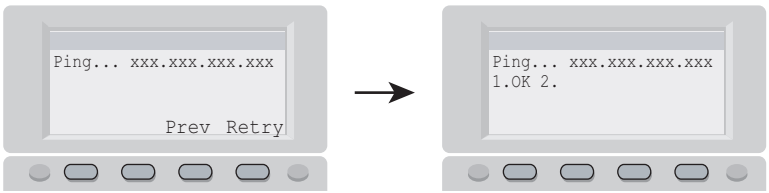


Use digit key for entering number.
Press "*" for separating each byte.

Note: When the network is disabled (e.g. IP address cannot be obtained from DHCP server), the LCD displays "DHCP Server Down" message.



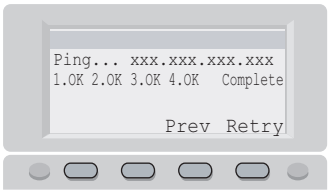
STEP 4: Ping command is started. The LCD displays the destination IP address and the processing state.



A

A

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 Section <How to Start/Exit Online Monitoring Menu>.

END

7.1.2.25Font 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 [5. 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:

- DT800 Series
- Device with FTP/TFTP server function (PC)
- HUB and LAN cable for connecting DT800 Series 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 DT800 Series, the Telephony Server, DHCP server.*
- *Do Not Unplug or Plug the LAN cable connecting to the DT800 Series, the Telephony Server, DHCP.*
- *Do Not Turn OFF the power of the HUB connecting to the DT800 Series, Telephony Server, DHCP.*

<Downloading Procedure>

Following shows the procedure of program download. Also program download by specifying a file name is available.

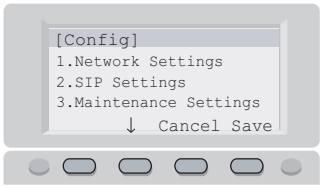
[1] Configuration Settings on Terminal

STEP 1: Prepare download file on FTP/TFTP server.

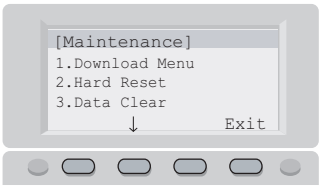
- FTP server
  Place the files to be downloaded on the specified directory.
  ** "C:\InetPub\ftproot" is the default directory for Windows server.*
- TFTP server
  Place the files to be downloaded under the directory for download.

File type

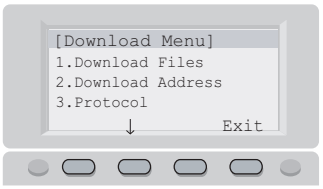
STEP 2: On [Config] menu, select "3. Maintenance."



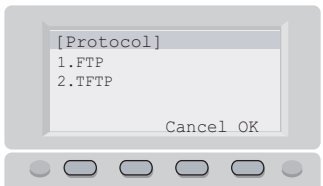
STEP 3: The LCD displays [Maintenance] menu. Select "1. Download Menu."



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."

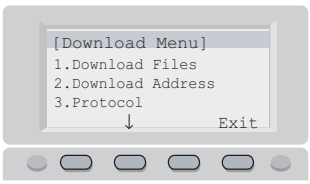


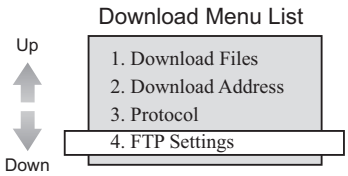
- When FTP is selected ➡ **Go to STEP 6**
- When TFTP is selected ➡ **Go to STEP 14**

A

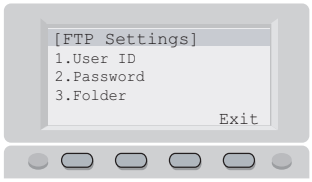
A

STEP 6: The LCD displays [Download Menu]. Select "4. FTP Settings".

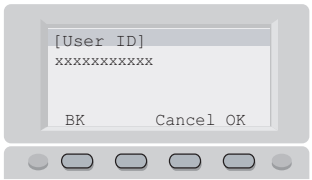




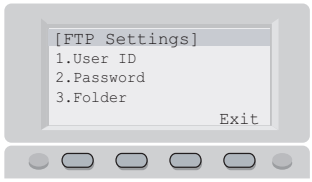
STEP 7: On [FTP Settings] menu, select "1. User ID".



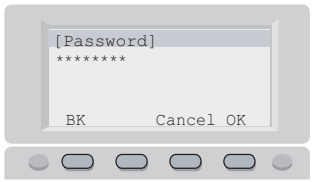
STEP 8: On [User ID] screen, enter user ID by the digit keys, and then press the software key for "OK."



STEP 9: The LCD displays [FTP Settings] menu. Select "2. Password."



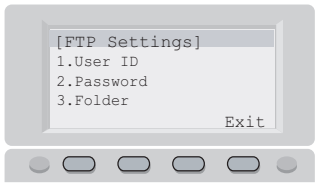
STEP 10: On [Password] screen, enter your password using the digit keys, and then press the software key for "OK."



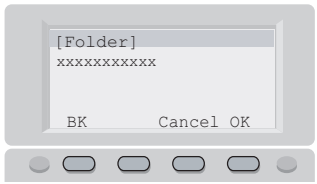
B

B

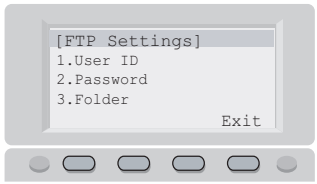
STEP 11: The LCD displays [FTP Settings] menu. Select "3. Folder."



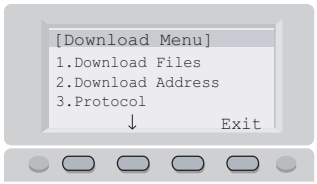
STEP 12: On [Folder] screen, enter the download file stored in the directory, and the press the software key for "OK."



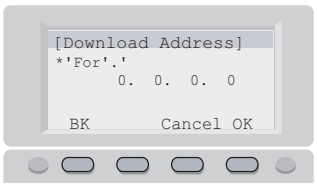
STEP 13: The LCD displays [FTP Settings] menu. Press the software key for "Exit" to return to [Download Menu].



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.

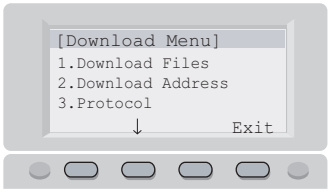


Use "*" to separate each bytes.
Press the software key for "OK" when all settings are completed.

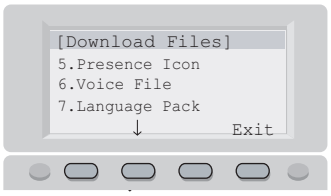
C

C

STEP 16: The LCD displays [Download Menu] screen. Select "1. Download Files."

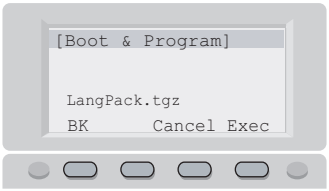


STEP 17: On [Download Files] menu, select "7. Language Pack" and then press the software key for "OK."



STEP 18: File name is displayed for each selected download file.

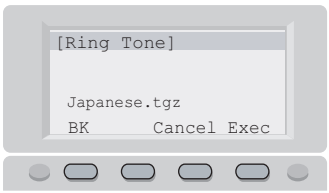
This is an example for selecting Boot & Program file.



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.

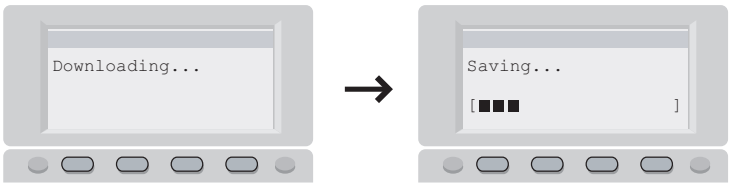


1. Press the software key for "BK" to delete the displayed file name.
2. Enter other name (up to 20 characters).
3. Press the software key for "Exec". ➡ **Go to STEP 20**

D

D

STEP 20: The terminal starts downloading. "Downloading..." flashes on the LCD.

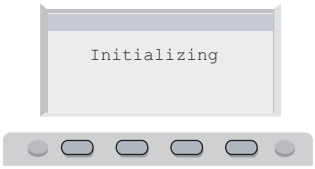


Note: Do not power off the terminal while the LCD is displaying "Saving...". It may cause trouble in DT800 Series starting up.

STEP 21: The LCD displays the message below. Press the software key for "Exit" to restart the terminal.



STEP 22: DT800 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 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 1**
[User ID] : Enter User ID.
[Password] : Enter password.

Note 1: See Download file on page 205 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!*

7.1.3 DT830G Series Configuration Menu List (FW 3.0.0.0 or later)

This section lists the configuration menu used for DT830G Series 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."

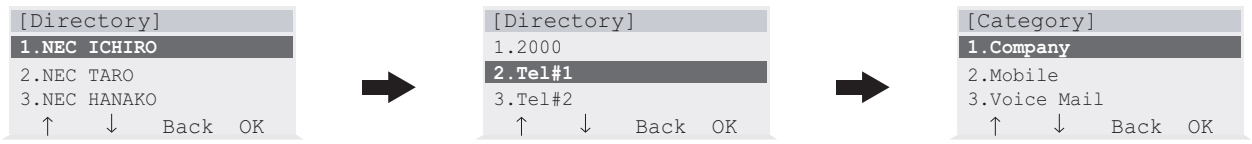
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

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 Series (Standard LCD).

2. Directory

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
1. Personal	Displays Terminal Phonebook Note 4	-	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 1**	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 1**	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 1**, **Note 2**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)	X	X
3. Illumination **Note 1**, **Note 3**	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 4**	-	X	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 5**	-	X	X

Note 1: 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 2: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 3: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 4: 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 5: 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 1	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 1: 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 1	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 2**	Sets Ringing Tone for incoming call termination.	-	X	X
1. External Call **Note 4**	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 4**	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 2**	Sets lamp indication pattern for incoming call termination.	-	X	X
1. External Call **Note 5**	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 5**	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 6**	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 7**	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 8**	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 3**	-	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 9	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 10			
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.	-	-	-
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.	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.	-		
1. BCA Connection Settings	Setting for the BCA 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, 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.			

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 1: Do not go the handset off-hook when headset is used.

Note 2: 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 3: In the case of power failure for backlight, the terminal follows the Telephony Server’s direction discarding the terminal’s setting.

Note 4: 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 5: 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 6: A tone will be provided if Automatic has been set.

Note 7: 12-Hour Indication is applied when Automatic has been set.

Note 8: A setting for Enable is applied when Automatic has been set.

Note 9: A setting on the Telephony Server is applied when Automatic has been set.

Note 10: 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	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 DT800 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
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].	7	X	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	5	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)	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 DT800 Series.	-	-	-
1.RTP Self Port	Sets RTP port for DT800 Series [1024-65520 (except 59986-60000)]. **Note 10**, **Note 11**	3462	X	X
2.SIP Self Port	Sets SIP port for DT800 Series [1024-65534]. **Note 11**	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	DT800 Series does not transmit/receive LLDP packets.			
2. Enable	DT800 Series 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	DT800 Series does not perform data setting automatically when LLDP packets are received.			
2. Enable	DT800 Series performs data setting automatically when LLDP packets are received.			
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT800 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 DT800 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 9	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 DT800 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
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
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.	-	-	-
4. Backup Logon	Not used.	-	-	-

0. Config (Continued)

Parameter	Description	Default	DT830G (12/24CG)	DT830G (12/24DG)
2. Server Address	Sets IP address or URI of SIP server. **Note 1**, **Note 2**	-	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 DT800 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	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 DT800 Series terminal detects communication failure with the Telephony Server.			
2. Enable	Calls in progress are not held even when DT800 Series terminal detects communication failure with the Telephony Server.			
3. Howler Tone (Not used)	Selects whether to send howler tone. **Note 3**	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 6**	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 (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 DT800 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: 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 DT800 Series without data saving.	-	X	X
3. Data Clear	Initializes DT800 Series selecting the initialization mode.	-	X	X
1. Factory Value	Initializes DT800 Series to factory default.	-	X	X
2. Terminal Data	Clears terminal data on DT800 Series.	-	X	X
3. Personal Data	Clears personal data on DT800 Series.	-	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 [0-48dB]	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.		-	-
4. Line 8			-	-
5. Line 6			-	-
6. Line 2			-	-
7. Line 0			-	-

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 5**	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 7**	Access is enabled. Select this item to set more than one XML's Push server.			
2. Client IP Address **Note 8**	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 11**	82	X	X
3. Admin Password	Sets administrator's 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 DT800 Series.	Disable	X	X
1. Disable	Supplicant is disabled on DT800 Series.			
2. Enable	Supplicant is enabled on DT800 Series.			
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 DT800 Series.	-	X	X
MAC Address	Displays MAC address of DT800 Series.	-	X	X
Firmware Version	Displays firmware version of DT800 Series.	-	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 5**	Sets XML browser related data.	-	X	X
1. Home URL **Note 4**	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 11**	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 1: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830G 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: 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 (4.5.3 Security Lock) 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 5: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 6: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 7: Be careful when you specify "3.Enable(All Client)" because security service are disabled for Push when "3.Enable(All Client)" is set.

Note 8: 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 9: "-" is displayed in default settings.

Note 10: Odd numbered ports cannot be assigned.

Note 11: 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

7.1.4 Configuration Menu List

This section lists the configuration menu used for DT830 Series 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	DT830 Series
1. Missed **Note 1**	Lists the history of missed calls.	-	X
2. Outgoing **Note 1**	Lists the history of outgoing calls.	-	X
3. Incoming **Note 1**	Lists the history of incoming calls.	-	X
4. Delete All	Deletes the call history completely.	-	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	DT830 Series
1. Call	Originates a call to the number displayed on the history.	-	X
2. Directory Add	Registers the number displayed on the history to Directory.	-	X

Parameter	Description	Default	DT830 Series
1. New	Registers new number.	-	X
Category Set	Selects the group the new number registered to.	Company	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
1. Disable			
2. Enable			
Edit **Note 2**	Edits Directory. (This menu is displayed after Priority Flag setting.)	-	X
2. Addition	Adds numbers to searched data.	-	X
Directory Search **Note 3**	Searches the Directory data to which you want to add the number	-	X
Directory Add **Note 3**	Adds the number to the searched data on the Directory	-	X
3. Prefix	Adds a prefix to the number displayed on the LCD.	-	X
4. Delete One	Deletes one history displayed on the LCD.	-	X
5. Delete All	Deletes all the history of the corresponding category (Missed, Outgoing, Incoming)	-	X

Note 2: This menu has the same function with "2. Directory" →"2. Edit."

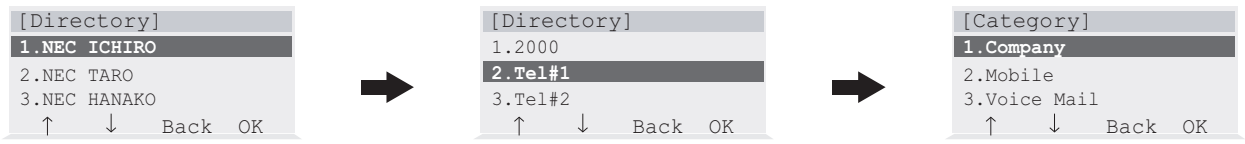
Note 3: The following shows the operating procedure from Directory Search to Directory Add:

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 Series (Standard LCD).

2. Directory

Parameter	Description	Default	DT830 Series
1. Personal	Displays Terminal Phonebook **Note 4**	-	X
1. Search	Searches Phonebook.	-	X
1. Group	Searches by specifying group.	-	X
1. Default	Searches through “Default” group.	-	X
2. Colleagues	Searches through “Colleagues” group.	-	X
3. VIPs	Searches through “VIPs” group.	-	X
4. Family	Searches through “Family” group.	-	X
5. Friends	Searches through “Friends” group.	-	X
6. Group6 ~ 20. Group 20	Searches through “Group6” ~ “Group20”.	-	X
2. Name	Searches by entering a target name.	-	X
3. Tel Number	Searches by entering numbers.	-	X
4. Others	Searches by other search key.	-	X
1. Memory ID	Searches by entering Memory ID.	-	X
2. Category	Searches by selecting Category.	-	X
1. Company	Searches through “Company” category.	-	X
2. Mobile	Searches through “Mobile” category.	-	X
3. Voice Mail	Searches through “Voice Mail” category.	-	X
4. Home	Searches through “Home” category.	-	X
5. Etc	Searches through “Etc” category.	-	X
3. Company	Searches by entering a company name.	-	X
4. Alphabet	Searches by alphabet order.	-	X
1. ABC	Searches by the name starting with A ~ Z.	-	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
1. Name	Registers name.	-	X
2. Group	Allocates group.	Default	X
1. Default			
2. Colleagues			
3. VIPs			
4. Family			
5. Friends			
6. Group6 ~ 20. Group 20			

2. Directory (Continued)

Parameter	Description	Default	DT830 Series
3. Tel #1 ~ 6. Tel #4	Registers telephone number to Tel #1 ~ Tel #4.	-	X
Category Set	Allocates category to Tel #1 ~ Tel #4.	Company	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
1. Disable			
2. Enable			
7. Company Name	Registers company name.	-	X
8. Ring Tone **Note 1**	Sets Ringing Tone for informing call termination. Up to three patterns can be specified.	Default (follows group settings)	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 1**	Sets lamp indication for announcing call termination.	Default (follows group settings)	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

2. Directory (Continued)

Parameter	Description	Default	DT830 Series
3. Group Setting	Sets groups.	-	X
1. Default			
2. Colleagues			
3. VIPs			
4. Family			
5. Friends			
6. Group6 ~ 20. Group 20			
1. Name	Registers group name.	-	X
2. Ring Tone **Note 1**, **Note 2**	Sets Ringing Tone for announcing call termination. ** Tone Type 1 rings when Automatic is selected.*	Default (follows terminal settings)	X
3. Illumination **Note 1**, **Note 3**	Sets lamp indication for announcing call termination. ** The lamp illuminates Red when Automatic is selected.*	Default (follows terminal settings)	X
4. Own Number	Displays own number (login number).	-	X
0. Delete All	Deletes all the registered data on Terminal Phonebook.	-	X
2. System	Displays System Phonebook assigned by [P-83] Phonebook. **Note 4**	-	X
3. Corporate	Displays Corporate Phonebook assigned on the external XML server. **Note 5**	-	X

Note 1: 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 “5. Setting” - “1.User Setting” - “1.Incoming Call” - 4.Ringing Tone/5. Illumination

Note 2: This parameter has the same Ring Tone menu with “2. Directory” - “2.Edit” - 8.Ring Tone.

Note 3: This parameter has the same Illumination menu with “2. Directory” - “2.Edit” - 9.Illumination.

Note 4: 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 5: 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	DT830 Series
3. Service	Starts up XML browser and Instant Message tool.	-	X

3. Service (Continued)

Parameter	Description	Default	DT830 Series
1. Service **Note 1**	Starts up XML browser.	-	X

Note: Service menu is displayed only when the URL is set by “0.Config” - “6. Application Settings” - “1.XML Settings” - “4. Service URL”.

Note 1: 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	DT830 Series
1. User Setting	Sets user interface related.	-	X
1. Incoming Call	Sets ringing and lamp indication data for incoming call.	-	X
1. Ring Volume	Not used.	-	-
2. Offhook Ring	Selects whether to use offhook ringing (ringing for incoming call in busy state).	Enable	X
1. Disable	Offhook ringing is OFF.		
2. Enable	Offhook ringing is ON.		
3. Headset Ring **Note 1**	Selects whether to use headset ringing.	Disable	X
1. Disable	Headset ringing is OFF.		
2. Enable	Headset ringing is ON.		

4. Setting (Continued)

Parameter	Description	Default	DT830 Series
4. Ring Tone **Note 2**	Sets Ringing Tone for incoming call termination.	-	X
1. External Call **Note 4**	Sets Ringing Tone for external call termination. * Tone Type 1 rings when Automatic is selected.	Automatic	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 4**	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 3**	Sets lamp indication pattern for incoming call termination.	-	X
1. External Call **Note 9**	Sets Illumination for External Call. * The lamp illuminates Red when Automatic is selected.	-	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	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	DT830 Series
2.Internal Call **Note 5**	Sets Illumination for Internal Call. * The lamp illuminates Red when Automatic is selected.	-	X
0. Automatic	Sets Automatic for the lamp indication of incoming call termination.	Automatic	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			
3. IM	Not used.	-	-
6. Headset Ring Volume	Not used	-	-
2. Talk	Sets call related data.	-	X
1. RTP Alarm	Sets whether to allow the alarm for detecting packet loss in receiving speech packets.	Automatic	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
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 6**	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
1. Default	Applies the default music (Minuet).		
2. Download	Applies the downloaded music.		
5. Prefix	Sets prefix number.	-	X
1. Prefix 1 ~ 3. Prefix 3	Sets number to Prefix 1 ~ Prefix 3.	-	X

4. Setting (Continued)

Parameter	Description	Default	DT830 Series
3. Display	Sets display related data.	-	X
1. Time Format	Switches 12-hour/24-hour indication.	Automatic **Note 7**	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 8**	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
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
4. Back Light	Switches ON/OFF the backlight on DT830.	Enable **Note 3**	X
1. Disable	Backlight is OFF.		
2. Enable	Backlight is ON.		
5. Font Size	Switches the font size on configuration menu.	Standard (16dot)	X
1. Standard (16dot)	Selects Standard or Small of font size.		
2. Small (12dot)			

4. Setting (Continued)

Parameter	Description	Default	DT830 Series
6. Language	Selects the language on date and time display.	AutomaticNote 9	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. Download 1	Selected download language is displayed on date and time display. Note 10		
23. Download 2			
24. Download 3			
25. Download 4			
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.	0000	X
5. Security	Not used.	-	-

4. Setting (Continued)

Parameter	Description	Default	DT830 Series
6. Peripherals	Setting for using peripheral equipment of terminal.	-	-
1. USB Memory	Not used.	-	
2. BCA Option	Setting for BCA (Bluetooth cradle phone adapter)	-	
1. BT 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.	-	X
1.Help Key Mode	Setting for Help Key Mode (SubMenu/ Popup Window)	SubMenu	X
1.SubMenu	Set the Help key which displays sub menu		X
2.Popup Window	Set the Help key which displays pop-up window		X
0. Setting Reset	Initializes all the assigned personal information on the terminal to factory default.	-	X

4. Setting (Continued)

Parameter	Description	Default	DT830 Series
2. Download	Sets download related data.	-	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
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	
3. Directory	Downloads a csv format file used for Terminal Phonebook.	Directory.csv	X
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X
3. Protocol	Specifies the protocol for file downloading.	FTP	X
1. FTP	FTP is used.		
2. TFTP	TFTP is used.		
4. FTP Settings	Sets data for accessing FTP server.	-	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
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
3. Server Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X
4. Protocol	Specifies the protocol for file downloading.	FTP	X
1. FTP	FTP is used.		
2. TFTP	TFTP is used.		
5. FTP Settings	Sets data for accessing FTP server.	-	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: The priority order of Ringing tone settings is as follows.

Note 3: In the case of power failure for backlight, the terminal follows the Telephony Server's direction discarding the terminal's setting.

Note 4: 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 5: 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 6: A tone will be provided if Automatic has been set.

Note 7: 12-Hour Indication is applied when Automatic has been set.

Note 8: A setting for Enable is applied when Automatic has been set.

Note 9: A setting on the Telephony Server is applied when Automatic has been set.

Note 10: 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	DT830 Series
1. Network Settings	Sets network related data.	-	X
1. DHCP Mode	Selects whether to use DHCP protocol.	Enable	X
1. Disable	DHCP is not used.		
2. Enable	DHCP is used.		
2. IP Address	Sets DT830 Series terminal’s IP address.	0.0.0.0	X
3. Default Gateway	Sets default router’s IP address.	0.0.0.0	X
4. Subnet Mask	Sets subnet mask.	0.0.0.0	X
5. DNS Address	Sets DNS server’s IP address.	0.0.0.0	X
6. Advanced Settings	Sets network expanded data.	-	X
1. LAN Port Settings	Sets LAN port.	-	X
1. Speed&Duplex	Sets communication speed of Ether port.	Autonego	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
1. Disable	VLAN is not used.		
2. Enable	VLAN is used.		
3. VLAN ID	Sets VLAN ID of terminal [0-4094].	7	X
4. VLAN Priority	Sets VLAN Priority of terminal [0-7].	5	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

0. Config

Parameter	Description	Default	DT830 Series
2. PC Port Settings	Sets PC port.	-	X
1. Speed&Duplex	Sets communication speed of PC port.	Autonego	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
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].	7	X
4. Port VLAN Priority	Sets port VLAN priority of PC port [0-7].	5	X
5. Port Available	Selects whether to use PC port.	Automatic	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
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
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.	-	X
4. Type of Service	Sets ToS value.	-	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 Series.	-	-
1.RTP Self Port	Sets RTP port for DT830 Series [1024-65520 (except 59986-60000)]. **Note 9**, **Note 10**	3462	X
2.SIP Self Port	Sets SIP port for DT830 Series [1024-65534]. **Note 10**	5060	X
6.LLDP Settings	Sets information related to LLDP.	-	-
1.LLDP Mode	Sets whether to transmit/receive LLDP packets.	Enable	X
1. Disable	DT830 Series does not transmit/receive LLDP packets.		
2. Enable	DT830 Series transmits/receives LLDP packets.		

0. Config

Parameter	Description	Default	DT830 Series
2.Auto Setting Mode	Sets whether to perform data setting automatically when LLDP packets are received.	Enable	X
1. Disable	DT830 Series does not perform data setting automatically when LLDP packets are received.		
2. Enable	DT830 Series performs data setting automatically when LLDP packets are received.		
3.RX Waiting Time	For Auto Setting, sets the waiting time until DT830 Series receives LLDP packets (1-60 seconds).	15	X
4.Transmit Interval	Sets intervals to transmit LLDP packets (5-32768 seconds).	30	X
5.Hold Multiplier **Note 11**	Sets a multiplier determining the time to live for the LLDP packets to be transmitted (2-10 multiples).	4	X
6.Fast Start Count	Sets the number of times to transmit LLDP packets at one-second intervals after DT830 Series starts up (1-10 times).	3	X
7.Transparent Mode	Sets whether Transparent Mode of LLDP packets is enabled between the PC port and the LAN port.	Enable	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 8**	X

0. Config

Parameter	Description	Default	DT830 Series
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
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
1. IP Address	Sets DT830 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
2.3rd Server Address	Specifies the address of the server to be set as the 3rd SIP server.	0.0.0.0	X
3.4th Server Address	Specifies the address of the server to be set as the 4th SIP server.	0.0.0.0	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
5.3rd Server Port	Specifies the port number of the server to be set as the 3rd SIP server [0, 1024-65535]	0	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
8.TTL Settings	Setting for multicast TTL (Time To Live)	-	-
1. RTP (Multicast)	Sets the value of multicast TTL (1-255)		32
2. SIP Settings	Sets SIP related data.	-	X
1. SIP User	Sets user data.	-	X
1. User ID	Sets user ID for digest authentication.	-	X
2. Password	Sets password for digest authentication.	-	X
3. Extension Number	Not used.	-	-
4. Backup Logon	Not used.	-	-

0. Config

Parameter	Description	Default	DT830 Series
2. Server Address	Sets IP address or URI of SIP server. **Note 1**, **Note 2**	-	X
1. 1st Server Address	Sets IP address or fully qualified domain name (FQDN) of 1st ~ 4th SIP server.	-	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
1. 1st Register Address	Sets IP address or fully qualified domain name (FQDN) or 1st ~ 4th registrar server.	-	X
2. 2nd Register Address			
3. 3rd Register Address			
4. 4th Register Address			
3. Access Mode	Sets access mode for SIP server.	Normal	X
1. Normal	Normal access		
2. Remote	Remote access		
4. SIP Server Port	Sets SIP server port [1024-65535].	5060	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	DT830 Series
5. Area ID	Sets the area (country) using DT830 Series.	Automatic	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

Parameter	Description	Default	DT830 Series
6. Extra Function	Sets expanded data related to SIP packet.	-	X
1. Retransmit Interval	Selects Retransmit Interval of REGISTER and SUBSCRIBE message during the registration process.	Standard	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
1. Disable	Calls in progress are not held even when DT830 Series terminal detects communication failure with the Telephony Server.		
2. Enable	Calls in progress are not held even when DT830 Series terminal detects communication failure with the Telephony Server.		
3. Howler Tone (Not used)	Selects whether to send howler tone. **Note 3**	Disable	X
1. Disable	Howler tone sending is OFF.		
2. Enable	Howler tone sending is ON.		
7. Encryption	Sets encryption data.	Disable	X
1. Authentication Mode	Selects whether to use authentication.		X
1. Disable	Authentication is not used.		
2. Enable	Authentication is used.		
2. One Time Password	Sets One Time Password.	-	X
3. Authentication Status	Displays authentication status.	-	X
8. NAT Traversal **Note 6**	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	DT830 Series
3. Maintenance Settings	Sets maintenance related data.	-	X
1. Download Menu	Downloads specified file to DT830 Series.	-	X
1. Download Files	Specifies download file name for each file type.	-	X
1. Boot & Program	Downloads boot and program.	itzisipvg.tgz	X
2. Config	Downloads configuration file.	config.tgz	X
3. Voice File	Downloads voice file.	voice.tgz	X
4. Language Pack	Downloads translation data file.	LangPack.tgz	X
2. Download Address	Sets IP address of FTP/TFTP server.	0.0.0.0	X
3. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X
1. FTP	FTP is used.		
2. TFTP	TFTP is used.		
4. FTP Settings	Sets data for accessing FTP server.	-	X
1. User ID	Sets user ID for login to FTP server.	-	X
2. Password	Sets password for login to FTP server.	-	X
3. Folder	Specifies the directory to save the download file.	-	X
2. Hard Reset	Resets DT830 Series without data saving.	-	X

0. Config

Parameter	Description	Default	DT830 Series
3. Data Clear	Initializes DT830 Series selecting the initialization mode.	-	X
1. Factory Value	Initializes DT830 Series to factory default.	-	X
2. Terminal Data	Clears terminal data on DT830 Series.	-	X
3. Personal Data	Clears personal data on DT830 Series.	-	X
4. Adjust	Adjusts LCD, audio, and button kit.	-	X
1. Default Audio	Sets audio data.	-	X
1. Sidetone Volume	Sets Side Tone volume [0-7].	4	X
2. Send Gain	Sets sending gain of handset [0-31].	24	X
3. Receive Bias	Sets receiving bias of handset [0-7].	0	X
4. Receive Gain	Sets receiving gain of handset [0-31].	22	X
5. Characteristics	Sets talk characteristics of handset.	-	X
1.Noise Suppression	Sets whether to enable the Noise Suppressor. (Set “1.Disable” in normal operation.)	Disable	X
2. Handsfree Mode	Sets whether to enable the Handsfree Mode	Retro mode	
6. DTMF Send Level	Sets DTMF Send Level [0-48dB].	32	
2. KeyKit Type	Sets additional button kit data.	-	X
1 ~ 5. Kit 1 ~ 2, 8 ~ 10 . **Note 9**, **Note 10**	Key 1 ~ 2, 8 ~ 10 on button kit are used.	Kit 1	X
1. Line Key Type	*(Do not change the factory default value of this parameter.)*	-	X
1. Line 12	Sets to 12-line of DT830.		X
2. Line 24	Sets to 24-line of DT830.		X
3. Line 32	Not used.		-
4. Line 8	Sets to 8-line of DT830.		X
5. Line 6	Not used.		X
6. Line 2	Not used.		-
7. Line 0	Not used.		X

0. Config

Parameter	Description	Default	DT830 Series
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
1. Acoustic Type	Selects acoustic type.	Type 1	X
1. Type 1 - 5. Type 5			
2. Handset TX Gain	Sets sending gain of handset [0dB~30dB].	15	X
3. Handset RX Gain	Sets receiving gain of handset [0dB~36dB].	18	X
4. HF TX Gain	Sets sending gain of hands free [0dB~30dB].	15	X
5. HF RX Gain	Sets receiving gain of hands free [0dB~36dB].	18	X
6. Noise Suppression	Setting for the Noise Suppressor.	-	X
1. TX	Sets the Noise Suppression level for TX.	Disable	X
2. RX	Sets the Noise Suppression level for RX.	Disable	X
5. Auto config	Selects whether to use auto-config function.	Enable	X
1. Disable	Auto config is not used.		
2. Enable	Auto config is used.		
6. Data Maintenance	Sets data maintenance related.	-	X
1. Backup	Executes data backup.	-	X
1. All Data	Executes backup for all the configuration setting and data.	AllData.tgz	X
2. Terminal Data	Executes backup for terminal setting and data.	TerminalData.tgz	X
3. Personal Data	Executes backup for personal setting and data.	PersonalData.tgz	X
2. Restore	Executes restoration.	-	X
1. All Data	Restores all the configuration setting and data.	AllData.tgz	X
2. Terminal Data	Restores terminal setting and data.	TerminalData.tgz	X
3. Personal Data	Restores personal setting and data.	PersonalData.tgz	X
3. Server Address	Sets IP address of the server that executes data backup/restoration.	0.0.0.0	X
4. Protocol	Selects FTP or TFTP for file downloading protocol.	FTP	X
1. FTP	FTP is used.		
2. TFTP	TFTP is used.		
5. FTP Settings	Sets data for accessing FTP server.	-	X
1. User ID	Sets user ID for login to FTP server.	-	X
2. Password	Sets password for login to FTP server.	-	X
3. Folder	Specifies the directory to save the download file.	-	X

0. Config

Parameter	Description	Default	DT830 Series
7. Simple Test **Note 5**	Changes the terminal to test mode.	-	X
1. Call Test	Call Test	-	X
2. Call Test Address	Sets an IP address of the opposite terminal to perform the call test.	10.136.20.188	X
3. Key Test 1 (Random)	Tests to press the random button.	-	X
4. Key Test 2 (Sequential)	Tests to press the sequential button.	-	X
5. Loop Back Test	Tests the voice loop back.	-	X
1. Handset - Hand Speaker	Tests to speak and receive on the hand speaker.	-	X
2. Handset - Speaker	Tests to speak on the handset and receive on the speaker.	-	X
3. Headset - Head Speaker	Tests to speak and receive on the head speaker.	-	X
4. Headset - Speaker	Tests to speak on the headset and receive on the speaker.	-	X
5. MIC - Hand Speaker	Tests to speak on the MIC and receive on the hand speaker.	-	X
6. MIC - Head Speaker	Tests to speak on the MIC and receive on the head speaker.	-	X
7. MIC - Speaker	Tests to speak on the MIC and receive on the speaker.	-	X
6. Speaker Test	Tests the speaker.	-	X
1. Japan	A DT for Japan is heard in maximum volume.	-	X
2. America	A DT for North America is heard in maximum volume.	-	X
7. Receiver Test	Receiver Test for a handset	-	X
4. Security	Sets security related data.	-	X
1. Web Programming	Selects whether to use Web Programming.	Enable	X
1. Disable	Web Programming is disabled.		
2. Enable	Web Programming is enabled.		
2. Push Server	Sets XML's Push server related data.	-	X
1. Push Server Access	Sets whether to access XML's Push server.	Enable	X
1. Disable	Access is disabled.		
2. Enable	Access is enabled.		
3. Enable (All Client) **Note 7**	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
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 10**	82	X
3. Admin Password	Sets administrator's password.	6633222	X

0. Config

Parameter	Description	Default	DT830 Series
4. 802.1X Supplicant	Sets 802.1X authentication related parameter.	-	X
1. Supplicant	Sets whether to use supplicant on DT830 Series.	Disable	X
1. Disable	Supplicant is disabled on DT830 Series.		
2. Enable	Supplicant is enabled on DT830 Series.		
2. EAP Method	Not used.	-	-
3. Account	Sets user ID for EAP-MD5.	-	X
4. Password	Sets password for EAP-MD5.	-	X
5. EAPOL VLAN Mode	Selects whether to add VLAN tag to EAP packet.	Enable	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	Not used.	-	-
7 User Password	Setting for User Password.	-	X
1. Expiration Date	Sets the expiration of user password (0-90 days).	0	X
2. Warning Interval	Sets the interval to regenerate the warning message which prompts a password resetting (1-24 hours).	1	X
5. Terminal Information	Displays terminal information.	-	X
Hardware Version	Displays hardware version of DT830 Series.	-	X
MAC Address	Displays MAC address of DT830 Series.	-	X
Firmware Version	Displays firmware version of DT830 Series.	-	X

0. Config

Parameter	Description	Default	DT830 Series
6. Application Settings	Sets application data.	-	X
1. XML Settings	Specifies XML browser function.	-	X
1. Terminal ID	Login number for accessing XML server.	0000	X
2. XML Browser	Sets XML browser related data.	-	X
1. Home URL **Note 4**	Sets the address of the contents to access when starting up XML browser.	-	X
2. Proxy Settings	Sets proxy server related data.	-	X
1. Proxy IP	Sets proxy IP address of XML browser.	0.0.0.0	X
2. Proxy Port	Sets proxy port of XML browser [1024-65535].	8080	X
3. Directory URL	Sets URL of Corporate Phonebook.	-	X
4. Service URL	Sets URL of XML application.	-	X
2. IPM Self Port	Sets the port for connecting to IP Phone Manager [1024-65535 (except 17185, 60000)]. **Note 10**	3530	X
3. Popup	Sets the popup window display.	-	X
1.Popup Mode	Sets the mode of the popup window display.	App Priority	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
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
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
1. Disable	Sets the menu key mode disabled.		
2. Enable	Sets the menu key mode enabled.		

Note 1: "SIP server" used here refers to the Telephony Server. The Telephony Server acts as SIP server where DT830 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: 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 (4.5.3 Security Lock) 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 5: This service is available to perform various tests such as Key Test, LED, LCD, and Call Test.

Note 6: This item appears in the menu, but the assignment of this parameter is prohibited.

Note 7: Be careful when you specify “3.Enable(All Client)” because security service are disabled for Push when “3.Enable(All Client)” is set.

Note 8: “-” is displayed in default settings.

Note 9: Odd numbered ports cannot be assigned.

Note 10: 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 11: 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.

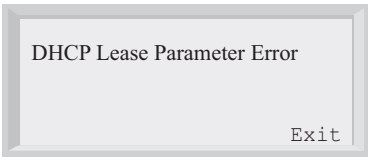
- When Home URL is not registered, home screen is displayed and the menu name is displayed as “Phone”.
- When Home URL is registered, XML application screen is displayed, and the menu name is displayed as the application name to be described in the XML application. If application name is not described in the XML application, the menu name will be “Portal”.

7.1.5 Error Messages

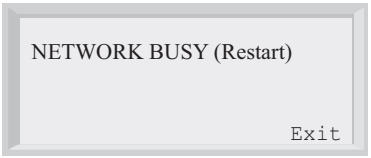
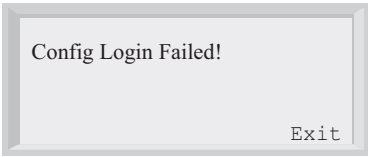
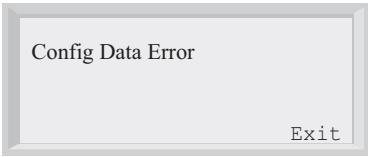
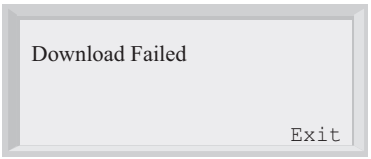
The following messages might be displayed when an error occurs during DT800 Series setup.

Note: "SIP server" used in this section refers to the Telephony Server. The Telephony Server acts as SIP server where DT800 Series terminal is registered.

Error Messages on DT800 Series (Setup) (1 of 2)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
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 DT800 Series. (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. 	No answer from the DHCP server, after sending a request from the DT800 Series. (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 DT800 Series are connected to the network. • Check that a DHCP server is operating normally. • Check that the network equipment is connected correctly. • When the DT800 Series is not used, set the parameter to "DHCP Disable".
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.
SIP server cannot be found. 	No answer from the SIP server, after sending a request from the DT800 Series. (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 DT800 Series are connected to the network. • Check that a SIP server is operating normally. • Check the SIP server address again. **Note 1** • When the DT800 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 DT800 Series that is supported by the SIP server.

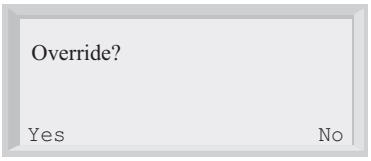
Error Messages on DT800 Series (Setup) (2 of 2)

ERROR MESSAGES	CAUSE	COUNTERMEASURE
DT800 Series cannot communicate due to network failure. 	Time-out of response for a request. (DT800 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 DT800 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 DT800 Series 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.
Config Data Error 	There is an error to the data setting.	• If it is failed again, contact the maintenance person.
Download is failed. 	The download failed.	• If it is failed again, contact the maintenance person.

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 DT800 Series operation.

Error Messages on DT800 Series (Others)

ERROR MESSAGES	EXAMPLE	ACTION
Desired station number duplicates already registered one. 	When “Yes” is selected, the DT800 Series connected later is starting to operate, and the DT800 Series connected earlier will be unavailable and restart. When “No” is selected, change the station number set for the DT800 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 DT800 Series again.

7.1.6 How to Create Terminal Phonebook File

This section explains how to create terminal phonebook file in CSV format.

[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 3**	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 3**	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 3**	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 3**	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 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	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 3: 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.

[4] 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

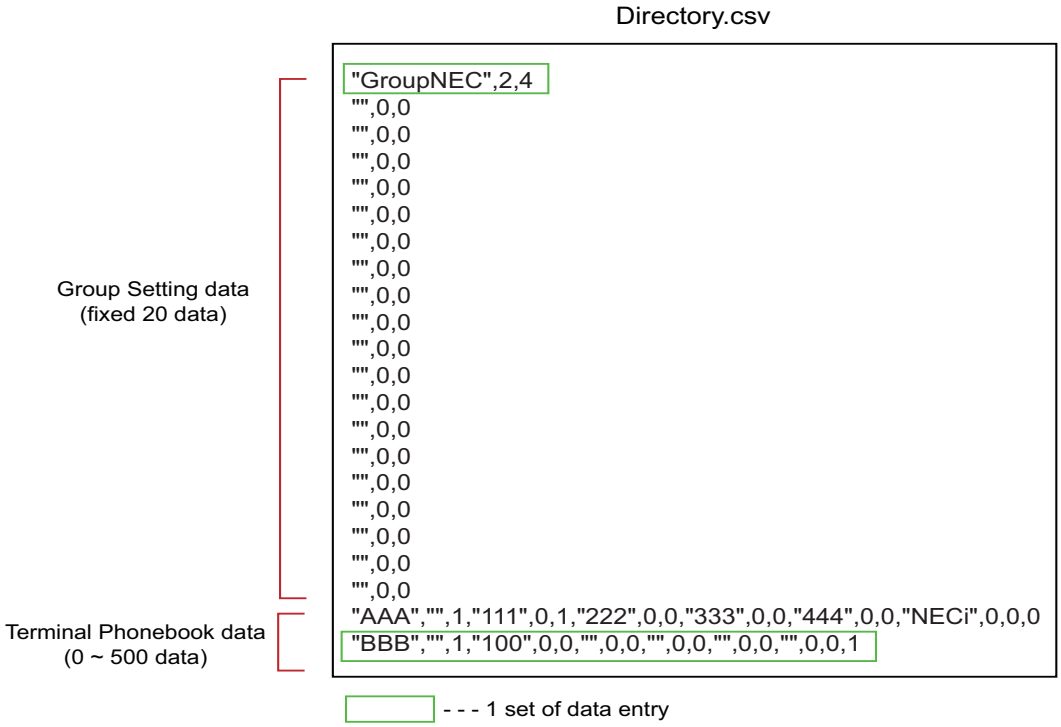
Terminal Phonebook 2:

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 [5]How to Create CSV File.

[5] 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, DT800 Series cannot use the CSV file by downloading it again.

Note: Be sure not to add Byte Order Mark (BOM).

- Precaution for Using DT800 Series (DT830/DT830G)

7.1.6.1 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.

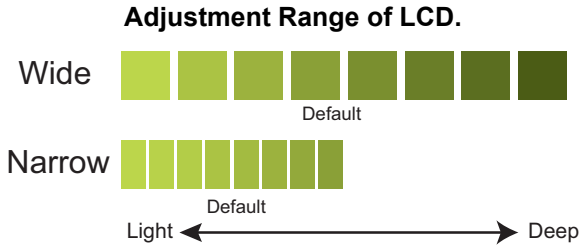
Note: Wait for two minutes before logging in also when stopping one system in dual configuration.

7.1.6.2 When Using DT800 Series

(1) When using DT830G Series (DT830 (12/24CG)), user can change the Home screen background and font color.

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

Note: Change will take effect after rebooting the terminal.



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

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

Note: When this System Data is changed, the following operations are required.

- Digital terminal: Initializing corresponding ELC card
- IP terminal: Restarting Terminal

7.1.6.3 Precautions for Smart Device Integration

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

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

(1) By using the terminal cooperation with a mobile phone, assign FKY=195 (Connect Key) and FKY=196 (Path Key) by AKYD command. Otherwise, the Bluetooth adapter cannot work.

(2) When the system data (ASYDL System Data 1, Index1258 Bit 1) has been changed to enable/disable the terminal cooperation with a mobile phone, restart the terminal after 30 seconds.

(3) The lines busy with mobile phone network appear idle state from the Telephony Server.

(4) When direction to reset the terminal exists while cooperating with the mobile phone, the terminal is to be reset.

(5) Any operation from the terminal side cannot make a call to the mobile phone network.

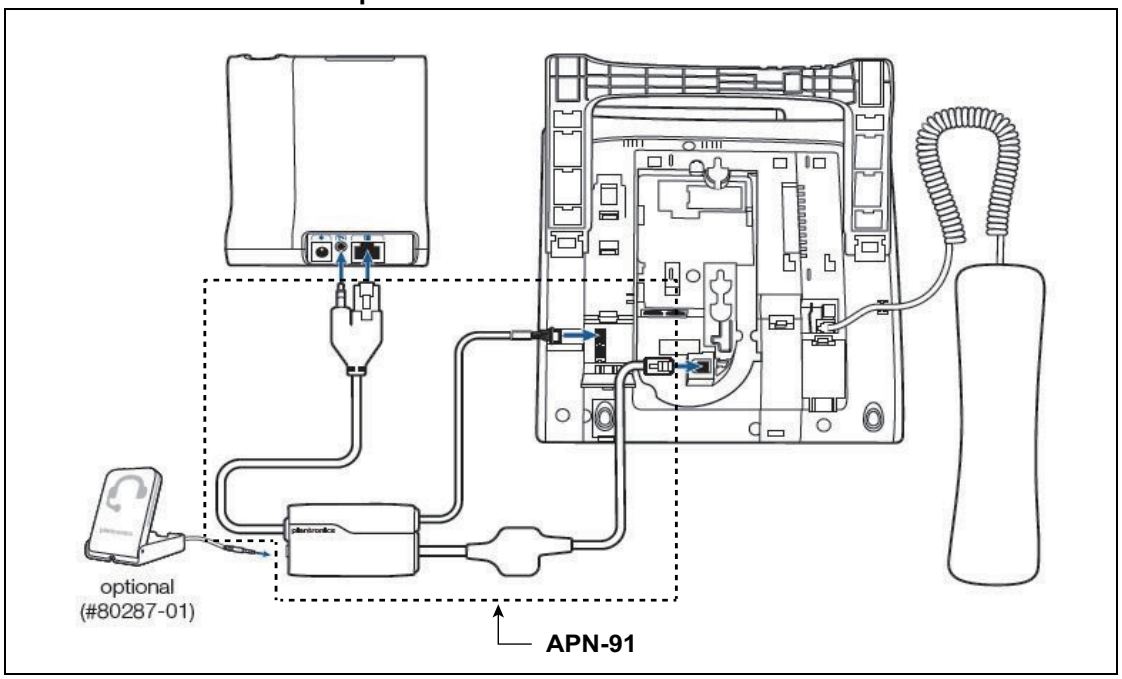
(6) For using Security mode feature, follow the conditions below.

- When using the terminal in collaboration with a mobile phone, the terminal cannot be placed in Security mode pressing Security key. Then, enable the Security mode by using IP Phone Manager or Telephony Server.
- 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.
- When the Security mode is canceled, the Bluetooth feature will be ON. However, the terminal mode will be the Wired Telephone Mode.
- 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.

7.1.6.4 Precautions for using Plantronics Wireless Headset

Wireless Headset enables you to answer a call, having a conversation, or disconnect the call with hooking operations. The following diagram shows the example of a Wireless Headset connection.

Example of a Wireless Headset Connection



Note: For the details on how to connect a telephone and Wireless Headset, see the manual attached to Plantronics EHS cable.

(1) Wireless Headset is available for DT830 Series.

(2) Assign FKY=125 (Headset/Handset Key) to the Feature key (KYN=1-24) by using the AKYD command.

(3) 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 steps or more.

Note: When you have set a downloaded ringer tone, the ringer tone is not available on the Wireless Headset.

7.1.6.5 Other Information

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.

7.1.7 Firmware Auto Update Tool for DT800 Series

This section describes the general feature, service conditions, and operation procedure of firmware auto update function via web browser.

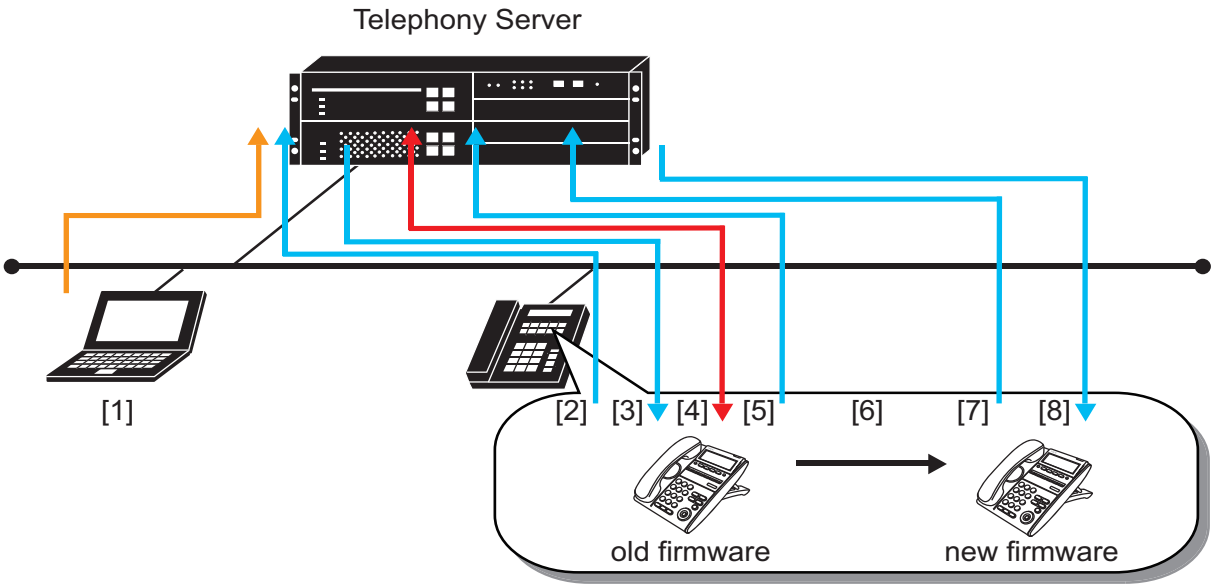
<General>

Firmware Auto Update tool supports the following three functions:

(1) By checking whether firmware updating is required or not in registration process, DT800 Series 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) Firmware Auto Update is provided for DT800 Series. Other terminals are not supported.

(2) Internet Explorer 6 or later version is required to use this feature.

(3) It is required to activate HTTP server by ADTM in advance.

(4) ID: “ftpuser” and Password: “firmupdate” are specified for FTP user account. This “ftpuser” account cannot login via telnet.

(5) 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.

(6) 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.

(7) 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.

(8) 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.

(9) 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).

(10) The start time of Firmware Auto Update is selected from Right now to maximum 24 hours later.

(11) Back button on Internet Explorer is available to back to the former window to change the parameter settings.

(12) When the close button on Internet Explorer is clicked halfway through the setting, data change does not affect.

(13) In the setting window of Firmware Auto Update, whether the uploaded firmware file is correct cannot be checked.

(14) 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 display is shown after resetting.)

(15) Firmware update is not executed on the busy or dialing terminals. They start updating after releasing their lines. Ringing terminals start firmware updating.

(16) 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.

(17) When the terminal is set in login mode, firmware update is executed on login operation (after ID and Password are entered).

(18) Duration of firmware updating varies depending on the terminal type and the line speed.

(19) 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.

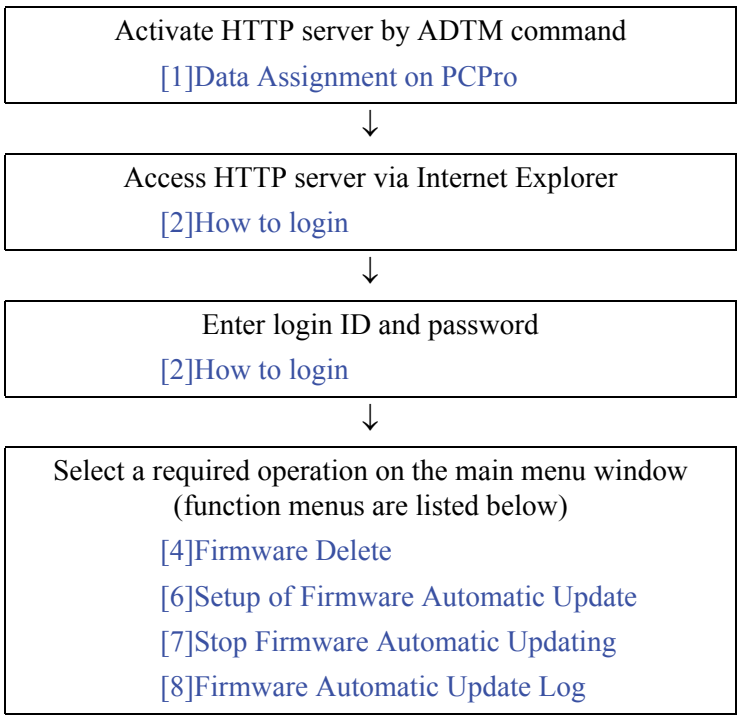
(20) In the case of firmware uploading failure, the new file is deleted. If it occurs with overwrite uploading, the old one is also deleted. In that case where both files are deleted, another uploading is required.

(21) 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.

(22) 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.

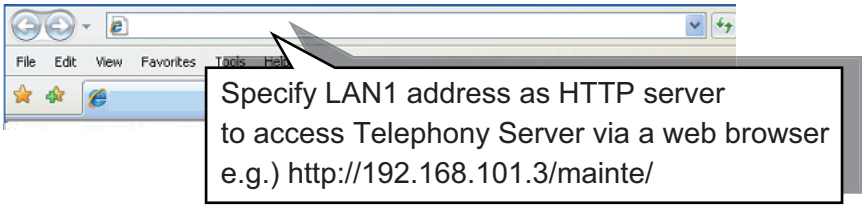
STEP 4: Click the check box “HTTP Server” to ON and click “Set” button.

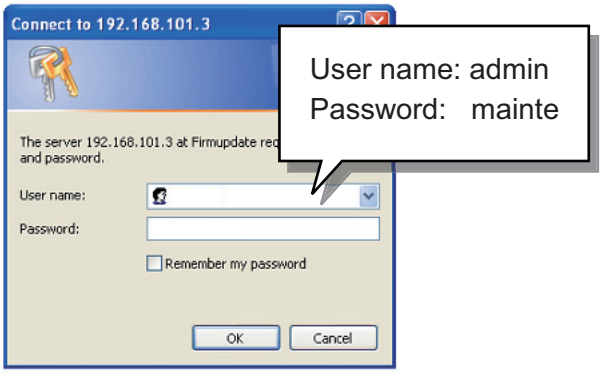
[2] How to login

STEP 1: Enter the following URL in the address bar and press Enter key.
URL: **http://XXX/mainte/** (**Note 3**)
Then Login ID and password entry dialog opens. Enter the followings and then click **OK** button.
Login ID: **admin**
Password: **mainte**

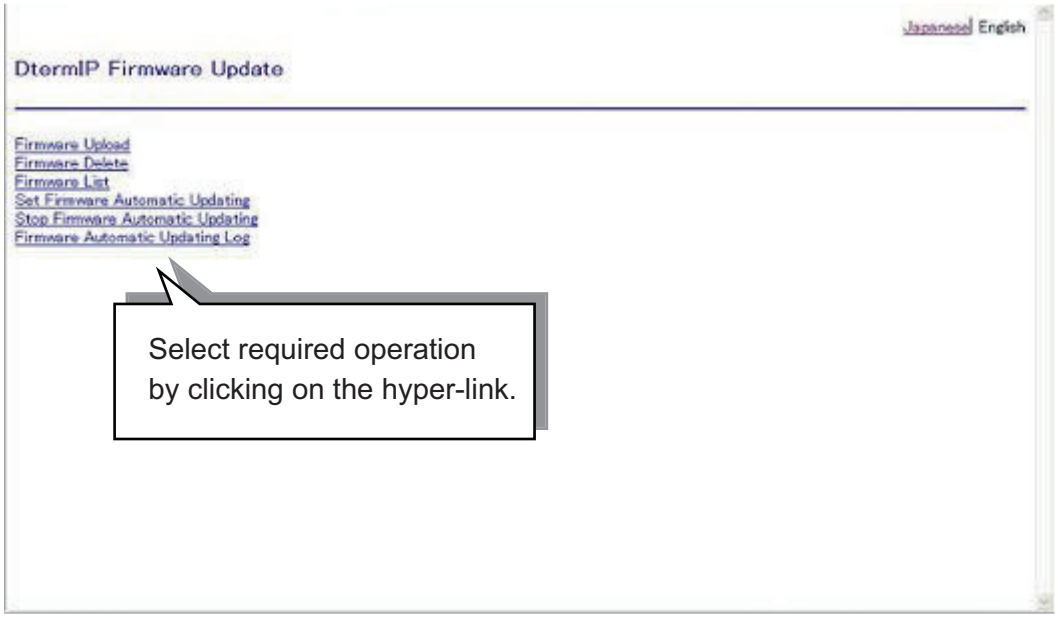
Note 1: “XXX” = IP address of the Telephony Server, which varies depending on your configuration as follow.

- 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/#1)



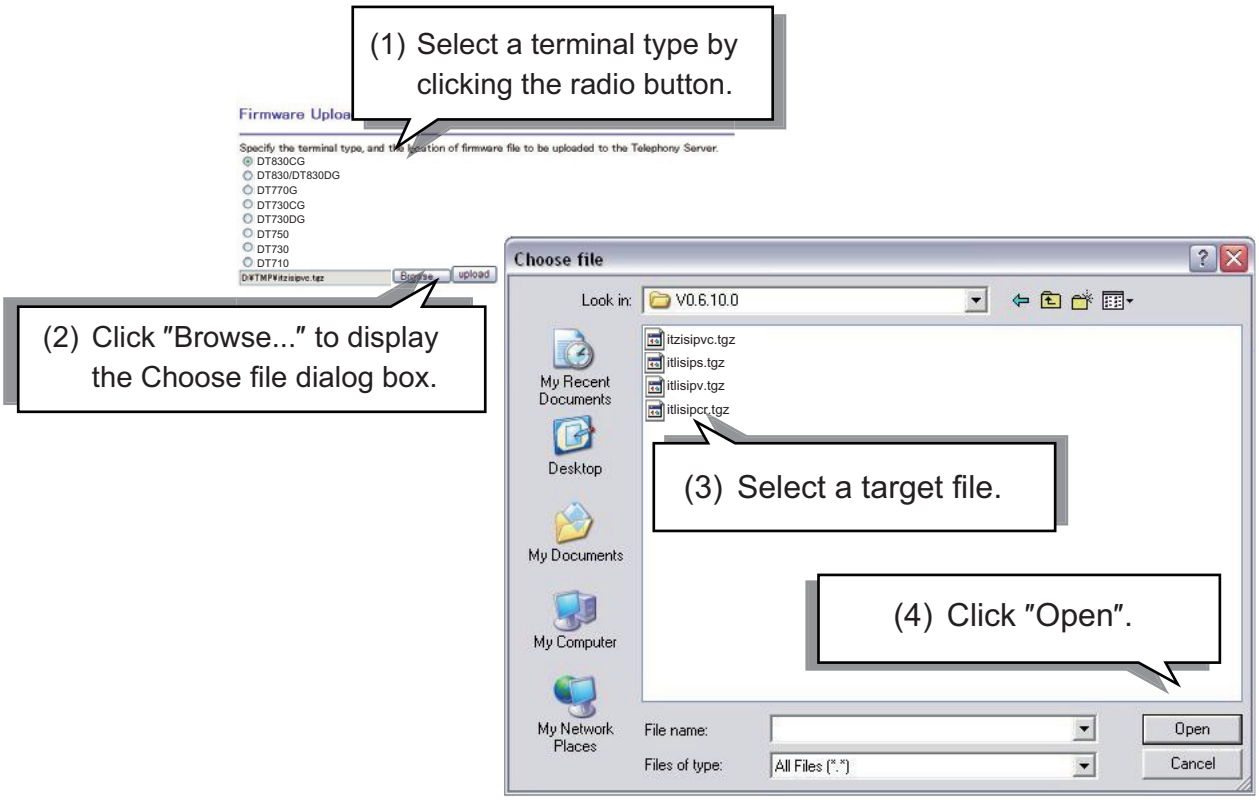


STEP 2: Dterm Firmware Update main menu window appears.



[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 5**).

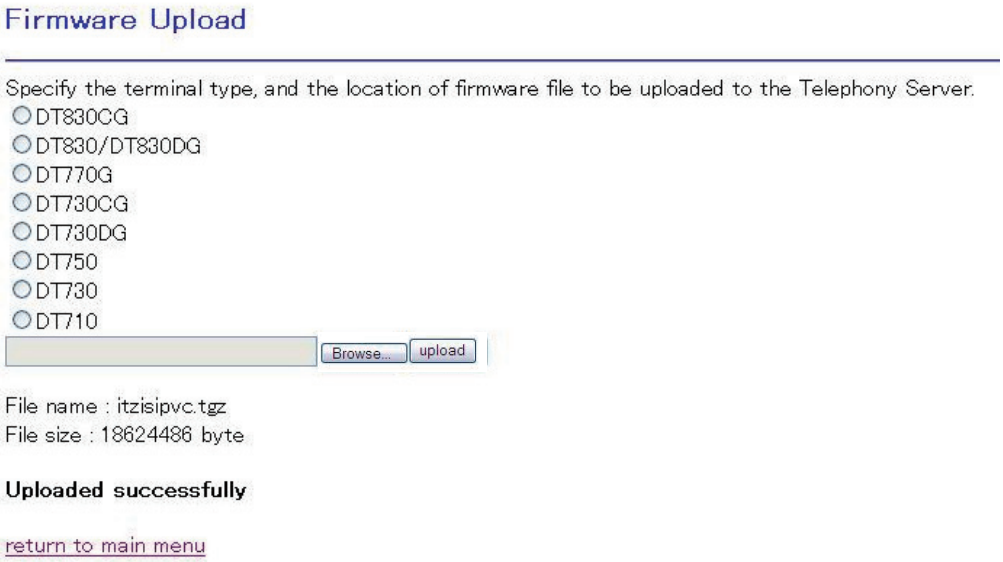


STEP 2: Confirm the selected file, and then click **upload** button.

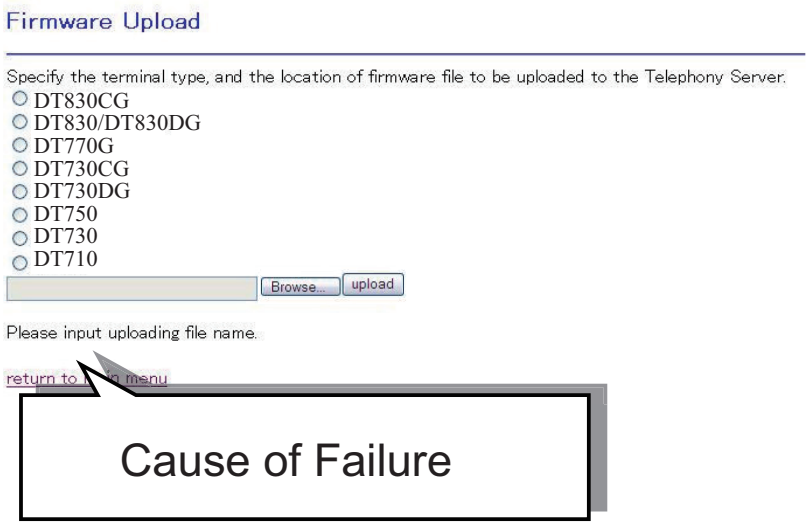
Note 2: When you try to upload a file with the same file name exists on the server, warning message appears to ask whether to overwrite the existing file.

STEP 3: Result of the file upload is displayed.

- When the upload is successful, uploaded file information (file name and file size) is displayed.

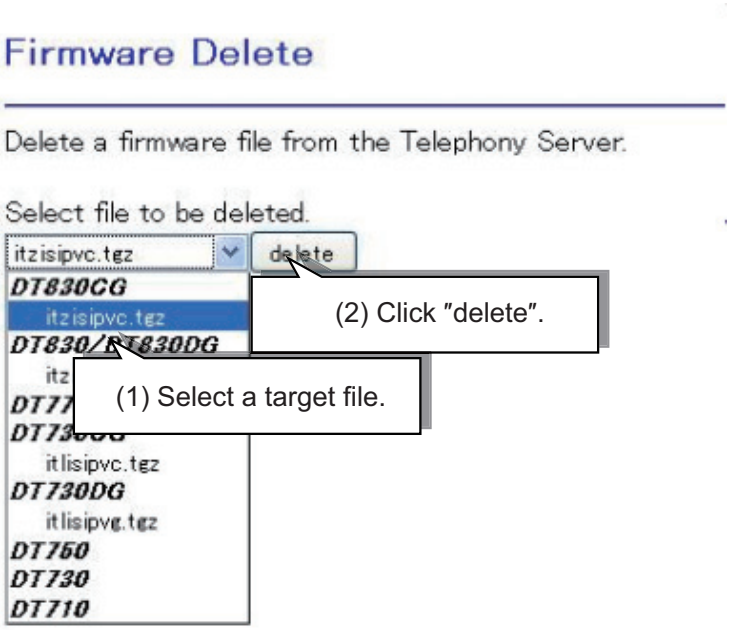


- When the upload fails, cause of the failure is displayed.



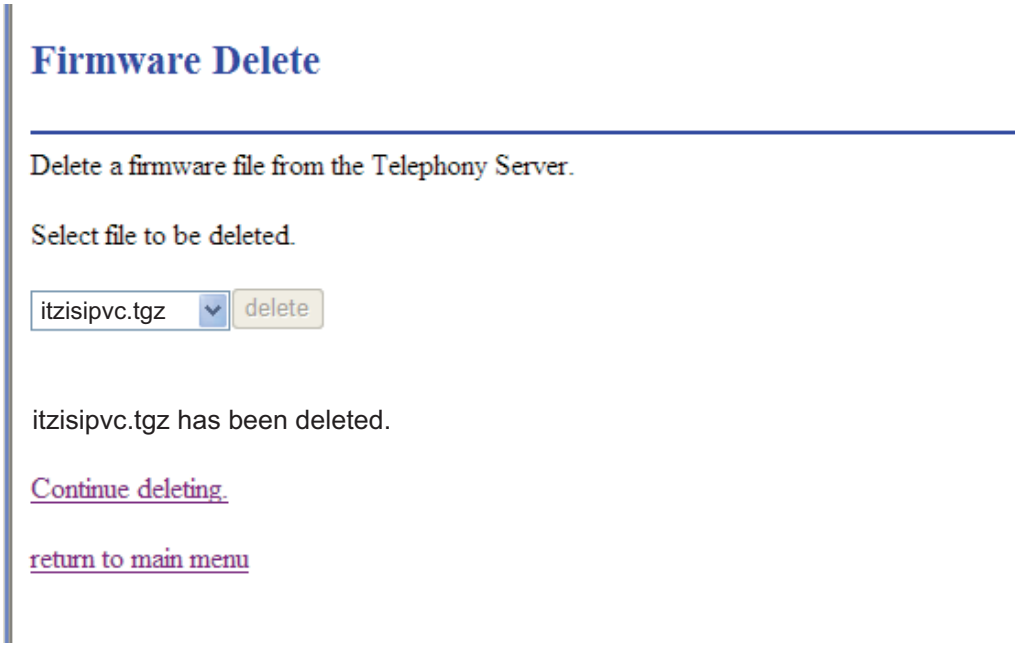
[4] Firmware Delete

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.

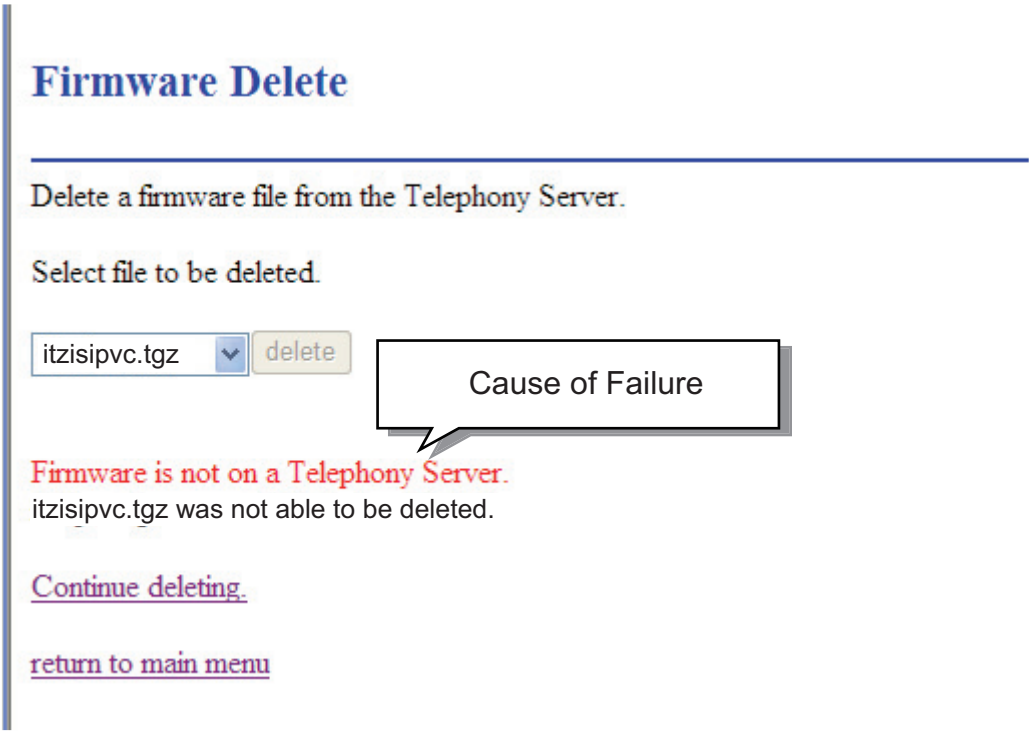


STEP 2: Result of the file deletion is displayed.

- 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

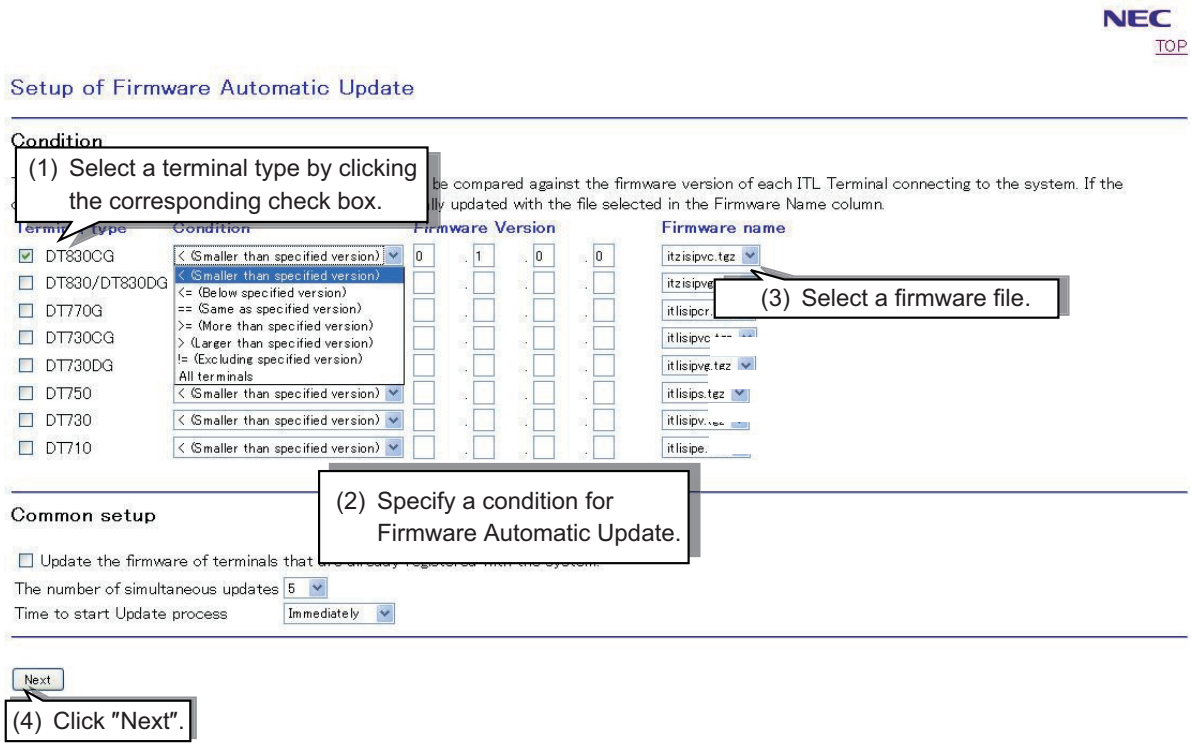
When **Firmware List** is selected on the main menu window, all the firmware files are listed.

Firmware List

Firmware name	Refix date	Size	Terminal type	Version
itzisipvc.tgz	2013/10/09	18188KB	DT830CG	92.0.16.0
itzisipvg.tgz	2013/09/30	14616KB	DT830/DT830DG	92.0.16.0
itlisipcr.tgz	2013/10/09	14228KB	DT770G	91.1.10.0
itlisipvc.tgz	2013/09/26	18188KB	DT730CG	92.0.16.0
itlisipvg.tgz	2013/09/26	14616KB	DT730DG	92.0.16.0
itlisips.tgz	2013/10/09	5596KB	DT750	5.0.6.0
itlisipv.tgz	2013/10/09	5347KB	DT730	5.0.6.0
itlisipe.tgz	2013/10/09	4125KB	DT710	5.0.6.0

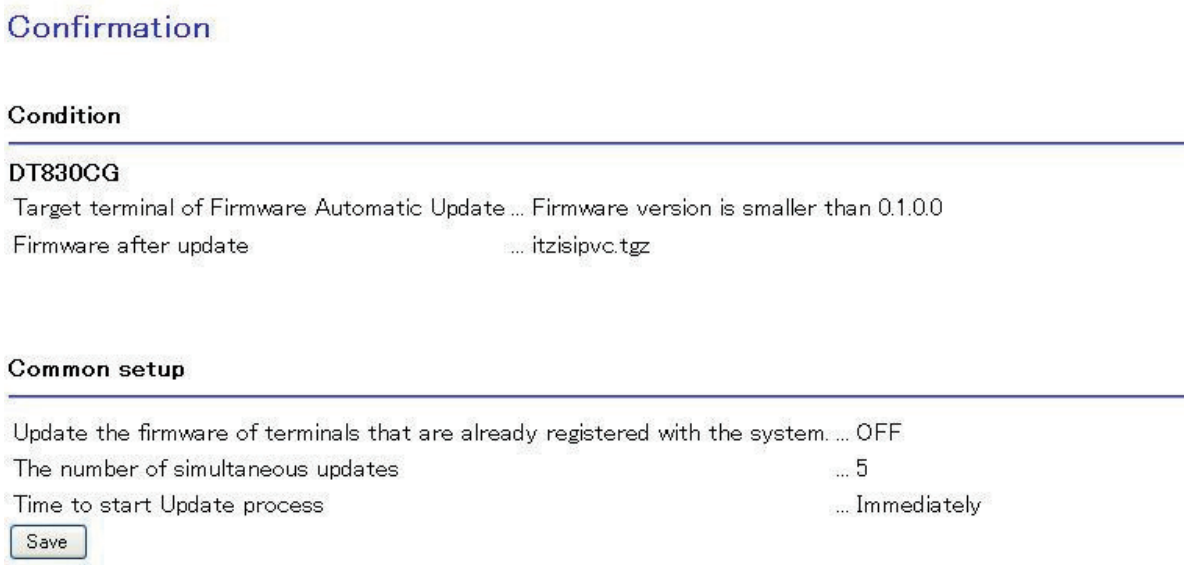
[6] Setup of Firmware Automatic Update

STEP 1: When **Set Firmware Automatic Updating** is selected on the main menu window, **Setup of Firmware Automatic Update** window shown 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.

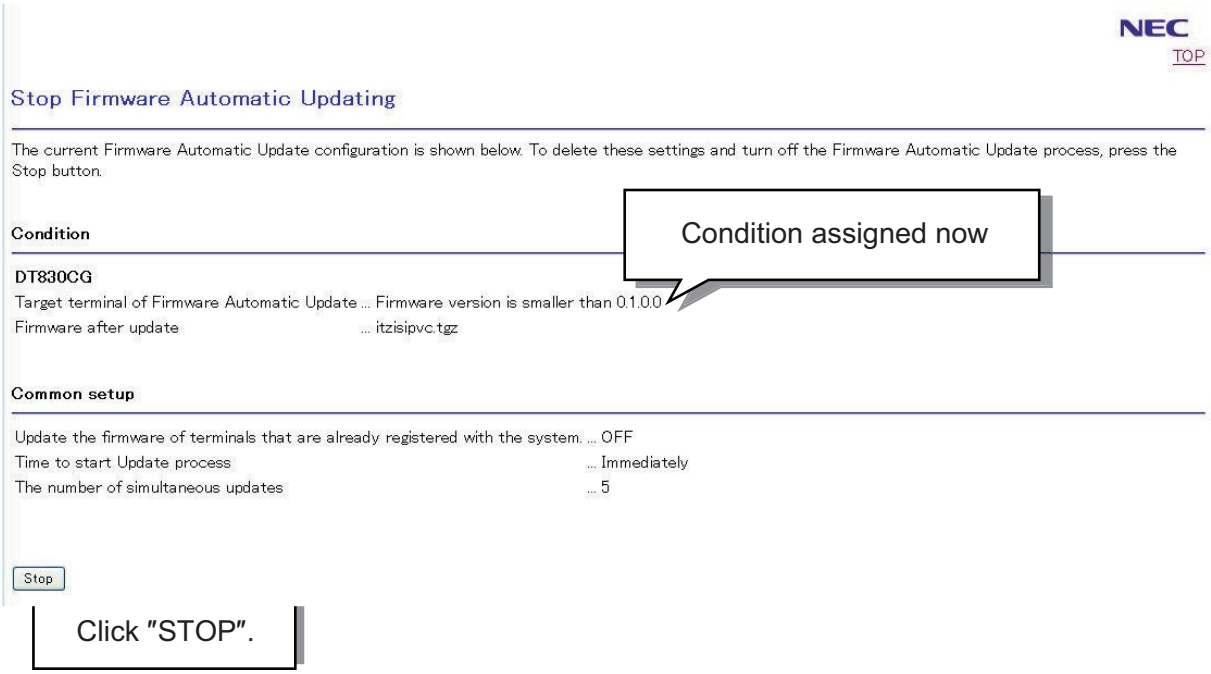


STEP 3: The setting result is displayed.

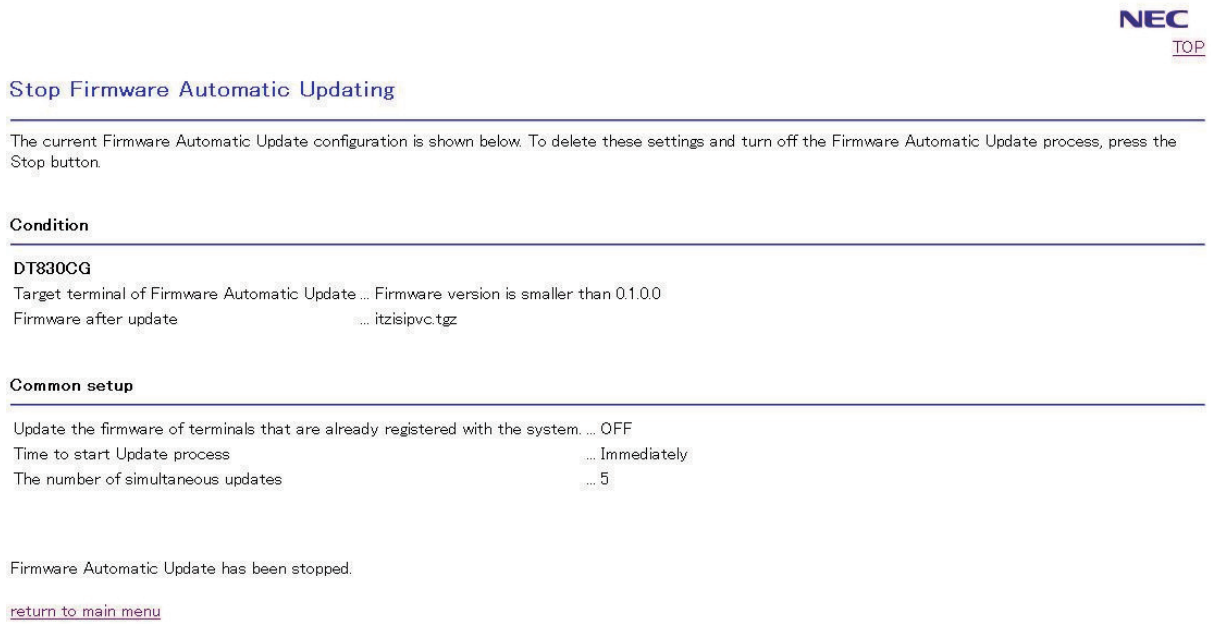


[7] Stop Firmware Automatic Updating

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.)

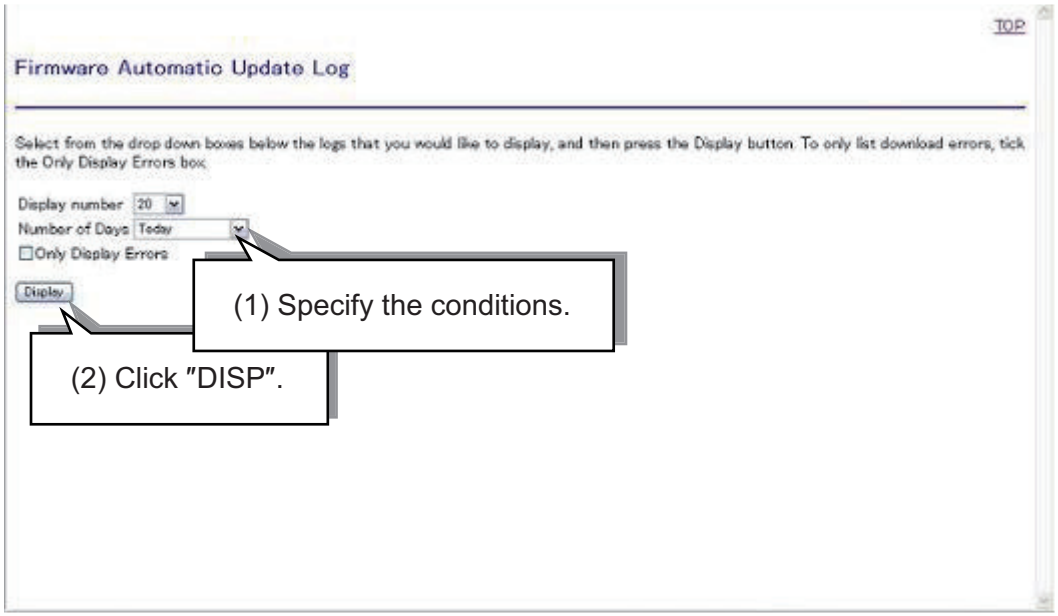


STEP 2: Result is displayed.

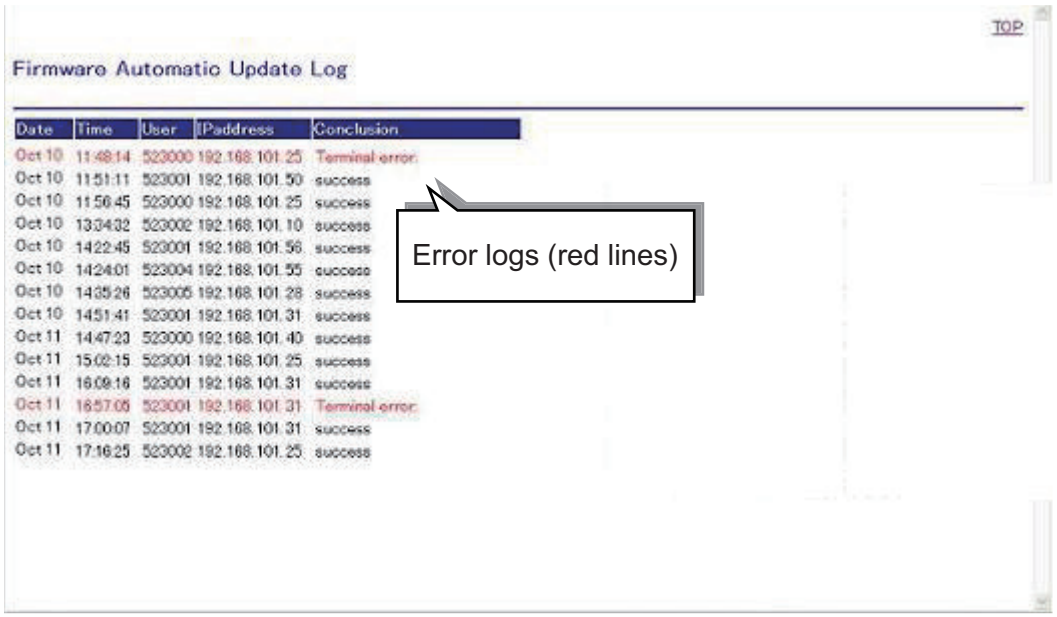


[8] Firmware Automatic Update Log

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.*

APPENDIX B 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			
		48VDC		24VDC		48VDC		24VDC	
ITZ-24CG-3	Class 3	230mA	11.0W	450mA	11.0W	102mA	4.9W	204mA	4.9W
ITZ-24DG-3	Class 3	230mA	11.0W	450mA	11.0W	102mA	4.9W	204mA	4.9W
ITZ-12CG-3	Class 3	230mA	11.0W	450mA	11.0W	102mA	4.9W	204mA	4.9W
ITZ-12DG-3	Class 3	230mA	11.0W	450mA	11.0W	102mA	4.9W	204mA	4.9W
ITZ-24D-3	Class 2	110mA	5.3W	217mA	5.2W	77mA	3.7W	154mA	3.7W
ITZ-12D-3	Class 2	110mA	5.3W	217mA	5.2W	77mA	3.7W	154mA	3.7W
ITZ-8LDG-3	Class 2	125mA	6W	250mA	6W	91mA	4.4W	182mA	4.4W
ITZ-8LD-3	Class 2	110mA	5.3W	217mA	5.2W	77mA	3.7W	154mA	3.7W

Note: Label Indication:
DT830 — Maximum watts when adding options or modular upgrades.

IEEE802.3at Type 1 Class Specifications

IEEE802.3at Type 1	Minimum	Maximum
Class 4	-	-
Class 3	6.49W	12.95W
Class 2	3.84W	6.49W
Class 1	0.44W	3.84W
Class 0	0.44W	12.95W

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			
		48VDC		24VDC		48VDC		24VDC	
ITL-320C-2	Class 3	160mA	7.7W	290mA	7.0W	111mA	5.3W	192mA	4.6W
ITL-32D-1	Class 2	130mA	6.2W	235mA	5.6W	90mA	4.3W	153mA	3.7W
ITL-8LD-1	Class 2	130mA	6.2W	235mA	5.6W	81mA	3.9W	137mA	3.3W
ITL-8LDE-1	Class 1	68mA	3.3W	122mA	2.9W	68mA	3.3W	122mA	2.9W
ITL-24D-1	Class 2	130mA	6.2W	235mA	5.6W	81mA	3.9W	137mA	3.3W
ITL-12D-1	Class 2	130mA	6.2W	235mA	5.6W	81mA	3.9W	137mA	3.3W
ITL-12PA-1	Class 2	130mA	6.2W	235mA	5.6W	102mA	4.9W	175mA	4.2W
ITL-6DE-1	Class 1	68mA	3.3W	122mA	2.9W	68mA	3.3W	122mA	2.9W
ITL-2E-1	Class 1	68mA	3.3W	122mA	2.9W	68mA	3.3W	122mA	2.9W

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	6.49W	12.95W
Class 2	3.84W	6.49W
Class 1	0.44W	3.84W
Class 0	0.44W	12.95W

Peripheral Equipment Description (UG50)

7.3 Telephones Related Conditions

<DLC Functions>

(1) Digital Multiple Line telephones that can be used with the UG50 are listed below.

Series	Terminal/Option		Supplementary Note
DT400 Series **Note 4**, **Note 5**, **Note 6**	Terminals	DTZ-24D	24 buttons
		DTZ-12D	12 buttons
		DTZ-6DE	6 buttons
		DTZ-2E	2 buttons, No LCD
	Options	8LK-Z	-
		ADA-L UNIT	-
DT300 Series **Note 4**, **Note 5**, **Note 7**	Terminals	DTL-32D	32 buttons, Wide-type
		DTL-24D	24 buttons
		DTL-12D	12 buttons
		DTL-6DE	6 buttons
		DTL-2E	2 buttons, No LCD
	Options	8LK-L	-
		ADA-L UNIT	-
Dterm Series i	Terminals	DTR-8	8-Line keys, No LCD, No Soft keys
		DTR-8D	8-Line keys, 24digits x3 rows LCD
		DTR-16D	16-Line keys, 24 digits x 3 rows LCD
		DTR-32D	16-Line keys,16DSS keys, 24 digits x 3 rows LCD
	Options	AD(A)-R UNIT	Adapter for a call recorder
		WM-RD UNIT	Wall mounting unit

Note 4: DESI-Less terminal cannot be accommodated in the UG50.

Note 5: Plantronics Headset with Electronics Headset Switch (EHS) cable is not supported for the terminal connected to UG50.

Note 6: Bluetooth adapter (BCA-Z UNIT) is not supported for the terminal connected to UG50.

Note 7: DT300 (12BT) cannot be accommodated in the UG50.

(2) The available key operations “FEATURE key + Digit key” for Digital Multiple Line telephones accommodated in the UG50 are as listed below.

Operation	Action	Availability
FEATURE + 1	Turns microphone on or off.	X
FEATURE + 2	Adjusts handset receiver volume.	X
FEATURE + 3	Selects ringer tone.	X

Operation	Action	Availability
FEATURE + 4	Adjusts transmission/receiving volume.	X
FEATURE + 5	Activates hands-free operation.	X
FEATURE + 6	Deactivates hands-free operation.	X
FEATURE + 7	Turns call indicator lamp on or off for incoming call notification. (If turned off, this lamp will still light to indicate message waiting.)	X
FEATURE + 8	Turns Dynamic Dial Pad on or off.	X
FEATURE + 9	-	-
FEATURE + 0	Turns Side Tone on or off.	X
FEATURE + *	-	-

X: Available

(3) Availability of PHONEBOOK [P-83], CALL HISTORY [C-195] and the other Outgoing Call Log functions (LAST NUMBER CALLED -D [L-6D], etc.) for Multiple Line telephones accommodated in the UG50 is as follows

Feature		DT400/DT300 Series	Dterm Series i
Phonebook			
Phonebook [P-83]	Local Phonebook	X	N
	System Phonebook	X	N
Terminal Phonebook		N	-
Call History			
Call History [C-195]		X	N
Terminal Call History		N	N
Last Number Called -D [L-6D]		X	X

X: Available, N: Not available, -: Not applicable

- Refer to CALL HISTORY [C-195] and PHONEBOOK [P-83] in Data Programming Manual - Business for detailed conditions.

Note: Not available for DT400/DT300 Series 2-button type without LCD.

- When using the CALL HISTORY [C-195] function on a DT400/DT300 Series telephone, be sure to set SFI238=1 (Call History ON) and SFI248=0 (Incoming call history on telephone side OFF). CALL HISTORY [C-195] does not function if SFI238 (Call History) and SFI248 (Incoming call history on the telephone side) are both enabled.
- CALL HISTORY [C-195] can be used in combination with PHONEBOOK [P-83] for the DT400/DT300 Series telephones only. The Pbook soft key on Call History screen is available for DT400/DT300 Series telephones. (Not displayed on Dterm Series i)

(4) Direct Station Selection (DSS) Console cannot be used in conjunction with a Digital Multiple Line telephone connected to UG50.

7.4 Service Limitations

<Common>

(1) LOCATION DIVERSITY [L-55] is available for Retrofit mode only. Available in the environment of SR-MGC being mixed. IPG mode and Multi-slot mode are not supported.

(2) Back up with SR-MGC

You can set four IP addresses for Proprietary Protocol mode and twenty IP addresses for SIP mode as a destination of the Telephony Server on the UG50. In case of a Telephony Server failure, a substitute destination can be also set.

Basically, a server with the first registered address is recognized as the primary server to connect to. Thus, in the following conditions, even if the UG50 is connected to other servers it reconnects to the primary server.

- When soft reset is performed
- When a reset is executed after a number of retransmission exceeded in the event of a network error
- When connecting and disconnecting Digital Multiple Line telephones

If the default IP address (0.0.0.0) is registered as a destination, it is considered non-existent and will not be searched.

(3) Encryption of voice packets in VoIP ENCRYPTION [V-27] is not supported.

(4) Call Log information and Trouble Log information of "RTP Statistics Information Output" service are supported. At this time, Virtual MAC addresses are output to Call Log information.

(5) NAT (Network Address Translation) is not supported.

(6) Call Retention function is supported. However, Call Retention for Digital Multiple Line telephones is not supported.

(7) Program downloading function is not supported.

(8) Terminal Authentication feature is available for the terminals below:

Operation Mode	Device Type
Multi-slot	UG50 (LC) [SIP] UG50 (PRT1.5M) [SIP] UG50 (PRT 2M) [SIP]
Retrofit	UG50-8LC UG50-24PRIA [SIP] UG50-30PRIA [SIP]

<DLC Functions>

(1) Smart Device integration (terminal cooperation with a mobile phone using Bluetooth adapter (BCA-Z UNIT)) is not supported.

(2) TERMINAL POWER SAVE MODE [T-69] is not supported.

(3) DIRECT STATION SELECTION (DSS) CONSOLE [D-149] is not supported.

(4) LOGIN CODE [L-56] is not supported.

(5) GROUP LISTENING [G-29] is not supported.

(6) INTERNAL ZONE PAGING [I-21] is not supported.

(7) Time display pattern cannot be changed by the system data (ASYDL System Data 1, Index 1249, Bit 0-3).

(8) Side tone volume value cannot be changed by the system data (ASYDL System Data 1, Index 1256, Bit 4-6).

(9) Plantronics Headset with Electronics Headset Switch (EHS) cable is not supported.

(10) MULTIPLE TIME ZONE [M-114] is supported. It can only be set per UG50. Different date and time information cannot be set within the same unit.

(11) MULTILINGUAL DISPLAY [M-117] is not supported.

(12) There are limitations listed below for Log-in function.

- Log-in authentication with the key operation on Digital Multiple Line telephones accommodated in the UG50 is not supported. Station number and password must be set by the Web Programming of the UG50.
- MAC authentication is not supported
- Use the station number registered on the Telephony Server when setting User ID and password for the Web Programming of the UG50. DtermIP MAC Address Registration Password which can be set with the ADTM command cannot be used.

(13) Remote Access Mode (stopping of health check) set by configuration settings on terminals is not supported.

(14) Language setting by menu operation on the DT300 Series is not supported.

(15) Unlike other cards, registration is performed when the DLC card is connected to a terminal. Virtual MAC address and the channel number will not be displayed on the Web Programming if the DLC card is not connected to a terminal.

(16) Digital Multiple Line telephones cannot override in the following conditions. “Double Assignment” ap-