

UNIVERGE SV9500

FP95-115 V5

Data Programming Manual - Wireless-PCS

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UNIVERGE SV9500 PCS - FEATURE LIST (1 / 2)

LEGEND				A - Administration Station for Hotel System G - Guest Station for Hotel System XX - Feature developed by NEC Corporation of America SP Controlled Std.SIP - Connection test is required in advance. SIP Handler-Controlled Std.SIP (Single/Multi Line) - Connection test is required in advance. SIP Handler-Controlled Std.SIP (Multi Line) - North America ONLY																	
INDEX	FEATURE NAME	PIR/ Peripheral Box	MARKET INFORMA- TION		Analog			Dterm / DT				Vo WLAN	SP Controlled Std.SIP	SIP Handler- Controlled Std.SIP (Single Line)	SIP Handler- Controlled Std.SIP (Multi Line)	Hotel	CCIS	FCCS	Location Diversity	SR-MGC(E)	REMARKS *1: This list does not include availability of the cradle type of SIP Multiple Line terminal. Features available on the cradle type of SIP Multiple Line terminal differ depending on the application installed in it.
			North America	Latin America	PIR	UG50	MC	Digital Terminal	UG50	IP Terminal *1	Soft Phone										
[A-128]	AUTOMATIC ANNOUNCEMENT- DISCONNECTED PS OUT OF ZONE		X	X	X*	X*	X*	X*	X*	X*	-	N	N	-	-	X	-	X	N	X	*Only available for the opposite end terminal to hear the announcement.
[A-129]	AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE		X	X	X*	X*	X*	X*	X*	X*	-	X	N	-	-	X	-	X	N	X	*Only available for the opposite end terminal to hear the announcement.
[A-131]	AUTOMATIC RELEASE - OUT OF CELL CALLS		X	X	X*	X*	X*	-	-	-	-	X	X	-	-	X	-	X	N	X	*Only available for the opposite end terminal to hear the announcement or ROT.
[A-137]	AUTHORIZATION CODE Dterm PS II		X	X	-	-	-	X	X	X	X	X	X	-	-	A	-	X	N	-	
[C-155]	CALL FORWARDING - PS INCOMING INCOMPLETE		X	X	-	-	-	X	X	X	X	X	X	-	-	A	-	X	X	X*	* SIP Multiline cannot be accommodated.
[C-156]	CONSULTATION HOLD		X	X	-	-	-	-	-	-	-	-	-	-	-	A	-	X	N	X	
[C-161]	CALL FORWARDING - DROPPED CALLS		X	X	X*	X*	X*	-	-	-	-	N	N	-	-	A	-	X	N	-	*Available as an call forwarding destination.
[C-166]	CALL PARK -D PS II		X	X	N	N	N	X	X	X	X	X	N	-	-	X	-	X	N	X	
[C-175]	CALL PARK GROUP (PS)		X	X	N	N	N	X	X	X	-	N	N	-	-	X	-	X	N	X	
[D-154]	DTMF SIGNAL SENDER		X	X	-	-	-	X	X	X	X	X	X	-	-	X	-	-	N	-	
[D-155]	Dterm PS II TWO LINE OPERATION		X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	N	X	
[F-34]	FLEXIBLE PS NUMBERING		X	X	-	-	-	-	-	-	-	X	X	-	-	X	-	-	N	X	
[G-23]	GROUP CALL - AUTOMATIC CONFERENCE (20-PARTY)		X	X	X	X	X	X	X	X	-	-	-	-	-	X	-	X	N	X	
[I-39]	INDIVIDUAL PS CALLING		X	X	-	-	-	-	-	-	-	X	X	-	-	X	-	-	N	X	
[I-40]	ISDN DATA COMMUNICATION - 32 kbps		X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	N	X	
[I-41]	ISDN ROAMING		X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	X	N	N	
[N-43]	NAME DISPLAY - INTRA-NODE CALL		X	X	-	-	-	-	-	-	-	-	-	X	X	X	-	-	N	X	
[N-44]	NAME DISPLAY - INTRA NODE CALL - CCIS		X	X	-	-	-	N	N	N	N	-	-	X	X	X	X	-	N	N	
[N-45]	NUMBER SHARING		X	X	-	-	-	X	X	X	X	X*	X*	X	X	A	-	-	N	-	* WL Handset to be accommodated in Dterm as sub-line.
[O-38]	OUT OF CELL INDICATION		X	X	-	-	-	-	-	-	-	X	-	-	-	X	-	-	N	X	
[O-39]	OVERLAP DIALING		X	X	-	-	-	-	-	-	-	X	N	-	-	X	-	-	N	X	
[P-61]	PS AUTHENTICATION		X	X	-	-	-	-	-	-	-	X*	X*	-	-	X	-	-	N	X	*MAC Authentication will be the equivalent feature for WL Handset.
[P-62]	PS LOCATION REGISTRATION		X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	X	N	X	
[P-63]	PRESET DIALING		X	X	-	-	-	-	-	-	-	X	X	-	-	X	-	-	N	X	

UNIVERGE SV9500 PCS - FEATURE LIST (2 / 2)

LEGEND																					
* - There are some restrictions.																					
X - Applicable																					
— - Not Applicable																					
N - Not Available																					
A - Administration Station for Hotel System																					
G - Guest Station for Hotel System																					
XX - Feature developed by NEC Corporation of America																					
SP Controlled Std.SIP - Connection test is required in advance.																					
SIP Handler-Controlled Std.SIP (Single/Multi Line) - Connection test is required in advance.																					
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INDEX	FEATURE NAME	PIR/ Peripheral Box	MARKET INFORMA- TION		Analog			Dterm / DT				Vo WLAN	SP Controlled Std.SIP	SIP Handler- Controlled Std.SIP (Single Line)	SIP Handler- Controlled Std.SIP (Multi Line)	Hotel	CCIS	FCCS	Location Diversity	SR-MGC(E)	REMARKS *1: This list does not include availability of the cradle type of SIP Multiple Line terminal. Features available on the cradle type of SIP Multiple Line terminal differ depending on the application installed in it.
			North America	Latin America	PIR	UG50	MC	Digital Terminal	UG50	IP Terminal *1	Soft Phone										
[P-64/P-65]	PS SERVICE CLASS / PS RESTRICTION CLASS		X	X	-	-	-	-	-	-	-	X	X	-	-	X	-	-	N	X	
[P-66]	PS-TO-STATION CALLING		X	X	X	X	X	X	X	X	X	X	X	-	-	X	-	-	N	N	
[P-68]	PCS/PHS MFC SIGNALING	PIR	N	X	X	-	X	X	-	X	-	X	X	-	-	X	X	X	N	X	Refer to the document for further details of this service feature.
[P-69]	PCS <--> Nurse Call Integration		X	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	X	
[P-74]	PS (L2) GROUP CALL WITH PILOT HUNT INCOMING CALL		X	X	-	-	-	-	-	-	-	N	-	-	-	A	-	X	N	X	
[P-80]	PCS Name Display		X	X	-	-	-	X	X	X	X	-	-	-	-	A	-	X	N	X	
[Q-6]	Q.931 a ROAMING OVER IP TRUNK	PIR	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	N	
[R-50]	RADIO CHANNEL CHANGEOVER		X	X	-	-	-	-	-	-	-	X	-	-	-	X	-	-	N	-	
[S-130]	SPEECH SCRAMBLING		X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	N	-	*WPA (Wi-Fi Protected Access) and WEP (Wired Equivalent Privacy) is used for WL Handset.
[S-131]	STACK DIALING - STATION		X	X	-	-	-	-	-	-	-	X	X	-	-	X	-	-	N	X	
[S-132]	SPEED CALLING - STATION - PS		X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	N	X	
[S-134]	SHORT TEXT MESSAGE SERVICE (STM SERVICE)		X	N	-	-	-	-	-	-	-	-	-	-	-	X	-	-	N	N	
[S-135]	SPEED CALLING - SYSTEM - PS		X	X	-	-	-	-	-	-	-	X	X	-	-	X	-	X	N	X	
[S-142]	SPLIT CALL FORWARDING - PS		X	X	X*	X*	X*	X*	X*	X*	-	N	N	-	-	A	-	X	N	X	*Available as an call forwarding destination.
[S-158]	SOFT PHONE - PS		X	X	-	-	-	-	-	-	X*1 *2	-	-	-	-	A	X	X	N	X	*1Available with DtermSP30(Proprietary) Cver(Ver.4) or later. *2Available with DtermSP30(SIP) Fver(Ver.7) or later.
[V-24]	VOICE MAIL INDICATION (VMI)		X	X	-	-	-	-	-	-	-	-	-	-	-	X	X	X	N	-	
[W-8]	WIRELESS ANALOG ADJUNCT CONNECTION		X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	N	N	This feature is available only for COT Card.

UNIVERGE SV9500

Data Programming Manual - Wireless-PCS

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INTRODUCTION

1. General

This manual covers data assignment for UNIVERGE SV9500 System (in the remainder of this manual, denoted as “the system”) under the following headings:

INTRODUCTION Explains the configuration of this manual.

CHAPTER 1 GENERAL DESCRIPTION
Explains the functional outline of Wireless-PCS system.

CHAPTER 2 OFFICE DATA ASSIGNMENT
Explains basic data and service feature data assignment for Wireless-PCS system.

CHAPTER 3 COMMANDS
Explains the commands used in Wireless-PCS system.

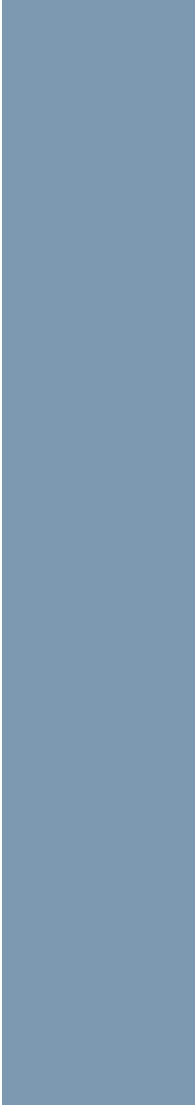
CHAPTER 4 SYSTEM OPERATION AND MAINTENANCE
Gives operation and maintenance information related to Wireless-PCS system.

2. How To Use This Manual

This manual may be used when assigning each Wireless-PCS system service data available for the system. First, assign the basic office data for Wireless-PCS system. Then assign each Wireless-PCS system service feature data.



CHAPTER 1 GENERAL DESCRIPTION

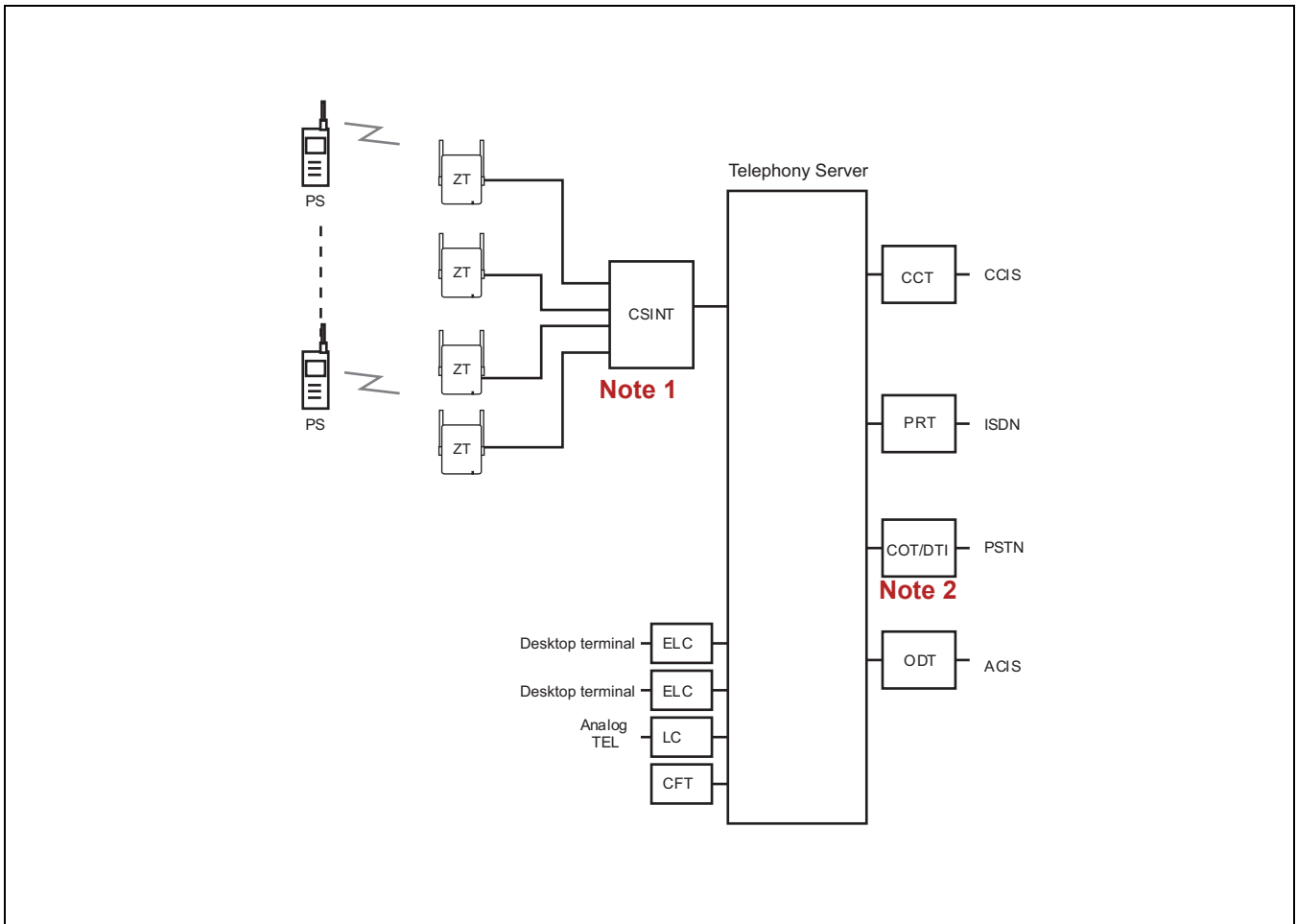


1. WIRELESS-PCS SYSTEM

The Wireless-PCS system has the CSINT that interfaces the Zone Transfer (ZT) with the system, mounted in the Port Interface Rack (PIR). Programs and license software for the Wireless-PCS system is necessary in the Telephony Server. The following figure shows the route connecting diagram of this system.

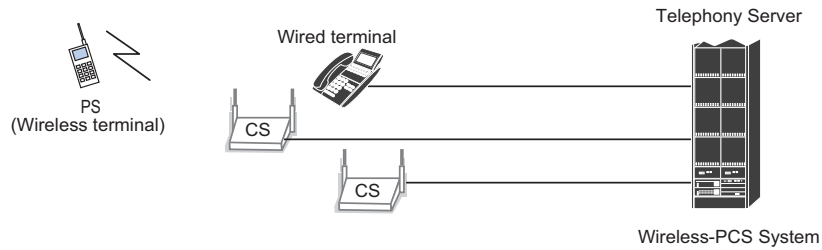
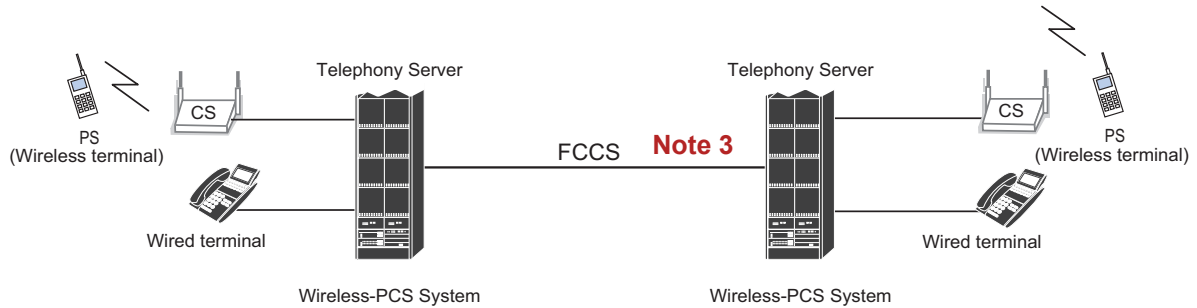
Module structures of the Wireless-PCS system are identical to that of the Telephony Server. For details, refer to the Appliance Model Installation Manual.

Wireless-PCS System Connecting Diagram



Note 1: The maximum number of ZTs is as follows:
- eight (8) ZTs (When using PA-8CSIE circuit card.)

Note 2: If the receive tone level of the PS is low, please select -5dB (GAIN) in the PAD data of the COT Route by the ARTD command.

Stand-alone Type and FCCS ComparisonStandalone TypeFCCS Type

Note 3: FCCS stands for Fusion Call Control Signaling.

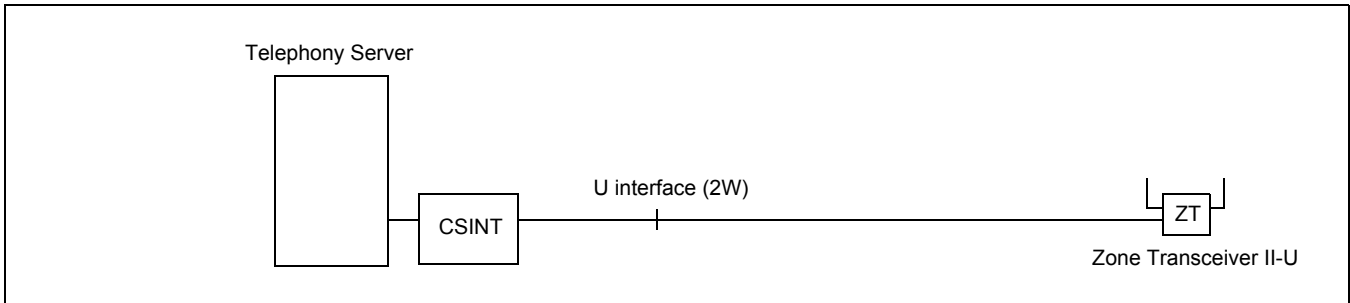
2. CSINT AND ZT CONNECTION

The figures Telephony Server Power Supply through U-Interface Route Connection Diagram illustrate connection methods between the CSINT and the ZT. The CSINT and the ZTs can be connected with twisted cable using the following two connection methods - one, line voltage from the Wireless-PCS system and local power supply connection method.

1. Line power from Telephony Server.

Line power is supplied for ZT from Telephony Server.

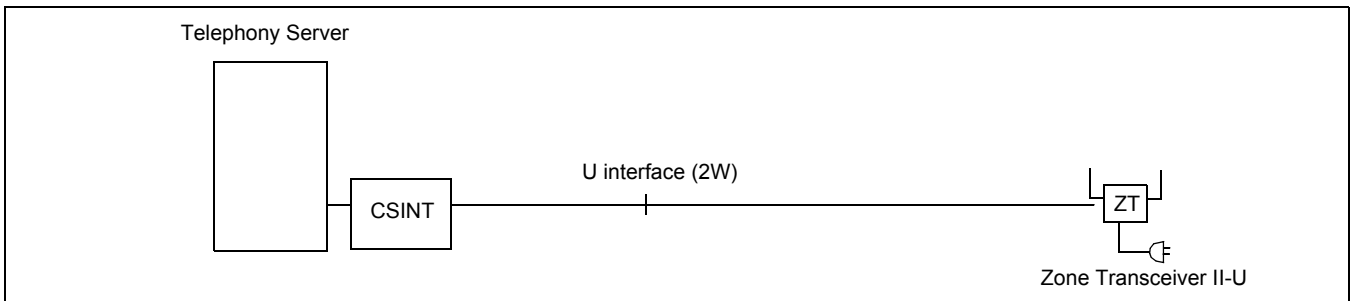
Telephony Server Power Supply



2. Local Power Supply

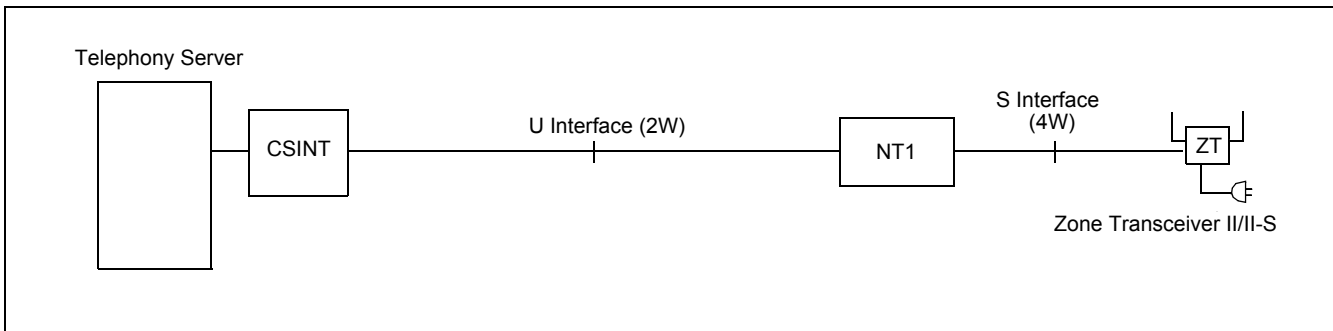
Local power for the ZT is supplied via the AC-DC adapter from the AC.

Local Power Supply



3. U-Interface (NT1 is used)

U-Interface Route Connection Diagram



3. PS MOVEMENT IN TELEPHONY SERVER

PCS Community

The SYS-ID is a unique ID that was given to manage the Wireless-PCS system. The area where the SYS-ID is effective is called the PCS Community. Every PCS Community in an FCCS network is given a unique PHS Community Number (PCN). Each PCN has its own SYS-ID. The PCN is used instead of the SYS-ID for the PCPro command. This reduces the effect upon changing the SYS-ID to some measure. The habitual operation of the SYS-ID that goes up to nine digits for management purposes, is not needed and easy maintenance can be provided. A single PCS Community can be assigned in multiple nodes, and a single node can belong to multiple PCS communities using the tenant service.

PS movement in the system is classified into three kinds as described below:

1. Standby condition movement

The Standby condition is the movement of an idle PS within the home PCN area in the home FCCS network (in the FCCS network accommodates the home node). The PS Location Registration occurs when the PS moves over the calling area. If a PS is in the Roaming status, movement of the PS within the current visitor node is also Standby condition movement. In the system, the home PCN can be assigned over the node. The calling area cannot. Because of this, the PS Location Registration occurs whenever an idle PS moves over the node.

2. Handover

The Handover is the movement of a PS engaged in communication within the home PCN area of the home FCCS network. The Handover occurs regardless of the calling area.

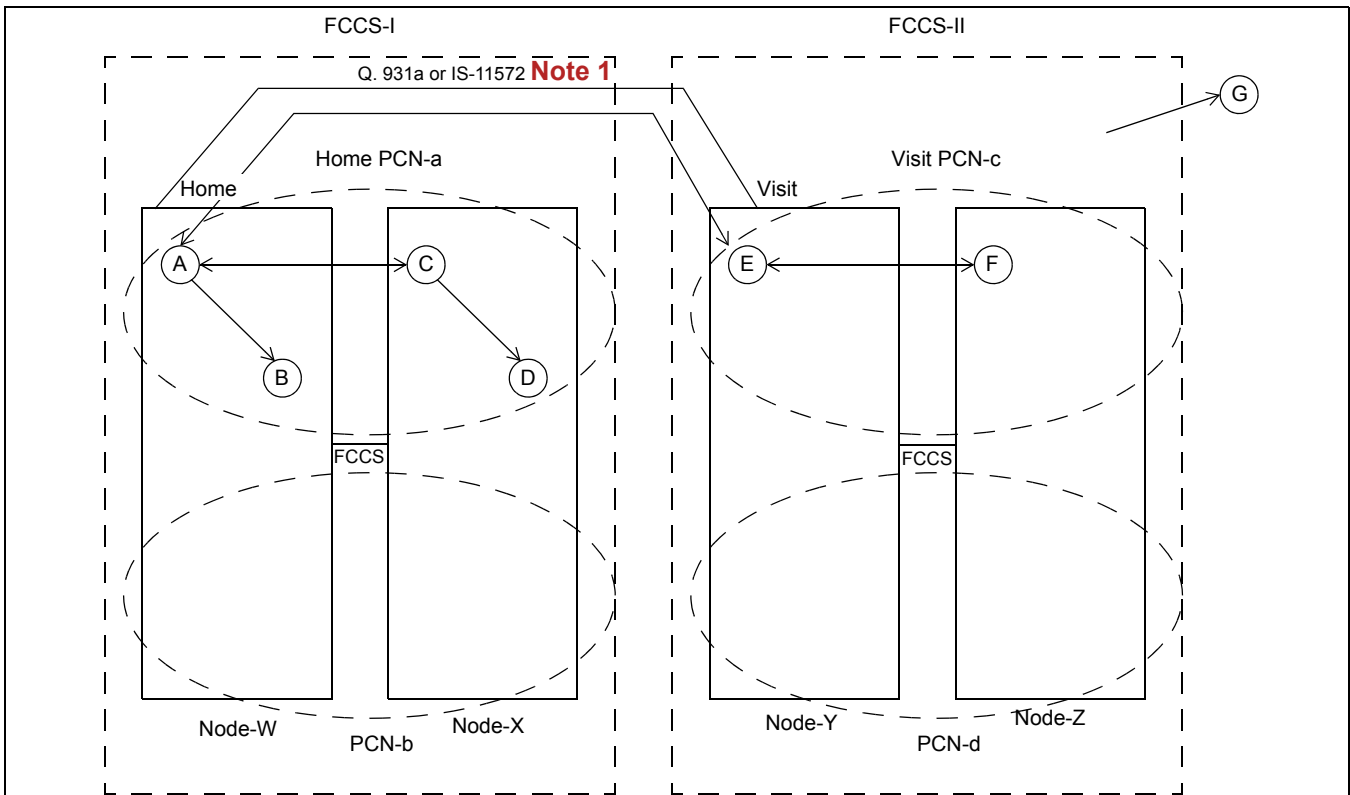
If a PS is in the Roaming status, movement of the PS engaged in communication within the current visitor node is also Handover. In the system, the call engaged in communication is supported even in the case of Handover over the node.

3. Roaming

The PS Location Registration to the ZT in another PCN (other than the home PCN) is called Roaming. The call engaged in communication is not supported.

Note: PS FCCS Roaming Service Conditions:

A PS station that roams to a Node connected via FCCS will follow the numbering plan and dialing plan as assigned in Network Data Memory unless the two connected Nodes use separate dialing plans assigned in Local Data Memory. In this situation, a PS Station roaming to another Node will follow the dialing plan assigned in LDM of that Node. In the event the two FCCS Nodes use separate Office Codes assigned in LDM with separate outgoing trunks, the PS Station will follow the dialing plan assigned in the Local Node when roaming to that Node. When a PS roams to a Local Node that has the local dialing plan assigned in LDM, the SMDR and MCI integration may follow the LDM assignment of the Local Node. For PS stations dialing outgoing trunks, a main number can be sent via outgoing ISDN trunks using the ACNP and ACND commands.



Move to Move from	A, B Home Node Home PCN	C, D Visit Node Home PCN	E Visit FCCS Visit Node Visit PCN	F Visit FCCS Other Node Visit PCN	G Yet Other FCCS
A, B Home Node Home PCN	Standby condition Movement H-O	Standby condition Movement H-O	Roaming	cannot move	cannot move
C, D Visit Node Home PCN	Standby condition Movement H-O	Standby condition Movement H-O	cannot move	cannot move	cannot move
E Visit FCCS Visit Node Visit PCN	Roaming	cannot move	Standby condition Movement H-O	Standby condition Movement H-O	cannot move
F Visit FCCS Other Node Visit PCN	cannot move	cannot move	Standby condition Movement H-O	Standby condition Movement H-O	cannot move
G Yet Other FCCS	cannot move	cannot move	cannot move	cannot move	Roaming or Stand- by condition Move- ment (depending on the case)

Note 1: Node-W and Node-Y are connected with Q. 931a or IS-11572.

4. WIRELESS-PCS SYSTEM CAPACITY

The following explains the capacity of the Wireless-PCS system.

ZT System Capacity

ITEMS		IMG System	MMG System	UMGi/RNIP System Note 3
Maximum Number of PSs/Node		4000 terminals Note 1	4000 terminals Note 1	4000 terminals Note 1
Maximum Number of ZTs		384	1536	1536
Maximum Number of CSINTs		PIR: 44 PIM: 48 Note 2	PIR: 176 PIM: 192 Note 2	PIR: 176 PIM: 192 Note 2
Maximum Number of PHS Community Number (PCN)/system		1024		
Speech CH/ZT		3 ch/ZT		
Maximum Number of ZTs /CSINT		8		
Area	Maximum Number of Calling Areas/PCN	32 Areas		
	Maximum Number of ZTs/Calling Area	256 ZTs/Area		
	Maximum Number of Groups/Calling Area	8 Groups/Area (Not used)		

Note: A single ZT uses four ports, and so the maximum number of ZTs included in the system is calculated by dividing the number of ports installed in the system by four. Actually, however, implementation of a ZT system requires RST and IPPAD circuit cards. Therefore, the maximum allowable ZTs controlled by the system is given by the following expression:

$$ZT_{\max} = (P_s - P_c) \div 4$$

where $ZT_{\max}$ is the maximum allowable ZTs controlled by the system, P_s is the number of ports installed in the system, and P_c is the number of ports used by RST and IPPAD circuit cards.

Note 1: Depending on the capacity of NDM/LDM.

Note 2: The maximum number of CSINTs mounted in a PIR or a PIM are:
PIR: A maximum of 11 CSINTs
PIM: A maximum of 12 CSINTs

Note 3: ZT should be installed in CCN.

5. CSINT CIRCUIT CARD MOUNTING LOCATION

The CSINT circuit card can be mounted in the PIR. For more detailed information on the CSINT circuit card mounting location, please refer to Circuit Card Description.

6. CIRCUIT CARD FUNCTIONS MOUNTING CONDITIONS

The following circuit cards are necessary when using the system.

1. Universal LC/TRK circuit cards

ABBREVIATION	CIRCUIT CARD NAME	FUNCTIONS AND MOUNTING CONDITIONS
RST	CH-8RSTA/ PA-8RSTAD/ PA-8RSTAE/ PA-8RSTY-A	Register-Sender As is the case with the RST functions in the normal stations, the RST is used virtually, and estimating how many lines are needed is as important as considering the number of terminals. Refer to Circuit Card Description for detailed information of SW setting.
DAT	CH-DATA /PA-4DATB-A	Announcement Trunk Used for ANNOUNCEMENT-PS OUT OF ZONE. Refer to Circuit Card Description for detailed information of SW setting.
TSW	SPZ-SW25-A (1-IMG System) PH-SW12 (Other than 1-IMG System)	Synchronized with the digital circuit cards such as PRT/DTI in a variety of combinations. (Standard precision clock oscillator) This card is synchronized with clocks generated from the PRT/DTI, thus supplying the necessary clock signal to the system. Number of clock input route: DTI: 4, DCS: 2 Functions: Burst Cyclic Generator of 5ms which supplies clock signaling to ZT. Refer to Circuit Card Description for detailed information of SW setting.
OSC	PA-CK14-A (1-IMG System)	Synchronized with the digital circuit cards such as PRT/DTI in a variety of combinations. (High precision clock oscillator) This is synchronized with clocks generated from the PRT/DTI, thus supplying the necessary clock signal to the system. Number of clock input route: DTI: 4, DCS: 2 Functions: Burst Cyclic Generator of 5ms which supplies clock signaling to ZT. Refer to Circuit Card Description for detailed information of SW setting.
PLO	PH-CK16/ PH-CK16-A/ PH-CK16-C/ PH-CK16-D (Other than 1-IMG System)	Synchronized with the digital circuit cards such as PRT/DTI in a variety of combinations. (Standard precision clock oscillator) This card is synchronized with clocks generated from the PRT/DTI, thus supplying the necessary clock signal to the system. Number of clock input route: DTI: 4, DCS: 2 Functions: Burst Cyclic Generator of 5ms which supplies clock signaling to ZT. Refer to Circuit Card Description for SW setting and wiring.
	PH-CK17/ PH-CK17-A (Other than 1-IMG System)	Synchronized with the digital circuit cards such as PRT/DTI in a variety of combinations. (High precision clock oscillator) This is synchronized with clocks generated from the PRT/DTI, thus supplying the necessary clock signal to the system. Number of clock input route: DTI: 4, DCS: 2 Functions: Burst Cyclic Generator of 5ms which supplies clock signaling to ZT. Refer to Circuit Card Description for SW setting.
CSINT	PA-8CSIE/ PA-8CSIE-A	This circuit card is designed to provide the ISDN U interface to the Zone Transceiver (ZT). A maximum of 8 ZTs can be connected to one circuit card. - Each B Channel of 32 kbps in the 2B+D (B=64 kbps) can be used as two channels - Equipped with 32k ADPCM (TSW: 64 kbps, ZT: 32 kbps)

ABBREVIATION	CIRCUIT CARD NAME	FUNCTIONS AND MOUNTING CONDITIONS
CFT	PA-CFTV	8-Party, 16-Party, or 32-Party Conference Trunk Used for GROUP CALL-AUTOMATIC CONFERENCE and GROUP CALL-AUTOMATIC CONFERENCE (20-party).
	PA-CFTW	8-Party Conference Trunk Used for GROUP CALL-AUTOMATIC CONFERENCE and GROUP CALL-AUTOMATIC CONFERENCE (20-party). Refer to Circuit Card Description for detailed information of SW setting.
	CH-CFTA	8-Party, 16-Party, or 32-Party Conference Trunk Used for GROUP CALL-AUTOMATIC CONFERENCE and GROUP CALL-AUTOMATIC CONFERENCE (20-party).

7. CONSIDERATIONS OF SERVICE FEATURES

7.1 PS SERVICE FEATURES CONSIDERATIONS

1. OG CALL TO OUTSIDE

Dialing method (LCR/LCRS) valid in OG call to outside depends on software version. For details, refer to the table below.

×: Valid –: Invalid △: Conditionally Valid

Software Version	LCR		LCRS	
	Non-Network	FCCS	Non-Network	FCCS
Release 1	×	×	△	△

△: The method is available for origination from C.O. line or Analog Tie Line.

2. INDIVIDUAL PS CALLING

Incoming calls can be terminated to a PS only in the area where the corresponding PS is registered.

3. CALLING CS ZONE REGISTRATION

A maximum of 32 areas can be assigned in each PCN.

Note: One FCCS Link Network can have PCN 1 ~ 1024.

4. HANDOVER

- 1) If a PS user moves to another zone that has all speech channels busy, the PS remains connected to the original CS.
- 2) Speech is temporarily interrupted during handover.
- 3) PS is unable to hand over in the following cases:
 - When digits are being sent (BT is heard.)
 - When user C sets Call Waiting to terminal A while users A and B are talking, status of each terminal varies depending on the case which terminal attempts handover. For details, see the following table.
 - When a PS user is calling

HANDOVER TERMINAL	PS TERMINAL A	PS TERMINAL B	PS TERMINAL C
Before Handover	Talking with PS B (CWT is heard.)	Talking with PS A	Ringback Tone (RBT)
PS terminal A	Released from call with PS B and receiving call from PS C	Released (BT)	Ringback Tone (RBT)
PS terminal B	Talking with PS C	Released (BT)	Talking with PS A
PS terminal C	Talking with PS B	Talking with PS A	Released (BT)

- 4) *When using FCCS Link Network, PS can hand-over to another node as long as the destination node uses the same PCN.*

5. PRESET DIALING

A maximum of 24 digits can be used when dialing. The buttons that can be used are: 0-9, # and *.

6. OVERLAP DIALING

A maximum of 24 digits can be used when dialing. The buttons that can be used are: 0-9, # and *.

7. PS SERVICE CLASS

RSC and SFC for a PS is the same as those for a single line telephone and Desktop terminal.

8. AUTOMATIC ANNOUNCEMENT- PS OUT OF ZONE

Basically, the Automatic Announcement cannot be provided to a call to a PS line accommodated on a programmable Line/Feature key of the Desktop terminal. As exceptions, when a PS line accommodated on a programmable Line/Feature key of the Desktop terminal is in following, Automatic Announcement is provided:

- When a PS line accommodated on a Line/Feature key of the Desktop terminal is registered to hunting group, the PS is in an out of zone state and other station in the hunting group cannot be called because of busy or out of zone.
- When recalling a PS line accommodated on a Line/Feature key of the Desktop terminal in an out of zone state.

Note: A PS that its line is accommodated on a programmable Line/Feature key of the Desktop terminal as a Sub Line cannot use all Hotel System features.

7.2 OG CALL SERVICE FEATURES CONSIDERATIONS

1. SPEED CALLING - STATION / GROUP (From PS Line on Desktop Terminal)

This is available only when the Desktop terminal, that accommodates the PS line, is allowed to register the Abbreviated Call Code.

2. SPEED CALLING - SYSTEM, SPEED CALLING-OVERRIDE - SYSTEM

OG call using [S-3] SPEED CALLING-SYSTEM / [S-61] SPEED CALLING OVERRIDE-SYSTEM can be placed from PS terminal. For more details, see Speed Calling - System [S-3]/ Speed Calling Override - System [S-61] in Data Programming Manual - Business.

7.3 IC CALL SERVICE FEATURES CONSIDERATIONS

1. GENERAL

When a PS is in the following state, it is treated as in the case of PS Out of Zone.

- PS is turned off.
- PS is outside the wireless area of the ZT with SYS-ID (Sub SYS-ID or Network ID for roaming) which has been written into the PS.
- Speech channels of all of the ZTs around the PS are all busy.

2. DIRECT IN TERMINATION (DIT)

When a PS is assigned as the target station of DIRECT IN TERMINATION (DIT), the following considerations apply:

- When the PS is Out of Zone (Out of Zone or in a state of POWER OFF), RBT is heard by the calling party.
If AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE is assigned by the PS, the calling party does not hear the Out of Zone Announcement, and instead hears RBT.
However, when originating to a PS line accommodated on a programmable Line/Feature key on the Desktop terminal, in an out of zone state, the caller hears RBT and PS line of Desktop terminal is continually called. The Desktop terminal user can answer the call by pressing the programmable Line/Feature key, which the PS line is assigned.
- If a PS user moves Out of Zone while connected to an outside party, AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE cannot be heard by the outside party, but instead BT is heard.
- When a PS is engaged and an outside call attempts CALL WAITING, the caller will hear RBT.
- When a DIT call is transferred to a PS or a station that has set Call Forwarding - PS Incoming Incomplete, the calling party hears RBT if the target PS or station is Out of Zone or in the state of lock-out.

- PS is unable to hand over when it is ringing. When the PS hands over or is Out of Zone, the called PS stops ringing, and the calling party hears RBT.
- In FCCS Network, PS must be called with Physical station number.

3. POWER FAILURE TRANSFER

PS cannot be used for the Night station

4. DISTINCTIVE RINGING

Available for Dterm PS, Dterm PSII, or Dterm PSIII.

A call from an incoming Tie Line uses the same ringing as a station call.

5. REMOTE ACCESS TO SYSTEM / AUTOMATED ATTENDANT

When Terminating side is PS, the following considerations apply:

- When the PS is Out of Zone (Out of Area or in a state of POWER OFF), the calling party will hear BT. If the AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE is set by the PS, the calling party does not hear Out of Zone Announcement. The calling party hears BT. However, when originating to a PS line accommodated on a programmable Line/Feature key on the Desktop terminal, in an out of zone state, the caller hears RBT and PS line of Desktop terminal is continually called. The Desktop terminal user can answer the call by pressing the programmable Line/Feature key, which the PS line is assigned. If “System Data 1, Index 7, bit5 = 0” is assigned and time-out of No Answer Timer assigned by “System Data 1, Index 139” occurs, the user can redial (announcement is sent to the caller).
- If a PS user moves Out of Zone while connected to an outside line, AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE cannot be heard by the subscriber outside. BT is heard.
- When a REMOTE ACCESS TO SYSTEM/AUTOMATED ATTENDANT call is transferred to a PS or a station with C.F.-INCOMING INCOMPLETE set and when the transferred party is Out of Zone or in the state of lock-out, the calling party hears RBT.
- PS is not allowed to hand over while ringing. When the called PS is ringing from the REMOTE ACCESS TO SYSTEM/AUTOMATED ATTENDANT and the PS hands over or is Out of Zone, the PS stops ringing and the calling party hears RBT. In this case, a redial will not be available.

7.4 STATION SERVICE FEATURES CONSIDERATIONS

1. CALL FORWARDING - ALL CALLS/DON'T ANSWER/BUSY - OUTSIDE

C.F.-D-Outside is not applicable by way of CALL TRANSFER-ALL CALLS.

2. CALL TRANSFER - ALL CALLS

- Recall service can be activated to the transferred station when the PS, with C.F.-PS INCOMING CALL INCOMPLETE in service, moves Out of Zone, after placing a call on hold.
- Camp-On by Station is unavailable for PS.

3. CALL WAITING

- This service is valid in the two party call when a call is terminated – from station-to-station, to PS, to Central Office line, or to Tie line call – but invalid when other services using switch hook flash are executed to the PS or when the PS is connected to the Attendant Console.
- To set CALL WAITING, it is necessary that the Service Feature Restriction Class data (ASFC) be assigned in the office data assignment.
Call Waiting service is provided according to each service feature restriction class.
- There is no limitation of the number of CALL WAITING services such as the number of simultaneous settings/the number of occurrence of answers.
- This service cannot be used if the Central Office line (DIRECT IN TERMINATION) or a call via the Attendant Console.

4. STEP CALL

Tie line STEP CALL is not available from PS.

5. PRIORITY CALL

PS can activate this feature only for Attendant Console.

6. CALL FORWARDING - ALL CALLS / DON'T ANSWER / BUSY

In the FCCS Network, the destination of call forwarding from PS must have a Telephone Number.

On the setting of ASYD SYS1 Index 69 bit1 ON (short tone is sent to the station when answered a forward-ed call.), Short tone is not going to be sent when the answered terminal is PS.

7. CALL PICK UP - DIRECT

When PS line accommodated on a Line/Feature key of the Desktop terminal does not ring and the Desktop terminal which accommodates the PS line rings, the call to the line cannot be picked up.

A call which has terminated to a PS/ISDN terminal cannot be answered using CALL PICK UP - DIRECT

[C-30] (the caller hears Busy Tone). However, if PS line is assigned as a Multi Line of Dterm (APLAML/APLAMN), calls terminating to the corresponding PS can be answered using CALL PICK UP - DIRECT [C-30].

8. CALL PICK UP - GROUP

- When a PS line accommodated on a Line/Feature key of the Desktop terminal does not ring and the Desktop terminal which accommodates the PS line rings, the call to the line cannot be picked up.
- SFI 36 of PS line accommodated on a Line/Feature key of Desktop terminal must be allowed (RES=1).

9. HOTLINE

When originating to a PS line, accommodated on a programmable Line/Feature key of the Desktop terminal, in a lockout state, the caller hears BT.

10. CALL BACK

When Call Back is set from PS to Desktop terminal (or set from Desktop terminal to PS):
If Call Back Automatic Cancel Timer (ASYD, SYS 1, Index 71, bits 0-3) is not assigned, Call Back status is canceled approximately 60 minutes later. But if Call Back Automatic Cancel Timer is assigned, the assigned timer value is valid.

11. STATION HUNTING

- When a call terminates to a PS within a group, if the PS is in Out of Zone state, use System Data to choose from activating Station Hunting or Out of Zone processing.
- Until the PS within the group answers, the caller hears no-tone. (The time for no-tone is “time duration until the system recognizes that the PS is Out of Zone (maximum 8 seconds) X number of times PS Hunting was activated”)
- When dialing Priority PS from an Attendant Console, if PS is Out of Zone, Hunting cannot be activated.
- Analog Line
After the system recognizes the last PS is Out of Zone, Hunting will be canceled since there is no more PS. If the call is terminated to the PS via Direct-In Termination (DIT) or Dial-In, the caller hears Ring-back Tone (RBT). If the call is terminated to the PS via Automated Attendant, the caller hears Busy Tone (BT) from no-tone. While the caller is hearing RBT, even if returning to the zone, the PS cannot answer the call.
- ISDN Line
When Priority PS Station is Out of Zone, because of Time Out notification, the caller might hear an announcement (notifying that the PS is out of zone) from ISDN if Station Hunting is incomplete.
- If a PS within a group is Roaming, that PS will be skipped. However, if the first Priority PS (first PS to terminate a call) is Roaming, the call will terminate while Roaming.

- IP Service
 - a) An open channel for IPPAD is necessary to make a call between an IP station and a Legacy station.
 - b) If a call terminates to a busy station first and the subsequent stations are logged out IP stations, those stations will be skipped (slide action will not be activated). The caller will hear a Busy Tone (BT) if the last station is logged out. Logged Out IP Station - Call Destination [L-53] will be activated when directly making a call to a logged out IP station with Logged Out IP Station - Call Destination [L-53] assigned.
 - c) When this feature call terminates to a PS which is in Out of Zone state, if a network error occurs after the first slide action is activated, slide action will not be activated anymore. The caller hears a Busy Tone (BT).

7.5 OTHER SERVICE FEATURES CONSIDERATIONS

1. UNIFORM CALL DISTRIBUTION (UCD)

- When the PS is in roaming status, UCD service is conditionally available:
When the controlling station is a PS in roaming status, the call to the PS normally terminates.
When the hunting target is a PS in roaming status, the call skips the roaming PS.
- When a PS moves out of zone while a call is terminating, the caller hears RBT and the Desktop terminal, which accommodates the PS line, is continually called. By pressing the Line/Feature key, the user answers the call.
- When the last PS line, accommodated on a programmable Line/Feature key, registered in UCD Group is in an out of zone:
 - The caller hears RBT and Desktop terminal which accommodates the PS line is continually called if Direct Inward Dialing [D-8] or Direct In Termination [D-7] feature is used.
 - The caller hears BT or redial announcement if Automated Attendant [A-82]/Remote Access to System [R-2] feature is used.

2. LAST NUMBER CALL

Substituted for the LAST NUMBER CALL function of PS.

3. AUTHORIZATION CODE

AUTHORIZATION CODE ELIMINATION is not available.

4. CALL PARK

Available when:

- the operating party is the PS in the Home node.
- the held party is the PS in the Home node.

Note: Call Park is not available when the operating party is the PS in the Visitor Node. Also when the Visitor PS originates a call to a station/PS in the Visitor Node (two-party connection), the call cannot be parked from the called party.

7.6 ATTENDANT CONSOLE SERVICE FEATURES CONSIDERATIONS

1. CALL TRANSFER - ATTENDANT

Upon receiving an incoming call, the Attendant Console transfers the call to a PS, it ends up with the PS connected to the outside. If, in this situation, the PS user moves to a location Out of Zone, the caller from the outside line will hear BT.

2. DIAL ACCESS TO ATTENDANT

While the Attendant Console is calling a PS, the services associated with Out of Zone such as Call Forwarding - PS Incoming Incomplete, AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE and AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE are not available.

When an Attendant calls a PS, the individual attendant number can be displayed on the LCD of the PS. However “OPR” cannot be displayed on the LCD of the PS.

This service feature has the limitation of FCCS Link Network. Refer to the Data Programming Manual - FCCS or Data Programming Manual - Business.

3. NON - DELAY OPERATION, DELAY OPERATION, DIGITAL DISPLAY - STATION

These service features have the limitation of FCCS Link Network. Refer to the Data Programming Manual - FCCS or Data Programming Manual - Business.

4. BUSY LAMP FIELD - FLEXIBLE

Busy Information of PS, accommodated on Desktop terminal, that belongs to visitor node is not displayed.

Busy Information is not going out to be displayed on the PS, which is accommodated in a Desktop terminal multiline whose home node does not have the Attendant Console, even when it is under the influential area of the node with Attendant Console.

7.7 NETWORK SERVICE FEATURES CONSIDERATIONS

1. LCR-3/6/DIGIT

Dialing method (LCR/LCRS) valid in OG call to outside depends on software version. For details, refer to the table below.

×: Valid -: Invalid △: Conditionally Valid

Software Version	LCR		LCRS	
	Non-Network	FCCS	Non-Network	FCCS
Release 1	×	×	△	△

△: The method is available for origination from C.O. line or Analog Tie Line.

7.8 OPERATION / MAINTENANCE SERVICE FEATURES CONSIDERATIONS

1. LINE LOAD CONTROL

A Incoming Call from PS line accommodated on a programmable Line/Feature key of Desktop terminal cannot be restricted.

7.9 ISDN SERVICE FEATURES CONSIDERATIONS

1. DIRECT INWARD DIALING

When a PS is assigned as the target station of DIRECT INWARD DIALING, the following conditions apply:

- When PS is Out of Zone, calling party may hear an announcement from Public ISDN Network, indicating that the called station is not connected. However, when a PS line, accommodated on a programmable Line/Feature key, is in an Out of Zone state, calling party hears RBT and the Desktop terminal, which accommodates the PS line, is continually ringing.
- AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE/C.F. PS Incoming Call Incomplete may not be available. In this case, calling party hears an announcement from Public ISDN Network, indicating that the called station is not connected. When a PS line, accommodated on a programmable Line/Feature key, hands over or is in an Out of Zone state, calling party hears RBT and the Desktop terminal, which accommodates the PS line, is continually ringing.
- Even if PS is Out of Zone while talking with C.O. line side, AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE will not be available on C.O. line side. In this case, C.O. line side hears BT.
- PS is unable to hand over when it is ringing. When the PS hands over or is Out of Zone, the called PS stops ringing, and the calling party hears BT.

2. SUB ADDRESS - ADDRESSING

When a PS is assigned as the target station of SUB ADDRESS - ADDRESSING, the following conditions apply:

- When PS is Out of Zone, calling party may hear an announcement from Public ISDN Network, indicating that the called station is not connected. However, when a PS line, accommodated on a programmable Line/Feature key, is in an Out of Zone state, calling party hears RBT and the Desktop terminal, which accommodates the PS line, is continually ringing.
- AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE/C.F. PS Incoming Call Incomplete may not be available. In this case, calling party hears an announcement from Public ISDN Network, indicating that the called station is not connected. When a PS line, accommodated on a programmable Line/Feature key, hands over or is in an Out of Zone state, calling party hears RBT and the Desktop terminal, which accommodates the PS line, is continually ringing.

- Even if PS is Out of Zone while talking with C.O. line side, AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE will not be available on C.O. line side. In this case, C.O. line side hears BT.
- PS is unable to hand over when it is ringing. When the PS hands over or is Out of Zone, the called PS stops ringing, and the calling party hears BT.

3. GENERAL CONSIDERATIONS

From an ISDN terminal a call cannot be transferred to a PS, or 3-party conference cannot be held. Call Forwarding - All Calls/Busy Line/Don't Answer by access code can be used when the destination PS is not roaming. However, Call Transfer, Call Forwarding - All Calls/Busy Line/Don't Answer/Incomplete and 3-party conference from a PS terminal to an ISDN terminal are available.

ISDN terminal cannot transfer a call to a PS or provide the three-party Conference feature including a PS.

A PS can transfer a call to an ISDN terminal and provide the Three-party Conference feature including the ISDN terminal.

7.10 CCIS SERVICE FEATURES CONSIDERATIONS

1. HOT LINE - CCIS (from PS Line on Desktop terminal)

SFI 36 of a PS line accommodated on a programmable Line/Feature key of the Desktop terminal must be allowed.

2. CALLING/CALLED NUMBER DISPLAY - CCIS

When PS in roaming service using CCIS originates a call from the visitor node, Caller's number is going to be displayed.

3. SERIAL CALL - CCIS

Serial Call can be assigned only when the visitor PS is called, but Attendant Console cannot be recalled. Attendant Console can be recalled when roaming service is provided by CCIS over IP.

4. SUPERVISORY CALL - CCIS

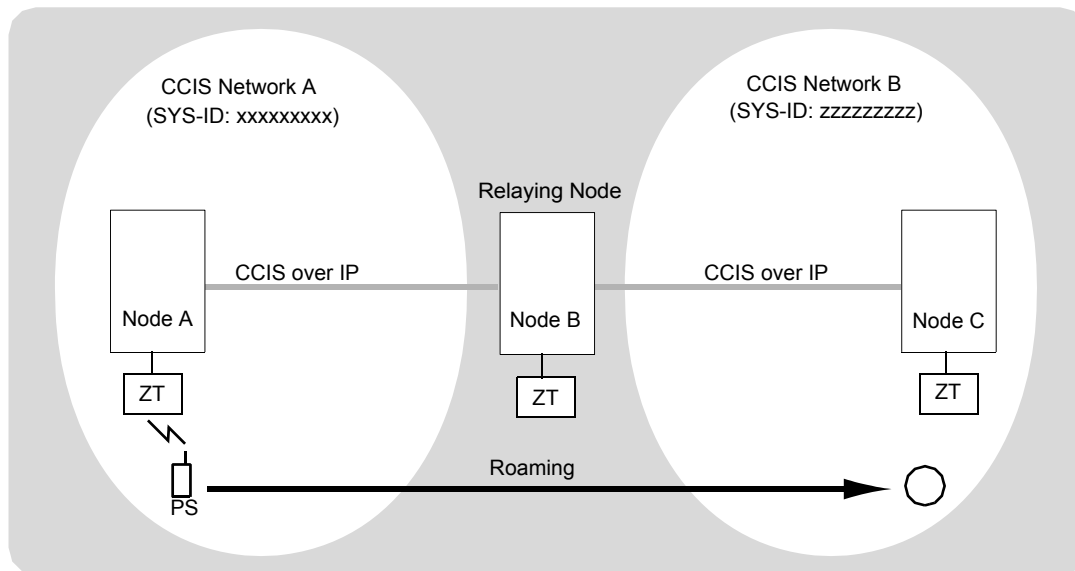
Supervisory Call can be assigned when the visitor PS is called, but it is not available once that call has been answered.

7.11 ROAMING SERVICE FEATURES CONSIDERATIONS

1. PS INTER-NODE ROAMING

PS INTER-NODE ROAMING cannot provide an alternate route from the route of CCIS over IP to other route. PS INTER-NODE ROAMING cannot be used while network failure of CCIS over IP is occurring even if roamable trunk (Dp Channel Tie Line / CCIS over IP) has been assigned for an alternate route of CCIS over IP trunk that is assigned as roaming route at each Home Node / Visitor Node of PS. After the failure is released, a call can be originated or terminated by turning on / off the PS.

- This feature is available in both Open Numbering Plan and Closed Numbering Plan. However, the total number of digits for the office code and the PS station number must be 13 or less.
- PHS Inter-Node Roaming is possible via IP network. In that case, assigning CCIS over IP (PHC) data will become necessary. Assign data by referring to Data Programming Manual - CCIS - [C-163] CCIS NETWORKING VIA IP. Also refer to the same manual about the service conditions of CCIS over IP.
- When a mobile connection is transferred to or from a node in a CCIS over IP (Internal PHC) network via a relaying node, the other adjacent node must also be configured for CCIS over IP (Internal PHC.) See the illustration below.



When Node A or Node C is connected to Node B (relaying node) via CCIS over IP, the counter node must also be connected via CCIS over IP.

- When using [C-178] CCIS ALTERNATE ROUTING - BACKUP service, set Timer for alternate routing if IP network failure (ASYDL SYS 1 Index 671 bits 0-3) or ACM, UBM Signal No-Receiving Timer (ASYD SYS 1 Index 189 bits 4-7) to 8 seconds or more.
- Call Forwarding - Busy Line [C-2]/CALL FORWARDING - PS INCOMING INCOMPLETE [C-155]/ Call Forwarding - All Calls [C-5]/Call Forwarding - Don't Answer [C-3] operate as follows.

- Call Forwarding - Busy Line [C-2]

When the PS using Call Forwarding - Busy Line [C-2] at home node is busy at visitor node, the PS forwards the call at home node.

- CALL FORWARDING - PS INCOMING INCOMPLETE [C-155]

When the PS using CALL FORWARDING - PS INCOMING INCOMPLETE [C-155] at home node is incomplete at visitor node, the PS forwards the call at home node.

- Call Forwarding - All Calls [C-5]

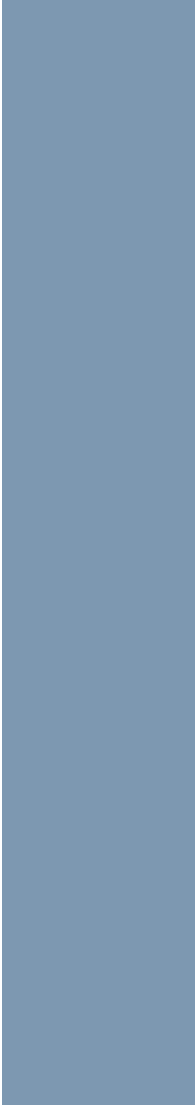
All the call to the PS using Call Forwarding - All Calls [C-5] at home node are forwarded. A call origination from the PS that moved from home node to visitor node is available.

- Call Forwarding - Don't Answer [C-3]

When the PS that is set as the destination of Call Forwarding - Don't Answer [C-3] at home node is busy at visitor node, the PS will be busy after the No Answer Timer has elapsed. If the PS that sets Call Forwarding - Don't Answer [C-3] is at visitor node, an incoming call will not be forwarded from the PS and will keep ringing the PS while not answered.



CHAPTER 2 OFFICE DATA ASSIGNMENT



This chapter explains the office data assignment for the system. Refer to the Data Programming Manual - Business for basic office data assignment for the SV9500 and other programming for service features. “2.BASIC OFFICE DATA ASSIGNMENT (FCCS)” provides guidelines to the system data and the programming of ZT and PS office data as a basic data assignment, while “3.ASSIGNMENT OF SERVICE FEATURE DATA” provides information regarding each service data assignment.

1. BASIC OFFICE DATA ASSIGNMENT (STAND-ALONE)

1.1 System Data

The following data assignment is necessary for activating the PCS.

ASYD SYS1

Index 30 : Mounting Capacity of Data Memory (Assign 06H for Wireless-PCS System.)
Index 420

b0: Access code using the Pre-Set dialing
0/1: Out/In service (Normal Setting)

ASYDL SYS1

Index 513 :LDM usage b0-b2 (Assign 01H.)
Index 800

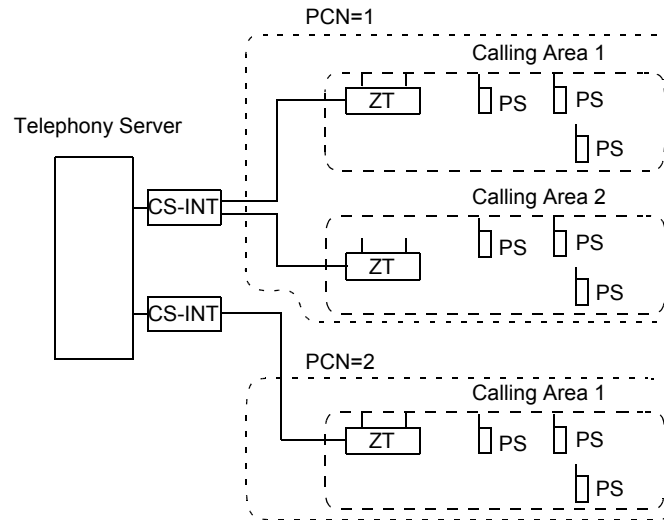
b3: PCN for Tenant
0/1: Different PCN for Tenant/Same PCN for Tenant

Note: For more detailed information about the data above, refer to the ASYD command in CHAPTER 3 COMMANDS.

Note: Do not assign ASYDL - SYS1 - Index 512 (the FPC) in a stand-alone configuration.

Note: Do not assign ASYDL - SYS1 - Index 514 (the NDM) in a stand-alone configuration.

1.2 ZT Office Data Assignment



- CSINT circuit card can accommodate a maximum of four ZTs.
- Every ZT has three speech channels in the form of 3B+D.
- Each ZT is provided with the PHS Community, Calling Area, Group and ZT Number, given a maximum capacity to have 32 areas while each area has eight groups. One group can house 32 ZTs.

PHS Community: PHS community having the same SYS-ID is identified by PHS Community Number (PCN).

Calling Area: When a dedicated PS is called, the system is designed to search first for a PS in its registered area and if the PS has moved out-of-zone, the PS Location Registration is automatically performed when the dedicated PS has moved to another location.

Group: Dividing into groups is not presently used.

1. ZT Initial Start-Up

(For North America)

STEP 1: ASYD (Assignment of System Data)

CCIS ISDN function simultaneously becomes valid when the ZT operation is attempted to be in service, as the ZT is regarded as a terminal of the ISDN.

SYS1

SI186 **Note 1**

b6=1 (CCIS function in service)

SI220 **Note 1**

b6=0 (ISDN function in service)

Note 1: ISDN and CCIS data become valid, but where the ISDN and CCIS functions are not to be used, optional software concerning ISDN and CCIS is not necessary.

STEP 2: Call LVP Server system

STEP 3: APCNL (Assignment of PHS Community Number Data for LDM)

FUNC=1

PHS Community Number (PCN) Entry **Note 2**

TN

PCN

Note 2: Use PCN (PHS Community Number) from number "1".

Note: Do not assign Func=2.

STEP 4: ALVPL (Assignment of LVP Code for Local Data Memory)

KIND=2

Assign the SYS-ID Code

STEP 5: ALVPL (Assignment of LVP Code for Local Data Memory)

KIND=1

Assign the LVP Code

STEP 6: ACSEL (Assignment of Expansion CS/ZT System Data for LDM)

- PHS Community Number: 1~1024

- Network Number : Only for Roaming Feature

- Additional Area Number: Only for Roaming Feature

- Country Number : 31A (USA) fixed

- Number of PHS Manager Code: 0 fixed

STEP 7: ACS DL (Assignment of CS/ZT Data for LDM)

This command is used to assign the ZT related data including the PHS Community Number, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND.

When this data assignment is finished, 3B+D channels of the CSINT circuit card start-up.

- PHS Community Number: 1~1024

- Calling Area Number : 1-32

- Group Number : 1-8
- CS/ZT Number : 1-32
- TN : Tenant Number
- LENS : ZT Equipment Numbers
- KIND : ZT2 (fixed)

(For Latin America)**STEP 1: ASYD (Assignment of System Data)**

CCIS ISDN function simultaneously becomes valid when the ZT operation is attempted to be in service, as the ZT is regarded as a terminal of the ISDN.

SYS1

SI186 **Note 3**

b6=1 (CCIS function in service)

SI220 **Note 3**

b6=0 (ISDN function in service)

Note 3: ISDN and CCIS data become valid, but where the ISDN and CCIS functions are not to be used, optional software concerning ISDN and CCIS is not necessary.

STEP 2: APCNL (Assignment of PHS Community Number Data for LDM)

FUNC=1

PHS Community Number (PCN) Entry **Note 4**

TN, PCN

Note 4: Use PCN (PHS Community Number) from number "1".

STEP 3: ACSEL (Assignment of Expansion CS/ZT System Data for LDM)

•PHS Community Number: 1~1024

•Network Number : Only for Roaming Feature

•Additional Area Number: Only for Roaming Feature

•Country Number : Unique number for each country

•Number of PHS Manager Code: 0 fixed

STEP 4: ACSSL (Assignment of CS/ZT System Data for LDM)

•PHS Community Number: 1~1024

•MCS ERN : Not used

•MCS GRN : Not used

•MCS CSN/ZTN : Not used

•OP CSN/OP ZTN : 1 (fixed)

•SYS-ID : 1~FFFFFFFFFFFF

STEP 5: ACSDL (Assignment of CS/ZT Data for LDM)

This command is used to assign the ZT related data including the PHS Community Number, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND.

When this data assignment is finished, 3B+D channels of the CSINT circuit card start-up.

- PHS Community Number: 1~1024
- Calling Area Number : 1-32
- Group Number : 1-8
- CS/ZT Number : 1-32
- TN : Tenant Number
- LENS : ZT Equipment Numbers
- KIND : ZT2 (fixed)

2. Procedure to Add Operating ZT

(For North America)

STEP 1: Installation of additional ZT

STEP 2: Call LVP Server system

STEP 3: ALVPL (Assignment of LVP Code for Local Data Memory)
KIND = 1

STEP 4: Assign the LVP Code

STEP 5: ACSDL (Assignment of CS/ZT Data for LDM)
This command is used to assign the ZT related data including the PHS Community Number, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND.
The 3B+D-Channels of the CSINT circuit card will start up when this data assignment is finished.

- PHS Community Number: 1~1024
- Calling Area Number : 1-32
- Group Number : 1-8
- CS/ZT Number : 1-32
- TN : Tenant Number
- LENS : ZT Equipment Numbers
- KIND : ZT2 (fixed)

(For Latin America)

STEP 1: Installation of additional ZT

STEP 2: ACSDL (Assignment of CS/ZT Data for LDM)
This command is used to assign the ZT related data including the PHS Community Number, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND.
The 3B+D-Channels of the CSINT circuit card will start up when this data assignment is finished.

- PHS Community Number: 1~1024
- Calling Area Number : 1-32
- Group Number : 1-8
- CS/ZT Number : 1-32
- TN : Tenant Number
- LENS : ZT Equipment Numbers

3. Procedure to Delete ZT

(For North America/Latin America)

STEP 1: MBCSL (Make-busy of CS/ZT for Local Data Memory)

STEP 2: ACSDL (Assignment of CS/ZT Data for LDM)
Delete the ZT data.

1.3 PS Office Data Assignment

The following describes how to assign PS office data to operate in the Wireless-PCS system.

1. PS Initial Start-Up
2. Procedure to Add PS

STEP 1: ANPD (Assignment of Numbering Plan)

Assign the minimum number of digits to the first digit of station number.

STEP 2: ASPA (Assignment of Special Access Code Data)

This command is used to assign an Access Code of the station number.

TN	: Tenant Number
ACC	: Access Code (max. 6 digits)
CI	: Connection Status Index
SRV	: STN (station number)

STEP 3: APSD (Assignment of the PS Operation Data)

This command is used to assign the PS operation data including its Tenant Number, Station Number, Service Feature Restriction Class (SFC) and the Route Restriction Class (RSC) in consideration of the numbering plan/restriction data.

TN	: Tenant Number
PS STN	: PS station number
KIND	: PS Kind: 3 (Standard PS)
RSC	: Route Restriction Class
SFC	: Service Feature Restriction Class
ICON	: ICON control 0/1: Out of service/In service (Assign only on ICON controllable PS)
PS-ID	: Max. 9 [DEC] Note 1
PS NO	: TYPE 1 (12 digits or less [BCD]) fixed
NWN	: Network Number : Blank (Not used)
ADERA	: Additional Area Number: Blank (Not used)
CTRN	: Country Number : Unique number for each country
SUB SYS-ID Setting:	Setting of Sub-SYSID (Not used)

Note 1: PS-ID is the information indigenous to each PS (PS-ID is written on each PS terminal).

Note: The settings of Individual PS Numbers and PS station numbers vary depending on the type of the PS used.

Note: Telephone Numbers are usually assigned as Individual PS Numbers and PS station numbers.

Note: Individual PS Number and PS station number must be unique in a system (among all nodes in a FCCS network).

STEP 4: ANPDL/ANPDN (Assignment of Numbering Plan Data for LDM/NDM)
This command is used to assign the number of digits needed to determine the telephone number according to the first digit received.

STEP 5: ASPAL/ASPAN (Assignment of Special Access Code Data for LDM/NDM)
This command is used to assign an Access Code of the telephone number.

TN : Tenant
ACC : Access Code (max. 6 digits)
CI : Connection Status Index
SRV : TELN (Telephone Number)

STEP 6: ALGSL/ALGSN (Assignment of Telephone Number Data for LDM/NDM)
Assign Telephone Number to the destination station number programed by APSD command above.

TYPE = 1 (Line Equipment Numbers/Phantom Index is used to specify the Telephone Number)

UGN: User Group Number
TELN: Telephone Number (max. 16 digits)
FPC: Fusion Point Code
LENS/PHIN: Line Equipment Numbers/Phantom Index of the destination station number

TYPE = 2 (Station number is used to specify the Telephone Number)

UGN: User Group Number
TELN: Telephone Number (max. 16 digits)
FPC: Fusion Point Code
TN: Tenant Number
STN: PS station number of destination

STEP 7: APDLL/APDLN (Download of PS Operation Data for LDM/NDM)
This command loads the PS operation data to the PS.

UGN
PS Telephone Number: Max. 16 Digits
TYPE=2
PS No.: Max. 13 Digits

3. Procedure to Delete PS

STEP 1: ALGSL/ALGSN (Assignment of Telephone Number Data for LDM/NDM)
Delete the Telephone Number and LENS related.

STEP 2: APSD (Assignment of the PS Operation Data)
Using this command, delete the PS data to be cleared such as tenant No., station No., SFC and RSC.

2. BASIC OFFICE DATA ASSIGNMENT (FCCS)

2.1 System Data

The following data assignment is necessary for activating the PCS.

Note: When using PCS in the Telephony Server, NDM should be used in principle. For this reason, use NDM commands when available.

ASYD SYS1

Index 30 Mounting Capacity of Data Memory (Assign 06H for Wireless-PCS System features.)

Index 420

b0: Access code using the Pre-Set dialing
0/1: Out/In service (Normal Setting)

ASYDL SYS1

Index 512 : FPC (Assign 01H - FDH.)

Index 513 :LDM usage b0-b2 (Assign 01H.)

Index 514 :NDM usage b0- (Assign 01H.)

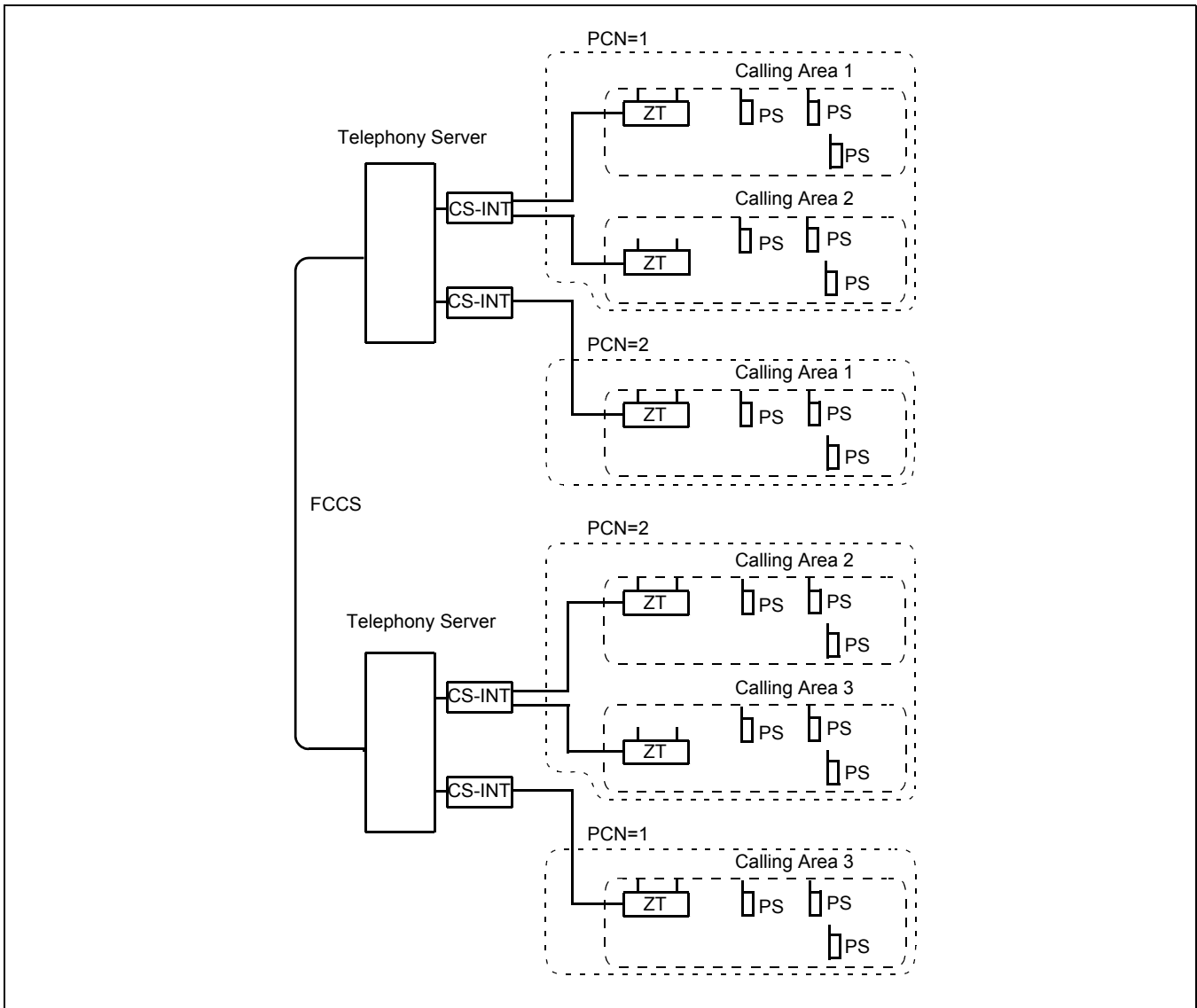
ASYDN SYS1

Index 514 : NDM is used (Assign 01H)

Index 800 b3: PCN for Tenant
0/1: Tenant basis/Common

Note: For additional information about the data above, refer to the ASYD command in Chapter 3.

2.2 ZT Office Data Assignment



- The CSINT circuit card can accommodate a maximum of four ZTs.
- Every ZT has three speech channels in the form of 3B+D.
- Each ZT is provided with the PHS Community, Calling Area, Group and CS/ZT Numbers has a maximum capacity of 32 areas while each area has eight groups. One group can house 32 ZTs.

PHS Community: PHS community having the same SYS-ID is identified by PHS Community Number (PCN).

Calling Area: When a dedicated PS is called, the system is designed to search first for a PS in its registered area and if the PS has moved out-of-zone, the PS Location Registration is automatically performed when the dedicated PS has moved to another location. One area cannot exist in a multiple node.

Group: Dividing into groups is not currently used.

1. ZT Initial Start-Up

(For North America)

STEP 1: ASYD (Assignment of System Data)

CCIS ISDN function simultaneously becomes valid when the ZT operation is attempted to be in service, as the ZT is regarded as a terminal of the ISDN.

SYS1

SI186 **Note 1**

b6=1 (CCIS function in service)

SI220 **Note 1**

b6=0 (ISDN function in service)

Note 1: ISDN and CCIS data become valid, but where the ISDN and CCIS functions are not to be used, optional software concerning ISDN and CCIS is not necessary.

STEP 2: Call LVP Server system

STEP 3: APCNN (Assignment of PHS Community Number Data for NDM)

FUNC=1 PHS Community Number (PCN) Entry.

FPC = 1, TN, PCN

Note: Do not assign Func=2.

STEP 4: ALVPN (Assignment of LVP Code for Network Data Memory)

KIND=2

Assign the SYS-ID Code

STEP 5: ALVPL (Assignment of LVP Code for Local Data Memory)

KIND=1

Assign the LVP Code (for each Node)

Note: LVP Code is assigned to the nodes which have ZTs.

STEP 6: ACSEN (Assignment of Expansion CS/ZT System Data for NDM)

- PHS Community Number: 1~1024

- Network Number : Only for Roaming Feature

- Additional Area Number: Only for Roaming Feature

- Country Number : 31A (USA) fixed

- Number of PHS Manager Code: 0 fixed

STEP 7: ACSDN (Assignment of CS/ZT Data for NDM)

This command is used to assign the ZT related data including the PHS Community Number, Fusion Point Code, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND.

The 3B+D-Channel of the CSINT circuit card will start up when this data assignment is finished.

When this data assignment is finished, 3B+D channels of the CSINT circuit card start-up.

- FPC : Fusion Point Code (=1)

- PHS Community Number: 1~1024

- Calling Area Number : 1-32

- Group Number : 1-8
- CS/ZT Number : 1-32
- TN : Tenant Number
- LENS : ZT Equipment Numbers
- KIND : ZT2 (Fixed)

Note: If the NDM was not copied to the Local Nodes after the last initialization, please broadcast it by using the CBCN command.

(For Latin America)

STEP 1: ASYD (Assignment of System Data)

CCIS ISDN function simultaneously becomes valid when the ZT operation is attempted to be in service, as the ZT is regarded as a terminal of the ISDN.

SYS1

SI186 **Note 2**

b6=1 (CCIS function in service)

SI220 **Note 2**

b6=0 (ISDN function in service)

Note 2: ISDN and CCIS data become valid, but in the case where the ISDN and CCIS functions are not to be used, optional software concerning ISDN and CCIS is not necessary.

STEP 2: APCNN (Assignment of PHS Community Number Data for NDM)

FUNC=1 PHS Community Number (PCN) Entry.

FPC=1, TN, PCN

STEP 3: ACSEN (Assignment of Expansion CS/ZT System Data for NDM)

•PHS Community Number: 1~1024

•Network Number : Only for Roaming Feature

•Additional Area Number: Only for Roaming Feature

•Country Number : Unique number for each country

(See [Country Number \(CTRN\) for each Country.](#))

•Number of PHS Manager Code: 0 fixed

STEP 4: ACSSN (Assignment of CS/ZT System Data for NDM)

•PHS Community Number: 1~1024

•MCS ERN : Not used

•MCS GRN : Not used

•MCS CSN/ZTN : Not used

•OP CSN/ZTN : 1 (fixed)

•SYS-ID : 1~FFFFFFFFFFFFFF

STEP 5: ACSDN (Assignment of CS/ZT Data for NDM)

This command is used to assign the ZT related data including the PHS Community Number, FCCS Point Code, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND.

When this data assignment is finished, 3B+D channels of the CSINT circuit card start-up.

- FPC : Fusion Point Code (=1)
- PHS Community Number: 1~1024
- Calling Area Number : 1-32
- Group Number : 1-8
- CS/ZT Number : 1-32
- KIND : ZT2 (Fixed)
- TN : Tenant Number
- LENS : ZT Equipment Numbers

Note: If CBCN has never been done in FCCS Network after the last initialization, please do CBCN before APCNN.

2. Procedure to Add Operating ZT

(For North America)

STEP 1: Installation of additional ZT

STEP 2: Call LVP Server system

STEP 3: ALVPL (Assignment of LVP Code for Local Data Memory)
KIND = 1
Assign the LVP Code

STEP 4: ACSDN (Assignment of CS/ZT Data for NDM)
This command is used to assign the ZT related data including the PHS Community Number, Fusion Point Code, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND.
When this data assignment is finished, 3B+D channels of the CSINT circuit card start-up.

- FPC : Fusion Point Code (=1)
- PHS Community Number: 1~1024
- Calling Area Number : 1-32
- Group Number : 1-8
- CS/ZT Number : 1-32
- TN : Tenant Number
- LENS : ZT Equipment Numbers
- KIND : ZT2 (Fixed)

(For Latin America)

STEP 1: Installation of Additional ZT

STEP 2: ACSDN (Assignment of CS/ZT Data for NDM)
This command is used to assign the ZT related data including the PHS Community Number, FCCS Point Code, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND.
When this data assignment is finished, 3B+D channels of the CSINT circuit card start-up.

- FPC : Fusion Point Code (=1)
- PHS Community Number: 1~1024
- Calling Area Number : 1-32
- Group Number : 1-8
- CS/ZT Number : 1-32
- TN : Tenant Number
- LENS : ZT Equipment Numbers

3. Procedure to Delete ZT

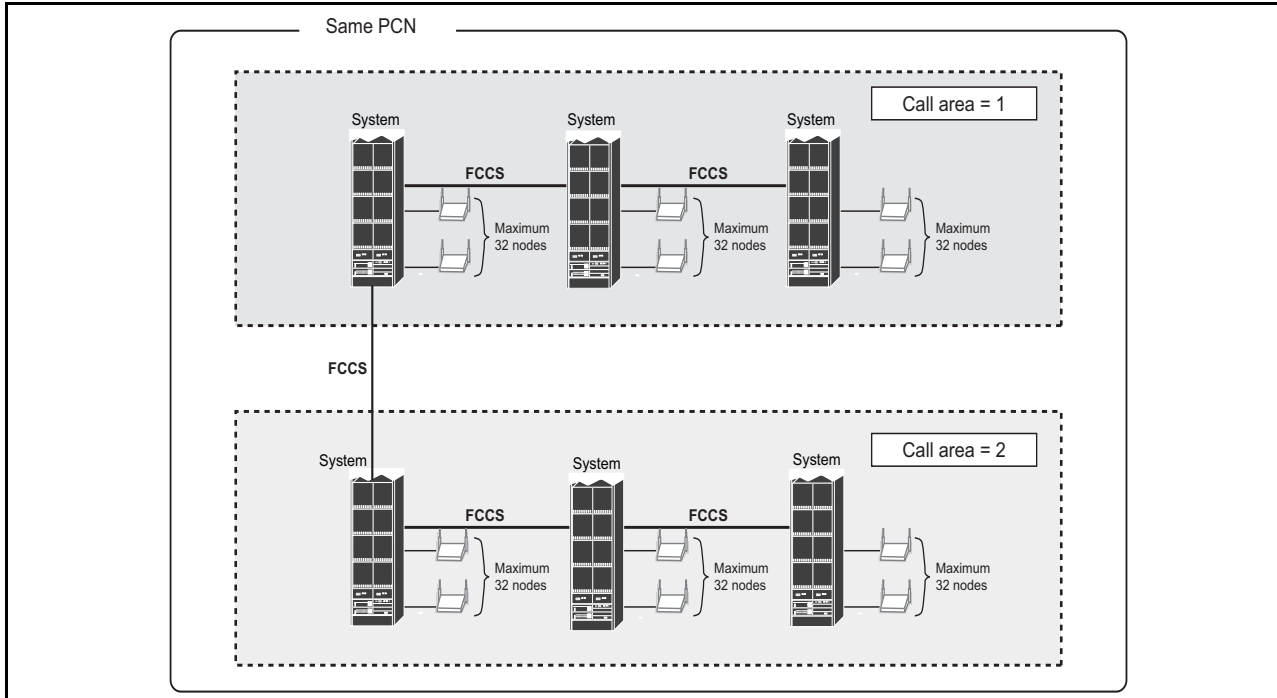
(For North America/Latin America)

STEP 1: MBCSN (MAKE BUSY CS/ZT for Network Data Memory)

STEP 2: ACSDN (Assignment of CS/ZT Data for NDM)

STEP 3: Delete the ZT Data.

2.3 Wireless-PCS Called Area Expansion



This feature enables the system to expand the number of nodes up to 253 by adding a group number by breaking down a call area number, using it in plural nodes. A maximum of 32 nodes per one PHS Community Number (PCN) can be expanded to a maximum of 256 nodes.

- (1) The call area number, that is assigned before this feature is effective cannot be expanded using this feature. All ZTs assigned in that call area number must be deleted once and reassigned to expand.
- (2) The possibility of the PS receiving calls out-of-zone may rise when the adjoining nodes divide the call area number. Avoid dividing the call area number by the adjoining nodes (particularly when the system is UMG system) as possible.

The ZT data assignment/deletion procedure when a call area is expanded is the same as the ordinary ZT data assignment/deletion procedure. One call area number can be divided to plural nodes by assigning the call number using the ACSDN command in the FCCS network. The group number must be unique within the system.

But call area number, which is assigned before this feature is effective, cannot be expanded using this feature. All ZT assigned in that call area number must be deleted once and re-assigned.

To update the existing call area number:

- Check the operating parameter by the COCS2N command.
- Delete all ZTs within the corresponding call area number by the ACSDN command.
- Assign all ZTs within the corresponding call area number by the ACSDN command.
- Set the operating parameter by the COCS2N command.

2.4 PS Office Data Assignment

The following describes how to assign PS office data to operate in the Wireless-PCS system.

1. PS Initial Start-Up
2. Procedure to Add PS

STEP 1: AFMU

Note: When a PS is assigned by APSD command, logically it occupies a port from module group (MG) 31 to 26, from bigger number of MG to smaller. Using AFMU command, those MGs must be assigned in the NCN for the FCCS.
Since One MG can contain up to 768 PSs in it, for instance, if you need maximum of 4000 PSs in a node, MG31, 30, 29, 28, 27 and 26 must be assigned.
At the beginning of installation, you don't have to allocate all 6 MGs in a node, but just as many as you need at the time. Later, whenever you need to add more PSs to the node, you can come back to AFMU again. ALGSN command will tell you when it's time by giving you an error in assigning telephone number to a MG which has not been assigned yet.

STEP 2: ANPD (Assignment of Numbering Plan)

Assign the minimum number of digits to the first digit of station number.

STEP 3: ASPA (Assignment of Special Access Code Data)

This command is used to assign an Access Code of the station number.

TN	: Tenant Number
ACC	: Access Code (max. 6 digits)
CI	: Connection Status Index
SRV	: STN (station number)

STEP 4: APSD (Assignment of the PS Operation Data)

This command is used to assign the PS operation data including its tenant Number, station Number, Service Feature Restriction Class (SFC) and the Route Restriction Class (RSC) in consideration of the numbering plan/restriction data.

TN	: Tenant Number
PS STN	: PS station number
KIND	: PS Kind: 3 (Standard PS)
RSC	: Route Restriction Class
SFC	: Service Feature Restriction Class
ICON	: ICON control 0/1: Out of service/In service (Assign only on ICON controllable PS)
PS-ID	: Max. 9 [DEC] Note 1
PS NO	: TYPE 1 (12 digits or less [BCD]) fixed
NWN	: Network Number : Blank (Not used)
ADERA	: Additional Area Number: Blank (Not used)
CTRN	: Country Number : Unique number for each country
SUB SYS-ID Setting:	Setting of Sub-SYSID (Not used)

Note 1: PS-ID is the information indigenous to each PS (PS-ID is written on each PS terminal).

Note: The settings of Individual PS Numbers and PS station numbers vary depending on the type of the PS used.

Note: Telephone Numbers are usually assigned as Individual PS Numbers and PS station numbers.

Note: Individual PS Number and PS station number must be unique in a system (among all nodes in a FCCS network).

STEP 5: ANPDN (Assignment of Numbering Plan Data for NDM)

This command is used to assign the number of digits needed to determine the telephone number according to the first digit received.

STEP 6: ASPAN (Assignment of Special Access Code Data for NDM)

This command is used to assign an Access Code of the telephone number.

TN	: Tenant Number
ACC	: Access Code (max. 6 digits)
CI	: Connection Status Index
SRV	: TELN (Telephone Number)

STEP 7: ALGSN (Assignment of Telephone Number Data for NDM)

Assign Telephone Number to the destination station number programed by APSD command above.

TYPE = 1 (Line Equipment Numbers/Phantom Index is used to specify the Telephone Number)

UGN: User Group Number

TELN: Telephone Number (max. 16 digits)

FPC: Fusion Point Code

LENS/PHIN: Line Equipment Numbers/Phantom Index of the destination station number

TYPE = 2 (Station number is used to specify the Telephone Number)

UGN: User Group Number

TELN: Telephone Number (max. 16 digits)

FPC: Fusion Point Code

TN: Tenant Number

STN: PS station number of destination (max. 6 digits)

STEP 8: APDLN (Download of PS Operation Data for NDM)

This command loads the PS operation data to the PS.

UGN

PS Telephone Number: Max. 16 Digits

TYPE=2

PS No.: Max. 13 Digits

Note: If CBCN has never been done in FCCS Network after the last initialization, please do CBCN before ALGNN.

3. Procedure to Delete PS**STEP 1: ALGSN (Assignment of Telephone Number Data for NDM)**

Delete the Telephone Number and LENS related.

STEP 2: APSD (Assignment of the PS Operation Data)

Using this command, delete the PS data to be cleared such as Tenant Number, Station Number, SFC and RSC.

Note: If CBCN has never been done in FCCS Network after the last initialization, please do CBCN before ALGSN.

3. ASSIGNMENT OF SERVICE FEATURE DATA

This section describes how to assign the data for the following service features.

- AUTOMATIC ANNOUNCEMENT- DISCONNECTED PS OUT OF ZONE
- AUTOMATIC RELEASE - OUT OF CELL CALLS
- AUTHORIZATION CODE Dterm PS II
- CONSULTATION HOLD
- CALL FORWARDING - PS INCOMING INCOMPLETE
- CALL FORWARDING - DROPPED CALLS
- CALL PARK -D PS II
- CALL PARK GROUP (PS)
- DTMF SIGNAL SENDER
- Dterm PS II TWO LINE OPERATION
- FLEXIBLE PS NUMBERING
- GROUP CALL - AUTOMATIC CONFERENCE (20-PARTY)
- INDIVIDUAL PS CALLING
- ISDN DATA COMMUNICATION - 32 kbps
- ISDN ROAMING
- NAME DISPLAY - INTRA-NODE CALL
- NAME DISPLAY - INTRA NODE CALL - CCIS
- NUMBER SHARING
- OUT OF CELL INDICATION
- OVERLAP DIALING
- PCS Name Display
- PS AUTHENTICATION
- PS LOCATION REGISTRATION
- PRESET DIALING
- PS SERVICE CLASS / PS RESTRICTION CLASS
- PS-TO-STATION CALLING
- PCS/PHS MFC SIGNALING
- PS (L2) GROUP CALL WITH PILOT HUNT INCOMING CALL
- Q.931 a ROAMING OVER IP TRUNK
- RADIO CHANNEL CHANGEOVER
- SPEECH SCRAMBLING

- STACK DIALING - STATION
- SPEED CALLING - STATION - PS
- SHORT TEXT MESSAGE SERVICE (STM SERVICE)
- SPEED CALLING - SYSTEM - PS
- SPLIT CALL FORWARDING - PS
- SOFT PHONE - PS
- VOICE MAIL INDICATION (VMI)
- WIRELESS ANALOG ADJUNCT CONNECTION
- TTC Q.931a PROTOCOL TIE LINE WITH PCS ROAMING
- ZT PROGRAM DOWNLOAD
- CALL PARK GROUP
- MG-PRI BEST-SUITED ROUTING FOR PS
- PS L2-LINES TERMINATION
- ACD - ACCESS
- PCS ROAMING

A-128 AUTOMATIC ANNOUNCEMENT- DISCONNECTED PS OUT OF ZONE

1. GENERAL DESCRIPTION

When a PS user moves out of zone (out of the PCS area) and the call is disconnected, the counterpart hears the announcement stating the call has been disconnected because the PS user is out of a service area.

2. OPERATING PROCEDURE

No manual operation

3. SERVICE CONDITIONS

1. This service cannot be used when a call is placed on hold or conference call (three-party call or more). However, when a PS is in a two-party call with TIE line, this service is available regardless of the call status such as on hold at a counter office or conference call.
2. A Digital Announcement Trunk (DAT) circuit card or VS32 (**Note 1**) can be used as an announcement trunk.

Note 1: Conditions in VS32 CONFERENCE SERVER [V-26] need to be followed when VS32 is used as an announcement trunk. For details, refer to VS32 CONFERENCE SERVER [V-26] in Data Programming Manual - Business.

3. A PS user hears a Busy Tone when the announcement trunk (used as a single connection M=0 in the AAED command) and all the other trunks are used.
4. AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE is not applied to the cases where calls are in progress via a COT line or Attendant Console. A C.O. line subscriber hears a Reorder Tone and a caller via the Attendant Console hears a Busy Tone.
5. This feature does not work when a PS user connected through PS Inter-Node Roaming moves out of zone. In such a case, the opposite party will hear Reorder Tone (ROT) instead of the out of zone announcement.
6. Select “Do not send Ringback Tone” (AAED R=1) when “Single connection” (AAED M=0) is selected.
7. In the FCCS Network, every node must have one or more announcement trunks.

4. PROGRAMMING

- Entry Procedure for Standalone

STEP 1: ARTD (Route Class Data)

Assign the Route Class Data of the announcement trunk.

RT : Route Number

OSGS (CDN: 1)=2

ONSG (CDN: 2)=2

TF (CDN: 5)=1

TCL (CDN: 6)=4

L/T (CDN: 7)=1

ANS (CDN: 28)=1

Assign “0” for other data.

Note: To change the data for existing route (RT), initialize or reboot the trunk device such as a circuit card or VS32.

STEP 2: ATRK (Trunk Data)

Assign the LENS of the announcement trunk.

RT : Route Number

TK : Trunk Number

LENS : Line Equipment Numbers

TN : Tenant Number

STEP 3: MBTK (Make Busy of Trunk)

Set the announcement trunk in a make-busy cancel state

STEP 4: ARSC (Route Restriction Class Data)

Assign the Route Restriction Class of the station that allows access to the announcement trunk.

D/N : Day/Night Mode

TN : Tenant Number

RT : Route Number

RSC : Route Restriction Class (0-15)

RRI : Route Restriction Index (0-3)

RES =1 (Allowed)

STEP 5: ARRC (Alternative Route Restriction Pattern Data)

Allow the connection between an external trunk and the announcement trunk.

ICRT : Incoming Route Number

OGRT : Outgoing Route Number (Announcement trunk)

ARI : D (Direct)

RES =1 (Allowed)

STEP 6: AAED (Announcement Equipment Data)

Assign EQP=61 (AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE).

TN: Tenant Number

EQP=61 (AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE)

C: Duration of Connection

0=30 seconds, and then disconnects

R: Sending RBT (0/1)

0=Send Ringback Tone

1=Do not send Ringback Tone **Note 2**

A: Answer Signal Sending (0/1)

0=Answer Signal is not sent

1=Answer Signal is sent

M: Multiple Connection (0/1)

0=Single connection

1=Multiple connection

Note 2: When M=0 (Single connection) is selected, assign R=1 (Do not Send Ringback Tone).

- Entry Procedures for FCCS Network

STEP 1: ARTD (Route Class Data)

Assign the Route Class Data of the announcement trunk.

RT : Route Number

OSGS (CDN: 1)=2

ONSG (CDN: 2)=2

TF (CDN: 5)=1

TCL (CDN: 6)=4

L/T (CDN: 7)=1

ANS (CDN: 28)=1

Assign “0” for other data.

Note: To change the data for existing route (RT), initialize or reboot the trunk device such as a circuit card or VS32.

STEP 2: ALRTN (Assignment of Logical RT in Network Data Memory)

LGRT : Logical Route Number

FPC : Fusion Point Code

RT : Route Number

STEP 3: ATRK (Trunk Data)

Assign the LENS of the announcement trunk.

RT: Route Number

TK: Trunk Number

LENS: Line Equipment Numbers

TN: Tenant Number

STEP 4: MBTK (Make Busy of Trunk)

Set the announcement trunk in a make-busy cancel state

STEP 5: ARSCN (Route Restriction Class Data for NDM)

Assign the route restriction information according to the Route Restriction Class (RSC) of the station and the Logical Route Number in the FCCS Network.

D/N: Day/Night Mode

TN: Tenant Number

LGRT: Route Number

RSC: Route Restriction Class (0-15)

RRI: Route Restriction Index (0-3)

RES=1 (Allowed)

STEP 6: ARRCN (Alternative Route Restriction Pattern Data for NDM)

Allow the connection between an external trunk and the announcement trunk.

ICLGRT:Incoming Logical Route Number (1-899)

OGLGRT:Outgoing Logical Route Number (Announcement trunk) (1-899)

ARI-D_RES=1 (Tandem Connection without an operator/station assistance is allowed.)

STEP 7: AAEDL/AAEDN (Announcement Equipment Data for LDM/NDM)

Assign EQP=61 (AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE).

Equipment Kind: DAT/Announcement Machine **Note 3**

TN: Tenant Number

EQP=61 (AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE)

Duration of Connection (radio buttons)

: Disconnect in 30 seconds

Do not Send RBT

: Select the box if Ringback Tone is not to be sent **Note 4**

Send Answer Signal

: Select the box if Answer Signal is to be sent

Multiple Connection (radio buttons)

: Single/Multiple (Single connection/Multiple connection)

LGRT: Enter logical route number for announcement trunk connected with
DAT/Announcement Machine

TK: Enter logical route number for announcement trunk connected with
DAT/Announcement Machine **Note 5**

Note 3: For details on programming when VS is selected for Equipment Kind, refer to “Data Programming for Announcement” in VS32 CONFERENCE SERVER [V-26] section of the Data Programming Manual - Business.

Note 4: When Single connection is selected, assign Do not Send RBT.

Note 5: This parameter appears when Multiple is selected for Multiple Connection.

**A-129 AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE
C-155 CALL FORWARDING - PS INCOMING INCOMPLETE**

1. GENERAL DESCRIPTION

When a call cannot terminate to an out-of-zone PS, the system automatically answers the call and provides an announcement to notify the calling party that the called PS is out of zone, or if the Call Forwarding - PS Incoming Incomplete is set for a given destination, with an Access Code or a PCPro command (**Note 1**, **Note 2**), the incoming call can be forwarded to the programmed station or PS.

Note: When a PS is in the following state, it is treated as in the case of PS Out of Zone.

- PS is turned off.
- PS is outside the wireless area of the ZT with SYS-ID (Sub SYS-ID or Network ID for roaming) which has been written into the PS.
- Speech channels of all of the ZTs around the PS are all busy.

Note 1: The forwarding destination of CALL FORWARDING - PS INCOMING INCOMPLETE can also be set on a tenant basis by using the ACFON command.

Note 2: The forwarding destination of CALL FORWARDING - PS INCOMING INCOMPLETE can also be set on a route basis by using the ACFON command from FP95-114 V4 Issue 2.0. For details, see CALL FORWARDING DESTINATION PER TRUNK ROUTE - INCOMING CALL [C-209] in Data programming Manual-Business.

2. OPERATING PROCEDURE

No manual operation.

3. SERVICE CONDITIONS

1. When the PS is out-of-zone or the power is OFF, and the call is an incoming call directly via the Attendant Console, the caller does not hear the Automatic Announcement - Called PS Out of Zone, but hears the following tones.
 - DIT: Ringback Tone is heard
 - REMOTE ACCESS TO SYSTEM: BT is heard
 - AUTOMATED ATTENDANT: BT is heard
 - ATTENDANT CONSOLE: BT is heard
 - ISDN - DID ADDRESSING: Announcement of ISDN (PSTN) is heard.
2. The system is given one kind of recorded message for the Automatic Announcement - Called PS Out of Zone.
3. On the condition that both the Automatic Announcement - Called PS Out of Zone and Call Forwarding - PS Incoming Incomplete are assigned to a PS, priority is given to the Call Forwarding - PS Incoming Incomplete.

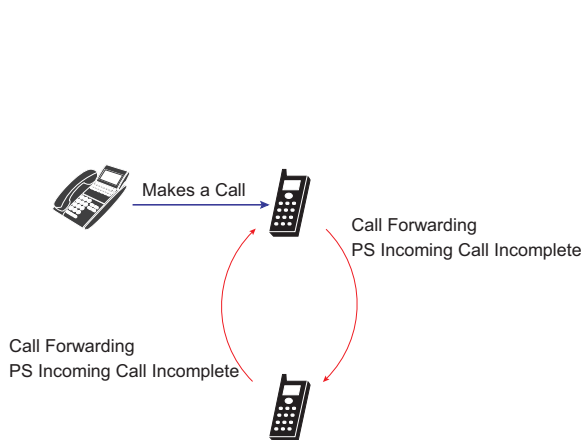
4. When a call is forwarded by Call Forwarding - PS Incoming Incomplete, and if another call forwarding feature is enabled on the forwarding destination, the call is further transferred by the call forwarding feature.
5. When a call is forwarded to another PS activated by the Call Forwarding - PS Incoming Incomplete and when the call termination is not completed, the call can be transferred to another destination party if the Call Forwarding - PS Incoming Incomplete is set. If the Automatic Announcement - Called PS Out of Zone is assigned, the caller hears the announcement. When both the Call Forwarding - PS Incoming Incomplete and the Automatic Announcement - Called PS Out of Zone are not programmed, the caller hears a Busy Tone.
6. When the Automatic Announcement - Called PS Out of Zone is activated and all the announcement trunks are busy (Single connection: AAED M = 0), the calling party encounters BT.
7. The timer value of an incoming incomplete call is approximately eight seconds. This is the time the system allows before it recognizes that the PS is out-of-zone from an incoming call attempt to the PS.
8. Priority is given to the Call Forwarding - PS Incoming Incomplete over the Call Forwarding - Don't Answer.
9. Call Forwarding - All Calls overrides Call Forwarding - PS Incoming Incomplete.
10. Call Forwarding - PS Incoming Incomplete is available for incoming calls from a station or via a trunk. This feature is not activated in the case of the incoming call from ISDN and the incoming call via the Attendant Console. The caller encounters the Automatic Announcement - Called PS Out of Zone or BT.
11. When a forwarded station for the Call Forwarding - PS Incoming Incomplete sets the CALL FORWARDING-ALL CALLS to the announcement, the Call Forwarding - PS Incoming Incomplete is not activated, instead the caller hears Busy Tone.
12. In an FCCS network, every node must have one or more Announcement trunks.
13. When an incoming call comes from the ISDN network, and the timer (T310) of the network side has expired, the caller hears the Announcement from the network side.
14. When a call in a two-way connection is transferred to the PS that is out of state, the system does not provide the Automatic Announcement - Called PS Out of Zone (i.e. the call is not connected to the announcement trunk).
15. When an Attendant Console user calls to a PS that is in an out-of-zone state, the system does not provide the Call Forwarding - PS Incoming Incomplete. The attendant hears Reorder Tone.
16. The Access Code for Announcement Service Trunk cannot be set to a forwarding destination number for the Call Forwarding - PS Incoming Incomplete. (An Announcement Service Trunk cannot be set as a destination.)
17. When an incoming call with Direct Inward Dialing (DID) or Remote Access to System is transferred by Call Forwarding - PS Incoming Incomplete, if the destination is out of zone or in a lockout state, the caller hears BT.

18. When an incoming call with Direct-In Termination (DIT) is transferred by Call Forwarding - PS Incoming Incomplete, if the destination is out of zone or in a lockout state, the caller hears RBT.
19. This feature supports WLAN Handset (MH Series) for SIP terminal.
20. Select “Do not send Ringback Tone” (AAED R=1) when “Single connection” (AAED M=0) is selected.
21. Setting PS Incoming Incomplete with an Access Code or the ACFS/ACFS_T command overrides the setting specified with the ACFON command.
22. A station number including self office code cannot be assigned as the forwarding destination number of PS. (It can be assigned but not be forwarded to.)
23. Pay particular attention so that destination devices are not stuck in an infinite loop of call forwarding. Otherwise, this may result in a poor connection to PS in the entire system.

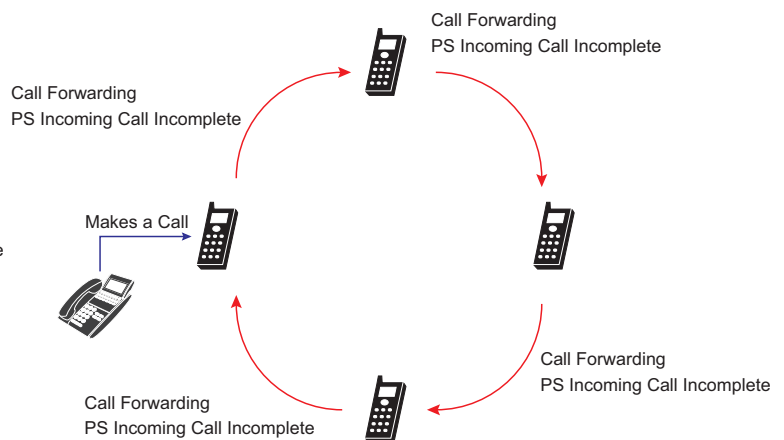
See the examples below, where all the destination PS on a loop topology are out of zone (or turned OFF). If a call comes to one of these PS, each base station in the same zone sends incoming call notifications to the forwarding destination in an endless loop.

Because one base station can handle a limited number of incoming calls per unit of time, too much traffic exceeding the capacity may cause connection failure to other PS in the area.

【Infinite Loop between Two Devices】



【Infinite Loop among Four Devices】



<Conditions for Setting Call Forwarding - PS Incoming Incomplete with Access Code/PCPro command (per Station)>

1. Call Forwarding - PS Incoming Incomplete can be programmed and canceled with the PS by pressing the access code + the forwarding destination number.
2. If an incoming call is terminated at the very moment when a PS user is setting the Call Forwarding - PS Incoming Incomplete with a Pre-Set Dialing (before OFF-HOOK), the procedure becomes invalid.
3. The incoming incomplete call to PS can be forwarded to stations (station numbers and telephone numbers), Attendant Consoles (exclusive of ASAT Numbers), Central Office and TIE lines when the Call Forwarding - PS Incoming Incomplete is in service.

4. When the user sets Call Forwarding - PS Incoming Incomplete to a PS line accommodated on Desktop terminal, allow SFI 147 of the Desktop terminal (RES=1).
5. This feature is also available when a PS in roaming mode is out of the coverage area.

<Conditions for Setting Call Forwarding - PS Incoming Incomplete with PCPro command (per Tenant)>

1. The forwarding destination can be specified with the ACFON command.
2. Setting this feature with the ACFON command does not need to allow SFI 147 (C.F.-INCOMING INCOMPLETE) using the ASFC/ASFCN command.
3. Incoming calls are forwarded to the pre-programmed destination belonging to the tenant of the called PS out of zone (not the tenant of the caller).

Example: When the tenant number of a caller is 1 and that of the called PS out of zone is 2, the call is forwarded to the destination belonging to the tenant number 2.

Note: To forward a call to a station in a different tenant, allow the connections between the following tenants with the ATNR command.

- between out-of-zone PS's tenant and forwarding destination's tenant
- between calling party's tenant and forwarding destination's tenant

4. With this feature enabled using the ACFON command, the incoming incomplete call to PS can be forwarded to stations (telephone numbers) and Attendant Consoles (exclusive of ASAT Numbers). **Note 3**

Note 3: Central Office lines, TIE lines and Attendant Consoles with an ASAT Number cannot be specified for a transfer destination.

5. This feature is not available when a PS in roaming mode is out of the coverage area.

4. PROGRAMMING

4.1. Automatic Announcement - Called PS Out of Zone

- Entry Procedure for Standalone

STEP 1: ARTD (Route Class Data)

Assign the Route Class Data for the announcement trunk.

RT : Route Number

OSGS (CDN: 1)=2

ONSG (CDN: 2)=2

TF (CDN: 5)=1

TCL (CDN: 6)=4

L/T (CDN: 7)=1

ANS (CDN28)=1

Assign “0” for other parameters.

Note: To change the data for existing route (RT), initialize or reboot the trunk device such as a circuit card or VS32.

STEP 2: ATRK (Trunk Data)

Assign the data for the announcement trunk.

RT : Route Number

TK : Trunk Number

LENS : Line Equipment Numbers (6 digits)

TN : Tenant Number

STEP 3: MBTK (Make Busy of Trunk)

Set the announcement trunk in a make-busy cancel state.

STEP 4: ARSC (Route Restriction Class Data)

Assign a Route Restriction Class (RSC) to the station that allows access to the announcement route.

D/N: Day/Night Mode

TN: Tenant Number

RT: Route Number

RSC: Route Restriction Class (0-15)

RRI: Route Restriction Index (0-3)

RES=1 (Allowed)

STEP 5: ARRC (Alternative Route Restriction Pattern Data)

Allow the restriction between the external trunk and the announcement trunk.

ICRT: Incoming Route Number

OGRT: Outgoing Route Number (Announcement trunk)

ARI: D (Direct)

RES= 1 (Allowed)

STEP 6: AAED (Announcement Equipment Data)

When assigning EQP, select from the below:

EQP=60 for PS terminal

EQP=65 for WLAN terminal

TN: Tenant Number

EQP=60 (AUTOMATIC ANNOUNCEMENT-CALLED PS OUT OF ZONE)/

65 (OUT OF ZONE ANNOUNCEMENT FOR WLAN TERMINAL)

C: Duration of Connection (0/1)

0=30 seconds, and then disconnects

1=The connection is held until the calling party is released

R: Sending RBT (0/1)

0=Send Ringback Tone

1=Do not send Ringback Tone **Note 4**

A: Answer Signal Sending (0/1)

0=Answer Signal is not sent

1=Answer Signal is sent

M: Multiple Connection (0/1)

0=Single connection

1=Multiple connection

Note 4: When M=0 (Single connection) is selected, assign R=1 (Do not Send Ringback Tone).

- Entry Procedure for FCCS Network

STEP 1: ARTD (Route Class Data)

Assign the Route Class Data for announcement trunk.

RT: Route Number

OSGS (CDN: 1)=2

ONSG (CDN: 2)=2

TF (CDN: 5)=1

TCL (CDN: 6)=4

L/T (CDN: 7)=1

ANS (CDN28)=1

Assign “0” for other parameters.

Note: To change the data for existing route (RT), initialize or reboot the trunk device such as a circuit card or VS32.

STEP 2: ALRTN (Assignment of Logical RT for Network Data Memory)

LGRT : Logical Route Number

FPC : Fusion Point Code

RT : Route Number

STEP 3: ATRK (Trunk Data)

Assign the data for the announcement trunk.

RT : Route Number

TK : Trunk Number

LENS : Line Equipment Numbers (6 digits)

TN : Tenant Number

STEP 4: MBTK (Make Busy of Trunk)

Set the announcement trunk in a make-busy cancel state.

**A-129 AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE
C-155 CALL FORWARDING - PS INCOMING INCOMPLETE**

STEP 5: ARSCN (Route Restriction Class Data for NDM)

Assign the route restriction information according to the Route Restriction Class (RSC) of the station and the Logical Route Number in the FCCS Network.

D/N: Day/Night Mode

TN: Tenant Number

LGRT: Logical Route Number

RSC: Route Restriction Class (0-15)

RRI: Route Restriction Index (0-3)

RES=1 (Allowed)

STEP 6: ARRCN (Alternative Route Restriction Pattern Data for NDM)

Allow the restriction between the external trunk and the announcement trunk.

ICLGRT: Incoming Logical Route Number (1-899)

OGLGRT: Outgoing Logical Route Number (Announcement trunk) (1-899)

ARI-D_RES=1 (Tandem Connection without an operator/station assistance is allowed.)

STEP 7: AAEDL/AAEDN (Announcement Equipment Data for LDM/NDM)

When assigning EQP, select from the below:

EQP=60 for PS terminal

EQP=65 for WLAN terminal

Equipment Kind: DAT/Announcement Machine **Note 5**

TN: Tenant Number

EQP=60 (AUTOMATIC ANNOUNCEMENT-CALLED PS OUT OF ZONE)/

65 (OUT OF ZONE ANNOUNCEMENT FOR WLAN TERMINAL)

Duration of Connection (radio buttons)

:Disconnect in 30 seconds/The connection is held until the station release

Do not Send RBT

:Select the box if Ringback Tone is not to be sent **Note 6**

Send Answer Signal

:Select the box if Answer Signal is to be sent

Multiple Connection (radio buttons)

:Single/Multiple (Single connection/Multiple connection)

LGRT: Enter logical route number for announcement trunk connected with

DAT/Announcement Machine

TK: Enter logical route number for announcement trunk connected with

DAT/Announcement Machine **Note 7**

Note 5: For details on programming when VS is selected for Equipment Kind, refer to “Data Programming for Announcement” in VS32 CONFERENCE SERVER [V-26] section of the Data Programming Manual - Business.

Note 6: When Single connection is selected, assign Do not Send RBT.

Note 7: This parameter appears when Multiple is selected for Multiple Connection.

4.2. Call Forwarding - PS Incoming Incomplete

- Entry Procedure for Call Forwarding - PS Incoming Incomplete with Access Code

STEP 1: ASYD (Assignment for System Data)

Assign whether to use the same access code for Call Forwarding - Busy Line, Call Forwarding-Don't Answer and C.F. - PS Incoming Incomplete, or use a separate access code.

SYS1, Index 5, b0

0 = Same

1 = Separate

STEP 2: ANPD/ANPDN (Numbering Plan Data)

Assign the necessary number of digits needed to determine the service which is required according to the first digit received.

STEP 3: ASPA/ASPAN (Special Access Code Data)

Assign the Special Access Code for the Call Forwarding - PS Incoming Incomplete

CI=N SRV=SSCA SIDA=101 (Call Forwarding - PS Incoming Incomplete: Set)

CI=N SRV=SSCA SIDA=102 (Call Forwarding - PS Incoming Incomplete: Cancel)

STEP 4: ASFC (Service Feature Restriction Class Data)

Allow the Call Forwarding - PS Incoming Incomplete according to PS Service Feature Restriction Class.

SFI = 147 (C.F.- INCOMING INCOMPLETE)

RES = 1 (Allowed)

- Entry Procedures for Call Forwarding - PS Incoming Incomplete with PCPro command (per Station)

STEP 1: ASYD (Assignment for System Data)

SYS1, Index 79, bit2 = 1. Split Call Forwarding Service: 0/1 = Out/In service.

Note: This data is required only when Split Call Forwarding service is used.

STEP 2: ACFS (Assignment of Call Forwarding Station Data)/ACFS_T (Assignment of Call Forwarding Station Data – Telephone Number)

Station Data – Telephone Number)

* When you set the data with Telephone Number, use ACFS_T command.

TN: Tenant Number (1-63)

STN: Station number

TYPE: Call forwarding type

1: Call Forwarding

2: Split Call Forwarding

SRV: Call forwarding kind

N: Not Reach

RCV: Kind of Received Call

Note: This parameter (RCV) is available when "TYPE = Split Call Forwarding" is chosen.

T: Trunk

S: Station

CFD: Call Forwarding Destination Number (Maximum 24 digits)

- Entry Procedure for Call Forwarding - PS Incoming Incomplete with PCPro command (per Tenant)

STEP 1: ACFON (Assignment of Call Forwarding Outside for NDM)

Assign data to the following Call Forwarding parameters:

[To forward to an Attendant Console]

TN: Tenant Number (1-63)

CF = 7: Call Forwarding - Not Reach

CFI = Attendant Console (ATT)

[To forward to a station]

TN: Tenant Number (1-63)

CF = 7: Call Forwarding - Not Reach

CFI = TELN

UGN: User Group Number of call forwarding destination

TELN: Telephone Number of call forwarding destination (Maximum 16 digits)

A-131 AUTOMATIC RELEASE - OUT OF CELL CALLS

1. GENERAL DESCRIPTION

When the Dterm PS series user engaged in a call moves out of the service area or enters radio zone where all the channels of ZTs are busy and the communication becomes unavailable, the call will be disconnected automatically and Reorder Tone or Out of Area Announcement will be sent to the opposite end.

2. OPERATING PROCEDURE

No manual operation is required. When the number of the party engaged in the call is displayed, it will be cleared.

3. SERVICE CONDITIONS

1. When the electric field strength becomes weak due to the Dterm PS user moving out of the service area or entering a radio zone where all the channels of ZTs are busy, or when the Error rate exceeds the threshold, OUT OF CELL INDICATION is activated.
2. When the electric field strength becomes so weak that communication is no longer available or when Error rate exceeds the threshold, the call will be disconnected automatically.

4. PROGRAMMING

STEP 1: ARTD (Route Class Data)

Assign the Route Class Data of the announcement trunk.

RT: Route Number

OSGS (CDN: 1)=2

ONSG (CDN: 2)=2

TF (CDN: 5)=1

TCL (CDN: 6)=4

L/T (CDN: 7)=1

Assign "0" for other data.

Note: To change the data for existing route (RT), initialize or reboot the trunk device such as a circuit card or VS32.

STEP 2: ALRTN (Assignment of Logical RT for Network Data Memory)

LGRT : Logical Route Number

FPC : Fusion Point Code

RT : Route Number of the announcement trunk

Note: Not necessary in the stand-alone system.

STEP 3: ATRK (Trunk Data)

Assign the LENS of the announcement trunk.

RT: Route Number

TK: Trunk Number

LENS: Line Equipment Numbers

TN: Tenant Number

STEP 4: MBTK (Make Busy of Trunk)

Set the announcement trunk in a make-busy cancel state.

STEP 5: ARSC/ARSCN (Route Restriction Class Data)

Assign the Route Restriction Class of the station that allows access to the announcement trunk.

D/N: Day/Night Mode

TN: Tenant Number

RT: Route Number

RSC: Route Restriction Class (0-15)

RRI: Route Restriction Index (0-3)

RES=1 (Allowed)

STEP 6: ARRC/ARRCN (Alternative Route Restriction Pattern Data)

Allow the connection between an external trunk and the announcement trunk.

ICRT: Incoming Route Number

OGRT: Outgoing Route Number (Announcement trunk)

ARI: D (Direct)

RES=1 (Allowed)

STEP 7: AAED/AAEDN (Announcement Equipment Data)

Assign EQP=60 for ANNOUNCEMENT-CALLED PS OUT OF ZONE.

TN: Tenant Number

EQP=60 (ANNOUNCEMENT-CALLED PS OUT OF ZONE)

C: Duration of Connection

R: Sending Ringback Tone

A: 1 (Answer Signal Sending)

M: 1(Multiple Connection)

A-137 AUTHORIZATION CODE Dterm PS II

1. GENERAL DESCRIPTION

An AUTHORIZATION CODE is a numerical code dialed by the PS users (up to ten digits) that will override the station CLASS OF SERVICE - INDIVIDUAL [C-15] for facility access restriction.

2. OPERATING PROCEDURE

Procedure 1

- With a feature Access Code
 - 1) Go off-hook and receive a Dial Tone.
 - 2) Enter the feature access code and receive a Service Set Tone.
 - 3) Enter the AUTHORIZATION CODE (up to ten digits).
 - 4) Receive a Dial Tone.
 - 5) Enter the number called.

Procedure 2 (only for LEAST COST ROUTING [L-5] calls)

- Without a feature Access Code
 - 1) Go off-hook and receive a Dial Tone.
 - 2) Enter the number to be called.
 - 3) If an Authorization Code is required, the caller will receive a Special Dial Tone.
 - 4) If a Special Dial Tone is received, enter the AUTHORIZATION CODE (up to ten digits) or the call is denied.

Note: The feature access code for AUTHORIZATION CODE will be a maximum of three digits.

3. SERVICE CONDITIONS

1. The following service feature restriction classes cannot be overridden by using the feature.
 - SFI = 125 (PAD Lock)
 - SFI = 137 (Authorization Code Display Elimination)
2. The following are conditions of this feature when using My-line (L1) and Sub-line (L2) simultaneously. (Two-line Operation)
 - When holding a line, the held line becomes class before changeover to the original call, the class becomes changed class.
 - When both My-line and Sub-line are held, the class changeover of earliest held line is invalid.
3. The user cannot use “ISDN Data Communication-32kbps” using Authorization Code.
4. A Visitor PS of the TTC Q.931a protocol TIE Line with PCS Roaming is not available.

4. PROGRAMMING

Note: To use this feature, basic office data assignment is required.

Note: When a user restricts a feature that is not available for the PCS by the Service Feature Restriction Class (SFC) before the class changeover, the user must also restrict the feature for the Service Feature Restriction Class after changeover.

Note: When using this feature in an FCCS network, the user must assign the identical Authorization Code to all nodes.

Note: There are two methods of Authorization Code assignment: Full Implementation and the Checksum methods. In the Full Implementation method, the whole AUTHORIZATION CODE is assigned in the AATC command and SYS1. Indexes 12, 13, & 14 are assigned 00H. In the Checksum method, partial assignment for each AUTHORIZATION CODE is assigned in the AATC command. The last one or two digits (programmable option) are determined by the system according to the data assignments in ASYD, SYS1, Indexes 12, 13, & 14.

STEP 1: ASYD - SYS 1, Index 12.

If Index 12 = 0, no Checksum method is used, and Indexes 13 and 14 are ignored, regardless of their assignments. Each bit in Index 12 directly correlates to a digit in the Authorization Code assigned in the AATC command, and will determine the first digit of the Checksum method. For this example, 26428 has been assigned as the AUTHORIZATION CODE in the AATC command. Pick any Bits, 0 - 4, and flag those bits as Data 1.

Note: Bit 0 - 7 may be used when 8-digit AUTHORIZATION CODES are assigned in the AATC command.

	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
AATC	8	2	4	6	2
SYS1, IN12	0	1	0	0	1
Designation	d4	d3	d2	d1	d0

SYS 1, Index 13

Each bit in Index 13 directly correlates to a digit in the AUTHORIZATION CODE assigned in the AATC command, and will determine the second digit of the Checksum method. Pick any Bits 0 - 4, but not the same combination of bits as picked in Index 12.

	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
AATC	8	2	4	6	2
SYS1, IN13	1	0	0	1	0
Designation	d4	d3	d2	d1	d0

SYS 1, Index 14

Determines the algorithm used to calculate the last two digits of every Authorization Code. (Only decimal numbers may be used in this index, therefore, hexadecimal values A to F may not be assigned). SYS 1, Index 14 = X and Y, where X and Y represent any chosen decimal Digit 1- 9, and where Y is used to determine the first digit and X is used to determine the second digit in the Checksum method. The following data, 37H, has been used as an example calculation:

SYS1, INX 14	X				Y				REMARKS
	Bit 7	6	5	4	3	2	1	0	
DATA	0	0	1	1	0	1	1	1	

Note: If only one digit is added via the Checksum method, then Index 13 data is 00H and Index 14, b4~b7 are 0.

EXAMPLE CALCULATION:

In the AATC command, 26428 has been assigned. In SYS1, Index 12, Bit 0 and Bit 3 were chosen; 26428
 $2 + 2 = 4$.

The decimal value of Bit 0 - Bit 3 of Index 14 = 7.
 $4 + N = 7$. $N = \underline{3}$.

When 7 is obtained as any whole number greater than 4 that ends with a 7, the decimal value as determined in SYS1, Index 14, Bit 0 to 3. In AATC, 26428 has been assigned. In SYS1, Index 13, Bit 4 and 1 were chosen; 26428.
 $8 + 6 = 14$.

The decimal value of Index 14, Bit 4 - 7 = 3.
 $14 + N = 23$. $N = \underline{9}$.

When 23 is obtained as any whole number greater than 14 that ends with a 3, the decimal value determined in SYS1, Index 14, Bit 4 - 7. The Authorization Code will be 26428-39.

Note: Digits 39 determined by the Checksum method will be unique to the AUTHORIZATION CODE 26428. In other words, 26428 will not be followed by any digits other than 39.

ASYD - SYS1, Index 43, Bit 2, is the Service Set Tone sent after Authorization Code. ASPA Access Code? 0/1: No/Yes. Assign Data "1".

SYS1, Index 43, Bit 0, is Authorization Code required for DISA? 0/1: required/not required. Normally assign data "0".

SYS1, Index 93, Bit 6. Are the AMND tables Separate or Common for tenants in the system? 0/1: Separate/Common. Assign data "0" for separate tables.

SYS2, Index 3, Bit 4: Is the Account Code used with Authorization Code? 0/1: No/Yes.

SYS2, Index 3, Bit 5: Type of code? 0/1: Authorization Code/ Forced Account Code; assign Data "0".

- STEP 2: ANPD - Reserve a number level for the feature access. Select Normal Service (N), Hooking Service (H), or Busy Service (B) from the combo box for Connection Indexes (if applicable to any feature in this level). Assign NND in accordance with a determined numbering plan.
- STEP 3: ASPA - For SRV = SSC (Service Code), SID = 42, assign the access code.
- 45 -26428-9-1-617-555-2323
- (ACC) (Authorization Code)(Destination Code)
- ASPA ACC=45NND=7 (ACC + Authorization Code)
- ASPA - For SRV = Least Cost Route Selection / Register Sender LCR, if operating Procedure 2 is used, (dialing the AUTHORIZATION CODE after the number dialed,) then assign Data "1" to the AH parameter when programming the LCRS access code. Operating Procedure 2 is only available with LEAST-COST ROUTING - 3/6 DIGIT [L-5].
- STEP 4: ASFC - For stations allowed AUTHORIZATION CODE, assign a Class-of-Service that allows SFI27.
- STEP 5: AMND - For Tenant 0, assign the Destination Code (DC) as the first digit of all AUTHORIZATION CODES and the Maximum Necessary Digits (MND) of the AUTHORIZATION CODE. For the above example, a DC of 2 is assigned with a MNDs of seven. The MND value will include the digits added by the Checksum method.
- STEP 6: AATC - Assign the TN, Digit Code (DC) (the actual code itself), the AUTHORIZATION CODE RESTRICTION (ACR) as Data "1." Assign Service Feature Restriction Class (SFC) and Route Restriction Class (RSC). If ACR is assigned as Data "2", RSC and SFC parameters are not programmed. (SFC parameters are not operational.)
- STEP 7: LATC - List all the Authorization Code. This is the simplest way to determine what digits have been added to the system with the Checksum method. This is not required if the Checksum method is not used.

C-156 CONSULTATION HOLD

1. GENERAL

This service allows the Dterm PS user to place a call on hold. Only that Dterm PS user can retrieve the held call.

2. OPERATING PROCEDURE

To place a call on hold

1. While engaged in a call, press the TRF or F2 key; receive Special Dial Tone. The called number displayed on the LCD while engaged in a call will go out when the TRF or F2 key is pressed. The called party hears music via the external source.
2. To retrieve the call, press the TRF or F2 key again. The called party number will not be displayed on the LCD again.

3. SERVICE CONDITIONS

When the Dterm PS user presses the END key while holding the call without dialing any key, the held party receives Reorder Tone and the connection is released. If the Dterm PS user has dialed one or more keys before pressing the END key while holding the call, the user is called back.

4. PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 156 Trunk Soft Hold Timer A, used with Second Dial Tone trunks.

Assign data 00Hex for 30 seconds. This is the time between trunk connection and when switch hook flash is allowed on a non-senderized trunk connection.

SYS1, Index 157 Trunk Soft Hold Timer A, used with Senderized trunks.

Assign data 00Hex for a value of 18 seconds. This is the time between trunk connection and when switch hook flash is allowed on a senderized trunk connection. It is also used to determine when SMDR billing will begin.

SYS2, Index 1, Bit 0 and Bit 1. CONSULTATION HOLD allowed or denied?

00: denied; 01:Originating and Terminating Calls allowed, Tandem Call denied;

11: All calls allowed. Normally assign data "11".

C-161 CALL FORWARDING - DROPPED CALLS

1. GENERAL

This feature provides a call forwarding function when a PS encounters a Squelch Disconnection (such as a PS moving out-of-zone, failing to handover a call, or a sudden power down of the PS) during a two-way connection with a station/trunk. If this feature is set, the PS can forward the unexpectedly disconnected call to an assigned forwarding destination (such as a PS, a user of voice mail system, or an analog/Desktop terminal station).

Note: This feature is available when C.F.- PS INCOMING INCOMPLETE (refer to page 52) is already assigned to the PS.

2. OPERATING PROCEDURE

The procedure to set up this feature is shown below:

- Pre-set Dialing
 - 1) Dial the access code to set this feature.
 - 2) Go off-hook and hear the Service Set Tone.
 - 3) Go on-hook.
- Overlap Dialing
 - 1) Go off-hook and hear the Dial Tone.
 - 2) Dial the access code to set this feature.
 - 3) Hear the Service Set Tone.
 - 4) Go on-hook.

The procedure to cancel this feature is shown below: **Note 1**

- Pre-set Dialing
 - 1) Dial the access code to cancel this feature.
 - 2) Go off-hook and hear the Service Set Tone. **Note 2**
 - 3) Go on-hook.
- Overlap Dialing
 - 1) Go off-hook and hear the Dial Tone.
 - 2) Dial the access code to cancel this feature.
 - 3) Hear the Service Set Tone. **Note 2**
 - 4) Go on-hook.

Note 1: This feature can be canceled also by canceling C.F.- PS INCOMING INCOMPLETE. (Refer to Item 3 under SERVICE CONDITIONS.)

Note 2: When dialing the cancel access code while this feature has not been assigned, Re-order Tone is returned.

3. SERVICE CONDITIONS

1. This feature can be set at each PS, that is already provided with the C.F. - PS INCOMING INCOMPLETE feature.
2. The forwarding destination of the C.F.- PS INCOMING INCOMPLETE is also designated as the destination of this feature.
3. This feature can be canceled also by canceling C.F.- PS INCOMING INCOMPLETE. However, if the following is set, C.F.- PS INCOMING INCOMPLETE is canceled, while this feature is maintained:
ASYD command, SYS1, Index 420, Bit 1 = 1
4. After this feature is once in service, the function of this feature is still maintained, even if a service class of C.F.- PS INCOMING INCOMPLETE is restricted.
5. When a call is currently being forwarded by this feature, the forwarded party (not the forwarding destination but the party first connected to the Squelch PS) hears the Ringback Tone (RBT).
6. When this feature has been activated during a two-way call between a PS and a station (including PS), the station, now being transferred to the forwarding destination, cannot use TRF and HLD keys (restriction is imposed).
7. This feature can be applied to:
 - a basic two-way connection between a PS and a station (including PS)
 - a basic two-way connection between a PS and a trunk (analog, ISDN, CCIS, TLT)
8. The forwarding destination of this feature can be:
 - a PS
 - an analog/Desktop terminal station
 - an attendant
 - a trunk (COT)
 - a TIE Line
9. When a call terminates in the middle of a service set access code dialing (Pre-set dialing: before going off-hook), the key operation becomes null and void.
10. This feature is not available for a two-way connection between a PS and an ATTCON/DESKCON.
11. This feature is not activated when a PS attempts an OG call and it ends in a squelch disconnection before connecting to the Self Node/other node trunk.
12. If a squelch disconnection occurs during the following state, this feature is not activated.
 - A PS is placed on hold during a two-way connection with a station (including PS)
 - A station (including PS) is placed on hold during a two-way connection with a PS
13. When a PS encounters a squelch disconnection during a two-way connection with a UCD station, this feature is not available.

14. When this feature is activated and the forwarded party does not answer, the following occurs:
[When CALL FORWARDING - DON'T ANSWER is assigned at the forwarded party]
 - After a certain period of no answer, the call is shifted to the destination of CALL FORWARDING - DON'T ANSWER.
[When CALL FORWARDING - DON'T ANSWER is not assigned at the forwarded party]
 - Recall to the Squelch PS is not made, and the forwarded party continues to ring.
15. When a call is forwarded by this feature and also is shifted to another destination, the forwarding kind to be notified to the destination is "C.F.- PS INCOMING INCOMPLETE".
16. When this feature is activated, the LCD indication on the Desktop terminal (forwarded party) is identical to that of C.F.- PS INCOMING INCOMPLETE.
17. When a squelch disconnection occurs simultaneously at both PSs in a two-way connection, this feature is activated by neither PS.
18. The forwarding kind reported to MCI is the C.F.- DON'T ANSWER.
19. The assigned data for this feature can be backed up on the HDD/FDD of the Node.
20. The forwarding destination of this feature is not designated by the ACFS command.
21. This service supports 32 kbps data communication only.
22. Service conditions for two-line Dterm PS are shown below:
 - a. This service can be assigned to both lines of this type PS.
 - b. When a squelch disconnection occurs, while a line is in a two-way connection and the other line is placed on hold, this service is applied to the former line only (two-way connection line only).

4. INTERACTIONS

1. When a squelch disconnection occurs during a two-way connection between a PS and a station (including PS), the following goes according to the assigned services:
[When AUTOMATIC ANNOUNCEMENT-PS OUT OF ZONE is assigned to the Squelch PS]
 - The party, not the Squelch PS, hears the announcement.
[When this feature is assigned to the Squelch PS]
 - The disconnected call is forwarded to the target destination.
[When this feature and AUTOMATIC ANNOUNCEMENT-PS OUT OF ZONE are both assigned to the Squelch PS]
 - The disconnected call is forwarded to the target destination, as this feature takes priority over AUTOMATIC ANNOUNCEMENT-PS OUT OF ZONE.
[If neither this feature nor AUTOMATIC ANNOUNCEMENT-PS OUT OF ZONE is assigned to the Squelch PS]
 - No measures are taken. The party, not the Squelch PS, hears the ROT (Reorder Tone).

2. A call forwarded by this feature can be answered by the CALL PICKUP - GROUP feature.
3. A call forwarded by this feature can be answered by the CALL PICKUP - DIRECT feature.
4. The Call Waiting service is available for the call forwarded by this feature.
5. When a PS moves to a Visitor Node (when roaming) and it encounters a squelch disconnection, this feature is not activated.

<FCCS Conditions>

None

5. PROGRAMMING

- Entry Procedure

STEP 1: ANPD (Assignment of Numbering Plan Data)

Assign the 1st digit code (1st DC) and the number of necessary digits (NND) for feature access and cancel.

STEP 2: ASPA (Assignment of Special Access Code Data)

Assign the access code for this feature.

- For service setting

CI: N

SRV: SSCA

SIDA: 114 (Call Forwarding - Dropped Calls: SET)

- For service cancel

CI: N

SRV: SSCA

SIDA: 115 (Call Forwarding - Dropped Calls: CANCEL)

Note: When a node has the (node-level) ASPA/ASPAL data and the network-level ASPAN data (for the FCCS service), the node can use both the node-level access code and the network-level access code. Also, if both the ASPA/ASPAL is assigned, the ASPAL data takes priority over the ASPA data.

STEP 3: ASYD (Assignment of System Data)

Assign whether to cancel this feature once the C.F.- PS INCOMING INCOMPLETE is canceled.

SYS1, Index 420, Bit 1

0: Canceled

1: Not canceled

C-166 CALL PARK -D PS II**1. GENERAL DESCRIPTION**

This feature enables a PS user to Park a call (C.O. line, TIE line, station, PS) by hooking and dialing a Call Park access code, by dialing the Call Park retrieval code and a station number that parked the call, the parked call can easily be retrieved from any station/PS within the system. If the user forgets to retrieve the parked call, an automatic recall function informs the user.

2. OPERATION PROCEDURE

To park a call from the PS:

- 1) Go hooking (press TRANSFER key).
- 2) Receive a Special Dial Tone.
- 3) Dial the Call Park access code.
- 4) Receive Service Set Tone.
- 5) Replace the handset.

To retrieve a parked call from the originating station:

- Overlap sending procedure
 - 1) Go off-hook.
 - 2) Receive a Dial Tone.
 - 3) Dial the Call Park local retrieval code (SID = 62).
 - 4) The parked call is reconnected.
- Enbloc sending procedure
 - 1) Dial the Call Park local retrieval code (SID = 62).
 - 2) Go off-hook.
 - 3) The parked call is reconnected.

To retrieve a parked call from a different station:

- Overlap sending procedure
 - 1) Go off-hook.
 - 2) Receive a Dial Tone.
 - 3) Dial the Call Park remote retrieval code (SID = 63) and the number of the station that parked the call.
 - 4) The parked call is reconnected.
- Enbloc sending procedure

When the access code operation using enbloc sending is invalid. (SYS1, Index 420, Bit 0=0)

- 1) Dial the Call Park remote retrieval code (SID = 63).
- 2) Go off-hook.
- 3) Dial the number of the station that parked the call.
- 4) The parked call is reconnected.

When the access code operation using enbloc sending is valid. (SYS1, Index 420, Bit 0 = 1)

- 1) Dial the Call Park remote retrieval code (SID = 63) and the number of the station that parked the call.
- 2) Go off-hook.
- 3) The parked call is reconnected.

3. SERVICE CONDITIONS

1. This feature is also available for Sub Line (L2) of a two-line Dterm PS. (By using two-line operation)
2. The parked PS cannot hold a terminal.
3. A PS can park only one call at a time.
4. A PS cannot park an Attendant Console.
5. When the CALL PARK Feature key of an Attendant Console key pattern (SYS1, Index 6, Bit 4 to Bit 6) is valid, and an Attendant Console is parking a PS, the Attendant Console operator can retrieve the PS by dialing an access code and an individual attendant identification number that is assigned by the individual attendant access.

Note: An Attendant Console is not made to recall.

6. A Parked Call will recall to the PS that has set the CALL PARK after a predetermined period of time assigned by the system data (ASYD: SYS1, Index 142) has elapsed (the default value is 500 seconds). If the recalling parked call is from an analog C.O. line (except MC&MG-COT/MG-COT), it will be released after a predetermined period of time assigned by the system data (ASYD: SYS1, Index 139) has elapsed (the default value is 30 seconds). As for other than the analog C.O. line (except MC&MG-COT/MG-COT), the recalling will be continued.
7. This feature can be used for all PSs within the system. (depending on Service Feature Restriction Class)
8. When a parked PS encounters a squelch disconnection, Call Forwarding - Dropped Calls is not available even though it is set.
9. If a PS that is recalled by the Automatic Recall Timer is out-of-zone, the parked PS user receives a Reorder Tone.
10. If a parked PS moves on out-of-zone, the PS is disconnected.
11. Condition of the TTC Q.931 a protocol TIE Line with PCS Roaming are shown below.

×: Possible –: Impossible

	Home Node	Visitor Node
PS parks a call.	×	–
PS retrieves a call.	×	–
PS is parked by terminal.	×	×

Note: When a Visitor PS originates a call to the station/PS that belongs to the same intra-office, the Visitor PS cannot be parked by the station/PS.

Note: When a PS that parked a terminal moves to the visitor office, and the PS is recalled by the Automatic Recall Timer, the terminal receives a Reorder Tone.

12. When a user programs this feature, telephone number must be used.

4. INTERACTIONS

The following features cannot be activated to a PS/station that has been set Call Park:

- Busy Verification
- Call Waiting
- Attendant Camp-on with Tone Indication
- Executive Right-of-Way-D

5. PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 139, Bit 0 to Bit 6

Assignment of No Answer Timer for Automatic Recall. (default: 30second)

Note: If the recalling parked call is from an analog C.O. line (except MC&MG-COT/MG-COT), the parked call will be released after the timer elapses.

SYS1, Index 142, Bit 0 to Bit 6

Assignment of Automatic Recall Timer for Call Park. (default: 500 second)

Note: When the timer elapses, the parked operating PS will be recalled.

SYS1, Index 6, Bit 4 to Bit 6

Assignment of key pattern of the Attendant Console. This service is required, only when Attendant Console uses this feature. (default: Bit 4 to Bit 6 = 000)

STEP 2: ANPD (Assignment of Numbering Plan Data)

Reserve a number level for feature access and retrieval.

STEP 3: ASPA (Assignment of Special Access Code Data)

Assign an access code to:

- a) Call Park access code, SRV = SSC (Service Code), SID = 61, CI = H.
 - b) Call Park local retrieval code, SRV = SSC (Service Code), SID = 62, CI = N
 - c) Call Park remote retrieval code, SRV = SSC (Service Code), SID = 63, CI = N,
- NND = Necessary Number of Digits in the access code.

STEP 4: ASFC (Service Feature Restriction Class Data)

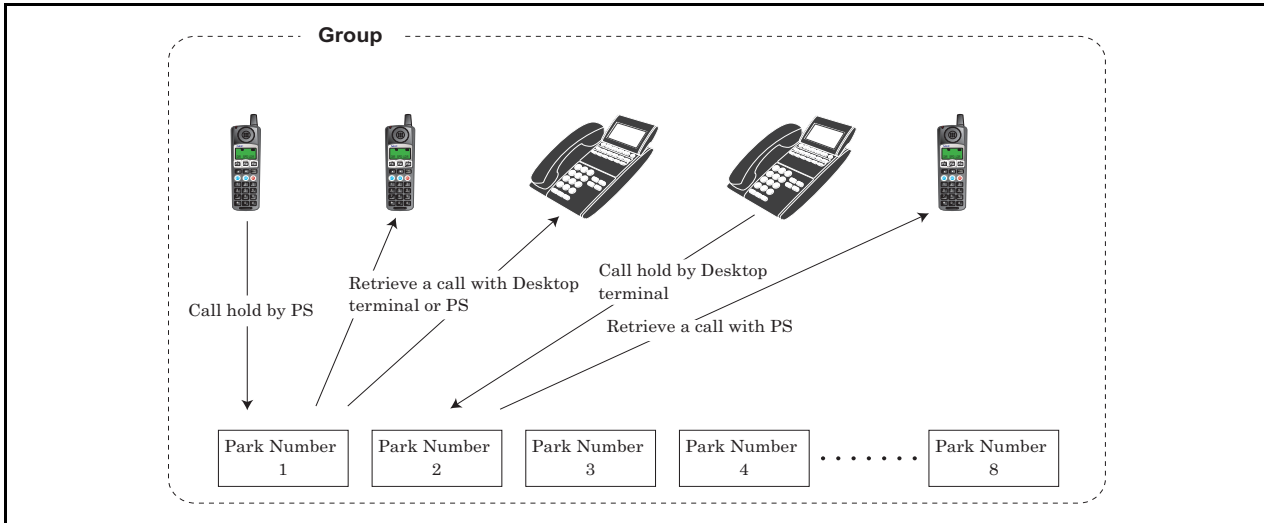
Assign a Service Feature Restriction Class that allows SFI 67 to the applicable stations. This allows the station/PS to park a call and to retrieve a parked call. Assign stations/PSs a Service Feature Restriction Class that allows SFI 68, Call Park - Called.

This allows a station/PS to be parked by another station or Attendant Console.

C-175 CALL PARK GROUP (PS)**1. GENERAL DESCRIPTION**

This feature enables a PS user to hold/retrieve a call park hold by using the PS soft key, or by hooking + access code. It is possible to assign the PS and Desktop terminal into same call park group. Desktop terminal can retrieve a call held by PS, and PS can retrieve a call held by Desktop terminal.

Note: When using WLAN Handset (MH Series), read this manual taking “WLAN Handset (MH Series)” for “PS”.

**2. OPERATION PROCEDURE****To hold a Central Office/TIE Line or Station Call**

1. PS switch hook flashes and dials Access Code (SIDA=124) for Call Park Group (PS) Entry.
2. The call in progress is held.
3. The Operating PS hears SERVICE SET TONE (SST).
4. Go on-hook.

To retrieve Held Call

1. Go off-hook and dial Access Code (SIDA=125) for Call Park Group (PS) Retrieve.
2. The Operating PS hears Special Dial Tone.
3. Dial Call Park Number.
4. The held call can be retrieved.

To retrieve Held Call after Operating PS is rung back by the Party on Hold

1. When Call Back Timer for Call Park Group (PS) expires, the operating PS is rung back by the party on hold.
2. Go off-hook.

3. The held call can be retrieved.

3. SERVICE CONDITIONS

1. Desktop terminal and PS can coexist in a group.
2. PS used must be available to display the alphanumeric characters to display the call park number.
3. Call Park can also be held/retrieved by using the soft key of PS. (Only when PS soft key service is effective.)
4. A maximum number of Groups that can be used by this feature depends on the System Data setting (ASYDL/ASYDN, SYS1, Index 679, Bit 4):

(a)ASYDL/ASYDN, SYS1, Index 679, Bit 4 = 0

(Call Park Group across MGs/IMGs is unavailable.)

IMG/MMG/UMGi/RNIP System:

129 Groups (Group Number 127 - 255) per Local Partition (LP) (i.e., 2 MGs (Module Groups))

Note 1

Note 1: Do not assign the same Group Number to more than one MG in the same LP.

(b)ASYDL/ASYDN, SYS1, Index 679, Bit 4 = 1

(Call Park Group across MGs/IMGs is available.)

IMG/MMG System:

129 Groups (Group Number 127 - 255) per System

UMGi/RNIP System:

129 Groups (Group Number 127 - 255) per node **Note 2**

Note 2: For UMGi/RNIP System, the stations accommodated in the different nodes cannot belong to the same group.

When enabling/disabling ASYDL/ASYDN, SYS1, Index 679, Bit 4 data setting, delete all data assigned through the APGS, APGN and ADGN commands in advance.

5. When ASYDL/ASYDN, SYS1, Index 679, Bit 4 is set to "0", each group must consist of stations belonging to the same Module Group (MG). PS is treated as the station of MG assigned in advance.
6. Maximum number of PS assignable in a group is same number as the maximum number assignable in one node.
7. A station cannot be assigned to more than one group.

8. A maximum number of Hold buttons assignable in one Desktop terminal is 8.
9. Maximum number of calls to be held at a time is the same as the call park hold buttons assigned. It is always 8 for PS.
10. When Desktop terminal and PS are coexisted in a same group, occasionally number of call held by the operation of PS exceeds the maximum numbers of hold button of Desktop terminal. In this case, Desktop terminal cannot retrieve amount of exceeded call(s) held.
11. Station actually held the call is called back in a situation of call hold-timed out. Call hold will be retrieved and PS myline terminates the call when the terminal called back was PS. Call will be in hold again and call hold timer will reset when the terminated PS is in busy state. Call will be disconnected and caller will hear the ROT when the terminated PS is in out of zone state.
12. Call can be held only when a call is in two-way connections with station and trunk. (Call cannot be held during call origination, three party conference and conversation between ATTCON)
13. Station number assignable in a group is the My Line of PS. (Sub Line can also use the call park group feature when My Line is assigned.)
14. For party being held, the release of the call is only detected as status change. (Other status changes such as hooking are not detected.)
15. This service can be effective by setting the service feature restriction class. (SFI=67:Call Park - Access and Answer)
16. This service cannot be used while person to be held is using ISDN terminal.
17. Call Park hold is also available while the connected terminal is PS line. (Including the call hold operation on Desktop terminal)
18. Call Park hold is also available from the Desktop terminal using PS line, it is only available when the PS line and Desktop terminal are assigned in a same group.
19. This feature cannot be used while PS is roaming in other node.
20. This feature cannot be collaborated with ACD/OAI service.
21. This feature is not available for Hotel system.
22. This feature is not available for the FCCS system.
23. Call Park number cannot be displayed on the LCD of WLAN Handset (MH Series).
24. 139MTC/139TC on the ADAI command (No Answer Timer determined by ASYD SYS1 Index 139) does not take effect in this feature.

4. PROGRAMMING

Assign the group of Desktop terminal first when Desktop terminal and PS coexist. Refer to CALL PARK GROUP - D [C-176D] in Data Programming Manual - Business.

Note: When Desktop terminal and PS coexist, use Group Numbers from 127 to 255.

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 79, Bit 0 = 1 (Line Preference Service via AKYD is used.)

SYS1, Index 139

Assignment of Hold time-out timer (default: 30 sec.) **Note 3**

Note 3: When ASYDL, SYS1, Index 661, Bit 4-6 = 03 HEX or 04 HEX, this data becomes invalid.

SYS1, Index 388, Bit 2 = 1 (Desktop terminal Call Hold Service is used.)

SYS1, Index 388, Bit 3. Tone setting when Call Hold is completed. 0/1: Dial Tone (DT)/Service Set Tone (SST).

SYS2, Index 12, Bit 0. 0/1: Automatic Recall Ringer is required/not required for Non-Exclusive Hold.

STEP 2: ASYDL (Assignment of System Data for LDM)

SYS1, Index 661, Bits 0-3

No Answer Timer for Call Park Group -D and Call Park Group (PS).

MTC = 1 - 15 (1 HEX to F HEX) seconds. Timer value = MTC x TC.

SYS1, Index 661, Bits 4-6

Timer Class (TC) for Call Park Group -D and Call Park Group (PS).

TC3 (03 HEX) = 2 seconds, TC4 (04 HEX) = 30 seconds. **Note 4**

Note 4: When this data is 03 HEX or 04 HEX, ASYD, SYS1, Index 139 data becomes invalid.

STEP 3: ASYDL/ASYDN (Assignment of System Data for LDM/NDM)

The following data setting is required when enabling Call Park Group across MGs/IMGs:

SYS1, Index 679, Bit 4 = 1 (Enable Call Park Group -D across MGs/IMGs)

Note: Delete all existing data assigned through the APGS, APGN and ADGN commands in advance.

STEP 4: ANPD (Assignment of Numbering Plan Data)/ ANPDL (Assignment of Numbering Plan for Local Data Memory)

Assign the first digit number data of the service access code.

STEP 5: ASPA (Assignment of Special Access Code Data), ASPAL (Assignment of Special Access Code Data (LDM), ASPAN (Assignment of Special Code Data (NDM)

Assign an access code to:

a) Call Park access code, SRV=SSCA (Service Code), SIDA=124 (Call Park Hold: Hold), CI=H.

b) Call Park retrieval code, SRV=SSCA (Service Code), SID=125 (Call Park Hold: Retrieval), CI=N

STEP 6: ASFC (Service Feature Restriction Class Data)

Assign a Service Feature Restriction Class that allows SFI 67 to the applicable stations. This allows the station/PS to park a call and to retrieve a parked call. Assign stations/PSs a Service Feature Restriction Class that allows SFI 68, Call Park-Called.

This allows a station/PS to be parked by another station or Attendant Console.

STEP 7: APGN (Assignment of PHS Group Number)

Assign the MG and Group Number to a PS station number.

TN: Tenant number

PS STN: PS station number

MG: Module Group (00-07)

GROUP NO: Group Number (127-255)

[When Desktop terminal and PS are coexisted]

Assign the below setting only when Desktop terminal and PS is to be coexisted.

STEP 8: APGS (Assignment of PHS Group Control Station)

Assign a station number of the Desktop terminal that are desired to be added to the same MG and GROUP NO as the PS station numbers assigned by the APGN command.

MG: Module Group Number (00-07)

GROUP NO: Group Number (127-255)

TN: Tenant Number

STN: Station number of Desktop terminal

D-154 DTMF SIGNAL SENDER

1. GENERAL DESCRIPTION

This service allows the Dterm PS series user to send the PB signal (tone) to the called party (terminal, voice mail system, etc.) while engaged in communication.

2. OPERATING PROCEDURE

To send the DTMF signal

Press a key while engaged in communication. The Telephony Server automatically sends the corresponding signal tone to the called party.

3. SERVICE CONDITIONS

1. When the DTMF signal is sent, there may be an interruption in communication.
2. The DTMF signal tone varies between 64 ms to 72 ms.
3. When this service is activated, the number pressed is displayed on the LCD (clearing the called party number previously displayed). The LCD display is cleared after 20 seconds, but the called party number will not be displayed again.

4. PROGRAMMING

No data programming is required.

D-155 Dterm PS II TWO LINE OPERATION

1. GENERAL DESCRIPTION

This feature allows for the appearance of two lines on the line (L1 and L2) keys of the PS.

2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. In principle, when assigning PS/ZT(CS) data, use the NDM commands (FPC=1).
2. Two kinds of lines can appear on the PS: My-line and Sub-line. These lines are associated with the station numbers assigned to the port on the interface circuit.
L1 key: My-line
L2 key: Sub-line
3. When a PS becomes out-of-zone state while terminating to Sub-line, the call is disconnected by the release timer one minute after.
4. When a PS user places a call on hold and presses the END key, the line lamp on the PS goes off. The PS is recalled when the recall timer expires.
5. Voice Mail Indication (VMI) is not available for Sub-line.
6. When a PS is moved to a Visitor Node using the Roaming function, only My-line is available.
7. While a PS-to-PS connection is established, the dual Hold feature is not available.

4. INTERACTIONS

1. Blind Transfer to Sub-line is not available. When a station transfers a call to Sub-line on a PS, the transferring station is recalled.
2. If either of the lines on the PS is in an idle state, Blind Transfer to the PS is not available. When a station attempts a blind transfer to the PS, the transferring station is recalled.
3. The Hold key on the PS is not effective while:
 - a PS is in conversation with the third party using Consultation Hold
 - a PS is in conversation with a station that has a call placed on hold
 - a PS is connected with the other party using Call Waiting - Originating/Terminating
 - the other party has a Call Waiting - Terminating call.
4. Call Waiting - Terminating is not available for a PS that has a call placed on hold. The calling party hears a Busy Tone. However, Call Forwarding - Busy Line is available.

5. PROGRAMMING

STEP 1: APSD (Assignment of the PS Operation Data)

This command assigns the PS operation data including the tenant and station numbers, Service Feature Restriction Class (SFC) and the Route Restriction Class (RSC) in consideration of the numbering plan/restriction data. Assign My-line and Sub-line data of the PS.

- TN: Tenant Number
- PS STN: PS Station Number
- KIND: PS Kind: Assign 6 (Dterm-PS2) for My-line.
Assign 7 (Dterm-PS2 Sub-line) for Sub-line.
- RSC: Route Restriction Class
- SFC: Service Feature Restriction Class
- PS-ID: Maximum nine digits **Note 1**
- TYPE: 2 (13 digits or less [BCD] fixed)
- PS NO: Assign the same number as the PS NO. according to PS Kind.
- NWN: Network Number : Only for Roaming Feature
- ADERA: Additional Area Number: Only for Roaming Feature
- CTRN: Country Number : Unique number for each country, 794 (USA) fixed
- SUB SYS-ID Setting: Setting of Sub-SYSID: Not used

Note 1: PS-ID is the information indigenous to each PS (PS-ID is written on each PS terminal).

STEP 2: ALGSL (Assignment of Telephone Station Data for LDM)/ ALGSN (Assignment of Telephone Station Data for NDM)

Assign the telephone number data for My-line and Sub-line. For more information, refer to the Command Manual.

STEP 3: APMLL/APMLN (Assignment of PS Multiline Data for LDM/NDM)

Specify the telephone numbers of My-line and Sub-line for the PS.

- MY UGN :PS My Line User Group Number
- MY TELN :PS My Line Telephone Number
- SUB UGN :PS Sub Line User Group Number
- SUB TELN :PS Sub Line Telephone Number

STEP 4: APDLL (Download of PS Operation Data for Local Data Memory)/ APDLN (Download of PS Operation Data for Network Data Memory)

This command loads the PS operation data to the PS. Specify the telephone number of My-line.

- UGN
- PS Telephone Number: Maximum 16 Digits
- TYPE = 2
- PS Number.: Maximum 13 Digits

F-34 FLEXIBLE PS NUMBERING

1. GENERAL DESCRIPTION

Each Dterm PS series is assigned an unique number.

2. OPERATING PROCEDURE

No manual operation is required. The data is entered via PCPro.

3. SERVICE CONDITIONS

A maximum of nine digits can be assigned for a Dterm PS number, including # and *. The Dterm PS numbers must be assigned in uniform number of digits.

4. PROGRAMMING

No data programming is required.

G-23 GROUP CALL - AUTOMATIC CONFERENCE (20-PARTY)**1. GENERAL DESCRIPTION**

This feature enables a PS user to initiate 20-Party (self + 19 others) conference call, by dialing a programmed Group Calling Conference number. When the Group Calling Conference number is dialed, the member stations/ PSs are automatically called in the assigned order at the interval determined by switch settings on CFT cards (CH-CFTA/PA-CFTW/PA-CFTV). This feature also allows the Station Hunting Group-Circular, and the use of phantom telephone numbers that are available for flexible arrangement of conference member tables.

2. OPERATING PROCEDURE

1. Dial the Group Calling Conference number (telephone number/phantom telephone number of the conference leader port)
2. The conference leader hears a Ringback Tone.
3. When the first party (conferee) answers, the Ringback Tone stops, and the conference is in progress.
4. The called party (conferee) participates in the conference one after another after answering the call.

Note: While the conference is in progress, the called party releases to get out of the conference.

5. When the conference leader hangs up, the conference connection is released.

3. SERVICE CONDITION

1. CFT card is required to use this service. Specifications and conditions for each CFT card firmware are shown below.

PKG	Firmware Name	Control Method	Calling Interval	Conditions
PA-CFTW	SP-3654	Reverse Control Note 1	SW settings Note 2	• Cascade connection enabled (1~19 members conference)
PA-CFTV	SP-3654	Reverse Control Note 1	SW settings Note 2	• Used for 8 Party x 4 Party • Cascade connection enabled (1~19 members conference)
CH-CFTA	SP-4064	Reverse Control Note 3	SW settings Note 4	• Used for 8 Party x 4 Party • Cascade connection enabled (1~19 members conference)

Note 1: Select switch settings(SW11, SW12) for Preset Conference (Group Call-Automatic Conference for PCS/PHS (20-party)) on PA-CFTW card or PA-CFTV card.

Note 2: Set more than two seconds for calling interval by switch settings (SW12) of the PA-CFTW card or the PA-CFTV card.

Note 3: Select switch settings (SW80) for Preset Conference (Group Call-Automatic Conference for PCS/PHS (20-party)) on CH-CFTA card.

Note 4: Set more than two seconds for calling interval by switch settings (SW13) of the CH-CFTA card.

2. In principle, when assigning PS/CS data, use the NDM commands (FPC=1).
3. Conference leader and conferee must be a station/PS.
4. CH-CFTA, PA-CFTW, and PA-CFTV are available for Group Calling Conference.

Note: The following table shows conditions of CFTV circuit card to use this feature:

MAXIMUM NUMBER OF CONFERENCE MEMBERS	KEY SETTING SW10-1	KEY SETTING SW10-2	KEY SETTING SW10-3	SETTING
20	OFF	OFF	OFF	8 party × 4

Note: The following table shows conditions of CFTA circuit card to use this feature:

MAXIMUM NUMBER OF CONFERENCE MEMBERS	KEY SETTING SW80-1	KEY SETTING SW80-2	KEY SETTING SW80-3	SETTING
20	OFF	ON	OFF	8 party × 4

Note: When using CFTV/CFTW circuit card and the called parties (conferees) are IP terminals (connections via IPPAD), the following switch setting on the circuit card is required:

SW11-3	SW11-4	SW11-5	SW11-6	SW12-6	Conference Type
ON	OFF	ON	OFF	ON	Preset

Note: When using CFTA circuit card and the called parties (conferees) are IP terminals (connections via IPPAD), the following switch setting on the circuit card is required:

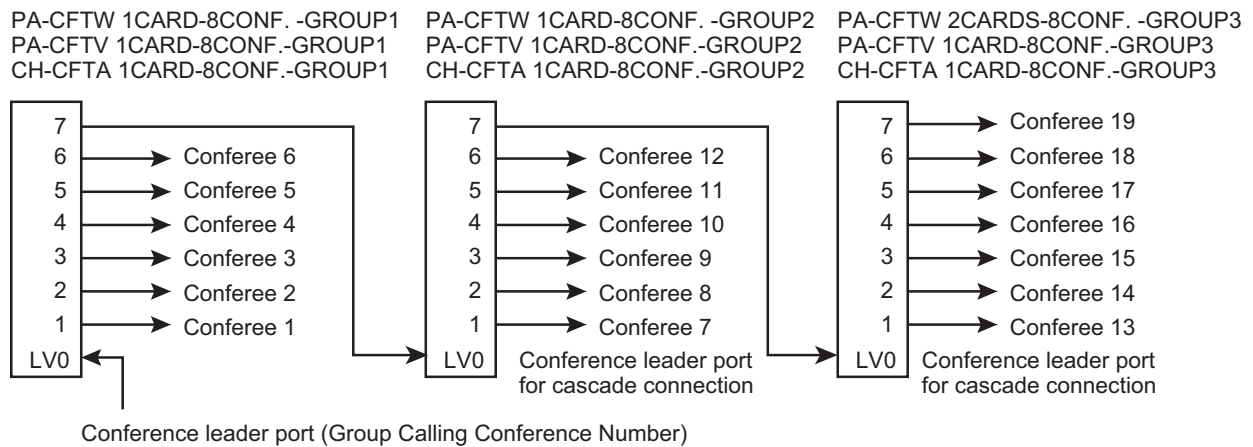
SW80-4	SW80-5	SW80-6	Conference Type
ON	OFF	OFF	Preset

Note: The following table shows the number of needed cards:

MEMBERS (INCLUDING LEADER)	CFTW	CFTV	CH-CFTA
2-8 Members	1 Card	1 Card	1 Card
9-14 Members			
15-20 Members	2 Cards (Max.)		

G-23 GROUP CALL - AUTOMATIC CONFERENCE (20-PARTY)

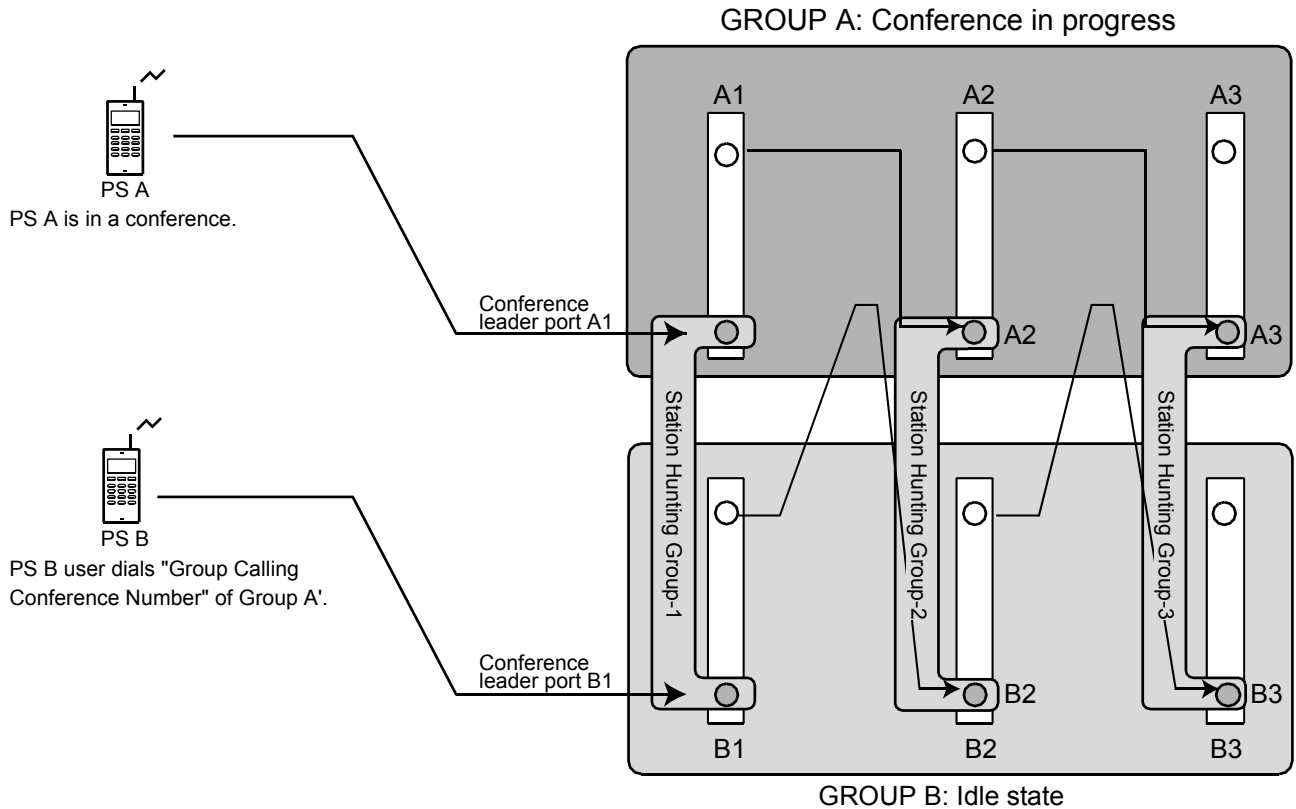
- The maximum number of CFTA/CFTV 8-party per one conference group is three. When the number of conferees is 9 or more connect the groups with the cascade, data for the conferees must be register one after another avoiding duplications. A conference leader port and 19 conferee ports are allocated as follows.



- Assign the maximum 16 digits of Group Calling Conference Number (Telephone Number/Phantom Telephone Number corresponding to a conference leader port of CFTW/CFTA/CFTV).
- The user must assign a telephone number for the conferee.
- By making a group of Station Hunting Group-Circular between conference leader ports or conference leader ports for cascade connection of multiple sets of the CFTW circuit cards or CFTA/CFTV 8 parties, the conference can be held looking for idle CFTW circuit cards or CFTA/CFTV 8 party's ports when dialed port is already used by others. The figure entitled Group Call - Automatic Conference using Station Hunting - Circular on next page shows an example of this feature using Station Hunting-Circular.

Group Call - Automatic Conference using Station Hunting - Circular

EXAMPLE: When PS B user dials Access Code to call GROUP A' while PS A user is in conference using CFTW-A.



Note: Group A' Calling Conference Number is Telephone Number or Phantom Telephone Number of conference leader port A1.

9. By assigning a phantom telephone number to the telephone number, the maximum number of conference groups per set of CFTW circuit cards or CFTA/CFTV 8 parties is 17 (phantom telephone number: 16+Telephone Number: 1).
10. Do not assign this service to ports of the LC used for LC-COT connection.
11. When the conference leader hangs up (or the out-of-zone), the conference will be released.
12. Conferees cannot be added to a Group Call-Automatic Conference call in any of the following cases where:
 - They are busy on the line.
 - They are out of zone.
 - They are roaming to another node.
 - They set their PS to forward calls to a number outside of their Local Node. **Note 5**

Note 5: Group Call-Automatic Conference calls cannot be connected to a number outside of the Local Node.

13. The conference leader will hear RBT in any of the following cases where:
 - All conferees are busy on the line.
 - All conferees are out of zone.
 - None of the conferees answer the call.
 - All conferees are roaming to another node.
 - All conferees set their PS to forward calls to a number outside of their Local Node. **Note 5**
14. When a conferee who answers a conference call that goes on-hook before a conferee who is lastly called, and other conferees are busy, out-of-zone or do not answer the call, the conference leader receives no tone.
15. The ISDN terminal and the Attendant Console are not available in this feature.
16. The conference leader cannot call a conference using Blind Transfer.
17. If programming the ASDT command data (TEC = 14: Hot Line) to CFT circuit card, the user must also assign the ALGSL/ALGSN and AHLGL/AHLGN commands to the card, otherwise when the user dials this feature access code, an Attendant Console is called by the Hot Line function.
18. When using this feature, the user must assign the Service Feature Restriction Class and the Route Restriction Class. These are different from those of other stations to ports of the CFT circuit card, and also restrict all outgoing routes using the ARSC/ARSCN command. If an outgoing trunk is used for this feature, a noise or announcement of another office may be heard.
19. If a PS is in one of the following conditions, Call Forwarding - Dropped Call is not executed.
 - When a PS encounters a squelch disconnection while the PS is in conference.
 - When a connected terminal is in conference.
20. When a called party (conferee) does not answer for a certain period of time, calling to the conferee will be canceled. If the conference leader is a Desktop terminal, assign a Service Feature Restriction Class that allows SFI 8 (Call Forwarding - Don't Answer).

4. PROGRAMMING

- Entry Procedure (Standalone)

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 20, Bit 6=0 (Line Circuit Reverse Relay Control when Reorder Tone is connected to a station.) **Note 6**

SYS1, Index 139 (No Answer Timer for Station to Station, DID and Tie Line calls.)

Note 6: When using CFTW, CFTA or CFTV card.

STEP 2: ANPD (Assignment of Numbering Plan)

Assign the first digit and the necessary number of digits needed to determine the Group Calling Conference number.

Note: The first digit of the Group Calling Conference Number is assigned in the same manner as that of a station number. So, if any station number has already been assigned, programming here is not necessary.

STEP 3: ASPA (Assignment of Special Access Code Data)

Assign the Access Code of station number (For Conference Leader port and Conferee port).

ACC=Access Code

SRV=STN

NND=Necessary Number of Digits of station number **Note 7**

Note 7: This parameter is displayed only when you assign two or more digits for Access Code.

STEP 4: ASDT (Assignment of Station Data)

Assign appropriate data in the L (Level) 0-7 on the CFT circuit cards 1 through 3 used for the Group Calling Conference Number.

- Assignment for Level 0 on circuit card (conference leader port and conference leader port for cascade connection)
 - TN: Tenant Number
 - STN: Station number
 - LENS: Line Equipment Numbers of CFT circuit card, Level 0
 - TEC: 2 (PB)
 - RSC: Route Restriction Class **Note 8**
 - SFC: Service Feature Restriction Class **Note 8**
- Assignment for Level 1-7 on circuit card (conferee ports)

TN : Tenant Number

STN : Station number

LENS : Line Equipment Numbers of CFT circuit card, Level 1~7

TEC : 14 (Hot Line)

RSC : Route Restriction Class **Note 8**

SFC : Service Feature Restriction Class **Note 8**

Note 8: Assign RSC and SFC exclusive for CFTW, CFTA or CFTV.

STEP 5: ASFC (Service Feature Restriction Class Data)

Allow the following Service Feature to the levels 0-7 on the CFT circuit card.

SFI=71 (Distinctive Dial Tone)

SFI=72 (Called Station Hooking Restriction)

SFI=32 (Line Circuit Reverse Relay Control) **Note 9**

Note: Do not allow the other service restriction data.

Note 9: When using CFTW, CFTA or CFTV card.

STEP 6: ASPAL (Assignment of Special Access Code for LDM)

Assign Telephone Number to the all ports which are used for Group Calling Conference Number.

STEP 7: ALGSL (Assignment of Telephone Number Data for LDM)

Assign Telephone Number to the all ports used for Group Calling Conference Number.

STEP 8: APHNL (Assignment of Phantom Telephone Number for LDM)

Assign Phantom Telephone Number for port 0 (conference leader port and/or conference leader port for cascade connection) on CFT circuit card. When making a group of Station Hunting Group-Circular, assign PH=1 to conference leader port number and conference leader port for cascade connection number.

Note: Only when making multiple groups per set of CFTW circuit cards.

STEP 9: AHLGL (Assignment of CFT Hot Line Group for LDM)

Assign the CFT Hot Line Group for each Group Calling Conference Number.

- Assignment for Level 0 on circuit card (conference leader port and cascade connection port)

UGN : User Group Number

TELN : CFT H/L ACC Code (Telephone Number)

DA : 0/1=Stop/Continue calling, when the station does not answer. **Note 10**

PORT : PORT NUMBER

TYPE : KIND OF STN (0-2)

0=Vacant Port

1=STN/PS

2=OUTSIDE TRUNK (Not used)

D_UGN : USER GROUP NUMBER OF DESTINATION

D_TELN : TELEPHONE NUMBER OF DESTINATION

D_ADC : SPEED CALLING DIAL NUMBER (Not used)

Note 10: Don't Answer Timer depends on SYS1 Index 139. When Call Forwarding-Don't Answer is set to the called station, it has priority over this feature.

- Assignment for Level 1-7 on circuit card (conferee ports)
TYPE :Kind of destination (0-2)
0=Vacant Port
1=(STN/PS)
UGN :User Group Number
TELN :STN No. (Telephone Number) of the conferee's destination

Note: When using CFTW, CFTA or CFTV, the conference group members are called into a conference in assigned order.

STEP 10: ASHC (Assignment of Station Hunting Group-Circular)

Assign Station Hunting Group-Circular between conference leader ports and/or conference leader ports for cascade connection on each set of CFT circuit cards.

Note: This command is required, only when calling a conference discovering a set of CFT circuit cards which is in an idle state from multiple sets of CFT circuit cards.

- Cancel Procedure

When deleting the ASDT/ALGSL/APHNL command data assigned as conferee, the user must, first of all, delete the AHLGL data.

- Entry Procedure (FCCS Network)

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 20, Bit 6=0 (Line Circuit Reverse Relay Control when Reorder Tone is connected to a station.) **Note 11**

SYS1, Index 139(No Answer Timer for Station to Station, DID and Tie Line calls.)

Note 11: When using CFTA card, CFTW card or CFTV card.

STEP 2: ANPD (Assignment of Numbering Plan)

Assign the first digit and the necessary number of digits needed to determine the Group Calling Conference number.

Note: The first digit of the Group Calling Conference Number is assigned in the same manner as that of a station number. So, if any station number has already been assigned, programming here is not necessary.

Note: User must assign the same value to all nodes.

STEP 3: ASPA (Assignment of Special Access Code Data)

Assign the Access Code of station number (For Conference Leader port and Conferee port).

ACC=Access Code

SRV=STN

NND=Necessary Number of Digits of station number **Note 12**

Note 12: This parameter is displayed only when you assign two or more digits for Access Code.

STEP 4: ASDT (Assignment of Station Data)

Assign appropriate data in the L (Level) 0-7 on the CFT circuit cards 1 through 3 used for the Group Calling Conference Number.

- Assignment for Level 0 on circuit card (conference leader port and conference leader port for cascade connection)

TN : Tenant Number
STN : Station number
LENS : Line Equipment Numbers of CFT circuit card, Level 0
TEC : 2 (PB)
RSC : Route Restriction Class **Note 13**
SFC : Service Feature Restriction Class **Note 13**

- Assignment for Level 1-7 on circuit card (conferee ports)

TN : Tenant Number
STN : Station number
LENS : Line Equipment Numbers of CFT circuit card, Level 1~7
TEC : 14 (Hot Line)
RSC : Route Restriction Class **Note 13**
SFC : Service Feature Restriction Class **Note 13**

Note 13: Assign RSC and SFC exclusive for CFTW/CFTA/CFTV.

STEP 5: ASFC (Service Feature Restriction Class Data)

Allow the following Service Feature to the levels 0-7 on the CFT circuit card.

SFI=71 (Distinctive Dial Tone)

SFI=72 (Called Station Hooking Restriction)

SFI=32 (Line Circuit Reverse Relay Control) **Note 14**

Note: Do not allow the other service restriction data.

Note 14: When using CFTW card, CFTA card or CFTV card.

STEP 6: ASPAN (Assignment of Special Access Code for NDM)

Assign Telephone Number to the all ports which are used for Group Calling Conference Number.

STEP 7: ALGSN (Assignment of Telephone Number Data for NDM)

Assign Telephone Number to the all ports used for Group Calling Conference Number.

STEP 8: APHNN (Assignment of Phantom Telephone Number for NDM)

Assign Phantom Telephone Number for port 0 (conference leader port and/or conference leader port for cascade connection) on CFT circuit card. When making a group of Station Hunting Group-Circular, assign PH=1 to conference leader port number and conference leader port for cascade connection number.

Note: Only when making multiple groups per set of CFTW circuit cards.

STEP 9: AHLGN (Assignment of CFT Hot Line Group for NDM)

Assign the CFT Hot Line Group for each Group Calling Conference Number.

- Assignment for Level 0 on circuit card (conference leader port and cascade connection port)

UGN : User Group Number

TELN : CFT H/L ACC Code (Telephone Number)

DA : 0/1=Stop/Continue calling, when the station does not answer. **Note 15**

PORT : PORT NUMBER

TYPE : KIND OF STN (0-2)

0=Vacant Port

1=STN/PS

2=OUTSIDE TRUNK (Not used)

D_UGN : USER GROUP NUMBER OF DESTINATION

D_TELN : TELEPHONE NUMBER OF DESTINATION

D_ADC : SPEED CALLING DIAL NUMBER (Not used)

Note 15: Don't Answer Timer depends on SYS1 Index 139. When Call Forwarding-Don't Answer is set to the called station, it has priority over this feature.

- Assignment for Level 1-7 on circuit card (conferee ports)

TYPE : Kind of destination (0-2)

0=Vacant Port

1=(STN/PS)

UGN : User Group Number

TELN : STN No. (Telephone Number) of the conferee's

Note: When using CFTW, CFTA or CFTV, the conference group members are called into a conference in assigned order.

STEP 10: ASHCN (Assignment of Station Hunting Group-Circular for NDM)

Assign Station Hunting Group-Circular between conference leader ports and/or conference leader ports for cascade connection on each set of CFT circuit cards.

Note: This command is required, only when calling a conference discovering a set of CFT circuit cards which is in an idle state from multiple sets of CFT circuit cards.

- Cancel Procedure

When deleting the ASDT/ALGSL/APHNL command data assigned as conferee, the user must delete the AHLGL data.

I-39 INDIVIDUAL PS CALLING**1. GENERAL DESCRIPTION**

This service allows the calling party to call the individual Dterm PS series.

2. OPERATING PROCEDURE

1. Dial the unique number assigned to each Dterm PS; the designated Dterm PS will be called. If the calling number display is available, the lower 12 digits of the number are displayed on the LCD of the called Dterm PS. (The arrow is displayed to show that the upper digits are not displayed.)
2. There are two answering options:
 - a.) Any-key answering mode
The called Dterm PS user presses any one of the keys (numbers 0 to 9, #, *, or function keys) to answer.
 - b.) Automatic answering mode
The called Dterm PS is connected automatically without ringing.

3. SERVICE CONDITIONS

1. The Dterm PS will be called in the calling area where its location had been registered.
2. If the Dterm PS cannot be called as when the Dterm PS user is out of the service area, an announcement can be provided to the calling party. (The DAT package is required for the caller and called node.) If the called Dterm PS is out of the service area, OUT OF CELL INDICATION is activated.
3. When all the speech channels of the zone transceiver in the Calling Area are busy, either ANNOUNCEMENT - PS OUT OF CELL or CALL FORWARDING - PS OUT OF CELL is activated, if allowed in the Dterm PS Service Feature Restriction Class. If not allowed in the Service Feature Restriction Class, the Dterm PS user receives Reorder Tone.
4. PS AUTHENTICATION is activated for every call termination.
5. The answering options, the any-key answering mode and the automatic answering mode can be selected by the Dterm PS user using the FNC key.

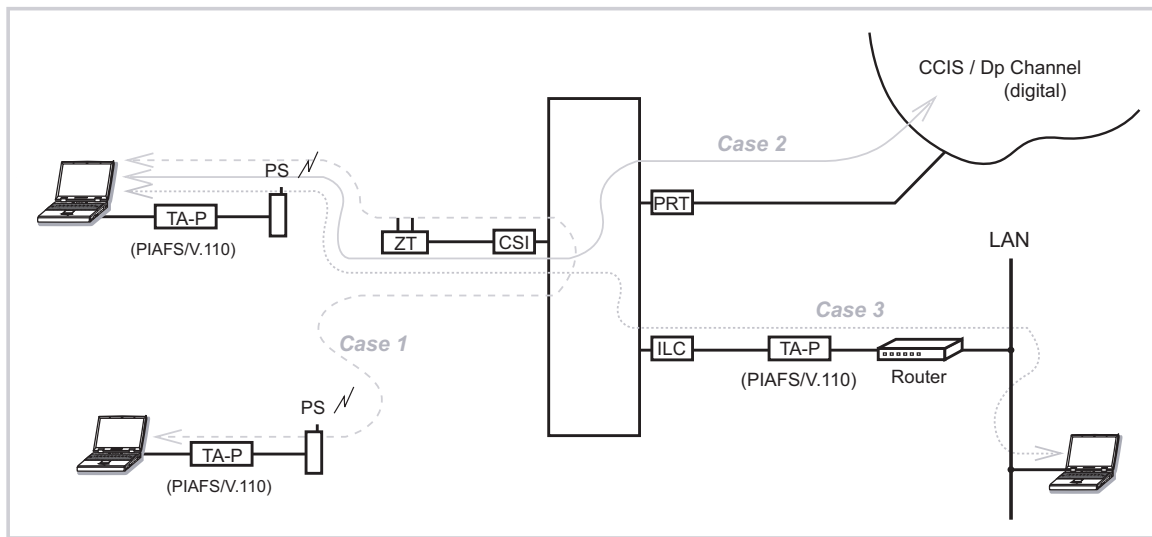
4. PROGRAMMING

No data programming is required.

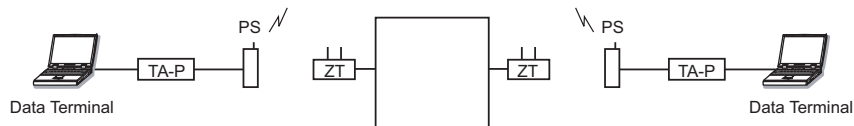
I-40 ISDN DATA COMMUNICATION - 32 kbps

1. GENERAL DESCRIPTION

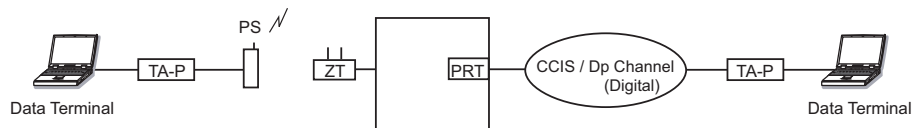
This feature enables a data terminal, connected to a PS, to develop the data communications via the 32kbps unrestricted digital network. By using this feature, the PS-connected terminals can have the communications with the TA equipment available for V.110 or PCS Internet Access Forum Standard (PIAFS), and also with the terminals available via LAN. See the example diagram below.



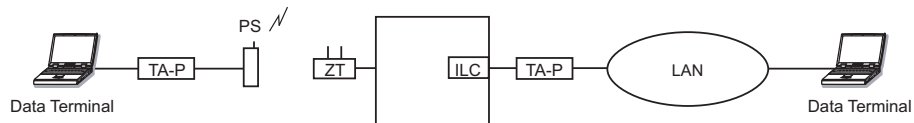
[Case 1: Data Communication between PSs]



[Case 2: Data Communication via Digital Network]



[Case 2: Data Communication via LAN]



Bearer Capability

Between the Telephony Server and ZT, the following message conversion is performed:

1. When originating via PCS (Low Layer Compatibility element = Without User Information Layer 1 Protocol)

	ELEMENT	PS	AFTER CONVERSION
BEARER	Information Transfer Rate User Information Layer 1 Protocol User Rate	32kbps - -	64kbps V.110 32kbps
LOW LAYER COMPATIBILITY	Information Transfer Rate	32kbps	64kbps

2. When originating via PCS (Low Layer Compatibility element = With User Information Layer 1 Protocol)

	ELEMENT	PS	AFTER CONVERSION
BEARER	Information Transfer Rate User Information Layer 1 Protocol User Rate	32kbps - -	64kbps - -
LOW LAYER COMPATIBILITY	Information Transfer Rate User Information Layer 1 Protocol	32kbps V.110	64kbps V.110

3. When terminating to PCS (Low Layer Compatibility element = Without User Information Layer 1 Protocol)

	ELEMENT	PS	AFTER CONVERSION
BEARER	Information Transfer Rate User Information Layer 1 Protocol User Rate	64kbps V.110 32kbps	32kbps - -
LOW LAYER COMPATIBILITY	Information Transfer Rate	64kbps	32kbps

4. When terminating to PCS (Low Layer Compatibility element = With User Information Layer 1 Protocol)

	ELEMENT	PS	AFTER CONVERSION
BEARER	Information Transfer Rate User Information Layer 1 Protocol User Rate	64kbps - -	32kbps - -
LOW LAYER COMPATIBILITY	Information Transfer Rate User Information Layer 1 Protocol	64kbps V.110	32kbps V.110

2. OPERATING PROCEDURE

Use the ATD command for data sending (origination), and the ATA command for answering.

3. SERVICE CONDITIONS

[Conditions between the Telephony Server and ZT]

1. Only CCITT standardized rate adoption, V.110 or X.30, can be used as the User Information Layer 1 Protocol in case of data termination.
2. Allowed User Rate of the Bearer is 32kbps only.
3. The sub-line of the two-line Dterm PS does not provide this feature (both origination and termination are restricted).

[Conditions by PS]

1. This feature does not support the CALL FORWARDING-DROPPED CALLS/AUTOMATIC ANNOUNCEMENT-CALLED PS OUT OF ZONE features. Accordingly, if a PS is once out of zone, neither of these features is provided.
2. Data communication (originating) is not available by using the TRUNK LINE APPEARANCE feature.
3. The Call Waiting service is not available for the PS which is just engaged in data communication.
4. CALL FORWARDING-BUSY LINE, assigned to a PS, does not function if the PS is just engaged in data communication. Accordingly, if the communication is in progress, a third incoming call (including that by other data terminal) is not forwarded to the target destination (i.e. disconnected).
5. CALL FORWARDING-DON'T ANSWER, assigned to a PS, does not function if the PS is just engaged in data communication. Accordingly, if the communication is in progress, a third incoming call (including that by other data terminal) is not forwarded to the target destination (i.e. disconnected after a certain period of time).
6. CALL FORWARDING-ALL CALLS, assigned to a PS, does not function, if the PS is just engaged in data communication. Accordingly, if the communication is in progress, a third incoming call (including that by other data terminal) is not forwarded to the target destination (i.e. disconnected).

4. PROGRAMMING

No data programming is required.

I-41 ISDN ROAMING**1. GENERAL DESCRIPTION**

This feature allows a PS to move to another node that has a different SYS-ID via Q. 931a or IS-11572 connection. The node, where the PS can roam from/to, is assigned network number (NWN). A NWN must be assigned as a unique number for each network.

2. OPERATING PROCEDURE

1. The PS moves to another node that has a different SYS-ID.
2. The PS registers its location automatically at the Visitor Node to the Home Node via the Q. 931a or IS-11572 connection.
3. The PS can originate a call from the Visitor Node.
4. Termination to the PS is transferred from the Home Node to the Visitor Node via the Q. 931a or IS-11572 connection.

3. SERVICE CONDITIONS

1. In principle, when assigning PS/ZT(CS) data, use the NDM commands (FPC=1).
2. This feature is available between nodes that are connected via the Q. 931a or IS-11572.
3. This feature is available in both Open Numbering Plan and Closed Numbering Plan. However, the total number of digits for the office code and the PS station number must be 13 or less.
4. The SMDR outputs the PS number instead of the account code when the PS is at the Visitor Node.
5. The PS cannot use supplementary services that need a service access code in the Visitor Node. TRANSFER, CALL HOLD and some ANNOUNCEMENT SERVICES are available.
6. If there is a TS between the Home and Visitor Nodes, the TS must also have roaming features.
7. CF - A/B/Incomplete
 - a.CF - A
If PS assigns CF - A at the Home Node, all terminations are transferred.
PS can also originate a call at the Visitor Node.
 - b.CF - B
If PS is busy at the Visitor Node, the terminating call is transferred at the Home Node.
 - c.CF - Incomplete
If a call to a PS is incomplete at the Visitor Node, the terminating call is transferred at the Home Node.

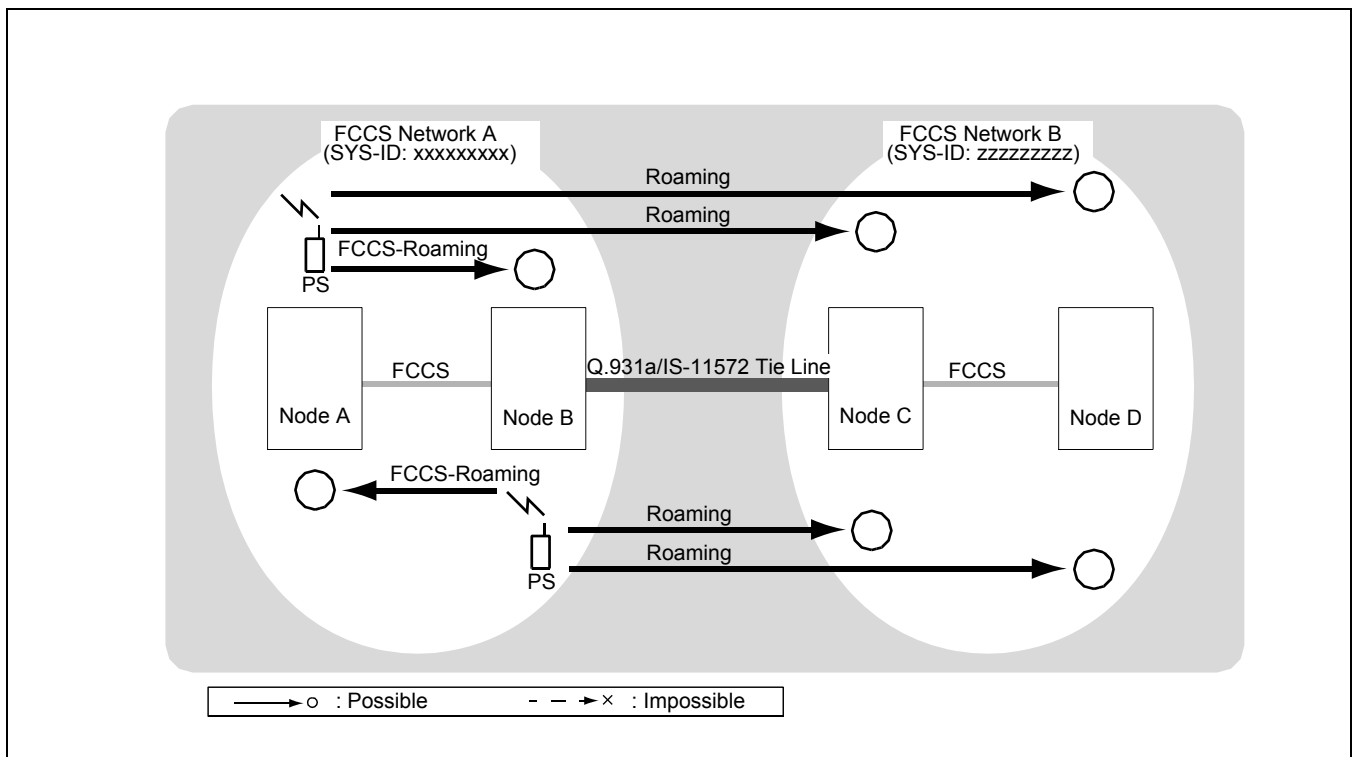
8. In visitor nodes, Telephone Numbers (a maximum of 5 digits) must be set for roaming PSs. Put limits on the number of roaming PSs when you set Telephone Numbers of the PS stations. Telephone Numbers of roaming PSs are set by using ANPD and ASPA commands, as in the case with physical station numbers. Telephone Numbers for the visitor PS station numbers (virtual numbers) are set by the ALGSL/ALGSN command.

Note: Roaming PS station numbers (Telephone Numbers) must be unused numbers in the node. When you assign the numbers, you need to assign the same tenant numbers as CSs where PSs register their locations.

9. The maximum PS station amount includes the amount of the Visitor PS station numbers.
10. A roaming PS cannot use a two-line feature.
11. A roaming PS cannot use the Voice Mail Indication (VMI) Feature.
12. A roaming PS cannot use OAI features.

A PS can move to any node of the FCCS network that has a different SYS-ID, with the condition that a Q.931a/IS-11572 TIE Line is established between different SYS-ID FCCS networks. The figure below shows the PS Roaming system.

The PS Roaming System



13. AUTOMATIC ANNOUNCEMENT - DISCONNECTED PS OUT OF ZONE [A-128] does not work when a PS user connected through PS Inter-Node Roaming moves out of zone. In such a case, the opposite party will hear Reorder Tone (ROT) instead of the out of zone announcement.

4. PROGRAMMING

- Basic Data Assignment
(For North America)

STEP 1: ARTD (Assignment of Route Class Data)

Assign Q.931 Route Class D channel and B channel. (Refer to Roaming Class Data List.)

Note: To change the data for existing route (RT), initialize or reboot the trunk device such as a circuit card or MG.

STEP 2: ATRK (Assignment of Trunk Data)

STEP 3: MBTK (Make Busy Trunk Data)

Make Idle the B channels.

STEP 4: ANPD (Assignment of Numbering Plan Data)

Assign the first digits of the Visiting PS. Also, include the Numbering Plan of the Self-Telephony Server Office Code and the Office Code of the destination Telephony Server.

STEP 5: ASPA (Assignment of Special Access Code)

ACC: Destination Office CodeCI:N/H/B

SRV: LCRBLF:0

RT: 31 (Dummy RT)

Assign PS Numbering Plan as Stations

STEP 6: AFRS (Assignment of Flexible Route Selection)

RT: 31

NPC: Destination Office Code

OPR: Choose and OPR

STEP 7: AOPR (Assignment of Outgoing Pattern Routing Data)

TDPTN:0OPR:XX

RA: 0RA END:0

RT: B Chn RTSKIP: Number of Digits in DOC

PNL: 0OVFT:0

STEP 8: AMND (Assignment of Maximum Necessary Digits)

TN: 1DC:Destination Office Code

MND: (DOC + Station Digits)TOLL:Local Code

AN: Out of serviceRATE:0

A/D: Digital

STEP 9: ARNP (Assignment of Reverse Numbering Plan)

ROUTE: B Chn

ACCESS CODE: DOC

Note: When not using ARNP-Route 0, assign ARODL Command for Roaming Self-Telephony Server Office Code.

STEP 10: ARSC (Assignment Route Restriction Service Class)

Allow for Incoming and Outgoing Route Restrictions

STEP 11: ARRC (Assignment of Alternative Route Restrictions)

ICRT: B Chn/D Chn OGRT:31ARI:A/D-RES: 1

OGRT: 31ICRT:B Chn/D ChnARI:A/D-RES: 1

STEP 12: ADPC (Assignment of Determinate Point Code)

RT: B ChnPC: Destination Office Code

RT: D ChnPC: Destination Office Code

STEP 13: ACSC (Assignment of CSC Data)

Assign CSC Data to D Channel LENS (133~255)

STEP 14: ACICI (Assignment of CIC Code Data 1)

PC: DOCCSCG:130 ~ 255

(For Latin America)

1. Assignment of Q.931a or IS-11572 between Telephony Servers which make roaming feature available. For information on IS-11572, refer to "Data Programming Manual - ISDN".
2. Assignment of NETWORK Number with ACSEL/N command
For STANDALONE system, refer to "1.2. ZT Office Data Assignment." in this chapter.
For FCCS system, refer to "2.2 ZT Office Data Assignment." in this chapter.
Network Number (NWN) must be assigned.
3. Assignment of PS Data by APSD command with Network Number
For STANDALONE system, refer to "1.3 PS Office Data Assignment" in this chapter.
For FCCS system, refer to "2.4 PS Office Data Assignment" in this chapter.
Network Number (NWN) must be assigned.

- CS/ZT Settings - Office Data

(For North America)

STEP 1: APCNL (Register PHS Community Number (PCN))

FUNC: 1 (Fixed) TN: 1
PCN: 1

STEP 2: ACSEL (Assignment of Expansion CS/ZT System Data for LDM)

PCN: 1 NWN: Assigned by NEC America
ADERA: 0 CTRN: 31A (North America)
NPCD: 0 (Fixed)

STEP 3: ALVPL (Input LVP Code)

KIND: 1/2
CODE: LVP

STEP 4: ACS DL (Assignment of CS/ZT Data for LDM)

KIND: ZT2 PCN: 1
ERN: 1 GRN: 1
CSN: 1 TN: 1

- PS Office Data Setting

(For North America)

STEP 1: APSD (Assignment of PS Data)

TN: 1 PSSTN: PS Physical station number
KIND: 6 RSC: 1
SFC: 1 PS ID: ID Number Assigned (9-digits maximum)
TYPE: 2 (Fixed) PS NO: XXXYYYYY **Note 1**
NWN: Same as Set in the ACSEL command
CTRN: 794 (Fixed) SUB SYS-ID Setting: Not used

Note 1: The PSNO is assigned as XXX = Self-Telephony Server office code + YYYY = four-digit station number.

STEP 2: ALGSL (Set Country Number and Network Roaming Number)

TYPE: 2 UGN: 1
TELN: YYYY TN: 1
STN: YYYY (PS station number)

STEP 3: APDLL (Download PS data)

UGN: 1 PSTN: YYYY (Number assigned in ALGSL)
CODE: LVP

Note: A closed numbering plan shall be used when assigning the Visitor PS. The Logical number of the visiting PS must correspond to the Logical numbering plan of the Home Telephony Server.

- Set PS Roaming / Visitor Office
(For North America)

STEP 1: APSD (Register Visitor PS Operational Data)

TN: 1 PSTN: Visiting PS Station
KIND: 4
RSC: 1
SFC: 1

STEP 2: ALGSL (Assign a Logical Number for the Visiting PS Station)

TYPE: 2 UGN: 1
TELN: YYYY (Logical station number of Visiting PS)
STN: YYYY (Physical station number of Visiting PS)

- Assignment of Roaming Self Telephony Server Number
(For Latin America)

STEP 1: ARODL (Assignment of Roaming Self PBX Number for LDM)

This command is used to assign Home Node Number (Roaming Self Node Number) to display on the PS.
(PS displays this Roaming Self Node Number + PS Station Number)

If the network adopts closed user group numbering plan, this data is not necessary.

PCN: PHS COMMUNITY NUMBER

RSN: ROAMING SELF NODE NUMBER: (1~6 digit)

Note: Home Node transmits location registration information (Home Node Number + PS Station Number) to Visitor Node.

Note: When the Roaming Self Node Number is not assigned, Home Node Number assigned by ARNP command (RT=0) is automatically used instead of the Roaming Self Node Number.

Note: If the network adopts closed user group numbering plan, this data assignment is not necessary.

- For Visitor Telephony Server
(For Latin America)

STEP 1: APSD (Assignment of the PS Operation Data for DM)

This command assigns the PS operation data including its Tenant Number, Service Feature Restriction Class (SFC) and the Route Restriction Class (RSC) in consideration of the numbering plan/restriction data.

TN: TENANT NUMBER
PS STN:PS STATION NUMBER
KIND: PS KIND: 4 (VISITOR PS)
SFC: Service Feature Restriction Class
RSC: Route Restriction Class

Note: AVPD command is useful for continuous assignment of Visitor PSs.
AVPDL/N (Assignment of Visitor PS Data for LDM/NDM)

TN:TENANT NUMBER
VPSTN:PS STATION NUMBER in VISITOR
(START NUMBER ~ END NUMBER)
RSC:Route Restriction Class

Note: Visitor Node transmits a location registration information (Visitor Node Number + PS Station Number) to Home Node.

Note: When your system uses Release 8 or later program software, assign this command to all nodes.

STEP 2: ALGSL/N (Assignment of Station Number Data for LDM/NDM)

Refer to Command Manual.

STEP 3: AHRTL (Assignment of Home PBX Routing Number Data for LDM)

This command associates the Home Node Identity Number (7 or less digit number in PS number) and Home Node Access Code (ACCESS CODE to the Home Node which assigned by ASPA command)

PCN: PHS COMMUNITY NUMBER
HID: HOME NODE IDENTITY NUMBER (7 or less digit number in PS number)
HAC: HOME NODE ACCESS CODE (6 or less digit)

If Home Node Identity Number is equal to the ACCESS Code to the Home Node, skip this step.

STEP 4: AUNEL (Assignment of Uniform Numbering for LDM)

Assign Uniform Numbering Data to dummy route number assigned by ASPAL.

TN: Tenant Number
LGRT: Logical Route Number
NPC: Number Pattern Code
SKIP: Skip Data Digits

Note: This data assignment is required to use this feature.

STEP 5: ASPAL/N (Assignment of Special Access Code for LDM/NDM)

Assign dummy route number to LCR (least cost routing) Access Code.

ACC: ACCESS CODE

CI: CONNECTION STATUS INDEX (Normal/Hooking)

SRV: KIND OF SERVICE

RT: DUMMY ROUTE NUMBER

Note: This data assignment is required when LCR Access Code which is possible to recognize Home Telephony Server Routing Number is not assigned.

Roaming Class Data List

B Channel Route Data

CDN			DATA			CDN			DATA		
001	OSGS	0	042	TRSC	0	083	CST	4			
002	ONSG	2	043	BT	0	084	CSEG	0			
003	ISGS	0	044	PRV	0	085	CSEU	0			
004	INSG	2	045	A/D	1	086	CSEL	0			
005	TF	3	046	CW	1	087	CMP	0			
006	TCL	4	047	TPQ	0	088	TALK	0			
007	L/T	1	048	BL	0	089	FOT	0			
008	RLP	2	049	TRKS	0	090	RST	0			
009	TQ	0	050	DPLY	1	091	TOCI	0			
010	SMDR	0	051	ACD	0	092	TOCD	0			
011	TD	0	052	2W/4W	0	093	ODGD	0			
012	DR	0	053	FAAT	0	094	RLS	0			
013	AC	0	054	GW	0	095	GWD	0			
014	TNT	0	055	TCMA	0	096	H1	0			
015	LSG	12	056	SMDR3	0	097	DT	0			
016	SMDR2	9	057	HDT	0	098	CI	0			
017	H/M	0	058	CD	0	099	OID	0			
018	MC	0	059	CCH	0	100	TKS	0			
019	ANI	1	060	TC/EC	0	101	PAD2	0			
020	D	0	061	IRE	0	102	TRM	0			
021	MSB	0	062	SCR	0	103	TRPX	0			
022	MSW	0	063	LYER1	0	104	LDR	0			
023	TR	0	064	NET	0	105	TSC	0			
024	OC	0	065	INT	9	106	SATS	0			
025	R/L	0	066	DC	15	107	RVPX	0			
026	RVSD	0	067	HKS	0	108	DQ	0			
027	TL	0	068	SCF	0	109	SLOV	0			
028	ANS	1	069	SMDR4	0	110	SDTO	0			
029	TELP	0	070	TCMN	0	111	ADVPR	0			
030	PAD	7	071	TCMC	0	112	IND	0			
031	OGRL	1	072	MFSP	0	113	UUI	0			
032	ICRL	1	073	KPST	0	114	DCH	0			
033	HD	0	074	KPPT	0	115	CMRT	0			
034	GUARD	1	075	STC	0	116	PREF	0			
035	WINK	0	076	MC2	0	117	DFS	0			
036	VAD	0	077	MT	0	118	BOB	0			
037	CLD	0	078	TONE	0	119	HOLCH	0			

I-41 ISDN ROAMING

Roaming Class Data List

B Channel Route Data

CDN			DATA			CDN			DATA		
038	FA	0	079	PPTM	0	120	IFR	0			
039	BC	0	080	MPTM	0	121	CONV	0			
040	TCM	0	081	LPTM	0	122	OPRT	0			
041	TDMQ	0	082	RSAX	0	123	CNI	0			

I-41 ISDN ROAMING

Roaming Class Data List (Continued)

D Channel Route Data

CDN	DATA	CDN	DATA	CDN	DATA
001	OSGS	0	042	TRSC	0
002	ONSG	2	043	BT	0
003	ISGS	0	044	PRV	0
004	INSG	2	045	A/D	1
005	TF	3	046	CW	1
006	TCL	4	047	TPQ	0
007	L/T	1	048	BL	0
008	RLP	2	049	TRKS	0
009	TQ	0	050	DPLY	1
010	SMDR	0	051	ACD	0
011	TD	0	052	2W/4W	0
012	DR	0	053	FAAT	0
013	AC	0	054	GW	0
014	TNT	0	055	TCMA	0
015	LSG	13	056	SMDR3	0
016	SMDR2	9	057	HDT	0
017	H/M	0	058	CD	0
018	MC	0	059	CCH	0
019	ANI	1	060	TC/EC	0
020	D	0	061	IRE	0
021	MSB	0	062	SCR	0
022	MSW	0	063	LYER1	0
023	TR	0	064	NET	0
024	OC	0	065	INT	9
025	R/L	0	066	DC	15
026	RVSD	0	067	HKS	0
027	TL	0	068	SCF	0
028	ANS	1	069	SMDR4	0
029	TELP	0	070	TCMN	0
030	PAD	7	071	TCMC	0
031	OGRL	1	072	MFSP	0
032	ICRL	1	073	KPST	0
033	HD	0	074	KPPT	0
034	GUARD	1	075	STC	0
035	WINK	0	076	MC2	0
036	VAD	0	077	MT	0
037	CLD	0	078	TONE	0
038	FA	0	079	PPTM	0
039	BC	0	080	MPTM	0
040	TCM	0	081	LPTM	0
041	TDMQ	0	082	RSAX	0
			083	CST	4
			084	CSEG	0
			085	CSEU	0
			086	CSEL	0
			087	CMP	0
			088	TALK	0
			089	FOT	0
			090	RST	0
			091	TOCI	0
			092	TOCD	0
			093	ODGD	0
			094	RLS	0
			095	GWD	0
			096	H1	0
			097	DT	0
			098	CI	0
			099	OID	0
			100	TKS	0
			101	PAD2	0
			102	TRM	0
			103	TRPX	0
			104	LDR	0
			105	TSC	0
			106	SATS	0
			107	RVPX	0
			108	DQ	0
			109	SLOV	0
			110	SDTO	0
			111	ADVPR	0
			112	IND	0
			113	UUI	0
			114	DCH	0
			115	CMRT	0
			116	PREF	0
			117	DFS	0
			118	BOB	0
			119	HOLCH	0
			120	IFR	0
			121	CONV	0
			122	OPRT	0
			123	CNI	0

N-43 NAME DISPLAY - INTRA-NODE CALL

1. GENERAL DESCRIPTION

This feature allows a PS to indicate the user information corresponding to the calling station number while engaged in a station-to-station call.

2. OPERATING PROCEDURE

LCD display examples are shown below.

- When originating a station-to-station call:
LCD display of the calling station:

H	.	T	A	R	O										
D	I	R		S	P	D		L	N	R					

LCD display of the called station:

M	.	T	A	R	O										
D	I	R		S	P	D		L	N	R					

- When a station call has been transferred to another station by Call Forwarding - All Calls/Busy Line/Don't Answer/PS - Incoming Incomplete:
LCD display of the calling station:

C	F	:	H	.	T	A	R	O							
D	I	R		S	P	D		L	N	R					

LCD display of the called station:

C	F	:	M	.	T	A	R	O							
D	I	R		S	P	D		L	N	R					

3. SERVICE CONDITIONS

- User information corresponding to the station number is displayed on the LCD has a maximum of 16 digits.
- User information is displayed to the left on the LCD. The information may consist of upper case letters, numeric characters, and most keyboard symbols.
- When user information is 12 digits or more, the first or last part of the information can be displayed by the key operation (Refer to the User Guide of PS).

4. This service and NAME DISPLAY service by Open Application Interface (OAI) cannot be activated concurrently.
5. This service and NAME DISPLAY service for Dterms can be activated concurrently.
6. Either an eight-digit display or 16-digit display is selectable by System Data, but cannot be used concurrently.
7. If the PS station has no name programmed for NAME DISPLAY service, the station number is displayed in the name field.
8. NAME DISPLAY is available for the following services:
 - Station-to-station connection
 - Call Forwarding - All Calls/Busy Line/Don't Answer/PS-Incoming Incomplete
 - Call Waiting
 - Call Transfer
9. MEM_HDD command and the Telephony Server Maintenance Menu can be used for saving, loading and verifying Name Display data. For detailed information, refer to the Operations and Maintenance Manual.

4. PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

SYS1

SI 78

Bit 5: 1 (Name Display In Service)

SI 79

b6: 0 (OAI In Service)

SI 241

Bit 1: The number of digits displayed in the Name Display service

0/1: 8 digits/16 digits

STEP 2: ANDD (Assignment of Name Display Data)

Assign user information to the physical station number.

TN : Tenant Number

STN : Physical station number

NAME : User information (Maximum 16 digits)

N-44 NAME DISPLAY - INTRA NODE CALL - CCIS

1. GENERAL DESCRIPTION

This feature allows calling or called party information to be displayed on the LCD of a PS between the CCIS node.

2. OPERATING PROCEDURE

LCD display examples are shown below.

- When originating a call:
LCD display of the calling station:

H	.	T	A	R	O										
D	I	R		S	P	D		L	N	R					

LCD display of the called station:

M	.	T	A	R	O										
D	I	R		S	P	D		L	N	R					

- When a call has been transferred to another station by Call Forwarding - All Calls/Busy Line/Don't Answer/PS - Incoming Incomplete:
LCD display of the calling station:

H	.	T	A	R	O										
D	I	R		S	P	D		L	N	R					

LCD display of the called station:

C	F	:	M	.	T	A	R	O							
D	I	R		S	P	D		L	N	R					

3. SERVICE CONDITIONS

- User information corresponding to the station number that is displayed on the LCD has a maximum of 16 digits.
- User information is displayed to the left on the LCD. The information may consist of upper case letters, numeric characters, and most keyboard symbols.

3. When user information is 12 digits or more, the first or last part of information can be displayed by the key operation (Refer to the User Guide of PS).
4. This service and NAME DISPLAY service by Open Application Interface (OAI) cannot be activated concurrently.
5. This service and NAME DISPLAY service for Dterms can be activated concurrently.
6. Either an eight-digit display or 16-digit display is selectable by System Data, but they cannot be used concurrently.
7. If the PS station has no name programmed for NAME DISPLAY - INTRA NODE CALL - CCIS service, Office Code + Station Number is displayed in the name field.
8. NAME DISPLAY - INTRA NODE CALL - CCIS is available for the following services:
 - TIE line connection
 - Call Forwarding - All Calls/Busy Line/Don't Answer/PS - Incoming Incomplete-CCIS
 - Call Waiting
 - Call Transfer
9. User information cannot be included in the IAI message when the CI parameter of the ARTD command is set to "1" (i.e., information transfer from the ISDN line to the CCIS line is available).
User information cannot be included if the low layer compatibility and/or calling party sub-address information elements are included in a setup message from a PS.
In these cases, user information from the PS is not displayed on the called station (PS or Desktop terminal).
10. MEM_HDD command and Telephony Server Maintenance Menu can be used for saving, loading and verifying the Name Display data. For detailed information, refer to Operations and Maintenance Manual.

4. PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

SYS1

SI 78

Bit 5: 1 (Name Display In Service)

SI 79

Bit 6: 0 (OAI In Service)

SI 241

Bit 1: The number of digits displayed in the Name Display service
0/1: 8 digits/16 digits

STEP 2: ARTD (Assignment of Route Class Data)

Assign the route class data for the CCIS route.

CDN 43 (BT) = 1

CDN 50 (DPLY) = 1 **Note 1**

CDN 98 (CI) = 0/1 with ISDN

CDN 112 (IND) = 1

Note: To change the data for existing route (RT), initialize the circuit card.

Note 1: Up to 8 digits of a Caller ID can be shown on the display.

STEP 3: ANDD (Assignment of Name Display Data)

Assign the user information to the physical station number.

TN : Tenant Number

STN : Physical station number

NAME : User information (Maximum 16 digits)

N-45 NUMBER SHARING**1. GENERAL DESCRIPTION**

This feature allows the Desktop terminal user to use a PS as a sub-station. In this feature, the Desktop terminal and PS are referred as main station and sub-station, respectively.

This feature also allows the SIP Handler Controlled SIP terminal user to use a PS or another SIP Handler Controlled SIP terminal as a sub-station. The main functions of this feature are as follows:

1. **Call Forwarding-All Calls to Sub-Station**
When the main station user presses the Feature key or dials the access code, Call Forwarding-All Calls to a sub-station is set or canceled. This function can also be set or canceled by dialing the access code from the sub-station.
2. **Main Station-Station Number Display**
Even if a call is connected to the sub-station, the station number of the main station is displayed on the other party's LCD.
3. **Billing Information**
Even if a call is originated from the sub-station, billing information is recorded as a call origination from the main station.
4. **Voice Mail Indication**
Even if a call is transferred from the sub-station to the Voice Mail System, the voice mail is recorded on the mail box of the main station. The system controls Message Waiting Indication on both the main station and sub-station.

2. OPERATING PROCEDURE

To set from the main station (Desktop terminal):

1. Press the SPEAKER key.
2. Receive Dial Tone (DT).
3. Press the Feature key for transfer to a sub-station on the main station. The lamp for transfer to a sub-station lights.
4. Press the SPEAKER key. All calls to the main station are forwarded to the sub-station.

To cancel from the main station (Desktop terminal):

1. Press the SPEAKER key.
2. Receive Dial Tone (DT).
3. Press the Feature key for transfer to a sub-station on the main station. The lamp for transfer to a sub-station goes off.
4. Press the SPEAKER key. All calls to the main station are forwarded to the sub-station.

To set from the main station (SIP Handler Controlled SIP terminal):

1. Lift the handset.
2. Receive Dial Tone (DT).
3. Dial the access code for setting transfer to a sub-station.

4. Receive Dial Tone (SPDT).
5. Dial the station number for sub-station.
6. Receive Service Set Tone (SST).
7. Replace the handset. All calls to the main station are forwarded to the sub-station.

To cancel from the main station (SIP Handler Controlled SIP terminal):

1. Lift the handset.
2. Receive Dial Tone (DT).
3. Dial the access code for canceling transfer to a sub-station.
4. Receive Dial Tone (SPDT).
5. Dial the station number for sub-station.
6. Receive Service Set Tone (SST).
7. Replace the handset. This feature is canceled.

To set from the sub-station (PS/SIP Handler Controlled SIP terminal):

1. Lift the handset on the SIP Handler Controlled SIP terminal
As for PS, press the SPEAKER key.
2. Receive Dial Tone (DT).
3. Dial the access code for setting transfer to a sub-station.
4. Receive Dial Tone (SPDT).
5. Dial the station number for main station.
6. Receive Service Set Tone (SST).
When the main station is a Desktop terminal, the lamp for transfer to a sub-station lights.
7. Replace the handset on SIP Handler Controlled SIP terminal.
As for PS, press the SPEAKER key. All calls to the main station are forwarded to the sub-station.

To cancel from the sub-station (PS/SIP Handler Controlled SIP terminal):

1. Lift the handset on the SIP Handler Controlled SIP terminal
As for PS, press the SPEAKER key.
2. Receive Dial Tone (DT).
3. Dial the access code for canceling transfer to a sub-station.
4. Receive Service Set Tone (SST).
When the main station is a Desktop terminal, the lamp for transfer to a sub-station goes off.
5. Replace the handset on SIP Handler Controlled SIP terminal.
As for PS, press the SPEAKER key. This feature is canceled.

3. SERVICE CONDITIONS

1. In principle, when assigning PS/ZT(CS) data, use the NDM commands (FPC=1).
2. A telephone number must be assigned to the main and sub-stations.
3. The PS cannot be assigned as the main station.
4. Any combination of the main station and the sub-station is available in an FCCS network.
5. The access code for an outgoing call cannot be assigned as a sub-station number.

6. Dialing the access code for this feature is available for the main and sub-stations. Any other station or trunk cannot set this feature.
7. The main station user can set this feature using any line on the main station. If the main station user sets this feature using a Sub-line, this feature is set to My-Line.
8. The TRANSFER TO SUB-STATION Feature key is available only when the Desktop terminal is in idle state.
9. The main station user can set this feature using any line on the terminal used as the main station. In other words, even if the main station user sets this feature using Sub Line, this feature is set to My Line.
10. When changing the parameter MW of ANSDN/ANS DL command from 0 to 1, each station must not have MW indication. Otherwise the MW indication remains.
11. Message Waiting Lamp Control by MESSAGE REMINDER or CMWL command is applied only to the called/designated station.
12. If this feature is set, recall to the main station is not forwarded to the sub-station.
13. Forwarding to a sub-station through this feature is counted as a hop of Multiple Call Forwarding features. You need to set appropriate number of Multi-hops with this in mind when forwarding a call from main station to a sub-station through this feature. For settings of Multiple Call Forwarding features, see Call Forwarding - Busy Line [C-2]/ Call Forwarding - All Calls [C-5] in Data Programming Manual - Business.
14. When a call is originated from the sub-station to OAI or MFC, the sub-station number is sent.
15. MEM_HDD command and Telephony Server Maintenance Menu can be used for saving, loading and verifying Number Sharing data. For detailed information, refer to Operations and Maintenance Manual.

4. INTERACTIONS

1. This feature takes precedence over the Call Forwarding, Do Not Disturb and Station Hunting features set to the main station.
2. When this feature is set, all the calls are forwarded to a sub-station even if CALL BLOCK [C-150] is set to the main station.
3. The Off-Hook Line Number Display feature of the PS is independent of this feature.
4. The MW indication for the PS is available for My Line of the Dterm PS II / Dterm PS III only.
5. When a main station is in a Station Hunting group, this feature can be activated only if the main station is the pilot station.

5. PROGRAMMING

STEP 1: ASYDL (System Data)

SYS1

Index 513 (LDM Memory Usage): Assign data “1” for the corresponding memory block.

Index 514 (NDM Memory Usage): Assign data “1” for the corresponding memory block.

STEP 2: ANSDL/ANS DN (Number Sharing Data)

M_UGN:Main User Group Number

S_UGN:Sub User Group Number

M_TELN:Main Telephone Number (Maximum 16 digits)

S_TELN:Sub Telephone Number (Maximum 16 digits)

OD: Output External Equipment **Note 1**

0:The Main Telephone number is used for SMDR, MCI and VPS Mail Box number.

1:The Main Telephone number and the Sub Telephone Number are used for the SMDR, MCI and VPS Mail Box number.

MW: Message Waiting Control **Note 2**

0:Message Waiting Control for the Main and Sub Telephone numbers

1:Message Waiting Control for the Main Telephone number

INDEX: Telephone Equipment Number 1-65535

Note 1: When this parameter is set to 0, the mail box for the sub-station must be deleted.

Note 2: This parameter is valid when the parameter OD is assigned as “1”.

STEP 3: ASPA (Special Access Code)

Assign the access code for this feature to the Desktop terminal, SIP Handler Controlled SIP terminal and the PS.

SRV = SSCA, SIDA = 108 (Number Sharing; Set)

SRV = SSCA, SIDA = 109 (Number Sharing; Cancel)

STEP 4: AKYD (Key Data for Desktop terminal)

Assign the following key data on the main station.

FKY = 126 (Transfer to Sub Station)

O-38 OUT OF CELL INDICATION

1. GENERAL DESCRIPTION

When the Dterm PS series user moves out of the service area, the electric field strength becomes weak or the Error rate exceeds the threshold, this service notifies the user with a warning tone and the LCD display.

2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. If the Dterm PS user turns the power on when he/she is out of the service area or when the user moves out of the service area while idle, “antenna pict” display goes off and the LCD displays “NO SVC” or “No Service” in the upper section.
2. When the Dterm PS user moves out of the service area while engaged in a call, “antenna pict” display goes off and the LCD displays “NO SVC” or “No Service” in the upper section after the user receives a warning tone.
3. When the electric field strength becomes so weak that communication cannot be continued or when the Error rate exceeds the threshold, AUTOMATIC RELEASE - OUT OF CELL CALLS is activated.

4. PROGRAMMING

No data programming is required.

O-39 OVERLAP DIALING

1. GENERAL DESCRIPTION

This service allows the Dterm PS series user to receive a Dial Tone and to dial the desired number to originate a call.

2. OPERATING PROCEDURE

To originate a call

1. Press the SEND or L1/L2 key; receive Dial Tone.
2. Dial the desired number. The dialed numbers are displayed on the LCD.

3. SERVICE CONDITIONS

1. A maximum 24 digits (numbers 0 to 9, #, and *) can be dialed. (A maximum of 12 digits can be displayed on the LCD.)
2. The Dterm PS user can dial the number before hearing Dial Tone.
3. The prepause timer after receiving Dial Tone is ten seconds; and if no number is dialed within this period, the user receives Reorder Tone.
4. If the inter digit timer expires while the user is dialing the number, the numbers dialed before the timer will be sent out.
5. For every call origination, PS AUTHENTICATION is activated.
6. The Dterm PS-to-Dterm PS calls cannot be recorded for the SMDR.

4. PROGRAMMING

No data programming is required.

P-61 PS AUTHENTICATION

1. GENERAL DESCRIPTION

This service confirms the identity of the Dterm PS to avoid an unauthorized terminal from accessing the system.

2. OPERATING PROCEDURE

No manual operation is required. The Dterm PS identity is confirmed automatically by checking if the Dterm PS possesses the key information unique to each Dterm PS. This check is performed between the Telephony Server and the Dterm PS.

3. SERVICE CONDITIONS

This service is activated in the following circumstances.

1. When the Dterm PS user originates a call.
2. When a call terminates to the Dterm PS.
3. When HANDOVER service is activated.
4. When the Dterm PS registers its location to the system (when idle).

4. PROGRAMMING

No data programming is required.

P-62 PS LOCATION REGISTRATION

1. GENERAL DESCRIPTION

This service allows the Telephony Server to supervise the location of each Dterm PS series upon receiving the location registration request, to allow call termination.

2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. This service is activated every time the Dterm PS enters a different calling area. A maximum of 32 calling areas can be installed in the PCN of the Telephony Server.
2. A maximum of 192 zone transceivers can be installed in a single stack.
3. PS AUTHENTICATION is activated every time the Dterm PS requests location registration.
4. In a FCCS network, the calling area cannot be assigned over multiple nodes.

4. PROGRAMMING

No data programming is required.

P-63 PRESET DIALING

1. GENERAL DESCRIPTION

This service allows the Dterm PS series user to confirm the numbers to be dialed before originating calls.

2. OPERATING PROCEDURE

To originate a call

1. Dial the desired number. The number is stored and displayed on the LCD.
2. After confirming the numbers, press the SEND or L1 key. The numbers are displayed on the LCD throughout the conversation.

3. SERVICE CONDITIONS

1. A maximum of 24 digits (numbers 0 to 9, #, *, and pause) can be stored. (A maximum of 12 digits can be displayed on the LCD. When more than 12 digits are dialed, the digits move from right to left, displaying only the most recently dialed digits.)
2. If a wrong number is dialed, press the CLR or CLEAR key. The number just dialed will be erased. If the CLR or CLEAR key is pressed for more than two seconds, the numbers will be erased successively. Also, if no number is entered for 20 seconds, the service is cleared, and the Dterm PS returns to the idle state (stand by status).
3. If the user dials a number after pressing the SEND or L1/L2 key, it will be recognized as a PB signal sending.
4. PS AUTHENTICATION is activated for every call origination.

4. PROGRAMMING

No data programming is required.

P-64/P-65 PS SERVICE CLASS / PS RESTRICTION CLASS

1. GENERAL DESCRIPTION

This service permits all the Dterm PS series to be assigned a class of service in accordance with the degree of the system use desired.

2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. The route service class is assigned to determine the accessibility to the following service features.
ANNOUNCEMENT - DON'T ANSWER
ANNOUNCEMENT - PS OUT OF CELL
CALL FORWARDING - DON'T ANSWER
CALL FORWARDING - PS OUT OF CELL
CENTREX COMPATIBILITY
2. Each Dterm PS is assigned a Service Feature Restriction Class to determine which of the following service features the Dterm PS will be permitted to activate.
CALL TRANSFER
CALL WAITING - TERMINATING
CENTREX COMPATIBILITY
ANNOUNCEMENT SERVICE
ANNOUNCEMENT - DON'T ANSWER/CALL FORWARDING - DON'T ANSWER
ANNOUNCEMENT - PS OUT OF CELL/CALL FORWARDING - PS OUT OF CELL
TRUNK LINE APPEARANCE
 - a.) ANNOUNCEMENT SERVICE /ANNOUNCEMENT - DON'T ANSWER/CALL FORWARDING - DON'T ANSWER/ANNOUNCEMENT - PS OUT OF CELL/ANNOUNCEMENT - DON'T ANSWER - When the restricted Dterm PS user dials the service access code, the user receives Reorder Tone. If the CALL FORWARDING - INTERCEPT/ANNOUNCEMENT service is set, the announcement notifying the user that an invalid number was reached will be sent.
 - b.) CALL TRANSFER - When a restricted Dterm PS attempts Call Transfer (pressing of the TRF/FLASH key), the operation will be ignored.
 - c.) CALL WAITING - TERMINATING - When Call Waiting is attempted to the restricted Dterm PS which is busy, the calling party receives Reorder Tone.
 - d.) CENTREX COMPATIBILITY - The switch hook flash operation will be invalid.
 - e.) TRUNK LINE APPEARANCE - When the restricted Dterm PS user attempts to originate a call via the TRUNK LINE APPEARANCE service, the user receives Reorder Tone.
3. Each Dterm PS is assigned a Service Feature Restriction Class linking to that of the Telephony Server to restrict the user from placing C.O. outgoing calls, etc. There are 15 classes and these classes are assigned in the system parameters (traveling class mark). For more details, refer to Direct Outward Dialing (DOD) [D-9] in Data Programming Manual - Business.

4. PROGRAMMING

No data programming is required.

P-66 PS-TO-STATION CALLING

1. GENERAL DESCRIPTION

This service allows the Dterm PS series user to place a call to a station, and vice versa.

2. OPERATING PROCEDURE

To place a call using OVERLAP DIALING

1. Press the SEND or L1 key; receive Dial Tone.
2. Dial the desired number; receive Ringback Tone.

To place a call using PRESET DIALING

1. Dial the desired number, then press the SEND L1 key; receive Ringback Tone.

3. SERVICE CONDITIONS

1. The dialed digits are sent out in the following timing:
 - a.) when the Telephony Server recognizes the last digit according to the numbering plan
 - b.) if the Telephony Server cannot recognize the last digit, ten seconds after the last digit is dialed (inter-digit timer time-out).

4. PROGRAMMING

No data programming is required.

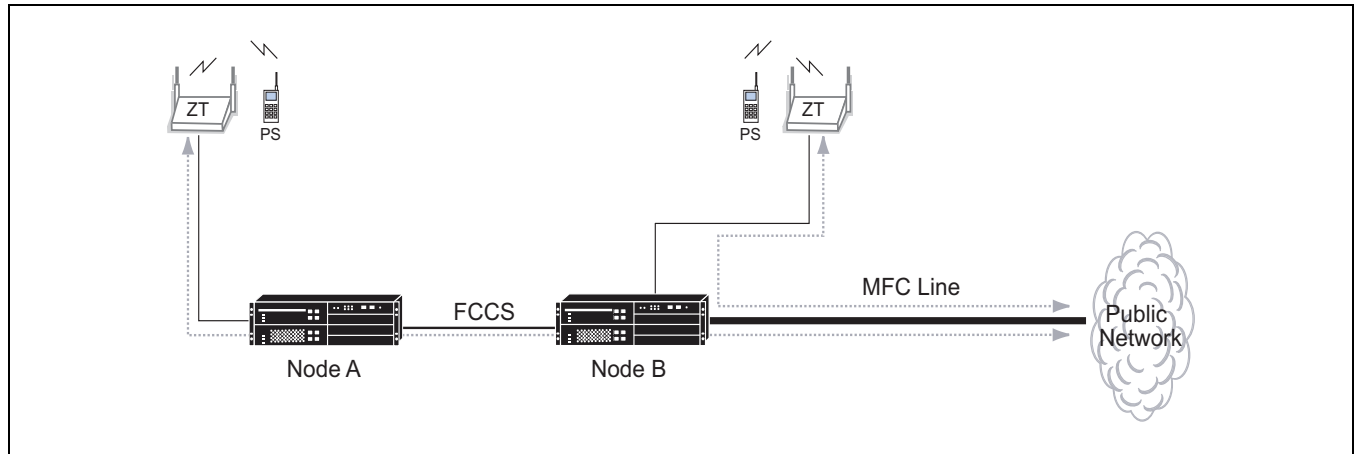
P-68 PCS/PHS MFC SIGNALING

1. GENERAL DESCRIPTION

This feature enables a PS to receive/originate a call via Multi Frequency Code (MFC) line. This feature is used for the following countries:

- Mexico
- Brazil
- Chile
- Colombia
- Argentina
- Venezuela

Outline of PCS-MFC Signaling



Note: When using this feature for the FCCS Network, mount 4MFC circuit card to all nodes.

2. OPERATING PROCEDURE

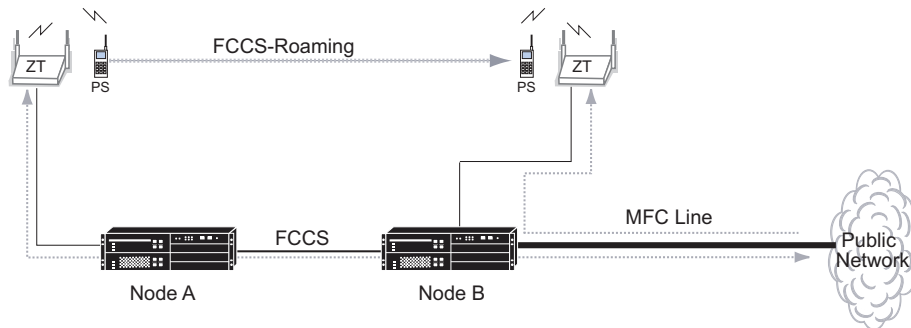
No manual operation is required.

3. SERVICE CONDITIONS

1. To use this feature, PA-4MFCA (MFC Register/Sender Trunk) circuit card is required.
 - Firmware SP-1076 4MFCA PROG-A: μ law
 - Firmware SP-1075 4MFCA PROG-A: A law
2. The outgoing connection to the MFC line is available in the LCR or LCRS.
3. Outgoing Connection to the MFC line is available from the states given below.
 - PS is in an idle state.
 - PS which places a station in Consultation Hold.
 - PS which places a trunk in Consultation Hold.
 - PS which places a PS in Consultation Hold.
 - Station which places a PS in Consultation Hold.
 - Attendant Console which places a PS in Consultation Hold.
4. If a PS can receive a Automatic Number Identification (ANI) data, the PS can use Called No. Display feature. The maximum digit number (max. 16 digits) of character displayed on a PS's LCD depends on the kind of PS.
5. The following tables show functions available for PCS-MFC Signaling feature.
 - List of Originating Feature for MFC (Standalone) on page 134

- List of Originating Feature for MFC (FCCS) on page 135
 - List of Terminating Feature for MFC (Standalone) on page 136
 - List of Terminating Feature for MFC (FCCS) on page 137
6. When a PS receives a call via MFC line, the following features are available.
- Automatic Announcement - Called PS Out of Zone
 - Call Forwarding-PS Incoming Incomplete
7. If a PS moves out of zone during a two-way connection via MFC line, the counterpart hears the announcement (Automatic Announcement-Disconnected PS Out of Zone).
8. If your system is FCCS type, PS can receive/originate a MFC call from any node which are connected with FCCS, and also move to other node via FCCS while the PS is in speech. For details, refer to the figure below.

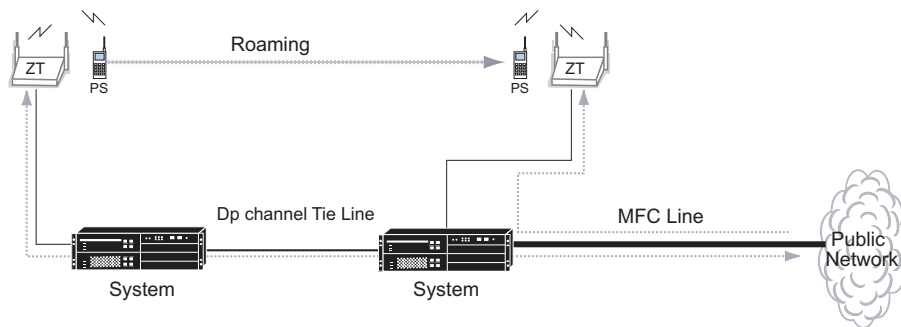
[Example] When PS moves to Node B during 2-way connection via MFC Line.



Note: PS can also receive/originate an MFC call from Node A.

9. PS can move to any node when Dp channel Tie Line is established between nodes. Refer to the figure below.

[Example] When PS moves to Visitor Node during MFC connection via Dp channel Tie Line.



Note: PS can also receive/originate an MFC call from Visitor Node.

List of Originating Feature for MFC (Standalone)

×:Available - :Not available/Not used

FEATURE CODE	ORIGINATING FEATURE NAME	To Station	To PS	REMARKS
A-16	ALTERNATE ROUTING	×	×	
B-12	BROKERAGE HOT LINE-OUTSIDE	×	-	
C-6	CALL HOLD	×	-	
C-11	CALL TRANSFER-ALL CALLS	×	×	
C-17	CONSULTATION HOLD ALL CALLS	×	×	
C-26	CALL FORWARDING-OVERRIDE	×	×	
C-28	CALL FORWARDING-ALL CALLS-OUTSIDE	×	×	
C-60	CALL FORWARDING-BUSY LINE-OUTSIDE	×	×	
C-62	CONSECUTIVE SPEED CALLING-SYSTEM	×	×	
C-74	CALL FORWARDING-DON'T ANSWER-OUTSIDE	×	×	
	CALL FORWARDING-OUT OF AREA	-	×	
D-9	DIRECT-OUTWARD DIALING (DOD)	×	×	
H-9	HOT LINE-OUTSIDE	×	×	
I-4	INDIVIDUAL TRUNK ACCESS	×	-	
L-5	LEAST COST ROUTING (LCR)-3/6 DIGIT	×	×	
L-6	LAST NUMBER CALL	×	-	
L-10	LCR-TIMER OF DAY ROUTING	×	×	
M-7	MUSIC ON HOLD	×	×	
O-2	OUTGOING TRUNK QUEUING	×	-	
O-7	OFF-HOOK QUEUING	×	×	
O-21	OUTGOING TRUNK BUSY-ANNOUNCEMENT	×	×	
P-2	PASSING DIAL TONE	-	-	
P-7	PEG COUNT	×	×	Note 1
P-11	PERIODIC TIME INDICATION TONE	×	-	
P-57	PAD LOCK	×	-	
R-4	RESTRICTION FROM OUTGOING CALLS	×	×	
R-6	ROUTE ADVANCE	-	-	Note 2
S-3	SPEED CALLING-SYSTEM	×	×	
S-10	STATION MESSAGE DETAIL RECORDING SYSTEM-RS232C	×	×	
S-23	SPEED CALLING-GROUP	-	-	
S-61	SPEED CALLING OVERRIDE-SYSTEM	-	-	
T-6	TOLL DENIAL/TOLL DIVERSION	×	×	
T-7	TOLL RESTRICTION-3/6 DIGIT	×	×	
T-12	TENANT SERVICE	×	×	

Note 1: CS peg is not counted.

Note 2: When assigning SRV=OGC/OGCA (ASPA command), ROUTE ADVANCE cannot be used.

List of Originating Feature for MFC (FCCS)

×:Available - :Not available/Not used

FEATURE CODE	ORIGINATING FEATURE NAME	To Station	To PS	REMARKS
A-16	ALTERNATE ROUTING	×	×	
B-12	BROKERAGE HOT LINE-OUTSIDE	×	-	
C-6	CALL HOLD	×	-	
C-11	CALL TRANSFER-ALL CALLS	×	×	
C-17	CONSULTATION HOLD-ALL CALLS	×	×	
C-26	CALL FORWARDING-OVERRIDE	×	×	
C-28	CALL FORWARDING-ALL CALLS-OUTSIDE	×	×	
C-60	CALL FORWARDING-BUSY LINE-OUTSIDE	×	×	
C-62	CONSECUTIVE SPEED CALLING-SYSTEM	×	×	
C-74	CALL FORWARDING-DON'T ANSWER-OUTSIDE	×	×	
	CALL FORWARDING-OUT OF AREA	-	×	
D-9	DIRECT-OUTWARD DIALING (DOD)	×	×	
H-9	HOT LINE-OUTSIDE	×	-	
I-4	INDIVIDUAL TRUNK ACCESS	×	-	
L-5	LEAST COST ROUTING (LCR)-3/6 DIGIT	×	×	
L-6	LAST NUMBER CALL	×	-	Note 3
L-10	LCR-TIMER OF DAY ROUTING	×	×	
M-7	MUSIC ON HOLD	×	×	
O-2	OUTGOING TRUNK QUEUING	×	-	
O-7	OFF-HOOK QUEUING	×	×	
O-21	OUTGOING TRUNK BUSY-ANNOUNCEMENT	×	×	
P-2	PASSING DIAL TONE	-	-	
P-7	PEG COUNT	×	-	Note 4
P-11	PERIODIC TIME INDICATION TONE	×	×	
P-57	PAD LOCK	×	-	
R-4	RESTRICTION FROM OUTGOING CALLS	×	×	
R-6	ROUTE ADVANCE	-	-	Note 5
S-3	SPEED CALLING-SYSTEM	×	-	Note 6
S-10	STATION MESSAGE DETAIL RECORDING SYSTEM-RS232C	×	×	
S-23	SPEED CALLING-GROUP	-	-	
S-61	SPEED CALLING OVERRIDE-SYSTEM	-	-	
T-6	TOLL DENIAL/TOLL DIVERSION	×	×	
T-7	TOLL RESTRICTION-3/6 DIGIT	×	×	
T-12	TENANT SERVICE	×	×	

Note 3: Use the PS re-dial function as a substitute for LAST NUMBER CALL.

Note 4: CS peg is not counted.

Note 5: When assigning SRV=OGC/OGCA (ASPA command), ROUTE ADVANCE cannot be used.

Note 6: Use the PS memory dial function as a substitute for SPEED CALLING-SYSTEM.

List of Terminating Feature for MFC (Standalone)

×:Available - :Not available/Not used

FEATURE CODE	TERMINATING FEATURE NAME	From Station	From PS	REMARKS
C-2	CALL FORWARDING-BUSY LINE	×	×	
C-3	CALL FORWARDING-DON'T ANSWER	×	×	
C-5	CALL FORWARDING-ALL CALLS	×	×	
	CALL FORWARDING-OUT OF AREA	-	×	
C-6	CALL HOLD	×	-	
C-7	CALL PICKUP-GROUP	×	×	
C-11	CALL TRANSFER-ALL CALLS	×	×	
C-12	CALL WAITING-TERMINATING	×	×	Note 7
C-13	CALL WAITING LAMP	×	-	
C-17	CONSULTATION HOLD-ALL CALLS	×	×	
C-24D	CALLING NUMBER DISPLAY	×	×	Note 8
C-30	CALL PICKUP-DIRECT	×	×	
C-28	CALL FORWARDING-ALL CALLS-OUTSIDE	×	×	Note 9
C-60	CALL FORWARDING-BUSY LINE-OUTSIDE	×	×	Note 9
C-74	CALL FORWARDING-DON'T ANSWER-OUTSIDE	×	×	Note 9
	CALL FORWARDING-OUT OF AREA TO OUTSIDE	-	×	Note 9
D-7	DIRECT-IN TERMINATION (DIT)	-	-	
D-8	DIRECT-INWARD DIALING (DID)	×	×	
D-10	DISTINCTIVE RINGING	×	-	Note 10
I-1	IMMEDIATE RINGING	×	-	
L-28	LDN NIGHT CONNECTION	×	×	
M-7	MUSIC ON HOLD	×	×	
M-24	MULTIPLE CALL FORWARDING-BUSY LINE	×	×	
M-25	MULTIPLE CALL FORWARDING-DON'T ANSWER	×	×	
M-26	MESSAGE CENTER INTERFACE	×	-	Note 11
M-44	MULTIPLE CALL FORWARDING-ALL CALLS	×	×	
N-1	NIGHT CONNECTION-FIXED	×	×	
N-2	NIGHT CONNECTION-FLEXIBLE	×	-	
P-7	PEG COUNT	×	×	Note 12
P-11	PERIODIC TIME INDICATION TONE	×	×	
R-2	REMOTE ACCESS TO SYSTEM	×	×	
T-8	TRUNK ANSWER FROM ANY STATION (TAS)	×	×	
T-12	TENANT SERVICE	×	×	
U-1	UNIFORM CALL DISTRIBUTION	×	×	
	COLLECT CALL BLOCKING	×	×	Note 13

Note 7: CALL WAITING-TERMINATING cannot be used in Brazil because when called party is busy, the call is forwarded to Attendant Console.

Note 8: When PS receives Automatic Number Identification data, Calling Number Display is automatically used.

Note 9: MFC call cannot be forwarded via MFC.

Note 10: Depending on the terminal, Distinctive Ringing cannot be used.

Note 11: This feature is not used because PS cannot use UNIFORM CALL DISTRIBUTION (UCD).

Note 12: CS peg is not counted.

Note 13: COLLECT CALL BLOCKING can be used in Brazil only.

List of Terminating Feature for MFC (FCCS)

×:Available - :Not available/Not used

FEATURE CODE	TERMINATING FEATURE NAME	From Station	From PS	REMARKS
C-2	CALL FORWARDING-BUSY LINE	×	×	
C-3	CALL FORWARDING-DON'T ANSWER	×	×	
C-5	CALL FORWARDING-ALL CALLS	×	×	
	CALL FORWARDING-OUT OF AREA	-	×	
C-6	CALL HOLD	×	-	
C-7	CALL PICKUP-GROUP	×	×	
C-11	CALL TRANSFER-ALL CALLS	×	×	
C-12	CALL WAITING-TERMINATING	×	×	Note 14
C-13	CALL WAITING LAMP	×	-	
C-17	CONSULTATION HOLD-ALL CALLS	×	×	
C-24D	CALLING NUMBER DISPLAY	×	×	Note 15
C-30	CALL PICKUP-DIRECT	×	×	
C-28	CALL FORWARDING-ALL CALLS-OUTSIDE	×	×	Note 16
C-60	CALL FORWARDING-BUSY LINE-OUTSIDE	×	×	Note 16
C-74	CALL FORWARDING-DON'T ANSWER-OUTSIDE	×	×	Note 16
	CALL FORWARDING-OUT OF AREA TO OUTSIDE	-	×	Note 16
D-7	DIRECT-IN TERMINATION (DIT)	-	-	
D-8	DIRECT-INWARD DIALING (DID)	×	×	
D-10	DISTINCTIVE RINGING	×	-	Note 17
I-1	IMMEDIATE RINGING	×	-	
L-28	LDN NIGHT CONNECTION	×	×	
M-7	MUSIC ON HOLD	×	×	
M-24	MULTIPLE CALL FORWARDING-BUSY LINE	×	×	
M-25	MULTIPLE CALL FORWARDING-DON'T ANSWER	×	×	
M-26	MESSAGE CENTER INTERFACE	×	-	Note 18
M-44	MULTIPLE CALL FORWARDING-ALL CALLS	×	×	
N-1	NIGHT CONNECTION-FIXED	×	×	
N-2	NIGHT CONNECTION-FLEXIBLE	×	-	
P-7	PEG COUNT	×	×	Note 19
P-11	PERIODIC TIME INDICATION TONE	×	×	
R-2	REMOTE ACCESS TO SYSTEM	×	×	

FEATURE CODE	TERMINATING FEATURE NAME	From Station	From PS	REMARKS
T-8	TRUNK ANSWER FROM ANY STATION (TAS)	×	×	
T-12	TENANT SERVICE	×	×	
U-1	UNIFORM CALL DISTRIBUTION	×	×	
	COLLECT CALL BLOCKING	×	×	Note 20

Note 14: CALL WAITING-TERMINATING cannot be used in Brazil because when called party is busy, the call is forwarded to Attendant Console.

Note 15: When PS receives Automatic Number Identification data, Calling Number Display is automatically used.

Note 16: MFC call cannot be forwarded via MFC.

Note 17: Depending on the terminal, Distinctive Ringing cannot be used.

Note 18: This feature is not used because PS cannot use UNIFORM CALL DISTRIBUTION (UCD).

Note 19: CS peg is not counted.

Note 20: COLLECT CALL BLOCKING can be used in Brazil only.

4. PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

Assign appropriate data in the following indexes which are related to MFC signaling.

SYS1, Index 64, Bit 0 (Analog/Digital Conversion System): 0/1-μ-law/A-law

SYS1, Index 92, Bit 0 (ANI Information): 0/1=Tenant Basis/System Basis **Note 21**

SYS1, Index 125, Bit 0-3 (Designation of PAD Value):

This PAD value is used for adjusting transmission level of MFCS (MFC Sender). Refer to the table below.

Note 21: In the FCCS system, this data is used in the node of the originating party.

PAD Value Table

Input Data	PAD Value (db)	Input Data	PAD Value (db)
0	0	4	-8
1	-2	5	-10
2	-4	6	-11.5
3	-6	7	-14

SYS1, Index 125, Bit 4-7 (Type of MFC): Select appropriate MFC type from the table shown below.

Type of MFC

Input Data	Type of MFC	Input Data	Type of MFC
3	Venezuela	A	Brazil
7	Argentina	B	Chile
9	Mexico	C	Colombia

SYS3, Index 10, Bit 0-3, 7 (Designation of Sensitivity Level (=T) of MFC Register)

Bit 0-3: Designate sensitivity level (=T) of MFCR Register. Refer to the table below.

Bit 7 (ACT): 0/1=38 dbm (fixed)/depends on input data (Index 10, Bit 0-3)

MFC Receiver Sensitivity Level

T	Sensitivity Level [dbm]	T	Sensitivity Level [dbm]
0	-28	8	-36
1	-29	9	-37
2	-30	A	-38
3	-31	B	-39
4	-32	C	-40
5	-33	D	-41
6	-34	E	-42
7	-35	F	-43

STEP 2: ARTD (Assignment of Route Class Data)

Assign Route Data for MFC lines paying attention to the following parameters.

Note: To change the data for existing route (RT), initialize the circuit card.

CDN1: OSGS (Outgoing Signal Interface): 2 (Second Dial Tone)

CDN2: ONSG (Outgoing Select Signal): 10 (MFC)

CDN3: ISGS (Incoming Signal Interface): 2 (Second Dial Tone)

CDN4: INSG (Incoming Select Signal): 10 (MFC)

CDN24: OC (Originating Category) 0/1: -/Originating Category Information is used. **Note 22**

Note 22: OC=0: When reception of Address Signals is complete, the system finishes signal exchange.

OC=1: When reception of Address Signals is complete, the system is placed into the next status to receive Group-II Signals.

CDN23: TR (Tenant Information): 0/1=-/ICPT transfer by Group-II Signals is not executed.

CDN19: ANI (Automatic Number Identification): 0/1=-/In Service

CDN50: DPLY (Caller ID display): 0/1=Disabled/Enabled **Note 23**

Note 23: Up to 8 digits of a Caller ID can be shown on the display.

Assign the following timer value, if necessary. Refer to the table below.

CDN72: MFSP (OGIDG):Originating MFC Forward Signal Send Inter Digit Timer

CDN73: KPST (OGSDT):Originating MFC Forward Signal Send Timer

CDN74: KPPT (OGRVT):Originating MFC Backward Signal Receive Timer

CDN72: MFSP (ICIDG):Incoming MFC Forward Signal Receive Inter Digit Timer

CDN80: MPTM (ICSdT):Incoming MFC Backward Signal Send Timer

CDN81: LPTM (ICRVt):Incoming MFC Forward Signal Receive Timer

Input Data CDN	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
MFSP (OGIDG)	24.0	5.5	7.0	8.5	10.0	11.5	13.0	14.5	16.0	17.5	20.0	22.0	24.0	26.0	28.0	30.0
KPST (OGSDT)	12.0	5.5	7.0	8.5	10.0	11.5	13.0	14.5	16.0	17.5	20.0	22.0	24.0	26.0	28.0	30.0
KPPT (OGRVT)	12.0	5.5	7.0	8.5	10.0	11.5	13.0	14.5	16.0	17.5	20.0	22.0	24.0	26.0	28.0	30.0
MFSP (ICIDG)	24.0	5.5	7.0	8.5	10.0	11.5	13.0	14.5	16.0	17.5	20.0	22.0	24.0	26.0	28.0	30.0
MPTM (ICSdT)	12.0	5.5	7.0	8.5	10.0	11.5	13.0	14.5	16.0	17.5	20.0	22.0	24.0	26.0	28.0	30.0
LPTM (ICRVt)	12.0	5.5	7.0	8.5	10.0	11.5	13.0	14.5	16.0	17.5	20.0	22.0	24.0	26.0	28.0	30.0

STEP 3: ATRK (Assignment of Trunk Data)

Assign MFC Outgoing/Incoming trunks and MFC Register (MFCR) and MFC Sender (MFCS).

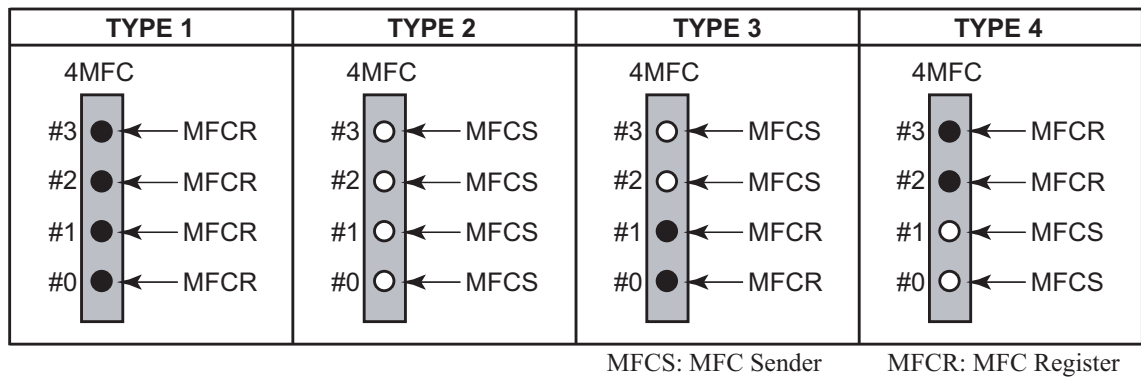
MFCR: RT=916

MFCS: RT=917

The 4MFC circuit card (PA-4MFCA), which can be used as both MFCR and MFCS, must be assigned in accordance with one of the following types. For details, refer to below.

- TYPE 1- All four circuits are assigned as MFCR. (Assign MFCS on the other 4MFCA card.)
- TYPE 2- All four circuits are assigned as MFCS. (Assign MFCR on the other 4MFCA card.)
- TYPE 3- The first two circuits are assigned as MFCR. The remaining two circuits are assigned as MFCS.

- TYPE 4- The first two circuits are assigned as MFCR. The remaining two circuits are assigned as MFCS.



STEP 4: AANI (Assignment of ANI data)

Assign the following data which specify ANI (Automatic Number Identification)

TS (Calling Number of Toll max. 8 digits): Do not assign any data.

LS (Calling Number of Local max. 8 digits): Office Code of LS **Note 24**

LDN (Listed Directory Number max. 8 digits): Assign "LDN" which is to be transmitted as "Calling Number" in ANI information.

Note 24: When LS is not used, assign * or # which mean that ANI signal is not sent.

STEP 5: ARTI (Assignment of Trunk Application Data)

Assign the maximum number of digits for G-1 signal.

ANI (CDN31): Timing to demand ANI Information

- 0: There is no ANI demand at Incoming call
- 1: After receiving 1st digit
- 2: After receiving 2nd digit
- 3: After receiving 3rd digit
- 4: After receiving 4th digit
- 5: After receiving 5th digit
- 6: After receiving 6th digit
- 7: After receiving 7th digit

STEP 6: ASFC (Assignment of Service Feature Restriction Class Data)

Assign SFC (Service Feature Restriction Class) of called parties.

SFI 59: 0/1=-/MFC No Charge for IC Call

SFI 60: 0/1=-/MFC Called Party Release for IC Call

Note: This data is used when Group-B signals are edited. When data "1" is assigned in both SFI 59 and SFI 60, SFI 59 has preference.

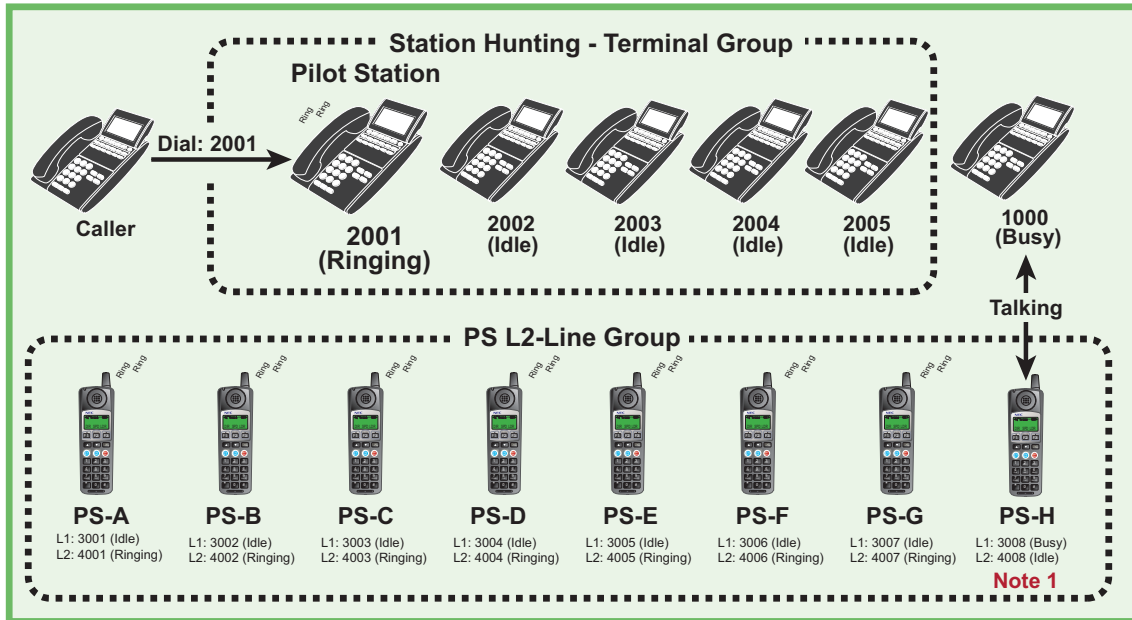
Assign SFC (Service Feature Restriction Class) of calling parties.

SFI 91: 0/1=Subscriber with Priority/Subscriber without Priority

P-74 PS (L2) GROUP CALL WITH PILOT HUNT INCOMING CALL

1. GENERAL DESCRIPTION

This feature enables a maximum of eight PSs to simultaneously receive a call termination originated to a pilot station-in-Station Hunting - Terminal [S-9] group. When a call terminates to a pilot station, all idle PS L2-lines and pilot lines are called simultaneously. If the PS-A answers the call, ringing stops (The pilot station and the PS L2-lines become idle.) and a two-way connection between the caller and the PS-A is established. When the pilot station is busy, the incoming call terminates to the next idle hunting station terminal and the PS L2-lines that are in an idle state are called. See the following:



Note: 5 terminals (including pilot station) can belong to Station Hunting-Terminal Group at the maximum when this feature is used.

Note: The maximum of 8 PSs can be registered as PS L2-line Group.

Note 1: Termination notification is received.

2. OPERATING PROCEDURE

See the figure in GENERAL DESCRIPTION.

3. SERVICE CONDITIONS

1. A maximum number of eight PSs can be grouped with a hunting group pilot number.
2. A maximum number of five terminals that can belong to hunting group, including the pilot station.
3. A PS L2-line Group is assignable to the Station Hunting - Terminal [S-9] only. The group cannot be assigned to the Station Hunting - Circular [S-7] or Uniform Call Distribution (UCD) [U-1].

4. The only PS number that the PS KIND = 7 (Dterm PS II / Dterm PS III) assigned by the APSD command can belong to is the PS L2-line Group.
5. The system uses the speech channel of the Zone Transceiver (ZT) when ringing signal is sent. A maximum number of PSs that can simultaneously receive a ringing signal by this feature depends on a ZT layout.
6. The caller number is displayed on the LCD of each terminal. When the second call terminates while the first call is connected to a terminal in a PS L2-line, the first caller number is displayed even when answering the call.
7. If any terminal user does not answer the call by this feature, the Desktop terminal continues ringing. However, all PSs stop ringing after one minute.
8. A PS that is currently roaming cannot be called.
9. It is not possible to assign a PS L2-line that is already grouped.
10. The My-line (L1) and Sub-line (L2) of a PS must be assigned in the same node.
11. This feature cannot collaborate with the OAI/ACD service.
12. This feature is not available for the Hotel system.

4. PROGRAMMING

- Entry Procedure

STEP 1: APFLL/APFLN (Assignment of PS Floating Line for LDM/NDM)
Assign PS L2-line numbers to the pilot station number.
UGN: User Group Number (Fixed to "1")
TELN: Telephone Number of the Pilot Station
SUB TELN: PS L2-line number to be grouped. (maximum eight entries)

P-80 PCS Name Display

1. GENERAL DESCRIPTION

This feature displays the user information pertaining to the caller's station number (physical number) on the LCD section of PS terminal during the station to station calling.

2. OPERATING PROCEDURE

- Refer to the user's guide of PS terminal being used for the operating procedure, because operating procedure and display may vary depending on each PS terminal.

3. SERVICE CONDITIONS

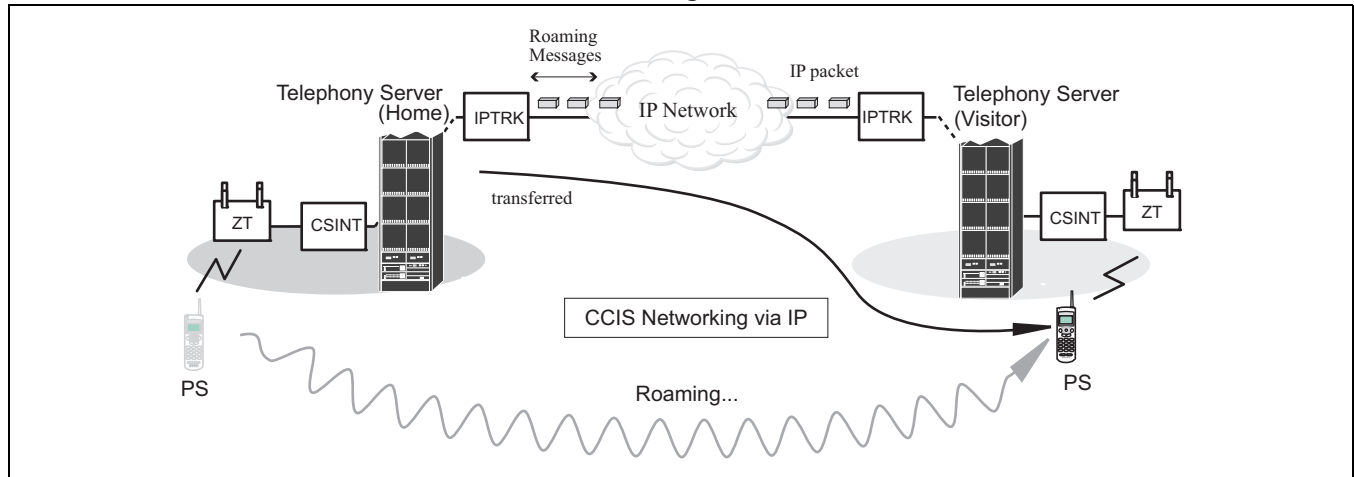
1. PS user information displayed is 16 digits in maximum.
2. Available to display alphanumeric characters only.
3. Do not use both NAME DISPLAY assigned by the ANDD command and the one assigned by OAI Service (FLF) at same time. When NAME DISPLAY is assigned by the OAI Service (FLF), NAME DISPLAY using the ANDD command cannot be assigned.
4. Caller number will be displayed when no name information has been assigned.
5. This feature can only be provided under STN-STN connection, CF-A, CF-B, CF-D, CF-Incoming incomplete and Call Waiting feature.
6. When terminated call is over CF-A, CF-B, CF-D or CF-Incoming incomplete feature, character "CF:" will be displayed. In this case, user information displayed is only the leading 15 digits.

Q-6 Q.931 a ROAMING OVER IP TRUNK

1. GENERAL DESCRIPTION

This feature allows a PS user to activate roaming service between nodes. The roaming messages are exchanged via IPTRKs. For this feature, CCIS NETWORKING VIA IP (POINT-TO-MULTIPOINT) is required.

Q.931 a Roaming over IP Trunk



2. OPERATING PROCEDURE

1. PS moves to another node which has different SYS-ID.
2. PS registers its location automatically at Visitor Node to the Home Node by CCIS NETWORKING VIA IP.
3. PS can originate a call from Visitor Node.
4. Termination to a PS is transferred from the Home Node to the Visitor Node by CCIS NETWORKING VIA IP.

3. SERVICE CONDITIONS

1. This feature requires CCIS NETWORKING VIA IP (POINT-TO-MULTIPOINT). Refer to the related manual for the data assignment and the service conditions.
2. 'Roaming Self Node Number' is referred to as 'Office Codes'. Office Codes are required for this feature.
3. Refer to "ISDN ROAMING" in this manual for other conditions related to the roaming.
4. This feature is available in both Open Numbering Plan and Closed Numbering Plan. However, the total number of digits for the office code and the PS station number must be 13 or less.

4. INTERACTION

<CCIS Networking via IP Data>

Please refer to CCIS Networking via IP [C-163] in the Data Programming Manual - CCIS.

<Roaming Data>

Please refer to ISDN ROAMING in this manual.

5. PROGRAMMING

[Assignment]

Follow the ordinary PS office data assignment for the PCS data programming.

STEP 1: ASYD (Assignment of System Data)

SYS1 SI 78

Bit 5=1 (PS Name Display in service)

SI 79

Bit 6=0 (OAI feature)

0/1: In use/Out of use

SI 241

Bit 1 (Guest name service)

0/1=8 Digits/16 Digits

STEP 2: APSD (Assignment of PS operation Data)

Assign the Tenant, station number, SFC, RSC towards the PS matching the numbering plan, Route restriction class data.

TN: Tenant Number

PS STN: PS station number

KIND: PS KIND: 3 (Standard PS)

RSC: Route Restriction Class

SFC: Service Feature Restriction Class

ICON: ICON control 0/1:Out of service/In service (Assign only on ICON controllable PS)

ND: Name Display: 1 (Name Display Service) 0/1:Out of service/In service

PS-ID: Max. 9 [DEC] **Note 1**

PS NO: TYPE 1 (12 digits or less [BCD]) fixed

NWN: Network Number: Blank (Not used)

ADERA: Additional Area Number: Blank (Not used)

CTRN: Country Number: Unique number for each country

SUB SYS-ID Setting: Setting of Sub-SYS-ID (Not used)

Note 1: PS-ID is the information indigenous to each PS (PS-ID is written on each PS terminal).

STEP 3: ANDD (Assignment of Name Display Data)

Assign the name display data.

TN: Tenant Number

STN: Station number (Physical Number)

NAME: User Information

[Deletion]

Deletion must be operated in opposite order of data assignment.

R-50 RADIO CHANNEL CHANGEOVER

1. GENERAL DESCRIPTION

This service supervises and controls (changeover) the channel automatically to avoid interference and to maintain speech quality.

2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. There is no interruption in speech when this service is activated.
2. The new channel is assigned to the party which has moved into the service area.

When no idle channel is available, the call is continued on the same channel until the communication becomes unavailable, then AUTOMATIC RELEASE - OUT OF CELL CALLS is activated.

4. PROGRAMMING

No data programming is required.

S-130 SPEECH SCRAMBLING

1. GENERAL DESCRIPTION

This service protects calls from being tapped.

2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. This service is activated for every originating call from the Dterm PS and for every terminating call to the Dterm PS. For every call, the encryption assignment message is sent from the Dterm PS to the zone transceiver.
2. ENCRYPTION is automatically activated throughout a call. Canceling encryption during a call is not possible.

4. PROGRAMMING

No data programming is required.

S-131 STACK DIALING - STATION

1. GENERAL DESCRIPTION

This service allows the Dterm PS series user to store the last five numbers dialed and to redial the numbers by pressing the REDIAL/PAUSE or F3 key.

2. OPERATING PROCEDURE

To store the number

1. Using either OVERLAP DIALING or PRESET DIALING, dial the desired number. The number dialed is stored automatically.

To redial the stored number using OVERLAP DIALING

1. Press the SEND or L1 key, then REDIAL/PAUSE or F3 key; the newest stored number is displayed on the LCD digit by digit, moving from right to left. The displayed number is dialed automatically.

To redial the stored number using PRESET DIALING

1. Press the REDIAL/PAUSE or F3 key; the stored number is displayed on the LCD digit by digit, moving from right to left. By pressing the REDIAL/PAUSE or F3 key repeatedly, the second and the third numbers will be displayed successively.
2. When the desired number is displayed, press the SEND or L1 key. The number is dialed automatically.

3. SERVICE CONDITIONS

1. A maximum of 40 digits (the numbers 0 to 9, #, *, and the function keys) can be stored.
2. The numbers are stored in the memory in the order they are dialed. If the number identical to the one in the memory is dialed, that number is recognized as the newest number, and the one already stored will be erased. (Regardless of the number of times the same number is dialed, it is stored only once.)

4. PROGRAMMING

No data programming is required.

S-132 SPEED CALLING - STATION - PS

1. GENERAL DESCRIPTION

This service allows the Dterm PS series user to dial certain frequently called numbers using 2-digit abbreviated call codes.

2. OPERATING PROCEDURE

The Speed Calling data is set via the user definable data assignment. For detailed operation, refer to the Dterm PS User Guide.

3. SERVICE CONDITIONS

1. Each abbreviated call code can store a maximum of 40 digits (the numbers 0 to 9, #, *, pauses, and the function keys).
2. A maximum of 20 call codes can be assigned.
3. If PRESET DIALING, when a wrong number is dialed, it can be cleared by the CLR or CLEAR key.
4. Pauses registered in the dial number will not be activated when originating a call to ISDN Lines or to Analog Lines via MG-COT [SCA-6COTA]/MG-COT [SCA-6COTB]/MG-COT [SCA-6COTC].

4. PROGRAMMING

Refer to the data programming of Speed Calling-Station [S-21] in Data Programming Manual - Business.

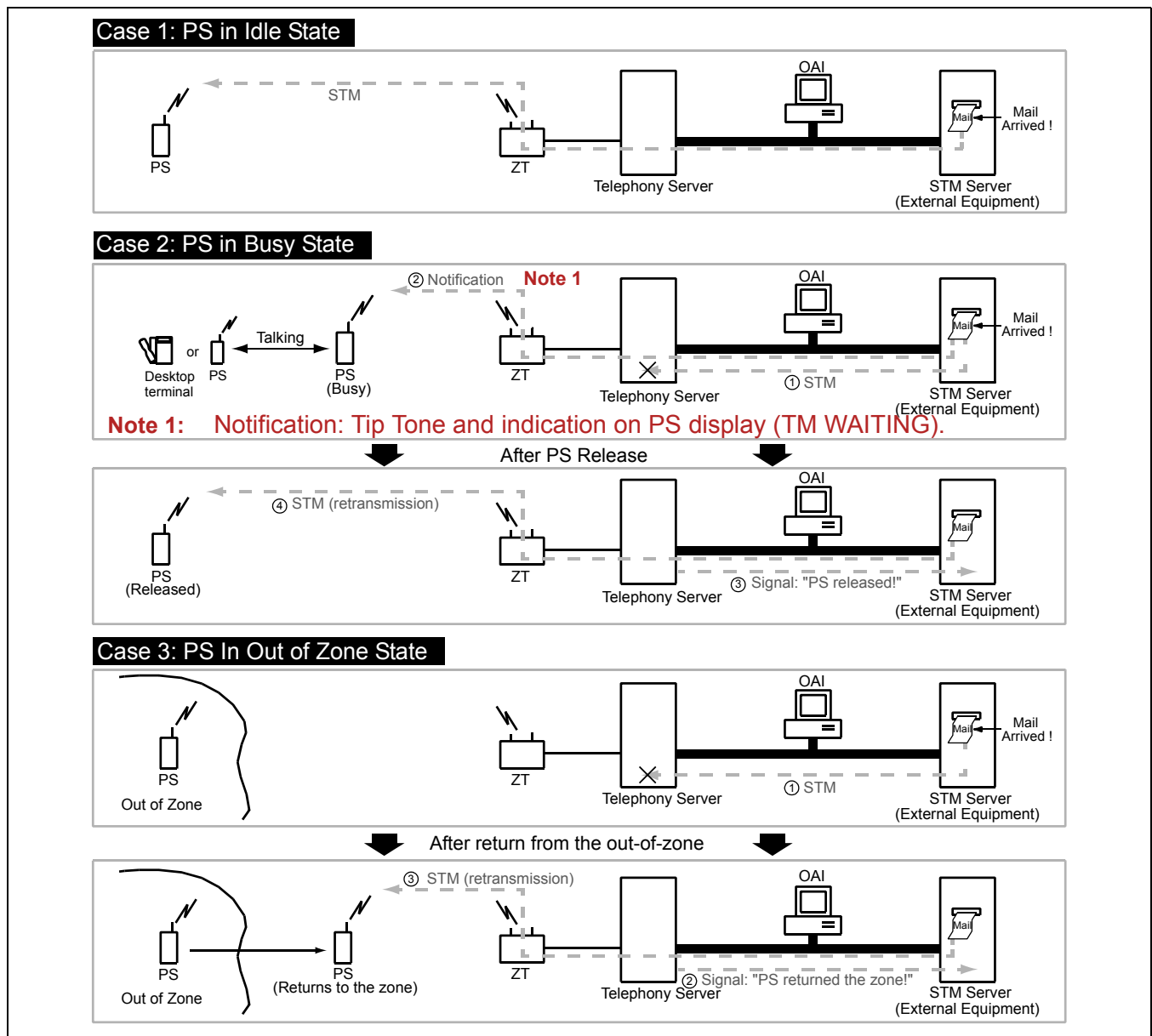
S-134 SHORT TEXT MESSAGE SERVICE (STM SERVICE)

1. GENERAL DESCRIPTION

This feature enables a Short Text Message (STM), once arrived at the mail box of the STM Server (external equipment), to be automatically distributed to the PS addressee via the Open Application Interface (OAI). This feature also provides a Zip Tone and TM Waiting notification on the LCD of the PS addressee that is busy. If the PS is out-of-zone, a retransmission of the STM is made after the PS returns to the zone.

Note: Outline of Short Text Message (STM) Service describes an STM using an external OAI device such as OpenWorX. For additional information, refer to Data Programming Manual - OAI.

Outline of Short Text Message (STM) Service



2. OPERATING PROCEDURE

- By using a PS function key, a user can set a password (less than four digits) to the PS to enter the Short Text Message (STM) system mode.
- The STM is transmitted to the PS while PS's buffer (maximum ten messages) is busy and is temporarily kept in STM server. When requesting the STM, delete old STM data in the buffer using function key. The PS automatically requests STM server to retransmit the STM. For more information, refer to "PS's manual".

3. SERVICE CONDITIONS

1. This feature is available for My-line (L1) of a two-line Dterm PS. [Not provided for Sub-line (L2)]
2. This feature is provided in the same form as that for call termination.
3. The STM transmission route is only one way: STM server → PS.
4. The STM contains a maximum of 128 byte data.
5. The following features are not available with the STM service.
 - Call Forwarding - All Calls
 - Call Forwarding - Don't Answer
 - Call Forwarding - Busy Line
 - Call Forwarding - PS Incoming Incomplete
6. This feature is counted as a CS peg count.
7. If the following occurs, the STM is not distributed, but stays in the mailbox of the STM server. The STM is later safely transmitted by this feature's retransmission function.
 - Addressee PS is out-of-zone.
 - Addressee PS has a power down.
 - The line of addressee PS is busy.
 - PS is in a state of handover. **Note 2**

Note 2: When handover unexpectedly starts, while the message transmission is partially in progress, this feature sees this as a squelch disconnection and performs message re-transmission after the handover is complete.
8. This feature is not available for the PS user during PCS Roaming. STM is available for the PS user roaming in an FCCS network.
9. Multiple STM servers cannot be transmitted to a single PS simultaneously. The earliest STM can be sent safely.

4. HARDWARE CONDITIONS

Use a PS and a ZT that both support this feature. If another PS/ZT is used, the following occurs on the Telephony Server side:

- The Telephony Server sends an STM request to a PS.
- The Telephony Server cannot obtain a response signal from the PS.
- The Telephony Server cannot identify that the PS/ZT is not compatible with the STM feature.
- The Telephony Server judges the PS as in (and returning from) the out-of-zone area.
- According to the judgement above, the Telephony Server performs adequate processing (PS is judged returning from the zone, and a retry of the STM request is made).

5. PROGRAMMING

No data programming is required.

S-135 SPEED CALLING - SYSTEM - PS

1. GENERAL DESCRIPTION

This feature allows a PS user to call certain frequently dialed numbers using fewer digits (abbreviated call codes) than would normally be required.

2. OPERATING PROCEDURE

1. Press off-hook button; receive Dial Tone.
2. Dial SPEED CALLING-SYSTEM – PS access code (maximum three digits).
3. Dial abbreviated call code (maximum four digits).
4. Call is completed.

3. SERVICE CONDITIONS

This item describes conditions exclusive for PS only. For other service conditions, see SPEED CALLING-SYSTEM [S-3] and SPEED CALLING OVERRIDE-SYSTEM [S-61] in the Data Programming Manual - Business.

1. For SPEED CALLING-SYSTEM – PS call origination using Pre-set dialing, system data assignment (ASYD, SYS1, Index 420, Bit 0=1) is required.
2. This feature is guaranteed for outgoing calls using LCR method.
3. This service is available for PS in FCCS-Roaming status. In that case, this service is activated following the SFC data and SPEED CALLING-SYSTEM data in the node where the used ZT is installed.
4. SPEED CALLING-SYSTEM [S-3] codes programmed into System Data are accessible to all stations with a CLASS OF SERVICE-INDIVIDUAL [C-15] permitting speed calling.
5. Each abbreviated call code can store a maximum of 24 digits, including access codes and pauses.
6. The standard number of speed calling numbers stored in the system is 10,000.
7. Speed calling numbers are programmed via System Data from the PCPro.
8. Stations may be denied access to SPEED CALLING-SYSTEM - PS via CLASS OF SERVICE-INDIVIDUAL [C-15] assignment in System Data. SPEED CALLING - SYSTEM [S-3] may be allowed or denied on either a station or tenant-wide basis.

9. TOLL DENIAL/TOLL DIVERSION [T-6] and TOLL RESTRICTION-3/6-DIGIT [T-7] may or may not be applied to SPEED CALLING-SYSTEM - PS, depending on preference.
10. LEAST-COST ROUTING-3/6-DIGIT [L-5] may be provided via SPEED CALLING-SYSTEM - PS access.
11. When assigning the access code to line/feature, abbreviated call code must be set at 2 to 4 digits.

4. PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 93, Bit 3. Separate or Common Tenant Data table development for ASPD command data.
0/1 = Separate/Common
SYS2, Index 1, Bit 6. Toll restriction for trunk outgoing call using SPEED CALLING-SYSTEM – PS.
0/1 = Restricted/Allowed (SFC of AABD command basis).
SYS2, Index 1, Bit 7. Toll Restriction for trunk outgoing call using SPEED CALLING-SYSTEM – PS (system basis). 0/1 = Restricted/Allowed (If required)
SYS1, Index 420, Bit 0. Access Code using the Pre-set dialing. 0/1 = No/Yes

STEP 2: ANPD (Assignment of Numbering Plan)

Reserve a number level for feature access. Select Normal Service (N) from the combo box for Connection Indexes. Assign NND in accordance with a predetermined numbering plan.

STEP 3: ASPA (Assignment of Special Access Code)

CI=N, SRV = Service Code (SSC), SID = 15.

*Value in NND is the sum of digits of Access code plus Abbreviated Digit Code (ADC) programmed in ASPD.

Example: 6 (1 digit's access code) + 010 (3 digits' ACD) → NND = 4

STEP 4: ASFC (Assignment of Service Feature Restriction Class)

SFC that allows this service, SFI = 12, RES=1

STEP 5: ASPD (Assignment of Speed Calling)

Assign called party's number (Called Number; CD) to an Abbreviated Digit Code (ADC). The access code of the route must be included in CD.

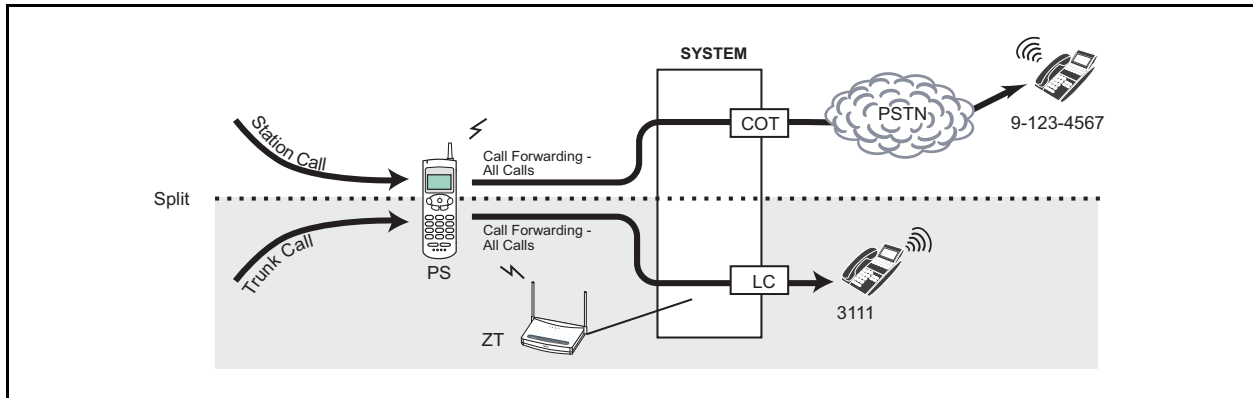
STEP 6: AABD (Assignment of Speed Calling Restriction Data)

Assign that ADC (Abbreviated Digit Code assigned in ASPD command) is allowed or restricted (RES: 0/1 = Connection is restricted/Connection is allowed) for each SFC.

S-142 SPLIT CALL FORWARDING - PS

1. GENERAL DESCRIPTION

This feature allows a PS user to set two different call forwarding destinations according to the incoming call type (station or trunk call). Available Call Forwarding features are: All Calls (**Note 1**), Busy Line, Don't Answer and Incoming Incomplete.



Note: The following two tables are used for storing Call Forwarding data:
 Table 1 - Existing Call Forwarding Data Storage Area (used for Trunk calls)
 Table 2 - Expanded Call Forwarding Data Storage Area (used for Station calls)

2. OPERATION PROCEDURE

- How to Set Split Call Forwarding

STEP 1: Press the off-hook button; receive Dial Tone.

STEP 2: Dial Split Call Forwarding - Set access code; receive Special Dial Tone.

STEP 3: Dial the destination number; receive Service Set Tone.

STEP 4: Press the off-hook button.

- How to Cancel Split Call Forwarding

STEP 1: Press the off-hook button; receive Dial Tone.

STEP 2: Dial Split Call Forwarding - Cancel access code; receive Service Set Tone.

STEP 3: Press the off-hook button.

Note 1: From FP95-114 V4 Issue 2.0, CALL FORWARDING - ALL CALLS can be canceled with the entry Access Code (ASYDL/N SYS1, Index 686, Bit 0= 1).

3. SERVICE CONDITIONS

1. Call Forwarding destinations must be set by dialing a specific access code (for Trunk/Station) and the destination number.
2. For trunk incoming calls, the reference table for forwarding the call can be specified by Route Data on a route basis. ARTD, CDN 68 (SCF) 0/1 = Table 2/Table 1 is referred.
3. When a trunk incoming call was forwarded by Attendant or Station, the forwarding destination shall be determined by the route data of the incoming trunk.
4. All Call Forwarding features shall be Split Call Forwarding when ASYD, SYS 1, Index 79, bit 2 = 1.
5. Call Forwarding table to be referred for incoming call is determined by System Data, ARTD (CDN68) and Incoming Call Type as shown below.

Table 1: forwarding destination assigned in SID=8, 10, 12 of ASPA command

Table 2: forwarding destination assigned in SIDA=86, 87, 88 of ASPA command

SYSTEM DATA	INCOMING CALL TYPE		
	FROM STATION/ATT	FROM C.O. / TIE LINE	
		ARTD SCF = 0	ARTD SCF = 1
SYS1, Index 79, Bit 2 = 0 Split Call Forwarding is Out of Service	Table 1	Table 1	Table 1
SYS1, Index 79, Bit 2 = 1 Split Call Forwarding is In Service	Table 2	Table 2	Table 1

6. Multiple Call Forwarding is available for this feature.
7. When Split Call Forwarding is in service at a node where users have already set Call Forwarding features, the already set data is treated as Call Forwarding for Trunk.

4. INTERACTIONS

1. If a station belonging to a UCD group sets Split Call Forwarding - All Calls or Busy Line data (for station/trunk), the UCD service for the station is skipped.
2. If a station belonging to a Station Hunting - Pilot/Circular sets Split Call Forwarding data, hunting for the station is skipped. Note that when the call forwarding has been set for station only, a trunk incoming call to the station will hunt. Also when the call forwarding has been set for trunk only, a station incoming call to the station will hunt.
3. This feature cannot be used together with Call Forwarding I'm Here.
4. This feature is available for a PS in a roaming state (All Calls, Busy Line, Incoming Incomplete). Note that Call Forwarding - Don't Answer for a PS in a roaming state is not provided according to the restriction on PCS/PHS roaming.
5. When a PS is accommodated to a Desktop terminal multiline, Split Call Forwarding can be set by using the Feature key on the Desktop terminal. The following keys can be used:

- Key for PAGE/Call Forwarding - All Calls/Call Forwarding - Busy Line/Call Forwarding - Don't Answer
- Key for Split Call Forwarding - All Calls (for Station/Trunk)

5. PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 5, Bit 0

Access Code for C.F.- Busy Line, Don't Answer and Incoming Incomplete
0/1 = Same/Separate

SYS1, Index 5, Bits 1-3

Maximum number of Multiple Call Forwarding:

SYS1, Index 69, Bit 7

Multiple Call Forwarding for Busy Line/All Calls/Logout
0/1 = Out/In Service

SYS1, Index 79, Bit 2

Split Call Forwarding Service
0/1 = Out/In Service

SYS1, Index 248, Bit 7

Tone to be sent out when the handset is off-hook at the station on which C.F. - All Calls service is set:
0/1 = Dial Tone (DT)/Special Dial Tone (SPDT)

SYS2, Index 6, Bit 4

Call Origination Restriction of Station upon Setting C.F.-All Calls
0/1 = Required/Not Required **Note 2**

Note 2: Call Origination cannot be restricted for Split Call Forwarding (Station).

STEP 2: ASYDL/N - SYS1, Index 686, Bit 0=1.

Disabling Call Forwarding - All Calls with entry Access Code is in service.

Note: Available from FP95-114 V4 Issue 2.0.

STEP 3: ASPA (Assignment of Special Access Code)

Assign the access codes for Split Call Forwarding.

SRV=SSC

SID=8	Split Call Forwarding - All Calls; Set (for Trunk)
SID=9	Split Call Forwarding - All Calls; Cancel (for Trunk) Note 3
SID=10	Split Call Forwarding - Busy Line; Set (for Trunk)
SID=11	Split Call Forwarding - Busy Line; Cancel (for Trunk)
SID=12	Split Call Forwarding - Don't Answer; Set (for Trunk)
SID=13	Split Call Forwarding - Don't Answer; Cancel (for Trunk)

SRV=SSCA

SIDA=101 Split Call Forwarding - Incoming Incomplete; Set (for Trunk)
SIDA=102 Split Call Forwarding - Incoming Incomplete; Cancel (for Trunk)
SIDA=86 Split Call Forwarding - All Calls; Set (for Station)
SIDA=87 Split Call Forwarding - Busy Line; Set (for Station)
SIDA=88 Split Call Forwarding - Don't Answer; Set (for Station)
SIDA=89 Split Call Forwarding - All Calls; Cancel (for Station) **Note 3**
SIDA=90 Split Call Forwarding - Busy Line; Cancel (for Station)
SIDA=91 Split Call Forwarding - Don't Answer; Cancel (for Station)
SIDA=144 Split Call Forwarding - Incoming Incomplete; Set (for Station)
SIDA=145 Split Call Forwarding - Incoming Incomplete; Cancel (for Station)

Note 3: When SYS1, Index 686, Bit 0=1 (Disabling Call Forwarding - All Calls with entry Access Code is in service), Call Forwarding - All Calls cancel code is not required because the cancellation can be performed with the entry Access Code.

STEP 4: ASFC (Assignment of Service Feature Restriction Class)
Allow Split Call Forwarding features according to PS Service Feature Restriction Class.
SFI=7 (Split Call Forwarding - All Calls)
SFI=8 (Split Call Forwarding - Don't Answer)
SFI=9 (Split Call Forwarding - Busy Line)
SFI=147 (Split Call Forwarding - Incoming Incomplete)
RES=1 (Allowed)

STEP 5: ARTD (Assignment of Route Class Data)
Assign Split Call Forwarding (SCF: CDN=68) on a route basis.
0: Table 2 is referred.
1: Table 1 is referred.

Note: To change the data for existing route (RT), initialize or reboot the trunk device such as circuit card or MG.

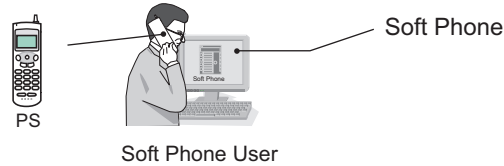
STEP 6: ATNR (Assignment of Tenant Restriction Class Data)
Allow Call Forwarding features between OGTM and TMTN by TRI=1.

S-158 SOFT PHONE - PS

1. GENERAL DESCRIPTION

This feature allows a Softphone user to use the PS terminal as the handset of the Softphone. The user can select a handset (Softphone Handset or PS) by pressing the Handset Switch key on the Softphone.

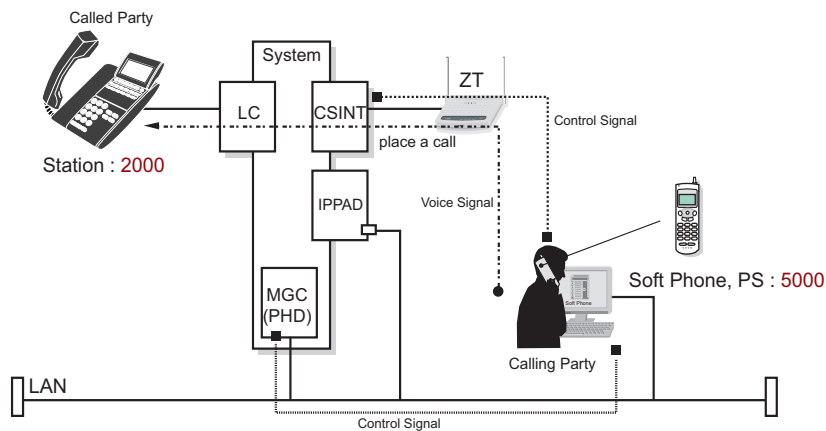
Example:



2. OPERATING PROCEDURE

Operating procedure for the following configuration is explained here.

Example:



Call Origination

- Call Origination (Goes off-hook from the PS before dialing)
 - (1) Go off-hook from the PS.
 - (2) Dial the destination number from the PS or Softphone. - Address Book also can be used.
- Call Origination (Dials before going off-hook from the PS)
 - (1) Press the Speaker button on the Softphone.
 - (2) Dial the destination number from the Softphone.- Address Book also can be used.
 - (3) Go off-hook from the PS.

Call Termination

- Call Termination to the PS Line on the Softphone
 - (1)PS or Softphone rings.
 - (2)Go off-hook from the PS.
- Call Termination to Sub Line on the Softphone
 - (1)Sub Line on the Softphone rings.
 - (2)Click the Sub Line on the Softphone, and then go off-hook from the PS.
The call can be picked up.

Note: The call can be picked up also by going off-hook from the PS before clicking the Sub Line on the Softphone.

Call Park from the Softphone

- To Park a Call
 - (1)Press the Hold button on the Softphone while talking to a destination.
 - (2)The call is parked and the Call Park lamp flashes on the Function key.
 - (3)Hear Service Set Tone.
 - (4)Go off-hook from the PS.
- To Retrieve the Parked Call
 - (1)Go off-hook from the PS.
 - (2)Press the Softphone button on the Softphone.

Note: The Parked Call can be retrieved also by press the Call Park button on the Softphone before going off-hook from the PS.

3. SERVICE CONDITIONS

1. The terminal that can be used as a handset varies depending on the version of Softphone.

	DtermSP30 (Software Ver.2) (Proprietary Protocol)	DtermSP30 (Software Ver.4) (Proprietary Protocol)	DtermSP30 (Software Ver.7 or later) (Proprietary Protocol/SIP) and Soft Client SP350
Analog Telephone	N	N	×
Dterm/DtermIP/IP Enabled Dterm	N	N	×
DtermIP(SIP)	N	N	×
PS	N	×	×

2. In principle, when assigning PS/ZT(CS) data, use the NDM commands (FPC=1).
3. Call originating is available from the PS or Softphone by dialing a desired number. Call origination by the Address Book on Softphone is also available.
4. This feature can be set/canceled by pressing the Handset Switch key provided on the Softphone. Note that the Handset Switch key is invalid while the Softphone or PS is engaged (Call Termination / Call Origination / Talking).
5. When a Softphone using this feature receives an incoming call, the call is answered by the PS. If the PS moves out of zone, Automatic Announcement - Called PS out of Zone/Call Forwarding - PS Incoming Incomplete is applied or ROT is heard.
If a Softphone received an ISDN incoming call, the caller hears RBT.
If the PS moves out of zone, the above features will be applied or ROT will be heard.
When PS out of zone occurs while the Handset Switch is applied, the calling party hears RBT.
6. While the PS is talking by this feature, HOLD, TRANSFER, CONF can be set from the PS or Softphone.
7. When a call terminates on a Sub Line, it can be answered from the PS. If this is required, set SFI 29 (Direct Call Pickup) to 1 by ASFC for PS and Softphone.
8. When this feature has been set the following is restricted:
 - Using the handset of PC in which Softphone is installed while the PS is engaged in call.
 - Call Origination from/Call Termination to My Line of Softphone.
9. When this feature has been set, the PS is automatically specified as the handset whenever registration is performed. Even if the Handset Switch is applied, the PS becomes the handset of Softphone when registration is performed. If Softphone registration is performed while the PS is placing a call or talking, any key operation will not be accepted from the Softphone. (**Note 1**) The key operation will be available when the PS releases the call.

Note 1: The unacceptable key status is same as that the PS is placing a call or talking. However these following keys are excepted:

Function key of Last Number Call: When this key is pressed, the number is displayed on the LCD. However the dial number is unavailable to place a call.

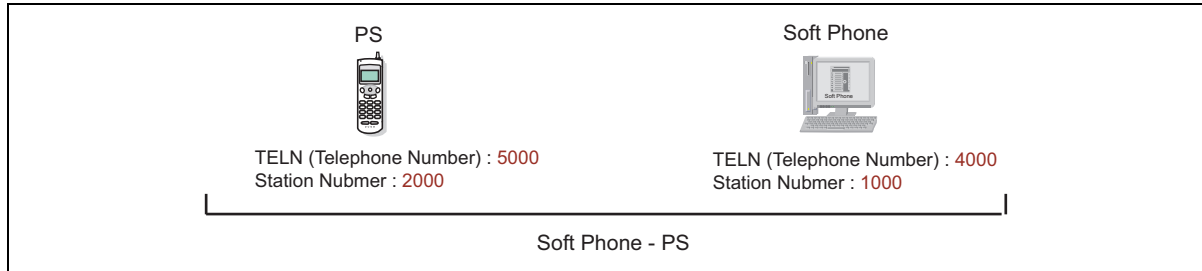
Function key of Logout: This key is acceptable, except pressing after following keys;
 - Function key of Last Number Call
 - Function key of Speaker
 - Function key of Prime Line
10. When this feature is used, the PS user requires to go off-hook to place a call.
11. A Softphone user cannot retrieve the parked call by pressing the Park key when the user is engaged in call.

12. When assigning Call Pickup Group / Call Pickup Expand data not using Telephone Number, be sure to assign the PS station number and My Line Number of the Softphone by using ACPG / ACPE commands.
13. In the following case, when the user goes off-hook from the PS, ROT is heard:
 - PS user presses the CALL PARK Feature key - the call is parked.
 - The parked call is retrieved by other terminal or the held party releases the call.
14. When ASYDL/ASYDN, SYS1, Index 679, Bit 4 is assigned as "0" while Call Park Group feature is enabled, the MG assigned to PS station numbers by the APGN command must be the same as the one that accommodates the My Line of the Softphone using this feature.
15. This feature cannot be used for Hotel / OAI / ACD system.
16. There may be cases where operations while using this feature cannot be recorded in Call Logs. This is also the case when using Redial or Last Number Called -D.
17. When Soft Phone - PS is used, Call Forwarding - All Calls is not canceled even if Call Forwarding - All Calls Automatic Canceled has been assigned by ASYD command.
18. Origination/Termination History (a function of Softphone) cannot be used during this feature.
19. If Application Sharing function such as White Board is activated while in conversation, the Hold button of Softphone cannot be used until the conversation is completed.
20. When using this feature, it is available to retrieve only the held call via Call Park Group -D.
21. This feature is not available for a call via PHC.
22. When a PS uses this feature, the PS user can place a call on hold by using Call Park access codes. The data programming is required for Call Park.
23. When the handset is PS, the PS cannot answer the held call on the Sub Line on Softphone.
24. Soft Phone - PS is available when the talking PS moves among FCCS offices.
25. Both of PS and Soft Phone can release the call when PS is used as a handset.
26. When PRESET DIALING from PS is executed in the state that number is left on the LCD of Softphone connected with PS, PS will receive ROT or Dead Number Announcement.
27. A maximum of 256 units per MG can be assigned for MG (Module Group) of PS Line Appearance data (APLAML/APLAMN).
28. This feature is not available on L2 of PS dual line.
29. In this feature, when assigning Call Pickup-Group and Expanded Call Pickup-Group data, you need to assign PS Number.

4. PROGRAMMING

The following shows the example condition for each terminal. Assign the data referring to the example condition. In case of this example, station number used for call origination or termination will be “5000”.

Example condition:



- Stand Alone

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 390, Bit 2 = 1. Allow the Caller ID display on the bottom line of Desktop terminal LCD in service.

STEP 2: ASCL (Assignment of Station Class Data)

Assign the same Station Class to both PS and Softphone.

Note: When the Station Classes of the PS and the Softphone are different, some operations of this feature may not be performed from the Softphone.

Read Station Class Data of PS.

TN: Tenant Number

STN: 2000 (Station number of PS)

TEC=28 (PS)

RSC: Route Restriction Class [0-15]

SFC: Service Feature Restriction Class [0-15]

For Softphone, assign the same Station Class as that of PS.

TN: Tenant Number

STN:1000 (Station number of Softphone)

TEC=12 (Dterm)

RSC: Route Restriction Class [0-15] (Same as RSC of PS)

SFC: Service Feature Restriction Class [0-15] (Same as SFC of PS)

STEP 3: APLAML (Assignment of PS Line Appearance Module - Group for LDM)

Assign the MG of Softphone that accommodates PS Line as Sub Line to Telephone Number of the PS.

UGN: User Group Number

TELN: Telephone Number of the PS

Local Module Group

[In case of the example condition]

UGN: User Group Number

TELN: 5000

Local Module Group

Note: Although this parameter allows the system to register an MG automatically by pressing the Set button without specifying the MG, do not register in this way here. It is because MG assigned in this way conflicts with MG registered Softphone for this feature.

Note: When the number of unit is more than 256 per MG, assign the unit also to the MG Number 02-07.

STEP 4: AKYD (Assignment of Key Data for Dterm)

Assign the PS station number to the Prime Line of Soft Phone.

PL TN: Prime Line Tenant Number

PL STN: Prime Line station number (station number of PS)

S = 0 (Without OFF-HOOK suppression)

KYN: Key Number

KYI = 2 (Multiline)

Multi Line TN: Multi Line Tenant Number

Multi Line STN: Multi Line station number (station number of PS)

KYN: Key Number

KYI = 2 (Multiline)

Multi Line TN: Multi Line Tenant Number

Multi Line STN: Multi Line station number (station number of Soft Phone)

[In case of the example condition]

PL TN: Prime Line Tenant Number

PL STN: 2000 (station number of PS)

S = 0 (Without OFF-HOOK suppression)

KYN: 1-32

KYI = 2 (Multiline)

Multi Line TN: Multi Line Tenant Number

Multi Line STN: 2000 (station number of PS)

KYN: 1-32

KYI = 2 (Multiline)

Multi Line TN: Multi Line Tenant Number

Multi Line STN: 1000 (station number of Soft Phone)

Assign Handset Switch button to a Function key of Soft Phone when required.

KYN: Key Number

KYI = 1 (Function Key)

FKY = 157 (Handset Switch)

STEP 5: APJSL (Assignment of PS Join Soft Phone for LDM)

Assign the relationship between the My Line of Soft Phone and PS.

UGN : PS User Group Number

TELN : PS Telephone Number

S_UGN: Soft Phone User Group Number

S_TELN: Soft Phone Telephone Number

[In case of the example condition]

UGN : PS User Group Number

TELN : 5000 (Telephone Number of PS)

S_UGN: Soft Phone User Group Number

S_TELN: 4000 (Telephone Number of Soft Phone)

- FCCS

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 390, Bit 2 = 1. Allow the Caller ID display on the bottom line of Desktop terminal LCD in service.

STEP 2: ASCL/ASCL_T (Station Class Data)

Assign the same Station Class to both PS and Soft Phone.

Note: When the Station Classes of the PS and the Softphone are different, some operations of this feature may not be performed from Softphone.

Read Station Class Data of PS.

UGN: User Group Number

TELN: 5000 (Telephone Number of PS)

FPC: Fusion Point Code

TN: Tenant Number

STN: 2000 (station number of PS)

TEC=28 (PS)

RSC: Route Restriction Class [0-15]

SFC: Service Feature Restriction Class [0-15]

For Softphone, assign the same Station Class as that of PS.

UGN: User Group Number

TELN: 4000 (Telephone Number of Softphone)

TN: Tenant Number

STN: 1000 (station number of Softphone)

TEC=12 (Dterm)

RSC: Route Restriction Class [0-15] (Same as RSC of PS)

SFC: Service Feature Restriction Class [0-15] (Same as SFC of PS)

STEP 3: APLAMN (Assignment of PS Line Appearance Module - Group for NDM)

Assign the MG of Softphone that accommodates PS Line as Sub Line to Telephone Number of the PS.

UGN: User Group Number

TELN: Telephone Number of the PS

Local Module Group

[In case of the example condition]

UGN: User Group Number

TELN: 5000

Local Module Group

Note: Although this parameter allows the system to register an MG automatically by pressing the Set button without specifying the MG, do not register in this way here. It is because MG assigned in this way conflicts with MG registered Softphone for this feature.

Note: When the number of unit is more than 256 per MG, assign the unit also to the MG Number 02-07.

STEP 4: AKYD (Assignment of Key Data for Dterm)

Assign the PS station number to the Prime Line of Softphone.

PL TN: Prime Line Tenant Number

PL STN: Prime Line station number (station number of PS)

S = 0 (Without OFF-HOOK suppression)

KYN: Key Number

KYI = 2 (Multiline)

Multi Line TN: Multi Line Tenant Number

Multi Line STN: Multi Line station number (station number of PS)

KYN: Key Number

KYI = 2 (Multiline)

Multi Line TN: Multi Line Tenant Number

Multi Line STN: Multi Line station number (station number of Softphone)

[In case of the example condition]

PL TN: Prime Line Tenant Number

PL STN: 2000 (station number of PS)

S = 0 (Without OFF-HOOK suppression)

KYN: 1-32

KYI = 2 (Multiline)

Multi Line TN: Multi Line Tenant Number

Multi Line STN: 2000 (station number of PS)

KYN: 1-32

KYI = 2 (Multiline)

Multi Line TN: Multi Line Tenant Number

Multi Line STN: 1000 (station number of Softphone)

Assign Handset Switch button to a Function key of Softphone when required.

KYN: Key Number

KYI = 1 (Function Key)

FKY = 157 (Handset Switch)

STEP 5: APJSN (Assignment of PS Join Soft Phone for NDM)

Assign the relationship between the My Line of Soft Phone and PS.

UGN : PS User Group Number

TELN : PS Telephone Number

S_UGN: Soft Phone User Group Number

S_TELN: Soft Phone Telephone Number

FPC: Fusion Point Code

[In case of the example condition]

UGN : PS User Group Number

TELN : 5000 (Telephone Number of PS)

S_UGN: Soft Phone User Group Number

S_TELN: 4000 (Telephone Number of Soft Phone)

FPC: Fusion Point Code

- Data Assignment for the Services

There are two types of services: services that need to be assigned for either PS or PS Number, and services that need to be assigned for both PS and Soft Phone.

1. Services that need to be assigned for either PS or PS Number.

- Incoming Call Services:
A variety of Station Hunting Services or UNIFORM CALL DISTRIBUTION (UCD) [U-1]
- CALL Pickup services:
CALL PICKUP-GROUP [C-7] and Expand Call Pickup-Group
- Setting/Canceling of CF services:
Call FORWARDING-ALL CALLS [C-5], CALL FORWARDING - BUSY LINE [C-2], CALL FORWARDING-DON'T ANSWER [M-25] and LOGGED OUT IP STATION-CALL DESTINATION [L-53]

2. Services that need to be assigned for both PS and Soft Phone. **Note 2**

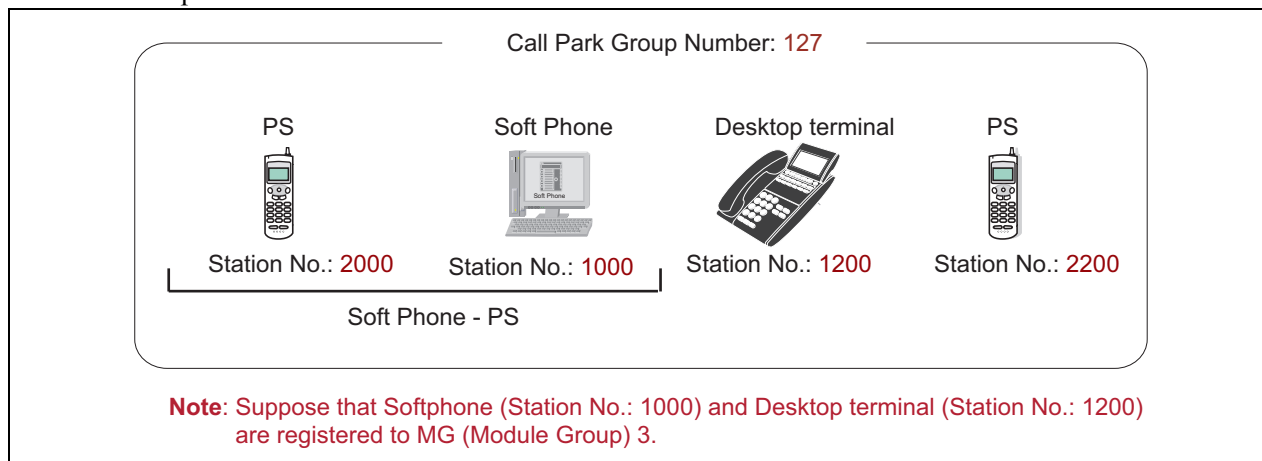
- Call Park Group -D (See [When using Call Park.](#))
- LEAST COST ROUTING FOR MG-PRI [L-54] (MA-ID) (Assignment of AMAA is needed for Softphone.)
- Other Services:
Assign required data for PS and Softphone.

Note 2: When the service data is not assigned for Softphone, you may not operate the services from Softphone (even while PS is not used as the handset of Softphone).

When using Call Park

Following shows the example condition when using Call Park. Assign the data referring to the example condition. For the basic data programming and conditions of Call Park, see the sections on Call Park features in this guide and Call Park [C-29] in Data Programming Manual - Business.

Example condition:



Parameter	Terminal				
	Soft Phone - PS		Desktop terminal (1200)	PS (2200)	GROUP NO (127)
	PS (2000)	Soft Phone (1000)			
ADGN	-	GROUP NO: 127	GROUP NO: 127	-	-
APGN	MG: 3 GROUP NO: 127 STN: 2000	-	-	MG: 3 GROUP NO: 127 STN: 2200	-
APGS	-	-	-	-	MG: 3 GROUP NO: 127 STN: 1000

STEP 1: ASFC (Assignment of Service Feature Restriction Class)

SFI=67: Call Park-Access and Answer

SFI=68: Call Park-Called

RES=1 (Allowed)

STEP 2: AKYD (Assignment of Key Data for Dterm)

Assign CALL PARK GROUP -D Feature key. Assign FKY 75-82 to the Soft Phone key.

Note: When only one Call Park Group key is assigned, assign FKY 75 to the Desktop terminal key. When more than one Call Park Group key is assigned, FKY 75 must be assigned first, and then FKY 76, FKY 77, and continuing through the remaining FKY 78 - FKY 85.

STEP 3: ASYDL/ASYDN (Assignment of System Data for LDM/NDM)

The following data setting is required when enabling Call Park Group across MGs/IMGs.

SYS1, Index 679, Bit 4 = 1 (Enable Call Park Group -D across MGs/IMGs)

Note: Delete all existing data assigned through the APGS, APGN and ADGN commands in advance.

STEP 4: ADGN (Assignment of Dterm Group Number)

Assign a group number to a station number of the Softphone using this feature and to other station numbers to be assigned to the same group. The group number must be the same as the one assigned by the APGN command.

STN: Station number

GROUP NO: Group Number (127-255)

[In case of the example condition]

STN: 1000, 1200

GROUP NO: 127

Note: When ASYDL/ASYDN, System Data 1, Index 679, Bit 4 is assigned as "0", each group must consist of stations belonging to the same Module Group (MG).

STEP 5: APGN (Assignment of PHS Group Number)

Assign MG and a group number to PS station numbers to be assigned to the same group. MG must be the same as that of Soft Phone. The group number must be the same as the one assigned by the ADGN command.

TN: Tenant number

PS STN: PS station number

MG: Module Group Number (Maximum two digits, depending on the value of the system data: ASYD, SYS1, Index 0)

GROUP NO: Group Number (127-255)

[In case of the example condition]

TN: Tenant number

PS STN: 2000, 2200

MG: 3

GROUP NO: 127

Note: This service is operated normally even if MG assigned here is different from the MG registered Softphone for this feature by APLAML/APLAMN command.

STEP 6: APGS (Assignment of PHS Group Number Control Station)

Assign a station number of the Desktop terminal that are desired to be added to the same MG and GROUP NO as the PS station numbers assigned by the APGN command.

MG: Module Group Number (Maximum two digits, depending on the value of the system data: ASYD, SYS1, Index 0)

GROUP NO: Group Number (127-255)

TN: TENANT number

STN: Station number

[In case of the example condition]

MG: 3

GROUP NO: 127

TN: TENANT number

STN: 1000

FKY	Service Feature	Soft Phone - PS	
		is used	not used
1	Call Forwarding - Busy Line	×	×
2	Call Forwarding - All Calls	×	×
3	Executive Right of Way	–	×
4	Call Waiting	–	×
5	Call Back	–	–
6	Message Reminder	–	–
7	Save and Repeat	–	×
8	Last Number Call	–	×
9	Boss-Secretary - Message Waiting Lamp Control; Set	–	–
10	Call Hold	–	–
11	Boss-Secretary - Message Waiting Lamp Control; Cancel	–	–
12	Call Pickup - Group	×	×
13	Three-way Calling	×	×
14	Voice Call	–	×
			Note 3
15	Speed Calling - System	–	×
16	Function	–	–
17	CAS SHF	–	×
18	Call Transfer - All Calls	×	×
19	UCD Busy Out	–	–
20	Non-Exclusive Hold / Exclusive Hold (Hold)	×	×
		Note 4	
21	Flash Button	×	×
22	Call Forwarding - Don't Answer	×	×
23 - 24	-		
25	ISDN Malicious Call (Australia and U.A.E. only)	–	×
26	Speed Calling - Station	–	–
27	Originate (ORG)	–	×
28	Answer (ANS)	–	×
29	Data (DATA)	–	–

FKY	Service Feature	Soft Phone - PS	
		is used	not used
30	Display / Auto (DSPY / AUTO)	–	–
31	Data Transfer (DAX)	–	–
32	-		
33	Message Waiting Lamp (MW)	–	–
34	OAI Key Code 1 (Break)	–	–
35	OAI Key Code 2 (Auto / Man)	–	–
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 (Assistance Key)	–	–
42	OAI Key Code 9 (Emergency Key)	–	–
43	OAI Key Code 10 (Log ON / OFF)	–	–
44	OAI Key Code 11 (Answer)	–	–
45	OAI Key Code 12 (Monitor / Barge)	–	–
46	OAI Key Code 13	–	–
47	UCD Call Waiting Lamp / OAI Key Code 14	–	–
48	Privacy Release	–	–
49	Speed Calling - One Touch	–	–
50	Do Not Disturb	–	–
51	Microphone	–	–
52	Speaker	×	×
53 - 54	-		
55	PAGE	–	×
56	-		
57	Recall	–	–
58	-		
59	Release Key	–	×
60	Manual Signaling Key	–	–

FKY	Service Feature	Soft Phone - PS	
		is used	not used
61 - 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	—	—
86	-		
87	Wake Up Set	—	—
88	Wake Up Reset	—	—
89	Do Not Disturb Set	—	—
90	Do Not Disturb Reset	—	—
91	Room Cut Off Set	—	—
92	Room Cut Off Reset	—	—
93	Message Waiting Set	—	—
94	Message Waiting Reset	—	—
95	Check In	—	—
96	Check Out	—	—
97	Status	—	—
98	Audit	—	—
99	Enter	—	—
100	Clear Enter	—	—
101	END	—	—
102 - 112	-		
113	Call ID Change Display	—	—

FKY	Service Feature	Soft Phone - PS	
		is used	not used
114	-		
115	Call Pickup Expand	×	×
116	-		
117	Ringer Mute	–	×
118	Call Return	–	×
119	-		
120	Next Page of Software Keys	–	–
121	Previous Page of Software Keys	–	–
122	Soft Key Assignment	–	–
123	Off Hook Ringing (OFR)	–	–
124	Mute (MUTE)	–	–
125	Headset / Handset	–	–
126	PS Key	–	–
127	Boss Move	–	–
128	Call Block	–	–
129	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	×	×
137	Selectable Station Call Pickup Group	×	×
138 - 141	-		
142	LOGOUT (for IP Enabled Dterm)	×	×
143	Voice Coding Mode Change	–	–
144	Voice Coding Select	–	–
145 - 147	-		
148	Call Forwarding - Logout	–	–
149	Message Audible Alert (North America only)	–	–

FKY	Service Feature	Soft Phone - PS	
		is used	not used
150	-		
151	MA-ID Setting	–	–
152	-		
153	Day/Night Mode (North America only)	–	–
154	Multi-Internal Zone Paging (North America only)	–	–
155	-		
156	Visitor Key	–	–
157	Handset Switch	×	×
158	Call Park Deluxe Hold/Retrieve-1	–	×
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 - 177	-		
178	Call History	–	-
179	-		
180	Phone Book	–	-
181 - 184	-		
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 - 320	-		

Note 3: Available only when Softphone is a calling party.

Note 4: Available when Call Park access codes have been assigned except Exclusive Hold.

V-24 VOICE MAIL INDICATION (VMI)

1. GENERAL DESCRIPTION

This feature provides ON/OFF control of the Voice Mail Message (VMM) indication of the PS (including the PS in the visitor node) via the Message Center Interface (MCI). This feature is also available in the CCIS and FCCS networks.

There are two types of notification methods.

Active notification: This notification is given when a voice message is received.

Passive notification: This notification is given at the time of PS Location Registration or end of call.

2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. Active notification is executed at the rate of one PS for each second. When multiple voice mails are received at a higher rate, control information for a maximum of 240 PSs is placed in a queue. When the queue overflows, active notification is not executed with regard to the overflow of information (passive notification only).
2. When an active notification is not completed because of the PS out-of-zone etc., retry operation is executed four minutes after. If the retry operation also fails, further active notification is not executed (passive notification only).
3. When control information on a PS is already in a queue, further control information on the same PS is not entered in the queue. Whenever active notification is executed, the latest information is sent.
4. When a voice mail is received while the PS is in conversation, passive notification is executed after the conversation ends.
5. At the time of active notification, if the same information has already been sent using passive notification, active notification is not executed.
6. For activating this feature, the PS supporting VMM indication is required.
7. In an FCCS network, active notification is executed from the Home node of the PS.
8. Control information is not available for a PS that has not executed the PS Location Registration.
9. This feature is not available for Sub-line on the PS.
10. This feature does not support the Message Center Interface with LAN interface.
11. This service and Open Application Interface (OAI) cannot be activated concurrently.

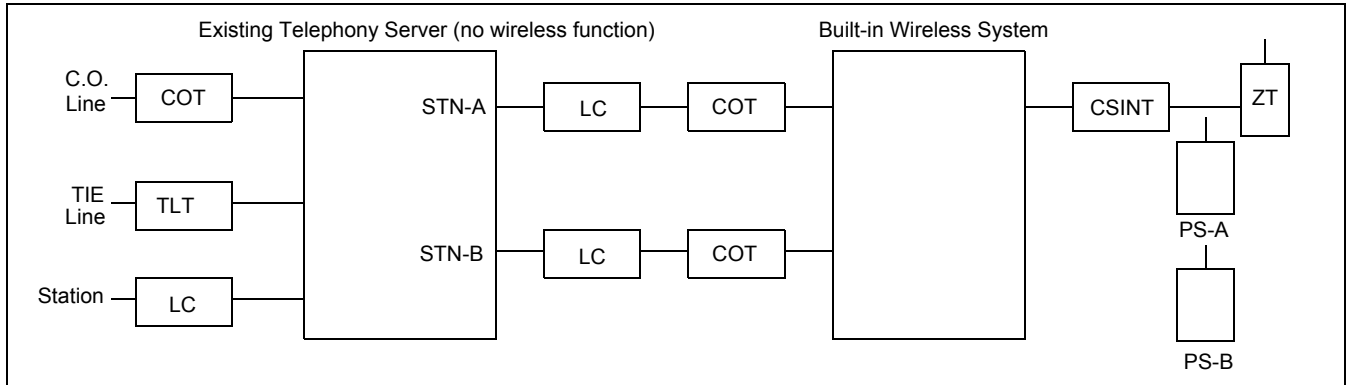
4. PROGRAMMING

Refer to Message Center Interface [M-26] in the Data Programming Manual - Business.

W-8 WIRELESS ANALOG ADJUNCT CONNECTION

1. GENERAL DESCRIPTION

This feature allows the existing the Telephony Server (no wireless function) to operate a PS as well as a station in the office. Each PS is connected with the dedicated COT in the Built-in Wireless system. When a call is originated from the PS, it terminates to the LC in the existing the Telephony Server via the corresponding COT and is handled by the existing Telephony Server.



2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. Only DTMF signals can be sent to the existing Telephony Server.
2. Only one COT circuit card must be assigned for one PS.
3. When an incoming call terminates from the existing Telephony Server to a PS via the LC → COT, if the terminating PS is busy or out of zone, call termination is performed again.

Note: The calling party hears Ringback Tone without condition. While Ringback Tone is sent, the Built-in Wireless System attempts the call termination to the called PS periodically and ring the PS when the PS becomes available.

4. The distinctive ringing service is not provided when a call terminates to the PS.
5. When the Speed Calling - System/Station service is activated using Overlap Dialing including the access code, the number dialed may not be stored for redialing.
6. Whether or not Call Forwarding services (Call Forwarding - All Calls/Busy Line/Don't Answer) by the access code are available depends on the system data of the existing Telephony Server. The Call Forwarding service set by access code is activated only when the call terminates to the corresponding LC in the existing Telephony Server.
7. The CALL FORWARDING PS INCOMING CALL INCOMPLETE [C-155] service cannot be set to a PS.

8. When a call terminates from the existing Telephony Server to the PS out of zone, the AUTOMATIC ANNOUNCEMENT - CALLED PS OUT OF ZONE [A-129] service cannot be activated. (The calling party continues to hear Ringback Tone.)
9. When the PS engaged in a connection via the existing Telephony Server moves Out of Zone, the AUTOMATIC ANNOUNCEMENT - DISCONNECTED PS OUT OF ZONE [A-128] service is not provided. (The calling party hears Reorder Tone.)
10. This feature is not available in the FCCS network.
11. When a call terminates to the PS using this feature, the calling number is not displayed on the PS.
12. The following Telephony Server services are available for PS's using this feature:
 - C.O. call origination
 - C.O. call termination
 - Intra-office services
 - Common, the other services
 - ISDN service
 - Network service
 - Call charging management service
 - Maintenance administration service
13. This feature is only available for COT Card.

4. PROGRAMMING

STEP 1: ARTD (Route Class Data)

Assign the Route Class data for COT route.

RT: Route Number

OSGS (CDN 1)= 2 (Second Dial Tone)

ONSG (CDN 2)= 2 (PB, 60 milliseconds interruption)

ISGS (CDN 3)= 1 (Ring Down)

INSG (CDN 4)= 0 (Not used)

TF (CDN 5)= 3 (Bothway Trunk)

TCL (CDN 6)= 1 (DDD Line)

L/T (CDN 7)= 1 (Trunk)

RLP (CDN 8)= 2 (First Party Release)

LSG (CDN 15)= 0 (COT)

TL (CDN 27)= 1 (Tone Level)

ANS (CDN 28)= 1 (Answer signal is given from opposite node)

PAD (CDN 30)= 7 (PAD OFF (0dB))

GUARD (CDN 34)= 2 (Ground Timer 1024 milliseconds)

Assign "0" for other parameters.

Note: To change the data for existing route (RT), initialize the circuit card.

STEP 2: ATRK (Trunk Data)

Assign the trunk data for COT circuit card.

RT: Route Number

TK: Trunk Number

LENS: Line Equipment Numbers (6 digits)

TN: Tenant Number

STEP 3: MBTK (Make Busy of Trunk)

Set the COT card to Idle state.

STEP 4: ARSC (Route Restriction Class Data)

Release the restriction for Incoming and Outgoing Route to allow the access to COT.

STEP 5: APMD (Trunk Line Appearance Maximum Necessary Digit)

Assign the Maximum Necessary Digits for PS call origination in accordance with the numbering plan of system.

DC: Destination Code (Max. 10 digits)

MND: Maximum Necessary Digits (1-24)

STEP 6: APSP (Trunk Line Appearance)

Assign the cross connection with PS and COT circuit.

TN: Tenant Number

PS STN: PS station number

RT: External Route Number

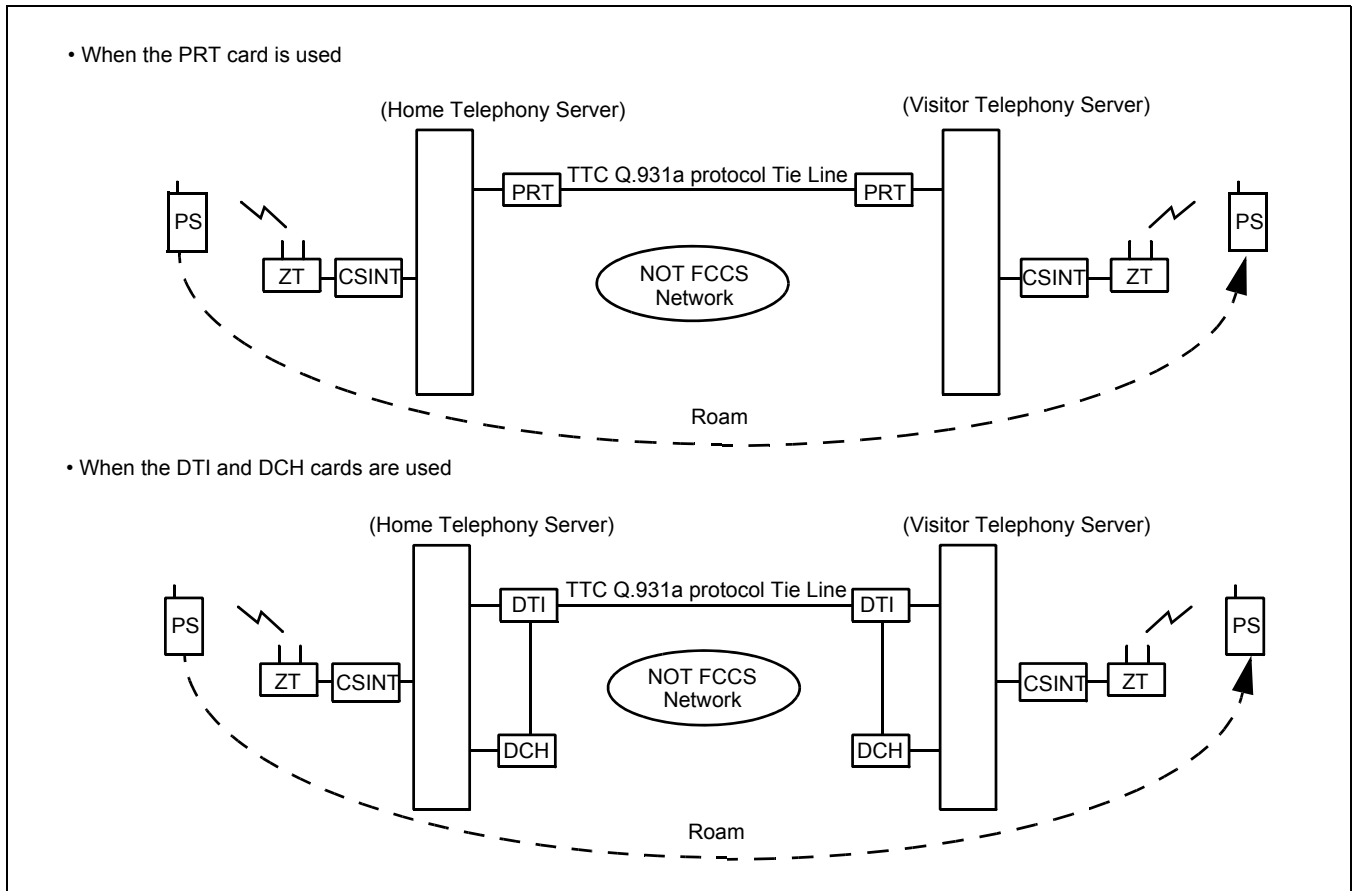
TK: Trunk Number

TTC Q.931a PROTOCOL TIE LINE WITH PCS ROAMING

1. GENERAL DESCRIPTION

When the Built-in PCS is connected to another Built-in PCS, TTC Q.931a Protocol Tie Line can be used as an interface for call origination and termination with the PCS Roaming feature.

Note: A PS can move to any node of an FCCS network that has a different SYS-ID. Refer to “PCS ROAMING.”



2. OPERATING PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

The following tables show functions available for TTC Q.931a protocol Tie Line with PCS Roaming feature.

- List of OG Call Features for Q.931a
- IC Call Service Features for Q.931a
- List of Station Service Features for Q.931a
- List of Other Service Features for Q.931a
- List of Attendant Console Service Features for Q.931a
- List of Network Service Features for Q.931a
- List of Operation/Maintenance Service Features for Q.931a
- List of ISDN Service Features for Q.931a
- List of CCIS Service Features for Q.931a

List of OG Call Features for Q.931a

×: Available △: Conditionally available –: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
ALTERNATE ROUTING/ROUTE ADVANCE	×	–	
SPEED CALLING-STATION/GROUP	–	–	Substituted for the memory dial of PS
SPEED CALLING-SYSTEM	–	–	
TOLL CALL RESTRICTION	△	–	Note 1
PUSH-BUTTON TO ROTARY CONVERSION	–	–	
PRIMARY CODE RESTRICTION	△	–	Note 1
OG TRUNK QUEUING	–	–	
OFF HOOK QUEUING	–	–	
MISCELLANEOUS TRUNK RESTRICTION/ RESTRICTION FROM OG CALL	△	–	Note 1

Note 1: When a PS has roamed to a Visitor Node, the RSC and SFC for the Visitor PS are used for the OG call restriction.

IC Call Service Features for Q.931a

×: Available △: Conditionally available –: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
EXTERNAL MUSIC-ON-HOLD	–	–	
ATTENDANT CONSOLE	×	×	
DID	–	×	Note 2
DIT	–	×	Note 3
SLUMBER TIME - DO NOT DISTURB	–	–	
POWER FAILURE TRANSFER	–	–	PS cannot be used for the Night station
DISTINCTIVE RINGING	–	–	Available in the Dterm PS or Dterm PS II / PS III Note 4, Note 5
REMOTE ACCESS TO SYSTEM/AUTOMATED ATTENDANT	–	×	Note 6
TENANT SERVICE	×	×	
MUSIC-ON-HOLD	×	×	

Note 2:

- 1) When the PS is out-of-zone, the calling party from the C.O. line hears Ringback Tone (RBT).
Automatic Announcement - Called PS Out of Zone feature set on the PS is not available.
- 2) If the PS becomes out-of-zone while connected with the calling party from the C.O. line, Automatic Announcement - Disconnected PS Out of Zone is not available. The calling party hears a Reorder Tone.
- 3) When a C.O. line incoming call is transferred to another PS or station by the C.F. - PS Incoming Incomplete, and the transfer destination is out-of-zone, the calling party will hear Ringback Tone.
- 4) When the PS is ringing, handover is not available. When a PS moves to another zone while ringing, the PS stops ringing and the calling party from the C.O. line hears a Ring Back Tone.
- 5) When a C.O. line incoming call terminates to a PS that has roamed to a Visitor Node and the PS is busy, the calling party still hears a Ringback Tone. If C.F. - B is set at the Home Node, the call is transferred to the destination station.

Note 3: When a PS is assigned as the target station of DIRECT IN TERMINATION (DIT).

- 1) When the PS is Out of Zone (Out of Zone or in POWER OFF state), Ringback Tone is heard by the calling party. If AUTOMATIC ANNOUNCEMENT-PS OUT OF ZONE is assigned by the PS, the calling party does not hear the Out of Zone Announcement, but hears a Ringback Tone.
- 2) If a PS user moves Out of Zone while connected to an outside party, AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE cannot be heard by the outside party. The outside party hears a Busy Tone.

- 3) When a PS is busy and an outside call attempts CALL WAITING, the caller hears Ringback Tone.
- 4) When a DIT call is transferred to a PS or a station that has assigned the C.F.- PS INCOMING INCOMPLETE, the calling party hears Ringback Tone if the target PS or station is out-of-zone.
- 5) The PS is unable to handover while ringing. When the PS hands over, the called PS stops ringing, and the calling party hears a Ringback Tone.

Note 4: When a PS has roamed to a Visitor Node, the PS cannot use Distinctive Ringing.

Note 5: A call from an incoming TIE Line provides the same ringing as a station call.

Note 6: Remote Access to System/Automated Attendant: Terminating side is PS.

- 1) When the PS is out-of-zone (out-of-area or in a state of POWER OFF), the calling party hears a Busy Tone. If the AUTOMATIC ANNOUNCEMENT-PS OUT OF ZONE is set by the PS, the calling party does not hear Out of Zone Announcement. The calling party hears a Busy Tone.
- 2) If a PS user moves Out of Zone while connected to an outside line, AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE cannot be heard by the outside party. The outside party hears a Busy Tone.
- 3) When the REMOTE ACCESS TO SYSTEM/AUTOMATED ATTENDANT call is transferred to a PS or a station with C.F.- INCOMING INCOMPLETE set and the transferred party is out-of-zone, the calling party hears a Ringback Tone.
- 4) The PS is unable to handover while ringing. When the called PS is ringing from REMOTE ACCESS TO SYSTEM/AUTOMATED ATTENDANT and the PS hands over, the PS stops ringing and the calling party hears a Ringback Tone.

List of Station Service Features for Q.931a

×: Available △: Conditionally available –: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
OFF HOOK ALARM	–	–	
8-PARTY CONFERENCE	–	–	
C.F.- A-OUTSIDE	△	×	Note 7
C.F.- D-OUTSIDE	△	×	Note 7, Note 8
C.F.- B-OUTSIDE	△	×	Note 7, Note 9
C.F.- A	△	×	Note 7
C.F.- A CANCEL BY A ROUTINE DIAGNOSIS	–	–	
CALL TRANSFER - ALL CALLS	×	×	Note 10
EMERGENCY CALL	–	–	
DAY/NIGHT CLASS OF SERVICE	△	–	Only RSC is available
CALL WAITING	–	–	Note 11

TTC Q.931A PROTOCOL TIE LINE WITH PCS ROAMING

List of Station Service Features for Q.931a (Continued)

×: Available △: Conditionally available –: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
CALL PICK UP - GROUP	–	–	
CALL HOLD	–	–	
THREE-WAY CALLING	×	×	
TIMED REMINDER	–	–	
CALL PICK UP - DIRECT	–	–	
STEP CALL	×	△	Note 12
SPLIT C.F.	–	–	
HOT LINE	–	×	
PERIODICAL INDICATION TONE	–	–	
AUTOMATIC CALL BACK CANCEL	–	–	
CLASS OF SERVICE - INDIVIDUAL	△	×	Note 13
STATION-TO-STATION CALLING	×	△	Note 14
STATION-TO-STATION CALL RESTRICTION	×	–	
EXECUTIVE RIGHT OF WAY	–	–	Note 15
STATION HUNTING	–	–	
CALL BACK	–	–	
FLEXIBLE NUMBERING OF STATION	–	–	
AUTOMATIC HOWLER TONE SENDING	–	–	

List of Station Service Features for Q.931a (Continued)

×: Available △: Conditionally available -: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
STATION 5DB PAD	×	–	
BOSS/SECRETARY	–	–	
C.F.- D	△	×	Note 7
PUSH-BUTTON CALLING	–	–	
PRIORITY CALL	–	–	Note 16
LINE LOCK-OUT	–	–	
RECALL	△	–	
C.F.- B	×	×	Note 7
PRIVACY	–	–	
ONE DIGIT HOOKING	–	–	

Note 7: Conditions for Call Forwarding features are shown in the table below.

×: Available -: Not available

	TRANSFER SET/CANCEL		TRANSFER OPERATION			
	LOCATION OF PS SET C.F.		LOCATION OF PS SET C.F.		LOCATION OF TRANSFERRED PS	
	HOME NODE	VISITOR NODE	HOME NODE	VISITOR NODE	HOME NODE	VISITOR NODE
C.F.- A	×	–	×	×	×	×
C.F.- D	×	–	×	–	×	×
C.F.- B	×	–	×	×	×	×

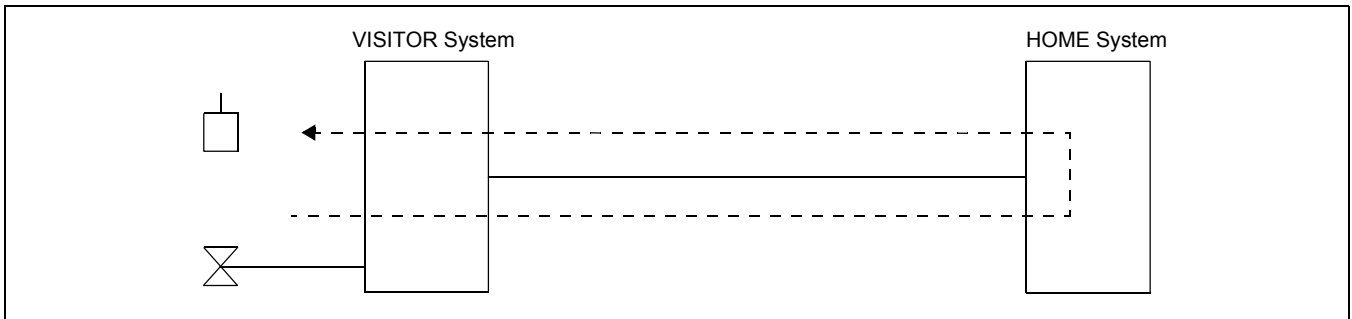
Note 8: The C.F.- D -Outside is not applicable by CALL TRANSFER-ALL CALLS.**Note 9:** When the Attendant calls a PS that has roamed to a Visitor Node and assigned C.F.- B-Outside, the C.F.- B-Outside does not work and the Attendant hears a Busy Tone.**Note 10:** Recall service can be activated to the transferred station when the PS, with C.F.- PS INCOMING CALL INCOMPLETE in service, moves out-of-zone, after placing a call on hold.

Note 11:

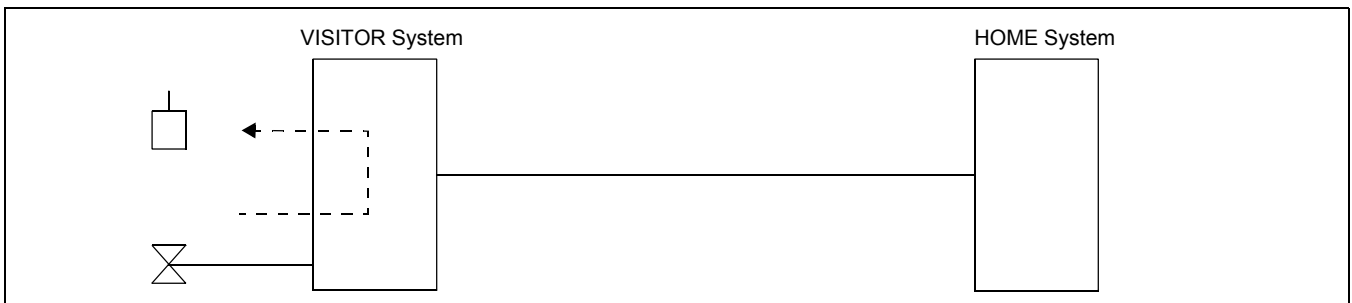
- 1) This service is valid in a two-party call when a call is terminated – from station-to-station, to PS, to Central Office line, or to TIE line calls. The service is invalid when other services using switchhook flash are executed to the PS or when the PS is connected to the Attendant Console.
- 2) To set Call Waiting, it is necessary that the Service Feature Restriction Class data (ASFC) be assigned in the office data assignment.
Call Waiting service is provided according to each service feature restriction class.

- 3) There is no limitation to the number of Call Waiting services (the number of simultaneous settings/the number of occurrences of answers).
- 4) This service cannot be used for a C.O. line (DIRECT IN TERMINATION) or a call via the Attendant Console.
- 5) Call Waiting cannot be set to the PS that has roamed to a Visitor System. Service conditions for Call Waiting to the station connected to the Visitor PS varies depending on the routing method as shown below.

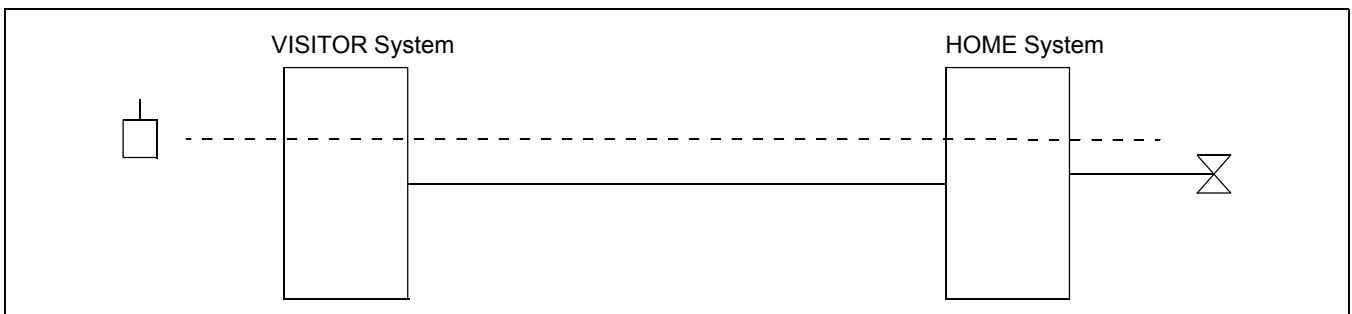
- a) When a station in a Visitor System places a call to a PS that has roamed to the Visitor System, Call Waiting to the station is available.



- b) When a PS that has roamed to a Visitor system places a call to a station in the Visitor System, Call Waiting to the station is not available.



- c) When a PS that has roamed to a Visitor System and a station in the Home System are connected, Call Waiting to the station is available.



Note 12:

- 1) TIE line Step Call is not available from PS.
- 2) If Visitor PS is busy, Step Call is not available.

Note 13: This feature depends on the RSC for the Visitor PS number assigned at the Visitor System. A Visitor PS cannot have its own RSC.

Note 14: When a PS has roamed to the Visitor System, all calls to the PS are transferred to the Visitor System via the Q.931a/IS-11572 line from the Home System.

Note 15: Executive Right-of -Way is restricted when the destination station is talking with a PS which has roamed to the Visitor System.

Note 16: A PS can activate this feature only for the Attendant Console.

List of Other Service Features for Q.931a

×: Available △: Conditionally available –: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
AUTHORIZATION CODE	–	–	
ACCOUNT CODE	–	–	
C.F.- INTERCEPT/ANNOUNCEMENT	×	–	
CALL PARK	–	–	Note 17
DSS CONSOLE	–	–	
ANNOUNCEMENT SERVICE	×	–	
OG CALL RESTRICTION ANNOUNCEMENT	×	–	
PAGING	–	–	
PAGING TRANSFER	–	–	
RADIO PAGING	–	–	
UNIFORM CALL DISTRIBUTION (UCD)	–	–	
UCD-DELAY ANNOUNCEMENT	–	–	
LAST NUMBER CALL	–	–	Substituted for the LAST NUMBER CALL function of PS

Note 17: When a Visitor PS originates a call to a station/PS that belongs to the same intra-office, the Visitor PS cannot be parked by the station/PS.

List of Attendant Console Service Features for Q.931a

×: Available △: Conditionally available -: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
AUTOMATIC RECALL	–	×	
ATTENDANT LOOP RELEASE	–	–	
CALL TRANSFER-ATTENDANT	–	×	Note 18
SUPERVISORY CALL	–	–	
DIGITAL DISPLAY-TRUNK	–	–	
CALL PROCESSING INDICATION	–	–	
SERIAL CALL	–	–	Note 19
CALL WAITING LAMP DISPLAY	×	–	
ATTENDANT CAMP-ON	–	–	
NON-DELAY OPERATION	×	–	
INTER-POSITION TRANSFER	–	–	
DELAY OPERATION	×	–	
DIAL MONITOR	–	×	
SPLIT CALL FORWARDING	–	–	
TRUNK GROUP BUSY LAMP	–	–	
SPEED CALLING-STATION/GROUP	–	–	
SPEED CALLING-SYSTEM	–	–	
INDIVIDUAL ATTENDANT ACCESS	×	–	
ATTENDANT OVERRIDE	–	–	
STEP CALL	–	△	Note 20
ATTENDANT MONITOR SERVICE	–	–	
ATTENDANT NIGHT TRANSFER	×	–	
BUSY VERIFICATION	–	–	
INDIVIDUAL TRUNK ACCESS	–	–	
DIAL ACCESS TO ATTENDANT	×	×	Note 21
DIGITAL DISPLAY-STATION	△	△	Note 22
BUSY LAMP FIELD-FLEXIBLE	–	–	
RECALL	×	–	

Note 18: Upon receiving an incoming call the Attendant Console transfers the call to a PS, it ends up with the PS connected to the outside.

If the PS user moves to a place Out of Zone, the caller from the outside line will hear a Busy Tone.

Note 19: A Serial Call can be set only after the called PS answers.

Note 20: A Step Call is not available for the PS in a busy status.

Note 21: While the Attendant Console is calling a PS, the services associated with out-of-zone such as C.F. - PS INCOMING INCOMPLETE, AUTOMATIC ANNOUNCEMENT-PS OUT OF ZONE and AUTOMATIC ANNOUNCEMENT-DISCONNECTED PS OUT OF ZONE are not available.

When an Attendant calls a PS, the individual attendant number can be displayed on the LCD of the PS. However, OPR cannot be displayed on the LCD of the PS.

Note 22: When a Visitor PS calls to a station/Attendant, the Home System number + the PS station number is displayed on the called station/Attendant. To identify the Visitor PS number, the station/Attendant needs to display all the digits of the Home System number + the PS station number.

List of Network Service Features for Q.931a

×: Available △: Conditionally available –: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
AUTOMATIC CIRCUIT ASSURANCE	×	–	
CENTREX COMPATIBILITY	–	×	
DELUXE TRAVEL CLASS MARK	–	–	
LCR - AUTOMATIC OVERFLOW	×	–	
LCR-3/6-DIGIT	×	–	
TANDEM CONNECTION	–	–	
TANDEM TRUNK QUEUING	–	–	
TANDEM PAD CONTROL	–	–	
TIE LINE ACCESS	×	×	
OUTGOING TRUNK BUSY - ANNOUNCEMENT	×	–	
HOT LINE - OUTSIDE	–	–	
DIGITAL TRUNK INTERFACE	×	×	
LCR - SPECIAL LINE WARNING	×	–	
UNIFORM NUMBERING PLAN	×	×	
LCR - TIME OF DAY ROUTING	–	–	
LCR - CLOCKED MANUAL OVERRIDE	–	–	
ATTENDANT MANUAL OVERRIDE	–	–	

List of Operation/Maintenance Service Features for Q.931a

×: Available △: Conditionally available –: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
SERVICE PEG COUNT	×	–	
TRAFFIC MEASUREMENT	×	×	
INDIVIDUAL TRUNK ACCESS	–	–	
LINE LOAD CONTROL	–	–	

List of ISDN Service Features for Q.931a

×: Available △: Conditionally available –: Not available/Not used

SERVICE FEATURES	VISITOR NODE (STAND-ALONE)		REMARKS
	FROM PS	TO PS	
DIRECT INWARD DIALING	–	×	Note 23
SUB ADDRESS - PRESENT	×	–	
SUB ADDRESS - ADDRESSING	–	×	Note 23
CALLING PARTY NUMBER - PRESENT	×	–	
CALLING PARTY NUMBER - DISPLAY	–	×	

Note 23: Automatic Announcement - PS Out of Zone/C.F. PS Incoming Incomplete may not be available. It depending on the public ISDN network.

When a PS has roamed to a Visitor System, all calls to the PS are transferred to the Visitor System via Q.931a/IS-11572 line from the Home System.

Note: An ISDN terminal cannot transfer a call to a PS or provide the three-party conference feature including a PS.

Note: A PS can transfer a call to an ISDN terminal and provide the three-party conference feature including the ISDN terminal.

List of CCIS Service Features for Q.931a

×: Available △: Conditionally available –: Not available/Not used

NAME OF SERVICE FEATURES	Visitor NODE (Stand-alone)		REMARKS
	From PS	To PS	
Attendant Controlled Conference - CCIS	–	×	
Automatic Recall - CCIS	×	–	
Brokerage Hotline - CCIS	–	×	
Call Forwarding - All Calls - CCIS	–	×	
Call Forwarding - Busy Line - CCIS	–	×	
Call Forwarding - Don't Answer - CCIS	–	×	
Call Transfer - All Calls - CCIS	×	×	
Calling/Called Number Display - CCIS	×	×	
Consultation Hold - All Calls - CCIS	×	×	
Deluxe Traveling Class Mark - CCIS	×	×	
Dial Access to Attendant - CCIS	×	–	
Digital Display - Station - CCIS	–	–	
Direct In Termination - CCIS	–	×	
Distinctive Ringing - CCIS	–	–	
Do not Disturb - CCIS	–	×	
Dial Number Display - Recall - CCIS	–	–	
Flexible Numbering of Station - CCIS	×	–	
House Phone - CCIS	–	×	
Hot Line - CCIS	–	×	
Incoming Call Identification - CCIS	×	–	
Individual Attendant Access - CCIS	×	–	
LDN Night Connection - CCIS	–	×	
Miscellaneous Trunk Access - CCIS	×	–	
Miscellaneous Trunk Restriction - CCIS	×	–	
Multiple Call Forwarding - All Calls - CCIS	–	×	
Multiple Call Forwarding - Busy Line - CCIS	–	×	
Multiple Call Forwarding - Don't Answer - CCIS	–	×	
Night Connection - Fixed - CCIS	–	×	
Night Connection - Flexible - CCIS	–	×	
Off-Hook Queuing - CCIS	×	–	

List of CCIS Service Features for Q.931a (Continued)

×: Available △: Conditionally available –: Not available/Not used

NAME OF SERVICE FEATURES	Visitor NODE (Stand-alone)		REMARKS
	From PS	To PS	
Single Digit Station Calling - CCIS	×	–	
Station Controlled Conference - CCIS	–	×	
Step Call - CCIS	–	△	Note 24
Supervisory Call - CCIS	–	–	Note 25

Note 24: If a Visitor PS is busy, Step Call is not available.**Note 25:** Supervisory Call - CCIS can be activated only when the PS is ringing.

4. PROGRAMMING

- Access Code Assignment

STEP 1: ANPD (Numbering Plan Data)

Assign the first digit of the LCR access code for the TTC Q.931a protocol TIE Line.

STEP 2: ASPA (Special Access Code Data)

Assign the LCR access code for a dummy route number.

STEP 3: AMND (Maximum Necessary Digits Data)

Assign the Maximum Necessary Digits (MND) for each Destination Code (DC).

STEP 4: ARNP (Reverse Numbering Plan Data)

Assign the trunk access code to the B-Channel route number, but not a dummy route number.

STEP 5: ARTD (Route Class Data)

Assign the following CDN data for the dummy route number.

L/T(CDN 7)=1

AC(CDN 13)=1

The other CDNs may be left default (0) for the dummy route.

Note: To change the data for existing route (RT), initialize the circuit card.

STEP 6: AFRS (Flexible Route Selection Data)

Assign the Number Pattern Code (NPC) and the Outgoing Route Selection Pattern (OPR) number for the dummy route number. OPR is a kind of intermediary between AFRS and AOPR. Any number from 1 through 255 may be used. (Be careful not to assign duplicated OPR.)

STEP 7: AOPR (Outgoing Pattern Routing Data)

Assign the B-Channel route number to the OPR assigned by the AFRS command. Route advance is available by programming RA, E and RT.

STEP 8: ARSC (Route Restriction Class Data)

Assign the RSC that allows RRI for both the B-Channel trunk route and the dummy route, but not for the D-Channel trunk route.

- Trunk Data Assignment

STEP 1: ASYD (System Data)

Assign the following indexes.

SYS1, Index 186, Bit 6: Assign “1” (CCIS/ISDN in service).

SYS1, Index 187: Assign “00” (Hex).

STEP 2: ARTD (Route Class Data)

Assign the route class data for both the B-Channel and D-Channel routes (see the table entitled “Route Class Data Assignment Table for Q.931a”).

Note: To change the data for existing route (RT), initialize the circuit card.

STEP 3: ATRK (Trunk Data)

Assign B-Channel trunk data referring to the figures on page 202 through page 205.

Note: Dch trunk data is not assigned in this step.

ATRK for 24PRT: page 202

ATRK for 24DTI + 2DCH: page 203

ATRK for 30PRT: page 204

ATRK for 30DTI + 2DCH: page 205

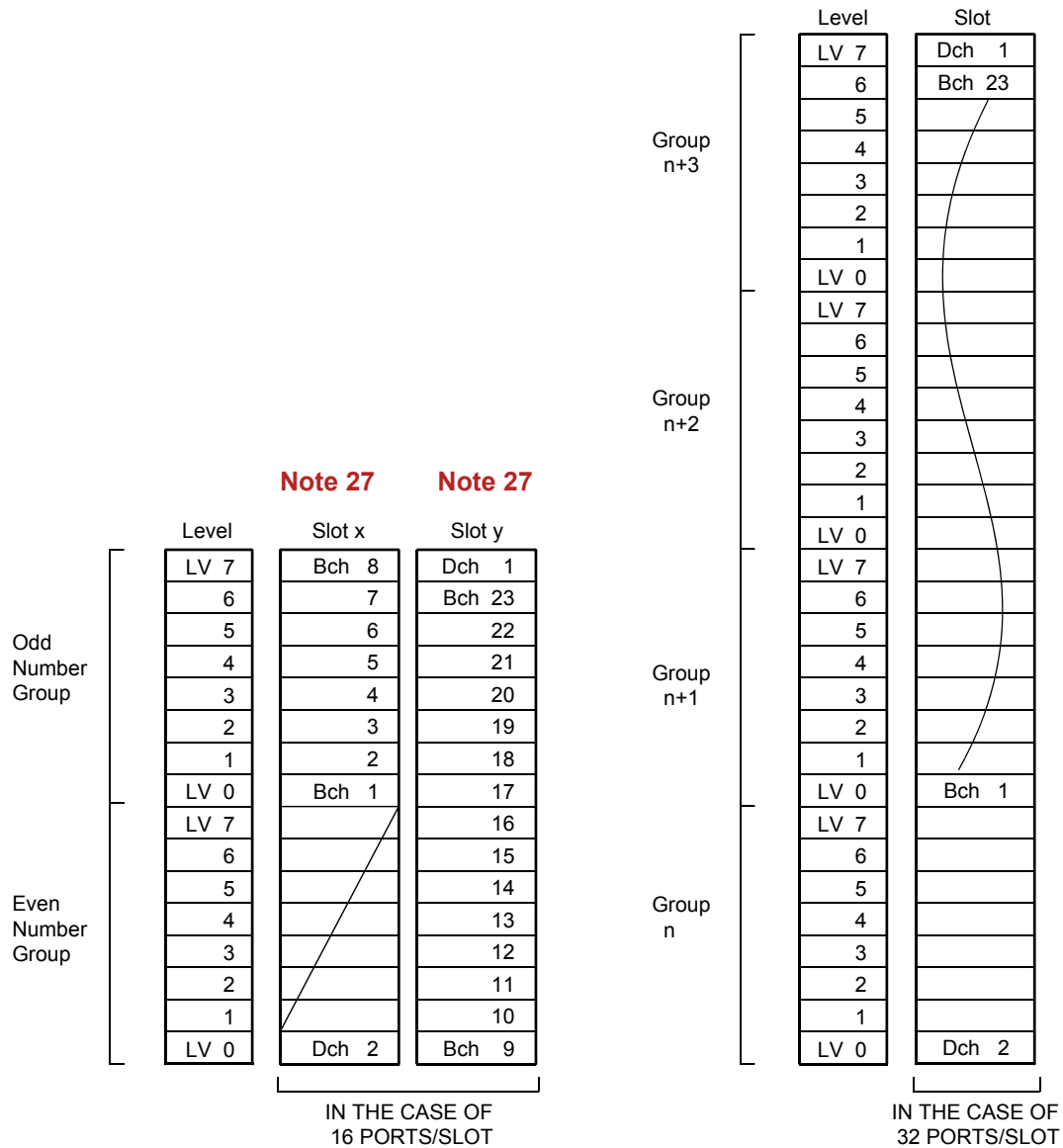
Proceed to STEP 4: ADPC (Destination Point Code Data)

Route Class Data Assignment Table for Q.931a

ROUTE CLASS		DATA		ROUTE CLASS		DATA		ROUTE CLASS		DATA	
FUNCTION	CDN	B-CH	D-CH	FUNCTION	CDN	B-CH	D-CH	FUNCTION	CDN	B-CH	D-CH
OSGS	1	0	0	OC	24	0	0	TPQ	47	0	0
ONSG	2	2	2	R/L	25	0	0	BL	48	0	0
ISGS	3	0	0	RVSD	26	0	0	TRKS	49	0	0
INSG	4	2	2	TL	27	0	0	DPLY	50	1	0
TF	5	3	0	ANS	28	1	1	ACD	51	0	0
TCL	6	1	1	TELP	29	0	0	2W/4W	52	0	0
L/T	7	1	1	PAD	30	4	7	FAAT	53	0	0
RLP	8	2	2	OGRL	31	1	0	GW	54	0	0
TQ	9	0	0	ICRL	32	1	0	TCMA	55	0	0
SMDR	10	1	0	HD	33	0	0	SMDR3	56	0	0
TD	11	0	0	GUARD	34	1	0	HDT	57	0	0
DR	12	0	0	WINK	35	0	0	CD	58	0	0
AC	13	0	0	VAD	36	0	0	CCH	59	0	0
TNT	14	0	0	CLD	37	0	0	TC/EC	60	0	0
LSG	15	12	13	FA	38	0	0	IRE	61	0	0
SMDR2	16	0	0	DC	39	0	0	SCR	62	0	0
H/M	17	0	0	TCM	40	0	0	LYER1	63	0	0
MC	18	0	0	TDMQ	41	0	0	NET Note 26	64	0	0
ANI	19	0	0	TRSC	42	0	0	INT	65	9	9
D	20	0	0	BT	43	0	0	DC	66	15	15
MSB	21	0	0	PRV	44	0	0	HKS	67	0	0
MSW	22	0	0	A/D	45	1	0	SCF	68	0	0
TR	23	0	0	CW	46	0	0	SMDR4	69	0	0

Note 26: Regarding the ARTD command, the same Data 0 (User-side) is also assigned at the opposite office. However, for the switch setting on the circuit card, this setting must be different from the opposite office.

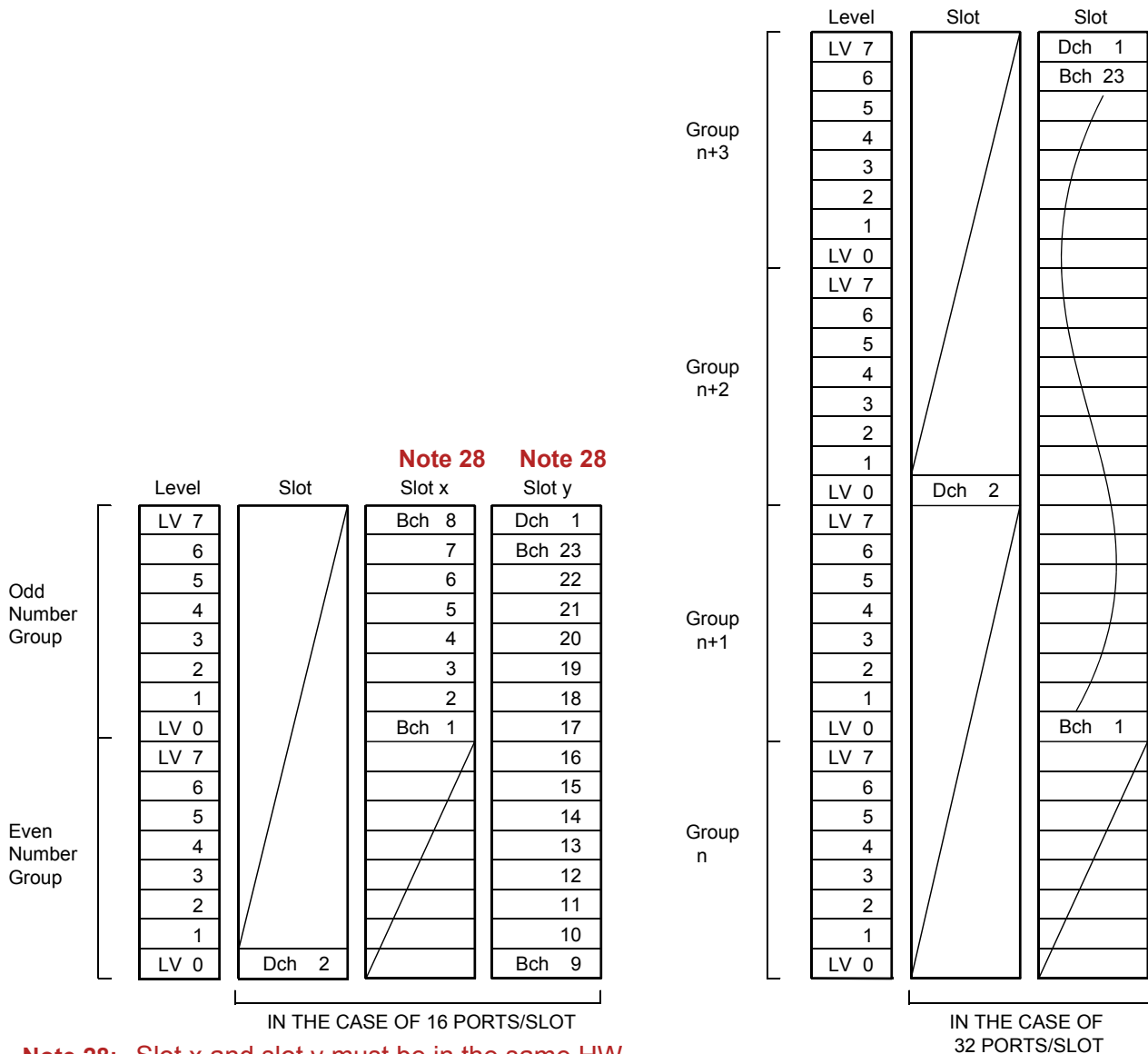
ATRK for 24PRT



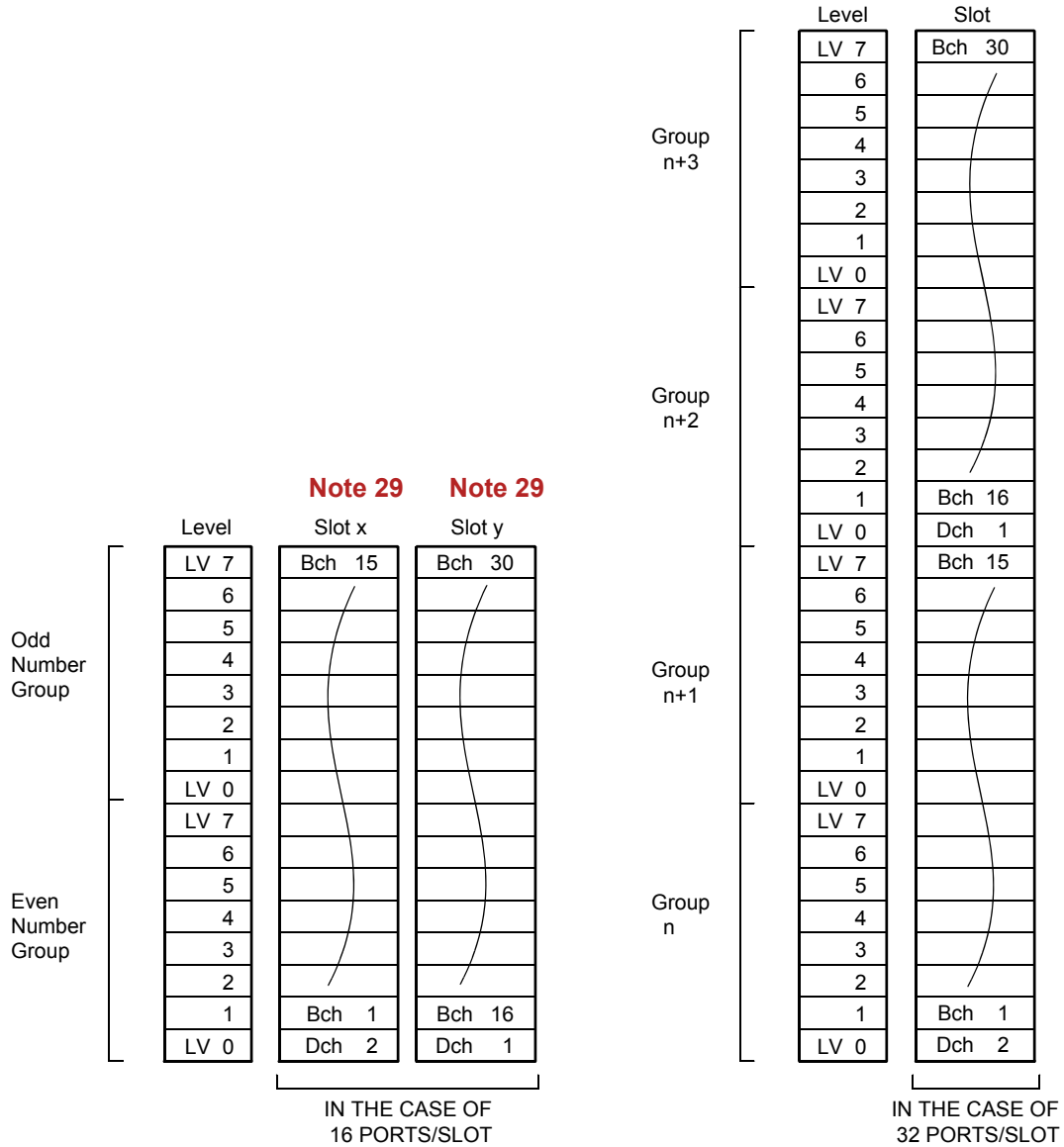
Note 27: Slot x and slot y must be in the same HW.

ATRK for 24DTI + 2DCH

•When #0 DCH of 2DCH card is used.



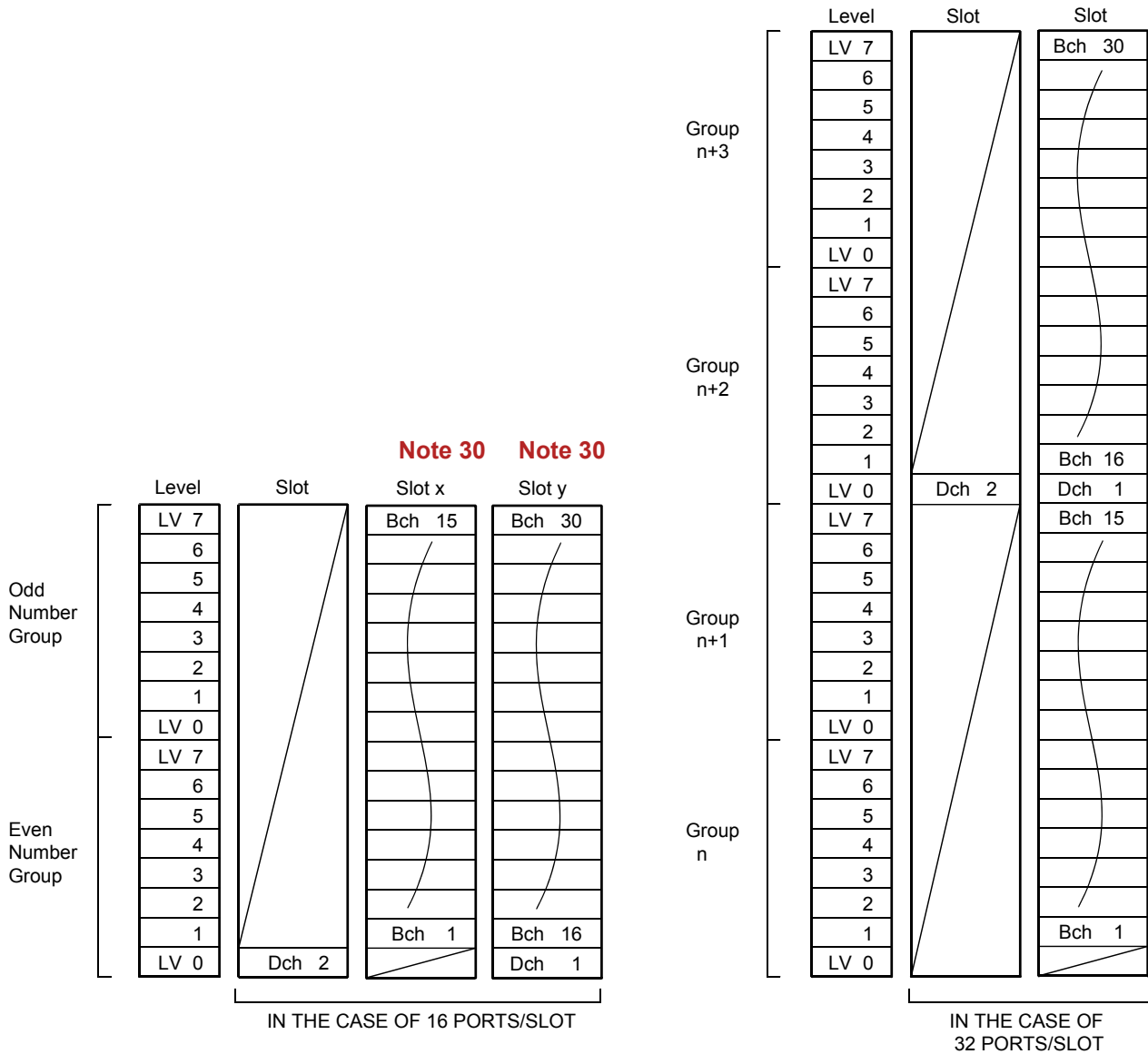
ATRK for 30PRT



Note 29: Slot x and slot y must be in the same HW.

ATRK for 30DTI + 2DCH

- When #0 DCH of 2DCH card is used.



Note 30: Slot x and y must be in the same HW.

STEP 4: ADPC (Destination Point Code Data)

Assign Point Code for both Bch route and Dch route.

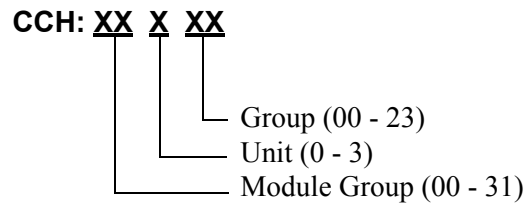
The values for a Point Code is 1 through 16383. You can assign any number as the Point Code for them. However, do not duplicate the Point Code which is used for No.7 CCIS.

STEP 5: ACSC (CSC Data)

Assign Dch and Bch location for CSCG. The values for CSCG is 130 through 255.

Even number CSCGs are used for Dch location and odd number CSCGs are used for Bch location although Bch location is the same as Dch location when PRT is used.

CCH, which represents Dch and Bch location, is assigned as shown below.



CCH must be assigned as the first group in the highway to which PRT is mounted. CCH=00000 is prohibited.

Assign the same CCH in CIC GROUP (0~7) for a CSCG when PRT is used for 23B+D or 30B+D.

An example of ACSC assignment is shown below.

00-03	04	05	06	07	08	09
	01	03	05	07	09	11
	00	02	04	06	08	10
HW0		HW1		HW2		

a) Condition: 24PRT/30PRT is mounted in slot 07 of PIR0. ACSC data is as follows.

CSCG	CCH	CIC GROUP
130 (for Dch)	00004	0
	00004	1
	00004	2
	00004	3
	00004	4
	00004	5
	00004	6
	00004	7

CSCG	CCH	CIC GROUP
131 (for Bch)	00004	0
	00004	1
	00004	2
	00004	3
	00004	4
	00004	5
	00004	6
	00004	7

Note: The location of DCH (Dch Handler) which is built in PRT must be assigned in parameter "CCH" of this command.

- b) Condition: 24DTI/30DTI is mounted in Slot 07 of PIR 0 and 2DCH is mounted in Slot 05 of PIR 0.
ACSC data is as follows.

CSCG	CCH	CIC GROUP
130 (for Dch)	00002	0
	00002	1
	00002	2
	00002	3
	00002	4
	00002	5
	00002	6
	00002	7

CSCG	CCH	CIC GROUP
131 (for Bch)	00004	0
	00004	1
	00004	2
	00004	3
	00004	4
	00004	5
	00004	6
	00004	7

Note: The location of D-Channel Handler (DCH) must be assigned in parameter CCH of this command.

Note: Above is an example of when 0 DCH of PA-2DCH circuit card is used.

STEP 6: ACIC1 (CIC Code Data1)

With respect to a PC assigned in the ADPC command, assign the CSCG of the D-Channel assigned by the ACSC command.

STEP 7: ATRK (Trunk Data)

Assign D-Channel trunk data referring to the following figures.

ATRK for 24PRT: page 202

ATRK for 24DTI + 2DCH: page 203

ATRK for 30PRT: page 204

ATRK for 30DTI + 2DCH: page 205

STEP 8: MBTK (Make Busy of Trunk)

Cancel Make Busy Status of all B-Channels in the PRT card.

Note: The circuit card must be initialized after these assignments.

ZT PROGRAM DOWNLOAD

1. GENERAL DESCRIPTION

This feature allows maintenance personnel to update the ZT program by the command operation. Accordingly, only one ZT needs to be updated by the dedicated tool.

2. OPERATING PROCEDURE

1. Using the dedicated tool, write a new program into a ZT. This ZT is called the Program PRIMARY ZT.
2. Connect the Program PRIMARY ZT to the system.
3. Download the new program from the Program PRIMARY ZT to the other ZTs (Program Download ZTs), using the AZDL command.

3. SERVICE CONDITIONS

1. In principle, when assigning PS/ZT(CS) data, use the NDM commands (FPC=1).
2. When using this feature, the Program PRIMARY and the Program Download ZTs must be in normal operation.
3. ZTs cannot execute call processing during a download.
4. When this feature is activated during a conversation, the call is forcibly released.
5. A program download requires about five minutes for each ZT.
6. The Program PRIMARY ZT and the Program Download ZT must be accommodated in the same node.

4. PROGRAMMING

STEP 1: ACSDN (Assignment for CS/ZT Data for NDM)

This command is used to assign the ZT related data including the PHS Community Number, Calling Area Number, Group, CS/ZT, and Tenant Numbers, LENS, and KIND.

When this data assignment is finished, 3B+D channels of the CSINT circuit card start up.

- FPC: Fusion Point Code (=1)
- PHS Community Number: 1-1024
- Calling Area Number: 1-32
- Group Number: 1-8
- CS/ZT Number: 1-32
- TN: Tenant Number
- LENS: ZT Equipment Number

STEP 2: AZDL

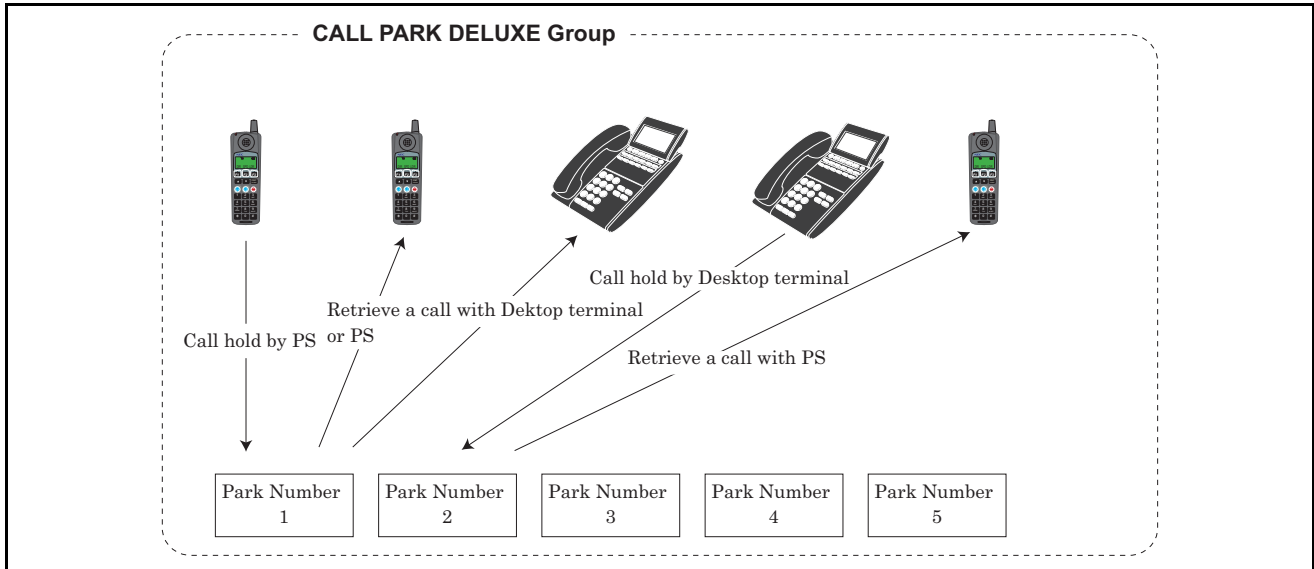
- PROGRAM MASTER ZT PCN: PHS Community Number of Program PRIMARY ZT:1-1024
- PROGRAM MASTER ZT CRN: Calling Area Number of Program PRIMARY ZT:1-32
- PROGRAM MASTER ZT GRN: Group Number of Program PRIMARY ZT:1-8
- PROGRAM MASTER ZT CSN/ZTN: CS/ZT Number of Program PRIMARY ZT:1-32
- PROGRAM DOWNLOAD ZT PCN: PHS Community Number of Program Download ZT:1-1024
- PROGRAM DOWNLOAD ZT CRN: Calling Area Number of Program Download ZT:1-32
- PROGRAM DOWNLOAD ZT GRN: Group Number of Program Download ZT:1-8
- PROGRAM DOWNLOAD ZT CSN/ZTN: CS/ZT Number of Program Download ZT:1-32

When program download is activated using this command, a B-Channel link is established and new ZT program is downloaded from the Program PRIMARY ZT to the Program Download ZT.

CALL PARK GROUP

1. GENERAL DESCRIPTION

This feature enables a PS user to hold/retrieve a call park held by using the PS soft key, or by hooking + access code. It is possible to assign the PS and Desktop terminal into the same call park deluxe group. Desktop terminal can retrieve a call held by a PS, and vice versa.



2. OPERATING PROCEDURE

No manual operation.

3. SERVICE CONDITIONS

1. Desktop terminals and PS can coexist in a group.
2. A PS must be available to display the alphanumeric characters of the call park number.
3. Call Park can also be held/retrieved by using the soft key of a PS. (when the PS soft key service is effective.)
4. A maximum of 129 groups (127-255) per IMG can be assigned in this service. The group number each must be unique within the MG of the LP.
5. A station assigned in one group is treated as a station of the same MG. A PS is treated as a station of the MG group assigned in advance.
6. PS within same group must be assigned in the same node.
7. The maximum number of PS assignable per group is the same as that: per node.
8. A station cannot be assigned in more than one group.

9. The hold button can be assigned up to eight.
10. The maximum number of calls held at one time is the same number as the Call Park Hold buttons assigned. It is always eight for PS.
11. When Desktop terminals and PS coexist in the same group, occasionally number of call held by the operation of PS exceeds the maximum numbers of hold button of Desktop terminal. In this case, Desktop terminal cannot retrieve amount of exceeded call(s) held.
12. Station holding the call is called back when the call hold times out. Call hold will be retrieved and PS My Line terminates the call when the terminal called back was PS. Call will be in hold again and call hold timer will reset when the terminated PS is in busy state. Call will be disconnected and caller will hear the ROT when the terminated PS is in out-of-zone state.
13. A call can be held only when a call is in two-way connections with station and trunk. (A call cannot be held during call origination, three party conference and a conversation between the ATTCN)
14. A station number assignable in a group is the My Line of PS. (Sub Line can also be used for the call park group feature when My Line is assigned.)
15. For the party being held, the release of the call is only detected as a status change. (Other status changes such as hooking are not detected.)
16. This service can be effective by setting the Service Feature Restriction Class (SFI = 67: Call Park - Access and Answer).
17. This service cannot be used when person to be held is using ISDN terminal.
18. Call Park Hold is also available when the connected terminal is a PS line (including the call hold operation on a Desktop terminal).
19. Call Park Hold is available from the Desktop terminal using a PS line, it is only available when the PS line and the Desktop terminal is assigned in the same group.
20. This service cannot be used while a PS is roaming in other node.
21. This service cannot be applied or used with the ACD/OAI service.
22. This feature is not available for the Hotel system.
23. This feature is not available for the FCCS system.

4. PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

SYS1, Index 139 Assignment of Hold timeout timer (default: 30 second)

SYS1, Index 142 Assignment of Hold timeout timer when Call Park Deluxe is set (default: 500 second)

STEP 2: ANPD (Assignment of Numbering Plan Data) / ANPDL (Assignment of Numbering Plan Data for Local Data Memory)

Assign the first digit number data of the service access code.

STEP 3: ASPA (Assignment of Special Access Code Data) /ASPAL (Assignment of Special Access Code Data (LDM)

Assign an access code to set the Call Park Deluxe Feature:

CI=H (Hooking)

SRV=SSCA (Service Code Appendix)

- a) Call Park Deluxe access code, SIDA=146 (Call Park Hold: Hold-1)
- b) Call Park Deluxe access code, SIDA=147 (Call Park Hold: Hold-2)
- c) Call Park Deluxe access code, SIDA=148 (Call Park Hold: Hold-3)
- d) Call Park Deluxe access code, SIDA=149 (Call Park Hold: Hold-4)
- e) Call Park Deluxe access code, SIDA=150 (Call Park Hold: Hold-5)

Assign an access code to retrieve from the Call Park Deluxe Feature:

CI=N (Normal)

SRV=SSCA (Service Code Appendix)

- a) Call Park Deluxe access code, SIDA=146 (Call Park Hold: Retrieval-1)
- b) Call Park Deluxe access code, SIDA=147 (Call Park Hold: Retrieval-2)
- c) Call Park Deluxe access code, SIDA=148 (Call Park Hold: Retrieval-3)
- d) Call Park Deluxe access code, SIDA=149 (Call Park Hold: Retrieval-4)
- e) Call Park Deluxe access code, SIDA=150 (Call Park Hold: Retrieval-5)

Note: Same access code can be used for parking and retrieving a call by assigning the same number but making the CI to N (Normal) for retrieving and H (Hooking) for parking.

STEP 4: ASFC (Service Feature Restriction Class Data)

Assign a Service Feature Restriction Class that allows SFI 220 (Call Park Group Entry/Retrieve) to the applicable stations. This allows the station/PS to park a call and to retrieve the parked call.

Assign stations/PSs a Service Feature Restriction Class that allows SFI 68, Call Park Deluxe Feature. This allows a station/PS to be parked by another station.

STEP 5: APGN (Assignment of PHS Group Number)

Assign the MG and group number toward the PS station number.

TN : Tenant Number

PS STN: PS station number

MG : Module Group (Maximum two digits, depending on the value of the system data: ASYD, SYS1, Index 0)

GROUP No.: Group number (127-255)

STEP 6: APGS (Assignment of PHS Group Control Station)

Assign a station number of the Desktop terminal that are desired to be added to the same MG and GROUP NO as the PS station numbers assigned by the APGN command.

MG: Module Group Number (Maximum two digits, depending on the value of the system data: ASYD, SYS1, Index 0)

GROUP No.: Group number (127-255)

TN: Tenant Number

STN: Station number of Desktop terminal

STEP 7: ASCS (Assignment of Call Park Group/DM)

Assign the Call Park Deluxe Group number.

GPN: Call Park Group Number (1-4095)

Note: When the station has the TELN (LDM), skip STEP 7 and assign STEP 8).

STEP 8: ACPSL (Assignment of Call Park Group Service Data/LDM)

Assign the Call Park Deluxe Group number.

UGN: User Group Number (1-63)

TELN: Telephone Number (maximum 16 digits)

GPN: Call Park Group Number (1-4095)

[Deletion]

Delete the assigned information, using opposite order of the data assignment procedure.

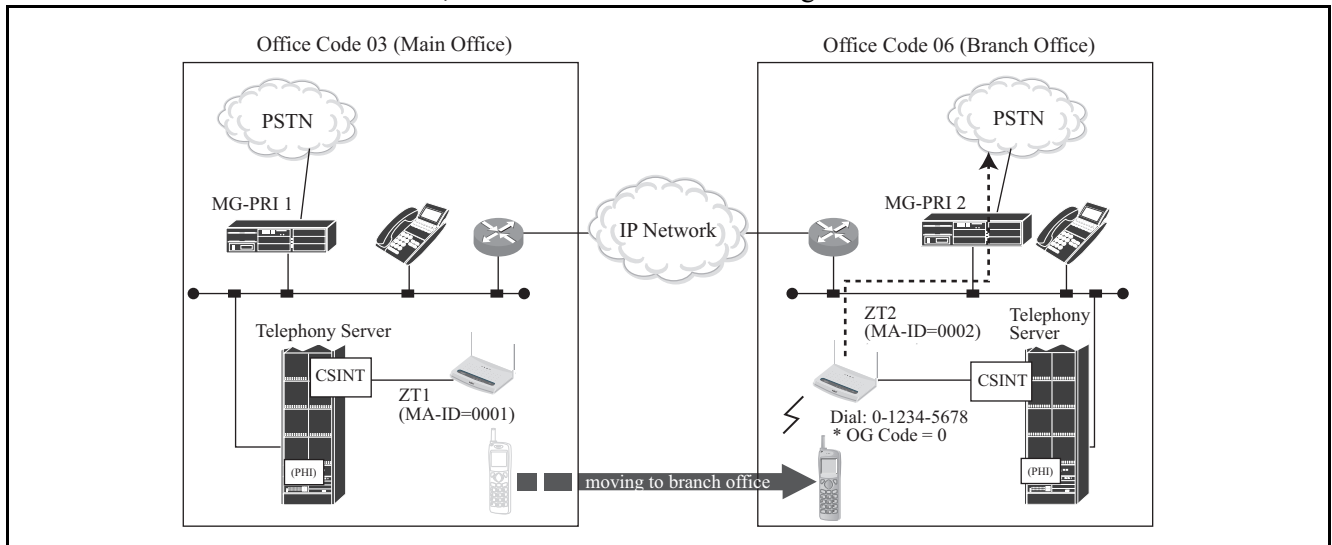
MG-PRI BEST-SUITED ROUTING FOR PS

1. GENERAL DESCRIPTION

When a PS makes an outside call via MG-PRI, this feature allows the PS to select the best-suited route by assigning Message Area ID (MA-ID) to ZT. Even if PS moves to another area, the PS can select the best-suited MG-PRI without any PS operation.

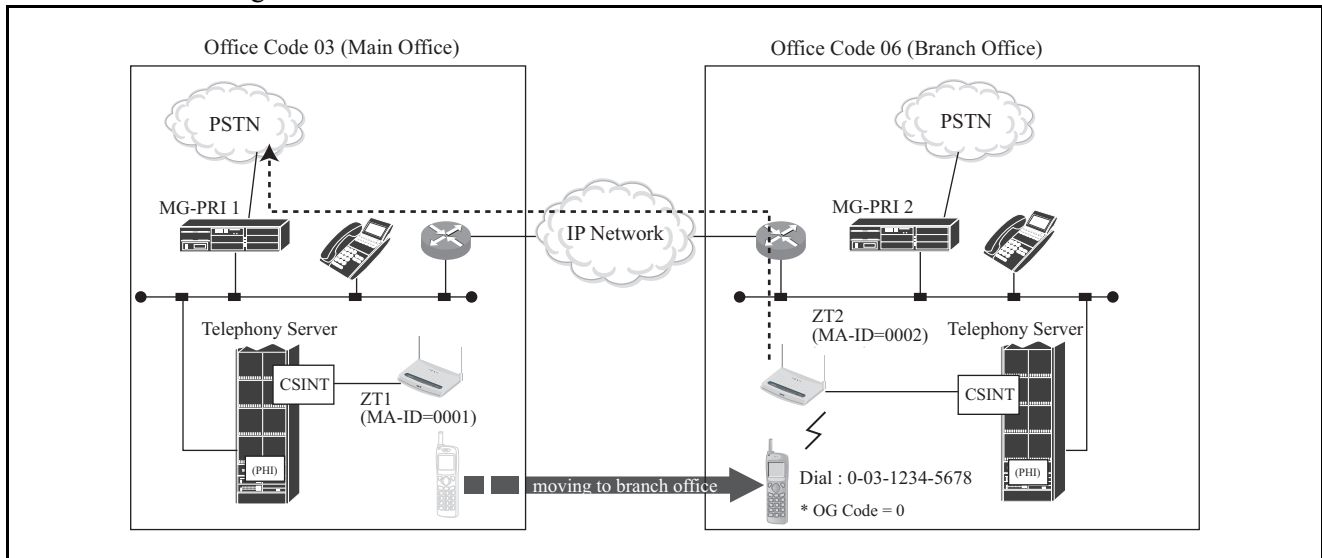
CASE 1:

When PS moves to Office 06 from Office 03 and does not dial the Office Code, the PS outside call can be originated via MG-PRI 2. At this time, the PS call is routed according to MA-ID data of ZT 2.



CASE 2:

When PS moves to another MA-ID and specifies a target MG-PRI, the PS outside call can be originated via the specified MG-PRI by dialing the appropriate Office Code. At this time, it is available to select the appropriate MG-PRI according to the LCR/LCRS data of MA-ID allocated to each ZT.



2. OPERATION PROCEDURE

No manual operation is required.

3. SERVICE CONDITIONS

1. MA-ID is assigned to ZT via AMAA (MA-ID cannot be assigned to PS.). When MA-ID data is not assigned, MA-ID = 0 is applied as default setting to the ZT currently used by that PS.
2. MA-ID cannot be assigned by dialing Access Code from PS terminal.
3. When Call Forwarding feature is set by ACFS/ACFS_T, MA-ID = 0000 is automatically applied for the intermediate PS.
4. When a call terminates to PS setting Call Forwarding-All Calls/Busy Line/Don't Answer/PS Incoming Incomplete, the call is transferred to outside via MA-ID of ZT used when the PS sets the Forwarding features.
5. When a PS is set as the destination of Call Forwarding-I'm Here from the target Station, MA-ID of that target Station is selected. At this time, if the target Station is PS, MA-ID of ZT used when the target PS sets the feature is selected.
6. Be sure to save and load MA-ID when PS Call Forwarding data is saved and loaded by the backup command (MEM_HDD) or Telephony Server Maintenance Menu. For detailed information, refer to the Operations and Maintenance Manual.
7. When an outside call is made from PS setting Soft Phone - PS feature, MA-ID of ZT that is currently used by that PS is selected.

8. When a Desktop terminal establishes an outside call by using PS Line accommodated as Multi Line Appearance, MA-ID assigned to Desktop terminal's My Line is selected. If a call is made from PS whose line is accommodated on Desktop terminal's Multi Line, MA-ID of ZT that is currently used by that PS is selected.
9. For other conditions for MG-PRI best-suited routing, refer to the Peripheral Equipment Description (IP Devices) - "MG-PRI/PRA."
10. When using Roaming feature, the following conditions must be considered:
 - This feature is available for an outside call made from a Visitor PS as well.
 - When assigning MA-ID to ZT of Visitor Office, the data settings (AMNDL and AFRSL) for the routing to Home Office are necessary.
 - It is necessary to assign the routing data for MA-ID = 0000 at the Home Office in addition to the MA-ID routing data for Visitor Office.

4. PROGRAMMING

To activate this feature, the basic MG-PRI and PS data are required in addition to the following data. For details on MG-PRI data setting, refer to the Peripheral Equipment Description (IP Devices). For details on PS data setting, refer to section 1.4 PS Office Data Assignment in this chapter. Move on to the following data setting after assigning the Least Cost Routing data for MG-PRI. **Note 1**

- Note 1:** Due to the following reasons, it is necessary to assign MA-ID=0 or 0000 when using this feature for PS:
- If MA-ID is not set by AMAA command to the Physical LENS for ZT at each nodes, the call will be routed as MA-ID=0.
 - If a call forwarding destination is set using ACFS/ACFS_T command, MA-ID=0000 routing is automatically applied to the intermediate PS.
 - It is necessary to assign MA-ID=0000 activate PHS Inter-Node Roaming.

STEP 1: AMAA (Assignment of Message Area ID Data)

Assign MA-ID to each ZT.

KIND: Select “LENS” by clicking the appropriate radio button.

Function: Select “CS” by clicking the appropriate radio button.

TYPE: Select either “Individual” or “Collective”.

When TYPE = Individual:

PCN: PHS Community Number

ERN: Calling Area Number

GRN: Group Number

CSN/ZTN: CS/ZT Number

MA-ID: Message Area ID

When TYPE = Collective:

PCN: PHS Community Number

ERN START-END: Specify the range of Calling Area Numbers

GRN START-END: Specify the range of Group Numbers

CSN/ZTN START-END: Specify the range of CS/ZT Numbers

MA-ID: Message Area ID [0-9999]

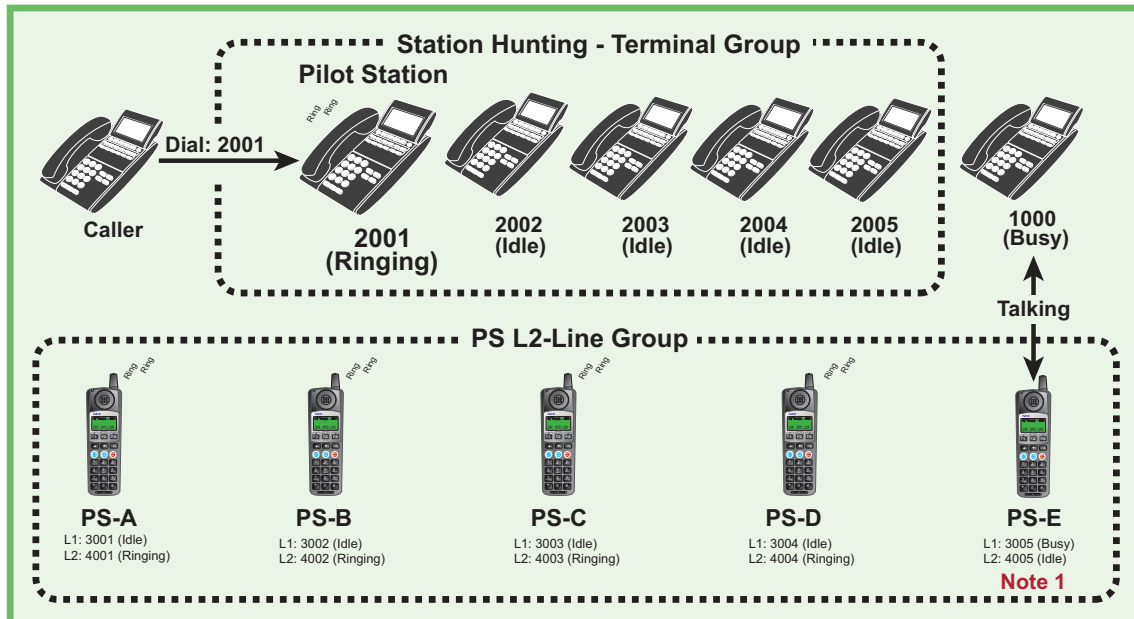
PS L2-LINES TERMINATION

1. GENERAL DESCRIPTION

This feature enables a maximum of five PSs to simultaneously receive a call termination originated to pilot station in Station Hunting-Terminal [S-9] group. See the figure below.

When a call terminates to a pilot station, all idle PS L2-lines and pilot line are called simultaneously. If PS-A answers the call, ringing stops (Pilot station and PS L2-lines become idle) and two-way connection between caller and PS-A is established.

When the pilot station is busy, the incoming call terminates to a next idle hunting station terminal and PS L2 lines in an idle state are called.



Note: 5 terminals (including pilot station) can belong to Station Hunting-Terminal Group at the maximum when this feature is used.

Note: The maximum of 5 PSs can be registered as PS L2-line Group.

Note 1: Termination notification is received.

2. OPERATING PROCEDURE

See the figure in GENERAL DESCRIPTION.

3. SERVICE CONDITIONS

1. The maximum number of PSs that can be grouped with hunting group pilot number is eight.
2. For this feature, the maximum number of terminals (such as Dterms) that can belong to a hunting group is five including pilot station.
3. PS L2-line Group is assignable to Station Hunting-Terminal [S-9] only. The group cannot be assigned to Station Hunting-Circular [S-7] or Uniform Call Distribution (UCD) [U-1].

4. Only PS number that “PS KIND = 7 (Dterm PS II Subline)” is assigned by APSD command can belong to PS L2-line Group.
5. Because the system uses the speech channel of the ZT (Zone Transceiver) when ringing signal is sent, a maximum number of PSs that can simultaneously receive ringing signal by this feature depends on a ZT layout.
6. Caller number is displayed on LCD of each terminal. When the second call terminates while the first call is connected to a terminal in PS L2-line group, the first caller number is displayed, even if answering the call.
7. If any terminal user does not answer the call by this feature, Desktop terminal keeps on ringing, however, all PSs stop ringing in one minute.
8. PS which is currently on roaming cannot be called.
9. It is not possible to assign a PS L2-line which is already grouped in any PS L2-line Group to other group.
10. My-line (L1) and Sub-line (L2) of a PS must be assigned in the same node.
11. This feature cannot collaborate with the OAI/ACD service.
12. This feature is not available for Hotel system.

4. PROGRAMMING

- Entry procedure

STEP 1: APFLN (Assignment of PS Floating Line for NDM)

Assign PS L2-line number(s) to a pilot station number.

UGN: User Group Number (Fixed to “1”)

TELN: Telephone Number of Pilot Station

SUB TELN: PS L2-line number to be grouped. (maximum eight entries)

ACD - ACCESS

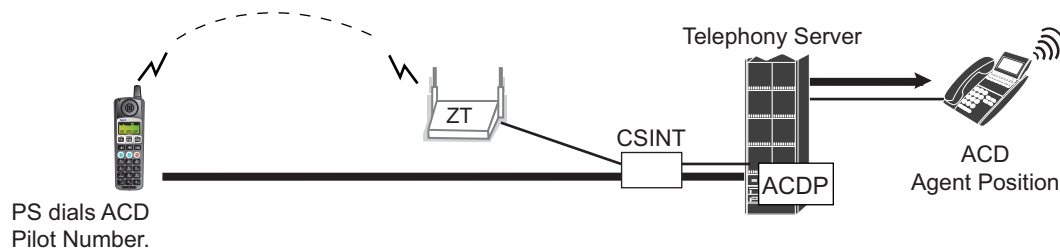
1. GENERAL DESCRIPTION

This feature allows the user to use the ACD function which can be activated in collaboration with PS. ACD Pilot Number can be dialed from a PS and the PS call is distributed to a particular ACD Agent Position specified by the ACD System. Also, ACD Agent Position can transfer an ACD Incoming call to a PS. For this function, no particular data programming is required.

2. OPERATING PROCEDURE

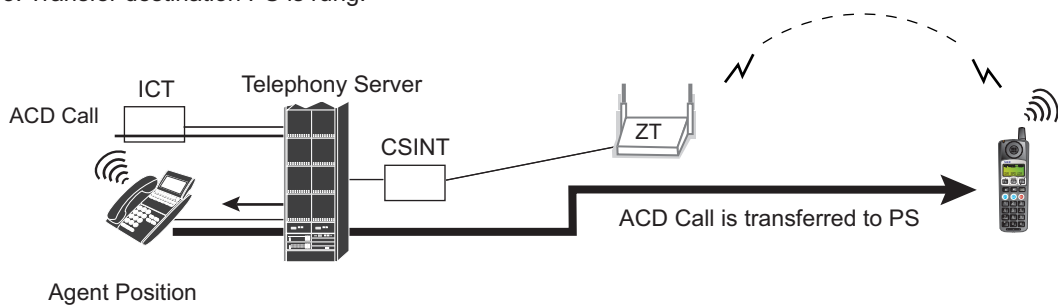
- This figure shows the call originated from the PS can be terminated to an ACD Agent Position (via ACD Pilot Number) by dialing the ACD Pilot Number.

1. A PS user dials the ACD Pilot Number.
2. The call originated from the PS terminates to the dialed ACD Pilot Number, as an ACD Incoming call.
3. The PS call is distributed to a particular ACD Agent Position specified by the ACD System.
4. The designated ACD Agent Position is rung.



- This figure shows ACD Agent Position can transfer the ACD incoming call to a PS.

1. ACD Agent Position is connected to an ACD Incoming call.
2. Agent transfer the ACD Incoming call to PS.
3. Transfer destination PS is rung.

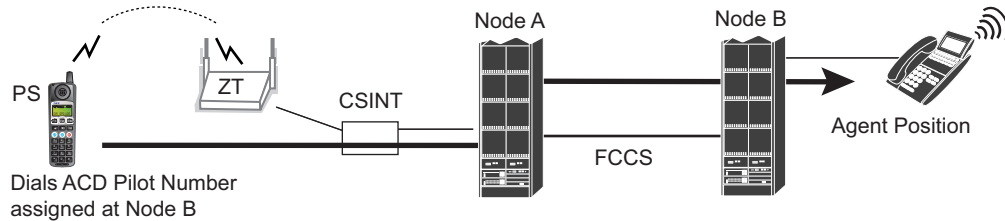


3. SERVICE CONDITIONS

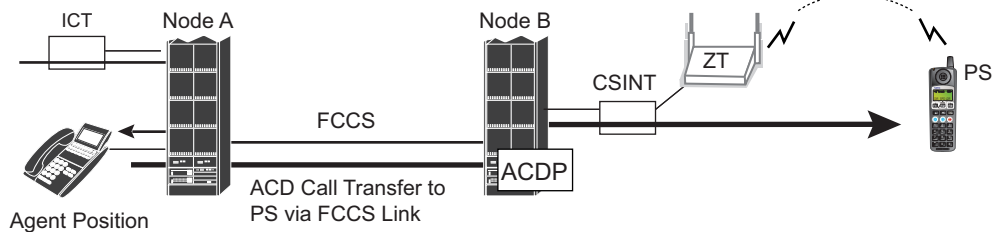
1. PS cannot be assigned as an ACD Agent position.
2. PS cannot be specified as an Overflow and a Night destination.

3. When a PS user attempts to hand over while the PS is ringing the ACD Pilot Number or the particular ACD Agent position, the call is released.
4. When the PS in roaming status dials the ACD Pilot Number, the PS user hears ROT. Also, when an ACD call is transferred to the PS in roaming status, ACD agent position hears ROT after receiving no tone for a few minutes.
5. This function is available via FCCS link.

- The call originated from PS can be terminated to ACD Agent Position via FCCS link.



- ACD Agent Position can transfer ACD incoming call to PS via FCCS link.



6. This function is also available for Analog Agent Positions and Hot Agent Positions.
7. This function does not support Callpath Service Architecture (a trademark of International Business Machines, Inc.)

Note: These messages are sent to the Host for the ACD system from ACDP to control the currently connected call. For details on the Infolink Messages, refer to INFOLINK DATA MESSAGES [1-99] in Data Programming Manual - ACD.

4. PROGRAMMING

No manual operation is required.

PCS ROAMING

1. GENERAL DESCRIPTION

This feature allows PS to move to another node which has a different SYS-ID via Q.931a or IS-11572 connection. The node which PS can roam from/to is assigned as Network Number (NWN). Network Number must be assigned as a unique number for each network.

2. OPERATING PROCEDURE

1. PS moves to another node which has a different SYS-ID.
2. PS registers its location automatically at Visitor node to the Home node via Q.931a or IS-11572 connection.
3. PS can originate a call from Visitor node.
4. Termination to the PS is transferred from the Home node to the Visitor node via Q.931a or IS-11572 connection.

3. SERVICE CONDITIONS

1. In principle, when assigning PS/ZT(CS) data, use the NDM commands (FPC=1).
2. This feature is available between the nodes which are connected via Q.931a or IS-11572.
3. This feature is available in both Open Numbering Plan and Closed Numbering Plan. However, the total number of digits for the office code and the PS station number must be 13 or less.
4. SMDR outputs the PS number instead of the account code when the PS is at Visitor Node.
5. In Visitor node PS cannot use supplementary services which need service access code. However, TRANSFER, CALL HOLD and some ANNOUNCEMENT SERVICES are available.
6. If there is TS between the Home Node and Visitor Node, TS must also have roaming feature.
7. CF-A/B/Incomplete

- CF-A

If PS assigns CF-A at Home node, all terminations are transferred. PS can also originate a call at the Visitor node.

- CF-B

If PS is busy at the Visitor node, terminating call is transferred at Home node.

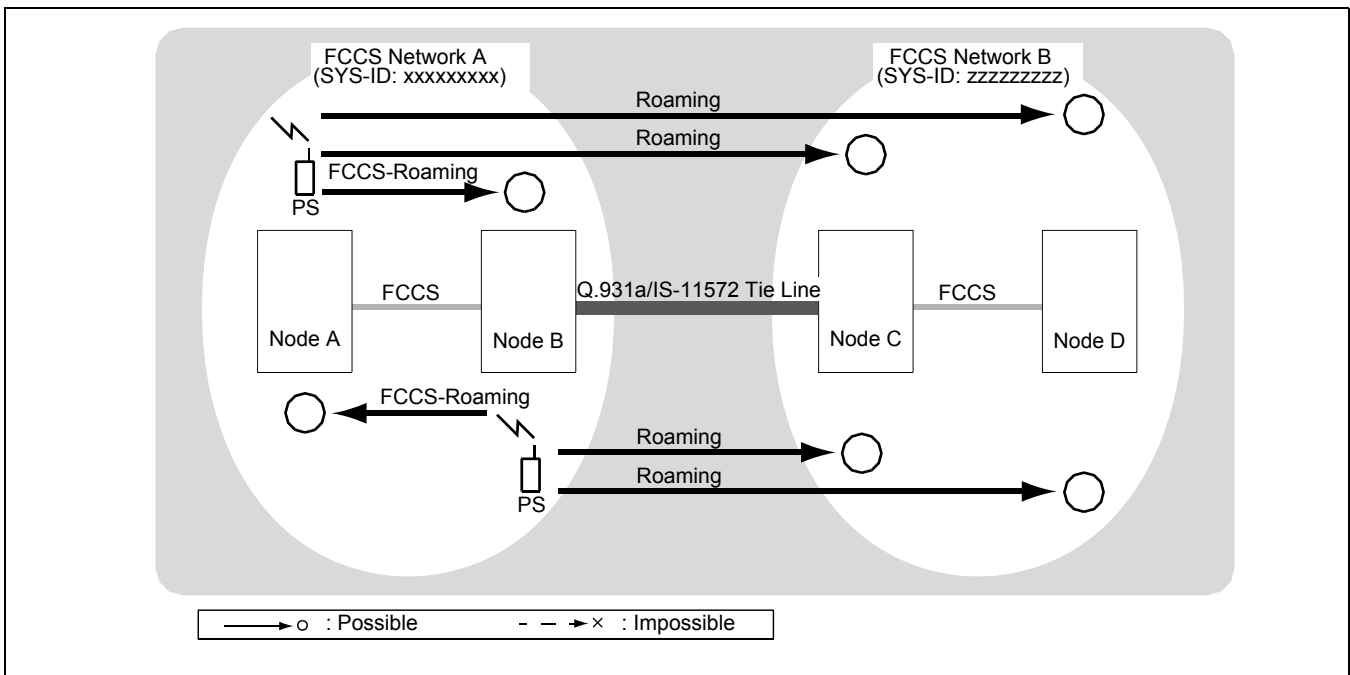
- CF-Incomplete

If a call to PS is incomplete at the Visitor node, terminating call is transferred at the Home node.

8. In visitor nodes, virtual numbers (a maximum of 5 digits) must be set for roaming PSs. Put limits on the number of roaming PSs when you set virtual numbers of the PS stations. Virtual numbers of roaming PSs are set by using ANPD and ASPA commands, as in the case with usual station numbers. Telephone Numbers for the visitor PS station numbers (virtual numbers) are set by the ALGSL/ALGSN command.

- Note:** Roaming PS station numbers (virtual numbers) must be unused numbers in the node. When you assign the numbers, you need to assign the same tenant numbers as CSs where PSs register their locations.
- Maximum PS station amount includes amount of Visitor PS station number.
 - Roaming PS cannot use Two-Line Feature.
 - Roaming PS cannot use VMI Feature.
 - Roaming PS cannot use OAI features.

A PS can move to any node of the FCCS network that has a different SYS-ID, on condition that a Q.931a/IS-11572 Tie Line is established between the different SYS-ID FCCS networks.



4. PROGRAMMING

- Basic Data Assignment

STEP 1: Assignment of Q.931a or IS-11572 between nodes which make roaming feature available. For information on IS-11572, refer to Data Programming Manual - ISDN.

STEP 2: Assignment of NETWORK Number with ACSEN command

For ZT data assignment in STANDALONE system, refer to “1.2 ZT Office Data Assignment.” in this chapter. For ZT data assignment in FCCS system, refer to “2.2 ZT Office Data Assignment.” in this chapter.

Network Number (NWN) must be assigned.

STEP 3: Assignment of PS Data by APSD command with Network Number

For PS data assignment in STANDALONE system, refer to “1.3 PS Office Data Assignment” in this chapter. For PS data assignment in FCCS system, refer to “2.4 PS Office Data Assignment.” in this chapter.

Network Number (NWN) must be assigned.

For Assignment of Roaming Self Node Number, see also “Assignment of Roaming Self Node Number”. For Visitor Node, see also “For Visitor Node.”

- Assignment of Roaming Self Node Number

STEP 1: ARODL (Assignment of Roaming Self PBX Number for LDM)

This command is used to assign Home Node Number (Roaming Self Node Number) to display on the PS. (PS displays this Roaming Self Node Number + PS Station Number.) If the network adopts closed user group numbering plan, this data is not necessary.

PCN : PHS COMMUNITY NUMBER

RSN : ROAMING SELF NODE NUMBER: (1~6 digit)

Note: Home Node transmits location registration information (Home Node Number + PS Station Number) to Visitor Node.

Note: When the Roaming Self Node Number has not been assigned, Home Node Number assigned by ARNP command (RT=0) is automatically used instead of the Roaming Self Node Number.

Note: If Closed Numbering Plan is used for the network of user group, this data assignment is not necessary.

- For Visitor Node

STEP 1: APSD (Assignment of the PS Operation Data)

This command assigns the PS operation data including its Tenant Number, Service Feature Restriction Class (SFC) and the Route Restriction Class (RSC) in consideration of the numbering plan/restriction data.

TN: TENANT NUMBER

PS STN:PS STATION NUMBER

KIND: PS KIND: 4 (VISITOR PS)

SFC: Service Feature Restriction Class

RSC: Route Restriction Class

Note: AVPD command is useful for continuous assignment of Visitor PSs.
AVPDN (Assignment of Visitor PS Data for NDM)
TN:TENANT NUMBER
VPSTN:PS STATION NUMBER in VISITOR
(START NUMBER ~ END NUMBER)
RSC:Route Restriction Class

Note: Visitor Node transmits a location registration information (Visitor Node Number + PS Station Number) to Home Node.

Note: Assign this command to all nodes.

STEP 2: ALGSN (Assignment of Station Number Data for NDM)

Refer to ALGSN command in CHAPTER 3 of this manual.

STEP 3: AHRTL (Assignment of Home PBX Routing Number Data for LDM)

This command associates the Home node Identity number (7 or less digit number in PS number) and Home Node Access Code (ACCESS CODE to the Home Node which assigned by ASPA command).

PCN: PHS COMMUNITY NUMBER

HID: HOME NODE IDENTITY NUMBER (7 or less digit number in PS number)

HAC: HOME NODE ACCESS CODE (6 or less digit)

If Home Node Identity Number is equal to the ACCESS Code to the Home Node, skip this step.

Note: Assign this command to all nodes.

STEP 4: AUNEL (Assignment of Uniform Numbering for LDM)

Assign Uniform Numbering Data to dummy route number assigned by ASPAN.

TN: Tenant Number

LGRT: Logical Route Number

NPC: Number Pattern Code

SKIP: Skip Data Digits

Note: This data assignment is required to use this feature.

STEP 5: ASPAN (Assignment of Special Access Code for NDM)

Assign dummy route number to LCR (least cost routing) Access Code.

ACC: ACCESS CODE

CI: CONNECTION STATUS INDEX (Normal/Hooking)

SRV: KIND OF SERVICE

RT: DUMMY ROUTE NUMBER

Note: This data assignment is required when LCR Access Code which is possible to recognize Home node Routing Number is not assigned.



CHAPTER 3 COMMANDS

This chapter explains the commands added or revised in the Wireless-PCS. The following list shows the related commands.

List of Commands

COMMAND NAME	FULL COMMAND NAME
*AAED	Assignment of Announcement Equipment Data
*AKYD	Assignment of Key Data for Dterm
ACSDL	Assignment of CS/ZT Data for LDM
ACSDN	Assignment of CS/ZT Data for NDM
ACSEL	Assignment of Expansion CS/ZT System Data for LDM
ACSEN	Assignment of Expansion CS/ZT System Data for NDM
ACSPL	Assignment of CS/ZT Peg Count Data for Local Data Memory
ACSSL	Assignment of CS/ZT System Data for LDM
ACSSN	Assignment of CS/ZT System Data for NDM
AHLG	Assignment of CFT Hot Line Group
AHLGL	Assignment of CFT Hot Line Group for LDM
AHLGN	Assignment of CFT Hot Line Group for NDM
AHRTL	Assignment of Home PBX Routing Number Data for LDM
*ALGNL	Assignment of Telephone Number Data for Local Data Memory
ALGNN	Assignment of Telephone Number Data for Network Data Memory
*ALGSL	Assignment of Telephone Number Data for Local Data Memory
*ALGSN	Assignment of Telephone Number Data for Network Data Memory
*ALRTN	Assignment of Logical Route for Network Data Memory
ALVPL	Assignment of LVP Code for Local Data Memory
ALVPN	Assignment of LVP Code for Network Data Memory
*ANSDL	Assignment of Number Sharing Data for Local Data Memory
*ANSDN	Assignment of Number Sharing Data for Network Data Memory
APCNL	Assignment of PHS Community Number Data for LDM
APCNN	Assignment of PHS Community Number Data for NDM
APDLL	Download of PS Operation Data for Local Data Memory
APDLN	Download of PS Operation Data for Network Data Memory
APFLL	Assignment of PS Floating Line for LDM
APFLN	Assignment of PS Floating Line for NDM
APGN	Assignment of PHS Group Number
Note: An asterisk (*) indicates the commands whose contents are given slight addition or amendment in the Wireless-PCS system. This manual only describes the parts revised from the previous ones. Additionally, for more detail, refer to Command Manual or Operations and Maintenance Manual for the SV9500 for commands marked with an asterisk (*).	

List of Commands (Continued)

COMMAND NAME	FULL COMMAND NAME
APGS	Assignment of PHS Group Number Control Station
APLAML	Assignment of PS Line Appearance Module-Group for LDM
APLAMN	Assignment of PS Line Appearance Module-Group for NDM
APMD	Assignment of Trunk Line Appearance Maximum Necessary Digit
APMLL	Assignment of PS Multiline Data for LDM
APMLN	Assignment of PS Multiline Data for NDM
APSD	Assignment of PS Operation Data
APSP	Assignment of Trunk Line Appearance
ARODL	Assignment of Roaming Self PBX Number Data for LDM
ASCS	Assignment of Call Park Group for DM
*ASFC	Assignment of Service Feature Restriction Class
*ASPA	Assignment of Special Access Code
*ASYD	Assignment of System Data
*ATRF	Assignment of Traffic Measurement Order
AVPD	Assignment of Visitor PS Data
AVPDL	Assignment of Telephone Number for Visitor PS for Local Data Memory
AVPDN	Assignment of Telephone Number for Visitor PS for Network Data Memory
AZARL	Assignment of ZT Area Information for Local Data Memory
AZARN	Assignment of ZT Area Information for Network Data Memory
AZDL	ZT Program Download
COCS1L	Control of CS/ZT Status Read for Local Data Memory
COCS1N	Control of CS/ZT Status Read for Network Data Memory
COCS2L	Change of CS/ZT Operation Parameter for Local Data Memory
COCS2N	Change of CS/ZT Operation Parameter for Network Data Memory
COCS3L	Control of CS/ZT Reset for Local Data Memory
COCS3N	Control of CS/ZT Reset for Network Data Memory
COCS4L	Control of CS/ZT Data Read for Local Data Memory
COCS4N	Control of CS/ZT Data Read for Network Data Memory
DLIN	Display of a List of Roaming PS
DPSN	Display of PS Station Data
Note: An asterisk (*) indicates the commands whose contents are given slight addition or amendment in the Wireless-PCS system. This manual only describes the parts revised from the previous ones. Additionally, for more detail, refer to Command Manual or Operations and Maintenance Manual for the SV9500 for commands marked with an asterisk (*).	

List of Commands (Continued)

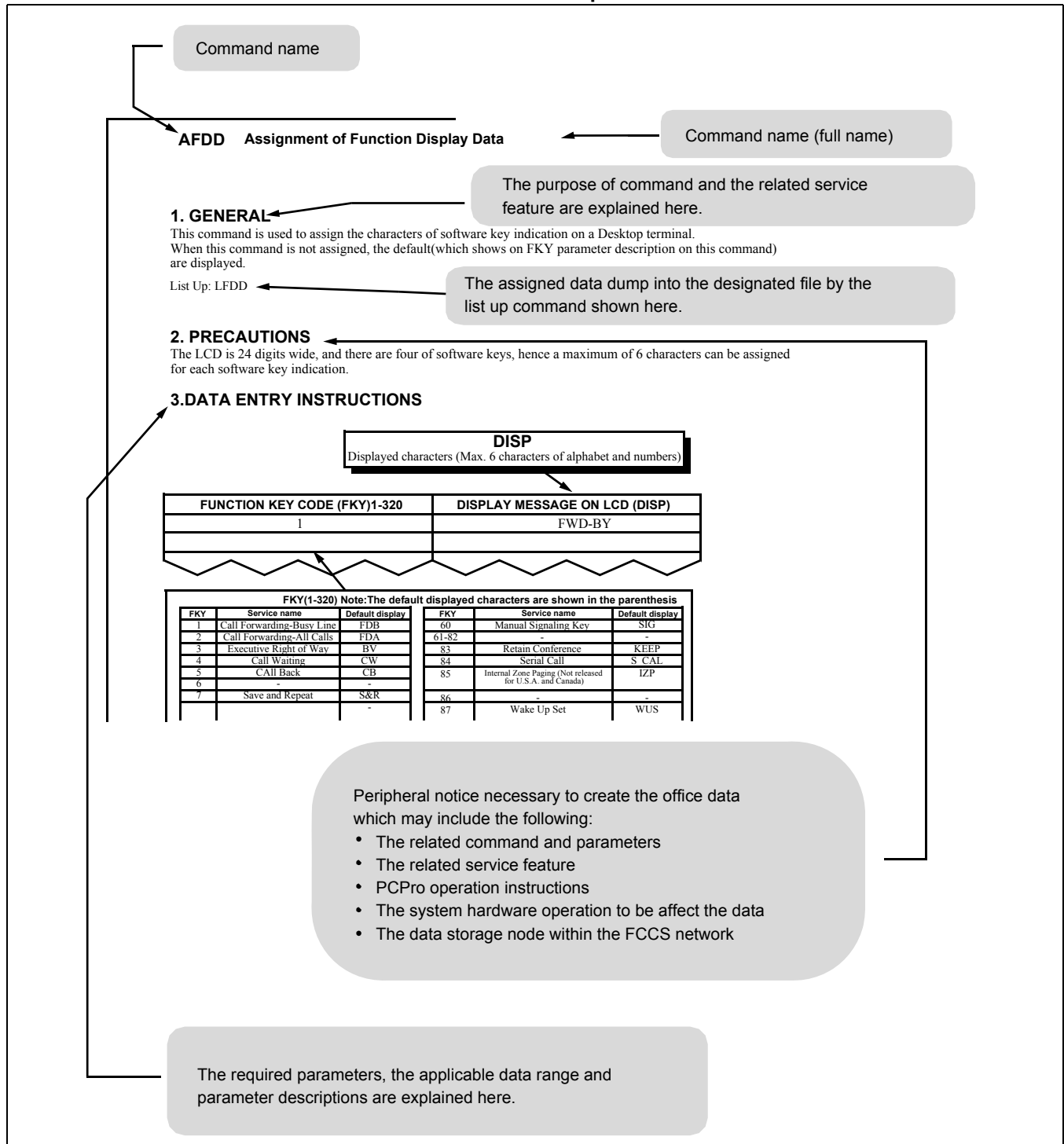
COMMAND NAME	FULL COMMAND NAME
DRPS	Display of Reverse Develop PS Data
DTFP	Display of CS/ZT Peg Count Data
MBCSL	Make Busy of CS/ZT for Local Data Memory
MBCSN	Make Busy of CS/ZT for Network Data Memory

Note: An asterisk (*) indicates the commands whose contents are given slight addition or amendment in the Wireless-PCS system. This manual only describes the parts revised from the previous ones. Additionally, for more detail, refer to Command Manual or Operations and Maintenance Manual for the SV9500 for commands marked with an asterisk (*).

1. COMMAND DESCRIPTION AND DATA SHEET FOR ASSIGNMENT

This section explains assignment commands and their parameters for this system. The contents of each assignment command are shown in the figure below.

Command Descriptions



Country Number (the parameter CTRN of ACSEN and APSD commands) is shown in the table below.

Country Number (CTRN) for each Country (1 of 2)

Country	CTRN (HEX) for ACSEN	CTRN (DEC) for APSD
United States of America	31A	794
Puerto Rico	33A	826
United States Virgin Islands	332	818
Mexico	334	820
Jamaica	338	824
Guadeloupe (French Department of) and Marti- nique (French Department of)	34A	842
Barbados	342	834
Antigua and Barbuda	344	836
Cayman Islands	346	838
British Virgin Islands	348	840
Bermuda	35A	858
Grenada	352	850
Montserrat	354	852
Saint Kitts and Nevis	356	854
Saint Lucia	358	856
Saint Vincent and the Grenadines	36A	874
Netherlands Antilles	362	866
Bahamas (Commonwealth of the)	364	868
Dominica (Commonwealth of)	366	870
Cuba	368	872
Dominican Republic	37A	890
Haiti (Republic of)	372	882
Trinidad and Tobago	374	884
Turks and Caicos Islands	376	886
Belize	7A2	1954
Guatemala (Republic of)	7A4	1956
El Salvador (Republic of)	7A6	1958
Honduras (Republic of)	7A8	1960
Nicaragua	71A	1818

Country Number (CTRN) for each Country (2 of 2)

Country	CTRN (HEX) for ACSEN	CTRN (DEC) for APSD
Costa Rica	712	1810
Panama (Republic of)	714	1812
Peru	716	1814
Argentine Republic	722	1826
Brazil (Federative Republic of)	724	1828
Chile	73A	1850
Colombia (Republic of)	732	1842
Venezuela (Bolivarian Republic of)	734	1844
Bolivia (Republic of)	736	1846
Guyana	738	1848
Ecuador	74A	1866
Guiana (French Department of)	742	1858
Paraguay (Republic of)	744	1860
Suriname (Republic of)	746	1862
Uruguay (Eastern Republic of)	748	1864

Note: For countries other than those mentioned above, refer to ITU-T Recommendation X.121.

AKYD: Assignment of Key Data for Dterm

1. GENERAL

This command assigns key data corresponding to each line /feature button on a Desktop terminal.

2. PRECAUTIONS

For more detailed information, refer to the Command Manual.

3. Data Entry Instructions

FKY 157: Handset Switch

ACSDL: Assignment of CS/ZT Data for LDM

1. GENERAL

This command is used to assign, delete, and display the CS/ZT-related data. A CSINT circuit card can accommodate four CSs/ZTs, allowing each two groups of the Levels 0 and 4 to be assigned for one circuit card.

List Up Command: LCSDL

2. PRECAUTIONS

1. This command is used for the Local Node.
2. When assigning the LENS, the CS/ZT should be assigned in a group of less than 24 and the Levels 0 and 4 are available.
3. While the CS/ZT is busy, the data cannot be deleted.

3. DATA ENTRY INSTRUCTIONS

PHS COMMUNITY NUMBER (PCN) 1 - 1024	CALLING AREA NUMBER (ERN) 1 - 32	GROUP NUMBER (GRN) 1 - 8	CS / ZT NUMBER (CSN / ZTN) 1 - 32	TENANT NUMBER (TN) 1 - SYSTEM MAX	LINE EQUIPMENT NUMBER (LENS)	KIND OF CS/ZT (KIND)

PCN

Enter the PCN (PHS Community Number)

Note: Group NO. available for inter-node of the FCCS Network

GRN

Enter the GRN (Group Number)

TN

Enter the TN (Tenant Number)

ERN

Enter the ERN (Calling Area Number)

CSN / ZTN

Enter the CS / ZT number

KIND

V1 (Not used)
V2 (Not used)
V3 (Not used)
ZT1
ZT2

ACSDN: Assignment of CS/ZT Data for NDM

1. GENERAL

This command is used to assign, delete and display the CS/ZT-related data of the Network Control Node (NCN). A CSINT circuit card can accommodate four CSs/ZTs, allowing each two groups of the Levels 0 and 4 to be assigned for one circuit card.

List Up Command: LCSDN

2. PRECAUTIONS

1. This command is used for the Network Control Node.
2. When assigning LENS, CS/ZT should be assigned in the Group of less than 24 and the Levels to be available are 0 and 4.
3. The same ERN cannot be assigned to multiple nodes.
4. When you want to move ERN from A node to B node, you must delete each CS/ZT in the ERN of A node.
5. When assigning/deleting the CS/ZT-related data of the NCN, you must back up the Office data of the NCN and the LN that mounts the CS.

3. DATA ENTRY INSTRUCTIONS

FUSION POINT CODE (FPC) 1 - 253	PHS COMMUNITY NUMBER (PCN) 1 - 1024	CALLING AREA NUMBER (ERN) 1 - 32	GROUP NUMBER (GRN) 1 - 8	CS / ZT NUMBER (CSN / ZTN) 1 - 32	TENANT NUMBER (TN) 1-SYSTEM MAX	LINE EQUIPMENT NUMBERS (LENS)	KIND OF CS / ZT (KIND)

PCN
Enter the PCN (PHS Community Number)
Note: Group NO. available for inter-node
of the FCCS Network

GRN
Enter the GRN (Group
Number)

TN
Enter the TN (Tenant Number)

FPC
Enter the FPC in the
FCCS Network

ERN
Enter the ERN (Calling
Area Number)

CSN / ZTN
Enter the CS / ZT number

KIND
V1 (Not used)
V2 (Not used)
V3 (Not used)
ZT1
ZT2

ACSEL: Assignment of Expansion CS/ZT System Data for LDM

1. GENERAL

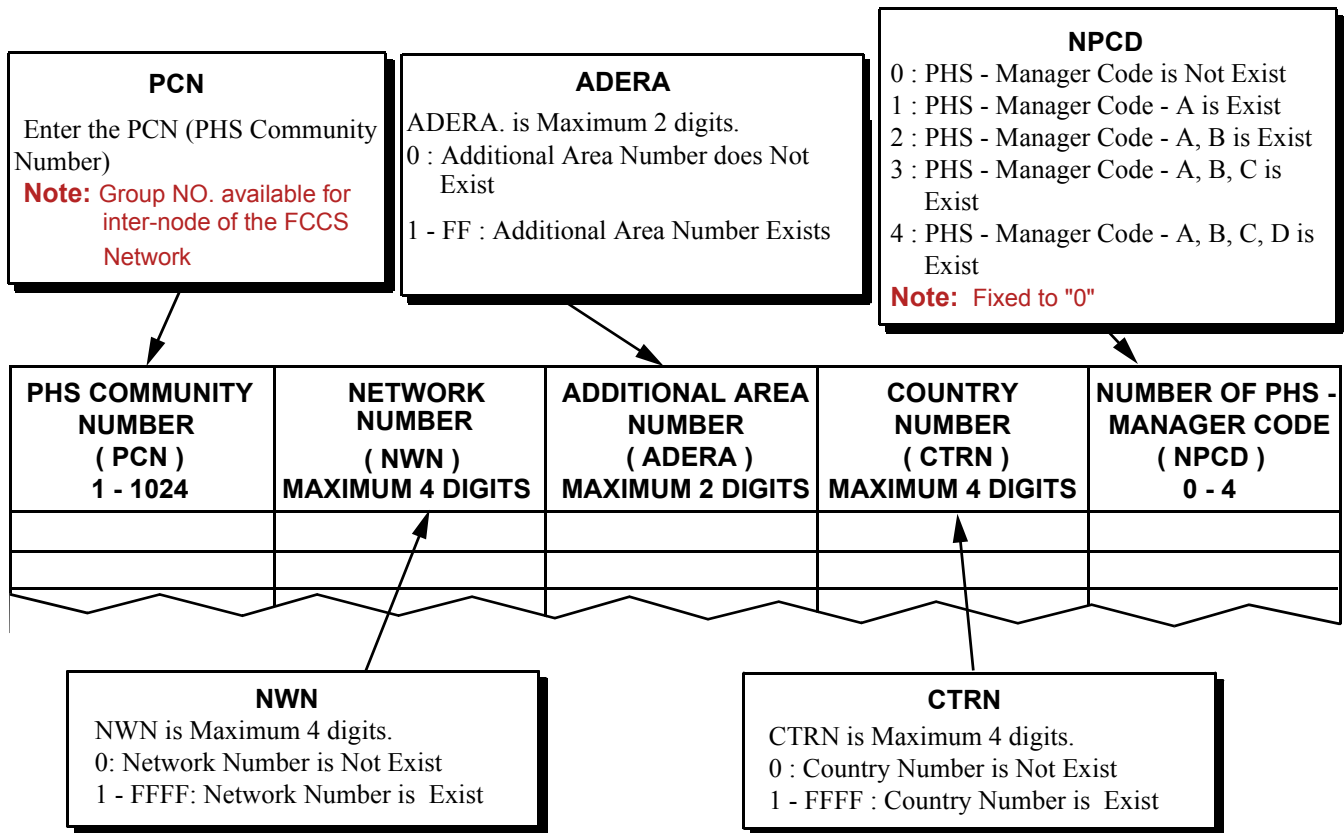
This command is used to assign, delete and display the expansion CS/ZT System data in Local Node.

List Up Command: LCSEL

2. PRECAUTIONS

1. This command is used to the Local Node.
2. Enter "0" when you make the corresponding parameter invalid (NWN, ADERA, CTRN).
3. This command can be used to change the data.

3. DATA ENTRY INSTRUCTIONS



ACSEN: Assignment of Expansion CS/ZT System Data for NDM

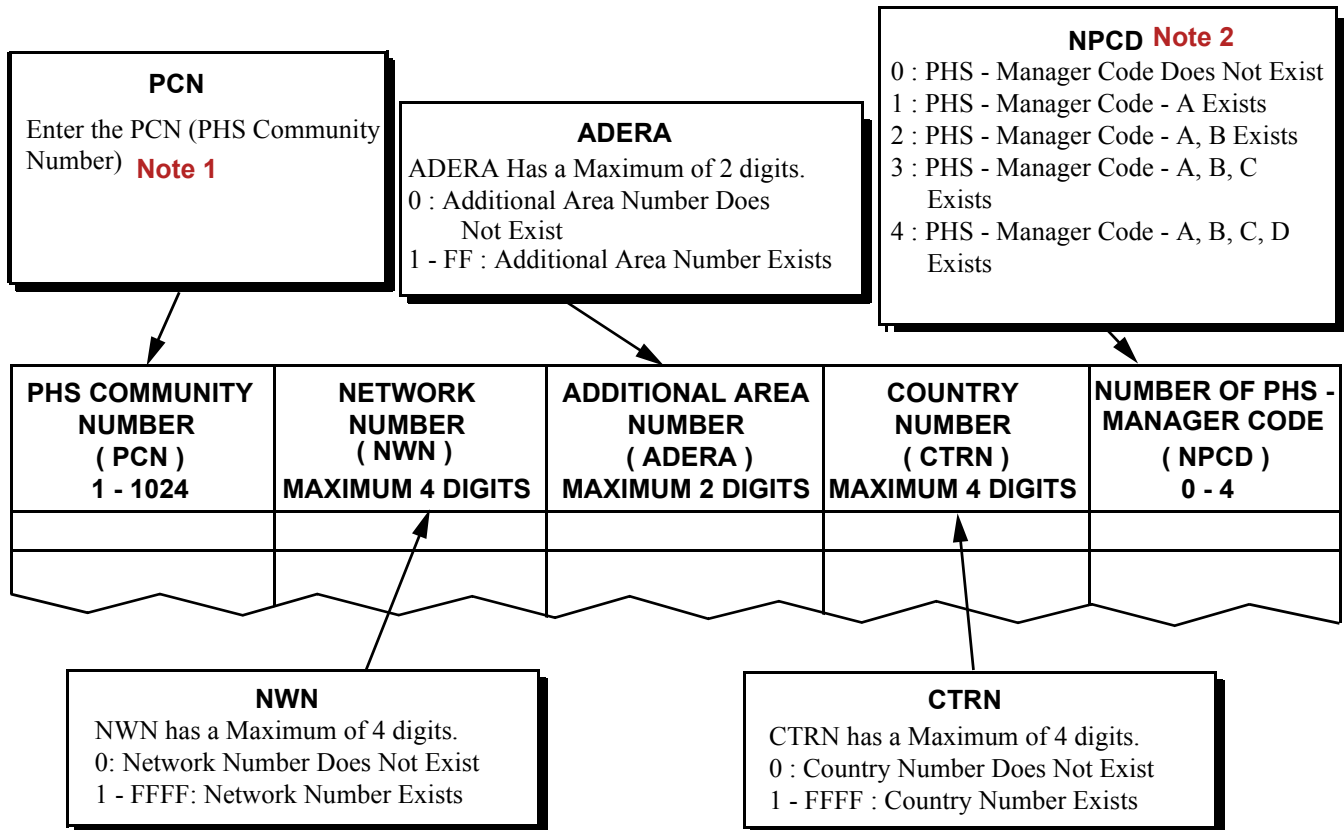
1. GENERAL

This commands is used to assign, delete, and display the expansion CS/ZT System data in Network Data Memory.

2. PRECAUTIONS

1. This Command is used for the Network Control Node.
2. Enter “0” when you make the corresponding parameter invalid (NWN, ADERA, CTRN).
3. This command can be used to change the data.

3. DATA ENTRY INSTRUCTIONS



Note 1: Group NO. available for inter-node of the FCCS Network.

Note 2: Fixed to "0".

ACSPL: Assignment of CS/ZT Peg Count Data for Local Data Memory

1. GENERAL

This commands is used to assign, delete, and display the CS/ZT observed in the CS/ZT Peg Count, one of the items for traffic measurement. Also, the measurement can be conducted on an-area-basis.

2. PRECAUTIONS

This command is used to the Local Node.

3. DATA ENTRY INSTRUCTIONS

PCN Enter the PCN (PHS Community Number) Note: Group NO. available for inter-node of the FCCS Network	ERN Enter the ERN (Calling Area Number)
PHS COMMUNITY NUMBER (PCN) 1 - 1024	CALLING AREA NUMBER (ERN) 1 - 32

ACSSL: Assignment of CS/ZT System Data for LDM

1. GENERAL

This command is used to assign and display the CS/ZT System data in Local Data Memory.

2. PRECAUTIONS

1. This command is used in the Local Node.
2. Enter “ ” (Space) when you make the corresponding parameter invalid (MCS ERN, MCS GRN, MCS CSN/ZTN).

3. DATA ENTRY INSTRUCTIONS

PHS COMMUNITY NUMBER (PCN) 1 - 1024	CALLING AREA NUMBER OF MASTER CS (MCS ERN)	GROUP NUMBER OF MASTER CS (MCS GRN)	CS/ZT NUMBER OF MASTER CS/ZT (MCS CSN/ZTN)	NUMBER OF OPERATION CS/ZT (OP CSN/OP ZTN)

PCN
Enter the PCN (PHS Community Number)
Note: Group NO. available for Inter-node of the FCCS Network

MCS ERN
NOT USED

MCS CSN/ZTN
NOT USED

SYSTEM IDENTIFY (SYS - ID)
1 - FFFFFFFFFF

SYS - ID
Enter the SYS - ID
Note: SYS-ID must be a unique number

MCS GRN
NOT USED

OP CSN/OP ZTN
1 : fixed

4. DATA SHEET

CS/ZT SYSTEM DATA Assignment Sheet

ACSSN: Assignment of CS/ZT System Data for NDM

1. GENERAL

This command is used to assign and display the CS/ZT System data in Network Data Memory.

2. PRECAUTIONS

1. This command is used in the Network Node.
2. Enter “ ” (Space) when you make the corresponding parameter invalid (MCS ERN, MCS GRN, MCS CSN/ZTN).

3. DATA ENTRY INSTRUCTIONS

PHS COMMUNITY NUMBER (PCN) 1 - 1024	CALLING AREA NUMBER OF MASTER CS (MCS ERN)	GROUP NUMBER OF MASTER CS (MCS GRN)	CS/ZT NUMBER OF MASTER CS/ZT (MCS CSN/ZTN)	NUMBER OF OPERATION CS/ZT (OP CSN/OP ZTN)

PCN
Enter the PCN (PHS Community Number)
Note: Group NO. available for
Inter-node of the FCCS Network

MCS ERN
NOT USED

MCS CSN/ZTN
NOT USED

**SYSTEM IDENTIFY
(SYS - ID)
1 - FFFFFFFFFF**

SYS - ID
Enter the SYS - ID
Note: SYS-ID must be a unique
number

MCS GRN
NOT USED

**OP CSN/
OP ZTN**
1 : fixed

AHLG: Assignment of CFT Hot Line Group

1. GENERAL

This command is used to assign, delete and display the DM data which is concerned with PCS Calling Conference Group.

List Up Command: LHLG

2. PRECAUTIONS

1. “Set” key and “Del.” key can be used after TN and ACC are entered and then this data is read by pressing “Get” key.
If this data is not programmed, press “Get” key again, PORT, TYPE, D_TN, D_STN and D_ADC can be assigned.
2. The input parameter depends on TYPE value.

TYPE=0 : (none)
TYPE=1 : D_TN, D_STN
TYPE=2 : D_ADC
3. Only Speed Calling Dial Number which is the same tenant as conference leader port can be entered.
4. The user must assign the data to all ports (PORT 0-7).
5. If all ports are TYPE=0, this assignment ends in failure.
6. Data writing is executed by pressing “Set” key.

3. DATA ENTRY INSTRUCTIONS

TN (TENANT NUMBER)	: 1-
ACC (CFTB H/L ACCESS CODE)	: 0-9, #, * (maximum 5 digits)
PORT (PORT NUMBER)	: 1-7
TYPE (KIND OF STN)	: 0=Vacant Port 1=STN/PS 2=OUTSIDE TRUNK
D_TN (TENANT NUMBER OF DESTINATION)	: 1-
D_STN (STATION NUMBER OF DESTINATION)	: 0-9, #, * (maximum 5 digits)
D_ADC (SPEED CALLING DIAL NUMBER OF DESTINATION)	: 0-9, #, * (maximum 4 digits)

4. DATA SHEET

TENANT NUMBER (TN)		STATION NUMBER OF CFTB H/L ACCESS CODE (ACC) Max. 5 digits		
PORT	KIND OF STN (TYPE) 0~2	TENANT NUMBER OF DESTINATION (D_TN)	STATION NUMBER OF DESTINATION (D_STN) Max. 5 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits
1				
2				
3				
4				
5				
6				
7				
TENANT NUMBER (TN)		STATION NUMBER OF CFTB H/L ACCESS CODE (ACC) Max. 5 digits		
PORT	KIND OF STN (TYPE) 0~2	TENANT NUMBER OF DESTINATION (D_TN)	STATION NUMBER OF DESTINATION (D_STN) Max. 5 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits
1				
2				
3				
4				
5				
6				
7				
TENANT NUMBER (TN)		STATION NUMBER OF CFTB H/L ACCESS CODE (ACC) Max. 5 digits		
PORT	KIND OF STN (TYPE) 0~2	TENANT NUMBER OF DESTINATION (D_TN)	STATION NUMBER OF DESTINATION (D_STN) Max. 5 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits
1				
2				
3				
4				
5				
6				
7				

AHLGL: Assignment of CFT Hot Line Group for LDM

1. GENERAL

This command is used to assign, delete and display the LDM data which is concerned with PCS Calling Conference Group.

List Up Command: LHLGL

2. PRECAUTIONS

1. This command is used for the Local Node (LN).
2. “Set” key and “Del.” key can be used after UGN and TELN are entered and then this data is read by pressing “Get key”.
If this data is not programmed, press “Get” key again, DA, PORT, TYPE, D_UGN, D_TELN and D_ADC can be assigned.
3. The input parameter depends on TYPE value.

TYPE=0	: (none)
TYPE=1	: D_UGN, D_TELN
TYPE=2	: D_ADC
4. Only Speed Calling Dial Number which is the same tenant as conference leader port can be entered.
5. The user must assign the data to all ports (PORT 0-7).
6. If all ports are TYPE=0, this assignment ends in failure.
7. Data writing to LDM is executed by pressing “Set” key.

3. DATA ENTRY INSTRUCTIONS

UGN (USER GROUP NUMBER)	
TELN (CFTB H/L ACCESS CODE [TELEPHONE NUMBER])	: 0-9, #, * (maximum 16 digits)
DA (RINGING STOP AFTER NO ANSWER TIMER)	: 0=Stop calling, when the STN doesn't answer. : 1=Continue calling, when the STN doesn't answer.
PORT (PORT NUMBER)	: 1-7
TYPE (KIND OF STN)	: 0=Vacant Port : 1=STN/PS : 2=OUTSIDE TRUNK (Not used)
D_UGN (USER GROUP NUMBER OF DESTINATION)	
D_TELN (TELEPHONE NUMBER OF DESTINATION)	: 0-9, #, * (maximum 16 digits)
D_ADC (SPEED CALLING DIAL NUMBER OF DESTINATION)	: 0-9, #, * (maximum 4 digits) (Not used)

4. DATA SHEET

USER GROUP NUMBER (UGN)		TELEPHONE NUMBER OF CFTB H/L ACCESS CODE (TELN) Max. 16 digits		RINGING STOP AFTER NO ANSWER TIMER (DA) 0/1	
PORT	KIND OF STN (TYPE) 0~2	USER GROUP NUMBER OF DESTINATION (D_UGN)	TELEPHONE NUMBER OF DESTINATION (D_TELN) Max. 16 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits	
1					
2					
3					
4					
5					
6					
7					
USER GROUP NUMBER (UGN)		TELEPHONE NUMBER OF CFTB H/L ACCESS CODE (TELN) Max. 16 digits		RINGING STOP AFTER NO ANSWER TIMER (DA) 0/1	
PORT	KIND OF STN (TYPE) 0~2	USER GROUP NUMBER OF DESTINATION (D_UGN)	TELEPHONE NUMBER OF DESTINATION (D_TELN) Max. 16 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits	
1					
2					
3					
4					
5					
6					
7					
USER GROUP NUMBER (UGN)		TELEPHONE NUMBER OF CFTB H/L ACCESS CODE (TELN) Max. 16 digits		RINGING STOP AFTER NO ANSWER TIMER (DA) 0/1	
PORT	KIND OF STN (TYPE) 0~2	USER GROUP NUMBER OF DESTINATION (D_UGN)	TELEPHONE NUMBER OF DESTINATION (D_TELN) Max. 16 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits	
1					
2					
3					
4					
5					
6					
7					

AHLGN: Assignment of CFT Hot Line Group for NDM

1. GENERAL

This command is used to assign, delete and display the NDM data which is concerned with PCS Calling Conference Group.

List Up Command: LHLGL

2. PRECAUTIONS

1. This command is used for the Network Control Node (NCN).
2. “Set” key and “Del.” key can be used after UGN and TELN are entered and then this data is read by pressing “Get key”. If this data is not programmed, press “Get” key again, DA, PORT, TYPE, D_UGN, D_TELN and D_ADC can be assigned.
3. The input parameter depends on TYPE value.
TYPE=0 : (none)
TYPE=1 : UGN, TELN
TYPE=2 : ADC (Only Speed Calling Dial Number of a node assigned conference leader port can be entered.)
4. Only Speed Calling Dial Number which is the same tenant as conference leader port can be entered.
5. The user must assign the data to all ports (PORT 0-7).
6. If all ports are TYPE=0, this assignment ends in failure.
7. Data writing for NDM is executed by pressing “Set” key.

3. DATA ENTRY INSTRUCTIONS

UGN (USER GROUP NUMBER)	
TELN (CFTB H/L ACCESS CODE [TELEPHONE NUMBER])	: 0-9, #, * (maximum 16 digits)
DA (RINGING STOP AFTER NO ANSWER TIMER)	: 0=Stop calling, when the STN doesn't answer. 1=Continue calling, when the STN doesn't answer.
PORT (PORT NUMBER)	: 1-7
TYPE (KIND OF STN)	0=Vacant Port 1=STN/PS 2=OUTSIDE TRUNK (Not used)
D_UGN (USER GROUP NUMBER OF DESTINATION)	
D_TELN (TELEPHONE NUMBER OF DESTINATION)	: 0-9, #, * (maximum 16 digits)
D_ADC (SPEED CALLING DIAL NUMBER OF DESTINATION)	: 0-9, #, * (maximum 4 digits) (Not used)

4. DATA SHEET

USER GROUP NUMBER (UGN)		TELEPHONE NUMBER OF CFTB H/L ACCESS CODE (TELN) Max. 16 digits		RINGING STOP AFTER NO ANSWER TIMER (DA) 0/1	
PORT	KIND OF STN (TYPE) 0~2	USER GROUP NUMBER OF DESTINATION (D_UGN)	TELEPHONE NUMBER OF DESTINATION (D_TELN) Max. 16 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits	
1					
2					
3					
4					
5					
6					
7					
USER GROUP NUMBER (UGN)		TELEPHONE NUMBER OF CFTB H/L ACCESS CODE (TELN) Max. 16 digits		RINGING STOP AFTER NO ANSWER TIMER (DA) 0/1	
PORT	KIND OF STN (TYPE) 0~2	USER GROUP NUMBER OF DESTINATION (D_UGN)	TELEPHONE NUMBER OF DESTINATION (D_TELN) Max. 16 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits	
1					
2					
3					
4					
5					
6					
7					
USER GROUP NUMBER (UGN)		TELEPHONE NUMBER OF CFTB H/L ACCESS CODE (TELN) Max. 16 digits		RINGING STOP AFTER NO ANSWER TIMER (DA) 0/1	
PORT	KIND OF STN (TYPE) 0~2	USER GROUP NUMBER OF DESTINATION (D_UGN)	TELEPHONE NUMBER OF DESTINATION (D_TELN) Max. 16 digits	SPEED CALLING DIAL NUMBER (D_ADC) Max. 4 digits	
1					
2					
3					
4					
5					
6					
7					

AHRTL: Assignment of Home PBX Routing Number Data for LDM

1. GENERAL

This command is used to assign and display the Home Node Routing Number data in Local Data Memory.

2. PRECAUTIONS

1. This command is used in the Local Node.
2. If HID and HAC are equal, this data assignment is not necessary.

3. DATA ENTRY INSTRUCTIONS

PHS COMMUNITY NUMBER (PCN) 1 - 1024	HOME NODE IDENTITY NUMBER (HID)	HOME NODE ACCESS CODE (HAC)
1		
1		

PCN

Enter the PCN (PHS Community Number)

Note: Group NO. available for inter-node of the FCCS Network

HID

Enter the HID (Home Node Identity Number)

MAX: 7 Digits

HAC

Enter the HAC (Home Node Access Code)

MAX: 6 Digits

ALGNL: Assignment of Telephone Number Data for Local Data Memory

1. GENERAL

This command is used to assign the Telephone Number (TELN) available in the Self (Local) Node only.

List Up Command: LLGNL

2. PRECAUTIONS

1. This Telephone Number is available in the Self (Local) Node only. If the Telephone Number for the FCCS network is required, use the ALGNN command.
2. The Telephone Number (TELN) assigned by this command is used in conjunction with the physical station specified by the ALGSL command.
3. The system data assignment (ASYDL, SYS1, Index 513 Data 01hex) is needed to provide the Local Data Memory (LDM).
4. Before assigning this command, ANPDL / ASPAL commands are required for the numbering plan of the Telephone.
5. Unique Telephone Number (TELN) should be given within a User Group Number (UGN).

3. DATA ENTRY INSTRUCTIONS

UGN
 Assign User Group Number (1-255)

TELN
 Assign Telephone Number (Unique TELN should be given within a UGN)

USER GROUP NUMBER (UGN)	TELEPHONE NUMBER (TELN) MAX. 16 DIGITS	REMARKS
	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	
	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	
	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	
	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	
	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	

ALGNN: Assignment of Telephone Number Data for Network Data Memory

1. GENERAL

This command is used to assign the Telephone Number (TELN). The data assigned by this command is written in Network Data Memory (NDM) of the Network Control Node (NCN), updating the NDM at each Local Node (LN).

List Up Command: LLGNN

2. PRECAUTIONS

1. The Telephone Number (TELN) assigned by this command is used in conjunction with the physical station specified by the ALGSN command.
2. The applicable tenant number (TN) range is designated by the ASYDN command, SYS 1, Index 8. If the numbering plan is common for all tenants (ASYDN, SYS1, Index 800, bit0=1), assign TN parameter as "1" for all tenants.
3. The system data assignment (ASYDN, SYS 1, Index 514, bit1=1) is needed to provide the Network Data Memory (NDM).
4. Before assigning this command, ANPDN / ASPAN commands are required for the numbering plan of the Telephone Number (TELN).
5. Unique Telephone Number (TELN) should be given within a User Group Number (UGN).

3. DATA ENTRY INSTRUCTIONS

UGN
 Assign User Group Number (1-255)

TELN
 Assign Telephone Number (Unique
 TELN should be given within a UGN)

USER GROUP NUMBER (UGN)	TELEPHONE NUMBER (TELN) MAX. 16 DIGITS	REMARKS
	40000	
	40001	
	40002	

ALGSL: Assignment of Telephone Station Data for LDM

1. GENERAL

This command is used to assign the data pertaining to the relationship between the Telephone Number (TELN) and physical station.

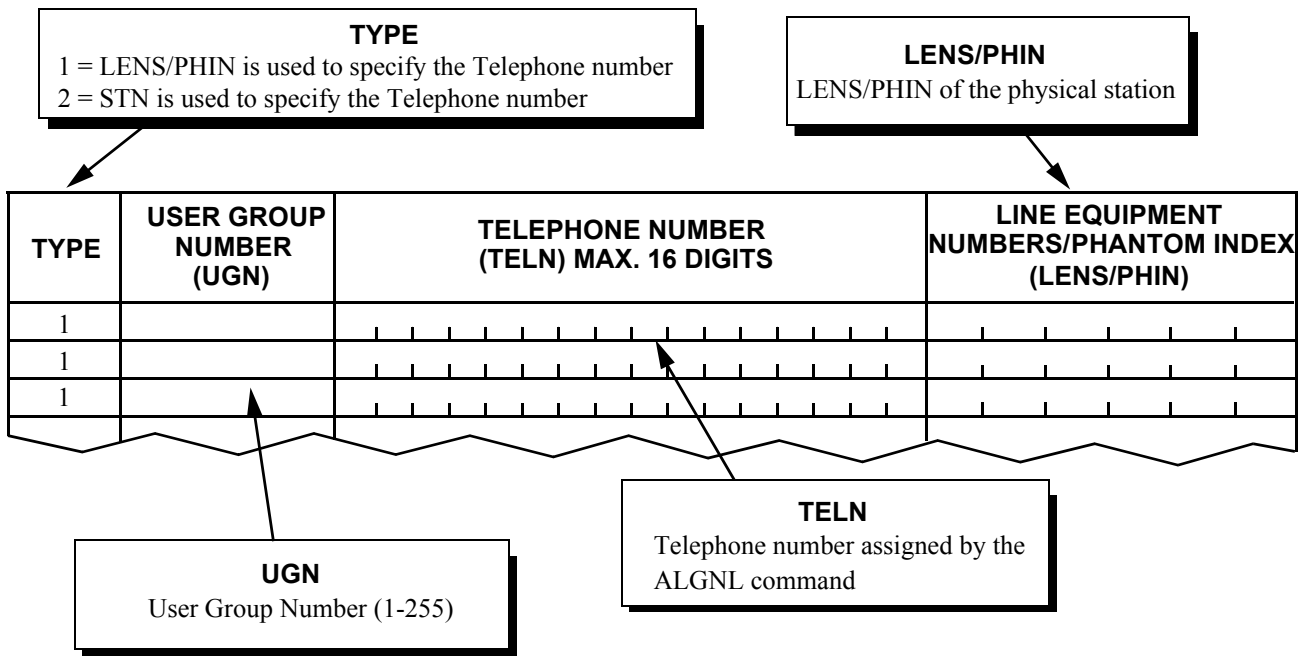
List Up Command: LLGSL

2. PRECAUTIONS

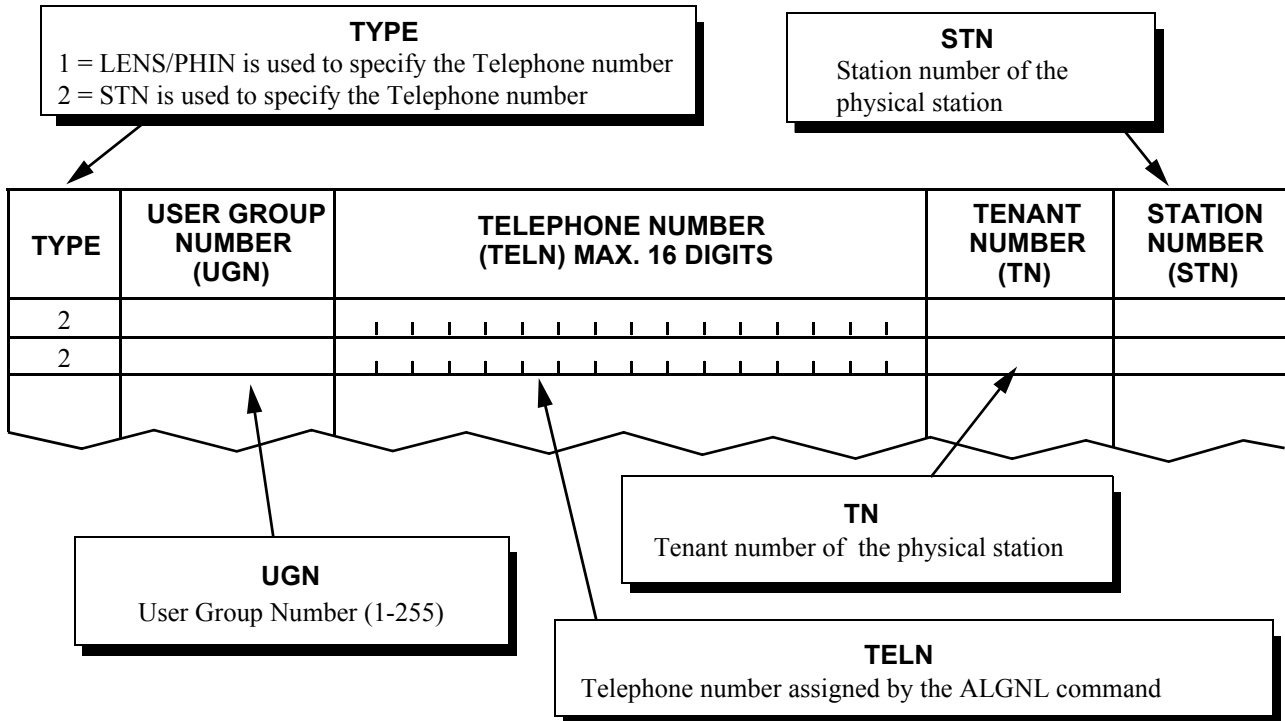
1. This Telephone Number can be used in the Self (Local) Node only. Use the ALGSN command if the Telephone Number for the FCCS network is required.
2. TYPE parameter designates the programming method of physical station (the result is the same whichever selected). When TYPE = 1 (Line Equipment Numbers/Phantom Index) is selected, the physical station which accommodates the Telephone Number (TELN) is specified by the LENS/PHIN. Likewise, TYPE = 2 (STN) is selected, the physical station number (STN) is used.
3. The system data assignment (ASYDL, SYS1, Index 513 Data 01hex) is needed to provide the Local Data Memory (LDM).
4. Prior to assigning this command, the Telephone Number (TELN) should be entered by the ALGNL command.
5. The applicable tenant number (TN) range is designated by the ASYD command, SYS1, Index 8.
6. When deleting the telephone number, the user must first delete the data which is concerned with Group Call Conference.

3. DATA ENTRY INSTRUCTIONS

- ◆ TYPE = 1 (LENS/PHIN is used to specify the Telephone number.)



- ◆ TYPE = 2 (STN is used to specify the Telephone number.)



[illegible]

ALGSN: Assignment of Telephone Station Data for NDM

1. GENERAL

This command is used to assign the related data of the Telephone Number (TELN) corresponding to the physical station. The data assigned by this command is written in Network Data Memory (NDM) of the Network Control Node (NCN), updating the NDM at each Local Node (LN).

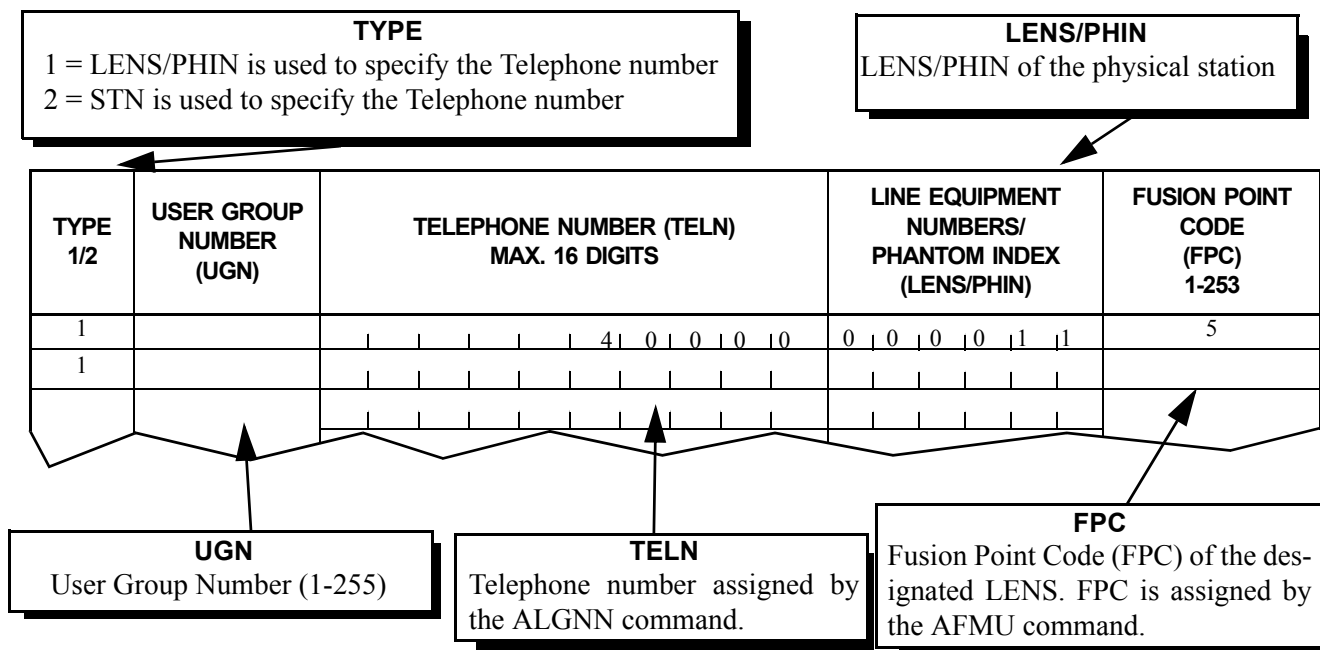
List Up Command: LLGSN

2. PRECAUTIONS

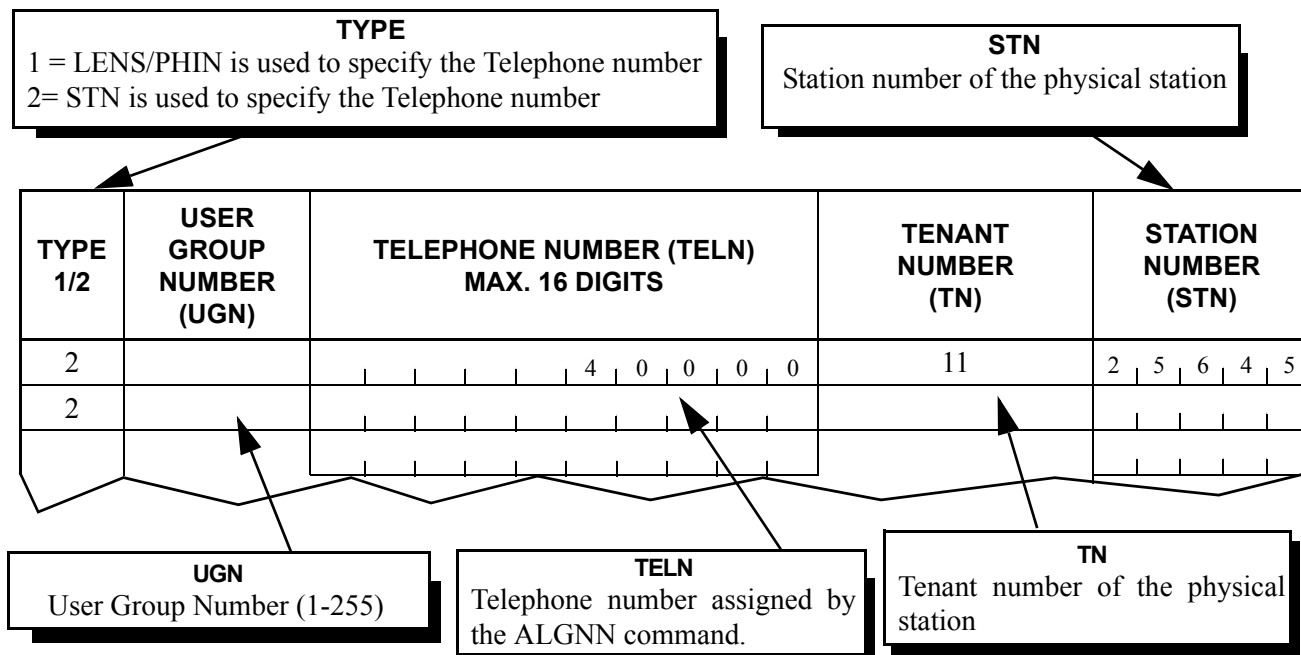
1. The ALGSN command is used to assign the Telephone Number (TELN) for a Network Control Node (NCN).
2. TYPE parameter allows user to choose the programming method of physical station.
TYPE=1 (Line Equipment Numbers/Phantom index): Telephone number is to be given to the LENS/PHIN
TYPE=2 (Station number): Telephone number is to be given to the station
3. The system data assignment (ASYDN, SYS 1, Index 514, bit1=1) is needed to provide the Network Data Memory (NDM).
4. Prior to assigning this command, the Telephone Number should be entered by the ALGNN command.
5. When the parameter "TYPE" is 1 (LENS/PHIN is used to specify the physical station number), the assignment of the Fusion Point Code (FPC) entered by the AFMU command is required.
6. When deleting the telephone number, the user must first delete the data which is concerned with Group Call Conference.
7. For more details, see the Data Programming Manual - FCCS.

3. DATA ENTRY INSTRUCTIONS

- ◆ When assigning TYPE = 1 (LENS/PHIN is used to specify the Telephone number)



- ◆ When assigning TYPE = 2 (STN is used to specify the Telephone number)



ALGSN : Assignment of Telephone Station Data for NDM

 STN is used to specify the Telephone number (TYPE = 2)

[illegible]

ALRTN: Assignment of Logical Route for Network Data Memory

1. GENERAL

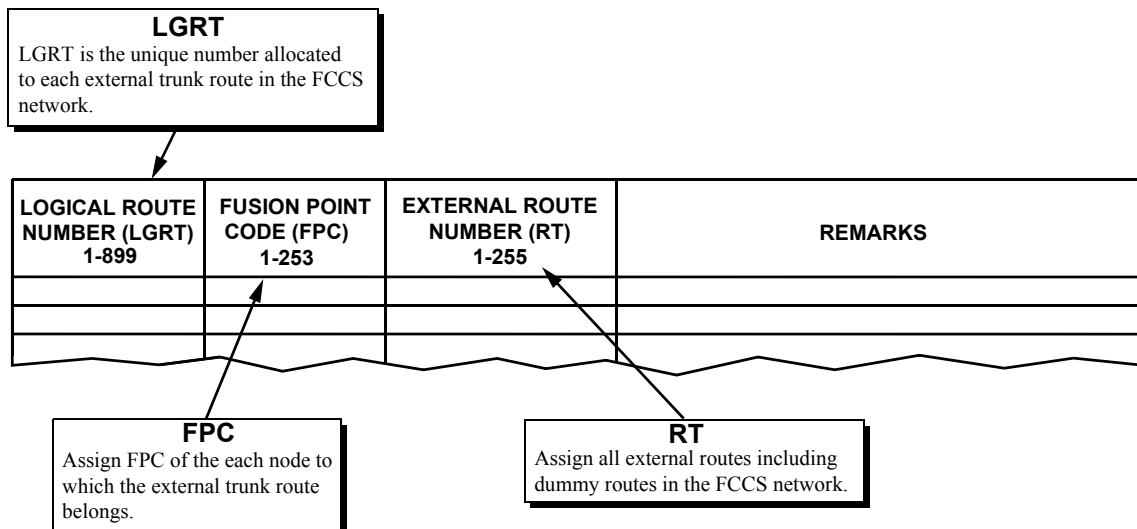
This command is used to allocate the Logical Route Number which is the unique number of the external trunk route in the FCCS network.

List Up Command: LLRTN

2. PRECAUTIONS

1. Logical Route Number allocation is required for the FCCS network only.
2. For more detailed information, see the Data Programming Manual - FCCS and the Data Programming Manual - Business.

3. DATA ENTRY INSTRUCTIONS



4. DATA SHEET

ALVPL: Assignment of LVP Code for Local Data Memory

1. GENERAL

This command is used to assign and delete the LVP Code/SYS-ID Code.

2. PRECAUTIONS

This command is used to the Local Node.

3. DATA ENTRY INSTRUCTIONS

- ◆ When KIND = 1 (Kind type, LVP Code) is assigned;

KIND

Enter the kind of code type

- 1: LVP Code
- 2: SYS-ID Code
- 3: Confirmation of LVP Code

CODE

Enter the LVP system code

ZT COUNT

This parameter is assigned automatically with LVP code.

KIND OF CODE (KIND) 1 / 2 / 3	LVP CODE (CODE) 26 DIGITS FIX	ZT COUNT (ZT CNT) 0 - 768

- ◆ When KIND = 2 (Kind type, SYS-ID Code) is assigned;

KIND

Enter the kind of code type

1: LVP Code
2: SYS-ID Code
3: Confirmation of LVP Code

SYSTEM IDENTIFY

This parameter is assigned automatically with SYS-ID Code.

KIND OF CODE (KIND) 1 / 2 / 3	PHS COMMUNITY NUMBER (PCN) 1 - 1024	SYS-ID CODE (CODE)	SYSTEM IDENTIFY (SYS - ID) 00000001 - FFFFFFFF

PCN

Enter the PCN (PHS Community Number)

Note: Group NO. available for inter-node of the FCCS Network

CODE

Enter the SYS-ID Code

- ◆ When KIND = 3 (Kind type, Confirmation of LVP Code);
This kind confirms whether the LVP Code is valid or invalid.
When the LVP Code is valid, this command shows “valid.”
When the LVP Code is invalid, this command shows “invalid.”

[illegible]

ALVPN: Assignment of LVP Code for Network Data Memory

1. GENERAL

This commands is used to assign the SYS-ID Code.

2. PRECAUTIONS

This command is used to the Network Control Node.

3. DATA ENTRY INSTRUCTIONS

- ◆ When KIND = 2 (Kind type, SYS-ID Code) is assigned;

KIND OF CODE (KIND) 2	PHS COMMUNITY NUMBER (PCN) 1 - 1024	SYS-ID CODE (CODE)	SYSTEM IDENTIFY (SYS - ID) 00000001 - FFFFFFFF

KIND
Enter the kind of code type
2: SYS-ID Code

SYSTEM IDENTIFY
This parameter is assigned
automatically.

PCN
Enter the PCN (PHS Community Number)
Note: Group NO. available for inter-node
of the FCCS Network

CODE
Enter the SYS-ID code

ANSDL: Assignment of Number Sharing Data for Local Data Memory

1. GENERAL

This command is used to assign and delete main station and sub-station data for Number Sharing service.

2. PRECAUTIONS

1. This command is used for the Local Node.
2. For detailed information on Number Sharing service, see “NUMBER SHARING” in OFFICE DATA ASSIGNMENT.

3. DATA ENTRY INSTRUCTIONS

M-UGN : Main User Group Number

S-UGN : Sub User Group Number

M-TELN : Main Telephone Number (Maximum 16 digits)

S-TELN : Sub Telephone Number (Maximum 16 digits)

OD : Output External Equipment **Note 1**

0: Only Main Telephone Number is used for SMDR, MCI and VPS Mail Box Number.

1: Both Main Telephone Number and Sub Telephone Number are used for SMDR, MCI and VPS Mail Box Number.

Note 1: When this parameter is set to “0”, the mail box for the sub-station must be deleted.

MW : Message Waiting Control

0: Message Waiting Control for Main and Sub Telephone Numbers

1: Message Waiting Control for Main Telephone Number Only

INDEX : Telephone Equipment Number (1-65535)

[illegible]

ANSDN: Assignment of Number Sharing Data for Network Data Memory

1. GENERAL

This command is used to assign and delete main station and sub-station data for Number Sharing service.

2. PRECAUTIONS

1. This command is used for the Network Control Node.
2. For detailed information on Number Sharing service, see “NUMBER SHARING.”

3. DATA ENTRY INSTRUCTIONS

M-UGN : Main User Group Number

S-UGN : Sub User Group Number

M-TELN : Main Telephone Number (Maximum 16 digits)

S-TELN : Sub Telephone Number (Maximum 16 digits)

OD : Output External Equipment **Note 1**

0: Only Main Telephone Number is used for SMDR, MCI and VPS Mail Box Number.

1: Both Main Telephone Number and Sub Telephone Number are used for SMDR, MCI and VPS Mail Box Number.

Note 1: When this parameter is set to “0”, the mail box for the sub-station must be deleted.

MW : Message Waiting Control

0: Message Waiting Control for Main and Sub Telephone Numbers

1: Message Waiting Control for Main Telephone Number Only

INDEX : Telephone Equipment Number (1-65535)

[illegible]

APCNL: Assignment of PHS Community Number Data for LDM

1. GENERAL

This command is used to assign, delete, display the PHS Community Number for tenant and copy the SYS-ID to LDM for reuse.

2. PRECAUTIONS

1. This command is used to the Local Node.
2. Use PCN (PHS Community Number) from number “1.”

3. DATA ENTRY INSTRUCTIONS

- ◆ When FUNC = 1 (FUNC type: PHS Community Number Entry) is assigned;

FUNCTION NUMBER (FUNC) 1 / 2	TENANT NUMBER (TN) 1 - SYSTEM MAX	PHS COMMUNITY NUMBER (PCN) 1 - 1024

FUNC
 1 = PHS Community Number Entry
 2 = SYS - ID copy (Not used)

TN
 Enter the tenant number

PCN
 Enter the PHS community number
Note: Group NO. available for inter-node of the FCCS Network

- ◆ When FUNC = 2 (FUNC type: SYS-ID Copy) is assigned;

FUNCTION NUMBER (FUNC) 1 / 2	KIND OF COPY (KIND) 1	TENANT NUMBER (TN) 1-63	SYSTEM IDENTIFY (SYS-ID) 1 - FFFFFFFF [HEX]	PHS COMMUNITY NUMBER (PCN) 1-1024

FUNC
 1 = PHS Community Number Entry
 2 = SYS-ID Copy (Not Used)

KIND
 1 = DM to LDM

SYN-ID
 Copied the System - Identify

APCNL : Assignment of PHS Community Number Data for LDM

◆ When FUNC = 2 (FUNC type: SYS-ID Copy) is assigned;

[illegible]

APCNN: Assignment of PHS Community Number Data for NDM

1. GENERAL

This command is used to assign, delete, display the PHS Community Number for Tenant and copy the SYS-ID to NDM for reuse.

2. PRECAUTIONS

1. This command is used for the Network Control Node.
2. Use PCN (PHS Community Number) from number “1”.

3. DATA ENTRY INSTRUCTIONS

- ◆ When FUNC = 1 (FUNC type: PHS Community Number Entry) is assigned;

FUNCTION NUMBER (FUNC) 1 / 2	FUSION POINT CODE (FPC)	TENANT NUMBER (TN) 1 - SYSTEM MAX	PHS COMMUNITY NUMBER (PCN) 1 - 1024

FUNC

1 = PHS Community Number Entry
2 = SYS - ID copy (Not used)

TN

Enter the tenant number

PCN

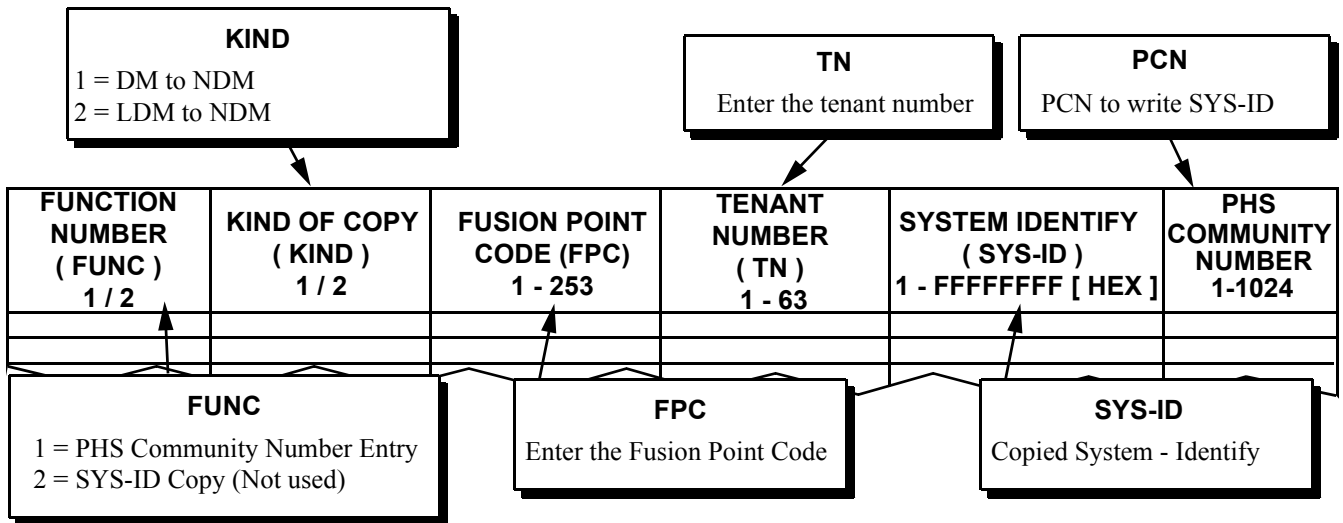
Enter the PCN (PHS Community Number)
Note: Group NO. available for inter-node of the FCCS Network

FPC

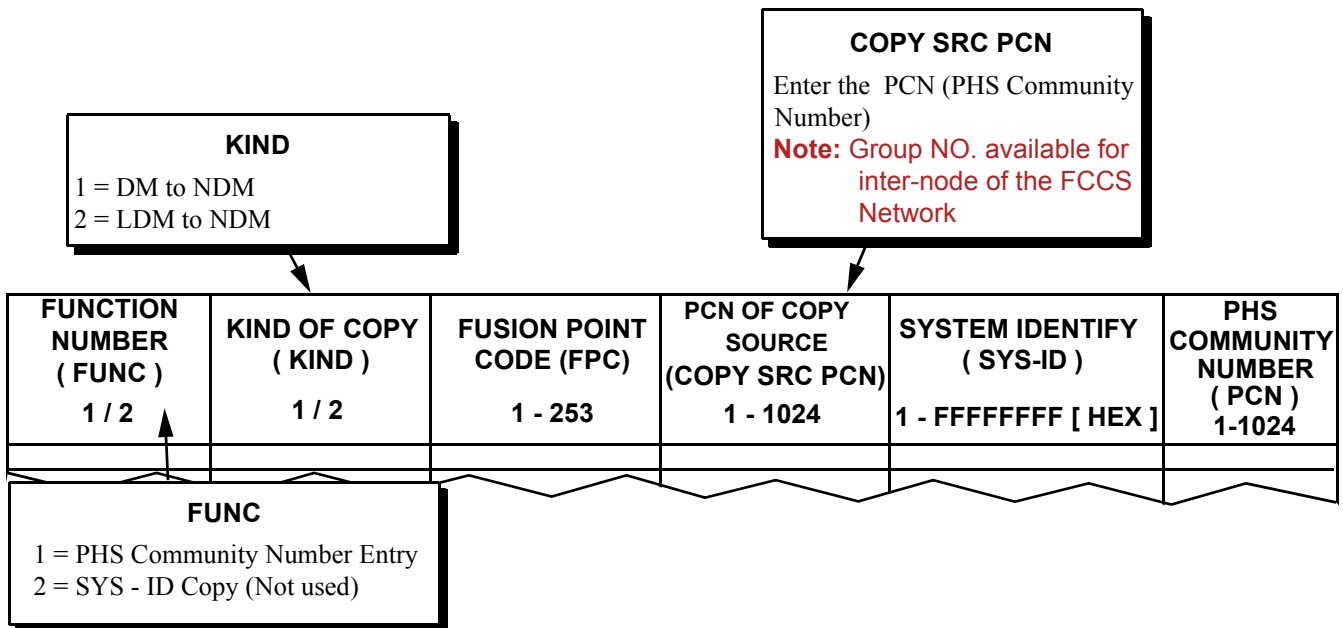
Enter the Fusion Point Code

APCNN : Assignment of PHS Community Number Data for NDM

- ◆ When FUNC = 2 (FUNC type: SYS-ID Copy) and KIND = 1 (KIND type: DM to NDM) is assigned;



- ◆ When FUNC = 2 (FUNC type: SYS-ID Copy) and KIND = 2 (KIND type: LDM to NDM) is assigned;



APCNN : Assignment of PHS Community Number Data for NDM

◆ When FUNC = 2 (FUNC type: SYS-ID Copy) and KIND = 1 (KIND type: DM to NDM) is assigned;

[illegible]

APCNN : Assignment of PHS Community Number Data for NDM

◆ When FUNC = 2 (FUNC type: SYS-ID Copy) and KIND = 2 (KIND type: LDM to NDM) is assigned;

[illegible]

APDLL: Download of PS Operation Data for Local Data Memory

1. GENERAL

This command is download of PS operation data to Dterm PS/PS II/PS III in the Local Node (LN).
Download of PS operation data is executed by click the “Down Load” button of this command.

List Up Command: LPDLL

2. PRECAUTIONS

1. This command is used for the Local Node.
2. PS must be in the Least Calling Area No. Area of PCN that the PS belongs to at the first time of downloading.
3. After the PS registers the location, the PS does not need to be in (2) Area.
4. After change of PS Number (not mandatory), click the “Down Load” button.

3. DATA ENTRY INSTRUCTIONS

UGN (UGN)	PS TELEPHONE NUMBER (LPSTN)

PS TELEPHONE NUMBER
(Max. 16 digits)

◆ After assigning above data, following data are automatically displayed.

PS KIND (KIND) 1 - 7	ROUTE RESTRICTION CLASS (RSC)	SERVICE FEATURE CLASS (SFC)	PS - IDENTIFY (PS - ID) 1 - 268435455	INDIVIDUAL PS NUMBER (IND - PS)

RSC
The data assignment is not required. Display only.

PS - ID
The data assignment is not required. Display only.

KIND
The data assignment is not required. Display only.
1 = V1PS (Not used)
2 = V2PS (Not used)
3 = Standard PS (Not used)
4 = Visitor PS (Not used)
5 = Dterm PS
6 = Dterm PS II/PS III
7 = Dterm PS II/PS III Subline
8 = PHS Subline

SFC
The data assignment is not required. Display only.

IND - PS
The data assignment is not required. Display only.

APDLL : Download of PS Operation Data for Local Data Memory

PS NUMBER TYPE (TYPE) 1 - 3	PS NUMBER (PS NO.)	NETWORK NUMBER (NWN) 1 - 65535	ADDITIONAL AREA NUMBER (ADERA) 1- 255	COUNTRY NUMBER (CTRN) 1 - 65535	SUB SYSTEM - IDENTIFY NO. (SUB SYS - ID NO.)

NWN

The data assignment is not required. Display only.

ADERA

The data assignment is not required. Display only.

CTRN

The data assignment is not required. Display only.

TYPE

Enter the data ranging from 1 to 3.

1 : 12 Digits or Less (BCD)

2 : 13 Digits or Less (BCD)

3 : 13 Digits or Less (HEX)

Note: Fixed to "2"

PS NO.

Enter the data ranging from 1 to 3.

This parameter for PSNO. TYPE Dependent

PSNO. TYPE : 1
Number of digit for PS number is Maximum 12 digits

PSNO. TYPE : 2
Number of digit for PS number is Maximum 13 digits

PSNO. TYPE : 3
Number of digit for PS number is Maximum 13 digits

**PHANTOM EQUIPMENT NUMBER
(PHIN)**

PHIN

The data assignment is not required. Display only.

[illegible]

APDLN: Download of PS Operation Data for Network Data Memory

1. GENERAL

This command is used to down load the PS operation data to Dterm PS/PS II/PS III in Network. Download of PS operation data is executed by clicking the “Down Load” button of this command.

List Up Command: LPDLN

2. PRECAUTIONS

1. This command is used in the Network Control Node.
2. PS must be in the node in which the PS is assigned with APSD command and in the least Calling Area No.’s Area of PCN that the PS belongs to at the first time of downloading.

Note: If the above area’s ZTs are assigned by ACSDN but no ZTs in that Area are activated, download fails.

Note: If there are no ZTs assigned by ACSDN command in the node in which the PS is assigned with APSD and in the PCN that the PS belongs to, the PS must be in the least calling Area No.’s Area of PCN that the PS belongs to in FCCS Network at the first time of downloading.

3. After the PS registers the location, the PS does not need to be in (2) Area.
4. After change of PS Number (not mandatory), click the “Down Load” button.

3. DATA ENTRY INSTRUCTIONS

UGN (UGN)	PS TELEPHONE NUMBER (LPSTN)

PS TELEPHONE NUMBER
Access code (Max. 16 digits)

◆ After assigning above data, the following data is automatically displayed.

PS KIND (KIND) 1 - 7	ROUTE RESTRICTION CLASS (RSC)	SERVICE FEATURE CLASS (SFC)	PS - IDENTIFY (PS - ID) 1 - 268435455	INDIVIDUAL PS NUMBER (IND - PS)

RSC

The data assignment is not required. Display only.

PS - ID

The data assignment is not required. Display only.

KIND

The data assignment is not required. Display only.

1 = V1PS (Not used)
2 = V2PS (Not used)
3 = Standard PS (Not used)
4 = Visitor PS (Not used)
5 = Dterm PS
6 = Dterm PS II/PS III
7 = Dterm PS II/PS III Subline
8 = PHS Subline

SFC

The data assignment is not required. Display only.

IND - PS

The data assignment is not required. Display only.

PS NUMBER TYPE (TYPE) 1 - 3	PS NUMBER (PS NO.)	NETWORK NUMBER (NWN) 1 - 65535	ADDITIONAL AREA NUMBER (ADERA) 1- 255	COUNTRY NUMBER (CTRN) 1 - 65535	SUB SYSTEM - IDENTIFY NO. (SUB SYS - ID NO.)

NWN

The data assignment is not required. Display only.

ADERA

The data assignment is not required. Display only.

CTRN

The data assignment is not required. Display only.

TYPE

Enter the data ranging from 1 to 3.

1 : 12 Digits or Less (BCD)
2 : 13 Digits or Less (BCD)
3 : 13 Digits or Less (HEX)
Note: Fixed to "2"

PS NO.

Enter the data ranging from 1 to 3.

This parameter for PSNO. TYPE Dependent

PSNO. TYPE : 1
Number of digit for PS number is Maximum 12 digits
PSNO. TYPE : 2
Number of digit for PS number is Maximum 13 digits
PSNO. TYPE : 3
Number of digit for PS number is Maximum 13 digits

**PHANTOM EQUIPMENT NUMBER
(PHIN)**

PHIN

The data assignment is not required. Display only.

APFLL: Assignment of PS Floating Line for LDM

1. GENERAL

This command is used to assign PS Sub-line (L2) to pilot station in Station Hunting-Terminal [S-9] as PS L2-line group.

List Up Command: LPFLL

2. PRECAUTIONS

- 1. This command is used for the Local Node.
- 2. Deleting all the station numbers in a group deletes the group and vice versa.

3. DATA ENTRY INSTRUCTIONS

UGN

Enter User Group Number.

↓

TELN

Enter Telephone Number of pilot station in Station Hunting-Terminal [S-9].

↓

SUB TELN

Enter Telephone Number of PS Sub line (L2) to be grouped. (max. 8-TELN)

↓

USER GROUP NUMBER (UGN)	TELEPHONE NUMBER (TELN) Max. 16 digits	SUB LINE TELEPHONE NUMBER (SUB TELN) Max. 16 digits

4. DATA SHEET

USER GROUP NUMBER (UGN)	
TELEPHONE NUMBER (TELN) MAX. 16 digits	
SUB LINE TELEPHONE NUMBER (SUB TELN) MAX. 16 digits	

USER GROUP NUMBER (UGN)	
TELEPHONE NUMBER (TELN) MAX. 16 digits	
SUB LINE TELEPHONE NUMBER (SUB TELN) MAX. 16 digits	

USER GROUP NUMBER (UGN)	
TELEPHONE NUMBER (TELN) MAX. 16 digits	
SUB LINE TELEPHONE NUMBER (SUB TELN) MAX. 16 digits	

APFLN: Assignment of PS Floating Line for NDM

1. GENERAL

This command is used to assign PS Sub-line (L2) to pilot station in Station Hunting-Terminal [S-9] as PS L2-line group.

List Up Command: LPFLN

2. PRECAUTIONS

1. This command is used for the Network Control Node (NCN).
2. Deleting all the station numbers in a group deletes the group and vice versa.

3. DATA ENTRY INSTRUCTIONS

UGN Enter User Group Number.	TELN Enter Telephone Number of pilot station in Station Hunting-Terminal [S-9].	SUB TELN Enter Telephone Number of PS Sub line (L2) to be grouped. (max. 8-TELN)
USER GROUP NUMBER (UGN)	TELEPHONE NUMBER (TELN) Max. 16 digits	SUB LINE TELEPHONE NUMBER (SUB TELN) Max. 16 digits

4. DATA SHEET

USER GROUP NUMBER (UGN)	
TELEPHONE NUMBER (TELN) MAX. 16 digits	
SUB LINE TELEPHONE NUMBER (SUB TELN) MAX. 16 digits	

USER GROUP NUMBER (UGN)	
TELEPHONE NUMBER (TELN) MAX. 16 digits	
SUB LINE TELEPHONE NUMBER (SUB TELN) MAX. 16 digits	

USER GROUP NUMBER (UGN)	
TELEPHONE NUMBER (TELN) MAX. 16 digits	
SUB LINE TELEPHONE NUMBER (SUB TELN) MAX. 16 digits	

APGN: Assignment of PHS Group Number

1. GENERAL

This command is used to assign a Module Group (MG) and a Group Number to PS station numbers.

2. PRECAUTIONS

1. The Group Numbers from 127 to 255 are used for Call Park Group -PS.
2. When Call Park Group across MGs/IMG is enabled (ASYDL/ASYDN, System Data 1, Index 679, Bit 4 = 1), multiple MGs can be assigned per Local Partition (LP). However, when Call Park Group across MGs/IMG is disabled, only one MG can be assigned per LP.
3. When a Desktop terminal is added to the Group same as the PS stations, the MG assigned by this command must be the same as the one assigned by the APGS command. If a change is made to the MG by the APGS command, the same change must be made to the MG by this command.

3. PARAMETERS

TN: Tenant Number

PS STN: PS station number

MG: Module Group Number (Maximum two digits, depending on the value of the system data: ASYD, SYS1, Index 0)

Assign the same Module Group Number to the PS station numbers to be added to the same Group.

GROUP NO: Group Number (127 - 255)

APGS: Assignment of PHS Group Number Control Station

1. GENERAL

This command is used to assign a station number of the Desktop terminal that are desired to be added to the same MG (Module Group Number) and GROUP NO as the PS station numbers assigned by the APGN command.

2. PRECAUTIONS

1. This command must be assigned when Desktop terminals and PSs are to be assigned to the same Group.
2. The Group Numbers from 127 to 255 are used for Call Park Group -PS [C-175].
3. When Call Park Group across MGs/IMG is enabled (ASYDL/ASYDN, System Data 1, Index 679, Bit 4 = 1), multiple MGs can be assigned per Local Partition (LP). However, when Call Park Group across MGs/IMG is disabled, only one MG can be assigned per LP.
4. When enabling/disabling Call Park Group across MGs/IMG (ASYDL/ASYDN, System Data 1, Index 679, Bit 4), delete all data assigned through the APGS, APGN and ADGN commands in advance.
5. The MG assigned by this command must be the same as the one assigned by the APGN command. If a change is made to the MG by the APGN command, the same change must be made to the MG by this command.

3. PARAMETERS

MG: Module Group Number (Maximum two digits, depending on the value of the system data: ASYD, SYS1, Index 0)

Assign the same MG as the one assigned to the PS station numbers by the APGN command.

GROUP NO: Group Number (127 - 255)

Assign the same GROUP NO as the one assigned to the PS station numbers by the APGN command.

TN: Tenant Number (1 - 63)

STN: Station number (maximum of five digits for Business)

Assign a station number of the Desktop terminal that are desired to be added to the same MG (Module Group Number) and GROUP NO as the PS station numbers assigned by the APGN command.

APLAML: Assignment of PS Line Appearance Module-Group for LDM

1. GENERAL

This command is used to accommodate the PS line to a programmable Line/Feature key of the Desktop terminal. By using this command, assign the Module Group (MG) that a ELC of the Desktop terminal is accommodated, to Telephone Number of a PS which is accommodated in a Sub Line of the Desktop terminal.

2. PRECAUTION

1. When 1-IMG/4-IMG System is used:
After entering UGN (User Group Number) and TELN (Telephone Number), press “Set” button. The user does not have to click the MG No. button.
[For UMGi/RNIP system] LMG needs to be selected before pressing "Set" button.
2. Color of designated MG No. button change to purple from gray. If clicking again, the setting is canceled.
3. This command is used for Local Node (LN).

3. DATA ENTRY INSTRUCTIONS

The diagram illustrates the data entry process for the APLAML command. It shows three input boxes at the top: 'TELN Enter Telephone Number.', 'UGN Enter User Group Number.', and 'MG Click the MG No. button that Desktop terminal (that PS line is to be accommodated as sub line of the Desktop terminal) is accommodated.' Arrows point from these boxes to a table below. The table has three columns: 'User Group Number (UGN)', 'Telephone Number (TELN) MAX. 16-digit', and 'Module Group (MG) MG 0-31'. The table has three rows, with the first row being the header and the subsequent two rows being empty for data entry. The bottom of the table has a decorative wavy border.

User Group Number (UGN)	Telephone Number (TELN) MAX. 16-digit	Module Group (MG) MG 0-31

APLAMN: Assignment of PS Line Appearance Module-Group for NDM

1. GENERAL

This command is used to accommodate the PS line to a programmable Line/Feature key of the Desktop terminal. By using this command, assign the Module Group (MG) that a ELC of the Desktop terminal is accommodated, to Telephone Number of a PS which is accommodated in a Sub Line of the Desktop terminal.

2. PRECAUTION

1. When 1-IMG/4-IMG System is used:
After entering UGN (User Group Number) and TELN (Telephone Number), press “Set” button. The user does not have to click the MG No. button.
[For UMGi/RNIP system] LMG needs to be selected before pressing "Set" button.
2. Color of designated MG No. button change to purple from gray. If clicking again, the setting is canceled.
3. This command is used for Network Control Node (NCN).

3. DATA ENTRY INSTRUCTIONS

The diagram illustrates the data entry process for the APLAMN command. It shows three input boxes at the top: 'TELN Enter Telephone Number.', 'UGN Enter User Group Number.', and 'MG Click the MG No. button that Desktop terminal (that PS line is to be accommodated as sub line of the Desktop terminal) is accommodated.' Arrows point from these boxes to a table below. The table has three columns: 'User Group Number (UGN)', 'Telephone Number (TELN) MAX. 16-digit', and 'Module Group (MG) MG 0-31'. The table has three rows, with the first row being the header and the subsequent two rows being empty for data entry. The bottom of the table is decorated with a wavy line.

User Group Number (UGN)	Telephone Number (TELN) MAX. 16-digit	Module Group (MG) MG 0-31

APMD: Assignment of Trunk Line Appearance Maximum Necessary Digit for DM

1. GENERAL

This command is used to assign/delete the maximum necessary digits (MND) data, associated with a PS call to be originated by dialing an area/office code of the “existing Telephony Server with no Wireless-PCS function”.

2. PRECAUTIONS

None

3. DATA ENTRY INSTRUCTION

TN
Enter Tenant Number.

TENANT NUMBER (TN)	DESTINATION CODE (DC) MAX: 10 digits	MAXIMUM NECESSARY DIGITS (MND) 1-24

DC
Enter the access code + area/office code
of existing node without a Wireless-PCS function.

MND
Enter the desired maximum
necessary digits.

APMLL: Assignment of PS Multiline Data for LDM

1. GENERAL

This command is used to assign and delete My Line and Sub Line data for Two-Line Operation.

2. PRECAUTIONS

1. This command is used for the Local Node.
2. For detailed information on Two-Line Operation service, see “OFFICE DATA ASSIGNMENT” in Chapter 2.

3. DATA ENTRY INSTRUCTIONS

MY UGN :PS My Line User Group Number

MY TELN :PS My Line Telephone Number

SUB UGN :PS Sub Line User Group Number (Maximum 16 digits)

SUB TELN :PS Sub Line Telephone Number (Maximum 16 digits)

APMLN: Assignment of PS Multiline Data for NDM

1. GENERAL

This command is used to assign and delete My Line and Sub Line data for Dterm PS II TWO LINE OPERATION.

2. PRECAUTIONS

1. This command is used for the Network Control Node.
2. For detailed information on Dterm PS II TWO LINE OPERATION, see “OFFICE DATA ASSIGNMENT” in CHAPTER 2.

3. DATA ENTRY INSTRUCTIONS

MY UGN :PS My Line User Group Number

MY TELN :PS My Line Telephone Number

SUB UGN :PS Sub Line User Group Number (Maximum 16 digits)

SUB TELN :PS Sub Line Telephone Number (Maximum 16 digits)

APSD: Assignment of PS Operation Data

1. GENERAL

This command is used to assign, delete and display the PS operation data. This command assignment makes the PS in operation.

List Up Command: LPSD

2. PRECAUTIONS

1. PS STN (PS station number) should coincide with the station numbering plan.
2. PS-ID is the information indigenous to each PS (PS-ID is written on each PS terminal).
3. When deleting the PS operation data, the number cannot be deleted if the Phantom station number or PS Telephone Number is assigned.

3. PARAMETERS

TN: Tenant Number

PS STN: PS station number

KIND: PS Kind

- 1 = V1 (Not used)
- 2 = V2 (Not used)
- 3 = Standard PS
- 4 = Visitor PS
- 5 = Dterm PS (Not used)
- 6 = Dterm PS2
- 7 = Dterm PS2 Subline
- 8 = PHS Subline (Not used)

◆ When KIND = 3 (Standard PS) is assigned:

RSC: Route Restriction Class

SFC: Service Feature Restriction Class

ICON: ICON Control [0/1]

- 0: Out of service
- 1: In service

ND: Name Display [0/1]

- 0: Out of service
- 1: In service

NRS: Not used.

DL: PHS DUAL Line [0/1]

0: PS Two Line Operation is Not In Service

1: PS Two Line Operation is In Service

PS-ID: PS-Identify [1-268435455]

IND-PS: Not used.

TYPE: PS Number Type [1-3]

TYPE=1: 12 Digits or Less (BCD)

TYPE=2: 13 Digits or Less (BCD)

TYPE=3: 13 Digits or Less (HEX)

Note: Fixed to "1"[12 digits or less (BCD)].

PS NO: PS Number [TYPE=1: maximum 12digits 0-9, *, #]

Note: The PS NO is assigned as Self Node office code + PS extension number (Telephone number).

Note: Telephone Numbers are usually assigned as PS Numbers. PS Number must be unique in a system (among all nodes in a FCCS network).

NWN: Network Number [1-65535] (Only for Roaming Feature)

Note: When this parameter is left blank, no Network Number is assigned.

ADERA: Additional Area Number [1-255] (Only for Roaming Feature)

Note: When this parameter is left blank, no Additional Area Number is assigned.

CTRN: Country Number: Unique number for each country [1-65535]

Note: When this parameter is left blank, no Country Number is assigned.

SUB SYS-ID Setting: Not used.

PHIN: Phantom Index

The data assignment is not required. Display only.

◆ **When KIND = 4 (Visitor PS) is assigned:**

RSC: Route Restriction Class

PHIN: Phantom Index

The data assignment is not required. Display only.

◆ **When KIND = 6 (Dterm PS2) is assigned:**

RSC: Route Restriction Class

SFC: Service Feature Restriction Class

PS-ID: PS-Identify [1-268435455]

TYPE: PS Number Type [1-3]

TYPE=1: 12 Digits or Less (BCD)

TYPE=2: 13 Digits or Less (BCD)

TYPE=3: 13 Digits or Less (HEX)

Note: Fixed to “2” [13 digits or less (BCD)].

PS NO: PS Number [TYPE=2: maximum 13 digits 0-9, *, #]

Note: The PS NO is assigned as Self Node office code + PS extension number (Telephone number).

Note: Telephone Numbers are usually assigned as PS Numbers. PS Number must be unique in a system (among all nodes in a FCCS network).

NWN: Network Number [1-65535] (Only for Roaming Feature)

Note: When this parameter is left blank, no Network Number is assigned.

ADERA: Additional Area Number [1-255] (Only for Roaming Feature)

Note: When this parameter is left blank, no Additional Area Number is assigned.

CTRN: Country Number: Unique number for each country [1-65535]

Note: When this parameter is left blank, no Country Number is assigned.

SUB SYS-ID Setting: Not used.

PHIN: Phantom Index

The data assignment is not required. Display only.

◆ **When KIND = 7 (Dterm PS2 Subline) is assigned:**

RSC: Route Restriction Class

SFC: Service Feature Restriction Class

TYPE: PS Number Type [1-3]

TYPE=1: 12 Digits or Less (BCD)

TYPE=2: 13 Digits or Less (BCD)

TYPE=3: 13 Digits or Less (HEX)

Note: Fixed to “2” (13 digits or less [BCD]).

PS NO: PS Number [TYPE=2: maximum 13 digits 0-9, *, #]

Note: The PS NO is assigned as Self Node office code + PS extension number (Telephone number).

Note: Telephone Numbers are usually assigned as PS Numbers. PS Number must be unique in a system (among all nodes in a FCCS network).

PHIN: Phantom Index

The data assignment is not required. Display only.

[illegible]

APSP: Assignment of Trunk Line Appearance

1. GENERAL

This command is used to assign/delete the “COT trunk seizure” data, when a PS makes a call via this trunk and an LC (made cross connection with the COT) of the existing Telephony Server with no Wireless-PCS feature.

2. PRECAUTIONS

1. Assign the physical PS station number for the “PS STN” input data.
2. This command data must be assigned to each COT circuit, that is provided with the physical cross connection with an LC of the “existing Telephony Server with no Wireless-PCS feature”.

3. DATA ENTRY INSTRUCTIONS

TENANT NUMBER (TN)	PS STATION NUMBER (PS STN)	EXTERNAL ROUTE NUMBER (RT) 1 - 255	TRUNK NUMBER (TK) 1 - 255

TN
 Enter Tenant Number.

TK
 Enter the trunk number for
 COT trunk to be provided.

PS STN
 Enter the PS station
 number.

RT
 Enter the route number for
 COT trunk to be provided.

ARODL: Assignment of Roaming Self PBX Number Data for LDM

1. GENERAL

This command is used to assign and display the Roaming Self Node number data in Network Data Memory. This command assigns Home Node Number (Roaming Self Node Number) to display on the PS. (PS displays this Roaming Self Node Number + PS Station Number)

2. PRECAUTIONS

1. This command is used in the Local Node.
2. If the network adopts closed user group numbering plan, this data assignment is not necessary.

3. DATA ENTRY INSTRUCTIONS

PCN Enter the PCN (PHS Community Number) Note: Group No. available for inter-node of the FCCS Network.	RSN Enter the RSN (Roaming Self Node number) MAX: 6 digits

PHS COMMUNITY NUMBER (PCN) 1-1024	Roaming Self Node number (RSN) MAX: 6 digits code

ASPA: Assignment of Special Access Code

1. GENERAL

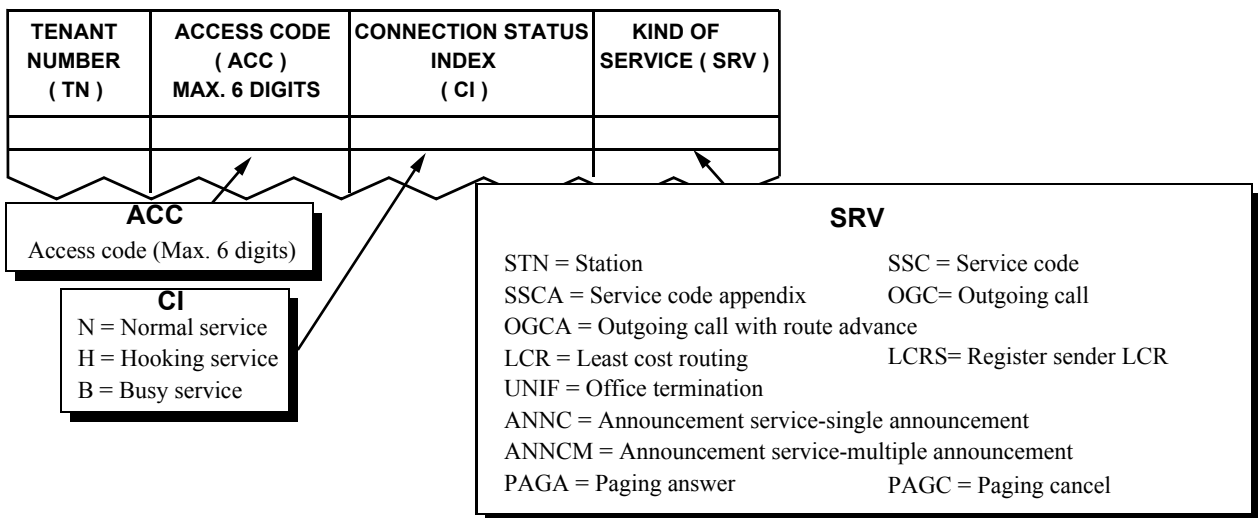
This command is used to determined the kind of service and its Access Code to be executed.

List Up Command: LSPA

2. PRECAUTIONS

This part describes only the content of the command added in the PCS system. For more details, refer to the Command Manual.

3. DATA ENTRY INSTRUCTIONS



ASPA : Assignment of Special Access Code

- ◆ When SRV = SSCA (Service code appendix) is assigned;

NND appears when SIDA=97 (Call Hold Conference).
The number of digits for an access code should be assigned in NND.

SERVICE INDEX A (SIDA) 1 - 255	NECESSARY DIGIT (NND) 1 - 6

SIDA	
SIDA	Service Name
1-100	Note 1
101	Call Forwarding - PS Incoming Incomplete: Set/Split Call Forwarding - PS Incoming Incomplete: Set (for Trunk) Note 2
102	Call Forwarding - PS Incoming Incomplete: Cancel/Split Call Forwarding - PS Incoming Incomplete: Cancel (for Trunk) Note 2
103-143	Note 1
144	Call Forwarding - PS Incoming Incomplete: Set (for Station) Note 2
145	Call Forwarding - PS Incoming Incomplete: Cancel (for Station) Note 2
146-255	Note 1

Note 1: See the "Office Data Specifications" regarding this data.
Note 2: When Split Call Forwarding is in service (ASYD, SYS1, INDEX79, bit2=1), this access code is used for Split Call Forwarding service.

4. DATA SHEET

- SRV=SSCA Service code Appendix

TENANT NUMBER (TN)	ACCESS CODE (ACC) MAXIMUM 6 DIGITS	CONNECTION STATUS INDEX (CI) N/H/B		KIND OF SERVICE (SRV)	SERVICE FEATURE INDEX (SIDA) 1 - 255	NUMBER OF NEC- ESSARY DIGITS (NND)	SERVICE CONTENTS
					1 2 100		Note 1
		N	Normal	SSCA	101		Call Forwarding Incoming In- complete Set
		H	Hooking				
		B	Busy				
		N	Normal	SSCA	102		Incoming Incomplete Cancel
		H	Hooking				
		B	Busy				
					103 2 107		Note 1
		N	Normal	SSCA	108		Number Sharing; Set
		N	Normal	SSCA	109		Number Sharing; Cancel
					110 2 113		Note 1
		N	Normal	SSCA	114		Call Forwarding-Dropped Calls; Set
		N	Normal	SSCA	115		Call Forwarding-Dropped Calls; Cancel
					116 2 255		Note 1

Note 1: Refer to the Command Manual regarding this data.

ASYD: Assignment of System Data

1. GENERAL

The ASYD/ASYDL command is used to assign the system data of the following node;

Local Node (LN) / Network Control Node (NCN) of the FCCS network.
Stand alone System.

List Up Command: LSYD

2. PRECAUTIONS

This part describes only the contents of the command added in Built-in PCS system. For more details, refer to the Command Manual.

3. DATA ENTRY INSTRUCTIONS

Define each bit corresponding data with referring to the SYSTEM DATA CONTENTS

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0 - 511	DATA (DATA) 00-FF (Hex)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS
			DATA 0 / 1	BIT	
1	n	03	1	b0	xxx service 0/1=Not to be provided/ To be provided
			1	b1	yyy service 0/1=Not to be provided/ To be provided
			0	b2	Not used
			0	b3	Not used
			0	b4	Not used
			0	b5	Not used
			0	b6	Not used
			0	b7	Not used
	n+1	FF			Number of zzz

DATA

DATA	BIT
1	b0
1	b1
0	b2
0	b3
0	b4
0	b5
0	b6
0	b7

Convert from Binary DATA to Hexadecimal, and enter the Hex. value at DATA text box.

BIT	b7	b6	b5	b4	b3	b2	b1	b0
DATA	0	0	0	0	0	0	1	1
Hex	0				3			

ASYD : Assignment of System Data

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0 - 511	DATA (DATA) 00-FF (Hex)	BIT CORRE- SPONDING DATA		SYSTEM DATA CONTENTS
			DATA 0/1	BIT	
1	5			b ₀	Access Code for C.F.-Busy Line and C.F. – Don't Answer Services 0/1 = Same/Separate Note: If a PCS system, C.F.-PS Incoming Call Incomplete also refers to this system data. Note: If "0" is assigned, assign either SID: 10 or 12 in command "ASPA".
				b ₁	Maximum number of Multiple Call Forwarding – All Calls/Busy Line occurrences:
				b ₂	$\begin{array}{ccc} b_3 & b_2 & b_1 \\ 0 & 0 & 0 \end{array} :$
				b ₃	$\begin{array}{ccc} 0 & 0 & 1 \\ 0 & 1 & 0 \\ 0 & 1 & 1 \end{array} :$
				b ₄	Miscellaneous Timer Counter (MTC) (0-7) Call Back – Delay Timer Timer Value Setting is MTC × 2 sec. When this data is "000", Timer value is 2 sec.
				b ₅	
				b ₆	
				b ₇	Call Back – Delay Timer 0/1 = Ineffective/Effective

4. SYSTEM DATA PROGRAMMING SHEET (1)

S Y S t e m	SYSTEM DATA INDEX 0-511	DATA 00-FF	B I T	SYSTEM DATA CONTENTS
	30	06		b7 b6 b5 b4 b3 b2 b1 b0 0 0 Data
			0	Mounting Capacity of Data Memory (DM): 1~63 Mbyte (01~3F) Normally assigned as “6”
			1	
			2	
			3	
			4	
			5	
			6	
			7	
	420			b7 b6 b5 b4 b3 b2 b1 b0 0 0 0 0 0 0 0 Data
			0	Access code using Pre-set dialing (e.g.: Special Access Code + Station number) 0/1: Out/In service
			1	By cancelling C.F.-PS INCOMING INCOMPLETE 0 = C.F.-DROPPED CALL is also cancelled 1 = C.F.-DROPPED CALL is not cancelled
			2	Not used
			3	
			4	
			5	
			6	
			7	

ATRF: Assignment of Traffic Measurement Order

1. GENERAL

This command is used to assign and delete traffic measurement programs. A request for traffic measurement is performed when a traffic measurement instruction has been assigned by this command. The collected traffic measurement data can be output from the PCPro printer or stored on the HD of the PCPro, which can be designated on the basis of traffic measurement type.

2. PRECAUTIONS

For details, refer to the Operations and Maintenance Manual.

3. DATA ENTRY INSTRUCTIONS

For details, refer to the Operations and Maintenance Manual.

AVPD: Assignment of Visitor PS Data

1. GENERAL

This command is used to continuously assign/delete the Visitor PS data.

2. PRECAUTIONS

None.

3. DATA ENTRY INSTRUCTIONS

TN Enter Tenant Number.		RSC RSC assigned by ARSC command.	
TENANT NUMBER (TN)	START NUMBER OF Visitor PS STATION NUMBER MAX: 6 digits	END NUMBER OF Visitor PS STATION NUMBER MAX: 6 digits	ROUTE RESTRICTION CLASS (RSC) 0-15

VPSTN START Enter the first number of Visitor PS station number.	VPSTN END Enter the last number of Visitor PS station number.

AVPDL: Assignment of Telephone Number for Visitor PS for Local Data Memory

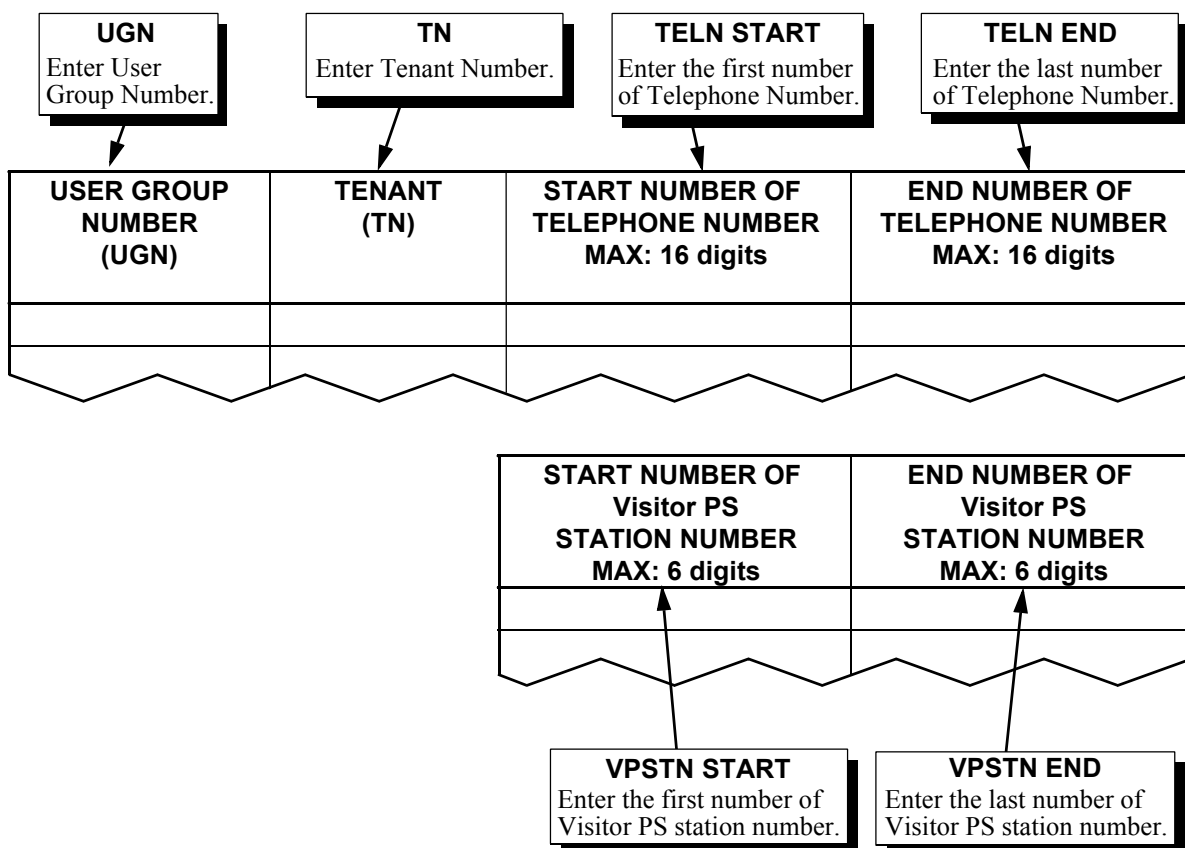
1. GENERAL

This command is used to continuously assign the Visitor PS data in Local Data Memory.

2. PRECAUTIONS

1. This command is used in the Local Node.
2. This command is equal to APSD + ALGNL + ALGSL.

3. DATA ENTRY INSTRUCTIONS



AVPDN: Assignment of Telephone Number for Visitor PS for Network Data Memory

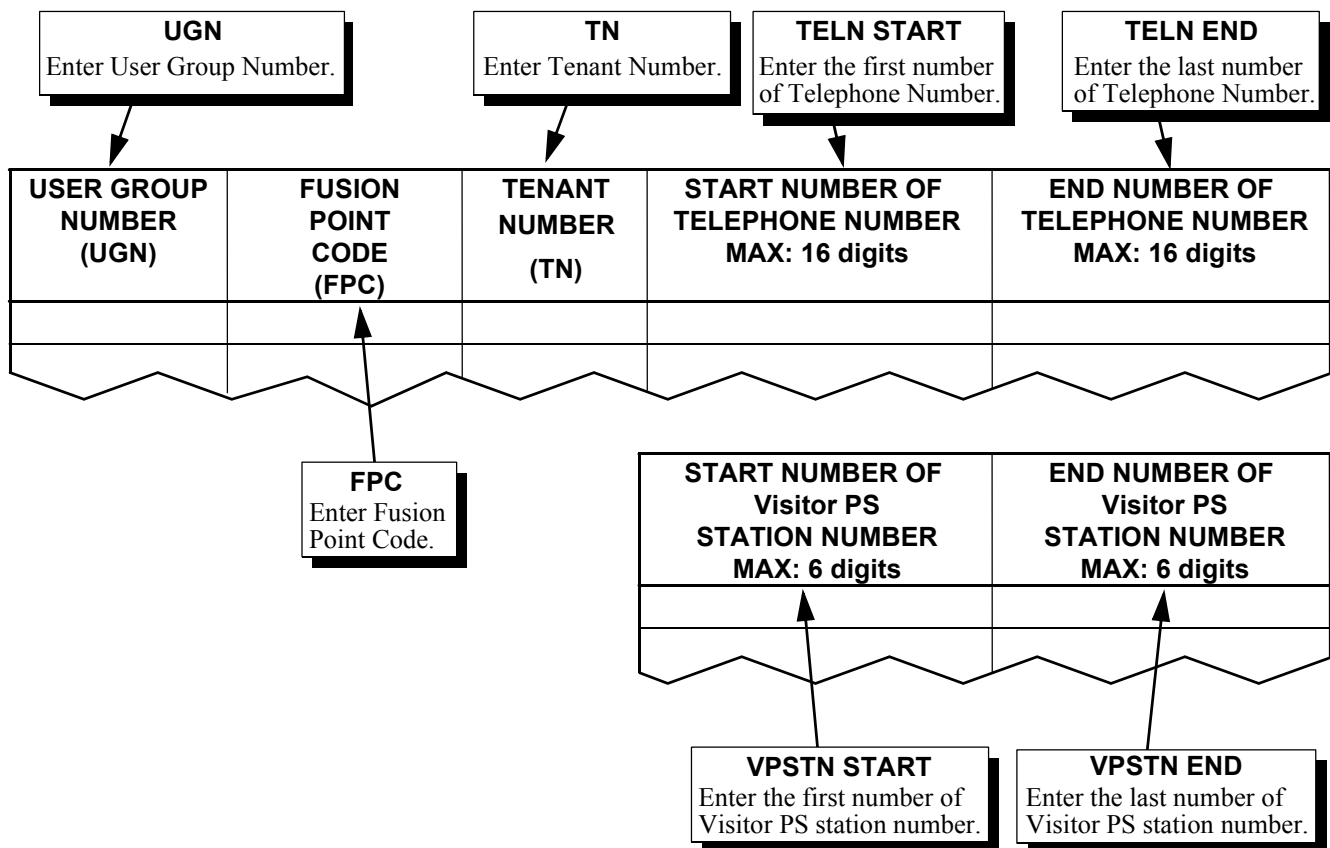
1. GENERAL

This command is used to continuously assign the Visitor PS data in Network Data Memory.

2. PRECAUTIONS

1. This command is used in the Network Control Node.
2. This command is equal to APSD + ALGNN + ALGSN.

3. DATA ENTRY INSTRUCTIONS



AZARL: Assignment of ZT Area Information for Local Data Memory

1. GENERAL

This command is used to assign and delete the Zone Transceiver Area information in the Local Node (LN).

2. PRECAUTIONS

1. This command is used for the Local Node.
2. All PSs data must be re-download, if control carrier data is changed via this command.
3. The parameters, WTZNSL, WTZNKL, RCHOO, RCHOSL, RCHFE, CCHGFE, should not be changed from default setting.
4. ZT must be restarted after using this command.

3. DATA ENTRY INSTRUCTIONS

PCN (PHS COMMUNITY NUMBER)	: 1-1024
ZSL (ZONE SELECT LEVEL)	: 0-255
ZKL (ZONE KEEP LEVEL)	: 0-255
HOL (HAND-OVER OPERATION LEVEL)	: 0-255
HSL (HAND-OVER SELECT LEVEL)	: 0-255
HFT (HAND-OVER FER THRESHOLD)	: 0-255
CCFT (CHANNEL CHANGE FER THRESHOLD)	: 0-255
NCCR (NUMBER OF CONTROL CARRIER)	: 0-5
CCR 1-5 (CONTROL CARRIER 1-5)	: 0-20

If this is not assigned, the default setting is below.

ZSL	= 67 (33dB μ V)
ZKL	= 56 (22dB μ V)
HOL	= 59 (25dB μ V)
HSL	= 67 (33dB μ V)
HFT	= 10 frame error/240 frame (1.2 sec) (This is effective for mode2 ZT.)
CCFT	= 24 frame error/240 frame (1.2 sec)
NCCR	= 3
CCR 1	= 2 Channel
CCR 2	= 4 Channel
CCR 3	= 6 Channel
CCR 4	= 0 None
CCR 5	= 0 None

AZARN: Assignment of ZT Area Information for Network Data Memory

1. GENERAL

This command is used to assign and delete the Zone Transceiver Area information in the Network Control Node (NCN).

2. PRECAUTIONS

1. This command is used for the Network Control Node.
2. All PSs data must be re-downloaded, if control carrier data is changed via this command.
3. The parameters, WTZNSL, WTZNKL, RCHOO, RCHOSL, RCHFE, CCHGFE, should not be changed from default setting.
4. ZT must be restarted after using this command.

3. DATA ENTRY INSTRUCTIONS

PCN (PHS COMMUNITY NUMBER)	: 1-1024
ZSL (ZONE SELECT LEVEL)	: 0-255
ZKL (ZONE KEEP LEVEL)	: 0-255
HOL (HAND-OVER OPERATION LEVEL)	: 0-255
HSL (HAND-OVER SELECT LEVEL)	: 0-255
HFT (HAND-OVER FER THRESHOLD)	: 0-255
CCFT (CHANNEL CHANGE FER THRESHOLD)	: 0-255
NCCR (NUMBER OF CONTROL CARRIER)	: 0-5
CCR 1-5 (CONTROL CARRIER 1-5)	: 0-20

If this data is not assigned, the default setting is below.

ZSL	= 67 (33dB μ V)
ZKL	= 56 (22dB μ V)
HOL	= 59 (25dB μ V)
HSL	= 67 (33dB μ V)
HFT	= 10 frame error/240 frame (1.2 sec) (This is effective for mode 2 ZT.)
CCFT	= 24 frame error/240 frame (1.2 sec)
NCCR	= 3
CCR 1	= 2 Channel
CCR 2	= 4 Channel
CCR 3	= 6 Channel
CCR 4	= 0 None
CCR 5	= 0 None

AZDL: ZT Program Download

1. GENERAL

This command is used to download ZT program from “Program Master ZT” to “Program Download ZT”.

2. PRECAUTIONS

1. For detailed information on ZT program Download service.

3. DATA ENTRY INSTRUCTIONS

PROGRAM MASTER ZT PCN	: PHS Community Number of Program Master ZT:	1-1024
PROGRAM MASTER ZT CRN	: Calling Area Number of Program Master ZT:	1-32
PROGRAM MASTER ZT GRN	: Group Number of Program Master ZT:	1-8
PROGRAM MASTER ZT CSN/ZTN	: ZT Number of Program Master ZT:	1-32

PROGRAM DOWNLOAD ZT PCN	: PHS Community Number of Secondary Program Download ZT:	1-1024
PROGRAM DOWNLOAD ZT CRN	: Calling Area Number of Secondary Program Download ZT:	1-32
PROGRAM DOWNLOAD ZT GRN	: Group Number of Secondary Program Download ZT:	1-8
PROGRAM DOWNLOAD ZT CSN/ZTN	: ZT Number of Secondary Program Download ZT:	1-32

COCS1L: Control of CS/ZT Status Read for Local Data Memory

1. GENERAL

This command is used to read the status of the CS/ZT in the Local Node (LN).

2. PRECAUTIONS

This command is used for the Local Node.

3. DATA ENTRY INSTRUCTIONS

PCN:	PHS Community Number [1-1024]
ERN:	Calling Area Number [1-32]
GRN:	Group Number [1-8]
CSN/ZTN:	CS/ZT Number [1-32]

- ◆ After the assignment data is processed between Telephony Server and PCPro, the following parameters are automatically assigned. (They are for information only and cannot be changed.)

LENS:	Line Equipment Numbers
TN:	Tenant Number [1-6]
CS/ZT-ID:	CS/ZT-Identify
MAIN:	Main Condition of CS/ZT Management for Device Side
SUB:	Control Condition of CS/ZT Management for Device Side
CS/ZT TYPE:	CS TYPE CONTROL (Control CS/ZT) GENERAL (Control CS/ZT)
CS STATUS:	CS/ZT status (If parameter can be changed) NON-OP (Non Open) CLOSE (Close) OPERATE (Operating Now)
LINK STATUS:	Data Link Status (If parameter can be changed) UNLINK (Data Link Break) OPEN (Data Link Open) CLOSE (CS/ZT Fault After Return) FAULT (CS/ZT Fault)
Bch STATUS	
B2:	B2ch Status (If parameter can be changed) IDLE (B2ch Idle) BUSY (B2ch Busy) CLOSE (B2ch Close)
B3:	B3ch Status (If parameter can be changed) IDLE (B3ch Idle) BUSY (B3ch Busy) CLOSE (B3ch Close)
B4:	B4ch Status (If parameter can be changed) IDLE (B4ch Idle) BUSY (B4ch Busy)

B6:	CLOSE (B4ch Close) B6ch Status (If parameter can be changed) IDLE (B6ch Idle) BUSY (B6ch Busy) CLOSE (B6ch Close)
B7:	B7ch Status (If parameter can be changed) IDLE (B7ch Idle) BUSY (B7ch Busy) CLOSE (B7ch Close)
B8:	B8ch Status (If parameter can be changed) IDLE (B8ch Idle) BUSY (B8ch Busy) CLOSE (B8ch Close)
FLT:	NG Cause [0-FF]

COCS1N: Control of CS/ZT Status Read for Network Data Memory

1. GENERAL

This command is used to read the status of the CS/ZT status read in the Network Control Node (NCN).

2. PRECAUTIONS

This command is used for the Network Control Node.

3. DATA ENTRY INSTRUCTIONS

PCN:	PHS Community Number [1-1024]
ERN:	Calling Area Number [1-32]
GRN:	Group Number [1-8]
CSN/ZTN:	CS/ZT Number [1-32]

- ◆ After the assignment data is processed between Telephony Server and PCPro, the following parameters are automatically assigned. (They are for information only and cannot be changed.)

LENS:	Line Equipment Numbers
TN:	Tenant Number [1-6]
CS/ZT-ID:	CS/ZT-Identify
MAIN:	Main Condition of CS/ZT Management for Device Side
SUB:	Control Condition of CS/ZT Management for Device Side
CS/ZT TYPE:	CS TYPE CONTROL (Control CS/ZT) GENERAL (Control CS/ZT)
CS/ZT STATUS:	CS/ZT status (If parameter can be changed) NON-OP (Non Open) CLOSE (Close) OPERATE (Operating Now)
LINK STATUS (DATA LINK STATUS):	Data Link Status (If parameter can be changed) UNLINK (Data Link Break) OPEN (Data Link Open) CLOSE (CS/ZT Fault After Return) FAULT (CS/ZT Fault)
Bch STATUS	
B2:	B2ch Status (If parameter can be changed) IDLE (B2ch Idle) BUSY (B2ch Busy) CLOSE (B2ch Close)
B3:	B3ch Status (If parameter can be changed) IDLE (B3ch Idle) BUSY (B3ch Busy) CLOSE (B3ch Close)
B4:	B4ch Status (If parameter can be changed) IDLE (B4ch Idle) BUSY (B4ch Busy)

B6:	CLOSE (B4ch Close) B6ch Status (If parameter can be changed) IDLE (B6ch Idle) BUSY (B6ch Busy) CLOSE (B6ch Close)
B7:	B7ch Status (If parameter can be changed) IDLE (B7ch Idle) BUSY (B7ch Busy) CLOSE (B7ch Close)
B8:	B8ch Status (If parameter can be changed) IDLE (B8ch Idle) BUSY (B8ch Busy) CLOSE (B8ch Close)
FLT:	NG Cause [0-FF]

COCS2L: Change of CS/ZT Operation Parameter for Local Data Memory

1. GENERAL

This command is used to change the CS/ZT operation parameter in the Local Node (LN).

2. PRECAUTIONS

This command is used for the Local Node.

3. DATA ENTRY INSTRUCTIONS

PCN:	PHS Community Number [1-1024]
ERN:	Calling Area Number [1-32]
MODE:	Global Definition Information Pattern Number
	1: NOR (Normal)
	2: HBY (Heavy)
ZONE:	Zone Kind
	1: LG (Large)
	2: SM (Small)
PAS:	Position Assignment
	1: SET
	2: CANCEL

COCS2N: Change of CS/ZT Operation Parameter for Network Data Memory

1. GENERAL

This command is used to change the CS/ZT operation parameter in the Network Control Node (NCN).

2. PRECAUTIONS

This command is used for the Network Data Node.

3. DATA ENTRY INSTRUCTIONS

PCN:	PHS Community Number [1-1024]
ERN:	Calling Area Number [1-32]
MODE:	Global Definition Information Pattern Number
	1: NOR (Normal)
	2: HBY (Heavy)
ZONE:	Zone Kind
	1: LG (Large)
	2: SM (Small)
PAS:	Position Assignment
	1: SET
	2: CANCEL

COCS3L: Change of CS/ZT Reset for Local Data Memory

1. GENERAL

This command is used to control CS/ZT Reset for the Local Node (LN).

2. PRECAUTIONS

This command is used for the Local Node.

3. DATA ENTRY INSTRUCTIONS

PCN:	PHS Community Number [1-1024]
ERN:	Calling Area Number [1-32]
GRN:	Group Number [1-8]
CSN/ZTN:	CS/ZT Number [1-32]

- ◆ After the assignment data is processed between Telephony Server and PCPro, the following parameters are automatically assigned. (They are for information only and cannot be changed.)

TN:	Tenant Number. 1-System Max.
LENS:	Line Equipment Numbers
FLT:	NG Cause [0-FF]

COCS3N: Control of CS/ZT Reset for Network Data Memory

1. GENERAL

This command is used to control CS/ZT Reset for the Local Node (LN).

2. PRECAUTIONS

This command is used for the Network Control Node.

3. DATA ENTRY INSTRUCTIONS

PCN:	PHS Community Number [1-1024]
ERN:	Calling Area Number [1-32]
GRN:	Group Number [1-8]
CSN/ZTN:	CS/ZT Number [1-32]

- ◆ After the assignment data is processed between Telephony Server and PCPro, the following parameters are automatically assigned. (They are for information only and cannot be changed.)

TN:	Tenant Number. 1-System Max.
LENS:	Line Equipment Numbers
FLT:	NG Cause [0-FF]

COCS4L: Control of CS Data Read for LDM

1. GENERAL

This command is used to read the data of the ZT in a Local Node (LN).

2. PRECAUTIONS

This command is used at each Local Node.

3. DATA ENTRY INSTRUCTIONS

PCN:	PHS Community Number [1-1024]
ERN:	Calling Area Number [1-32]
GRN:	Group Number [1-8]
CSN/ZTN:	CS Number [1-32]

- ◆ After the assignment data is processed between Telephony Server and PCPro, the following parameters are automatically assigned. (They are for information only and cannot be changed.)

ADD-ID:	Additional ID
TN:	Tenant Number [1-6]
LENS:	Line Equipment Numbers
KIND:	CS/ZT Type
	V1
	V2
Tch TL:	Tch Transmission Output Control Data
	LO (Low)
	AV (Average)
	HI (High)
Tch RCV ATT:	Tch Receiving ATT Control Data
	LG (Large)
	AV (Average)
	SM (Small)
USCCH (2):	USCCH (2) Data
	NO
	YES
LCCH CARR:	LCCH Carrier
	LCCH1
	LCCH2
LCCH TL:	LCCH Transmission Output Control Data
	LO (Low)
	AV (Average)
	HI (High)

LCCH RCV ATT:	LCCH Receiving ATT Control Data LG (Large) AV (Average) SM (Small)
MODE:	Global Definition Information Pattern Number NOR (Normal) HBY (Heavy)
ZONE:	Zone Kind LG (Large) SM (Small)
PAS:	Position Assignment SET CANCEL
FLT:	NG Cause [0-OFF]

COCS4N: Control of CS Data Read for NDM

1. GENERAL

This command is used to read the data of the ZT for the Network Control Node (NCN).

2. PRECAUTIONS

This command is available at the Network Control Node (NCN) only.

3. DATA ENTRY INSTRUCTIONS

PCN:	PHS Community Number [1-1024]
ERN:	Calling Area Number [1-32]
GRN:	Group Number [1-8]
CSN/ZTN:	CS Number [1-32]

- ◆ After the assignment data is processed between Telephony Server and PCPro, the following parameters are automatically assigned. (They are for information only and cannot be changed.)

ADD-ID:	Additional ID
TN:	Tenant Number [1-6]
LENS:	Line Equipment Numbers
KIND:	CS/ZT Type
	V1
	V2
Tch TL:	Tch Transmission Output Control Data
	LO (Low)
	AV (Average)
	HI (High)
Tch RCV ATT:	Tch Receiving ATT Control Data
	LG (Large)
	AV (Average)
	SM (Small)
USCCH (2):	USCCH (2) Data
	NO
	YES
LCCH CARR:	LCCH Carrier
	LCCH1
	LCCH2

LCCH TL:	LCCH Transmission Output Control Data LO (Low) AV (Average) HI (High)
LCCH RCV ATT:	LCCH Receiving ATT Control Data LG (Large) AV (Average) SM (Small)
MODE:	Global Definition Information Pattern Number NOR (Normal) HBY (Heavy)
ZONE:	Zone Kind LG (Large) SM (Small)
PAS:	Position Assignment SET CANCEL
FLT:	NG Cause [0-OFF]

DLIN: Display of a List of Roaming PS

1. GENERAL

This command is used to display/delete a list of data related to the Roaming PS, that is available on the HLR (Home Location Register) or VLR (Visitor Location Register).

2. PRECAUTIONS

None

3. DATA ENTRY INSTRUCTIONS

FUNK (FUNCTION NUMBER): 1 = PS – Moving to another Telephony Server (HLR Display)
2 = PS – Moving from another Telephony Server (VLR Display)

CNT (DELETION NUMBER): Used to delete the currently Roaming PS data, displayed below.

◆ Display Data

UGN (USER GROUP NUMBER)	:Displayed when “FUNK = 1” is assigned.
TELN (TELEPHONE NUMBER)	: Max. 16 digits Displayed when “FUNK = 1” is assigned.
RTN (ROUTE NUMBER)	: Max. 24 digits Displayed when “FUNK = 1” is assigned.
VPSCN (VISITOR PS CALLING NUMBER)	: Max. 24 digits Displayed when “FUNK = 2” is assigned.
PSN (PS NUMBER)	: Displayed when “FUNK = 2” is assigned.

DPSN: Display of PS Station Data

1. GENERAL

This command is used to display the PS station data. The display appears when the Tenant Number and Physical Station/Telephone Number are entered. This command can also be used to display information on Hot Line station, details on PS data, Call Pickup Group data, Station Hunting data and Uniform Call Distribution (UCD) data.

2. PRECAUTIONS

None

3. PARAMETERS

a. Parameters on PS station number

TN/UGN:	Tenant Number/User Group Number
STN/PS TELN:	Station number/PS Telephone Number
ETN:	Effective Tenant Number
LENS:	Line Equipment Numbers
TEC:	Telephone Equipment Class
RSC:	Route Restriction Class
SFC:	Service Feature Restriction Class

b. Parameters on Related Data

PH: Phantom Kind

0: PHSTN Data is ALL 0. (PHSTN is Not Registered)

1: PHSTN Data is Individual Phantom Number.

2: PHSTN Data is Group Phantom Number.

PHSTN 0-4: Phantom station number

CPGF: Call Pickup Flag

0: Not Belong in Call Pickup Group

1 or 2: Belong in Call Pickup Group

HTI: Hot Line Index

0: Hot Line Data is Nothing

1: Connection for Station

HOT CON TN: Hot Line connective Tenant Number

HOT CON STN: Hot Line connective station number

2: Connection for External Line

HOT ADC: Hot Line connective Speed Calling Abbreviated Digit

4: Connection for Trunk

HOT CON RT: Hot Line connective Route Number

HOT CON TK: Hot Line connective Trunk Number

PS-ID: PS-ID

IND-PS: Individual PS Number

PS STN: PS station number

PSNO. TYPE:	PS Number Type
PSNO.:	PS Number
CPCNT:	Call Pickup Group Station Count
CP STN 0-n:	Call Pickup Group station number
LNFLG:	LDM/NDM
	0: Input STN is DM
	1: Input STN is PS TELN (LDM)
	2: Input STN is PS TELN (NDM)
MID EN:	Middle EN
FPC NO.:	Fusion Point Code for Node Number
Log Index:	Logical Index
MASTER TN:	Master Tenant Number
MASTER STN:	Master station number
MASTER LENS:	Master Line Equipment Numbers
MASTER TN:	Master Tenant Number
MASTER TEC:	Master Telephone Equipment Number
MASTER RSC:	Master Route Restriction Class
MASTER SFC:	Master Service Feature Restriction Class
SHP:	Hunting Group-Pilot Data
	0: Out of Service
	1: In Service
SHC:	Hunting Group-Circular Data
	0: Out of Service
	1: In Service
SHU:	Hunting Group-UCD Data
	0: Out of Service
	1: In Service

DRPS: Display for Reverse Develop PS Data

1. GENERAL

This command is used to read/display the PS operation data from a PS number or PS-ID.

2. PRECAUTIONS

None

3. DATA ENTRY INSTRUCTION

IKIND **Note 1:** Input Kind

- 1 = Individual PS number (5 digits or less)
- 2 = PS-ID (1–268435455)
- 3 = PS number (12 digits or less: Decimal)
- 4 = PS number (13 digits or less: Decimal)
- 5 = PS number (13 digits or less: Hexadecimal)

IPSNO **Note 1:** PS Number

Note 1: Reading process is executed by clicking the “Read” button, after finishing these parameters’ data entry.

DTFP: Display of CS/ZT Peg Count Data

1. GENERAL

This command is used for displaying the result of traffic measurement data for “Type”=17 (CS Peg Count) assigned by the ATRF command.

2. PARAMETERS

Traffic Data 5: CS/ZT Peg Count-DTFP

System In All

Each Pcn Number

Each Call Area Number

Each CS/ZT in Calling Area Number that is assigned by ACSPL

Meaning of the items regarding CS/ZT Peg Count is described as follows:

System in All: Total measured value of All ZTs in node that the command is executed.

Each Pcn Number: Total measured value of All ZTs in PCN (1-1024) programmed in office data.

Each Call Area Number: Total measured value of All ZTs in Calling Area Number (1-32) of PCN specified by ACSPL command.

Each CS/ZT in Calling Area Number that is assigned by ACSPL:

Measured value of each ZT specified by ACSPL command.

Note: When changing the specified PCN and Calling Area Number by ACSPL command during traffic measurement, the measured value is added to renewed CS/ZT Peg Count data.

Note: The items of data can be specified separately.

MBCSL: Make Busy of CS/ZT for Local Data Memory

1. GENERAL

This command is used to assign and delete IDLE/BUSY status of B/D channel of the CS/ZT.

2. PRECAUTIONS

This command is used for the Local Node.

3. PARAMETERS

PCN: PHS Community Number [1-1024]
ERN: Calling Area Number [1-32]
GRN: Group Number [1-8]
CSN/ZTN: CS/ZT Number [1-32]
APCH: Appointment Channel
CS/ZT: Make-busy cancel/set between CS/ZT and CS/ZT
B2: Make-busy cancel/set of B2 channel
B3: Make-busy cancel/set of B3 channel
B4: Make-busy cancel/set of B4 channel
LENS: Line Equipment Numbers (Only Display)
MB: Make Busy/Idle Data
0: Idle
1: Busy
FLT: NG Cause (Only Display)

4. ENTRY PROCEDURE

1. Assignment Procedure

- a. PCN: PHS Community Number [1-1024]
- b. ERN: Calling Area Number [1-32]
- c. GRN: Group Number [1-8]
- d. CSN/ZTN: CS/ZT Number [1-32]
- e. APCH: Appointment Channel [CS/ZT B2 B3 B4] (Entering data can be selected)
- f. MB: Make Busy/Idle Data = 1 (Busy)

MBCSN: Make Busy of CS/ZT for Network Data Memory

1. GENERAL

This command is used to assign and delete IDLE/BUSY status of B/D channel of the CS/ZT.

2. PRECAUTIONS

This command is used for the Network Control Node.

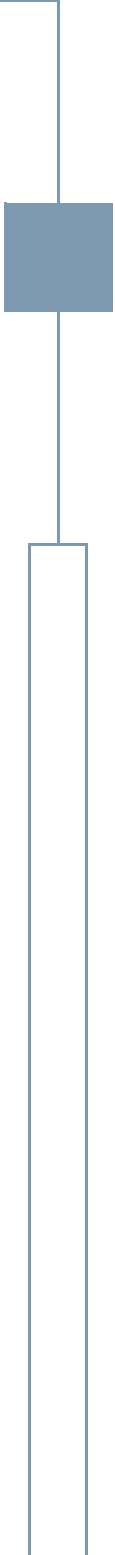
3. PARAMETERS

PCN: PHS Community Number [1-1024]
ERN: Calling Area Number [1-32]
GRN: Group Number [1-8]
CSN/ZTN: CS/ZT Number [1-32]
APCH: Appointment Channel
CS/ZT: Make-busy cancel/set between CS/ZT and CS/ZT
B2: Make-busy cancel/set of B2 channel
B3: Make-busy cancel/set of B3 channel
B4: Make-busy cancel/set of B4 channel
LENS: Line Equipment Numbers (Only Display)
MB: Make Busy/Idle Data
0: Idle
1: Busy
FLT: NG Cause (Only Display)

4. ENTRY PROCEDURE

1. Assignment Procedure

- a. PCN: PHS Community Number [1-1024]
- b. ERN: Calling Area Number [1-32]
- c. GRN: Group Number [1-8]
- d. CSN/ZTN: CS/ZT Number [1-32]
- e. APCH: Appointment Channel [CS/ZT B2 B3 B4] (Entering data can be selected)
- f. MB: Make Busy/Idle Data = 1 (Busy)



CHAPTER 4

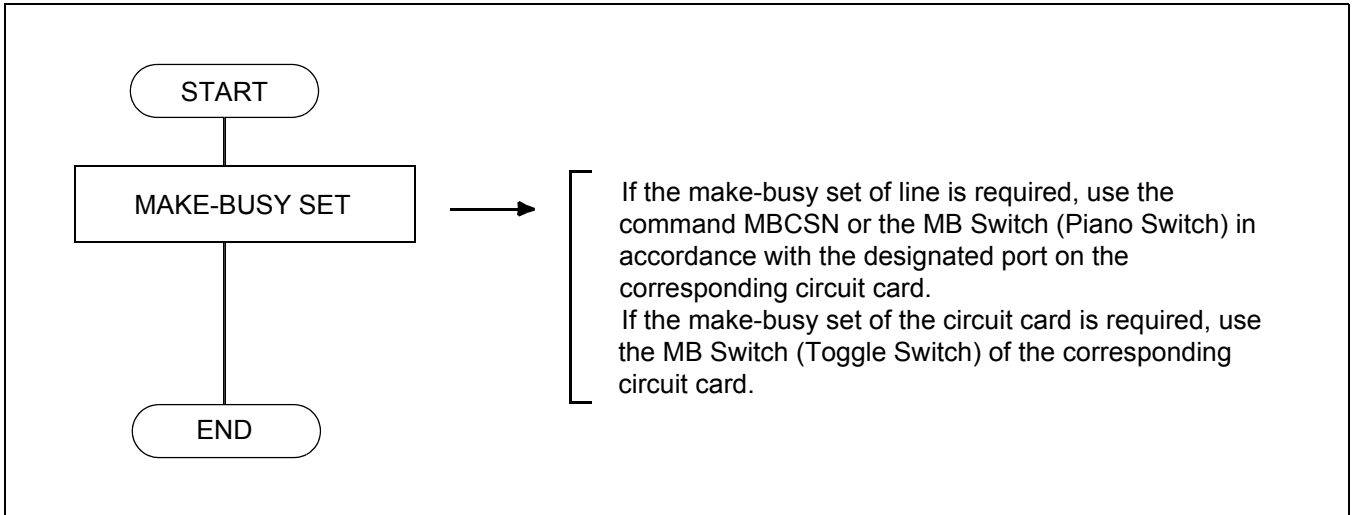
SYSTEM OPERATION AND MAINTENANCE

1. CSINT CIRCUIT CARD MAKE-BUSY SET/CANCEL**1. MAKE-BUSY SET/CANCEL**

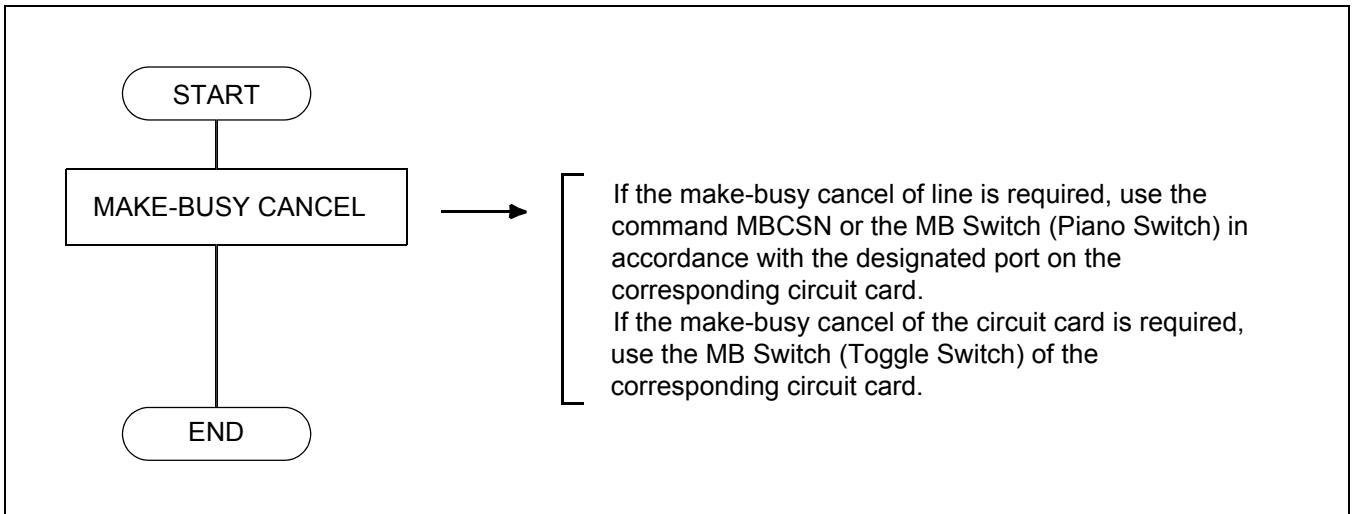
The following figures describe methods to set the CSINT circuit card in a state of make-busy and cancel the busy state.



- Make-busy Set

Make-busy Set of CSINT Circuit Card

- Make-busy Cancel

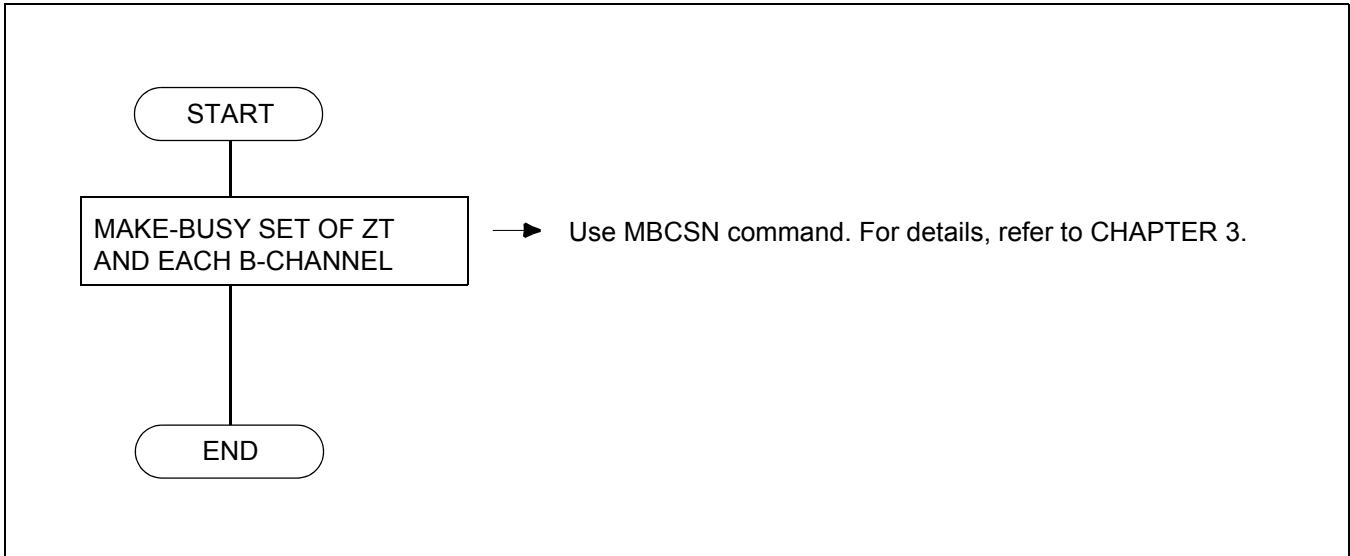
Make-busy Cancel of CSINT Circuit Card

2. Make-busy Set and Cancel of ZT and B-Channel

The following figures describe methods to set the ZT and the B-Channel in a state of make-busy and cancel the busy state.

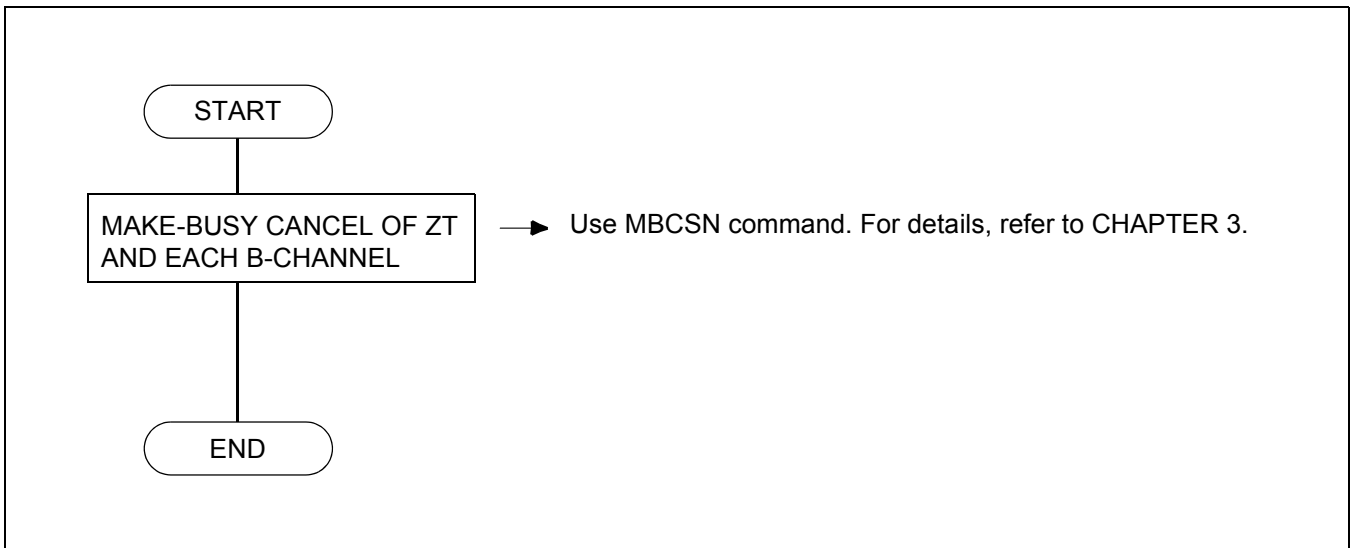
- Make-busy Set

Make-busy Set of ZT and B-Channel



- Make-busy Cancel

Make-busy Cancel of ZT and B-Channel



2. ZT PEG COUNT FOR TRAFFIC CONTROL

1. General Description

Items that can be measured in the traffic control of ZTs are listed below.

TOTAL NUMBER OF OUTGOING CALLS	:	Number of calls from PS (excluding the case where the call was released without dialling and where the caller originates a call via a trunk and encounters all routes busy.)
NUMBER OF COMPLETED OUTGOING CALLS Note 1	:	Number of all calls which have received the answer signals.
TOTAL NUMBER OF TERMINATING CALLS	:	Number of calls to PS
NUMBER OF COMPLETED TERMINATING CALLS TO INDIVIDUAL PS	:	Total number of calls which have terminated to Individual PS
NUMBER OF TERMINATING CALLS TO LINE KEYS Note 2	:	Total number of calls which have terminated to the line keys
NUMBER OF TERMINATING PAGING CALLS Note 3	:	Total number of paging calls
NUMBER OF COMPLETED TERMINATING PAGING CALLS Note 3	:	Total number of paging calls which have terminated
NUMBER OF UNANSWERED CALLS	:	Number of calls directed to PS which ended up unanswered due to the PS whose power OFF or Out of Zone
NUMBER OF HANDOVER ATTEMPT	:	Number of the handover occurrence attempted
NUMBER OF COMPLETED HANDOVER	:	Number of handovers completed between channels occurred in ZTs
NUMBER OF PS LOCATION REGISTRATION REQUESTS	:	Number of the messages sent in the events of location registration in cases where the power is turned on, handover takes place between calling areas or entered a certain area out of the zone
NUMBER OF ALL ZT B CHANNELS IN BUSY STATE	:	Number of Busy State of all channels of the ZT calling area are engaged upon receiving certain call
NUMBER OF ABNORMAL ACCESSES	:	Number of cases where the PS authentication is not verified correctly due to the inconsistent data information between PS and the system

NUMBER OF TIMES THE T CHANNEL CANNOT BE CONNECTED Note 1	:	How many times the designated T channel could not be connected after channel setup request was received by the PS
NUMBER OF TIMES SQUELCH DISCONNECTED Note 1	:	Number of occurrences of the squelch disconnection
NUMBER OF ZT CHANNEL CHANGEOVER Note 1	:	How many times changeover between channels occurred in ZT

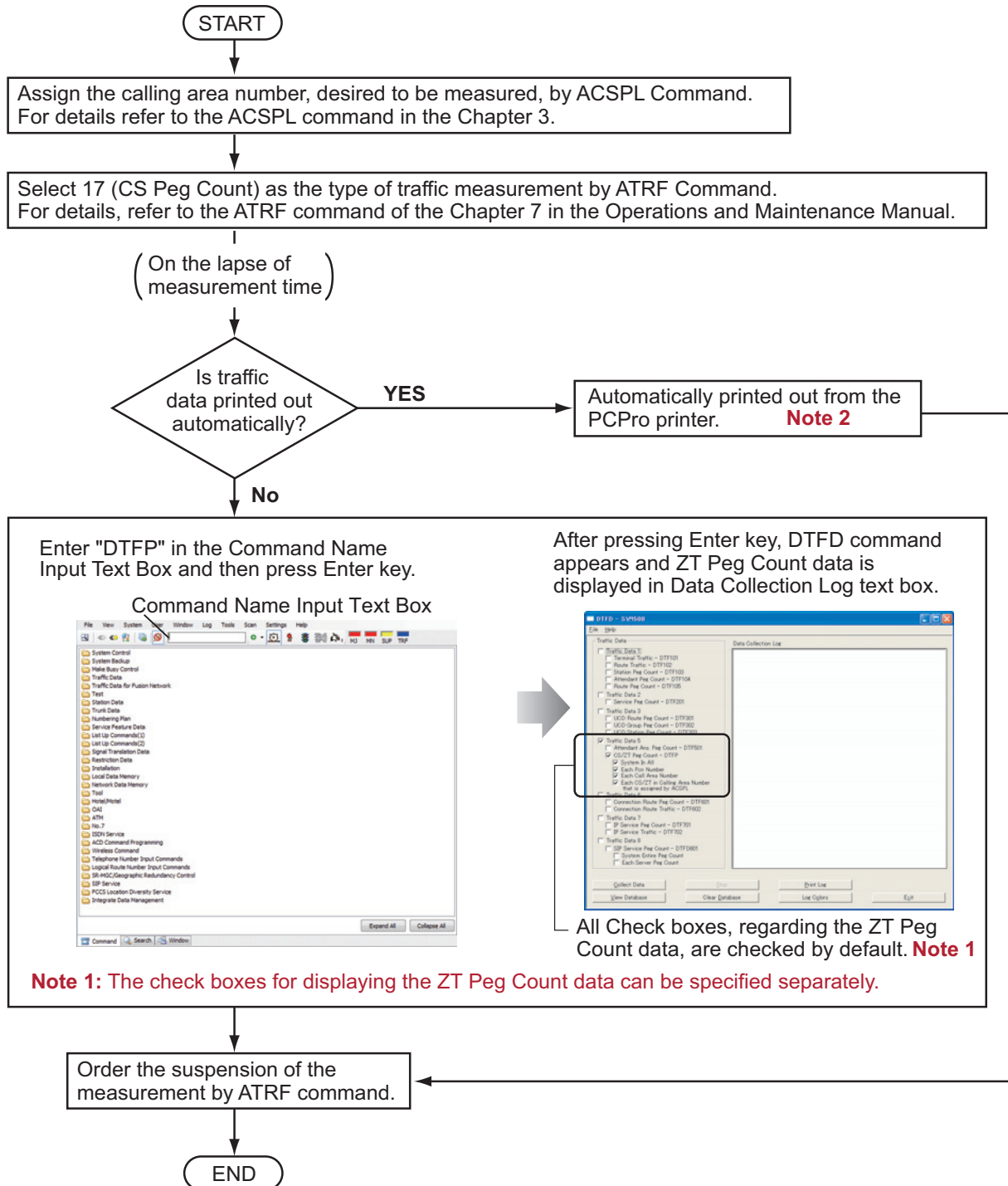
Note 1: The ZTs in the calling area designated by the ACSPL command are measured.

Note 2: Line key incoming call service is not available.

Note 3: Paging incoming call service is not available.

2. Operation Procedures

The following chart explains the operation procedure concerning ZT Peg Count.



Note 2: Whether the System Scanning Function is provided or not is determined by AIOC command.

Note :

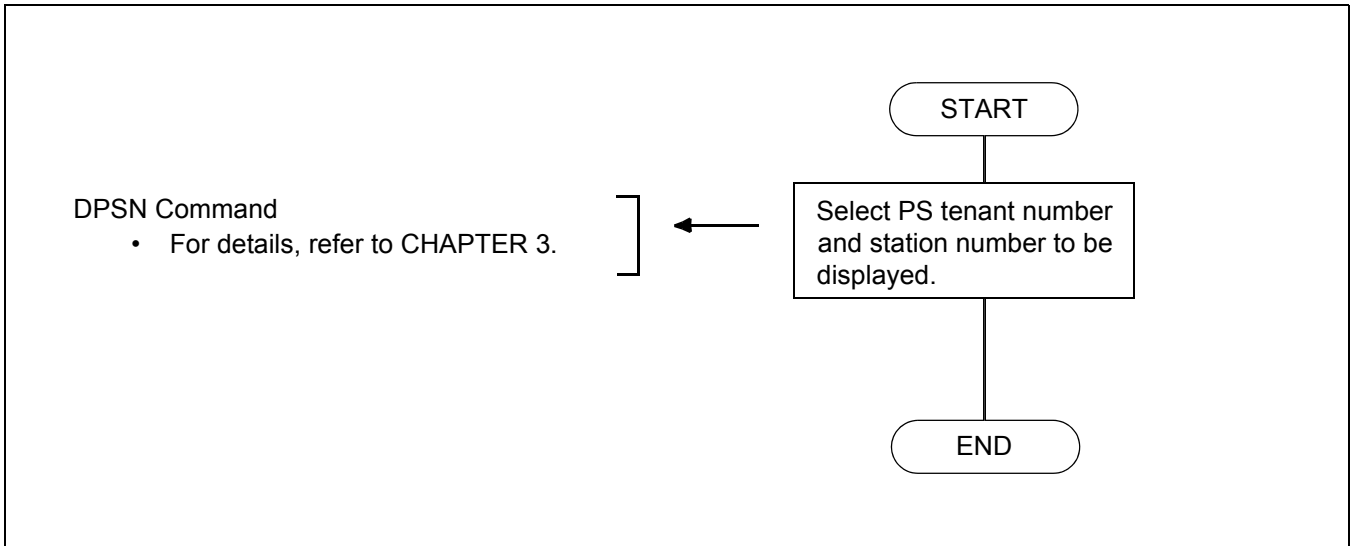
- Scanning data is printed out when the display of PCPro is initial.
- Initial display appears after a dedicated time.

3. DISPLAY OF PS STATION DATA

1. General

The designated PS station data can be displayed by selecting the corresponding Tenant number and the station number.

2. Operation Procedures

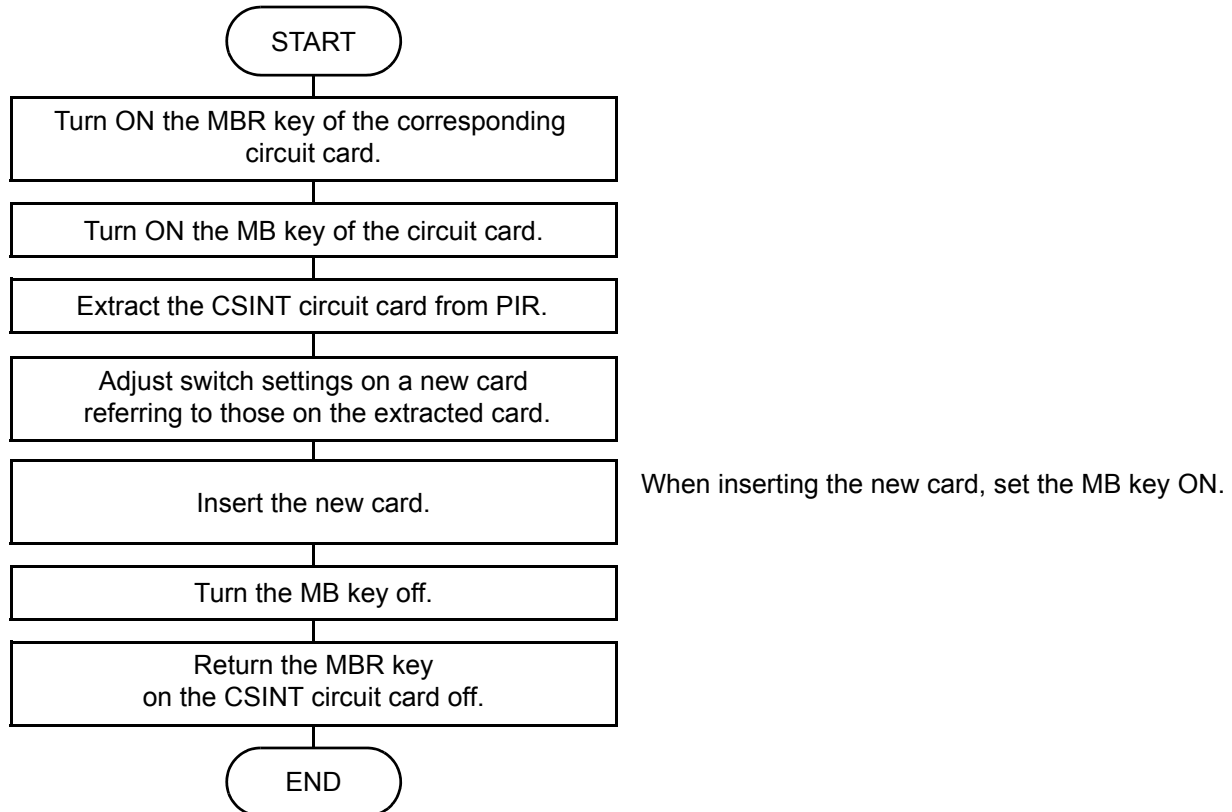


4. REPLACEMENT PROCEDURE OF CSINT CIRCUIT CARD/ZT

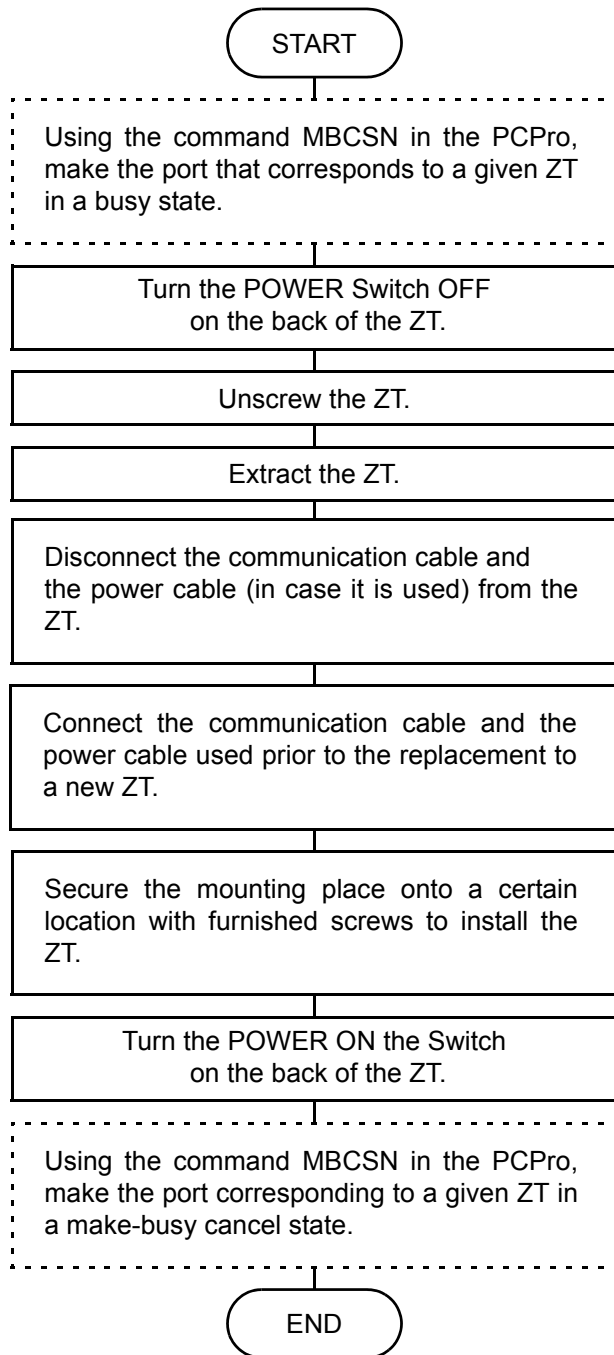
This section explains how to replace the CSINT circuit card and the ZTs. Refer to the Operations and Maintenance Manual.

1. Replacement Procedure of CSINT Circuit Card

Confirm the BLn1 (n = 0~3) is flashing and other BL lamps light off (Not used).



2. Replacement Procedure of ZTs



5. SYSTEM MESSAGE

This section describes the system messages concerning the ZT. Other system messages are explained in the Operations and Maintenance Manual.

1. Detection of Wireless-PCS System Fault

[26-L] WIRELES/PCS SYSTEM Failure Report

2. Detection of ZT Fault

When the detected trouble or faulty part concerns the ZTs, the following messages appear.

[25-J] ZT Operation Start

[25-K] ZT Set Up NG

[25-L] ZT Fault

[25-M] ZT Fault Recovery

[25-N] ZT Carrier Fault

• System Messages and Meanings

MESSAGE NAME	MEANING	SYSTEM MESSAGE
ZT Operation Start	Indicates ZT is put into normal operation.	25-J
ZT Set Up NG	Indicates ZT start-up ends in failure.	25-K
ZT Fault	Indicates ZT Fault.	[SUP] 25-L
ZT Fault Recovery	Indicates ZT Fault recovery	25-M
ZT Carrier Fault	Indicates ZT Control Carrier Fault	25-N
Wireless-PCS System Failure Report	Indicates Wireless-PCS SYSTEM Fault	[MN] 26-L

3. Detail of Each Message

a. [25-J] ZT Operation Start

Detail message data

1: XX XX 00 00 00 00 00 -

↑ ZT which sends notification

G	L
MG	U

b. [25-K] ZT Set Up NG

Detail message data

1: XX XX XX XX 00 00 00 00 -

Set UP NG KIND

00: ZT Restart Process

01: ZT Status Adjustment

02: ZT B-Channel Status Adjustment

Set UP NG Factor

00~04 : Not Used.

05~08 : System-ID download processing NG.

09~0A : System-ID download processing time-out.

0B~0D : ZT Data download processing NG.

0E~10 : ZT Data download processing time-out.

11 : CS-ID setting NG

12 : CS-ID setting time-out.

13 : Carrier decision order processing NG

14 : Carrier decision order processing time-out.

15~16 : Not Used.

17 : ZT make-busy processing NG

18 : ZT make-busy processing time-out.

19 : B-Channel make-busy/cancel processing NG.

1A : B-Channel make-busy/cancel processing time-out.

1B : B-Channel initialization processing NG

1C : B-Channel initialization processing time-out.

1D~1F : Not Used.

20 : ZT operation parameter change processing NG.

21 : ZT operation parameter change processing T.O.

22 : ZT Status request processing NG.

23 : ZT Status request processing time-out.

24~7D : Not Used.

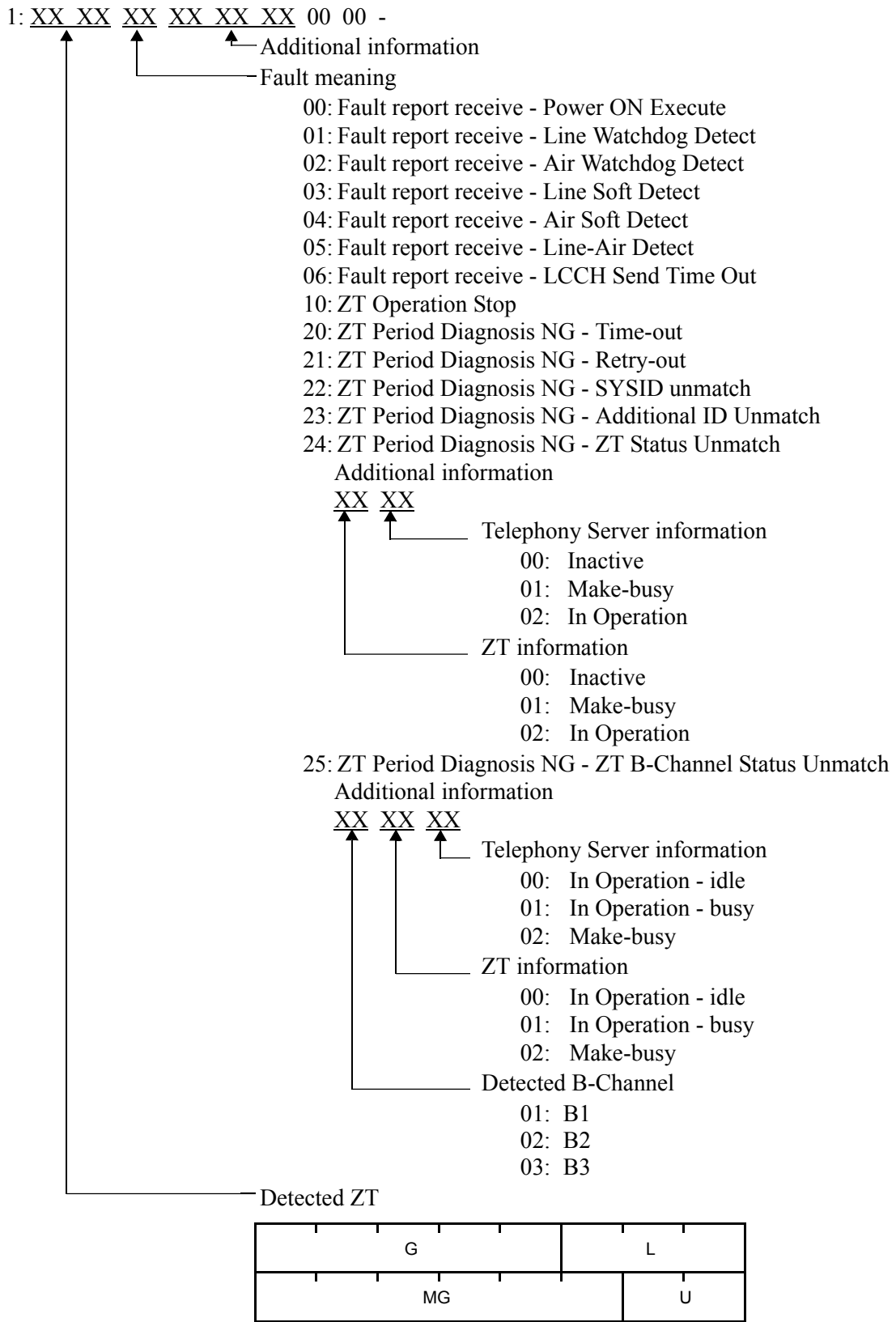
7E : Layer 2 link failure (including MB key setting of circuit card)

7F~ : Not Used.

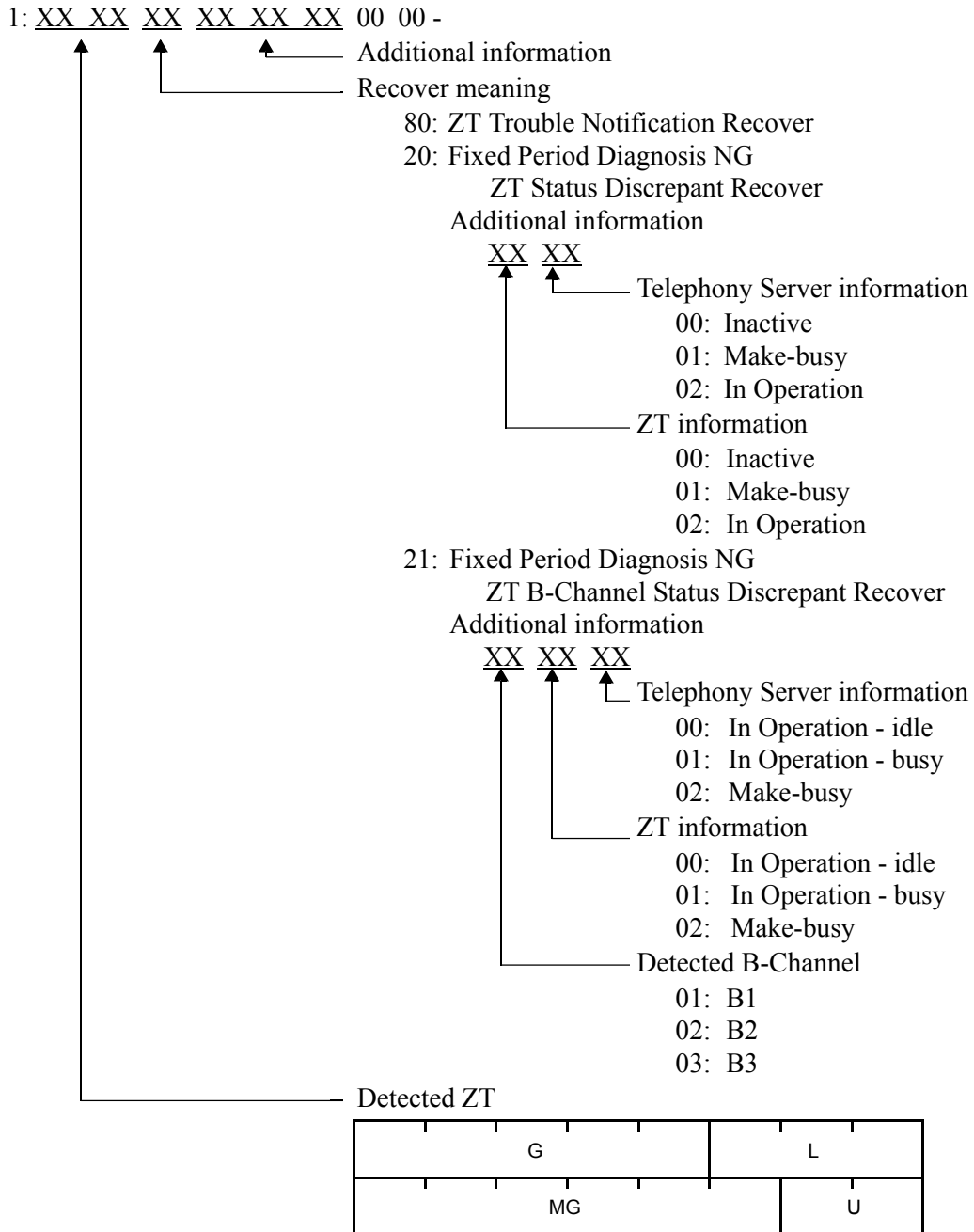
Detected ZT

G	L
MG	U

c. [25-L] ZT Fault



d. [25-M] ZT Fault recover



UNIVERGE SV9500

Data Programming Manual - Wireless-PCS

NWD-165805-001

Revision Sheet

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