

UNIVERGE SV9500

FP95-115 V5

Data Programming Manual - Wireless-PHS

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UNIVERGE SV9500 PHS - FEATURE LIST

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																					
Countries - Asia, Middle East, Russia																					
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.
			Australia	Countries	PIR	UG50	MC	Digital Terminal	UG50	IP Terminal *1	Soft Phone										
[A-128]	Automatic Announcement - Discon- nected PS Out of Zone	PIR	X	X	-	-	-	X	-	X	X	N	N	-	-	A	-	X	N	X	
		VS32			-	-	-	X	-	X	X	X	N	-	-	N	-	X	N	X*	*: VS32 is required.
[A-129]	Automatic Announcement - Called PS Out of Zone	PIR	X	X	-	-	-	X	-	X	X	X	-	-	-	A	-	X	N	N	
		VS32			-	-	-	X	-	X	X	X	-	-	-	N	-	X	N	X*	*: VS32 is required.
[C-155]	Call Forwarding PS Incoming Call Incomplete		X	X	-	-	-	X	-	X	X	X	X	-	-	A	-	X	X	X*	*: SIP Multiline cannot be accommodated.
[C-156]	Consultation Hold		X	X	X	-	X	X	-	X	X	X	X*	X	X	A	X	X	N	X	*: Depend on the Terminal.
[C-175]	Call Park Group - PS		X	X	-	-	-	X	-	X	X	N	N	-	-	A	-	X	N	X	
[G-23]	Group Call-Automatic Conference (20- party)	PIR	X	X	X	-	X	X	-	X	X	-	-	-	-	A	-	X	N	X	VS32 is not recommended for this feature.
[P-67]	PS Location Information Display	PIR (IOC)	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	X	N	X	
[P-68]	PCS/PHS - MFC Signaling	PIR	X	X	X	-	X	X	-	X	X	X	X	-	-	X	X	X	N	X	Refer to the document for further details of this service feature.
[P-71]	PS Line Appearance on Dterm		X	X	-	-	-	X	-	X	X	X	X	N	X	N	-	X	N	X	
[P-72]	PS Two Line Operation		X	X	-	-	-	-	-	-	-	-	-	-	-	A	-	X	X	X	
[P-74]	PS (L2) Group Call with Pilot Hunt Incoming Call		X	X	-	-	-	-	-	-	-	-	-	-	-	A	-	X	N	N	
[P-76]	PS Location Information Display - PS/ Dterm		X	X	-	-	-	X	-	X	X	-	-	N	N	A	-	X	N	X	Requires the RS232C I/O Interface.
[P-79]	PHS Name Display		X	X	-	-	-	X	-	X	X	N	N	-	-	A	-	X	X	X	
[S-135]	Speed Calling - System - PS		X	X	X	-	X	X	-	X	X	X	X	-	-	X	-	X	N	X	
[S-142]	Split Call Forwarding - PS		X	X	X	-	X	X	-	X	X	X	N	-	-	X	-	X	N	X	
[S-158]	Soft Phone - PS		X	X	-	-	-	-	-	-	X*1* 2	-	-	-	-	A	X	X	N	X	*1: Available with DtermSP30(Proprietary) Cver(Ver.4) or later. *2: Available with DtermSP30(SIP) Fver(Ver.7) or later.
[W-8]	Wireless Analog Adjunct Connection		N	X	-	-	-	-	-	-	-	-	-	-	-	A	-	X	N	N	This feature is only available for COT Card.

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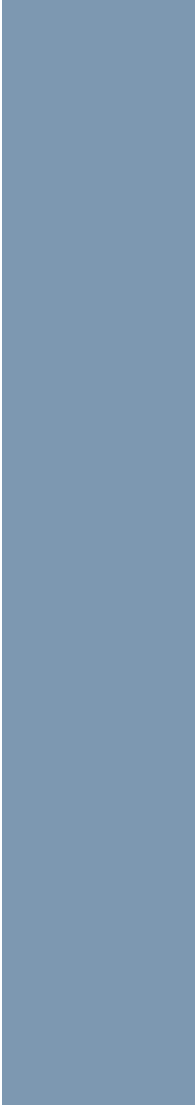
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INTRODUCTION



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-PHS system.
CHAPTER 2	OFFICE DATA ASSIGNMENT Explains basic data and service feature data assignment for Wireless-PHS system.
CHAPTER 3	COMMANDS Explains the commands used in Wireless-PHS system.
CHAPTER 4	SYSTEM OPERATION AND MAINTENANCE Gives operation and maintenance information related to Wireless-PHS system.

2. How To Use This Manual

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



CHAPTER 1

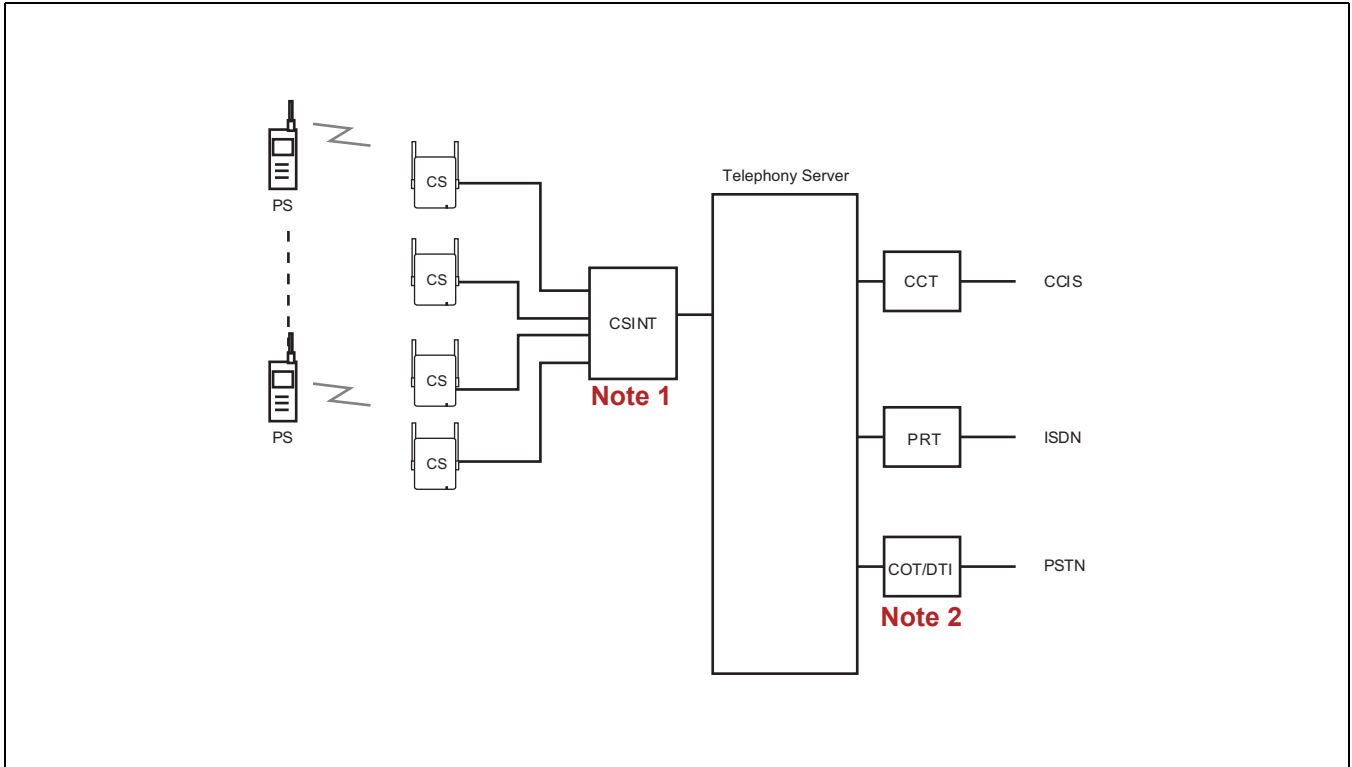
GENERAL DESCRIPTION

1. GENERAL DESCRIPTION OF SYSTEM

The Wireless-PHS System has its CSINT, which interfaces the Cell Station (CS) with the system, mounted in the Port Interface Rack (PIR). Programs and license software for the PHS is necessary in the Telephony Server system. The figure below shows the entire route connecting diagram of this system. The figure on the next page shows a comparison between Standalone Type and FCCS Type.

Module structures of the Wireless-PHS System are identical to that of the Telephony Server with PIR. For more details, see Appliance Model Installation Manual.

Route Connecting Diagram: Wireless-PHS System

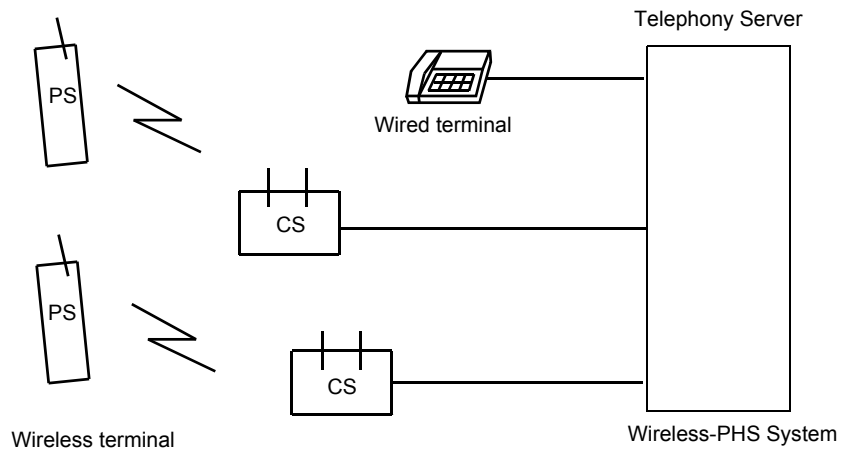


Note 1: The maximum of CSs is as follows:
- Eight (8) CSs (When using PA-8CSIE circuit card.)

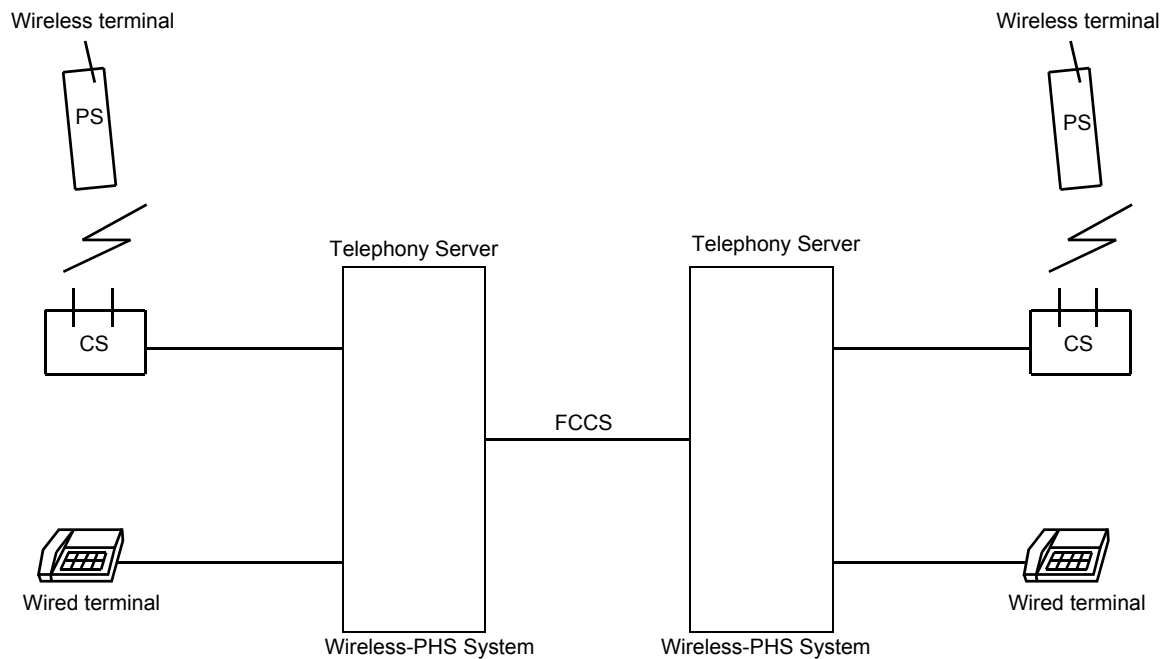
Note 2: If the receive tone level of the PS is low, please select -5dB (GAIN) in the PAD data of the COT Route by the command ARTD.

PHS Comparison: Telephony Server Standalone Type and FCCS Type

Standalone Type



FCCS Type



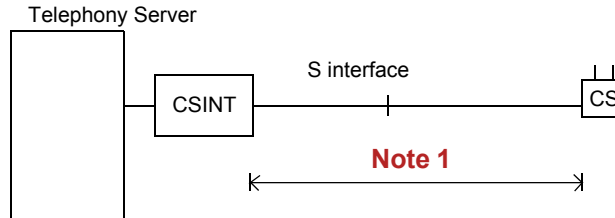
2. CONNECTION BETWEEN CSINT AND CS

The diagram below illustrates connection methods between the CSINT and the CS. The CSINT and the CSs can be connected with two pairs of twisted cable using the following two connection methods - One, line voltage from the Wireless-PHS System and the other, the local power supply.

1. Line Power from the Telephony Server

Line power is supplied for CS from the Telephony Server.

Power Supply from the Wireless-PHS System (S Interface)



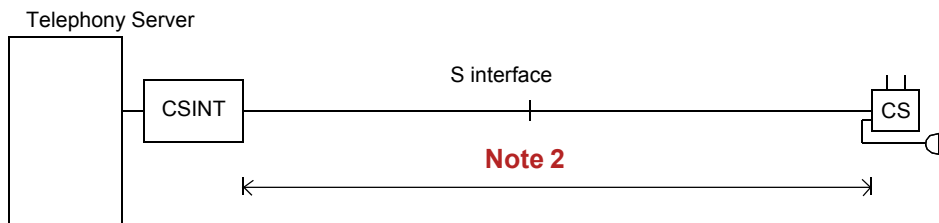
Note 1: Conditions for the cable distance are as follows:

Diameter	0.4 ϕ	0.5 ϕ	0.65 ϕ	0.9 ϕ
Distance (No arrestor) BS01-ID/BS01-ND	345m 1131ft	600m 1968ft	1000m 3280ft	1900m 6233ft
Distance (No arrestor) BS21-ID/BS21-ND/ BS21A-ID/BS21A-ND	500m 1640ft	900m 2952ft	1280m 4199ft	2080m 6824ft

2. Local Power Supply

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

Local Power Supply (S Interface)



Note 2: Conditions for the cable distance are as follows:

Diameter	0.4 ϕ	0.5 ϕ	0.65 ϕ	0.9 ϕ
Distance (No arrestor) BS01-ID/BS01-ND	560m 1837ft	960m 3149ft	1280m 4199ft	2080m 6824ft
Distance (No arrestor) BS21-ID/BS21-ND/ BS21A-ID/BS21A-ND	560m 1837ft	960m 3149ft	1280m 4199ft	2080m 6824ft

3. SYSTEM CAPACITY

The following explains the system capacity.

CS System Capacity

ITEMS		IMG System	MMG System	UMGi/RNIP System Note 3
Max. number of PSs/Node		4000 terminals Note 1	4000 terminals Note 1	4000 terminals Note 1
Max. number of CSs		384	1536	1536
Max. number of CSINTs		PIR: 44 PIM: 48 Note 2	PIR: 176 PIM: 192 Note 2	PIR: 176 PIM: 192 Note 2
Max. number of PHS Community Number (PCN)/system		1024		
Speech CH/CS		3 ch/CS		
Max. number of CSs/CSINT		8		
Area	Max. number of calling areas/PCN	32 areas		
	Max. number of CSs/calling area	256 CSs/area		
	Max. number of groups/calling area	8 groups/area (Not used)		

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

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

where CS_{max} is the maximum allowable CSs 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 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: CS should be installed in CCN.

CS System Capacity

ITEMS		1-IMG System	4-IMG System	16-IMG System
Max. number of PSs/Node		1500 terminals Note 1	4000 terminals Note 1	9000 terminals Note 1
Max. number of CSs	4CSI	192	768	3072
Max. number of CSs	8CSI	384	1536	6144
Max. number of CSINTs		48 Note 2	192 Note 2	768 Note 2
Max. number of PHS Community Number (PCN)/system		1024		
Speech CH/CS		3 ch/CS		
Max. number of CSs/CSINT	4CSI	4		
Max. number of CSs/CSINT	8CSI	8		
Area	Max. number of calling areas/PCN		32 areas	
	Max. number of CSs/calling area	4CSI	192 CSs/area	256 CSs/area
	Max. number of CSs/calling area	8CSI	256 CSs/area	
	Max. number of groups/calling area		8 groups/area (Not used)	

IP-BS System Capacity

ITEMS		1-IMG System	4-IMG System	16-IMG System
Maximum Number of PSs/Node		1500 terminals	4000 terminals	9000 terminals
Maximum Number of IP-BSs		384	768	6144
Maximum Number of PHEs		63	63	252
Maximum Number of PHS Community Number (PCN)/System		1024		
Speech CH/IP-BS		3 ch/IP-BS		
Maximum Number of IP-BSs/PHE Circuit Card		64		
Maximum Number of IP-BSs/Internal PHE		<i>For FP 8800 (R15) or earlier:</i> 128 <i>For FP20-100 R16 or later:</i> 1536		
Area	Maximum Number of Calling Areas /PCN	32 Areas		
	Maximum Number of IP-BSs/Calling Area	256 IP-BSs/Area		
	Maximum Number of Groups/Calling Area	8 Groups/Area		

4. MOUNTING LOCATION OF CSINT CIRCUIT CARD

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

5. FUNCTIONS/MOUNTING CONDITIONS OF CIRCUIT CARDS

The following circuit cards are necessary when using the Wireless-PHS system.

Circuit Cards Required for Wireless-PHS System (1/2)

ABBREVIATION	CIRCUIT CARD NAME	FUNCTIONS AND MOUNTING CONDITIONS
DAT	CH-DATA /PA-4DATB-A	Announcement Trunk Used for ANNOUNCEMENT-PS OUT OF ZONE. Refer to Circuit Card Description for 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 CS. Refer to Circuit Card Description for SW setting and wiring.
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 CS. Refer to Circuit Card Description for 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 CS. 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 CS. Refer to Circuit Card Description for SW setting.
CSINT	PA-8CSIE/ PA-8CSIE-A	This is an LC circuit card which provides interface with the Cell Station (CS). A maximum of 8 CSs can be connected to one circuit card. Interface of the CS corresponds to that of ISDN standard, but the multi-point connection with the CSs is not available. • I.430, Q. 921 interface • B channel is used for two channels of each 32kbps with a total speed of 64kbps in the 2B+D

Circuit Cards Required for Wireless-PHS System (1/2)

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).

6. SERVICE CONDITIONS

Below are the conditions for using the Wireless-PHS System.

1. The Wireless-PHS system can be used for Hotel System. The conditions are as follows:
 - All models of PMS Interface are available.
 - PS is assigned as administration station.
 - The billing information is output to PMS (Property Management System) or SMDR (Station Message Detail Recording).
 - Assign ASYD SYS1, Index 420, b0 (access code using pre-set dialing) = 1 (In service).
2. ACD services are incompatible with the Wireless-PHS system.
3. The following software is necessary for Wireless-PHS system operation.

Optional software: Service (Application) software including PHS service. **Note 1**

Note 1: When using PHS in FCCS Network, this software must be installed in all nodes. In other words, even if no PSs are accommodated in a node, this software must be installed in the node.

4. SMDR equipment can be used for billing.

5. The following are service condition for PS billing services.

- The following billing services are available in the Wireless-PHS system.

FEATURE NAME	REMARKS
SMDR for outgoing C.O. line	
SMDR for incoming C.O. line	
SMDR for outgoing Tie line	
SMDR for incoming Tie line	
SMDR for incoming DID	
SMDR for DIT	
SMDR for IC via ATT-CON	

- Billing information is output in a node in FCCS network as follows.

ASYDN - Index 583

Bit 7	SMDR Kind	Output Node
0	It is stored in a node where an originating station is accommodated.	SMDR for Outgoing Calls
	Station-to-Station SMDR	When calling from PS, it is output from a node the PS uses.
1	It is stored in a node where an originating trunk is accommodated.	SMDR for Outgoing Calls
	Station-to-Station SMDR	When calling to PS, it is output from a node the PS uses.

- When registering a FPC of self node by the system data [ASYDL - Sys 1, Index 512], be sure to use an NDM command for registering a PS logical number and an office data related to CS.
- PS is not connected to the data terminal equipment.
- PS station number can not be programmed on the Line/Feature key of Desktop terminal (as a Multi-Line).
- ANALOG CALLER ID service feature is not available for PS.
- Service conditions for CCIS features are as follows.
 - When a call is originated from or terminated to a PS via CCIS, the calling number sent to the called station varies depending on the numbering plan as shown below.
 Closed numbering network: Station number (PS number)
 Open numbering network: Office code + Station number (PS number)
 - When a PS user has a call placed on hold, link re-connection is not performed.
- 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 CS with SYS-ID (Sub SYS-ID or Network ID for roaming) which has been written into the PS.
- Speech channels of all of the CSs around the PS are all busy.

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

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

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)

HANDOVER TERMINAL	PS TERMINAL A	PS TERMINAL B	PS TERMINAL C
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. HIGH-SPEED HAND-OVER

- 1) *This function is available for BS21A, BS21.*
- 2) *This function can be used in Australia only.*
- 3) *Required equipment: PA-8CSIE + BS21A-ID/BS21A-ND, BS21-ID/BS21-ND (CS), BS31A, BS41*
- 4) *Permissible phase difference between CSs is within 10.4 μ sec.*
- 5) *For data assignment, refer to Chapter 2.*
- 6) *This function is effective for PSID (PS).*

6. PRESET DIALING

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

7. OVERLAP DIALING

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

8. PS SERVICE CLASS

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

9. C.F.-PS INCOMING INCOMPLETE

It must be re-assigned when upgrading from ICS to the Telephony Server.

(Backed up ICS data cannot be re-used.) CF destination station must have a telephone number.

Note:

- When a caller originates to a PS line accommodated on the programmable Line/Feature key, in an out of zone state, the caller hears no-tone for 8 seconds, after that Call Forwarding-PS Incoming Call Incomplete is activated if the feature is set. (However, the Desktop terminal user can answer the call by pressing the programmable Line/Feature key, to which the PS line is assigned, before the Call Forwarding-PS Incoming Call Incomplete is activated.)
- When the user sets Call Forwarding-PS Incoming Incomplete to a PS line accommodated on Desktop terminal, allow SFI147 of the Desktop terminal (RES=1).

10. 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 the 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 line that 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 in Data Programming Manual - Business.

7.3 IC CALL SERVICE FEATURES CONSIDERATIONS

1. 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, to 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.

2. POWER FAILURE TRANSFER

PS cannot be used for the Night station.

3. 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.

4. 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, to 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-call.), Short tone is not going to be sent when the answered terminal is PHS.

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 Desktop terminal (APLAML/APLAMN), calls terminating to the corresponding PS can be answered using CALL PICK UP - DIRECT [C-3].

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 the 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 cancelled 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 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 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 the 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

An 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.

The 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

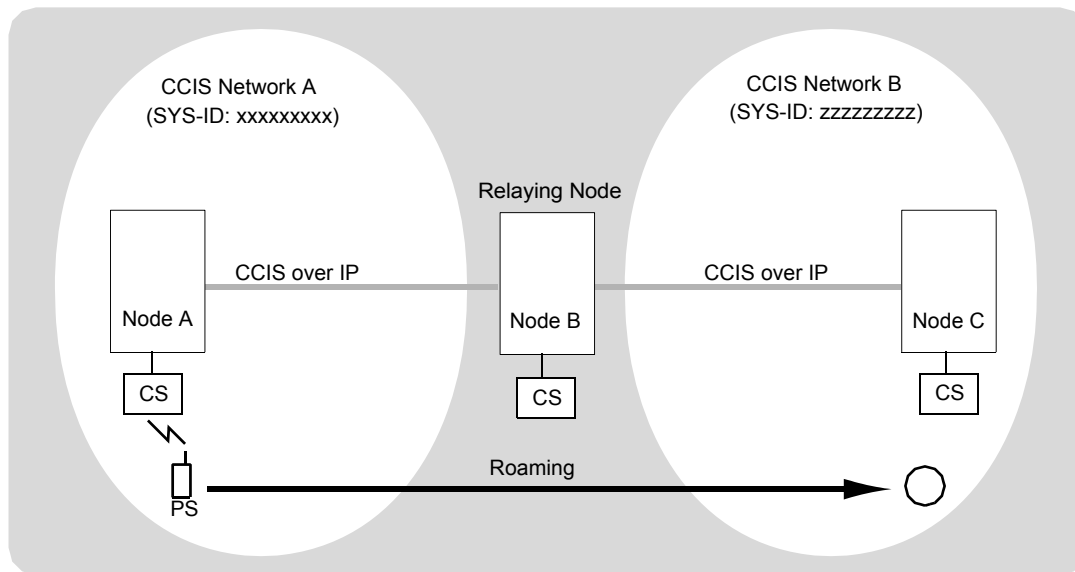
Supervisory Call can be assigned when the visitor PS is called, but it is not available once that call has been answered.

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 12 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]

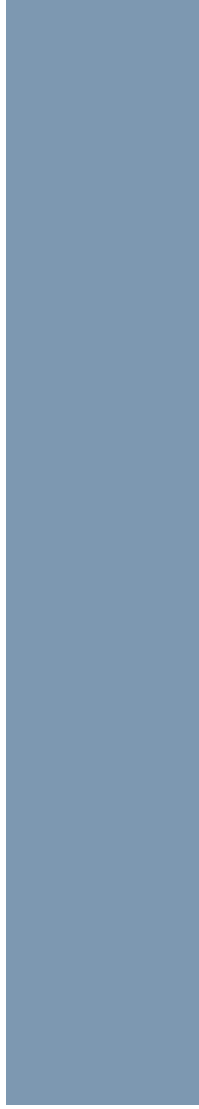
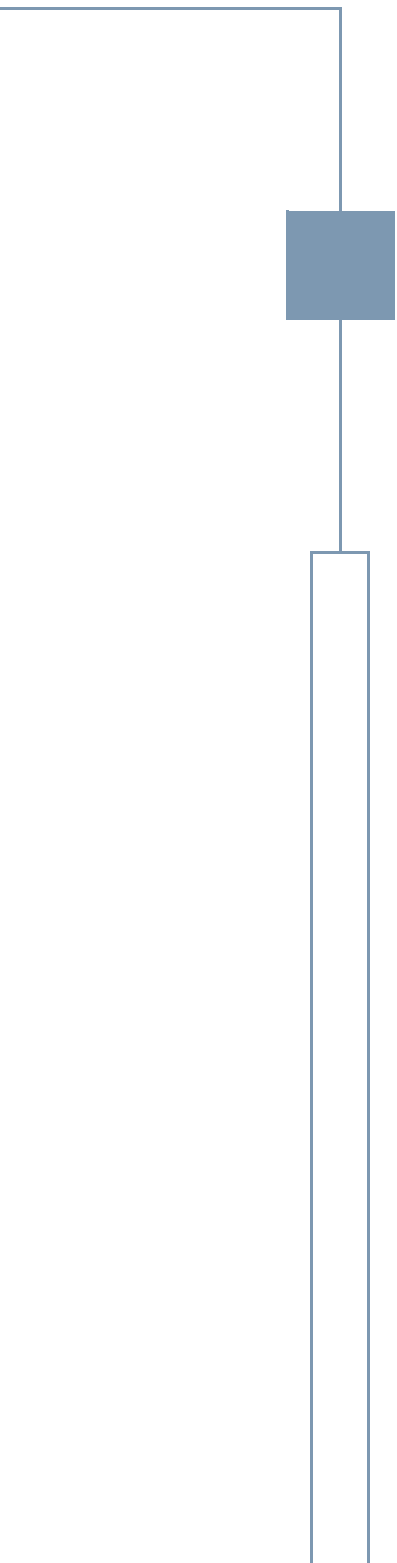
When the PS using CALL FORWARDING - PS INCOMING INCOMPLETE [C-155] at home node is incomplete at visitor node, the PS forwards the call at home node.
 - Call Forwarding - All Calls [C-5]

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.
 - 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.
 - The conditions when outputting the billing information for a roaming PS are as follows.
 - When outputting the billing information in visitor node, the UGN for a virtual station number assigned to a roaming PS will be indicated.
 - “Home Node Number + PS station number” will be indicated in the Telephone Number area of the billing information.
 - “Home Node Number + PS station number” will be indicated in the Account Code area only when originating a call from visitor node (for outgoing billing).

Note: “Home Node Number + PS station number” is a number set to PS NO in the APSD command.
-



CHAPTER 2 OFFICE DATA ASSIGNMENT

This chapter explains the office data assignment for the system. Relating to the basic office data assignment for the Telephony Server and other programming for the service features, refer to the Data Programming Manual - Business. Sections 1 and 2 of this chapter provide guidelines for the system data and the programming of CS and PS office data as a basic data assignment, while Section 3 provides information regarding each service data assignment.

- Section 1: BASIC OFFICE DATA ASSIGNMENT (STANDALONE)
- Section 2: BASIC OFFICE DATA ASSIGNMENT (FCCS)
- Section 3: HOW TO MOVE PS OFFICE DATA FROM STANDALONE SYSTEM TO FCCS SYSTEM
- Section 4: ASSIGNMENT OF SERVICE FEATURE DATA

1. BASIC OFFICE DATA ASSIGNMENT (STANDALONE)

This section covers the following procedures:

- System Data
- CS Office Data Assignment
- PS Office Data Assignment

1.1 System Data

The following data assignment is necessary for activating the PHS service.

ASYD SYS1

Index 30: Mounting Capacity of Data Memory (Assign 06H.)

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 688: b1-3: Designation of Control Channel Slot. (Fixed to No.1 slot.) **Note 1**

bit1 = 0

bit2 = 0

bit3 = 1

Index 800:

b3: PCN for Tenant

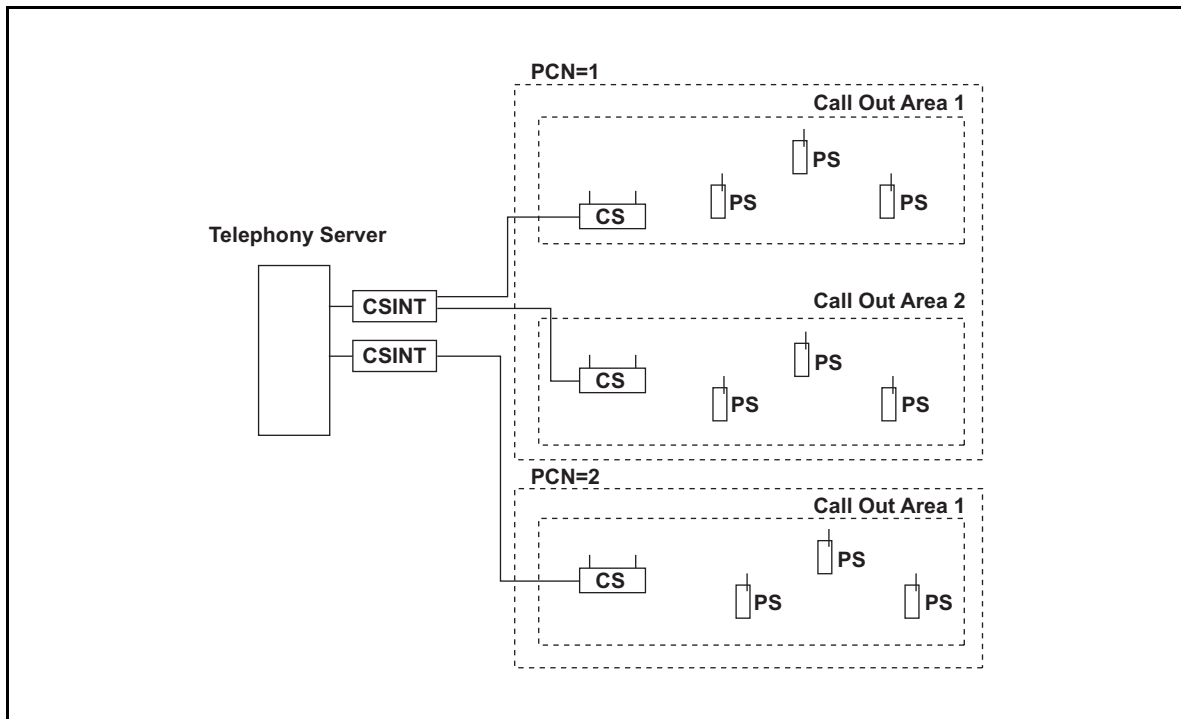
0/1: Different PCN for Tenant/Same PCN for Tenant

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

Note: Do not assign the FPC in a standalone configuration.

Note 1: Assign this data before assigning the CS Office Data.

1.2 CS Office Data Assignment



- CSINT circuit card can accommodate a maximum number of eight CSs.
- Every CS has three speech channels in the form of 3B+D.
- Each CS is provided with PHS Community, Calling Area, Group and CS number, given a maximum capacity to have 32 areas while each area has 8 groups. One group can house 32 CSs.

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.

- CS (Cell Station) can be categorized in terms of their function into Control CS and Operating CS, while the Control CSs have its system ID programmed. The system ID is allocated uniquely to the Control CS in an attempt to control the whole PHS system. The system ID travels over the radio to all other CSs through the Built-in PHS.

Note: PS is designed to exchange weak radio waves with the CSs, the system ID of which is the same as that of the PS itself downloaded before use. If the Control CS is replaced with another, PS doesn't function, resulting from the differing system ID between the PS and the new Control CS.

1. CS Initial Start-Up

STEP 1: ASYD (Assignment of System Data)

CCIS and ISDN simultaneously become valid when the CS operation attempts to be in service, as the CS is regarded as an ISDN terminal.

SYS1

Index 186 **Note 1**

b6=1 (CCIS is in service)

Index 220 **Note 1**

b6=0 (ISDN is in service)

Note 1: Although ISDN/CCIS data becomes valid by these data, optional software related to ISDN/CCIS is not necessary when ISDN/CCIS features are not used.

STEP 2: Assign mounting capacity of Data Memory (DM)

SYS1

Index 30 Normally assigned as 06H (6M).

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

FUNC=1

TN: Tenant Number

PCN: PHS Community Number Entry: 1~1024 **Note 2**

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

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

Network Number: Blank (Not used)

Additional Area Number: Blank (Not used)

Country Number: Unique number for each country

Number of PHS-Manager Code: 0 fixed

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

Used to assign the PCN, MCS ERN, MCS GRN, MCS CSN which are related to Control CS.

PHS Community Number (PCN): 1~1024

MCS ERN : MCS Calling Area Number

MCS GRN : MCS Group Number

MCS CSN/ZTN : MCS Number

OP CSN/OP ZTN : 1 (fixed)

STEP 6: ACSDL (Assignment of CS/ZT Data for LDM)

This command is used to assign the CS 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 starts up.

FPC : Fusion Point Code

PHS Community Number (PCN): 1~1024

Calling Area Number: 1-32

Group Number: 1-8

CS/ZT Number: 1-32

KIND: V1/V2/V3 **Note 3**

TN: Tenant Number

LENS: CS Line Equipment Numbers

HSPD-HO: High-Speed Hand-over (No/Yes) **Note 4**

Note 3: When using High-Speed Hand-over function, select "KIND=V3."

Note 4: The parameter is displayed when "KIND=V3" is selected.

STEP 7: DSYRL (Display of System ID for Local Data Memory)

Note: Use this command after confirming that the Control CS is in operation mode either by the command COCS1L or by watching the lamp status on the CS.

2. Add Operating CS

- Installation of Additional CS

STEP 1: ACSDL (Assignment of CS/ZT Data for LDM)

This command is used to assign the CS 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 (PCN): 1~1024

Calling Area Number: 1-32

Group Number: 1-8

CS/ZT Number: 1-32

KIND: V1/V2/V3 **Note 5**

TN: Tenant Number

LENS: CS Line Equipment Numbers

HSPD-HO: High-Speed Hand-over (No/Yes) **Note 6**

Note 5: When using High-Speed Hand-over function, select "KIND=V3."

Note 6: The parameter is displayed when "KIND=V3" is selected.

3. CS Deletion Procedure**STEP 1: MBCSL (MAKE BUSY of CS for Local Data Memory)****STEP 2: ACSDL (Assignment of CS/ZT Data for LDM)**

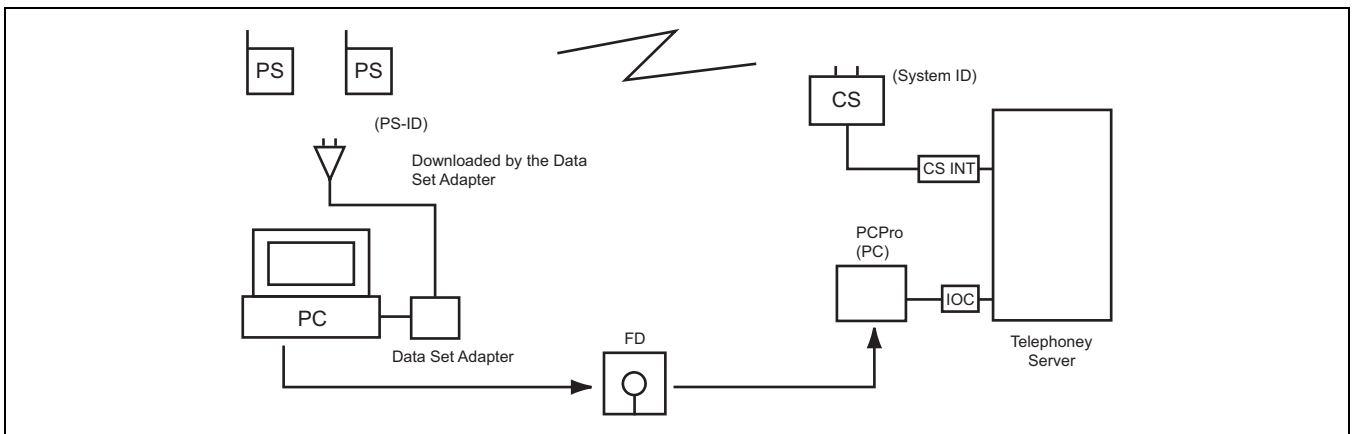
Delete the CS Data.

1.3 PS OFFICE DATA ASSIGNMENT

Below are explanations about how to assign office data by which the PS can be in operation in the Built-in PHS system.

The port is automatically occupied for each PS assignment from the biggest numbered port (MG=31, U=3, G=23, Level=7) to the smallest. When adding UNIT to the system later, you must be concerned with the number of assigned PS (for example, if 192 PSs are assigned, the biggest numbered UNIT cannot be used for the station assignment). Conversely, if a station data is assigned against the biggest numbered MG, PS cannot be assigned to your system.

1. PS Data Programming via the Data Set Adapter



Using the Data Set Adapter, the following data can be written onto each PS and the files made after finishing the above-said process are loaded to the floppy disk.

- System ID (SYS-ID): CS ID for controlling the whole PHS system, enabling both the CS and PS to correspond.
- Individual PS NO.: Maximum number of 5/16 digits used in the Home Office and this number is for convenience usually the same as the station number.
- Station NO.: Numbers when dialed to make a call. Maximum 5/16 digits are available and these numbers can be displayed on the LCD.
- Transceiver ID: Numbers used in dialing in the transceiver mode and these are usually identical to the station number.

The data is loaded to the FD, with file names attached. These files are such that they are compiled and different PS-IDs are allocated to different PSs indigenously. These files include the above-mentioned parameters.

Note: When using the Data Set Adapter, System ID is to be entered, so you have to know in advance the System-ID that each Control CS has. The System ID of the Control CS is written on the back of the CS.

Note: Station No. that is assigned to a PS by the Data Set Adapter is displayed on the LCD of the PS as Phone No. Therefore, if Station No. that is different from the TELN (Maximum 16 digits are available) assigned to the Telephony Server, no call can reach the PS by dialing the Phone No. displayed on the LCD.

2. Downloading of the Assigned Data

FD which has the PS data should conditionally be downloaded. By using the command INPDL, the FD data is downloaded to the Telephony Server from PCPro.

3. Initial Start-UP of the PS

4. Addition of the 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-SYS-ID(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 Number
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 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: INPDL/INPDN (Download of PS Data for LDM/NDM)
Download each PS data previously written into the FD onto the Telephony Server.
Enter the file name except for the extension.
Be sure to connect the printer to PCPro for printing out the list of downloaded data.

5. Deletion of the PS data

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 Number, Station Number, SFC and RSC.

2. BASIC OFFICE DATA ASSIGNMENT (FCCS)

This section covers the following procedures:

- System Data
- CS Office Data Assignment
- PS Office Data Assignment

2.1 SYSTEM DATA

The following data assignment is necessary for activating the PHS service.

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

STEP 1: ASYD

SYS1 Index 30: Mounting Capacity of Data Memory (Assign 06H.)
Index 420: b0: Access code using the Pre-Set dialing
0/1 = Out/In service (normal setting)

STEP 2: ASYDL

SYS1 Index 512: 01 ~ FD: FPC **Note 1**
Index 513: 01 LDM is used
Index 514: 01 NDM is used
Index 688: bits 1-3 = Designation of Control Channel Slot. (Fixed to No.1 slot.) **Note 2**
bit1 = 0
bit2 = 0
bit3 = 1

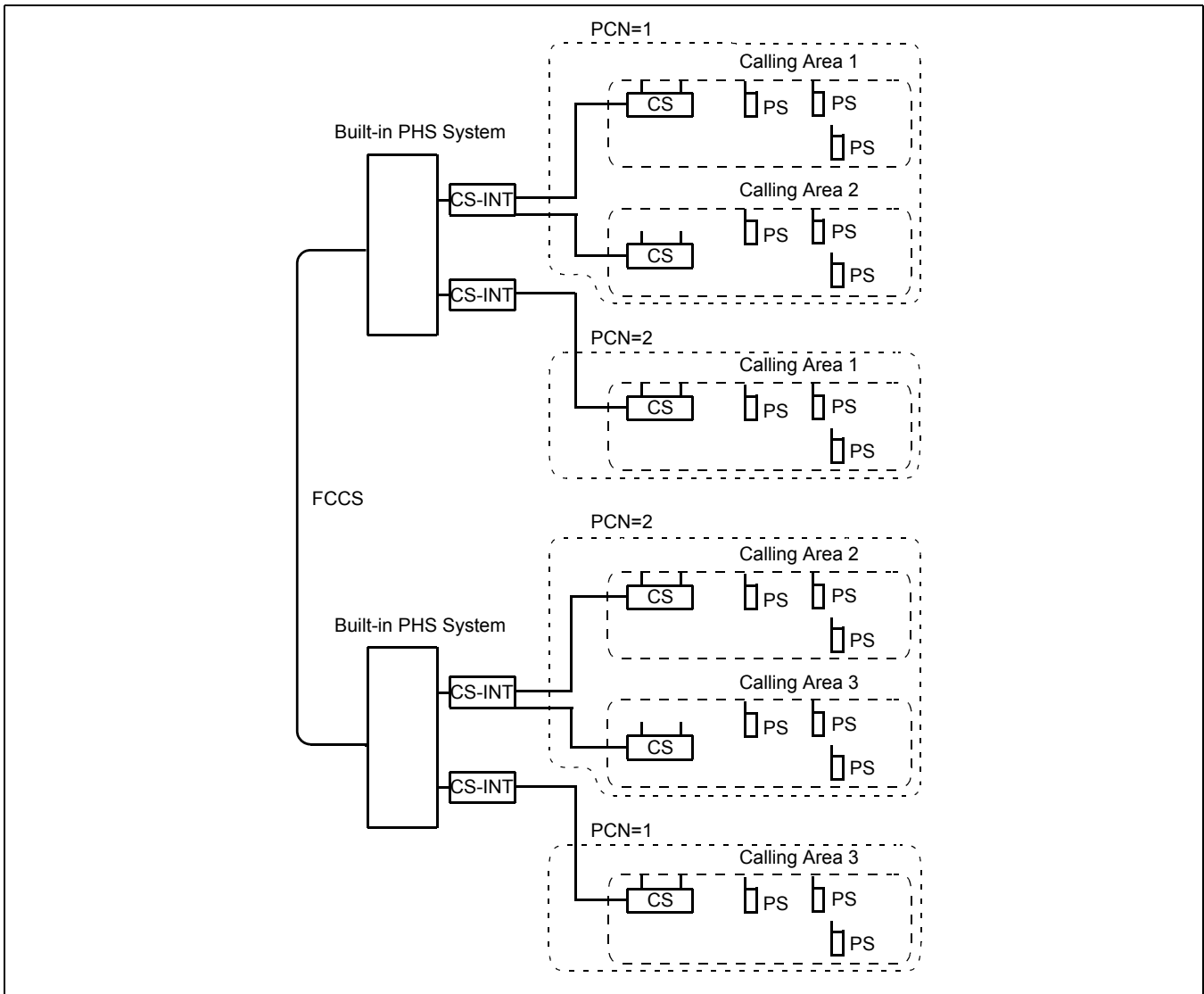
STEP 3: ASYDN

SYS1 Index 514: 01 = NDM in use
Index 800: b3: PCN for Tenant
0/1: a Tenant basis/Common

Note 1: Do not assign the FPC in a standalone configuration.

Note 2: Assign the data before assigning the CS Office Data.

2.2 CS OFFICE DATA ASSIGNMENT



- CSINT circuit card can accommodate a maximum number of eight CSs.
- Every CS has three speech channels in the form of 3B+D.

- Each CS is provided with PHS Community, Calling Area, Group and CS number, given a maximum capacity to have 32 areas while each area has eight groups. One group can house 32 CSs.

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 in no time just when the dedicated PS has moved to another location.

One area cannot exist in multiple node.

Group: Dividing into groups is not presently used.

- CS (Cell Station) can be categorized in terms of their function into Control CS and Operating CS, while the Control CSs have its system ID programmed. The system ID is allocated uniquely to the Control CS in an attempt to control the whole PHS system. The system ID travels over the radio to all other CSs through the Built-in PHS.

Note: PS is designed to exchange weak radio waves with the CSs, the system ID of which is the same as that of the PS itself downloaded before use. If the Control CS is replaced with another, PS doesn't function, resulting from the differing system ID between the PS and the new Control CS.

1. CS Initial Start-Up

STEP 1: ASYD (Assignment of System Data)

CCIS and ISDN simultaneously become valid when the CS operation is attempted to be in service, as the CS is regarded as an ISDN terminal.

SYS1

Index 186

b6=1 (CCIS is in service)

Index 220

b6=0 (ISDN is in service)

Note: Although ISDN/CCIS data becomes valid by these data, optional software related to ISDN/CCIS is not necessary when ISDN/CCIS features are not used.

Assign mounting capacity of Data Memory (DM)

SYS1

Index 30

Normally assigned as 06H (6M).

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

FUNC=1

FPC: Fusion Point Code

TN: Tenant Number

PHS Community Number (PCN) Entry **Note 1**

Note: If the NDM in the Local Node has yet to be copied after the last initialization, please broadcast it by the command CBCN.

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

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

PHS Community Number (PCN) : 1~1024

Network Number : Blank (Not used)

Additional Area Number : Blank (Not used)

Country Number : Unique number for each country

Number of PHS-Manager Code : 0 fixed

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

This command is used to assign the PCN, MCS ERN, MCS GRN, MCS CSN which are related to Control CS.

PHS Community Number (PCN) : 1~1024

MCS ERN : MCS Calling Area Number

MCS GRN : MCS Group Number

MCS CSN/ZTN : MCS Number

OP CSN/OP ZTN : 1 (fixed)

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

This command is used to assign the CS 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
PHS Community Number	: 1~1024
Calling Area Number	: 1-32
Group Number	: 1-8
CS/ZT Number	: 1-32
KIND	: V1/V2/V3 Note 2
TN	: Tenant Number
LENS	: CS Line Equipment Numbers
HSPD-HO	: High-Speed Hand-over (No/Yes) Note 3
DL	: Dual Line function (No/Yes) Note 3

Note 2: When using High-Speed Hand-over function, select "KIND=V3."

Note 3: The parameter is displayed when "KIND=V3" is selected.

STEP 6: DSYRN (Display of system ID for Network Data Memory.)

This command is used to display the SYS-ID information obtained from the control CS and write the information into the data memory.

Note: Use this command after confirming that the Control CS is in operation mode either by the command COCS1L or by watching the lamp status on the CS.

2. Procedure to Add Operating CS

STEP 1: Installation of Additional CS

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

This command is used to assign the CS 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
PHS Community Number	: 1~1024
Calling Area Number	: 1-32
Group Number	: 1-8
CS/ZT Number	: 1-32
KIND	: V1/V2/V3 Note 4
TN	: Tenant Number
LENS	: CS Line Equipment Numbers
HSPD-HO	: High-Speed Hand-over (No/Yes) Note 5

Note 4: When using High-Speed Hand-over function, select "KIND=V3."

Note 5: The parameter is displayed when "KIND=V3" is selected.

3. CS Deletion Procedure

STEP 1: MBCSN/MBCSL (MAKE BUSY CS for NDM/LDM)

STEP 2: AICSN/AICSL (Assignment of IPCS/IPZT Data for LDM/NDM)
Delete the CS Data.

STEP 3: ALIDL (Assignment of LAN Information Data for LDM)
Delete the office data of Internal PHE.

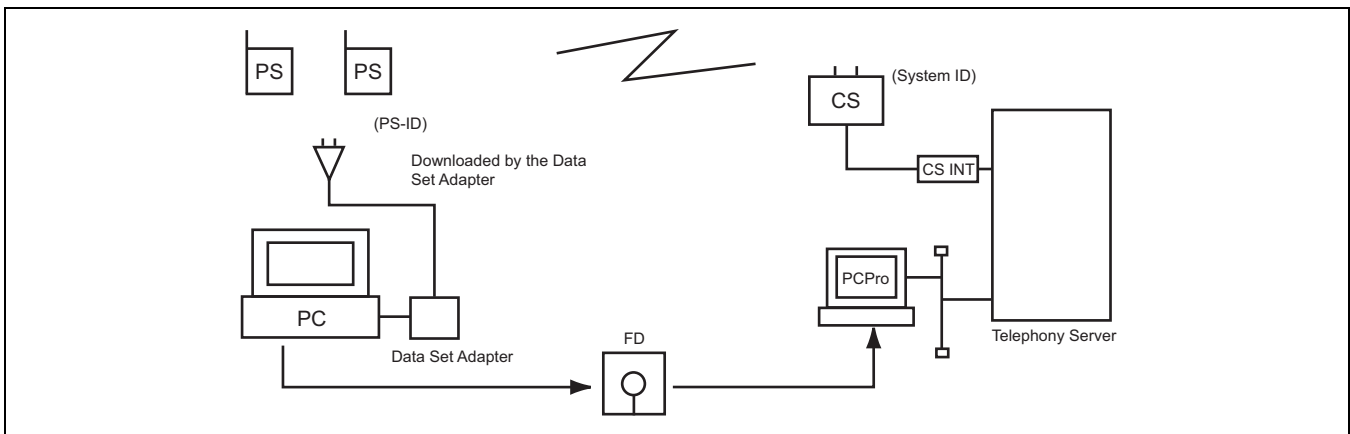
STEP 4: Remove the CS.

2.3 PS Office Data Assignment

Below are explanations about how to assign office data by which the PS can be in operation in the Built-in PHS system.

The port is automatically occupied for each PS assignment from the bigger numbered port (MG=31, U=3, G=23, Level=7) to the smaller. When adding UNIT to the system later, you must be concerned about the number of assigned PS (for example, if 192 PSs are assigned, the biggest numbered UNIT cannot be used for the station assignment). Conversely, if a station data is assigned against the biggest numbered MG, PS cannot be assigned to your system.

1. PS Data Programming via the Data Set Adapter



Using the Data Set Adapter, the following data can be written onto each PS and the files made after finishing the above-said process are loaded to the floppy disk.

- **System ID (SYS-ID):** CS ID for controlling the whole PHS system, enabling both the CS and PS to correspond.
- **Individual PS NO.:** Maximum number of 5/16 digits used in the Home Office and this number is for convenience usually the same as the station number.
- **Station NO.:** Numbers when dialed to make a call. Maximum 5/16 digits are available and these numbers can be displayed on the LCD.
- **Transceiver ID:** Numbers used in dialing in the transceiver mode and these are usually identical to the station number.

The data is loaded to the FD, with file names attached. These files are such that they are compiled and different PS-IDs are allocated to different PSs indigenously. These files include the above-mentioned parameters.

Note: When using the Data Set Adapter, System ID is to be entered, so you have to know in advance the System-ID that each Control CS has. The System ID of the Control CS is written on the back of the CS.

Note: Station No. that is assigned to a PS by the Data Set Adapter is displayed on the LCD of the PS as Phone No. Therefore, if Station No. that is different from the TELN (Maximum 16 digits are available) assigned to the Telephony Server, no call can reach the PS by dialing the Phone No. displayed on the LCD.

2. Downloading of the Assigned Data

FD which has the PS data should conditionally be downloaded. By using the command INPDN, the FD data is downloaded to the Telephony Server from PCPro.

3. Initial Start-UP of the PS

4. Addition of the 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 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 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 8: INPDN (Download of PS Data for NDM)

Download each PS data previously written into the FD onto the Telephony Server.
Enter the file name except for the extension.
Be sure to connect the printer to PCPro for printing out the list of downloaded data.

Note: If the NDM in the Local Node has yet to be copied after the last initialization, please broadcast it by the command CBCN.

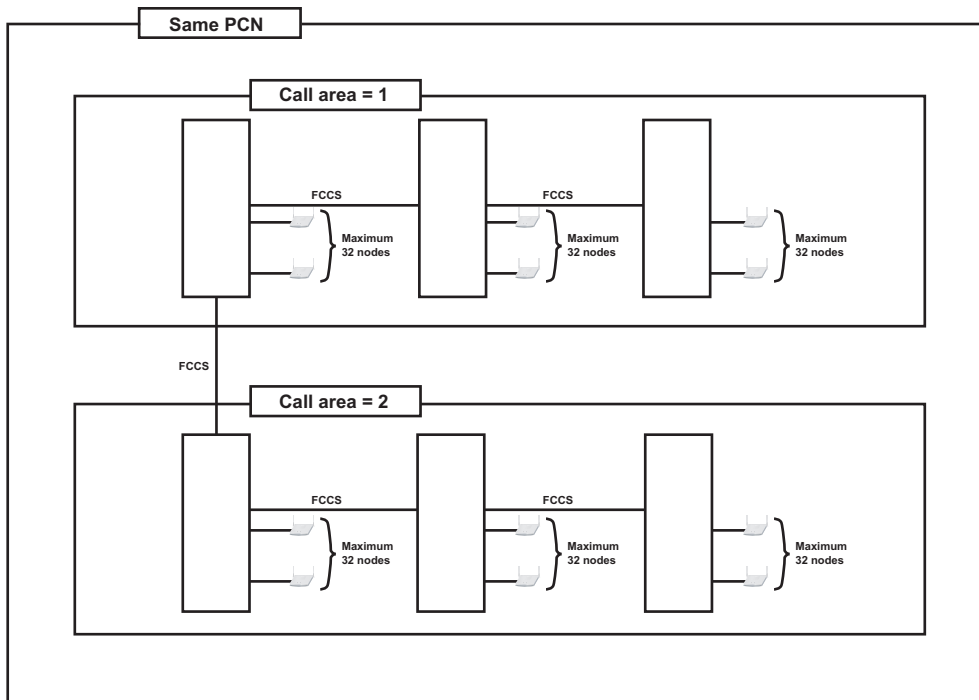
5. Deletion of the PS data

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 the NDM in the Local Node has yet to be copied after the last initialization, please broadcast it by the command CBCN.

6. PHS Called Area Expansion



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

- (1) The call area numbers assigned before this feature takes effect cannot be expanded using this feature. All CSs assigned in that call area number need to be deleted once and re-assigned to expand.
- (2) If the same call area number is used by the adjacent nodes, PS may become Out of Zone in some areas. Therefore, do not use the same call area number for the adjacent nodes.

CS data assignment/deletion procedure when call area is expanded is as same as the ordinary CS data assignment/deletion procedure. One call area number can be divided to multiple nodes by assigning the call number using the ACSDN command within the system of FCCS network. At this time, 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 CS assigned in that call area number must be deleted once and re-assigned.

To update the existing call area number:

- Operating parameter needs to be checked by COCS2N command.
- All CS within the corresponding call area number need to be deleted by ACSDN command.
- Re-assign all CS within the corresponding call area number by ACSDN command.
- Settings of operating parameter need to be done by COCS2N command.

3. HOW TO MOVE PS OFFICE DATA FROM STANDALONE SYSTEM TO FCCS SYSTEM

Here describes how to move the PS office data from Standalone system to FCCS system when changing the system, which make the PS available without writing the office data on it again. This procedure is described on the premises that the same CS number (PCN/ERN/GRN/CSN) and the same accommodating location as that of the former Standalone system are used.

(1) Preparation in Standalone system

Here describes how to make the preparation in the Standalone system before changing the system to FCCS system. Make sure that the related PS is stopped before starting the procedure.

- STEP 1: LCFS
List up the PS transfer data. (Only when required)
- STEP 2: APCNL
Read out and save the assigned data.
- STEP 3: APCEL
Read out and save the assigned data.
- STEP 4: ACSSL
Read out and save the assigned data.
- STEP 5: LLGSL
List up the PS logical number.
- STEP 6: LCSDL
List up the CS data.
- STEP 7: ALGSL
Delete the all of assigned PS logical number.
- STEP 8: ACSDL
Delete the all of assigned CS data.
- STEP 9: MEM_HDD
Save the Data Memory on Data Type Select.

(2) Office data assignment in FCCS system.

Add the basic office data of FCCS system into the office data of Standalone assigned in (1) by referring to Data Programming Manual - FCCS. Also, assign the deleted CS number and PS logical number by the NDM command.

- Assignment of CS

- STEP 1: APCNN
Assign the same data as that of APCNL command.

STEP 2: ACSEN

Assign the same data as that of ACSEL command.

STEP 3: ACSSN

Assign the same data as that of ACSSL command.

STEP 4: ACSDN

If CS has been used, assign all the related CS data by the NDM command by referring to CS Office Data Assignment in this manual.

STEP 5: DSYRN

Read out the data after making sure that the MASTER-CS that has been used in Standalone system has started up.

Note: Before using this command, make sure that the MASTER-CS is in operation by checking the status by the lamp of CS and the COCS1N command.

Note: If a failure occurred on the MASTER-CS, see “If MASTER-CSs Become Unavailable:” in this manual.

STEP 6: MEM_HDD

Save the Data Memory in Data Type Select.

Note: If other than the CS data has been assigned, save it when required.

- PS Registration

STEP 1: ALGSN

Assign the same PS logical number as that of Standalone system. Use the same combination of TELN and STN as that of Standalone system.

STEP 2: ACSF

Assign the listed up PS transfer data again. (Only when required.)

STEP 3: MEM_HDD

Save the Data Memory in Data Type Select.

4. ASSIGNMENT OF SERVICE FEATURE DATA

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

- ACD - Access
- Automatic Announcement - Called PS Out of Zone
- Automatic Announcement - Disconnected PS Out of Zone
- BS Program Download
- Call Forwarding PS Incoming Call Incomplete
- Call Park
- Call Park Group - PS
- Consultation Hold
- Group Call-Automatic Conference (20-party)
- Message Center Interface-PS
- MG-PRI Best-Suited Routing for PS
- Number Sharing
- PCS/PHS - MFC Signaling
- PHS Name Display
- PS Line Appearance on Dterm
- PS Location Information Display
- PS Location Information Display - PS/Dterm
- PS (L2) Group Call with Pilot Hunt Incoming Call
- PS Two Line Operation
- Soft Phone - PS
- Speed Calling - System - PS
- Split Call Forwarding - PS
- Wireless Analog Adjunct Connection

ACD - Access

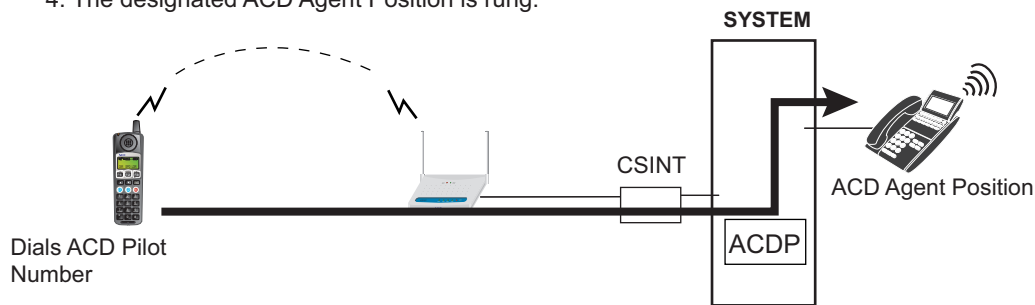
1 GENERAL DESCRIPTION

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

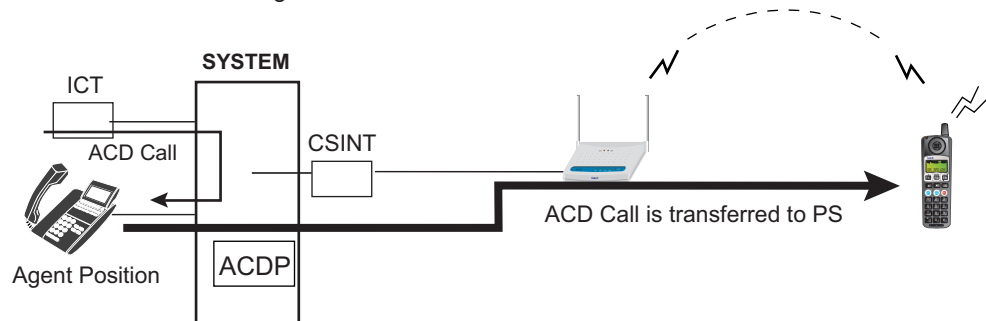
- This figure shows the call originated from the PS can be terminated to an ACD Agent Position (via ACD Pilot Number) by dialing the ACD Pilot Number.

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.



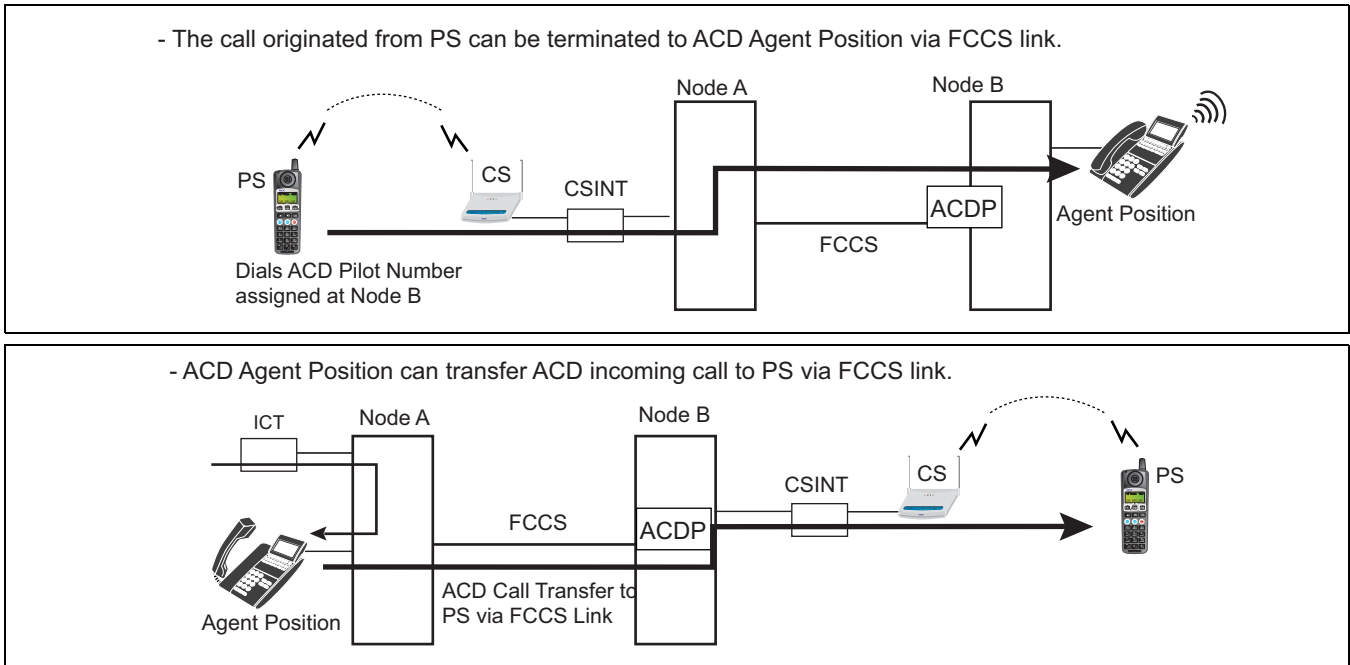
3 SERVICE CONDITIONS

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. This feature is not supported for the following. See the table below for more details.
 - PS in roaming status
 - Dual Line (L2)

Caller	Action	Result
From ACD agent Position	Transfer to roaming PS	Hears ROT after receiving no tone for few seconds.
	Transfer to PHS dual line (L2)	Manual transfer is available. <u>But note that ACD call distribution service does not operate as usual.</u>
		An error will result when transferring the call by CTI.
From Roaming PS or PHS dual line terminal (L2)	Dial the ACD Pilot Number	Hears ROT.
	Dial the non ACD line number.	The call is available. However CTI, MIS related features and ACD features cannot work. <Example> - Control of Work Mode for system line. - Monitor. - Monitor Me - ACD

5. This function is available 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.

8. ACD service of PS only supports services mentioned on this manual.

4 PROGRAMMING

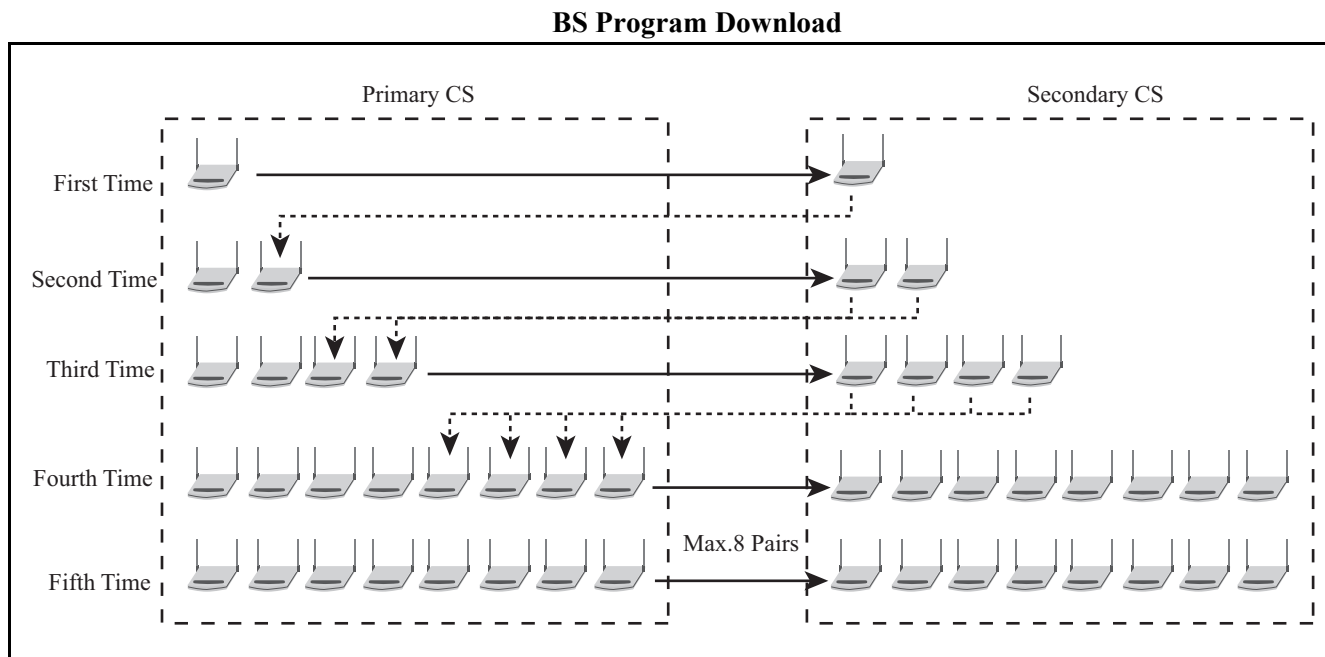
No manual operation is required.

BS Program Download

1 GENERAL DESCRIPTION

This feature allows a CS to change its program by downloading the new program from the other CS called “Primary CS.” At this time, the CS that downloads the new program is called “Secondary CS.”

This program download is activated on a one-to-one basis. In other words, only one Secondary CS can download the program from a primary CS at a time. To reduce operating time for downloading, the program download can be executed for a maximum of eight pairs of CSs (Primary CS and Secondary CS) at the same time.



2 OPERATING PROCEDURE

[CS Program Downloading]

1. Connect Primary CS to the System.
2. Insert the Service FD into the FD drive of PCPro.
3. Specify the following accommodating information of Primary CS and Secondary CS by CSDLL.

Updating on a PCN basis:
Place a check mark in “All (Specified PCN)” check box.
Master - PCN: PS Community Number, ERN: Calling Area Number, GRN: Group Number, CSN: CS Number
Target - PCN: PS Community Number of Secondary CS

Updating by specifying the range:
Place a check mark in “Specified Range” check box.
Master - PCN: PS Community Number, ERN: Calling Area Number, GRN: Group Number, CSN: CS Number

Start - PCN: PS Community Number, ERN: Calling Area Number, GRN: Group Number, CSN: CS Number *The first Secondary CS accommodating information is assigned to "Start."

End - PCN: PS Community Number, ERN: Calling Area Number, GRN: Group Number, CSN: CS Number *The last Secondary CS accommodating information is assigned to "End."

4. Press "Execute" button to start the CS Download Key FD (Service FD) data check. After the data check is completed normally, the dialog that indicates the estimated time required for downloading will be displayed. Press "Yes" button to start the downloading.
5. The System establishes Bch path connection between Primary CS and Secondary CS.
6. The program written in the Primary CS is downloaded to the Secondary CS.

Note: Do not remove or insert the FD from the drive while download is in progress.

[Changing the Program to earlier Version]

Specify the CS installing earlier version program as Primary CS by CSDLL, and then execute the program download. At this time, place a check mark in "Version-Down" check box on the command.

[Confirm the Program Version currently running on CS]

LCSVL - Read Type

Confirming on a PCN basis:

Place a check mark in "All (Specified PCN)" check box.

Enter the PS Community Number of target CSs in "PCN" text box.

Confirming by specifying the range:

Place a check mark in "Specified Range" check box.

Start - PCN: PS Community Number, ERN: Calling Area Number, GRN: Group Number, CSN: CS Number

*The smallest PSC, ERN, GRN and CSN within the range are assigned to "Start."

End - PCN: PS Community Number, ERN: Calling Area Number, GRN: Group Number, CSN: CS Number

*The largest PSC, ERN, GRN and CSN within the range are assigned to "End."

3 SERVICE CONDITIONS

1. This feature is available for the CS installing BS31A, BS41 or later.
2. Program download between BS31A and BS41 cannot be executed.
3. To activate this feature, Service FD (for "10", "20", "50", "100", "200", "500" or "500 or more" CSs) is required. **Note 1**

Note 1: Once an FD is used for updating to a particular version, the program version of Primary CS is written into the FD and it cannot be used for updating to the other versions (program changing to earlier version is available).

Once an FD is used for updating at a particular system, the SYSTEM-ID is written into the FD and it cannot be used at the other systems (program changing to earlier version at the other systems is available).

1. CS is placed into the make-busy state and cannot handle any PS call during the program download. If the program download is executed when a PS call is in progress, handover occurs.
2. The program download can be executed only for the CS in operation. It cannot be executed for the CS in other states (such as make-busy, L2-Line disconnection, etc.).
3. This feature is not available between CSs with different data transmission speeds.
4. Even if the program download ends in failure, retry operation is not executed.
5. The program downloading takes approximately five minutes (64 Kbps)/ten minutes (32 Kbps) per CS.
6. When Primary CS cannot activate this feature due to the communication error, etc. during the program download, the download is stopped even if it is in the process.
7. The program downloading is not available via FCCS.
8. Only CS whose CS kind is set to V3 (**Note 2**) can be read out of CS program version by LCSVL command and download CS program by CSDLL command.

Note 2: CS kind is assigned in the KIND box of ACSDL/ACSDN command.

4 PROGRAMMING

STEP 1: ACSDL/ACSDN (Assignment of CS/ZT Data for LDM/NDM)

This command is used to assign the CS related data including the PHS Community Number, Calling Area Number, Group Number, CS/ZT Number, LENS, KIND. For details other than the following data, refer to “This chapter explains the office data assignment for the system. Relating to the basic office data assignment for the Telephony Server and other programming for the service features, refer to the Data Programming Manual - Business. Sections 1 and 2 of this chapter provide guidelines for the system data and the programming of CS and PS office data as a basic data assignment, while Section 3 provides information regarding each service data assignment.” or “BASIC OFFICE DATA ASSIGNMENT (FCCS)” in this Chapter.

KIND: CS/ZT Kind = V3 (V3CS)

STEP 2: Insert Service FD into the FD drive of PCPro.

STEP 3: CSDLL (Assignment of CS Program Download)

Downloading on a PCN basis:

Master (Primary CS Accommodating Information)

PCN: PHS Community Number of Primary CS (1-1024)

ERN: Calling Area Number of Primary CS (1-32)

GRN: Group Number of Primary CS (1-8)

CSN: CS Number of Primary CS (1-32)

Target (Secondary CS Accommodating Information)

PCN: PHS Community Number of Secondary CS (1-1024)

Downloading by specifying the range:

Download Type: Place a check mark in “Specified Range” check box.

Master (Primary CS Accommodating Information)

PCN: PHS Community Number of Primary CS (1-1024)

ERN: Calling Area Number of Primary CS (1-32)

GRN: Group Number of Primary CS (1-8)

CSN: CS Number of Primary CS (1-32)

Start/End (Secondary CS Accommodating Information) **Note 1**

PCN: PHS Community Number of Secondary CS (1-1024)

ERN: Calling Area Number of Secondary CS (1-32)

GRN: Group Number of Secondary CS (1-8)

CSN: CS Number of Secondary CS (1-32)

Note 1: The first Secondary CS accommodation information is assigned to “Start” and the last Secondary CS accommodation information is assigned to “End.” Version Down: When checked, the downloaded CS can be restored to the original status.

Message Center Interface-PS

1 GENERAL DESCRIPTION

This feature enables a PS to receive a Message Waiting (MW) notification from Message Center (MC) via Message Center Interface [M-26] for business feature (see Data Programming Manual - Business). When a PS receives MW notification signal, the MW Icon is displayed on LCD of the PS, or the PS vibrates (no-tone mode).

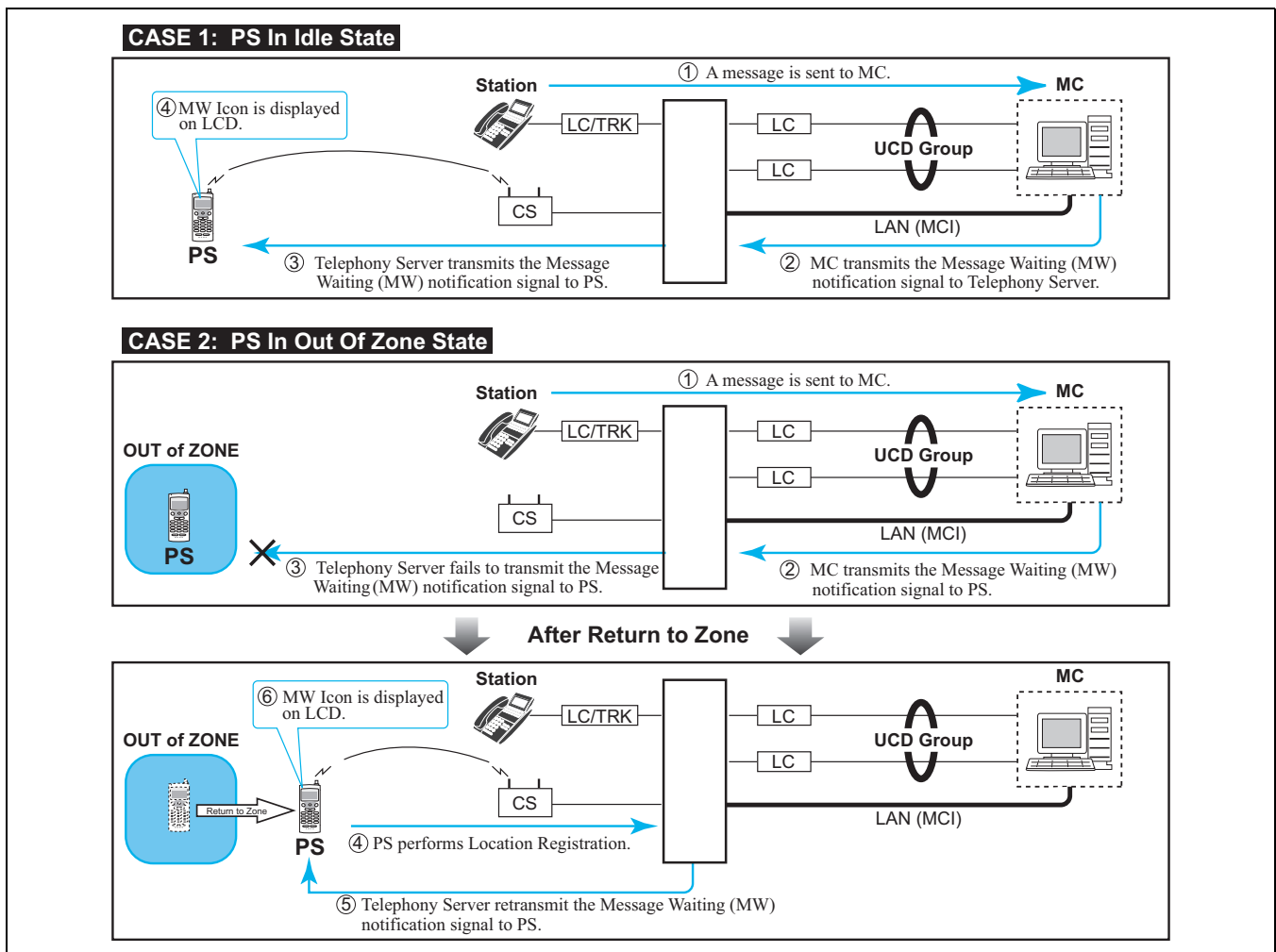
2 OPERATING PROCEDURE

No manual operation.

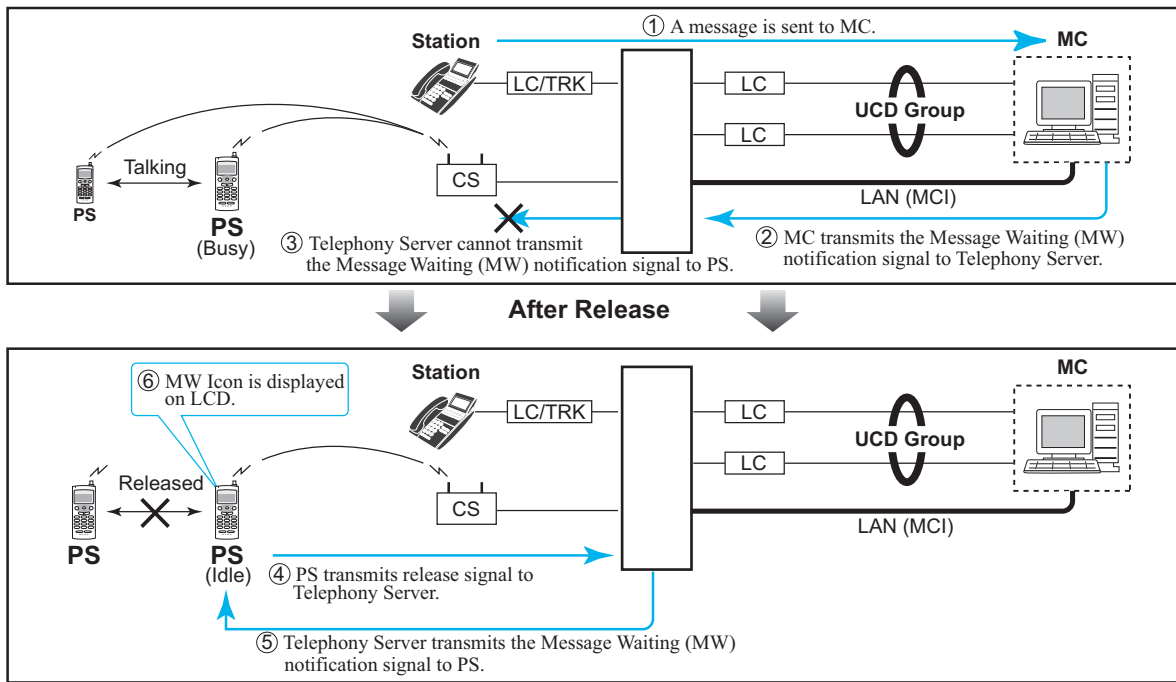
3 SERVICE CONDITIONS

This item describes conditions exclusive for PS only. For other service conditions, see Message Center Interface [M-26] in Data Programming Manual - Business.

1. In principle, when assigning PS/CS data, use the NDM commands (FPC=1).
2. This figure shows an example of this feature.



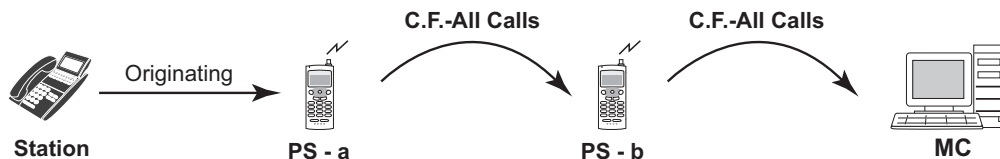
CASE 3: PS In Busy State



3. The MW notification signal is transmitted to a PS within about 240 seconds after a message is sent to MC. After that, when an acknowledge signal is not returned from the PS, the signal is retransmitted after 240 seconds. (Retransmission is only once.)
4. When a PS fails to get the notification signal even after the retransmission shown in Condition 3, the PS can receive the notification only by returning to the zone or completing the two-way connection.
5. At each interval of approximately 1 second, only one PS can receive a normal MW notification signal from the Telephony Server as shown in Condition 3. At this time, the Telephony Server can store a maximum of 240 signals at a moment, while the 241st or more signals from MCI would be transmitted to PS in a form of Condition 4.
6. When MW icon is displayed on LCD of PS, the MW notification signal is not transmitted to the PS again.
7. When a PS is busy, a MW notification signal is not transmitted to the PS. After releasing the call, the signal is transmitted.
8. When a caller is connected to MC by MULTIPLE CALL FORWARDING feature, the message is recorded on the memory of first intermediate station.

[Example: When MULTIPLE CALL FORWARDING-ALL CALLS [M-44] is used]

When the Station sends a message to MC, the message is recorded in mail box of PS-a.



9. A PS in a roaming state cannot receive a MW notification signal. The signal is retransmitted after performing location registration.

4 PROGRAMMING

This section describes data assignment procedure exclusive for PHS system only. To use this feature, data assignment of Message Center Interface [M-26] for business system must be pre programmed. For details, refer to Data Programming Manual - Business.

- Entry procedure (Standalone)

STEP 1: ASYD (Assignment of System Data)

SYS1 Index 28 b5 = 1 (Message Waiting Lamp Control by Message Center Interface is allowed.)

STEP 2: APSCL (Assignment of PS Service Change for LDM)

UGN: User Group Number

TELN: Telephone Number

ICON: ICON control 0/1:Out of service/In service (Assign only on ICON controllable PS)

ND: Name Display (0/1 = Out of Service/In Service)

NRS: Nurse Call Display

0 = Not Used

1 = Number

2 = Departure Number Information element use

3 = Display information element use

- Entry procedure (FCCS)

STEP 1: ASYD (Assignment of System Data)

SYS1 Index 28 b5 = 1 (Message Waiting Lamp Control by Message Center Interface is allowed.)

STEP 2: APSCN (Assignment of PS Service Change for NDM)

UGN: User Group Number

TELN: Telephone Number

ICON: ICON control 0/1:Out of service/In service (Assign only on ICON controllable PS)

ND: Name Display (0/1 = Out of Service/In Service)

NRS: Nurse Call Display

0 = Not Used

1 = Number

2 = Departure Number Information element use

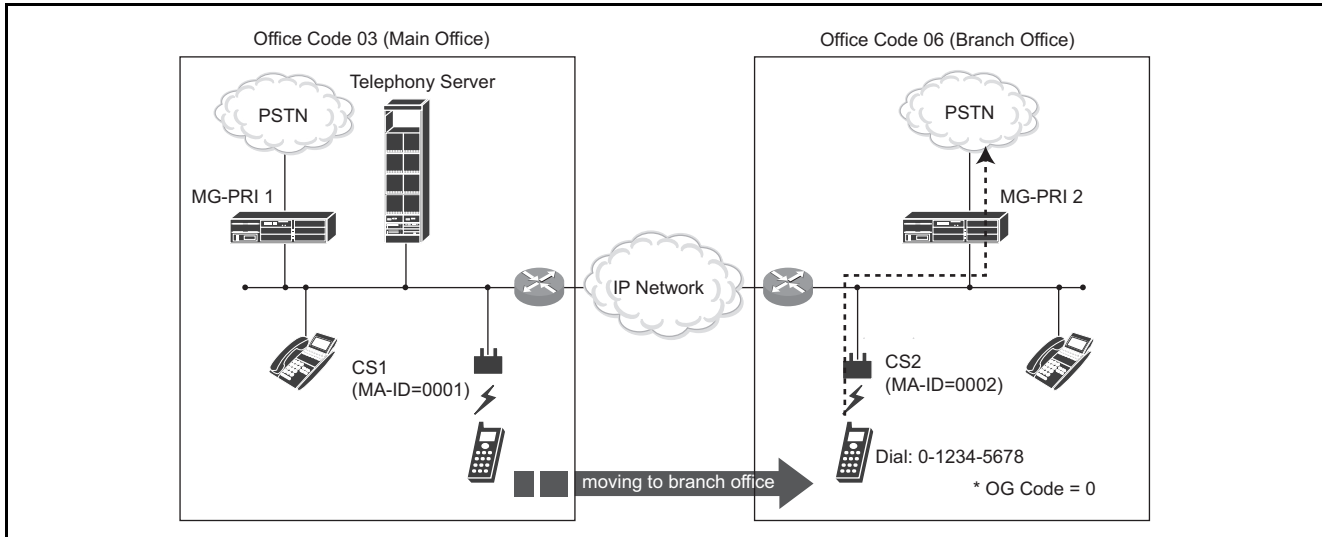
3 = Display information element use

MG-PRI Best-Suited Routing for PS

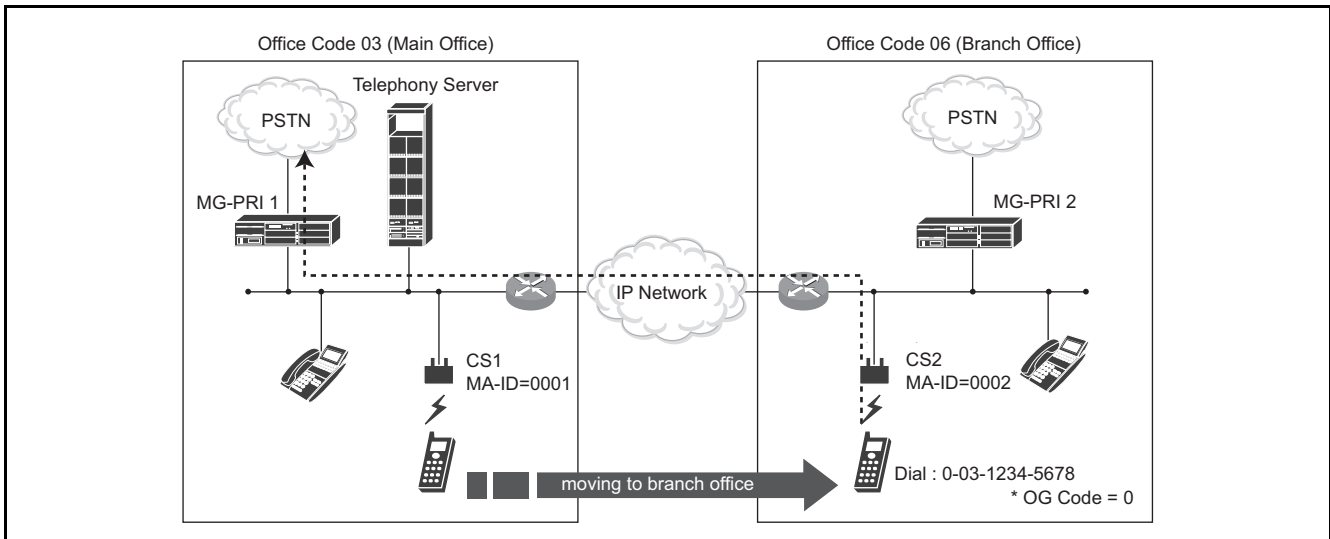
1 GENERAL DESCRIPTION

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 CS. 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 CS 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 CS.



2 OPERATION PROCEDURE

No manual operation required.

3 SERVICE CONDITIONS

1. MA-ID is assigned to CS 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 CS 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 = 0 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 CS 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 CS 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) and the Telephony Server Maintenance Menu.
7. When an outside call is made from PS setting Softphone - PS feature, MA-ID of CS 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 CS that is currently used by that PS is selected.
9. For other conditions for MG-PRI best-suited routing, refer to Peripheral Equipment Description (IP Devices).
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 CS 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 = 0 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 “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 when using this feature for PS:

- If MA-ID is not set by AMAA command to the Physical LENS for CS 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=0 routing is automatically applied to the intermediate PS.
- It is necessary to assign MA-ID=0 activate PHS Inter-Node Roaming.

STEP 1: AMAA (Assignment of Message Area ID Data)

Assign MA-ID to each CS.

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 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 Numbers

MA-ID: Message Area ID [0-9999]

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. DAT (Digital Announcement Trunk) 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. PS user encounters BT when the announcement trunk, when used as single connection (M=0 in the AAED command) and all the 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 ROT and a caller via the Attendant Console encounters BT.
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 Procedures 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 which 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_RES = 1 (Tandem Connection without an operator/station assistance is 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 (0/1)
0=30 seconds, and then disconnects
R: Sending RBT (0/1)
0=Send Ringback Tone
1=Do not send Ringback Tone **Note 1**
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 1: 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

Note: Not necessary in a standalone type.

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
RS: 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 2**
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 3**
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 4**

Note 2: 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 3: When Single connection is selected, assign Do not Send RBT.

Note 4: 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 Call 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 pre 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 CS with SYS-ID (Sub SYS-ID or Network ID for roaming) which has been written into the PS.
- Speech channels of all of the CSs 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 its 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: RBT 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. One 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.

A-129 Automatic Announcement - Called PS Out of Zone
C-155 Call Forwarding PS Incoming Call Incomplete

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 caller can hear the announcement if Automatic Announcement - Called PS Out of Zone is assigned.
6. When the Automatic Announcement - Called PS Out of Zone is activated but all the announcement trunks are busy (Single connection: AAED M=0), the calling party encounters BT.
7. The timer value of incoming incomplete call is approximately 8 seconds, time duration until the system 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 from/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 BT.
12. In the FCCS Network, every node must have one or more Announcement Trunks.
13. When incoming call comes from ISDN Network, and the timer (T310) of the Network side expires, the caller hears the Announcement from Network side.
14. When a call in two-way connection is forwarded to the PS which is out of zone, 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. The Automatic Announcement - Called PS Out of Zone cannot be provided to a call to a PS line accommodated on a programmable Line/Feature key of the Desktop terminal.
16. When a caller originates to a PS line accommodated on the programmable Line/Feature key of the Desktop terminal, in an out of zone state, the caller hears no-tone for 8 seconds, after that Call Forwarding-PS Incoming Call Incomplete is activated if the feature is set. (However, the Desktop terminal user can answer the call by pressing the programmable Line/Feature key, to which the PS line is assigned, before the Call Forwarding-PS Incoming Call Incomplete is activated.)
17. 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.)
18. When an incoming call with Direct Inward Dialing (DID) [D-8] or Remote Access to System [R-2] is forwarded by this feature, if the destination is out of zone or in a lockout state, the caller hears BT.

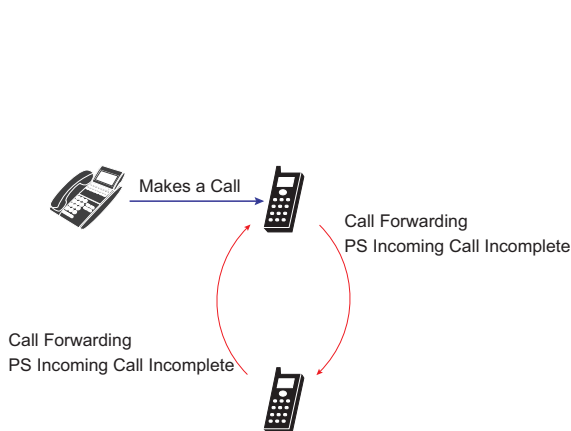
**A-129 Automatic Announcement - Called PS Out of Zone
C-155 Call Forwarding PS Incoming Call Incomplete**

19. When an incoming call with Direct-In Termination (DIT) [D-7] is forwarded by this feature, if the destination is out of zone or in a lockout state, the caller hears RBT.
20. This feature supports WLAN Handset (MH Series) for SIP terminal.
21. Select “Do not send Ringback Tone” (AAED R=1) when “Single connection” (AAED M=0) is selected.
22. Setting PS Incoming Incomplete with an Access Code or the ACFS/ACFS_T command overrides the setting specified with the ACFON command.
23. A station number including self office code cannot be assigned as the destination number of PS. (It can be assigned but not be forwarded to.)
24. 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.

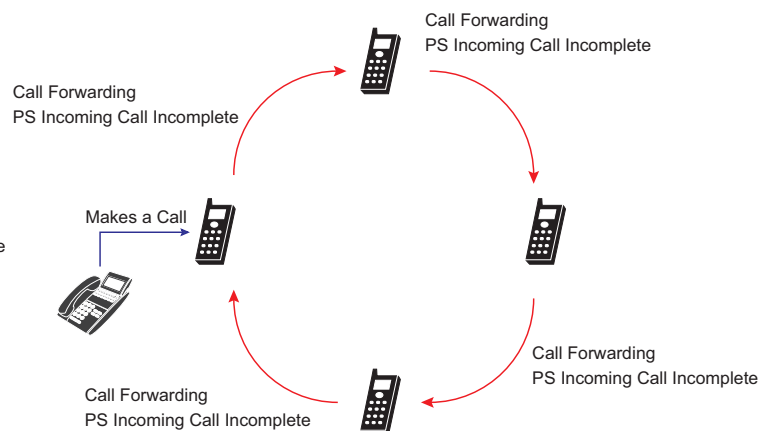
See the examples below, where all the destination PS on a loop topology are out of zone (or turned OFF). If a call comes to one of these PS, each base station in the same zone sends incoming call notifications to the forwarding destination in an endless loop.

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 cancelled with the PS by pressing 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 a 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 1**

Note 1: Central Office lines, TIE lines and Attendant Consoles with an ASAT Number cannot be specified for a forwarding 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 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 which 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_RES = 1(Tandem Connection without an operator/station assistance is 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 1**

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 1: 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

**A-129 Automatic Announcement - Called PS Out of Zone
C-155 Call Forwarding PS Incoming Call Incomplete**

- 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.
- 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)
Assign the route restriction information according to the Route Restriction Class (RSC) of the station
When assigning EQP, select from the below:
• EQP=60 for PS terminal
• EQP=65 for WLAN terminal
Equipment Kind: DAT/Announcement Machine **Note 2**
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

A-129 Automatic Announcement - Called PS Out of Zone
C-155 Call Forwarding PS Incoming Call Incomplete

Do not Send RB: Select the box if Ringback Tone is not to be sent **Note 3**

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 4

Note 2: 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 3: When Single connection is selected, assign Do not Send RBT.

Note 4: This parameter appears when Multiple is selected for Multiple Connection.

4.2. Call Forwarding - PS Incoming Incomplete

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

STEP 1: ASYD (Assignment for System Data)

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

SYS1, Index 5, bit0

0=Separate

1=Same

STEP 2: ANPD (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 (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)

Note: When the user sets Call Forwarding - PS Incoming Incomplete to a PS line accommodated on Desktop terminal, allow SFI147 of the Desktop terminal (RES=1).

- 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)

* 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 Procedures 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)

C-156 Consultation Hold

1 GENERAL DESCRIPTION

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

2 OPERATING PROCEDURE

To place a call on hold:

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

3 SERVICE CONDITIONS

1. When the PS user presses the ON-HOOK key while holding the call without dialing any key, the held party receives Reorder Tone and the connection is released. If the PS user has dialed one or more keys before pressing the ON-HOOK 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, b0 and b1.

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-29 Call Park**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, and 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, automatic recall function informs the user.

2 OPERATION PROCEDURE

To park a call from PS:

1. Go hooking (press TRF key).
2. Receive a Special Dial Tone.
3. Dial the Call Park a 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.
- En bloc 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.
- En bloc sending procedure

When access code operation that uses enbloc sending is invalid. (SYS1 Index 420 bit0=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 access code operation that uses unblock sending is valid. (SYS1 Index 420 bit0=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 the same time.
4. A PS cannot park Attendant Console.
5. When Call Park key of Attendant Console key pattern (SYS1 Index 6 bit4~bit6) 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 which is assigned by “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 the squelch disconnection, Call Forwarding-Dropped Calls is not available even though it is set.
9. If a PS which is recalled by Automatic Recall Timer is out of zone, the parked PS user receives Reorder Tone (ROT).
10. If a parked PS moves on out of zone, the PS is disconnected.
11. As regards condition of “TTC Q.931 a protocol Tie Line with PHS roaming”, as 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 station/PS that belongs to the same intra-office, the visitor PS cannot be parked.

Note: When a PS which parked a terminal moves to visitor office, and then the PS is recalled by Automatic Recall Timer, the terminal receives ROT.

12. When user programs this feature, use Telephone Number.

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 bit0-6

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

*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.

SYS Index 142 bit0-6

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

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

SYS1 Index 6 bit4-6

Assignment of key pattern of the Attendant Console. This service is required, only when Attendant Console uses this feature. (default: bit4-6=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=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.

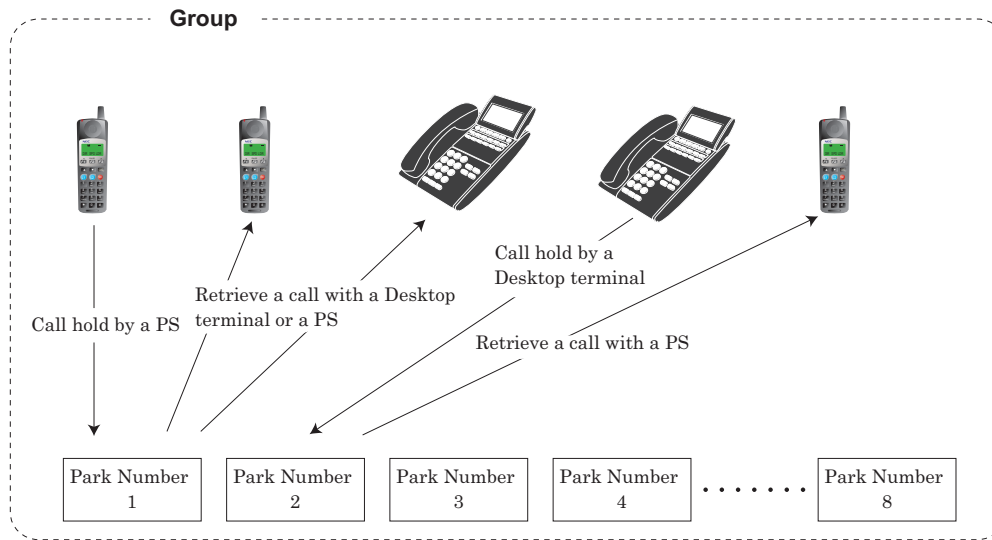
C-175 Call Park Group - PS

1 GENERAL DESCRIPTION

This feature enables a PS user to hold/retrieve a call park 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 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, System Data 1, Index 679, Bit 4):
 - ASYDL/ASYDN, System Data 1, 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.

- ASYDL/ASYDN, System Data 1, 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 different nodes cannot belong to the same group.

When enabling/disabling ASYDL/ASYDN, System Data 1, Index 679, Bit 4 data setting, delete all data assigned through the APGS, APGN and ADGN commands in advance.

5. When ASYDL/ASYDN, System Data 1, 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 in 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 number as the call park hold buttons assigned. It is always 8 for PS.
10. When Desktop terminal 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.
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 ATTCN)
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 when person to be held is using ISDN terminal.
17. Call Park hold is also available when 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 when 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 **Note 1**

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

Note 1: When ASYDL, System Data 1, 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 0/1: 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 × 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 2**

Note 2: 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:

SYS 1, 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 Data for LDM)

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 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)
[When Desktop terminal and PS are to coexist]
Assign the below setting only when Desktop terminal and PS are to coexist.
- 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 (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

G-23 Group Call-Automatic Conference (20-party)

1 GENERAL DESCRIPTION

This feature enables a PS user to call a maximum of “20-Party (self + other 19 members)” conference, by only dialing a pre-programmed Group Calling Conference Number. If the Group Calling Conference Number is once dialed, the member stations/PSs are automatically called in assigned order at the interval determined by switch settings on CFT cards (PA-CFTW/CH-CFTA/PA-CFTV). This feature also allows the Station Hunting Group-Circular, and the use of Phantom Telephone Number(s) which is available for flexible arrangement of conference member tables.

2 OPERATING PROCEDURE

1. Dial the Group Calling Conference Number (Telephone Number/Phantom Telephone Number of conference leader port)
2. The conference leader hears the RBT.
3. When the first party (conferee) answers, the RBT 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 CONDITIONS

1. CFT card is required for using this service. Specifications and conditions for each CFT card firmware are shown as 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.

G-23 Group Call-Automatic Conference (20-party)

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:

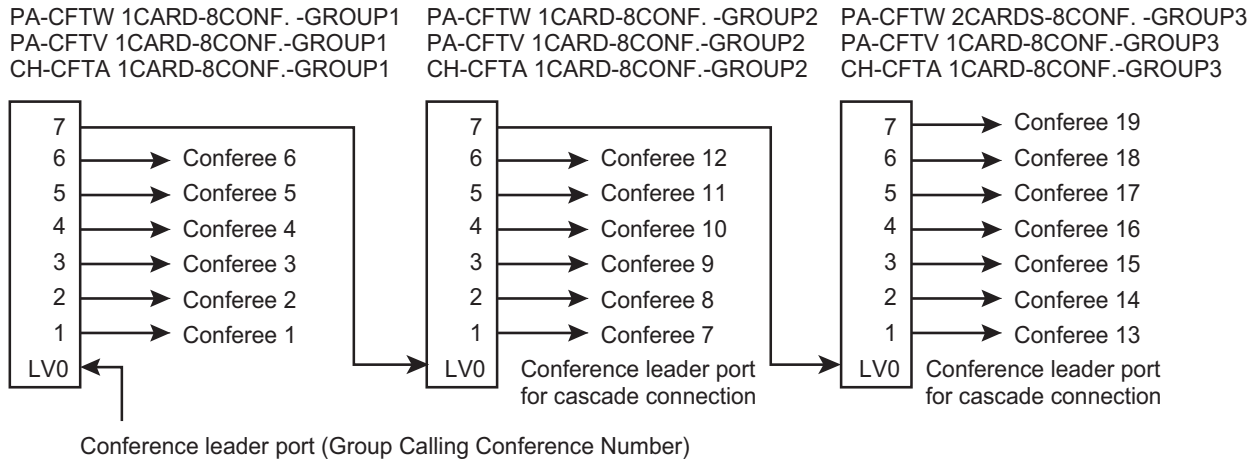
SW80-4	SW80-5	SW80-6	Conference Type
ON	OFF	OFF	Preset

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.)		

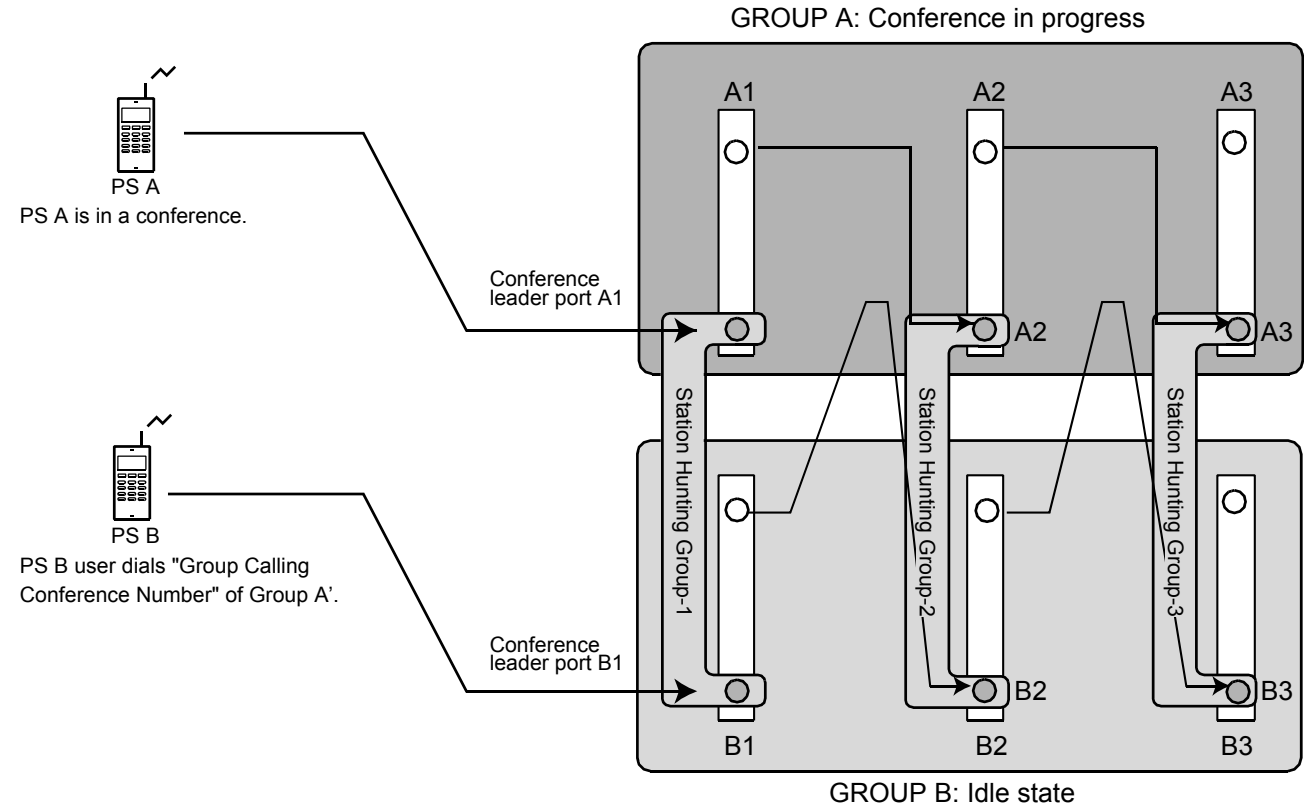
5. The maximum number of CFTA/CFTV 8-party per one conference group is three. When the number of conferees is 9 or more connect the groups with the cascade, data for the conferees must be register one after another avoiding duplications. A conference leader port and 19 conferee ports are allocated as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

G-23 Group Call-Automatic Conference (20-party)



- 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 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 below shows an example of this feature 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 Phantom Telephone Number to Telephone Number, the maximum number of conference group 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 LC used for LC-COT connection.
11. If 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 6**

Note 6: Group Call-Automatic Conference calls cannot be connected to a number outside of the Local Node.

14. When a conferee who answers a conference call goes on-hook before a conferee who is lastly called in the group is called a conference, and other conferees are busy, out of zone or do not answer the call, a conference leader receives no tone.

15. ISDN terminal and Attendant Console are not available in this feature.

16. The conference cannot be held by calling the conference leader port using Blind Transfer.

17. Call Back service cannot be set to conference leader port.

18. If programming the ASDT command data (TEC=14: Hot Line) to CFT circuit card, the user must also assign ALGSL/ALGSN command and AHLGL/AHLGN command to the card, otherwise when user dials this feature access code, an Attendant Console is called by Hot Line function.

19. This feature uses unique Service Feature Restriction Class (SFC) and Route Restriction Class (RSC) that are different from those of other stations. Assign specific SFC and RSC to each port of CFT cards.

Note: Since this feature does not support outgoing connection, all outgoing routes must be restricted with the ARSC/ARSCN command.

20. When a conferee is a UCD group number.

The conferee is not called a conference if ASYD, SYS2, Index 6, bit0=1 (Message Center Interface service when terminating to a UCD Group is in service).

21. 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 b6=0 (Line Circuit Reverse Relay Control when Reorder Tone is connected to a station.)

Note 1

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

Note 1: When using CFT 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 2**

Note 2: 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 3**

SFC : Service Feature Restriction Class **Note 3**

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

TN : Tenant Number

STN : Station number

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

TEC : 14 (Hot Line)

RSC : Route Restriction Class **Note 3**

SFC : Service Feature Restriction Class **Note 3**

Note 3: Assign RSC and SFC exclusive for CFTW/CFTV/CFTA.

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 4**

Note: Do not allow the other service restriction data.

Note 4: When using CFTW card, CFTA card 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 5, Note 6**

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:

DIAL NUMBER (Not used)

Note 5: 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.

Note 6: It is required to assign a Service Feature Restriction Class that allows SFI 8 (Call Forwarding-Don't Answer) to the called party (conferee).

- 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 firmware 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 plural set 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)

Note: FCCS stands for Fusion Call Control Signaling.

STEP 1: ASYD (Assignment of System Data)

SYS 1 Index 20 b6=0(Line Circuit Reverse Relay Control when Reorder Tone is connected to a station/trunk.) **Note 7**

SYS 1 Index 139(No Answer Timer for Station to Station, DID and Tie Line calls.)

Note 7: When using CFTW card, CFTA 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 8**

Note 8: 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 9**
SFC : Service Feature Restriction Class **Note 9**
- 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 9**
SFC : Service Feature Restriction Class **Note 9**

Note 9: Assign RSC and SFC exclusive for CFTW/CFTV/CFTA.

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 10**

Note: Do not allow the other service restriction data.

Note 10: 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 11, Note 12**

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 11: 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.

Note 12: It is required to assign a Service Feature Restriction Class that allows SFI 8 (Call Forwarding-Don't Answer) to the called party (conferee).

- 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 CFTW 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 plural set 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.

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 to 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 cancelled. 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 the 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 the sub-station.
6. Receive Service Set Tone (SST).
7. Replace the handset. This feature is cancelled.

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 cancelled.

3 SERVICE CONDITIONS

1. Telephone Number must be assigned to both main and sub-stations.
2. The PS cannot be assigned as main station.
3. Any combination of main station and sub-station is available in an FCCS network.
4. The access code for an outgoing call cannot be assigned as a sub-station number.
5. Dialing the access code for this feature is available only for main stations and sub-stations. Any other station or trunk cannot set this feature.
6. The main station user can set this feature using any line on the main station. In other words, even if the main station user sets this feature using a Sub Line, this feature is set to My Line.
7. The Feature Key for “Transfer to Sub-Station” is available only when the main station is in idle state.
8. When this feature is set while a call is terminating to main station, the call is not transferred to a sub-station. In this case, this feature is available from the next call.
9. 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.

10. Message Waiting Lamp control by MESSAGE REMINDER or CMWL command is applied only to the called/designated station.
11. Even if this feature is set, recall to main station is not forwarded to a sub-station.
12. 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 a 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.
13. When a call is originated from a sub-station to OAI or MFC, the sub-station number is sent.
14. MEM_HDD command/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 a 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 a main station.
3. Off-Hook Line Number Display feature of the PS is independent of this feature.
4. MW indication for PS is available for My Line of the Desktop terminal-PS2 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: ASYD (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: ANSDN/ANS DL (Number Sharing Data)

M-UGN: Main User Group Number

S-UGN: Sub User Group Number

M-TELN: Main Telephone Number (Max. 16 digits)

S-TELN: Sub Telephone Number (Max. 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.

MW: Message Waiting Control **Note 2**

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)

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 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.

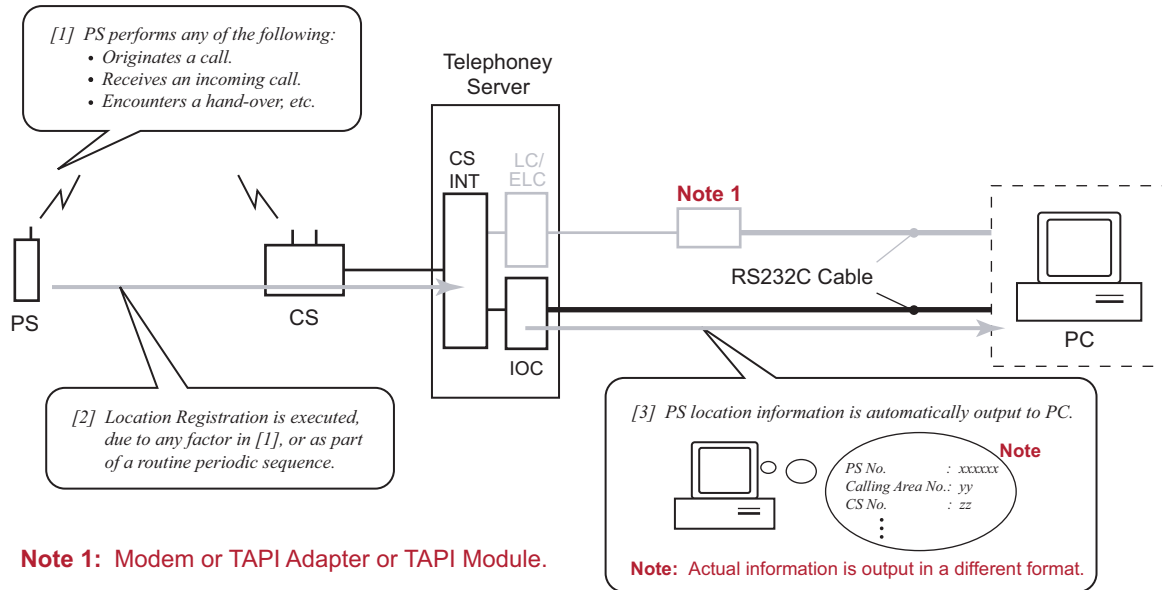
FKY = 126 (Transfer to Sub Station)

P-67 PS Location Information Display

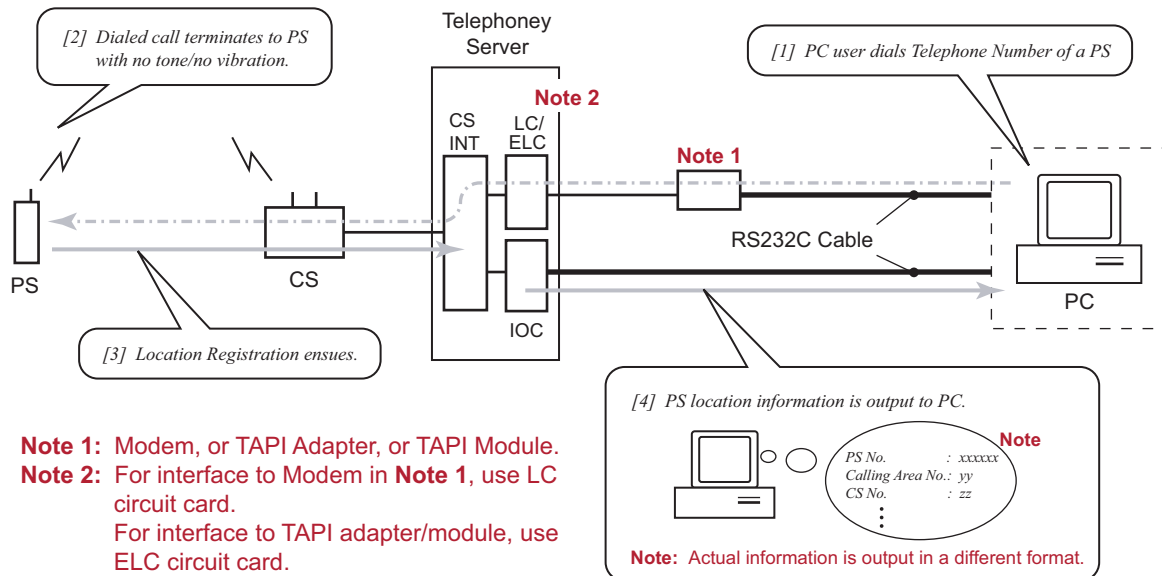
1 GENERAL DESCRIPTION

This feature enables each PS location information (PSN, Calling Area Number, Group Number, CS Number, etc.) to be output to a PC (external equipment) connected to IOC circuit card of the Telephony Server via RS232C cable. As shown below, the location information can be output with no operation by the user, but can be output intentionally by placing a no-tone, no-vibration call from the PC. At this time, the PC must be provided with another RS232C cable to LC/ELC circuit card via Modem or TAPI adapter/module.

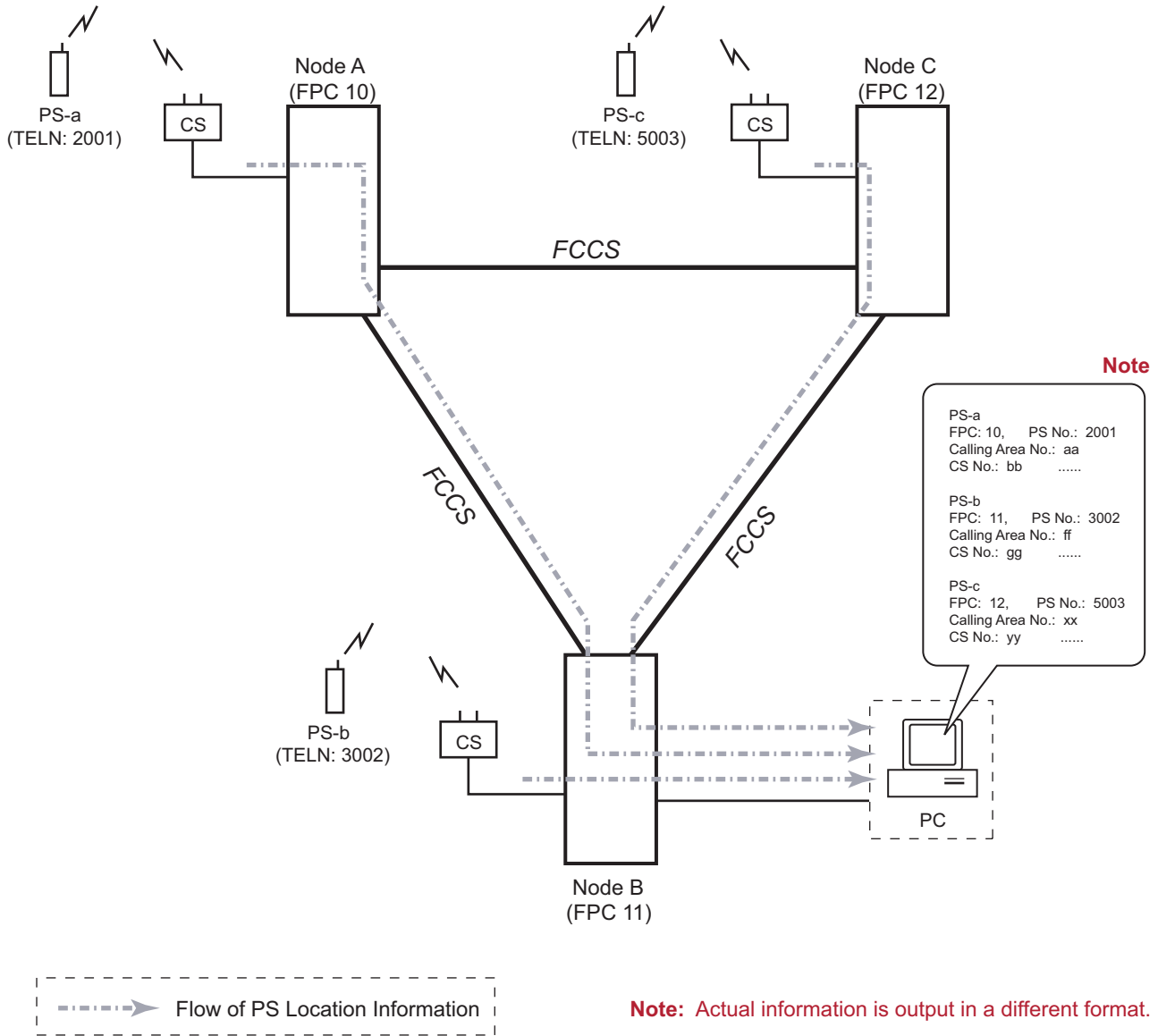
< Automatic Output of PS Location Information to PC (with no manual operation by user) >



< To Output a designated PS's Location Information to PC (by intentionally placing a no-tone/no-vibration call to a specific PS) >



When your system achieves a FCCS with other node(s), the PC (location information output terminal) can be placed in any node (only in a single node, or even in plural nodes) on the network. The figure below shows an example where a PC is located in Node B of the following network



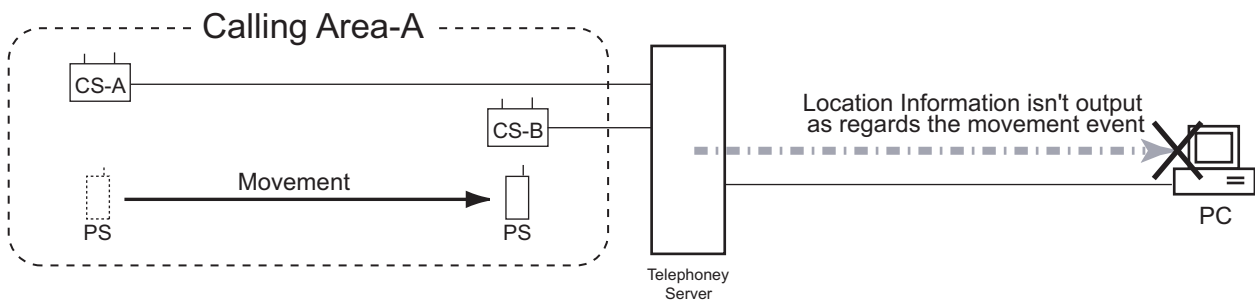
2 OPERATING PROCEDURE

See the figures in GENERAL DESCRIPTION of this service feature.

3 SERVICE CONDITIONS

1. On a FCCS, the PC (PS location information output terminal) can be placed in any node on the network (either in a specific node or in multiple/all nodes). At this time, allowed PC is only one per node.
2. The above condition (connection of PC: one per node) is also the case for the Stand-Alone configuration.

3. When any of the following occurs, the location information of the related PS is automatically output to the PC via RS232C cable connected to the IOC circuit card of the Telephony Server:
 - A PS originates a call.
 - A PS receives an incoming call.
 - A PS encounters a hand-over.
 - A PS, without any events above, performs its location registration in a periodic routine.
4. When the distance between the PC and IOC circuit card of the Telephony Server exceeds 15 meters, connect them with Modem(s).
5. This feature (PS Location Information Display) is provided basically in an automatic way as shown in Condition 3 above. However, if the on-the-spot information, regarding a specific PS, is required, a no-tone/no-vibration call to the PS is available. At this time, the PC must have another RS232C connection with the LC/ELC circuit card of the Telephony Server, interfaced by a Modem (for LC) or TAPI adapter/module (for ELC).
6. The location information, created during a down of the PC or a cable between the PC and Telephony Server, is safely transmitted later, when the abnormal state is restored.
7. The Telephony Server can store a maximum of 255 blocks of different PS location information. When new information is further to be stored (exceeding this maximum number), the oldest is in turn replaced by the new.
8. This feature is not provided when the related PS is powered OFF or moves out of the zone.
9. When multiple CSs exist in the same Calling Area and a PS moves under other CS umbrella (occurrence of movement: see the figure below), the location information (for this event) is not output to the PC.

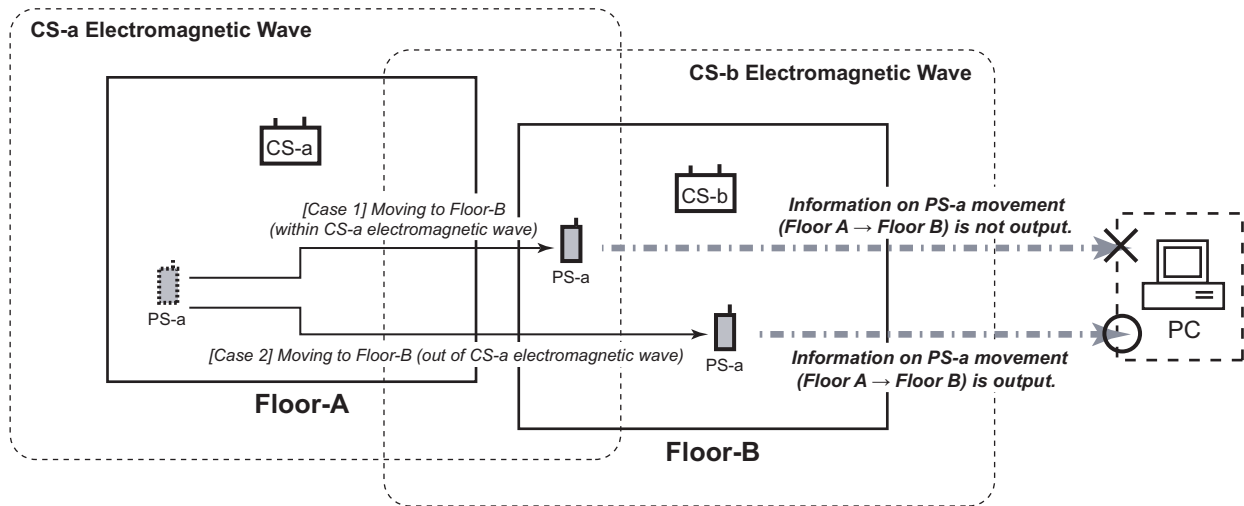


10. Details on each Location Information text, to be transmitted to the PC, are shown in [<Details on Message Text Format>](#) on page 106.

11. The accounts of ADD-ID (Additional ID; consist of Calling Area No. [2 digits] + Group No. [1 digit] + CS No. [2 digits]), to be contained on the PS Location Information text, may not be accurate, due to the possible following factors:

...When a PS originates/receives a call or encounters a hand-over,

- Electromagnetic waves between CS and PS are in a poor condition.
 - B-channels of the CS, to which the PS has registered its location, are all busy.
 - PS encounters a movement to the different CS in the same Calling Area (refer to Condition 9 above).
12. The Location Information may not be output correctly, depending on the factors, such as the installed locations of CSs or the intensity of the related electromagnetic wave. For example, as shown in the figure below, if PS-a in Floor A moves to Floor B, the location movement event cannot be identified, unless the PS completely goes out of the influence zone of CS-a electromagnetic wave.



13. The related information may not be output, when call origination/termination or hand-over events occur simultaneously by plural PSs.
14. Once the FCCS link has a down between a node ("distant node") and the node with the output PC ("PC-connected node"), the "distant node" PS information, during the period from the link down start to end, is not output, even after the link recovery.
15. When using the no-tone/no-vibration call, consider the following:
 - a. Depending on the PS specifications, this feature (no-tone/no-vibration call) may not be provided.
 - b. After making a no-tone/no-vibration call, be sure to use the PC terminal also for the call disconnection. (The call is not released automatically on the Telephony Server side.)

P-67 PS Location Information Display

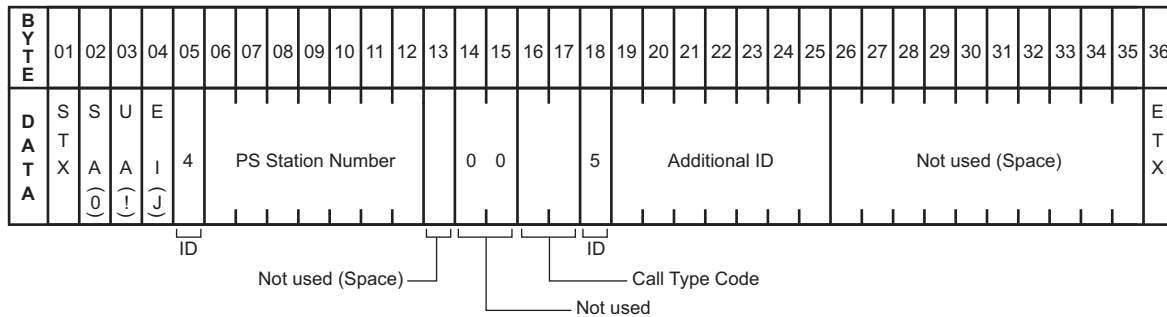
- c. It may take a maximum of 8 seconds for the originated call (no-tone/no-vibration call) to be connected to the target PS. Therefore, once a call has been made, please wait at least for 8 seconds before disconnection.
- d. The table below shows the relations between the states of PS and Telephony Server, when a no-tone/no-vibration call is made:

PS Status	Telephony Server-side Response	PS Location Information
Idle	Ringback Tone (to be sent 2~3 sec.)	Provided
Busy	Busy Tone (to be sent immediately)	Provided
Called	Busy Tone (to be sent immediately)	Provided
Out of Zone	No Tone (8 sec.) → Busy Tone/Announcement	Not Provided
CS in Busy State	No Tone (8 sec.) → Busy Tone/Announcement	Not Provided

<Details on Message Text Format>

Details on PS Location Information text, to be sent to the PC from the Telephony Server, are shown below:

- Telephony Server → PC Standard Format

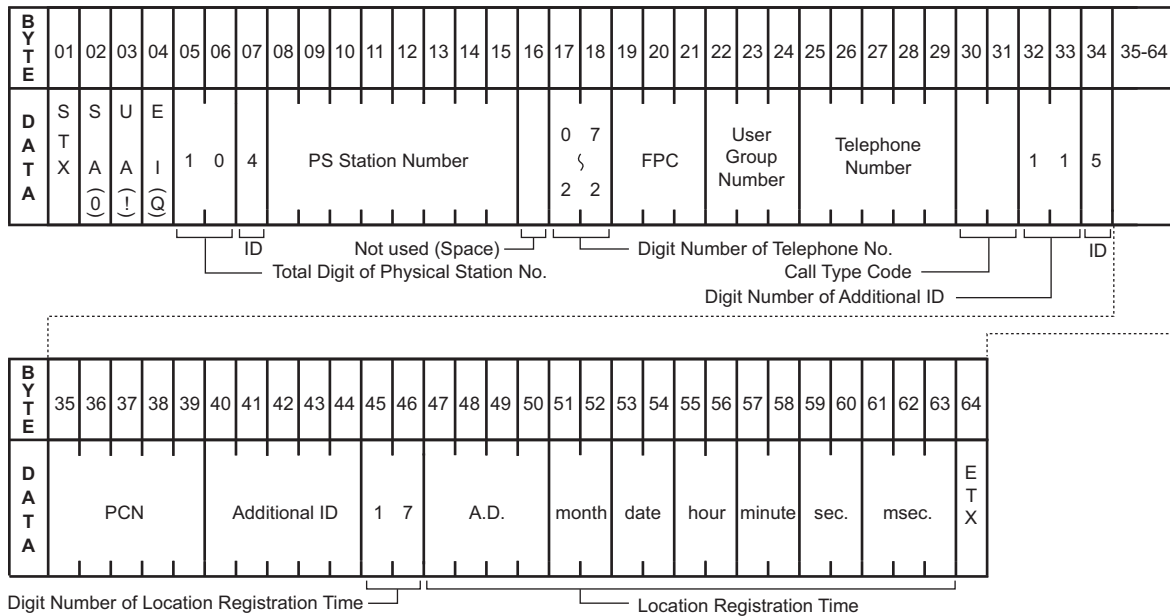


BYTE	DATA	CONTENTS
01	STX	Start of Text
02	SA	System Address = 0
03	UA	Unit Address =!
04	EI	Entry Index = J
05	ID	ID for BYTE 06~12 contents ("4 [PS Station No.]": Fixed)
06-12	PS station number	BYTE 06, 07: Tenant Number [2 digits] + BYTE 08-12: Station number [5 digits] Note 1 Note 1: 1st BYTE [BYTE 08] for 1st digit, 2nd BYTE [BYTE 09] for 2nd digit.
13		Not used (Space (20H))
14-15		Not used (Always 00)

P-67 PS Location Information Display

BYTE	DATA	CONTENTS
16-17	Call Type Code	50 = Location Registration (periodic routine) 51 = Location Registration by Termination/Origination/Hand-Over
18	ID	ID for BYTE 19-25 contents ("5 [Additional ID]": Fixed)
19-25	Additional ID	Additional ID 00 (2 digits) + XXXXX (5 digits) └── Calling Area Number (01-32) └── Group Number (1-8) └── CS Number (01-32)
26-35		Not used (Space (20H))
36	ETX	End of Text

- Telephony Server → PC Extended Format



BYTE	DATA	CONTENTS
01	STX	Start of Text
02	SA	System Address = 0
03	UA	Unit Address =!
04	EI	Entry Index = Q
05-06	Total Digit of Physical Station No.	10: Fixed (Refer to BYTE 07-16: ID [1 digit + Tenant No. [3 digits] + Station No. [6 digits] = 10 digits))
07	ID	ID for BYTE 11-16 contents ("4 [PS Station No.]": Fixed)

P-67 PS Location Information Display

BYTE	DATA	CONTENTS
08-15	PS station number	BYTE 08-10: Tenant Number [3 digits] + BYTE 11-15: Station number [5 digits] Note 2 Note 2: 1st BYTE [BYTE 08] for 1st digit, 2nd BYTE [BYTE 09] for 2nd digit.
16		Not used (Space (20H))
17-18	Total Number of Telephone Number	Total digit of PS station number (Telephone Number), including FPC [BYTE 19-21: 3 digits] and User Group Number [BYTE 22-24: 3 digits] Ex. When PS Station No. (Telephone Number) is 1 digit: BYTE 17-18 = 07 When PS Station No. (Telephone Number) is 16 digits: BYTE 17-18 = 22
19-21	FPC	Fusion Point Code
22-24	User Group Number	User Group Number
25-29	Telephone Number	PS station number (Telephone Number) max: 16 digits Note: 1st BYTE [BYTE 25] for 1st digit, 2nd BYTE [BYTE 26] for 2nd digit.
30-31	Call Type	50 = Location Registration 51 = Location Registration by Termination/Origination/Hand-Over
32-33	Total Digit of Additional ID	11: Fixed (Refer to BYTE33-44: ID [1 digit] + PCN [5 digits] + Additional ID [5 digits])
34	ID	ID for BYTE 40-44 contents ("5 [Additional ID]": Fixed)
35-39	PCN	PHS Community Number
40-44	Additional ID	Additional ID XXXXX (5 digits)
45-46	Total Digit of Location Registration Time	Total Digit of Location Registration Time = 17 (Fixed) (Refer to BYTE 47-63)
47-63	Location Registration Time	Location Registration Time (A.D. + month + date + hour + second + millisecond)
64	ETX	End of Text

4 INTERACTIONS

1. The following features are not applied to the no-tone/no-vibration call, made by the PC terminal.
 - Call Forwarding-All Calls
 - Call Forwarding-Busy Line
 - Call Forwarding-Don't Answer
 - Call Forwarding-PS Incoming Incomplete
 - Station Hunting-Circular
 - Uniform Call Distribution
 - Call Waiting-Termination (Automatic Setting)
2. When the user makes a call using a PS line accommodated on a programmable Line/Feature key of the Desktop terminal, the PS location information is not output.

5 PROGRAMMING

- For Standalone/FCCS (node with PC)

STEP 1: ASYDL/ASYDN (Assignment of System Data for LDM/NDM)

SYS1, Index 690, bit0-7

Assign a FPC of node connected to PC.

STEP 2: AIOC (Assignment of IOC Port Data)

Assign the I/O port attribution data.

IOC PORT NUMBER: 1-7

TERMINAL KIND: 1=Printer/MCI

SPEED:0=4800bps

1= 300bps

2= 600bps

3=1200bps

4=2400bps

5=4800bps

6=9600bps

PARITY BIT: 0=Non Parity

STOP BIT: 0=2bits

CHARACTER BIT: 1=7bits

STEP 3: ASFC (Assignment of Service Feature Restriction Class Data)

Allow the following Service Feature Index (SFI) of PS.

SFI 157 (PS Location Information Display): 1=Allow

<<For no-tone/no-vibration call>>

When using PS no-tone/no-vibration call function, the following data (ASFC/ASDT/ALGSN/ARSC command) must also be assigned.

STEP 1: ASFC (Assignment of Service Feature Restriction Class Data)

SFC: Service Feature Restriction Class **Note 1**

SFI: Service Feature Index 162 (PS no-tone/no-vibration call)=1 (Allow)

Note 1: Assign unique SFC (for Modem/TAPI Adapter) which is not used by other stations.

STEP 2: ASDT (Assignment of Station Data)

Assign the station data for the PC terminal. Note that this data is required for physical port assignment on the side of LC/ELC circuit card.

TN: Tenant Number

STN: Station number **Note 2**

LENS: Line Equipment Numbers

TEC: Telephone Equipment Class

Modem=1-4

TAPI Module/TAPI Adapter=12

RSC: Route Restriction Class

SFC: Service Feature Restriction Class

Note 2: Assign a unique station number to the PC (PS no-tone/no-vibration call origination terminal).

STEP 3: ALGSL/ALGSN (Assignment of Telephone Station Data for LDM/NDM)

Assign a Telephone Number to the Physical Telephone Number assigned by ASDT command.

- For FCCS (node without PC)

When this feature is used on the FCCS, also assign the following data at every node without PC terminal.

STEP 1: ASYDL/ASYDN (Assignment of System Data for LDM/NDM)

SYS1, Index 690, bit0-7

Assign a FPC of node connected to PC.

STEP 2: ASFC (Assignment of Service Feature Restriction Class Data)

Allow the following Service Feature Index (SFI) for PS.

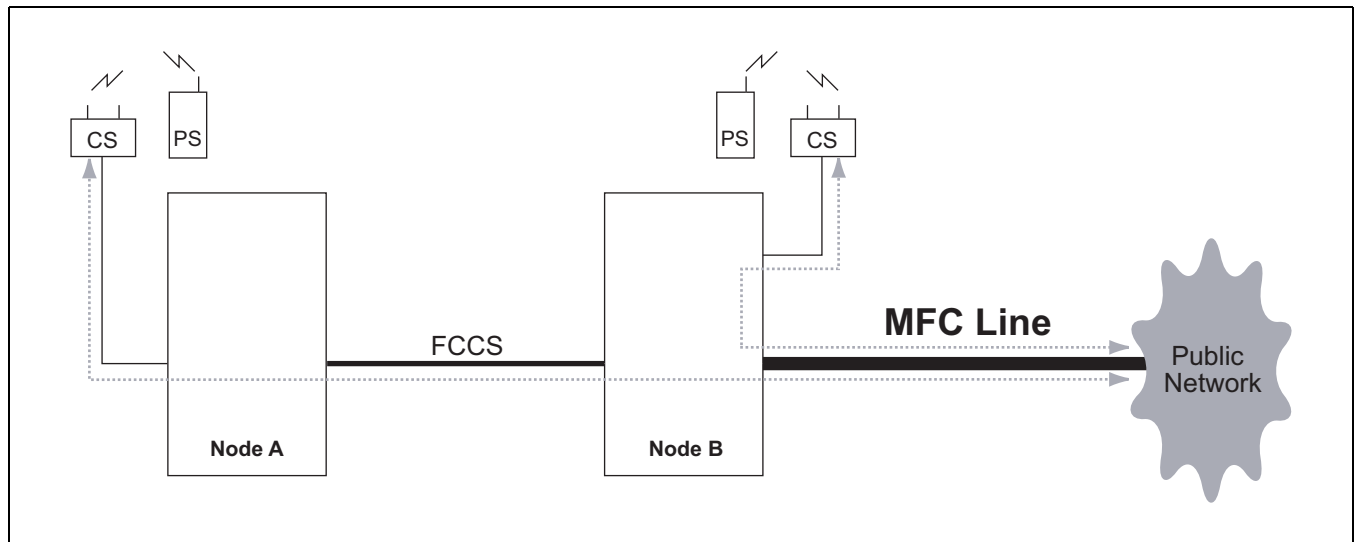
SFI 157 (PS Location Information Display): 1=Allow

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:

- Australia • Thailand • Korea • Singapore
- Philippines • Indonesia • India • Kuwait



2 OPERATING PROCEDURE

No manual operation is required.

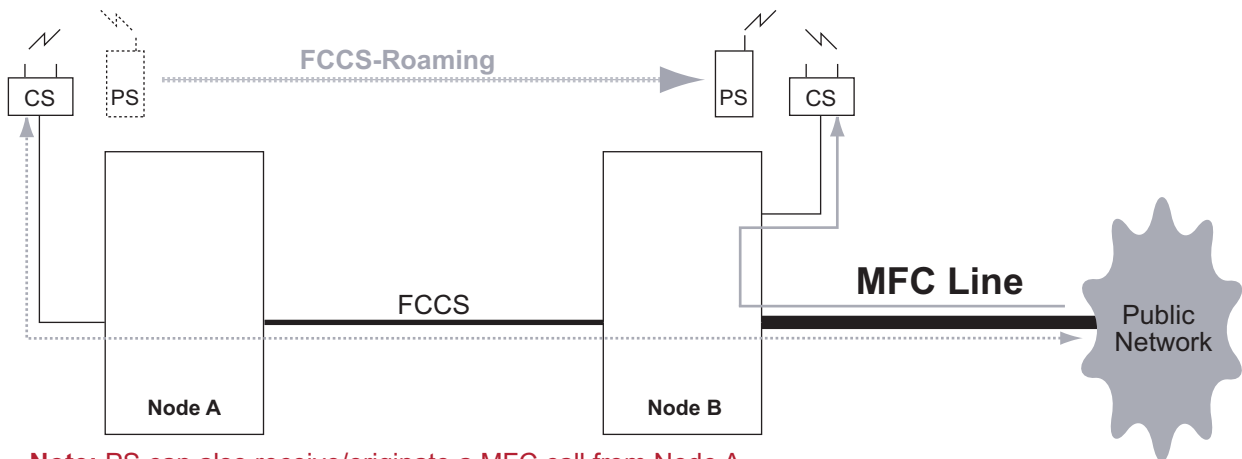
3 SERVICE CONDITIONS

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.

Note: In Indonesia, only when PS is in an idle state, this feature is available.

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. Following tables below show functions available for PHS-MFC Signaling feature.
 - List of Originating Feature for MFC (Standalone)
 - List of Originating Feature for MFC (FCCS)
 - List of Terminating Feature for MFC (Standalone)
 - List of Terminating Feature for MFC (FCCS)
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 connecting via MFC Line.



List of Originating Features for MFC (Standalone)

X:Available - :Not available/Not used

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

Note 1: CALL TRANSFER-ALL CALLS cannot be used in Indonesia.

Note 2: CS peg is not counted.

Note 3: When assigning SRV=OGC/OGCA (ASPA command), ROUTE ADVANCE cannot be used.

List of Originating Features for MFC (FCCS)

X:Available -:Not available/Not used

FEATURE CODE	ORIGINATING FEATURE NAME	To Station	To PS	REMARKS
A-16	ALTERNATE ROUTING	X	X	
B-12	BROKERAGE HOT LINE-OUTSIDE	X	-	
C-6	CALL HOLD	X	-	
C-11	CALL TRANSFER-ALL CALLS	X	X	Note 4
C-17	CONSULTATION HOLD-ALL CALLS	X	X	
C-26	CALL FORWARDING-OVERRIDE	X	X	
C-28	CALL FORWARDING-ALL CALLS-OUTSIDE	X	X	
C-60	CALL FORWARDING-BUSY LINE-OUTSIDE	X	X	
C-62	CONSECUTIVE SPEED CALLING-SYSTEM	X	X	
C-74	CALL FORWARDING-DON'T ANSWER-OUTSIDE	X	X	
	CALL FORWARDING-OUT OF AREA	-	X	
D-9	DIRECT-OUTWARD DIALING (DOD)	X	X	
H-9	HOT LINE-OUTSIDE	X	-	
I-4	INDIVIDUAL TRUNK ACCESS	X	-	
L-5	LEAST COST ROUTING (LCR)-3/6 DIGIT	X	X	
L-6	LAST NUMBER CALL	X	-	Note 5
L-10	LCR-TIMER OF DAY ROUTING	X	X	
M-7	MUSIC ON HOLD	X	X	
O-2	OUTGOING TRUNK QUEUING	X	-	
O-7	OFF-HOOK QUEUING	X	X	
O-21	OUTGOING TRUNK BUSY-ANNOUNCEMENT	X	X	
P-2	PASSING DIAL TONE	-	-	
P-7	PEG COUNT	X	-	Note 6
P-11	PERIODIC TIME INDICATION TONE	X	X	
P-57	PAD LOCK	X	-	
R-4	RESTRICTION FROM OUTGOING CALLS	X	X	
R-6	ROUTE ADVANCE	-	-	Note 7
S-3	SPEED CALLING-SYSTEM	X	-	Note 8
S-10	STATION MESSAGE DETAIL RECORDING SYSTEM-RS232C	X	X	
S-23	SPEED CALLING-GROUP	-	-	
S-61	SPEED CALLING OVERRIDE-SYSTEM	-	-	
T-6	TOLL DENIAL/TOLL DIVERSION	X	X	
T-7	TOLL RESTRICTION-3/6 DIGIT	X	X	
T-12	TENANT SERVICE	X	X	

Note 4: CALL TRANSFER-ALL CALLS cannot be used in Indonesia.

Note 5: Use the PS re-dial function as a substitute for LAST NUMBER CALL.

Note 6: CS peg is not counted.

Note 7: When assigning SRV=OGC/OGCA (ASPA command), ROUTE ADVANCE cannot be used.

Note 8: Use the PS memory dial function as a substitute for SPEED CALLING-SYSTEM.

List of Terminating Features for MFC (Standalone)

X:Available - :Not available/Not used

FEATURE CODE	TERMINATING FEATURE NAME	From Station	From PS	REMARKS
C-2	CALL FORWARDING-BUSY LINE	X	X	
C-3	CALL FORWARDING-DON'T ANSWER	X	X	
C-5	CALL FORWARDING-ALL CALLS	X	X	
	CALL FORWARDING-OUT OF AREA	-	X	
C-6	CALL HOLD	X	-	
C-7	CALL PICKUP-GROUP	X	X	
C-11	CALL TRANSFER-ALL CALLS	X	X	
C-12	CALL WAITING-TERMINATING	X	X	Note 9
C-13	CALL WAITING LAMP	X	-	
C-17	CONSULTATION HOLD-ALL CALLS	X	X	
C-24D	CALLING NUMBER DISPLAY	X	X	Note 10
C-30	CALL PICKUP-DIRECT	X	X	
C-28	CALL FORWARDING-ALL CALLS-OUTSIDE	X	X	Note 11
C-60	CALL FORWARDING-BUSY LINE-OUTSIDE	X	X	Note 11
C-74	CALL FORWARDING-DON'T ANSWER-OUTSIDE	X	X	Note 11
	CALL FORWARDING-OUT OF AREA TO OUTSIDE	-	X	Note 11
D-7	DIRECT-IN TERMINATION (DIT)	-	-	
D-8	DIRECT-INWARD DIALING (DID)	X	X	
D-10	DISTINCTIVE RINGING	X	-	Note 12
I-1	IMMEDIATE RINGING	X	-	
L-28	LDN NIGHT CONNECTION	X	X	
M-7	MUSIC ON HOLD	X	X	
M-24	MULTIPLE CALL FORWARDING-BUSY LINE	X	X	
M-25	MULTIPLE CALL FORWARDING-DON'T ANSWER	X	X	
M-26	MESSAGE CENTER INTERFACE	X	-	Note 13
M-44	MULTIPLE CALL FORWARDING-ALL CALLS	X	X	
N-1	NIGHT CONNECTION-FIXED	X	X	
N-2	NIGHT CONNECTION-FLEXIBLE	X	-	
P-7	PEG COUNT	X	X	Note 14
P-11	PERIODIC TIME INDICATION TONE	X	X	
R-2	REMOTE ACCESS TO SYSTEM	X	X	
T-8	TRUNK ANSWER FROM ANY STATION (TAS)	X	X	
T-12	TENANT SERVICE	X	X	
U-1	UNIFORM CALL DISTRIBUTION	X	X	Note 15
	COLLECT CALL BLOCKING	X	X	Note 16

Note 9: CALL WAITING-TERMINATING cannot be used in Brazil because when called party is busy, the call is forwarded to Attendant Console.

Note 10: When PS receives Automatic Number Identification data, Calling Number Display is automatically used.

Note 11: MFC call cannot be forwarded via MFC.

Note 12: Depending on the terminal, Distinctive Ringing cannot be used.

Note 13: This feature is not used because PS cannot use UNIFORM CALL DISTRIBUTION (UCD).

Note 14: CS peg is not counted.

Note 15: UNIFORM CALL DISTRIBUTION can be used.

Note 16: COLLECT CALL BLOCKING can be used in Brazil only.

List of Terminating Features for MFC (FCCS)

X:Available -:Not available/Not used

FEATURE CODE	TERMINATING FEATURE NAME	From Station	From PS	REMARKS
C-2	CALL FORWARDING-BUSY LINE	X	X	
C-3	CALL FORWARDING-DON'T ANSWER	X	X	
C-5	CALL FORWARDING-ALL CALLS	X	X	
	CALL FORWARDING-OUT OF AREA	-	X	
C-6	CALL HOLD	X	-	
C-7	CALL PICKUP-GROUP	X	X	
C-11	CALL TRANSFER-ALL CALLS	X	X	
C-12	CALL WAITING-TERMINATING	X	X	Note 17
C-13	CALL WAITING LAMP	X	-	
C-17	CONSULTATION HOLD-ALL CALLS	X	X	
C-24D	CALLING NUMBER DISPLAY	X	X	Note 18
C-30	CALL PICKUP-DIRECT	X	X	
C-28	CALL FORWARDING-ALL CALLS-OUTSIDE	X	X	Note 19
C-60	CALL FORWARDING-BUSY LINE-OUTSIDE	X	X	Note 19
C-74	CALL FORWARDING-DON'T ANSWER-OUTSIDE	X	X	Note 19
	CALL FORWARDING-OUT OF AREA TO OUTSIDE	-	X	Note 19
D-7	DIRECT-IN TERMINATION (DIT)	-	-	
D-8	DIRECT-INWARD DIALING (DID)	X	X	
D-10	DISTINCTIVE RINGING	X	-	Note 20
I-1	IMMEDIATE RINGING	X	-	
L-28	LDN NIGHT CONNECTION	X	X	
M-7	MUSIC ON HOLD	X	X	
M-24	MULTIPLE CALL FORWARDING-BUSY LINE	X	X	
M-25	MULTIPLE CALL FORWARDING-DON'T ANSWER	X	X	
M-26	MESSAGE CENTER INTERFACE	X	-	Note 21
M-44	MULTIPLE CALL FORWARDING-ALL CALLS	X	X	
N-1	NIGHT CONNECTION-FIXED	X	X	
N-2	NIGHT CONNECTION-FLEXIBLE	X	-	
P-7	PEG COUNT	X	X	Note 22
P-11	PERIODIC TIME INDICATION TONE	X	X	

FEATURE CODE	TERMINATING FEATURE NAME	From Station	From PS	REMARKS
R-2	REMOTE ACCESS TO SYSTEM	X	X	
T-8	TRUNK ANSWER FROM ANY STATION (TAS)	X	X	
T-12	TENANT SERVICE	X	X	
U-1	UNIFORM CALL DISTRIBUTION	X	X	Note 23
	COLLECT CALL BLOCKING	X	X	Note 24

Note 17: CALL WAITING-TERMINATING cannot be used in Brazil because when called party is busy, the call is forwarded to Attendant Console.

Note 18: When PS receives Automatic Number Identification data, Calling Number Display is automatically used.

Note 19: MFC call cannot be forwarded via MFC.

Note 20: Depending on the terminal, Distinctive Ringing cannot be used.

Note 21: This feature is not used because PS cannot use UNIFORM CALL DISTRIBUTION (UCD).

Note 22: CS peg is not counted.

Note 23: UNIFORM CALL DISTRIBUTION can be used.

Note 24: 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, bit0 (Analog/Digital Conversion System): 0/1-μ-law/A-law

SYS1, Index 92, bit0 (ANI Information): 0/1=Tenant Basis/System Basis **Note 1**

SYS1, Index 125, bit0-3 (Designation of PAD Value): This PAD value is used for adjusting transmission level of MFCS (MFC Sender). Refer to the table below.

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, bit4-7 (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
0	CCITT-R2 (NEC Standard)	5	Singapore (PSA)
1	Australia (D1301G)	7	Philippines
2	Thailand (TOT)	8	Indonesia (SMFC)
4	Korea	D	India

SYS2, Index 15, bit2 (Designation of Calling Number in ANI Information): 0/1=LDN/STN Number

Note 1

Note 1: When SYS1, Index 125, bit4-7 (Type of MFC) = Indonesia (SMFC), this assignment is not required.

SYS3, Index 10, bit0-3, 7 (Designation of Sensitivity Level (=T) of MFC Register)

bit0-3: Designate sensitivity level (=T) of MFCR Register. Refer to the table below.

bit7 (ACT): 0/1=38 dbm (fixed)/depends on input data (Index 10, bit0-3)

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 2**

Note 2: OC=0:When reception of Address Signals is complete, the Telephony Server finishes signal exchange.

OC=1:When reception of Address Signals is complete, the Telephony Server 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 3**)

Note 3: 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)

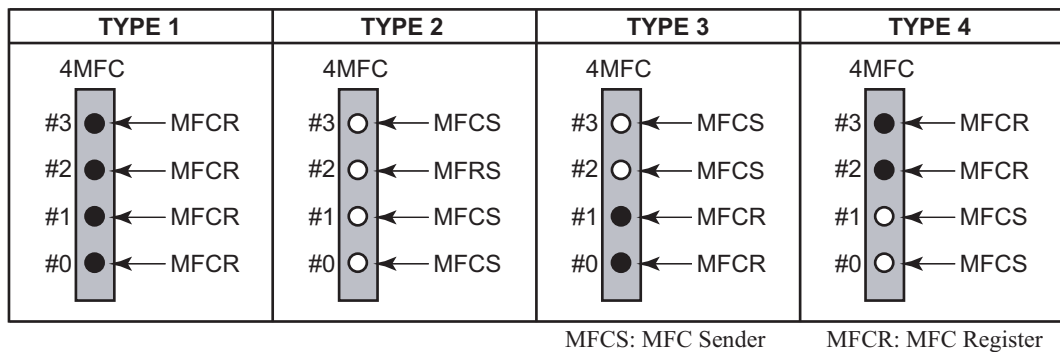
Assign MFC Outgoing/Incoming trunks and MFC Register (MFCR) and MFC Sender (MFCS).

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 the figure 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 MFCS. The remaining two circuits are assigned as MFCR.



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

LDN (Listed Directory Number max. 8 digits): Assign "LDN" which is to be transmitted as "Calling Number" in ANI information.

Note: AAND command assignment is required in place of AANI command when SYS1, Index 125, bit0-4 (Type of MFC) = Indonesia (SMFC).

AAND (Assignment of Automatic Number Identification Data)

Assign the following data which specify ANI (Automatic Number Identification) information.

CC (Main/Satellite Central): 0 (Main Central)

KT (Expansion of STA Number Length): 0 (OFF)

STNL (STA Number Length): 0

ADD (Office Code to be Added): 1-10

SKIP (Call Originator Digit to be Skipped): 0-10

DC (Office Code): max. 10 digits (depending on ADD)

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-71 PS Line Appearance on Dterm

1 GENERAL DESCRIPTION

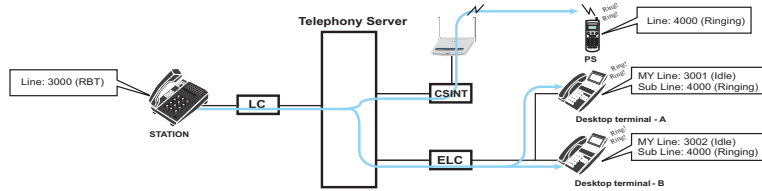
This feature allows the user to accommodate a PS line to a programmable Line/Feature key of the Desktop terminal as a Sub Line. Therefore, the user can answer the call, that is originated to PS, from the Desktop terminal, and originate using the Sub Line of the Desktop terminal.

2 OPERATING PROCEDURE

How To Answer

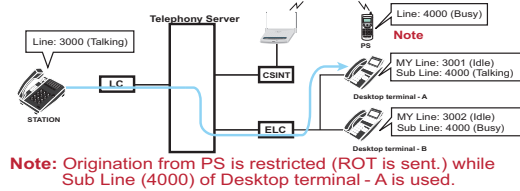
[When station user dials My Line (4000) of PS]

- Line of PS, Sub Line of Desktop terminal - B are ringing.



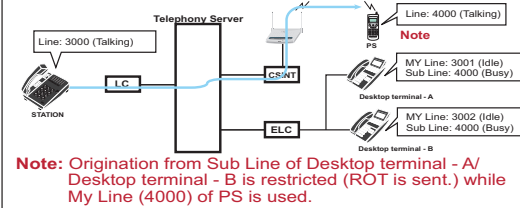
[When Desktop terminal - A user answers the call]

- Press Sub Line key of Desktop terminal - A. Two-way connection between Station and Desktop terminal - A is established.



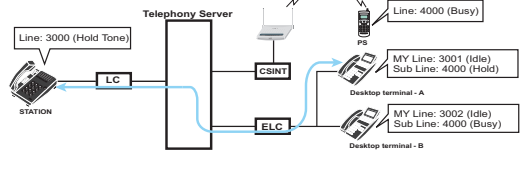
[When PS user answers the call.]

- Press answer key. Two-way connection between Station and PS is established.



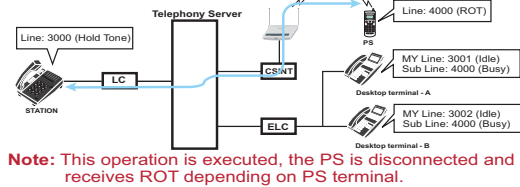
[When Desktop terminal - A user holds the call.]

- Press HOLD key. Station is held. The station user receives Hold Tone.



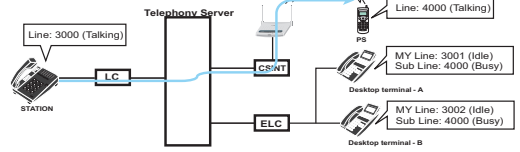
[When PS user holds the call.]

- Go hooking and dial access code (SIDA = 119). Station is held. The station user receives Hold Tone.



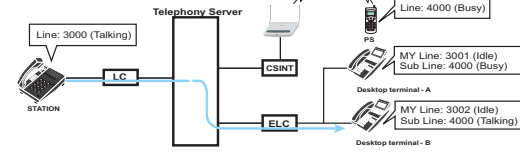
[When PS answers the held call.]

- Dial the PS Line (4000). Two-way connection between Station and PS is established.



[When Desktop terminal - B answers the held call.]

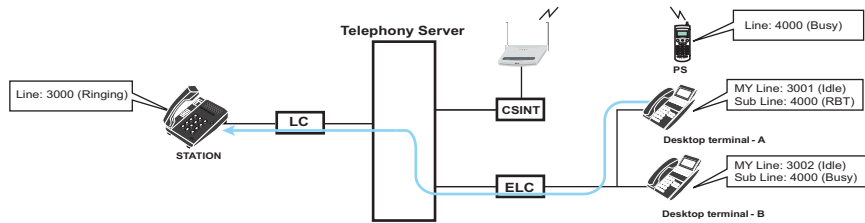
- Press Sub Line key of Desktop terminal - B. Two-way connection between Station and Desktop terminal - B is established.



How To Originate from Sub Line of Desktop terminal

[When Desktop terminal - A user originate a call to station (3000) using line of PS]

- Press Sub Line of Desktop terminal and dial station number (3000).



Note: Origination from PS and Sub Line of Desktop terminal - B is restricted, while Sub Line (4000) of Desktop terminal - A is used.

3 SERVICE CONDITIONS

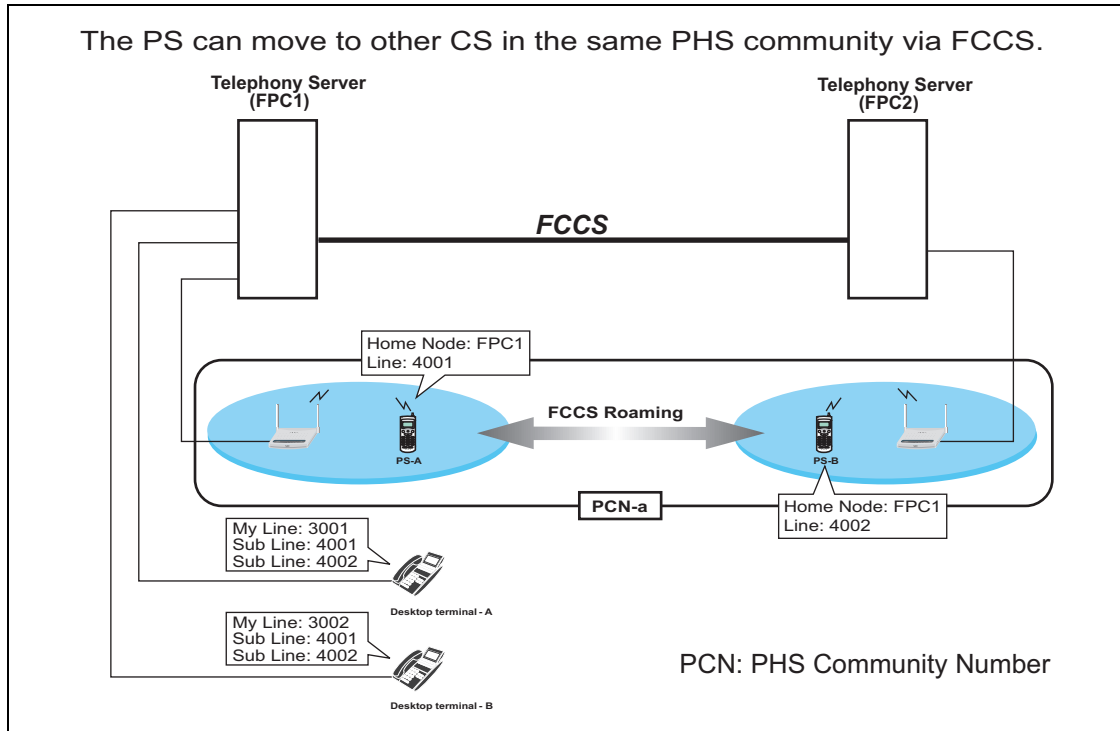
1. A maximum of 32 PA-16ELCJ-B cards (a total of 512 ports) can be used for this feature, per node.
2. A maximum of 2048 PSs per node can be used for this feature.
3. When your system is IMG/MMG system, PS lines can be accommodated to a Sub Line of Desktop terminal which is accommodated in a Home Node of the PS, only.
4. The maximum number of lines of PS, which can be accommodated to a single Desktop terminal, depends on a number of Line/Feature keys on the Desktop terminal.
5. A Line of PS cannot be accommodated in DSS (Direct Station Section).
6. The Desktop terminal, which accommodates a PS line, must be assigned to PA-16ELCJ-B (ELC) circuit card. The switch settings for the circuit card are as follows: SW10-1:OFF SW10-2:OFF
7. A Desktop terminal user can answer PS line appearance on the Desktop terminal only when the PS is ringing. (If the PS is not ringing the call cannot be answered.) Furthermore, PS line pickup using Desktop terminal is not available when the PS using this service (PS line appearance on Desktop terminal) is roaming to other node no matter whether the PS is ringing or not.
8. To answer a held call from the PS not supporting overlap dialing, dial the dummy number (No data assignment is required) in advance, and then execute preset dialing. The held call can be answered by dialing any number.

<Conditions Specific to UMGi/RNIP System>

1. When your system is the UMGi/RNIP system, PS lines can be accommodated to a Sub Line of Desktop terminal when the Desktop terminal is accommodated in an node which has a Module Group (MG) assigned by the APLAML/APLAMN commands. PS lines and Desktop terminal needs to belong to same node.
2. A maximum of 2048 PSs per node can be used for this feature.

<FCCS Conditions>

1. This feature is available on FCCS network. For detail, refer to the figure below.



2. When the Desktop terminal user answers or retrieves a call to PS line accommodated on the Desktop terminal while the PS is in visitor node, a link block may occur at connecting trunk. If the link block occurs, the call is disconnected ("Busy" is displayed on LCD).

4 INTERACTIONS

1. In principle, when assigning PS/CS data, use the NDM commands (FPC=1).
2. OAI/ACD-related services are not supported.
3. Hotel system does not support this feature.
4. When originating from a Sub Line (PS line) of Desktop terminal, the billing information is recorded to the My Line of Desktop terminal.

5. When a caller originates to a PS in an out of zone state, accommodated on the programmable Line/Feature key on the Desktop terminal, the caller hears no-tone for 8 seconds, after that Call Forwarding-Don't Answer is activated if the feature is set. (However, the Desktop terminal user can answer the call by pressing the programmable Line/Feature key, to which the PS line is assigned, before Call Forwarding-PS Incoming Incomplete is activated). If Call Forwarding-PS Incoming Incomplete is not set, the caller hears RBT and Ringing to the PS ceases, but the PS line accommodated in Desktop terminal is continually called until the caller goes on-hook (After that even if returning to the zone, the PS cannot answer the call). When Call Forwarding - Don't Answer is set to the PS line, the call is forwarded. In this case, Automatic Announcement - Called PS Out of Zone is not provided.
6. LC-COT connection is not supported.
7. The following features are available when these are set to the PS line:
 - Call Forwarding-All Calls
 - Call Forwarding-Busy Line
 - Call Forwarding-Don't Answer
 - Call Forwarding-PS Incoming Call Incomplete
8. Exclusive Hold-D [E-4D] is not supported for this feature.
9. Only when the Desktop terminal user holds a call by using the following features, the call is retrieved from PS terminal.
 - Hold on two-line connection by pressing HOLD button
 - Dual Hold-D [D-32]

5 PROGRAMMING

- Entry procedure for Standalone

STEP 1: ASPA/ASPAL (Assignment of Special Access Code)

Assign an Access Code for holding a call for PS.

TN: Tenant Number

ACC: Access Code for this feature (max. 6 digits)

CI: Connection Status Index = N (Normal)

SRV: Kind of Service = SSCA (Service Code Appendix)

SIDA: Service Index A = 119 (PHS Hold)

STEP 2: ASYD (Assignment of System Data)

Allow Inter-Module Key Data.

SYS1, Index 321, bit0

0/1 = No/Yes (Assign "1")

STEP 3: APLAML (Assignment of PS Line Appearance Module-Group for LDM)

Assign the Module Group, that a ELC of the Desktop terminal is accommodated.

UGN: User Group Number

TELN: Telephone Number (max. 16 digits)

LMG: Local Module Group (0-7)

MG: Module Group (0-31)

STEP 4: AKYD (Assignment of Key Data for Dterm)

Assign a line of PS to a Line/Feature key on the Desktop terminal.

KYN: Key Number

KYI: Service Condition = 2 (Multi Line)

TN: Tenant Number

STN: Station number of PS

RG: Ring information for each line

- Entry Procedure for FCCS Network

STEP 1: ASPAN (Assignment of Special Access Code for NDM)

Assign an Access Code for holding a call for PS.

TN: Tenant Number

ACC: Access Code for this feature (max. 6 digits)

CI: Connection Status Index = N (Normal)

SRV: Kind of Service = SSCA (Service Code Appendix)

SIDA: Service Index A = 119 (PHS Hold)

STEP 2: ASYD (Assignment of System Data)

Allow Inter-Module Key Data.

SYS1, Index 321, bit0

0/1 = No/Yes (Assign "1")

STEP 3: APLAMN (Assignment of PS Line Appearance Module-Group for NDM)

Assign the Module Group, that a ELC of the Desktop terminal is accommodated.

UGN: User Group Number

TELN: Telephone Number (max. 16 digits)

LMG: Local Module Group (0-7)

MG: Module Group (0-31)

STEP 4: AKYD (Assignment of Key Data for Dterm)

Assign a line of PS to a Line/Feature key on the Desktop terminal.

KYN: Key Number

KYI: Service Condition = 2 (Multi Line)

TN: Tenant Number

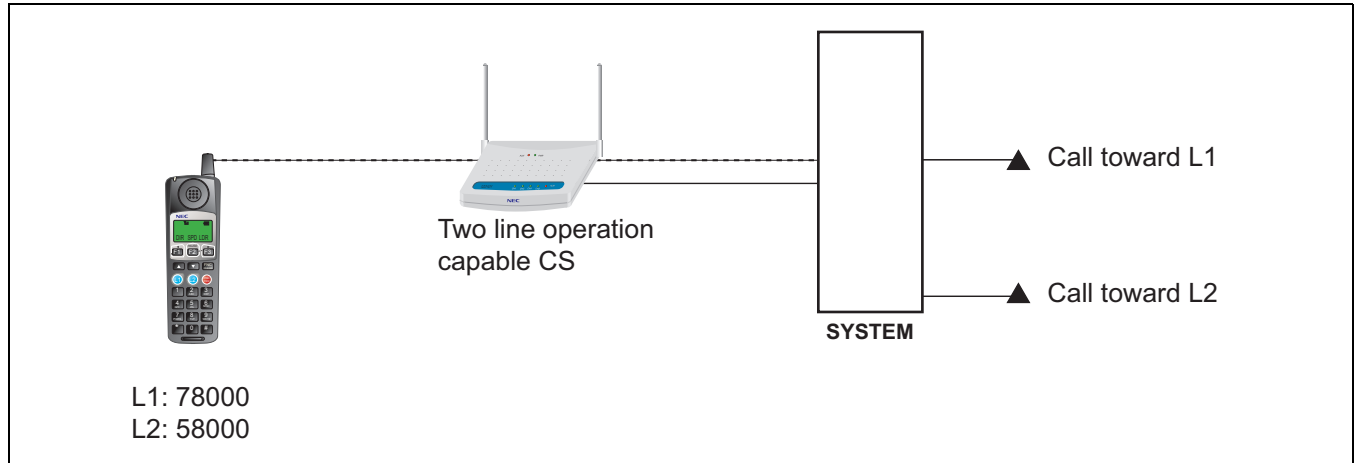
STN: Station number of PS

RG: Ring information for each line

P-72 PS Two Line Operation

1 GENERAL DESCRIPTION

This feature allows a PS to have two extension numbers (My Line number and Sub Line number) assigned to L1 and L2 keys.



2 OPERATING PROCEDURE

No manual operation is required.

3 SERVICE CONDITIONS

1. In principle, when assigning PS/CS data, use the NDM commands (FPC=1).
2. Two lines can be assigned to a PS: My Line and Sub Line. These lines are associated with the My Line and Sub Line numbers assigned to a 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 release timer about 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 moves to a visitor node using Roaming function, only My Line is available.
7. While a PS-to-PS connection is established, Dual Hold feature is not available.

8. When actions listed below are taken while the line is in use, ringing stops once and then starts ringing again 4 seconds later.
 - Presses L2 button (L2 Sub Line in idle) when L1 My Line is ringing.
 - Presses L2 button while both L1 and L2 lines are ringing, L1 My Line stops ringing once, then starts ringing again after 4 seconds.
 - When the caller towards the L1 My Line releases a call while the L1 and L2 Lines are ringing, both L1 and L2 stop ringing once, then L2 line starts ringing again after 4 seconds.
 - When L1 Line is receiving ROT and the ROT timer expires while L2 Sub Line is ringing, L2 line stops ringing once, and then starts ringing again 4 seconds later.
 - In the situation of L1 My Line is ringing and L2 Sub Line is hearing a ROT Tone, L1 Line stops ringing once, then starts ringing again after 4 seconds of ROT timed out by the L2 Sub Line.
9. A Sub Line number is assignable only to a single PS L2. (A number, once used for a PS, cannot be used for other PS.)
10. The billing information on L1 and L2 lines is collected individually.
11. It is possible to accommodate L1 My Line into Desktop terminal Multi Line, but L2 Sub Line cannot be accommodated.
12. Even when Desktop terminal answers a call held by PS L1 My Line, the call status change is not going to be reflected on to the LCD of PS.
13. Call Hold is not effective and nothing is going to be changed by pressing the button under the situations listed below.
 - While the PS is in conversation with the ATTCN.
 - While the PS is in the Group Call-Automatic Conference mode.
 - When a call being held by hooking exists.
 - When the Call Waiting function is being activated.
 - When the call is being parked.
 - While the Call Back is in the visitor node.
 - While Call Back is set toward the PS.
 - When the call is being held by the other party in the STATION-TO-STATION CALLING between PS-PS.

4 INTERACTIONS

1. HLD key on the PS is not effective while:
 - a PS is in conversation with the third party using Consulting Hold.
 - a PS is in conversation with a station which 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.
2. Call Waiting-Terminating is not available for a PS which has a call placed on hold (The calling party hears Busy Tone). However, Call Forwarding-Busy Line is available.

5 RELATIONSHIP BETWEEN THE OTHER SERVICES

Constraint conditions for this service and relationship between the other services are listed below.

×:Service Available △ :Service conditionally Available –:Service Not Available

Function Name		PHS Roaming Function	PHS Data Communication	PHS Name Display	PS Location Display	PHS Voice-mail Box	PBX Behind Line	MCI	Do Not Disturb	PS L2 Lines Accommodation
Function Release	My Line	×	△	△	×	×	–	×	×	×
	Sub Line	–	–	△	–	×	–	–	×	–

1. PHS Roaming function
Unable to originate or receive a call with the L2 Sub Line while in Roaming.
2. PHS Data Transfer
Unable to originate or receive a call with the L2 Sub Line while transferring data using L1 My Line. Also unable to originate or receive a call with the L1 My Line while transferring data using L2 Sub Line.
3. PHS Name Display
When PS L2 line receives a blind transfer call, name of the called L2 line does not appear on the caller's display until the PS L2 line actually answers the call. Also, when PS L1 line receives a blind transfer call while PS L2 line is engaged with a call, name of the called PS L1 line does not appear on the caller's display until the PS L1 line answers the call as well.
4. PS Location Display
Unable to output the L2 Sub Line information.
5. PHS Voice mail Box
Unable to call out when the PS is re-connected from the unreachable zone.
6. PBX behind connection
Not available when the PS is pre-assigned as Dual Line capable.
7. MCI
Unable to display MW icon with the Sub Line also unable to receive the Mail received report.
8. Call Waiting
Call waiting toward the in-hold PS is going to be restricted.
9. Extension line interruption
Extension line interruption towards in-hold PS is going to be restricted.

10. Do Not Disturb

Do Not Disturb feature can be set to L1 line and L2 line separately. The following are the conditions when Do Not Disturb feature is activated on L1 line and L2 line.

(a) Do Not Disturb on L1 line

- PS can use Do Not Disturb feature under the same conditions as those for Desktop terminal.
- Call origination is available.

(b) Do Not Disturb on L2 line

- An incoming call is denied on the PS side. Therefore, if a call is routed to the DND PS, Automatic Announcement - Called PS Out of Zone is activated.
- Call origination is not available.

11. PS L2-Lines Accommodation into Desktop terminal

PS L2-Line cannot be accommodated into Desktop terminal.

6 HARDWARE REQUIREMENT

When the Dual line capable PS has moved to the influential area of the old CS (which does not support Dual line) in the system generated by mixture of new CS which support Dual line feature (BS31, BS41) and old CS (BS01, BS21, BS24, BS24E), service conditions are going to be as listed below. Meantime, some of the BS31 may not be Dual line capable. (it depends on the software version) Please check your software version with the CS version up command.

6.1. System Overview

Mixture of new and old CS is supported, and it is also supported for the use within the same area. When the new PS is in the influential area of the old CS, this PS is going to be activated as an PS which does not support Dual line function.

6.2. Call Receiving

When the Dual line PS is in the influential area of the old CS, L2 line of the PS is unable to answer the call. Caller is going to hear a ROT after waiting 8 seconds of silence.

6.3. Call Origination

When the Dual line PS is in the influential area of the old CS, L2 Sub Line button cannot be used or disregarded from the conditions listed below.

- PS hears a local BT and L2 Sub Line button actuation is going to be restricted when the L1 line is in idle and L2 line is in idle.
- PS continue to communicate on the L1 My Line and L2 Sub Line button actuation is going to be disregarded when L1 My line is engaged with a call and L2 Sub Line is in idle.

6.4. Handover

When a call is originated from the new CS using the Dual line capable PS, and it uses the only-new CS capable function including Call Hold. The call is going to be disconnected when handover to old CS occurs.

7 PROGRAMMING

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

This command assigns 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. Assign My Line and Sub Line data of the PS.

- TN :Tenant Number
- PS STN :Station Number (max. 5 digits)
- KIND :PS KIND : Assign 3 (Standard PS) for My Line.
Assign 8 (PHS Sub Line) for Sub Line.
- 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)
- DL :Dual Line: Assign 1 (PS Two Line Operation is in service) for My Line.
- PS-ID :Max. 9 digits **Note 1**
- TYPE :TYPE: 1 (12 digits or less) [BCD] fixed NO.
Assign the same number as the PS STN according to PS.
- 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 2: ALGSL (Allocation of Telephone Number Data for Local Data Memory)/

ALGSN (Allocation of Telephone Number Data for Network Data Memory)

Assign Telephone Number Data for My Line and Sub-Line. For more information, refer to the Command Manual for PCPro.

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

Specify 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 User Telephone Number

STEP 4: INPDL (Download of PS Data for Local Data Memory)/ INPDN (Download of PS Data for Network Data Memory)

Download each PS data previously written into the FD onto the Telephony Server.

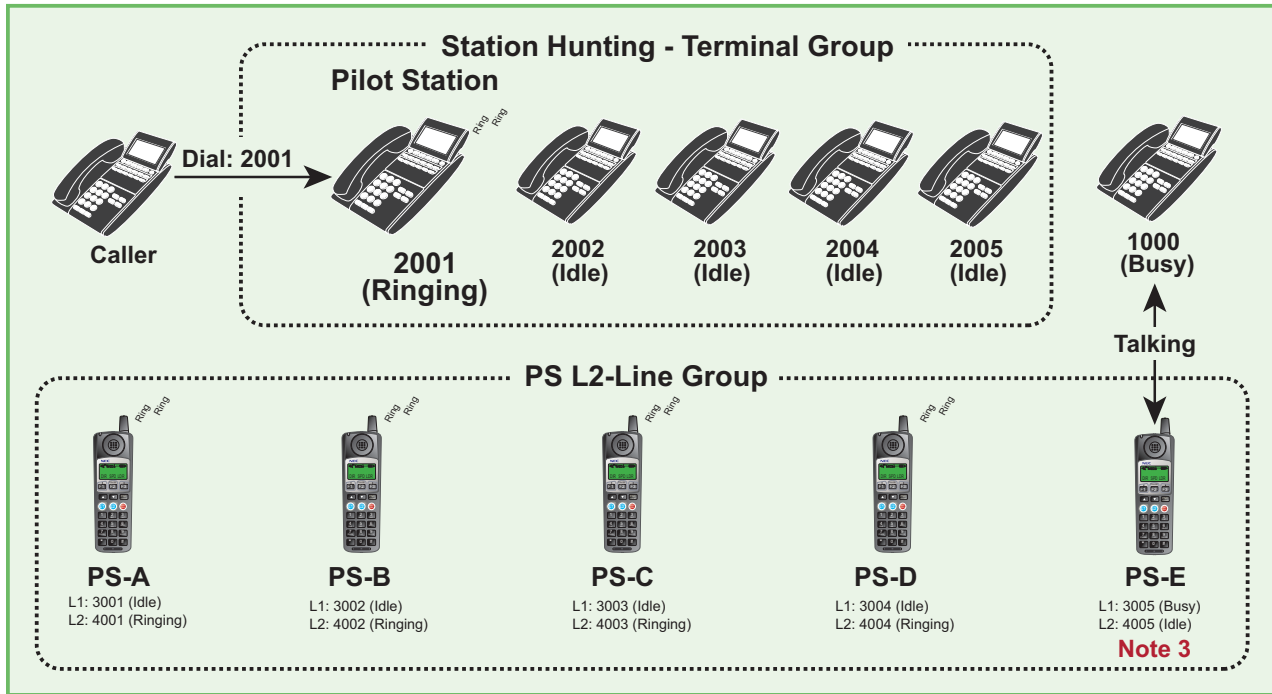
- Enter the file name except for the extension.
- Be sure to connect the printer to PCPro for printing out the list of downloaded data.

P-74 PS (L2) Group Call with Pilot Hunt Incoming Call

1 GENERAL DESCRIPTION

This feature enables a maximum of 8 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 1: 5 terminals (including pilot station) can belong to Station Hunting-Terminal Group at the maximum when this feature is used.

Note 2: A maximum of 5 PSs can be registered as PS L2-line Group.

Note 3: Termination notification is received.

2 OPERATING PROCEDURE

See the figure in Section 1 General Description.

3 SERVICE CONDITIONS

1. In principle, when assigning PS/CS data, use the NDM commands (FPC=1).
2. The maximum number of PSs that can be grouped with hunting group pilot number is eight.

3. For this feature, the maximum number of terminals such as Desktop terminals that can belong to hunting group is five including pilot station.
4. 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].
5. Only PS number that “PS KIND = 8 (Dterm PS II Subline)” is assigned by APSD command can belong to PS L2-line Group.
6. Because the system uses the speech channel of the CS (Cell Station) when ringing signal is sent, a maximum number of PSs that can simultaneously receive ringing signal by this feature depends on a CS layout.
7. 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.
8. 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.
9. PS which is currently on roaming cannot be called.
10. It is not possible to assign a PS L2-line which is already grouped in any PS L2-line Group to other group.
11. My-line (L1) and Sub-line (L2) of a PS must be assigned in the same node.
12. This feature cannot collaborate with the OAI/ACD service.
13. This feature is not available for Hotel system.

4 PROGRAMMING

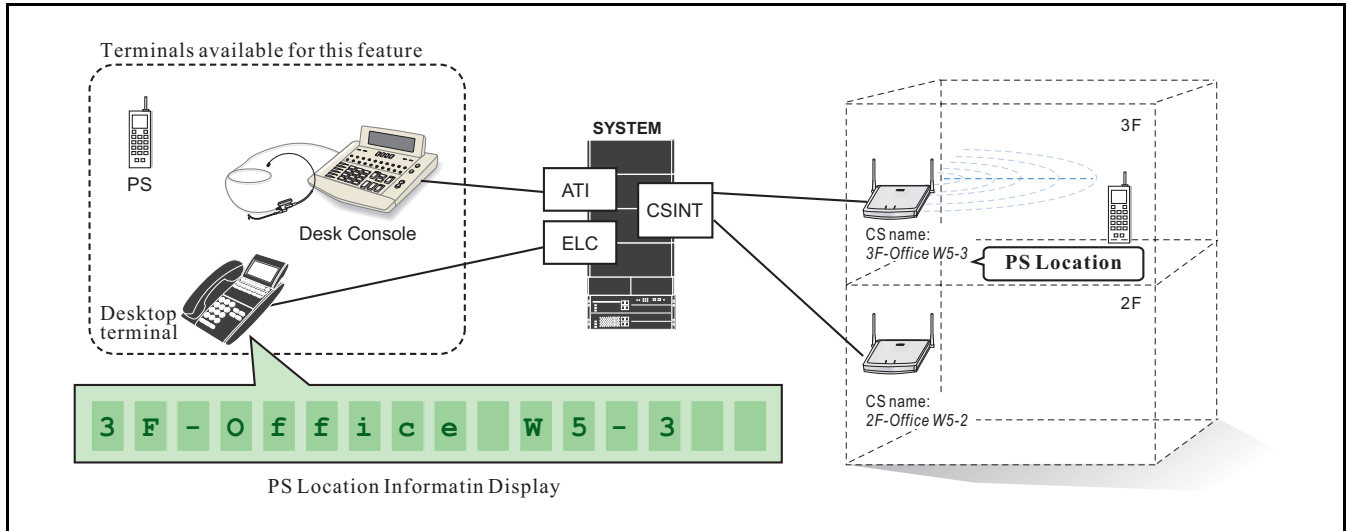
- Entry procedure

STEP 1: APFLL/APFLN (Assignment of PS Floating Line for LDM/NDM)
Assign PS L2-line number(s) to a pilot station number.
UGN: User Group Number
TELN: Telephone Number of Pilot Station
SUB TELN: PS L2-line number to be grouped. (max. 8-number)

P-76 PS Location Information Display - PS/Dterm

1 GENERAL DESCRIPTION

This feature allows the system to display the location information of the CS that is currently used by the other party's PS in a station-to-station connection. The information may be displayed on a Desktop terminal, Desk Console or PS with name display function.

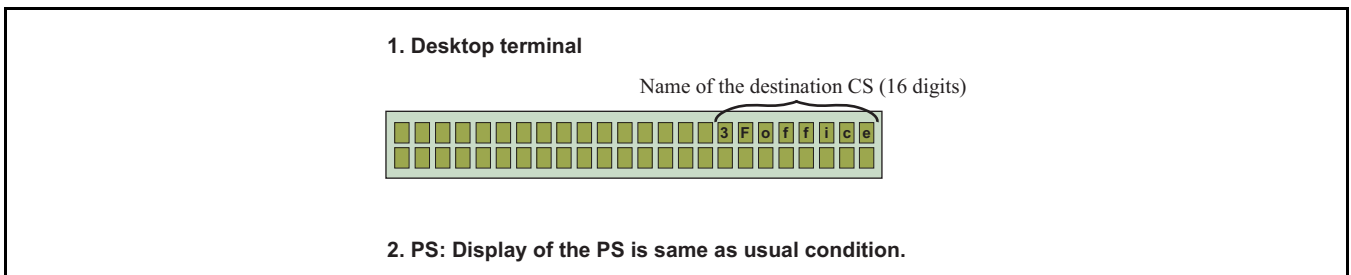


2 OPERATING PROCEDURE

(1) When the name display is within 8 digits (SYS1, Index 241, Bit 1 = 0)

Other party: Station number [50000]

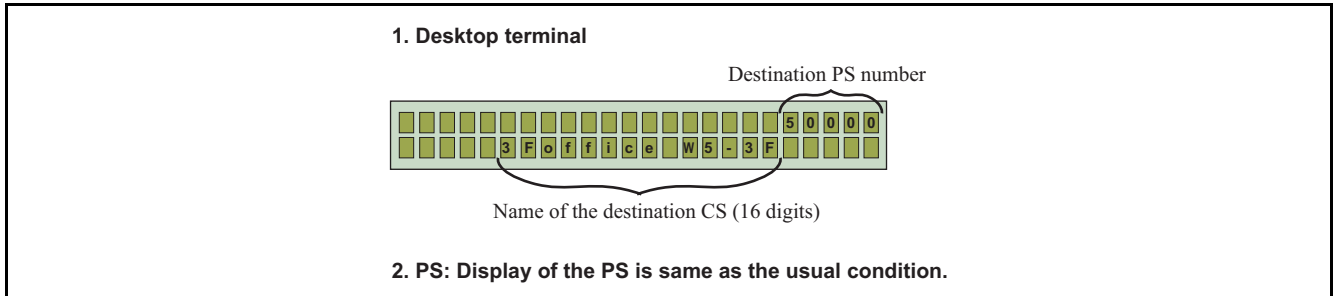
Sample name of the CS used by the other party: 3Foffice (3rd floor office)



(2) When the name display is within 16 digits (SYS1, Index 241, Bit 1 = 1)

Other party: Station number [50000]

Sample name of the CS used by the other party: 3Foffice W5-3F (3rd floor office, CS number 5 of 3rd floor)



3 SERVICE CONDITIONS

1. This feature is available for Desktop terminals, Consoles (**Note 1**), and PS with name displaying function.

Note 1: This feature is available on the following consoles accommodated by the CH-CS00 circuit card (for 7U-PIR) or the PA-CS33/PA-CS33-C circuit card (for 8U-PIR).

- DESK CONSOLE
- SN1554 DTCMF (AAC module)

2. A maximum number of characters for PS Location Information is 16.

3. This feature can be displayed in 8 or 16 digits according to the System data (SYS Index 241 Bit1)

4. Availability of PS Location Information Display on the LCD for each individual Desktop terminal, PS is specified ASFC SFI = 195.

5. Availability of PS Location Information Display on the LCD for destination Desktop terminal, PS currently connected is specified by ASFC SFI = 196.

6. When the name information has not been assigned to a CS, the station number of the PS is displayed, PS name information is displayed at this time when name information has been assigned on the PS.

7. PS Location Information Display of the handover destination is displayed when PS performed handover. However, the station number of PS or PS Name Information (when assigned) is displayed when the handover destination CS has not been assigned the CS name information. When a PS performed handover across the node using FCCS, the CS name cannot be changed on the LCD when the FCCS destination node does not permit the CS name display feature.

8. This feature is available when line status is in station-to-station connection, Call Forwarding - All Calls, Call Forwarding - Busy Line, Call Forwarding - Don't Answer, Call Forwarding - Incoming Incomplete, Call Waiting and Call Transfer.

9. When a call terminates to the L2-Sub Line, this feature displays the PS location information Display on the LCD of the destination terminal after receiving the L2- Sub Line call.
10. When using this feature, “CF:” is not displayed even when terminating station has been set Call Forwarding - All Calls, Busy Line, Don’t Answer or PS out of zone status.

4 INTERACTIONS

1. This feature cannot be used with OAI name display.
2. PS Location Information Display is displayed on the destination terminal’s LCD when location of the PS is registered on the CS with name information assigned by ANCS.

Note: When destination terminal is a Desktop terminal or PS, only when SFI = 195 is effective.

3. PS Location Information Display has precedence over PS name information (user information), which is assigned by ANDD. However when L2 Subline with name information (user information) assigned by ANDD receives a call, the name information is displayed on the LCD. The PS Location Information is displayed when the L2 Subline call is answered.
4. “CONF” is displayed while the connection is in three party conference, CS name information is displayed when 3 party conference is finished and line is back to two-way connection.
5. When Dual Station Call is activated, a person at other end of the line will see the station number/name of the main station even if the Sub PS station is actually connected. To enable this feature to a Sub PS station, assign ASFC, SFI 206 (PS Location Information Display - PS/Dterm over Dual Station Call) to 1.
6. Unable to use with name display of the Hotel feature.

Note: When System Data (SYS1 Index 160) of the Hotel feature is effective.

7. PS Location Information is not displayed for Name Display - CCIS.
8. When the PS is in roaming state, the CS name information is not displayed on the destination terminal’s LCD.

5 PROGRAMMING

STEP 1: ASYD (Assignment of System Data)

SYS1 Index 31:04 (Mounting capacity of the common memory (CM) is set to 4M)
SYS1 Index 78 Bit 5: 1 (With name display service)
SYS1 Index 79 Bit 6: 0 (With OAI service)
SYS1 Index 241 Bit 1: 0/1 = 8 digits/16digits

STEP 2: APSD (Assignment of PS Operation Data for DM)

Assign the Route restriction class, Service Feature Restriction Class, station number and tenant toward PS according to the numbering plan/restriction data.
ND = 1 (Name Display feature available)

After this, assign the PS with ordinary procedure.

STEP 3: ASFC (Assignment of Service Feature Restriction Class)

Assign the availability of this Service Feature Restriction Class (SFC) toward each individual station.
SFC: Service Feature Restriction Class
SFI 195=1 (CS name display on LCD: displaying side)
SFI 196=1 (PS to be displayed: PS whose CS name to be displayed)
SFI 206=0/1 (PS Location Information Display - PS/Dterm over Dual Station Call) **Note 1**

Note 1: Assign 1 to enable this feature to a sub PS to which Dual Station Call has been set.

STEP 4: ANCS (Assignment of Name Information of CS Data)

Assign the location information display of corresponding CS. **Note 2**
PCN: PHS community number (1~1024)
ERN: Call out area number (1~32)
GRN: Group number (1~8)
CSN: CS number (1~32)
NAME: PS location information Display - PS/Desktop terminal

Note 2: CS data need to be assigned in advance by ACSDL/ACSDN command.

Note: When deleting CS data by ACSDL/ACSDN or AICSL/AICSN, the CS Name Information is also deleted.

P-79 PHS 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.

4 PROGRAMMING

[Assignment]

Follow the ordinary PS office data assignment for the PHS data programming.

STEP 1: ASYD (Assignment of System Data)

SYS1 Index 78
b5=1 (PS Name Display in service)
Index 79
b6=0 (OAI feature)
0/1: In use/Out of use
Index 241
b1 (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.

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 Data Programming Manual - Business.

1. For SPEED CALLING-SYSTEM – PS call origination using Pre-set dialing, system data assignment (ASYD, SYS1, Index 420, b0=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 CS is installed.

4 PROGRAMMING

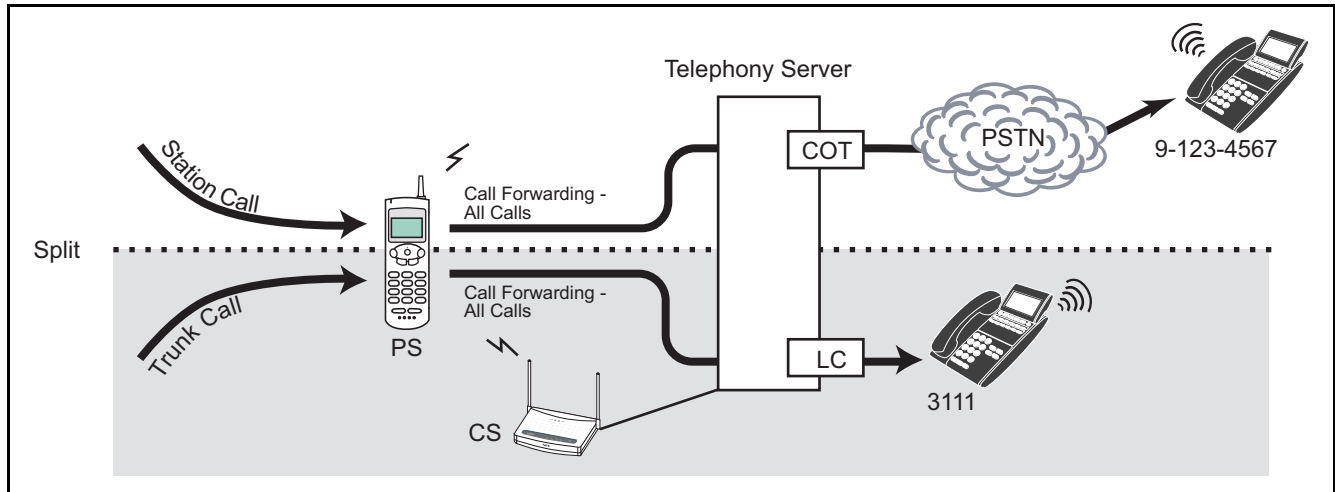
This section describes data assignment procedure exclusive for PHS system only.

- STEP 1: ASYD (Assignment of System Data)**
System Data 1, Index 93, Bit3. Separate or Common Tenant Data table development for ASPD command data. 0/1 = Separate/Common
System Data 2, Index 1, Bit 6. Toll restriction for trunk outgoing call using SPEED CALLING-SYSTEM-PS. 0/1 = Restricted/Allowed (SFC of AABD command basis).
System Data 2, Index 1, Bit 7. Toll Restriction for trunk outgoing call using SPEED CALLING-SYSTEM-PS (system basis). 0/1 = Restricted/Allowed (If required)
System Data 1, Index 420, Bit0. 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. Assign for Normal Service (N). Assign NND in accordance with a predetermined numbering plan.
- STEP 3: ASPA (Assignment of Special Access Code)**
CI=N, SRV = SSC (Service Code), 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)**
Specify whether the 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
 1. Press the off-hook button; receive Dial Tone.
 2. Dial Split Call Forwarding - Set access code; receive Special Dial Tone.
 3. Dial the destination number; receive Service Set Tone.
 4. Press the off-hook button.
- How to Cancel Split Call Forwarding
 1. Press the off-hook button; receive Dial Tone.
 2. Dial Split Call Forwarding - Cancel access code; receive Service Set Tone.
 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 a 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, bit0

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, bit7

Multiple Call Forwarding for Busy Line/All Calls/Logout

0/1 = Out/In Service

SYS1, Index 79, bit2

Split Call Forwarding Service

0/1 = Out/In Service

SYS1, Index 248, bit7

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, bit4

Call Origination Restriction of Station upon Setting C.F.-All Calls

0/1 = Required/Not Required **Note 1**

Note 1: 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 2**

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 2**

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 2: 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)

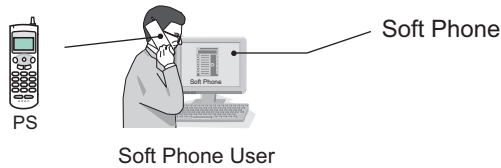
Allow Call Forwarding features between OGTM and TMTN by TRI=1.

S-158 Soft Phone - PS

1 GENERAL DESCRIPTION

This feature allows a Softphone user to use the PS 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.

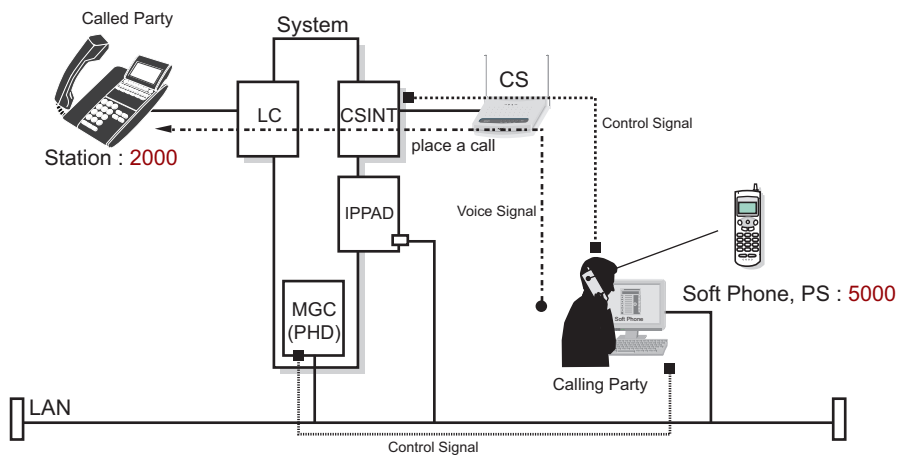
Example:



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 Call Park button on the Softphone.

Note: The Parked Call can be retrieved also by pressing 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 (Ver.2) (Proprietary Protocol)	DtermSP30 (Ver.4) (Proprietary Protocol)	DtermSP30 (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 data, use the NDM commands (FPC=1).
3. Call origination 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, 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

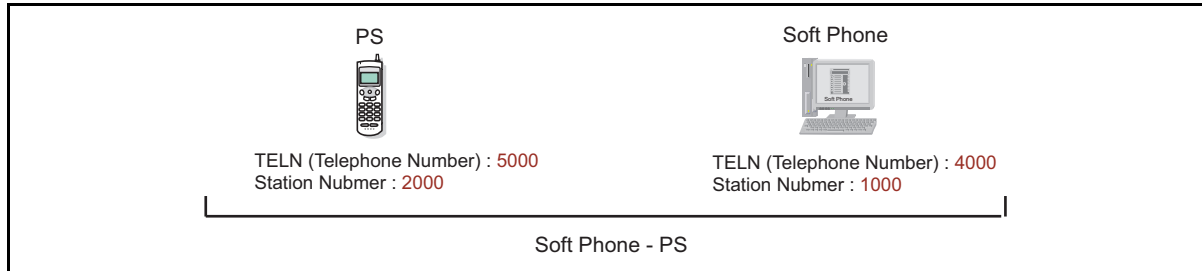
10. When this feature is used, the PS user requires to go off-hook to place a call.
11. A Softphone user cannot retrieve the parked call by pressing the Park key when the user is engaged in call.
12. When assigning Call Pickup Group / Call Pickup Expand data not using Telephone Number, be sure to assign the PS station number and My Line Number of the Softphone by using ACPG / ACPE commands.
13. In the following cases, 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, System Data 1, 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. 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.
19. When using this feature, it is available to retrieve only the held call via Call Park Group -D.
20. This feature is not available for a call via PHC.
21. 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.
22. When the handset is PS, the PS cannot answer the held call on the Sub Line on Softphone.
23. Soft Phone - PS is available when the talking PS moves among FCCS offices.

- 24. Both of PS and Softphone can release the call when PS is used as a handset.
- 25. 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.
- 26. A maximum of 256 units per MG can be assigned for MG (Module Group) of PS Line Appearance data (APLAML/APLAMN).
- 27. This feature is not available on L2 of PS dual line.
- 28. 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)

System data 1, 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 a 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: [For UMGi/RNIP system] When the number of Softphones is beyond 256 per MG, assign the lest of Softphones to another MG which belongs to the same CCN.

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: APJSL (Assignment of PS Join Softphone for LDM)
Assign the relationship between the My Line of Softphone and PS.
UGN: PS User Group Number
TELN: PS Telephone Number
S_UGN: Softphone User Group Number
S_TELN: Softphone Telephone Number

[In case of the example condition]
UGN: PS User Group Number
TELN: 5000 (Telephone Number of PS)
S_UGN: Softphone User Group Number
S_TELN: 4000 (Telephone Number of Softphone)

- When using FCCS

STEP 1: ASYD (Assignment of System Data)
System data 1, 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 Softphone.

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 a 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: [For UMGi/RNIP system] When the number of Softphones is beyond 256 per MG, assign the rest of Softphones to another MG which belongs to the same CCN.

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 Softphone for NDM)

Assign the relationship between the My Line of Softphone and PS.

UGN: PS User Group Number

TELN: PS Telephone Number

S_UGN: Softphone User Group Number

S_TELN: Softphone 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: Softphone User Group Number

S_TELN: 4000 (Telephone Number of Softphone)

FPC: Fusion Point Code

Data Assignments for Other 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 Softphone.

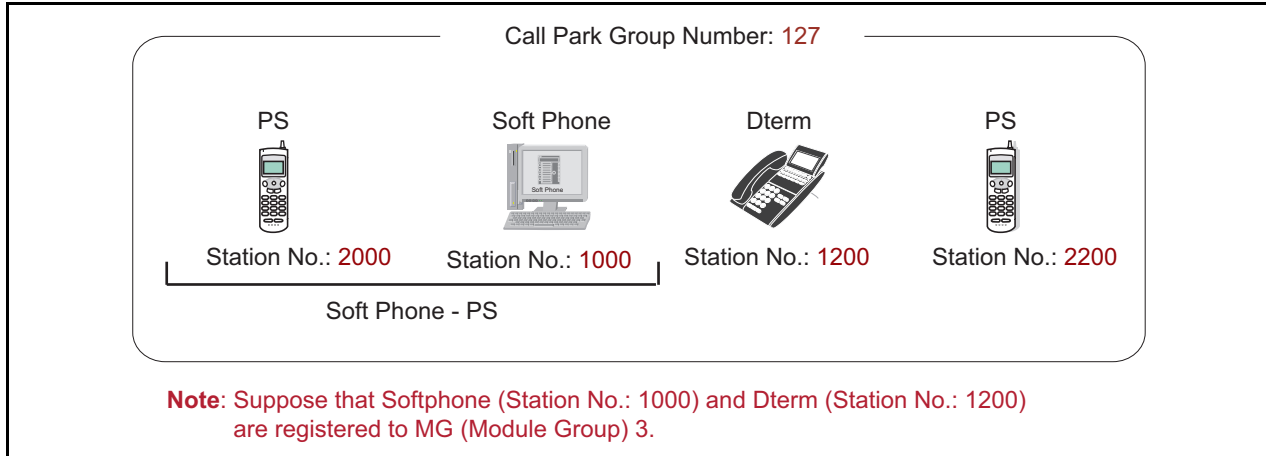
1. Services that need to be assigned for either PS or PS Number.
 - Incoming Call Services:
A variety of Station Hunting Services or UNIFORM CALL DISTRIBUTION (UCD) [U-1]
 - CALL Pickup services:
CALL PICKUP-GROUP [C-7] and Expand Call Pickup-Group
 - Setting/Canceling of CF services:
Call FORWARDING-ALL 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 Softphone. **Note 1**
 - 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 1: 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 Call Park in this manual and Call Park [C-29] in Data Programming Manual - Business.

Example condition:



Parameter	Terminal				
	Soft Phone - PS		Dterm (1200)	PS (2200)	GROUP NO (127)
	PS (2000)	Softphone (1000)			
ADGN	-	GROUP NO: 127	GROUP NO: 127	-	-
APGN	MG: 03 GROUP NO: 127 STN: 2000	-	-	MG: 03 GROUP NO: 127 STN: 2200	-
APGS	-	-	-	-	MG: 03 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 Key. Assign FKY 75-82 to the Softphone key.

Note: When only one Call Park Group Key is assigned, assign FKY 75 to the Dterm 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. System Data 1, 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 Softphone. 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

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 2
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 3	×
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)	–	×

FKY	Service Feature	Soft Phone - PS	
		is used	not used
29	Data (DATA)	–	–
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	Headset / Handset	–	–
57	Recall	–	–
58	-		

FKY	Service Feature	Soft Phone - PS	
		is used	not used
59	Release Key	–	×
60	Manual Signaling Key	–	–
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	–	–

FKY	Service Feature	Soft Phone - PS	
		is used	not used
101	END	–	–
102 - 112	-		
113	Call ID Change Display	–	–
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	–	–

FKY	Service Feature	Soft Phone - PS	
		is used	not used
144	Voice Coding Select	–	–
145 - 147	-		
148	Call Forwarding - Logout	–	–
149	Message Audible Alert (North America only)	–	–
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	-		

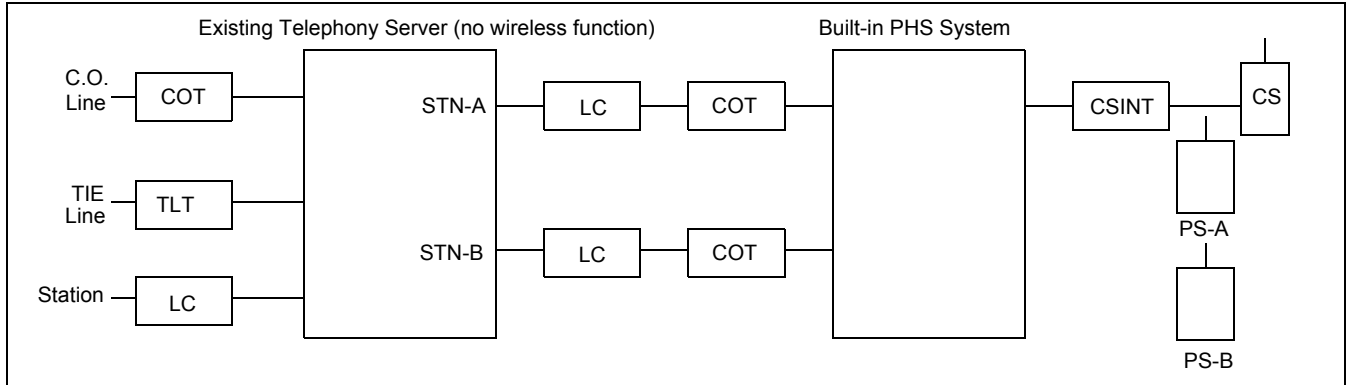
Note 2: Available only when Softphone is a calling party.

Note 3: Available when Call Park access codes have been assigned except Exclusive Hold.

W-8 Wireless Analog Adjunct Connection

1 GENERAL DESCRIPTION

This feature allows the existing 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 PHS system. When a call is originated from the PS, it terminates to the LC in the existing 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 rings 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 Telephony Server 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



CHAPTER 3 COMMANDS

This chapter explains some commands added or revised in the PHS system. Table below shows the list of related commands.

List of Commands (1/2)

COMMAND NAME	FULL COMMAND NAME
*AAED	Assignment of Announcement Equipment Data
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 LDM
ACSSL	Assignment of CS/ZT System Data for LDM
ACSSN	Assignment of CS/ZT System Data for NDM
ADGN	Assignment of Dterm Group Number
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
AICSL	Assignment of IPCS/IPZT Data for LDM
AICSN	Assignment of IPCS/IPZT Data for NDM
ALGSL	Allocation of Telephone Number Data for Local Data Memory
*ALGSN	Allocation of Telephone Number Data for Network Data Memory
*ALRTN	Assignment of Logical Route for Network Data Memory
*ANSDL	Assignment of Number Sharing Data for Local Data Memory
*ANSN	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
APFLL	Assignment of PS Floating Line for LDM
APFLN	Assignment of PS Floating Line for NDM
APGN	Assignment of PHS Group Number
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
APSCL	Assignment of PS Service Change for LDM
APSCN	Assignment of PS Service Change for NDM
Note:	An asterisk (*) indicates the commands whose contents are given slight addition or amendment in the PHS system. This manual only describes the parts revised from the previous ones. Additionally, for more detail, refer to the Command Manual or Operations and Maintenance Manual of the Telephony Server for the commands marked with an asterisk (*).

List of Commands (2/2)

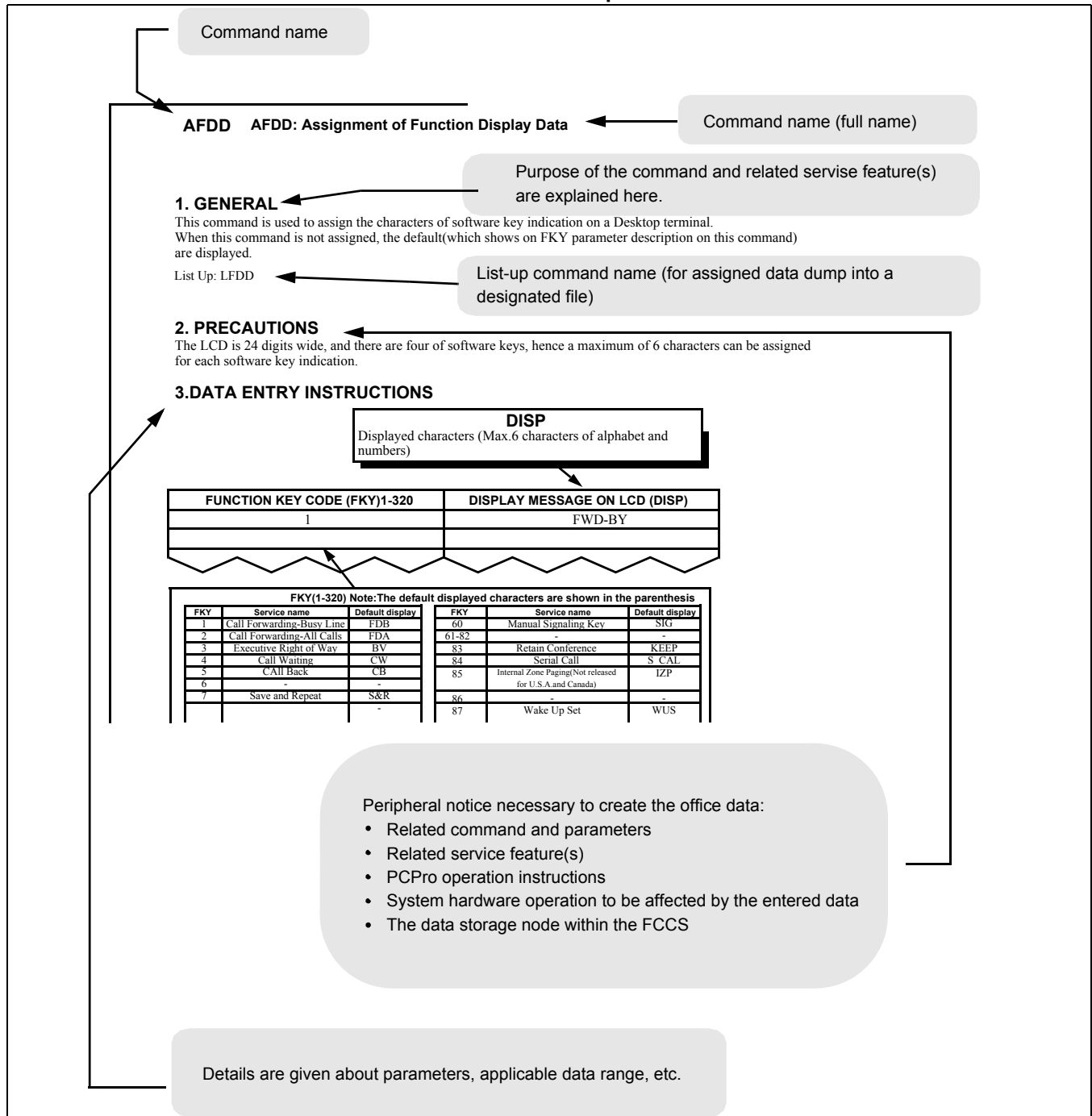
COMMAND NAME	FULL COMMAND NAME
APSD	Assignment of PS Operation Data
APSP	Assignment of Trunk Line Appearance
ASFC	Assignment of Service Feature Restriction Class
*ASPA	Assignment of Special Access Code
*ASYD	Assignment of System Data
*ASYDL	Assignment of System Data for LDM
*ASYDN	Assignment of System Data for NDM
*ATRF	Assignment of Traffic Measurement Order
COCS1L	Control of CS Status Read for Local Data Memory
COCS1N	Control of CS Status Read for Network Data Memory
COCS2L	Change of CS Operation Parameter for Local Data Memory
COCS2N	Change of CS Operation Parameter for Network Data Memory
COCS3L	Control of CS Reset for Local Data Memory
COCS3N	Control of CS Reset for Network Data Memory
COCS4L	Control of CS Data Read for LDM
COCS4N	Control of CS Data Read for NDM
COCS5L	Control of CS Data Read for LDM
COCS5N	Control of CS Data Read for NDM
COCS6L	Change of Synchronous Status of IPCS/IPZT Data Read for LDM
COCS6N	Change of Synchronous Status of IPCS/IPZT Data Read for NDM
CSDLL	CS Program Download for LDM
DPSN	Display of PS Station Data
DRPS	Display for Reverse Develop PS Data
DSYRL	Display of System-ID for Local Data Memory
DSYRN	Display of System-ID for Network Data Memory
DTFP	Display of CS Peg Count Data
INPDL	Download of PS Data for Local Data Memory
INPDN	Download of PS Data for Network Data Memory
LCSVL	List up of CS Program Version for LDM
MBCSL	Make Busy of CS for Local Data Memory
MBCSN	Make Busy of CS for Network Data Memory

Note: An asterisk (*) indicates the commands whose contents are given slight addition or amendment in the PHS system. This manual only describes the parts revised from the previous ones. Additionally, for more detail, refer to the Command Manual or Operations and Maintenance Manual of the Telephony Server for the commands marked with an asterisk (*).

1. COMMAND DESCRIPTION AND DATA SHEET FOR ASSIGNMENT

This chapter explains assignment commands and their parameters for this system. The contents of each assignment command description are illustrated in the figure below.

Command Descriptions



Country Number (the parameter CTRN of ACSEL/ACSEN and APSD commands) is shown in the table below.

Note: For countries other than those mentioned below, refer to ITU-T Recommendation X.121.

Country Number (CTRN) for Each Country (1/2)

Country	CTRN (HEX) for ACSEL/ ACSEN	CTRN (DEC) for APSD
India (Republic of)	4A4	1188
Pakistan (Islamic Republic of)	41A	1050
Afghanistan (Islamic State of)	412	1042
Sri Lanka (Democratic Socialist Republic of)	413	1043
Myanmar (Union of)	414	1044
Lebanon	415	1045
Jordan (Hashemite Kingdom of)	416	1046
Syrian Arab Republic	417	1047
Iraq (Republic of)	418	1048
Kuwait (State of)	419	1049
Saudi Arabia (Kingdom of)	42A	1066
Yemen (Republic of)	421	1057
Oman (Sultanate of)	422	1058
United Arab Emirates	424	1060
Israel (State of)	425	1061
Bahrain (State of)	426	1062
Qatar (State of)	427	1063
Mongolia	428	1064
Nepal	429	1065
United Arab Emirates (Abu Dhabi)	43A	1082
United Arab Emirates (Dubai)	431	1073
Iran (Islamic Republic of)	432	1074
Japan	44A	1098
Korea (Republic of)	45A	1114
Viet Nam (Socialist Republic of)	452	1106
Hong Kong	454	1108
Macau	455	1109
Cambodia (Kingdom of)	456	1110

Country Number (CTRN) for Each Country (2/2)

Country	CTRN (HEX) for ACSEL/ ACSEN	CTRN (DEC) for APSD
Lao People's Democratic Republic	457	1111
China (People's Republic of)	46A	1130
Taiwan, China	466	1126
Democratic People's Republic of Korea	467	1127
Bangladesh (People's Republic of)	47A	1146
Maldives (Republic of)	472	1138
Malaysia	5A2	1442
Australia	5A5	1445
Indonesia (Republic of)	51A	1306
Philippines (Republic of the)	515	1301
Thailand	52A	1322
Singapore (Republic of)	525	1317
Brunei Darussalam	528	1320
New Zealand	53A	1338
Guam	535	1333
Nauru (Republic of)	536	1334
Papua New Guinea	537	1335
Tonga (Kingdom of)	539	1337
Solomon Islands	54A	1354
Vanuatu (Republic of)	541	1345
Fiji (Republic of)	542	1346
Wallis and Futuna (French Overseas Territory)	543	1347
American Samoa	544	1348
Kiribati (Republic of)	545	1349
New Caledonia (French Overseas Territory)	546	1350
French Polynesia (French Overseas Territory)	547	1351
Cook Island	548	1352
Samoa (Independent State of)	549	1353
Egypt (Arab Republic of)	6A2	1698

ACSDL: Assignment of CS/ZT Data for LDM

1. GENERAL

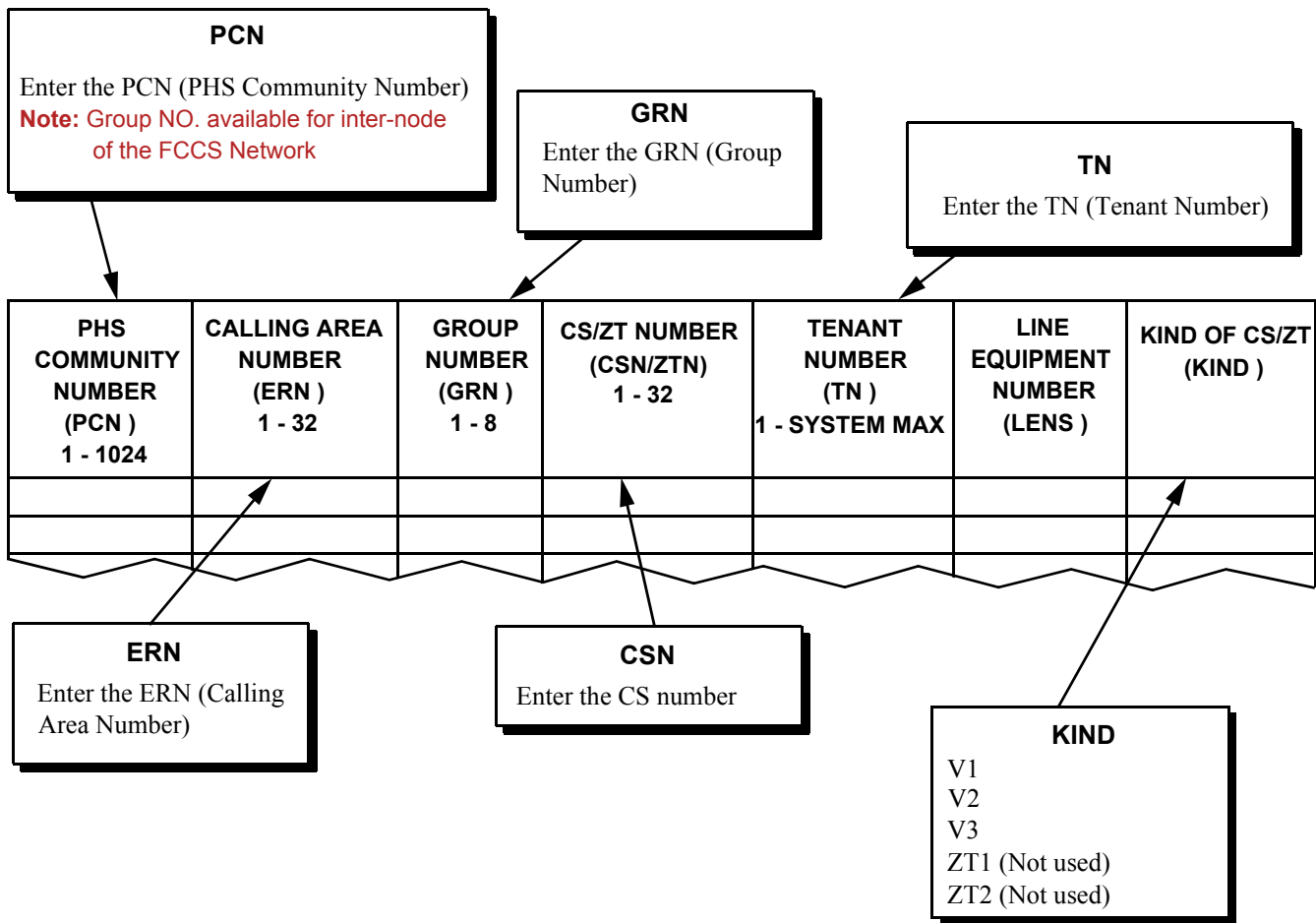
This command is used to assign, delete, and display the CS-related data. A CSINT circuit card can accommodate eight CSs, allowing each two groups of the Levels 0 and 4 to be assigned for one circuit card.

List Up Command: LCSDL

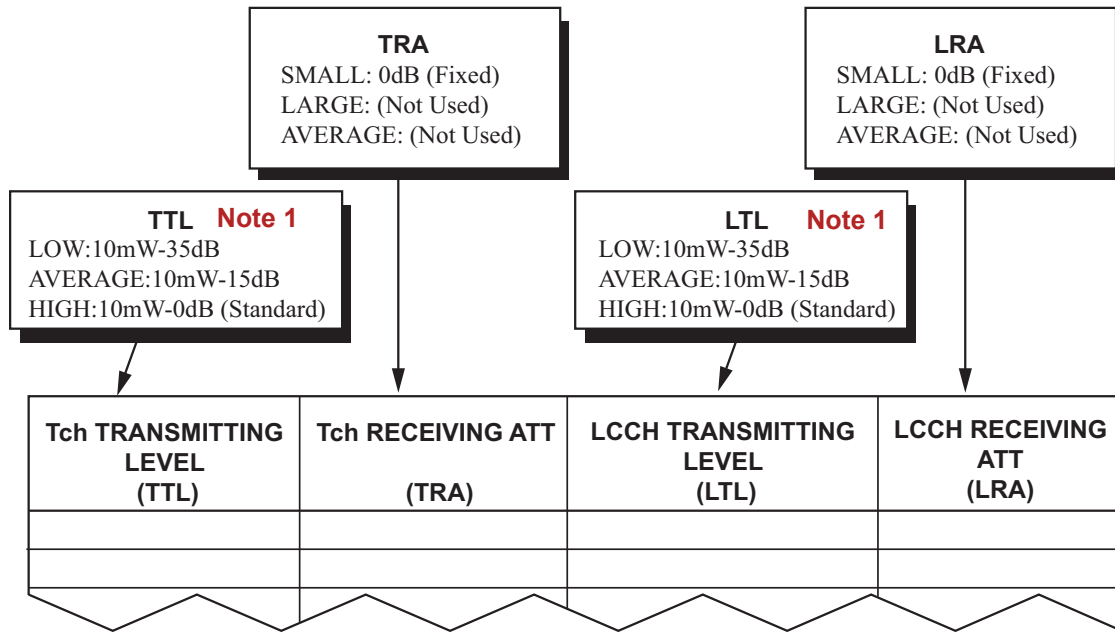
2. PRECAUTIONS

1. This command is used in the Local Node.
2. When assigning LENS, CS should be assigned in the Group of less than 24 and the Levels to be available are 0 and 4.
3. While the CS is busy, the data cannot be deleted.
4. When using BS41 for CS, the setting of LTL in this command is shared between Tch transmitting level and LCCH transmitting level. Therefore, the setting of TTL does not apply to Tch transmitting level here, and it must be fixed to "HIGH".

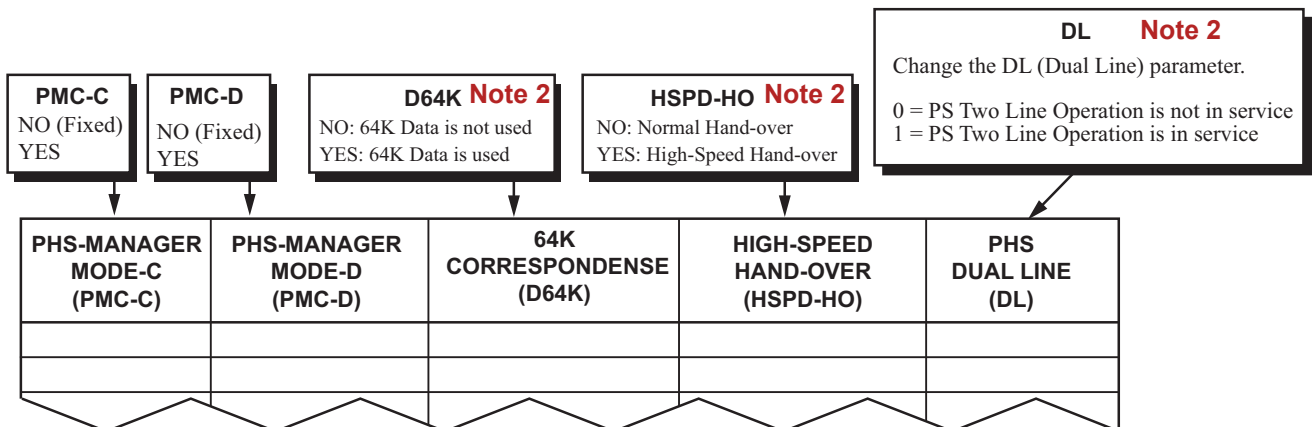
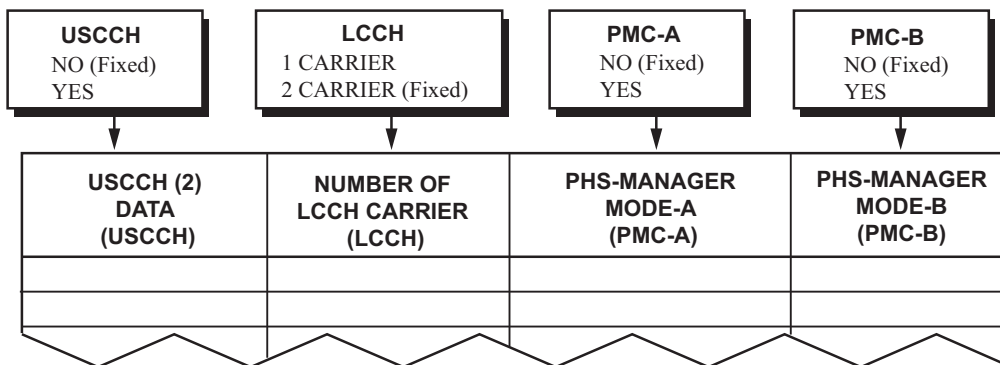
3. DATA ENTRY INSTRUCTIONS



ACSDL : Assignment of CS/ZT Data for LDM



Note 1: When using BS 21/24, do not designate "LOW."



Note 2: The parameters are displayed when "KIND=V3" is selected.

ACSDN: Assignment of CS/ZT Data for NDM

1. GENERAL

This command is used to assign, delete and display the CS-related data of the Network Control Node (NCN). A CSINT circuit card can accommodate eight CSs, 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 in the Network Control Node.
2. When assigning LENS, CS should be assigned in the Group of less than 24 and the Levels to be available are 0 and 4.
3. 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 in the ERN of A node.
5. When you set/delete the CS-related data of NCN, you must back up the office data of NCN and LN that mount the CS.
6. When using BS41 for CS, the setting of LTL in this command is shared between Tch transmitting level and LCCH transmitting level. Therefore, the setting of TTL does not apply to Tch transmitting level here, and it must be fixed to "HIGH".

3. DATA ENTRY INSTRUCTIONS

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)

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)

FPC

Enter the FPC in the FCCS Network

ERN

Enter the ERN (Calling Area Number)

CSN / ZTN

Enter the CS/ZT number

KIND

V1
V2
V3
ZT1 (Not used)
ZT2 (Not used)

TRA

SMALL: 0dB (Fixed)
LARGE: (Not Used)
AVERAGE: (Not Used)

LRA

SMALL: 0dB (Fixed)
LARGE: (Not Used)
AVERAGE: (Not Used)

TTL Note 1

LOW: 10mW-35dB
AVERAGE: 10mW-15dB
HIGH: 10mW-0dB (Standard)

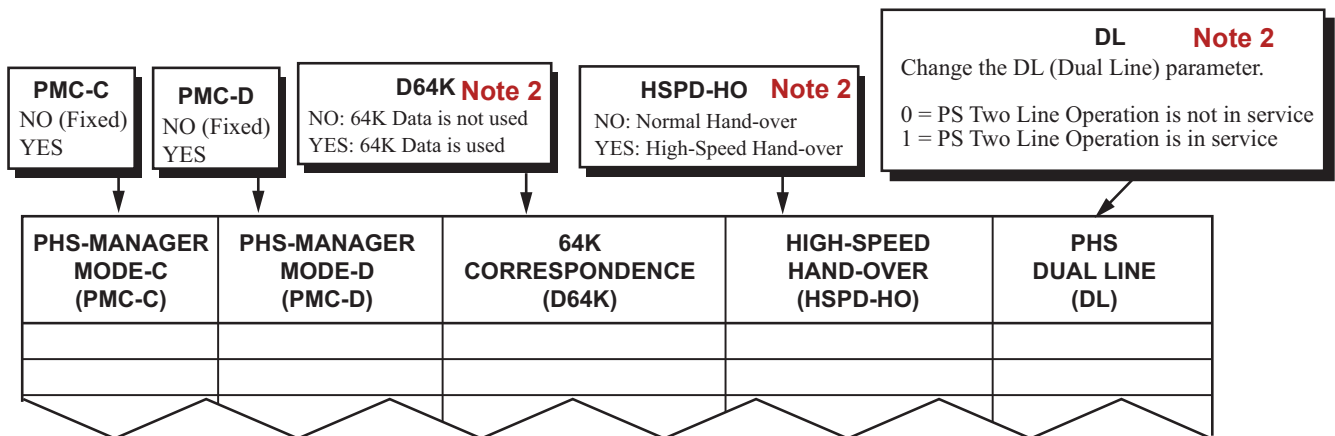
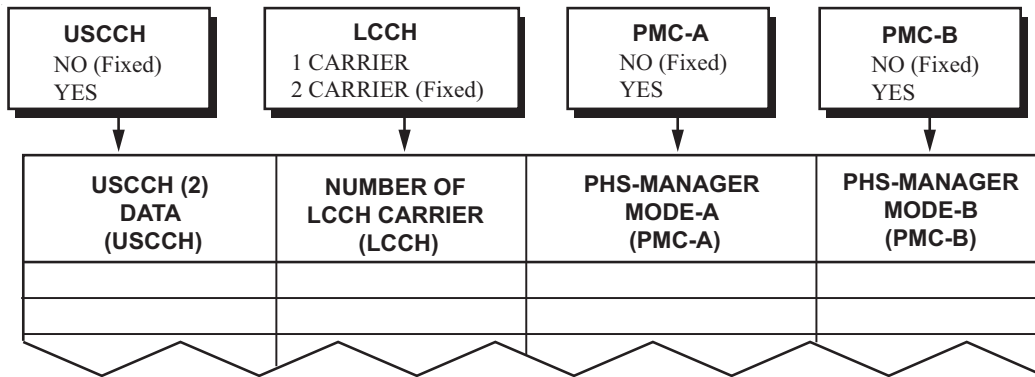
LTL Note 1

LOW: 10mW-35dB
AVERAGE: 10mW-15dB
HIGH: 10mW-0dB (Standard)

Tch TRANSMITTING LEVEL (TTL)	Tch RECEIVING ATT (TRA)	LCCH TRANSMITTING LEVEL (LTL)	LCCH RECEIVING ATT (LRA)

Note 1: When using BS 21/24, do not designate "LOW."

ACSDN : Assignment of CS/ZT Data for NDM



Note 2: The parameters are displayed when “KIND=V3” is selected.

[illegible]

ACSEL: Assignment of Expansion CS/ZT System Data for LDM

1. GENERAL

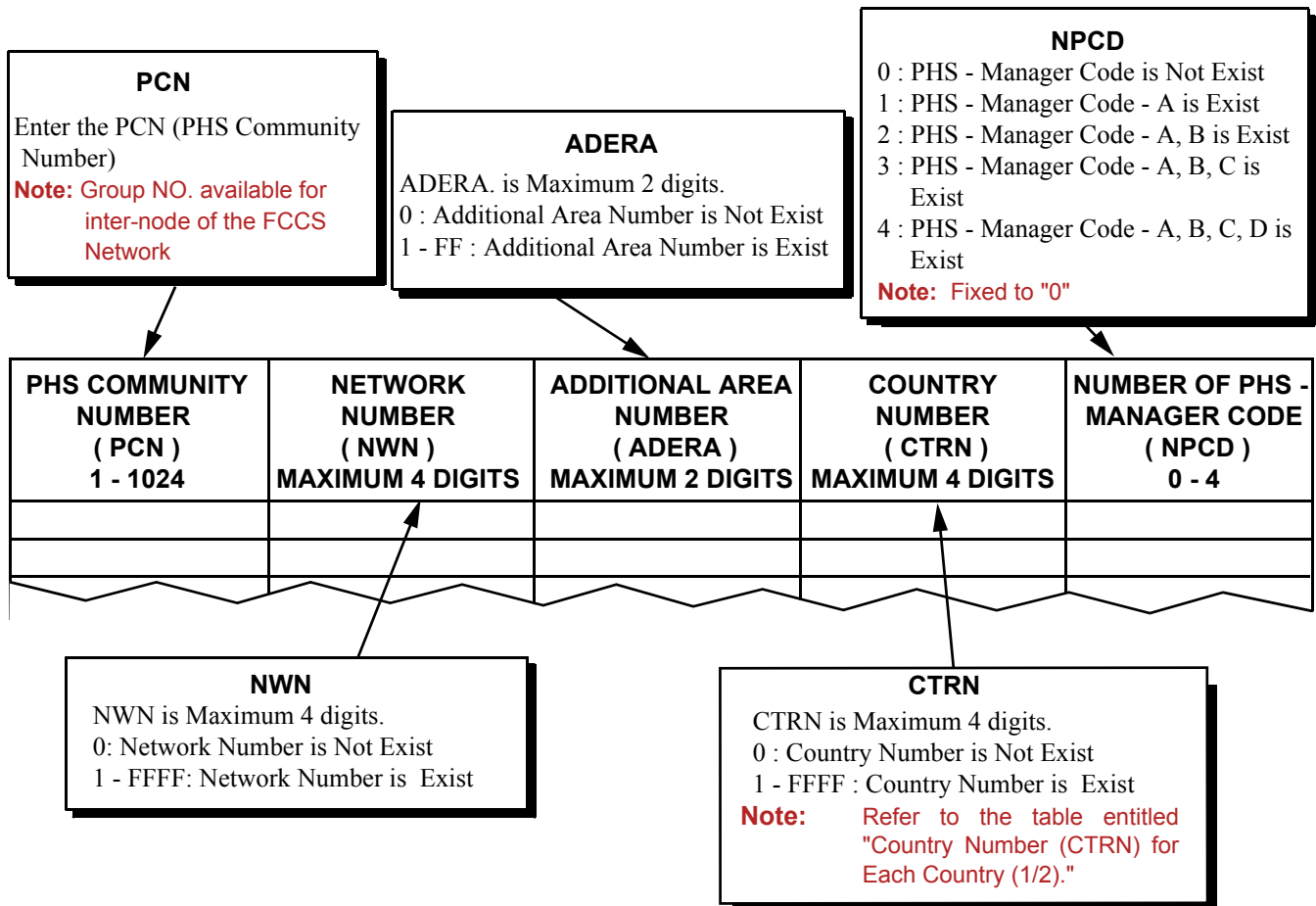
This command is used to assign, delete and display the expansion CS System data in Local Node.

List Up Command: LCSEL

2. PRECAUTIONS

1. This command is used in 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

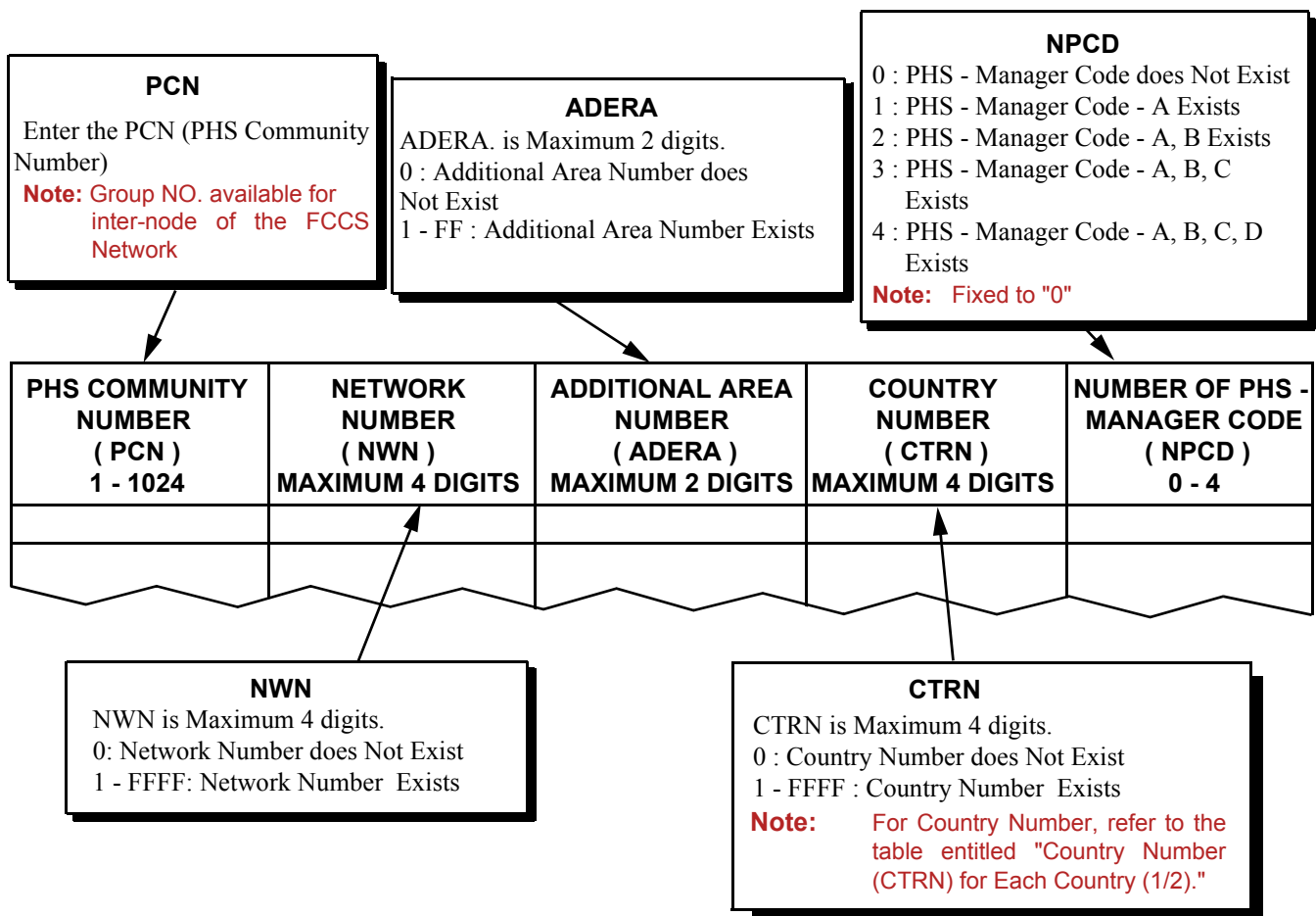
1. GENERAL

This command is used to assign, delete, and display the expansion CS System data in Network Data Memory.

2. PRECAUTIONS

1. This Command is used in 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



ACSPL: Assignment of CS Peg Count Data for Local Data Memory

1. GENERAL

This command is used to assign, delete, and display the CS observed in the CS 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 in 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 Control CS System data in Local Data Memory.

2. PRECAUTIONS

This command is used in the Local Node.

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)	SYSTEM IDENTITY (SYS-ID)

PCN
Enter the PCN (PHS Community Number)
Note: Group NO. available for
Inter-node of the FCCS
Network

MCS ERN
Enter the Control CS
Calling Area Number.

MCS CSN/ZTN
Enter the Control CS
CS Number.

MCS GRN
Enter the Control CS
Group Number.

**OP CSN/
OP ZTN**
1 : fixed

SYS-ID
Enter the System Identity if MCS ERN,
MCS GRN and MCS CSN/ZTN are
not assigned.
Note: SYSTEM ID must be a
unique number.

ACSSN: Assignment of CS/ZT System Data for NDM

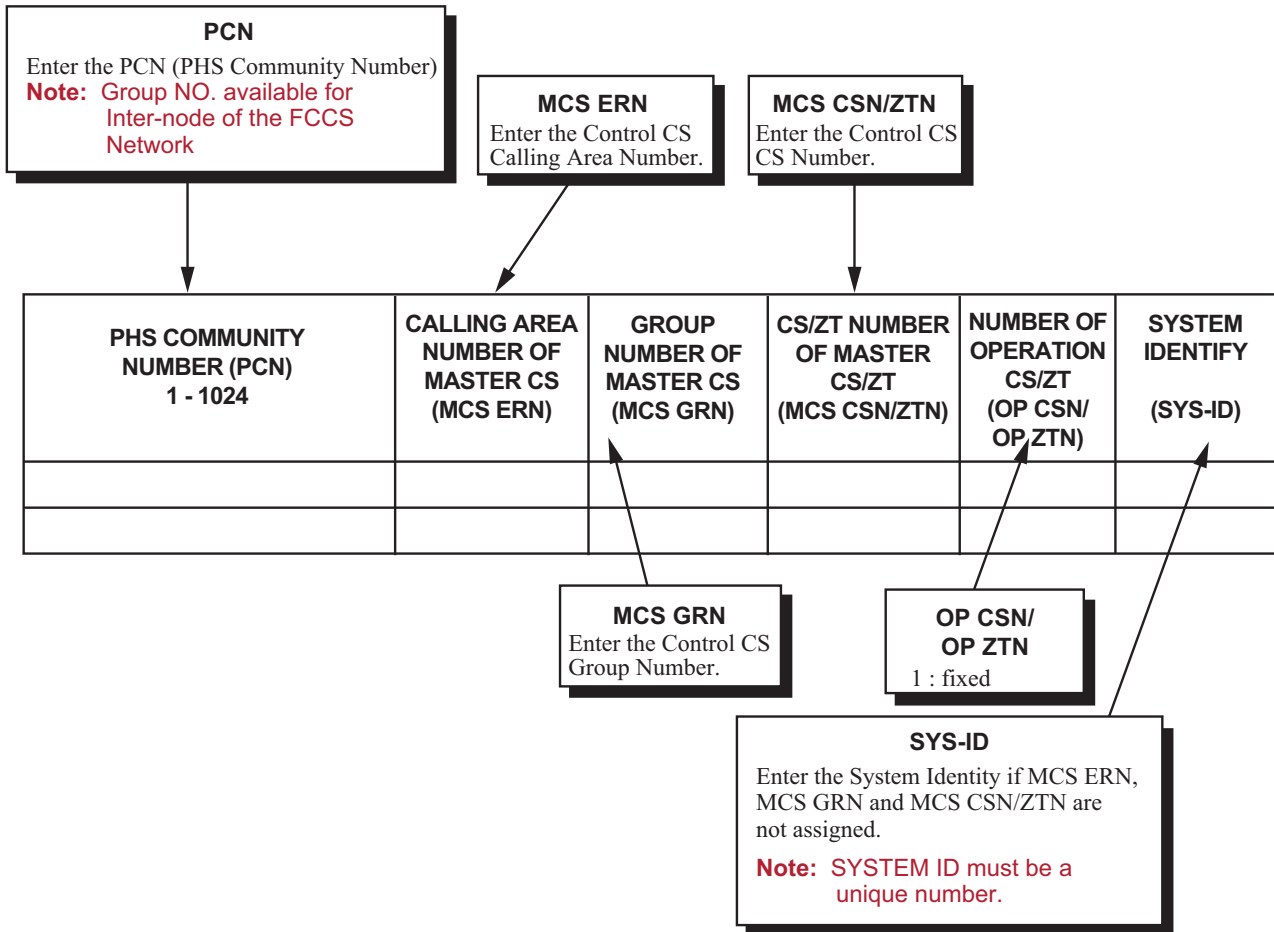
1. GENERAL

This command is used to assign and display the Control CS System data in Network Data Memory.

2. PRECAUTIONS

This command is used in the Network Control Node.

3. DATA ENTRY INSTRUCTIONS



ADGN: Assignment of Dterm Group Number

1. GENERAL

This command is used to assign or delete the Group Number of each terminal station number.

2. PRECAUTIONS

1. If “DLC Group Number Write Error” or “DLC Group Number Delete Error” occurs, the following operation are required to change the Group Number:

- Digital Terminals:

Initialize the ELC card or an interface card of the DAU (set the MB switch to ON/OFF position).

- IP Terminals, SIP Multiple Line Terminals, and UG50 (DLC):

Reset the terminals manually or using the DISS command.

2. From number 1 to 126 needs to be used for receiving parties and Call Park Group-D. From number 127 to 255 needs to be used for Call Park Group-D as Group Number.

3. DATA ENTRY INSTRUCTIONS

Tenant Number (TN) 1-63	Station Number (STN) 5 digits for Business 6 digits for Hotel at maximum	Group Number (GROUP NO) 1-255	Ringer (Ringer information) 0/1 0:Ring 1:No Ring

Ringer
Enter the ringer information when receiving calls

↓

STN
Enter the station number to be held in Group

↗

GROUP NO
Enter the Group Number to be held in Group

↖

[illegible]

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, #, * (max. 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, #, * (max. 5 digits)
D_ADC (SPEED CALLING DIAL NUMBER OF DESTINATION)	: 0-9, #, * (max. 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, #, * (max. 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, #, * (max. 16 digits)

D_ADC (SPEED CALLING DIAL NUMBER OF DESTINATION) : 0-9, #, * (max. 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 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, #, * (max. 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, #, * (max. 16 digits)
D_ADC (SPEED CALLING DIAL NUMBER OF DESTINATION)	: 0-9, #, * (max. 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					

AICSL: Assignment of IPCS/IPZT Data for LDM

1. GENERAL

This command is used to assign and delete the IPCS (IP-BS)-related data.

2. PRECAUTIONS

- When assigning CS accommodated location (MG, U, G, L) of LENS, less than 24 should be entered in the Group (G), and "0" or "4" should be entered in the Level (L).
- While the IPCS (IP-BS)/IPZT 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 NUMBERS (LENS)	KIND OF IPCS/IPZT (KIND) 6 - 9

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

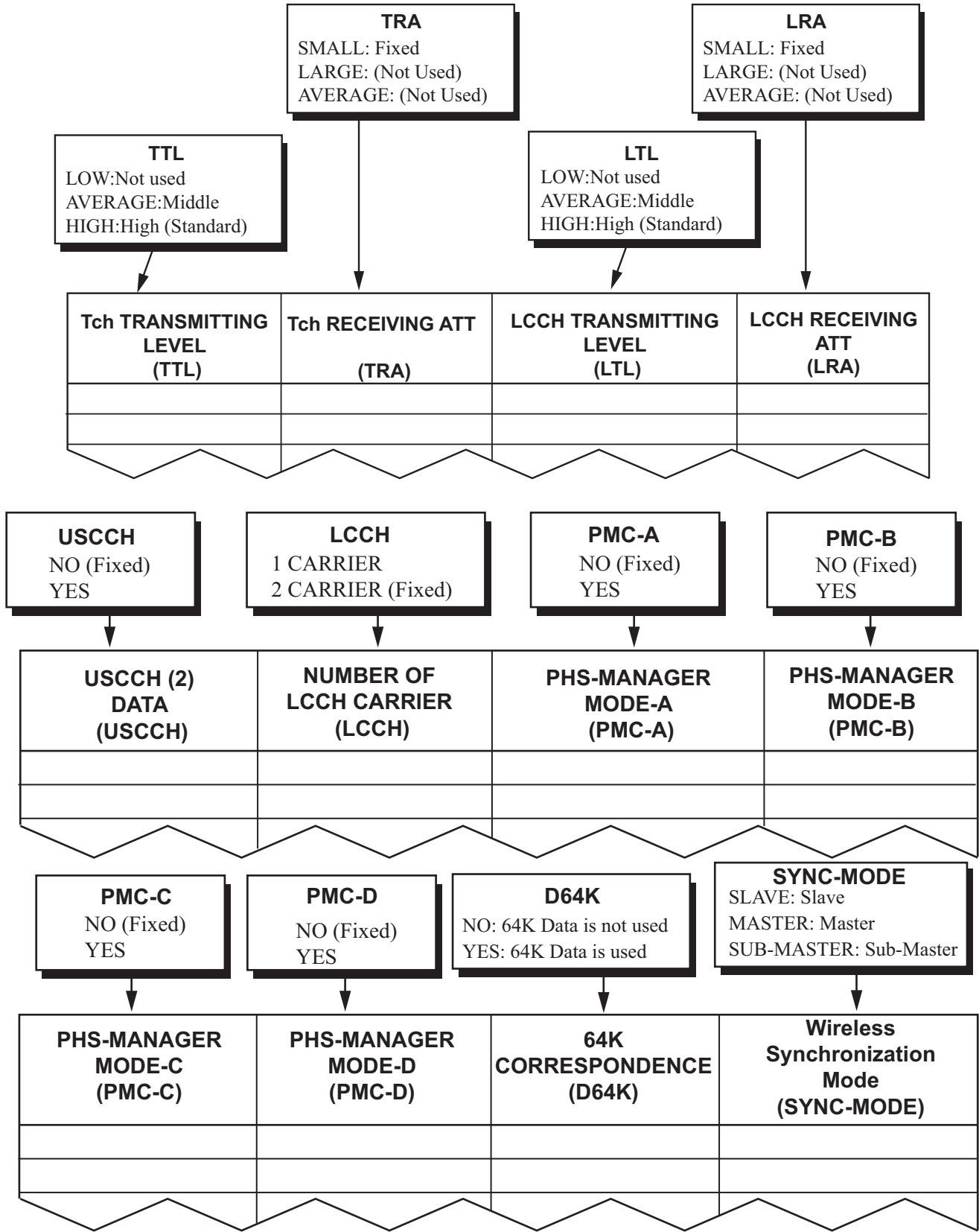
Enter the ERN (Calling Area Number)

CSN/ZTN

Enter the CS number

KIND

6 = IPCS1
7 = IPCS2 (Not used)
8 = IPZT1 (Not used)
9 = IPZT2 (Not used)



SYNC SYS-ID: SYS-ID of the CS to be synchronized. (Enter the SYS-ID only when MASTER was chosen in SYNC-MODE)

SUB-MASTER: IPCS (IP-BS) number of the SUB-PRIMARY IPCS (IP-BS) (Displays only when MASTER was chosen in SYNC-MODE)

MASTER: IPCS (IP-BS) number of the PRIMARY IPCS (IP-BS) (Enter the following only when SUB-MASTER was chosen in SYNC-MODE)

- M PCN
- M ERN
- M GRN
- M CSN/ZTN

Detailed Data: Wireless Synchronous Detail Data

Ns: Master IP-BS **Note 1**

b0-2: Fixed to 0 (for NEC engineer).

b3: **Note 2**

0 = IP-BS may operate as Slave.

1 = IP-BS operates as Master.

b4-7: Fixed to 0 (for NEC engineer).

Ts: Fixed to 0 (for NEC engineer).

Na: Fixed to 0 (for NEC engineer).

Ta: Fixed to 0 (for NEC engineer).

Tx: Fixed to 0 (for NEC engineer).

Note 1: This data is required for Master IP-BS only. Assign this data by a decimal.

Note 2: If using IP-BS with firmware SP-3695 9A, or SP-3775 7A or later version, make sure to assign "1". For the other firmware versions, assign "0".

MAC-ADDRESS: IPCS (IP-BS)/IPZT MAC Address

5. List up command:

LICS L

AICSN: Assignment of IPCS/IPZT Data for NDM

1. GENERAL

This command is used to assign, delete the IPCS (IP-BS)-related data.

2. PRECAUTIONS

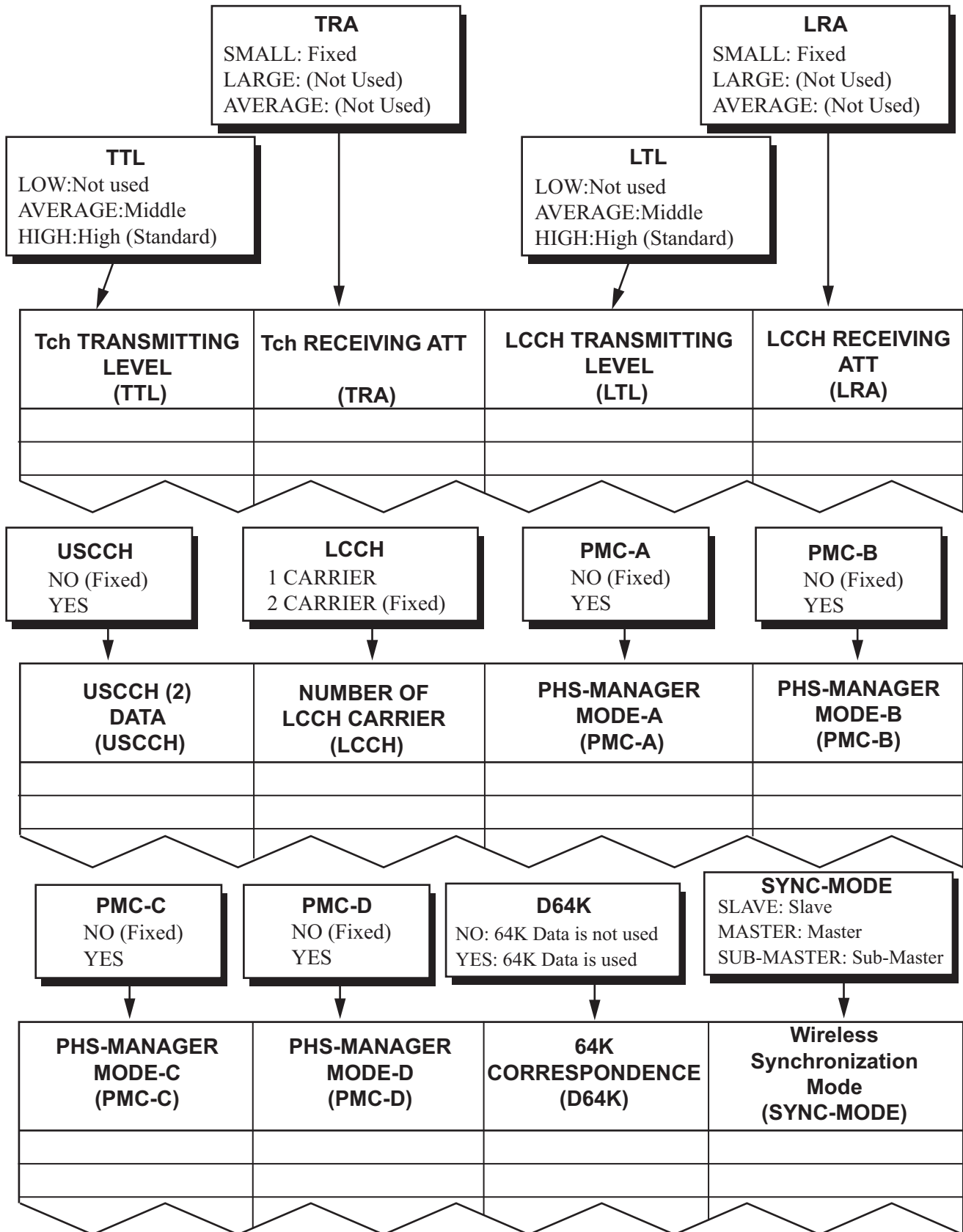
1. When assigning CS accommodated location (MG, U, G, L) of LENS, less than 24 should be entered in the Group (G), and "0" or "4" should be entered in the Level (L).
2. While the IPCS (IP-BS)/ZT is busy, the data cannot be deleted.
3. When you set/delete the CS-related data of NCN, you must back up the office data of NCN and LN that mount the IPCS (IP-BS).
4. Before registering the data, login to NCN (Network Control Node) to assign data using this command.

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 NUMBER (LENS)	KIND OF IPCS/IPZT (KIND) 6 - 9

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 number	KIND 6 = IPCS1 7 = IPCS2 (Not used) 8 = IPZT1 (Not used) 9 = IPZT2 (Not used)



SYNC SYS-ID: SYS-ID of the CS to be synchronized. (Enter the SYS-ID only when MASTER was chosen in SYNC-MODE)

SUB-MASTER: IPCS (IP-BS) number of the SUB-PRIMARY IPCS (IP-BS) (Displays only when MASTER was chosen in SYNC-MODE)

MASTER: IPCS (IP-BS) number of the PRIMARY IPCS (IP-BS) (Enter the following only when SUB-MASTER was chosen in SYNC-MODE)

- M PCN
- M ERN
- M GRN
- M CSN/ZTN

Detailed Data: Wireless Synchronous Detail Data

Ns: Master IP-BS **Note 1**

b0-2: Fixed to 0 (for NEC engineer).

b3: **Note 2**

0 = IP-BS may operate as Slave.

1 = IP-BS operates as Master.

b4-7: Fixed to 0 (for NEC engineer).

Ts: Fixed to 0 (for NEC engineer).

Na: Fixed to 0 (for NEC engineer).

Ta: Fixed to 0 (for NEC engineer).

Tx: Fixed to 0 (for NEC engineer).

Note 1: This data is required for Master IP-BS only. Assign this data by a decimal.

Note 2: If using IP-BS with firmware SP-3695 9A, or SP-3775 7A or later version, make sure to assign "1". For the other firmware versions, assign "0".

MAC-ADDRESS: IPCS (IP-BS)/IPZT MAC Address

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

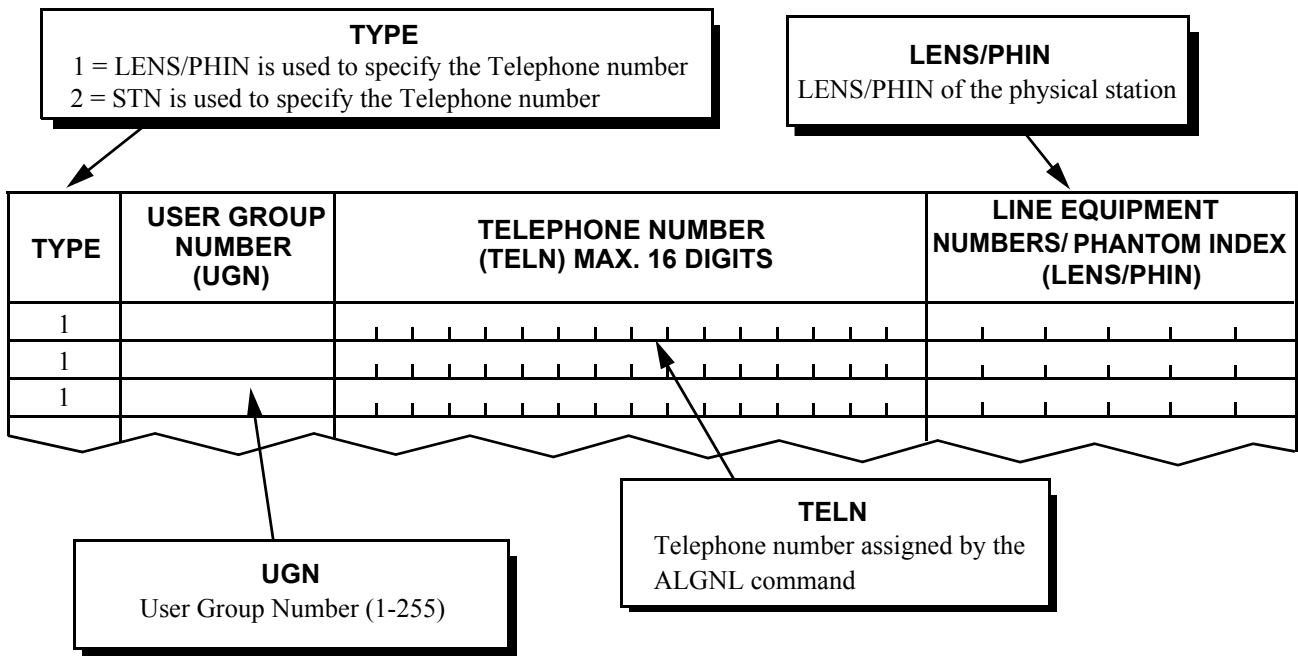
2. PRECAUTIONS

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.

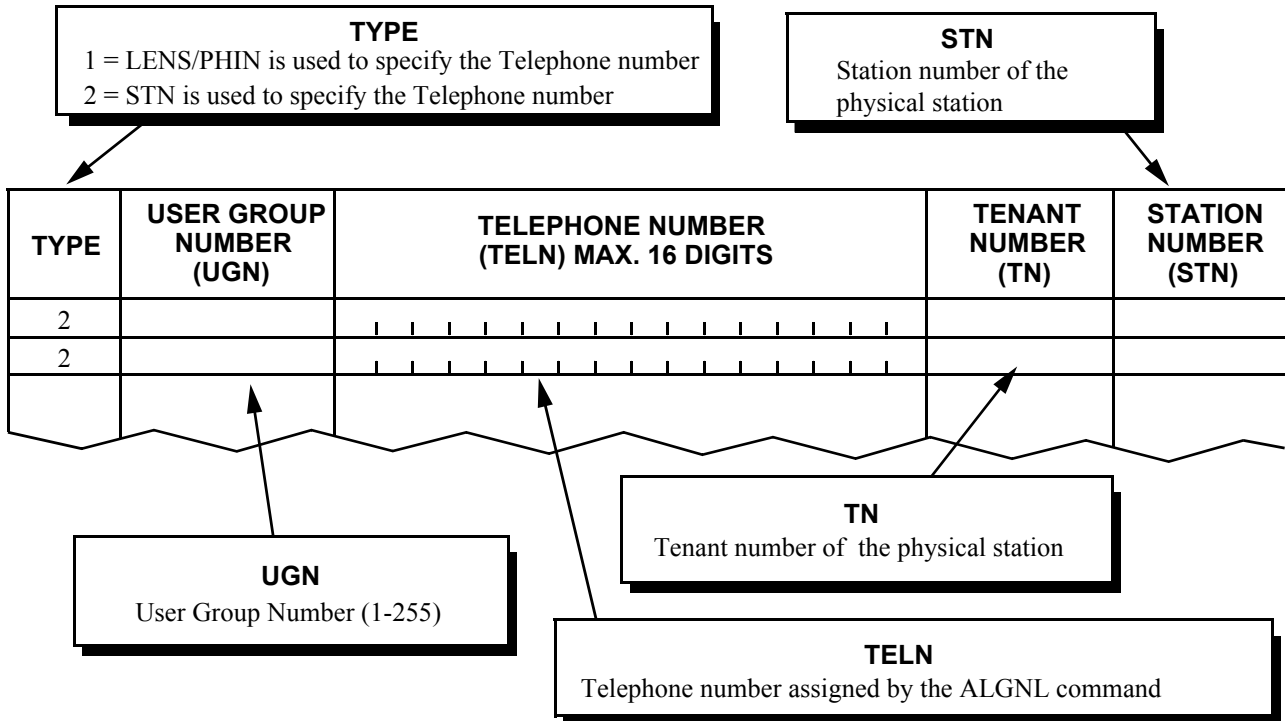
Note: When deleting Telephone Number, the user must, first of all, delete data which is concerned with Group Calling Conference.

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).

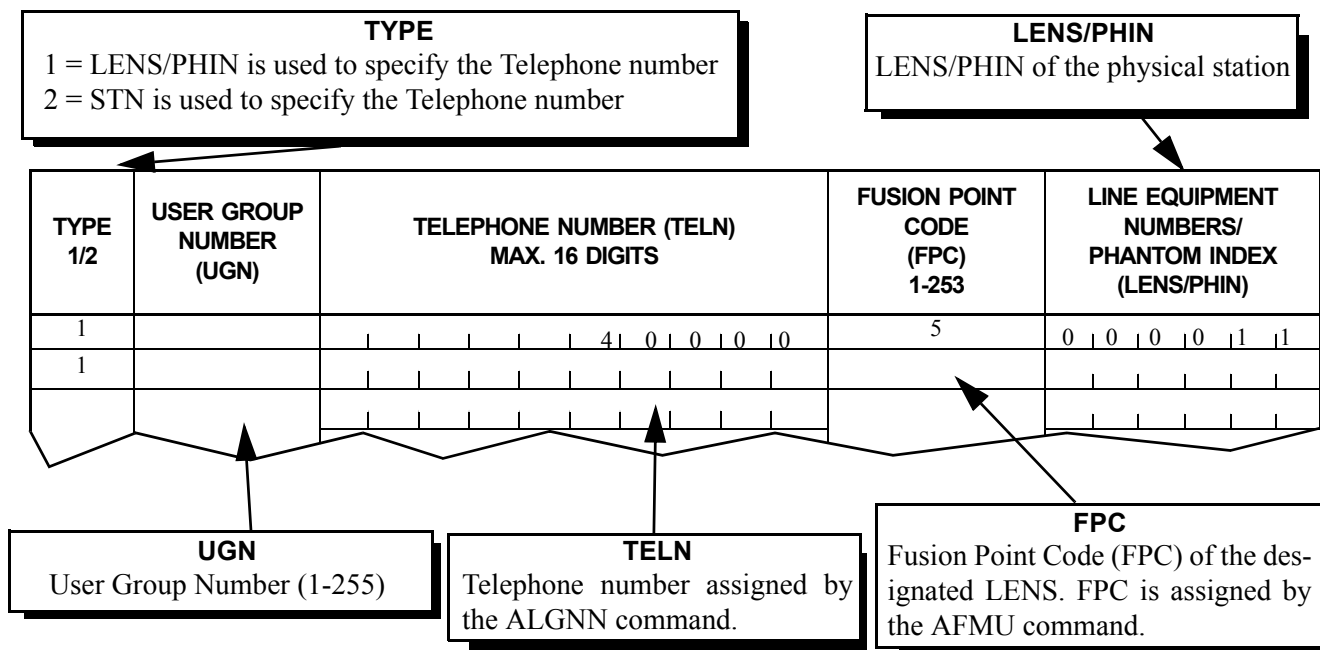
List Up Command: LLGSN

2. PRECAUTIONS

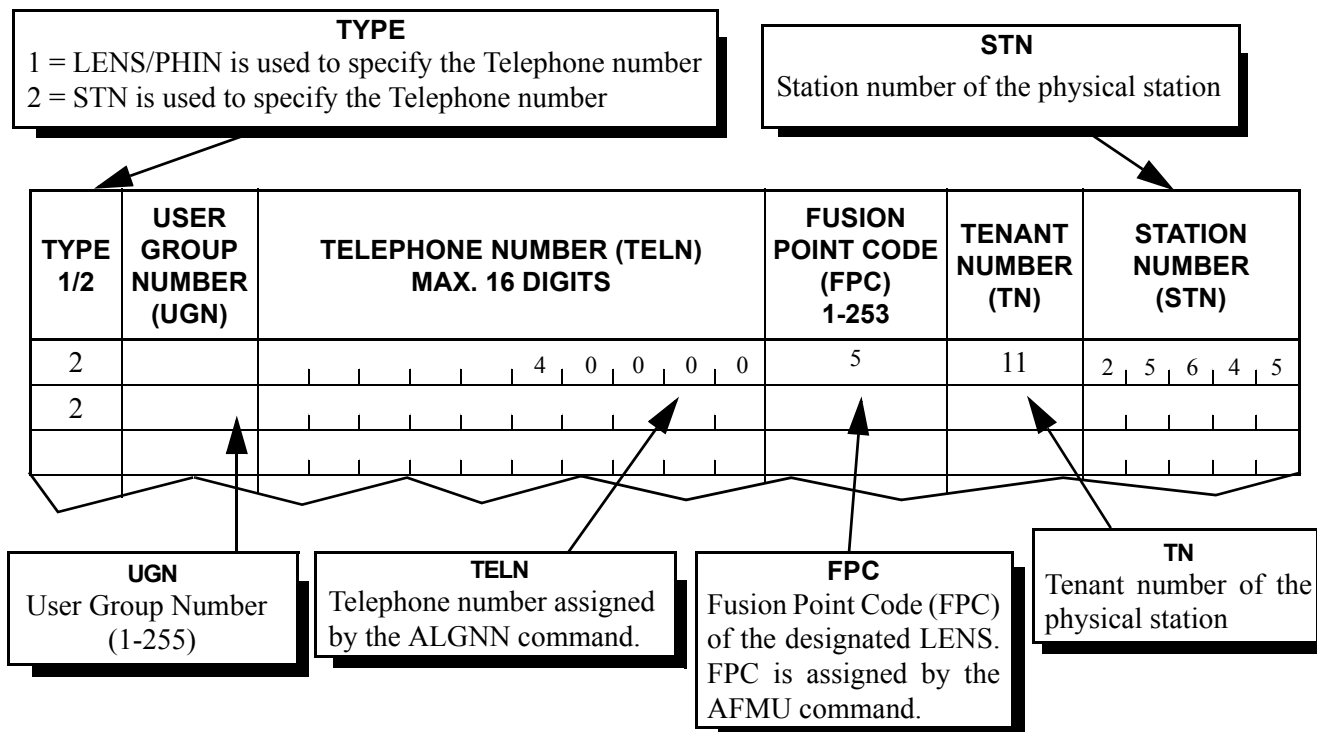
1. The ALGSN command is used to assign the Telephone Number (TELN) for a Network Control Node (NCN).
2. TYPE parameter allows user to choose the programming method of physical station.
TYPE=1 (Line Equipment Numbers/Phantom Index): Telephone number is to be given to the LENS/PHIN
TYPE=2 (STN): Telephone 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 Telephone Number, the user must, first of all, delete the data which is concerned with Group Calling Conference.
7. For more details, see 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)



ALRTN: Assignment of Logical Route for Network Data Memory

1. GENERAL

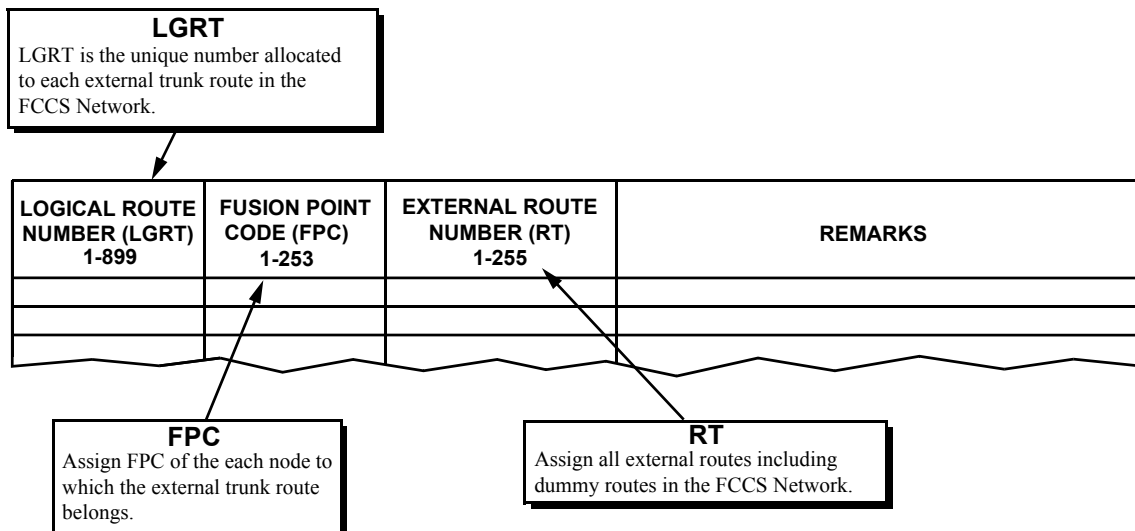
This command is used to allocate the Logical Route Number which is the unique number of the external trunk route in the FCCS Network.

List Up Command: LLRTN

2. PRECAUTIONS

1. Logical Route Number allocation is required for the FCCS Network only.
2. For more detailed information, see Data Programming Manual - FCCS and Data Programming Manual - Business.

3. DATA ENTRY INSTRUCTIONS



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 Chapter 2.

3. DATA ENTRY INSTRUCTIONS

M-UGN : Main User Group Number
S-UGN : Sub User Group Number
M-TELN : Main Telephone Number (Max. 16 digits)
S-TELN : Sub Telephone Number (Max. 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
LM : Service Control
0: Number Sharing

Number sharing Data Assignment Sheet (2/2)

[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” in Chapter 2.

3. DATA ENTRY INSTRUCTIONS

M-UGN : Main User Group Number
S-UGN : Sub User Group Number
M-TELN : Main Telephone Number (Max. 16 digits)
S-TELN : Sub Telephone Number (Max. 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
LM : Service Control
0: Number Sharing

[illegible]

APCNL: Assignment of PHS Community Number Data for LDM

1. GENERAL

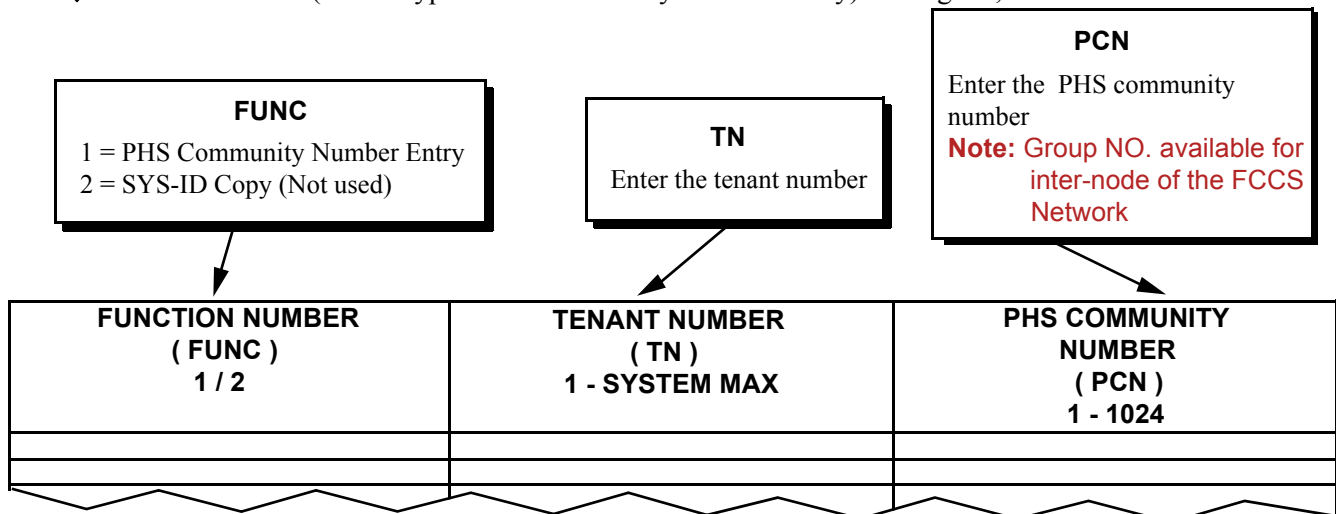
This command is used to assign delete, display the PHS Community Number for tenant and copy the SYS-ID to LDM for reuse.

2. PRECAUTIONS

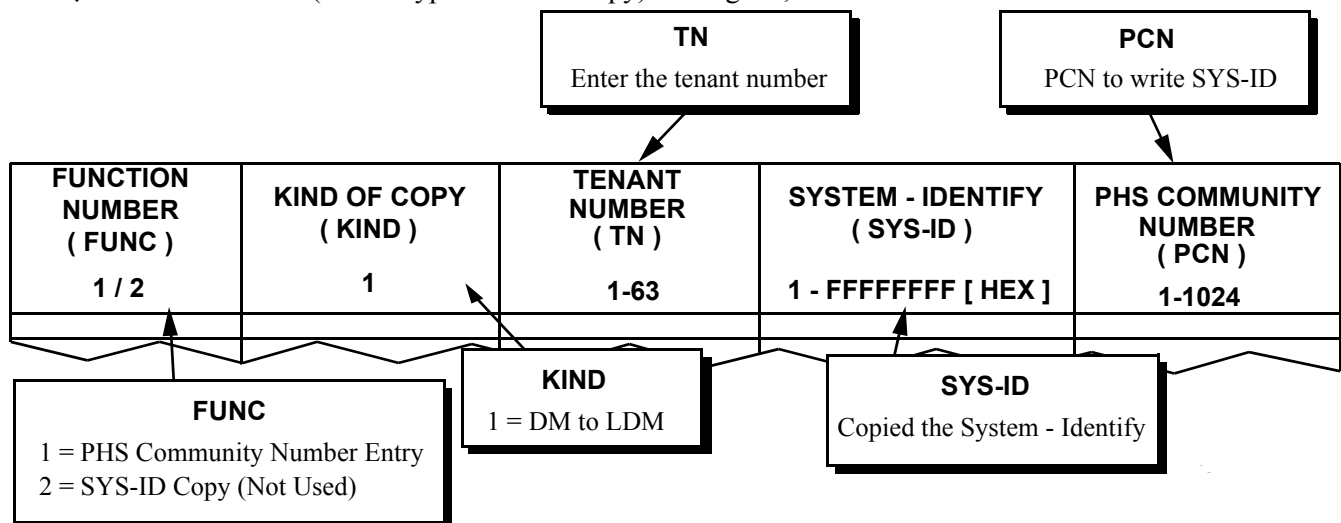
1. This command is used in the Local Node.
2. Use PCN (PHS Community Number) from number “1”.

3. DATA ENTRY INSTRUCTIONS

- ◆ When FUNC = 1 (FUNC type: PHS Community Number Entry) is assigned;



- ◆ When FUNC = 2 (FUNC type: SYS-ID Copy) is assigned;



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

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

FUNCTION NUMBER (FUNC)	FUSION POINT CODE (FPC)	TENANT NUMBER (TN) 1 - SYSTEM MAX	PHS COMMUNITY NUMBER (PCN) 1 - 1024
1			
1			

FPC

Enter the Fusion Point Code

- ◆ When FUNC = 2 (FUNC type: SYS-ID Copy) and KIND = 1 (KIND type: DM to NDM) is assigned;

FUNCTION NUMBER (FUNC) 1 / 2	KIND OF COPY (KIND) 1 / 2	FUSION POINT CODE (FPC) 1 - 253	TENANT NUMBER (TN) 1 - 63	SYSTEM - IDENTIFY (SYS-ID) 1 - FFFFFFFF [HEX]	PHS COMMUNITY NUMBER 1-1024

KIND

1 = DM to NDM
2 = LDM to NDM

TN

Enter the tenant number

PCN

PCN to write SYS-ID

FUNC

1 = PHS Community Number Entry
2 = SYS-ID Copy (Not used)

FPC

Enter the Fusion Point Code

SYS-ID

Copied System - Identify

- ◆ When FUNC = 2 (FUNC type: SYS-ID Copy) and KIND = 2 (KIND type: LDM to NDM) is assigned;

FUNCTION NUMBER (FUNC) 1 / 2	KIND OF COPY (KIND) 1 / 2	FUSION POINT CODE (FPC) 1 - 253	PCN OF COPY SOURCE (COPY SRC PCN) 1 - 1024	SYSTEM - IDENTIFY (SYS-ID) 1 - FFFFFFFF [HEX]	PHS COMMUNITY NUMBER (PCN) 1-1024

KIND

1 = DM to NDM
2 = LDM to NDM

COPY SRC PCN

Enter the PCN (PHS Community Number)

Note: Group NO. available for inter-node of the FCCS Network

FUNC

1 = PHS Community Number Entry
2 = SYS - ID Copy (Not used)

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]

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 only 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 Module Group Number to the PS station numbers to be added to the same Group.

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 changes 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 three fields: UGN, TELN, and MG. Each field has a corresponding instruction box above it, with an arrow pointing to the field in a table below.

UGN
Enter User Group Number.

TELN
Enter Telephone Number.

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.

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

- 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.
- Color of designated MG No. button changes to purple from gray. If clicking again, the setting is canceled.
- This command is used for Network Control Node (NCN).
- When using Location Diversity [L-55], the input screen for Backup Node (Secondary Node/Tertiary Node) will be displayed. **Note 1**

Note 1: PS Line accommodated as Multi Line of Desktop terminal is available only when FCCS cluster data is assigned to the Desktop terminal and the same node is specified as Backup Node of the PS and Desktop terminal.

3. DATA ENTRY INSTRUCTIONS

The diagram illustrates the data entry process for the APLAMN command. It shows three instruction 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 four rows, with the first row containing the column headers and the subsequent three 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

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.

↓

USER GROUP NUMBER
(UGN)

TELN

Enter Telephone Number of
pilot station in Station
Hunting-Terminal [S-9].

↓

TELEPHONE NUMBER
(TELN)
Max. 16 digits

SUB TELN

Enter Telephone Number
of PS Sub line (L2) to be
grouped. (max. 8-TELN)

↓

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

This command is used for the Network Control Node (NCN).

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	

APMD: Assignment of Trunk Line Appearance Maximum Necessary Digit

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 function.

2. PRECAUTIONS

None

3. DATA ENTRY INSTRUCTIONS

TENANT NUMBER (TN)	DESTINATION CODE (DC) MAX: 10 digits	MAXIMUM NECESSARY DIGITS (MND) 1-24

TN
Enter Tenant Number.

DC
Enter the access code + area/office code
of existing Telephony Server without
a wireless function.

MND
Enter the desired maximum
necessary digits.

APSCL: Assignment of PS Service Change for LDM

1. GENERAL

This command is used to change the ICON, ND and NRS of PS data.

2. PRECAUTIONS

1. This command is used for Local Node.
2. Parameters are changeable only when KIND parameter assigned by APSD command (PS_KIND parameter in this command) is 1 (V1PS), 2 (V2PS), 3 (Standard PS), or 8 (PHS Subline).

3. DATA ENTRY INSTRUCTIONS

USER GROUP NUMBER (UGN)	TELEPHONE NUMBER (TELN)

UGN

Enter the UGN (User Group Number).

TELN

Enter the TELN (Telephone Number).

◆ After assigning above data, following parameters can be changed.

ND

Change the ND (Name Display) parameter.

0 = Out of Service
1 = In Service

Note 1

DL

0 = PS Two Line Service Not In Service
1 = PS Two Line Service is In Service

Note 1

PS KIND (PS_KIND)	ICON (ICON)	NAME DISPLAY (ND)	NURSE CALL DISPLAY (NRS)	PHS DUAL LINE (DL)

PS_KIND

PS kind appears.
1 = V1
2 = V2
3 = Standard PS
8 = PHS Subline

Note 2

ICON

Change the ICON control.
0 = Out of Service
1 = In Service

Note 1

NRS

Change the NRS (Nurse Call Display) parameter.

0 = Not Used
1 = Number
2 = Departure number information element use
3 = Display information element use

Note 1: This parameter appears when PS_KIND=3 (Standard PS) or 8 (PHS Subline) appears in the window.

Note 2: This parameter is used for display only.

APSCN: Assignment of PS Service Change for NDM

1. GENERAL

This Command is used to change the ICON, ND and NRS of PS data.

2. PRECAUTIONS

1. This command is used for Network Control Node.
2. Parameters are changeable only when KIND parameter assigned by APSD command (PS_KIND parameter in this command) is 1 (V1PS), 2 (V2PS), 3 (Standard PS), or 8 (PHS Subline).

3. DATA ENTRY INSTRUCTIONS

USER GROUP NUMBER (UGN)	TELEPHONE NUMBER (TELN)

UGN

Enter the UGN (User Group Number).

TELN

Enter the TELN (Telephone Number).

◆ After assigning above data, following parameters can be changed.

ND

Change the ND (Name Display) parameter.

0 = Out of Service
1 = In Service

Note 1

DL

0 = PS Two Line Service Not In Service
1 = PS Two Line Service is In Service

Note 1

PS KIND (PS_KIND)	ICON (ICON)	NAME DISPLAY (ND)	NURSE CALL DISPLAY (NRS)	PHS DUAL LINE (DL)

PS_KIND

PS kind appears.
1 = V1
2 = V2
3 = Standard PS
8 = PHS Subline

Note 2

ICON

Change the ICON control.
0 = Out of Service
1 = In Service

Note 1

NRS

Change the NRS (Nurse Call Display) parameter.

0 = Not Used
1 = Number
2 = Departure number information element use
3 = Display information element use

Note 1: This parameter appears when PS_KIND=3 (Standard PS) or 8 (PHS Subline) appears in the window.

Note 2: This parameter is used for display only.

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 (Not used)
- 5 = Dterm PS (Not used)
- 6 = Dterm PS2 (Not used)
- 7 = Dterm PS2 Subline (Not used)
- 8 = PHS Subline

◆ 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: Not used.

ADERA: Not used.

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 = 8 (PHS Subline) 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.

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 12 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 LC (made cross connection with the COT) of the existing Telephony Server with no wireless 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 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.

SFI

SFI	SERVICE FEATURE
1~146	Note 1
147	Call Forwarding - PS Incoming Incomplete
148~156	Note 1
157	PS Location Information Display
158~161	Note 1
162	PS no-tone/no-vibration Call
162~194	Note 1
195	PS Location Information Display - PS/Dterm (Terminal to display)
196	PS Location Information Display - PS/Dterm (PS to be displayed)
197~205	Note 1
206	PS Location Information Display - PS/Dterm over Dual Station Call
207~255	Note 1

Note 1: Regarding these data, refer to the Command Manual.

ASPA: Assignment of Special Access Code

1. GENERAL

This command is used to determine 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

TENANT NUMBER (TN)	ACCESS CODE (ACC) MAX. 6 DIGITS	CONNECTION STATUS INDEX (CI)	KIND OF SERVICE (SRV)

ACC
Access code (Max. 6 digits)

CI
N = Normal service
H = Hooking service
B = Busy service

SRV

STN = Station
SSCA = Service code appendix
OGCA = Outgoing call with route advance
LCR = Least cost routing
UNIF = Office termination
ANNC = Announcement service-single announcement
ANNCM = Announcement service-multiple announcement
PAGA = Paging answer

SSC = Service code
OGC= Outgoing call
LCRS= Register sender LCR
PAGC = Paging cancel

- ◆ When SRV=SSCA (Service code appendix) is assigned;

NND

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	C.F-PS Incoming Incomplete: Set
102	C.F-PS Incoming Incomplete: Cancel
103~255	Note 1

Note 1: See the Command Manual regarding this data.

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 ~ 100		Note 1
		N	Normal	SSCA	101		Line Load Control from the ATTCON; Entry
		H	Hooking				
		B	Busy				
		N	Normal	SSCA	102		Line Load Control from the ATTCON; Cancel
		H	Hooking				
		B	Busy				
					103 ~ 107		Note 1
		N	Normal	SSCA	108		Number Sharing; Set
		N	Normal	SSCA	109		Number Sharing; Cancel
					116 ~ 255		Note 1

Note 1: Regarding these data, refer to the Command Manual.

ASYD: Assignment of System Data

1. GENERAL

The ASYD 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 PHS 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			

4. DATA SHEET

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 PHS 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: $\begin{array}{ccc} b_3 & b_2 & b_1 \\ 0 & 0 & 0 \end{array} : \left. \begin{array}{l} \text{once} \\ 0 \ 0 \ 1 : \\ 0 \ 1 \ 0 : \text{twice} \\ 0 \ 1 \ 1 : \text{three times} \end{array} \right] \quad \begin{array}{ccc} b_3 & b_2 & b_1 \\ 1 & 0 & 0 \end{array} : \text{four times} \\ \begin{array}{ccc} 1 & 0 & 1 \\ 1 & 1 & 0 \\ 1 & 1 & 1 \end{array} : \left. \begin{array}{l} \\ \\ \end{array} \right] \text{five times}$
				b ₂	
				b ₃	
				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	

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	Not used
			7	
	420			b7 b6 b5 b4 b3 b2 b1 b0 0 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	Not used
			2	
			3	
			4	
			5	
			6	
			7	

ASYDL: Assignment of System Data for LDM

1. GENERAL

The 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: LSYDL

2. PRECAUTIONS

This part describes only the contents of the command added in Built-in PHS system. For more details, refer to the Command Manual and Data Programming Manual - Business.

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							
DATA	BIT	Convert from Binary DATA to Hexadecimal, and enter the Hex. value at DATA text box.							
1	b0								
1	b1								
0	b2								
0	b3								
0	b4								
0	b5								
0	b6								
0	b7								
BIT		b7	b6	b5	b4	b3	b2	b1	b0
DATA		0	0	0	0	0	0	1	1
Hex		0				3			

4. DATA SHEET

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 512-1535	DATA (DATA) 00-FF (Hex)	BIT CORRE- SPONDING DATA 1		SYSTEM DATA CONTENTS	(MDATA)
			DATA 0/1	BIT		
1	688			bit1~bit3	Designation of Control Channel Slot	
	690			bit0~bit7	Designation of FPC of node which outputs the PS Location Information.	

ASYDN: Assignment of System Data for NDM

1. GENERAL

This command is used to specify the system data for the FCCS Network.

List Up Command: LSYDN

2. PRECAUTIONS

1. The data assigned by this command determines the service condition which affects the other nodes in the FCCS Network.
2. Data for ASYDN assigned at NCN (Network Control Node) has priority over data for ASYDL assigned LN (Local Node) in the FCCS Network.
3. This part describes only the contents of the command added in PHS system. For more details, refer to the Command Manual and Data Programming Manual - Business.

3. DATA ENTRY INSTRUCTIONS

MDATA

The MDATA parameter designates whether your input data in the parameter DATA is valid or not in the FCCS Network. Each bit of MDATA is determined as 1 for valid, 0 for invalid. Then, convert it to Hex. to enter the data in the parameter MDATA.

BIT	b7	b6	b5	b4	b3	b2	b1	b0
DATA	0	0	0	1	0	0	0	0
Hex	1				0			

BIT	b7	b6	b5	b4	b3	b2	b1	b0
DATA	1	0	0	1	0	0	0	0
(MDATA)	9				0			

EX. When 10 Hex. is entered in the parameter DATA and 90 Hex. is entered in the parameter MDATA, both bit4 data and bit7 data affect in the FCCS Network. (Both One digit dialing service and Warning tone service are valid in the FCCS Network.)

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0-1535	DATA (DATA) 00-FF (Hex)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS	(MDATA) 00-FF (Hex)
			DATA 0/1	BIT		
1	70	10	0	b0	Not used	90
			0	b1	Not used	
			0	b2	Not used	
			0	b3	Not used	
			1	b4	One digit dialing (DP Tel) 0/1=Out of service/In service	
			0	b5	Not used	
			0	b6	Not used	
			0	b7	Warning Tone for Executive Right of way 0/1=Required/Not required	

DATA

DATA	BIT
0	b0
0	b1
0	b2
0	b3
1	b4
0	b5
0	b6
0	b7

Convert from Binary to Hexadecimal, and enter the Hex. value in the parameter DATA.

BIT	b7	b6	b5	b4	b3	b2	b1	b0
DATA	0	0	0	1	0	0	0	0
Hex	1				0			

4. DATA SHEET

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0-1535	DATA (DATA) 00-FF (Hex)	BIT CORRESPONDING DATA 1		SYSTEM DATA CONTENTS	(MDATA)
			DATA 0/1	BIT		
1	690			bit0~bit7	Designation of FPC of node which outputs the PS Location Information.	

INPDL: Download of PS Data for Local Data Memory

1. GENERAL

This command is used to download the FD data into the LDM. The FD is created when the PS data is downloaded into the PS via the Data Set Adapter.

2. PRECAUTIONS

1. FD should be the one for use created via the PS Data Set Adapter.
2. File name should be entered in 8 characters.
3. Execution sequence is such that each phase of the display comes out one after another and each data is printed out.
 - * In case where the abnormal data is detected, the corresponding data is to be output.
 - * List of data should be output correspondingly because the list will be necessary for subsequent use when needed.
4. As the data downloaded by this command is rewritten to the hard disk (HD) of the system, it is possible that the data with the same file name can be reloaded.

3. DATA ENTRY INSTRUCTIONS

UGN : User Group Number

FILE NAME : Enter the file name made via the PS Data Set Adapter and press ENTER and the display shows READY before the date of the file made with some comments displayed.

READY : Enter "Y" to start downloading, and the command ends by hitting the key "N".

INPDN: Download of PS Data for Network Data Memory

1. GENERAL

This command is used to download the FD data into the NDM via PCPro. The FD is created when the PS data is downloaded into the PS via the Data Set Adapter.

2. PRECAUTIONS

1. FD should be the one for use created via the PS Data Set Adapter.
2. File name should be entered in 8 characters.
3. Execution sequence is such that each phase of the display comes out one after another and each data is printed out.
 - * In case where the abnormal data is detected, the corresponding data is to be output.
 - * List of data should be output correspondingly because the list will be necessary for subsequent use when needed.
4. As the data downloaded by this command is rewritten to the hard disk (HD) of the system, it is possible that the data with the same file name can be reloaded.

3. DATA ENTRY INSTRUCTIONS

UGN : User Group Number

FILE NAME : Enter the file name made via the PS Data Set Adapter and press ENTER and the display shows READY before the date of the file made with some comments displayed.

READY : Enter "Y" to start downloading, and the command ends by hitting the key "N".

2. COMMANDS FOR OPERATION AND MAINTENANCE

[Contents of Command Description]

Each command is explained dividing into the following parts.

- Command Name
Explained here are the command names to be entered via the keyboard and its full command names.
- General
General functions of each command are explained.
- Precautions
Cautions to be made when using each command are explained.
- Data Entry Instructions
Parameters (data) assigned by each command are shown.

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 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.

COCS1L: Control of CS Status Read for Local Data Memory

1. GENERAL

This command is used to read the status of the CS in the Local Node (LN).

2. PRECAUTIONS

This command is used in 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:	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.)

LENS:	Line Equipment Numbers
TN:	Tenant Number [1-6]
CS/ZT-ID:	CS-Identify
MAIN:	Main Condition of CS Management for Device Side
SUB:	Control Condition of CS Management for Device Side
CS/ZT TYPE:	CS TYPE CONTROL (Control CS) GENERAL (Control CS)
CS STATUS:	CS 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 Fault After Return) FAULT (CS 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 Status Read for Network Data Memory

1. GENERAL

This command is used to read the status of the CS in the Network Control Node (NCN).

2. PRECAUTIONS

This command is used in 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 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-Identify
MAIN:	Main Condition of CS Management for Device Side
SUB:	Control Condition of CS Management for Device Side
CS/ZT TYPE:	CS TYPE CONTROL (Control CS) GENERAL (Control CS)
CS/ZT STATUS:	CS 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 Fault After Return) FAULT (CS 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 Operation Parameter for Local Data Memory

1. GENERAL

This command is used to change the CS operation parameter in the Local Node (LN).

2. PRECAUTIONS

This command is used in 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 Operation Parameter for Network Data Memory

1. GENERAL

This command is used to change the CS operation parameter in the Network Control Node (NCN).

2. PRECAUTIONS

This command is used in the Network Control 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: Control of CS Reset for Local Data Memory

1. GENERAL

This command is used to control CS Reset for the Local Node (LN).

2. PRECAUTIONS

This command is used in 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 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 Reset for Network Data Memory

1. GENERAL

This command is used to control CS Reset for the Network Control Node (NCN).

2. PRECAUTIONS

This command is used in 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 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 CS 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/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.)

ADD-ID:	Additional ID
TN:	Tenant Number [1-6]
LENS:	Line Equipment Numbers
KIND:	CS Type V1 V2
Tch TL:	Tch Transmission Output Control Data LG (Large) AV (Average) SM (Small)
Tch RECEIVING 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 CS 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/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.)

ADD-ID:	Additional ID
TN:	Tenant Number [1-6]
LENS:	Line Equipment Numbers
KIND:	CS Type
	V1
	V2
Tch TL:	Tch Transmission Output Control Data
	LG (Large)
	AV (Average)
	SM (Small)
Tch RECEIVING 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)
	HBV (Heavy)

ZONE:	Zone Kind
	LG (Large)
	SM (Small)
PAS:	Position Assignment
	SET
	CANCEL
FLT:	NG Cause [0-OFF]

COCS5L: Change of IPCS/IPZT Detail Data for LDM

1. GENERAL

This command is used to change parameters for wireless synchronization of IPCS (IP-BS), which is accommodated in the Local Node (LN).

2. PRECAUTIONS

This command is used at each Local Node.

This command is used only for IPCS (IP-BS).

3. DATA ENTRY INSTRUCTION

<Key data to Get>

PCN: PHS Community Number [1-1024]
ERN: Calling Area Number [1-32]
GRN: Group Number [1-8]
CSN/ZTN: CS/ZT Number [1-32]

<Key data to Set>

Ns: Number LCCH receiving times to decide CS/ZT to be synchronized[0-255]
Ts: Length of LCCH receiving time to decide CS/ZT to be synchronized [0-255]
Na: Number of consecutive synchronization bit OFF times to decide synchronization failure [0-255]
Ta: Length of consecutive LCCH receiving time to decide synchronization failure [0-255]
Tx: Length of re-search time for a sub-primary CS/ZT to become a primary CS/ZT [0-255]

COCS5N: Change of IPCS/IPZT Detail Data for NDM

1. GENERAL

This command is used to change parameters for wireless synchronization of IPCS (IP-BS), which is accommodated in the Network Control Node (NCN).

2. PRECAUTIONS

This command is used at each Network Control Node.

This command is used only for IPCS (IP-BS).

3. DATA ENTRY INSTRUCTION

<Key data to Get>

PCN: PHS Community Number [1-1024]
ERN: Calling Area Number [1-32]
GRN: Group Number [1-8]
CSN/ZTN: CS/ZT Number [1-32]

<Key data to Set>

Ns: Number LCCH receiving times to decide CS/ZT to be synchronized[0-255]
Ts: Length of LCCH receiving time to decide CS/ZT to be synchronized [0-255]
Na: Number of consecutive synchronization bit OFF times to decide synchronization failure [0-255]
Ta: Length of consecutive LCCH receiving time to decide synchronization failure [0-255]
Tx: Length of re-search time for a sub-primary CS/ZT to become a primary CS/ZT [0-255]

<Key data to Get>

PCN-ERN-GRN-CSN: The PHS Community number of the IPCS (IP-BS) [PCN], Calling Area number [ERN], Group number [GRN], and IPCS (IP-BS) number [CSN] of which wireless synchronization status loaded is displayed.

RESULT: The following result of wireless synchronization status load is displayed.

- **READ OK:** Wireless Synchronization Load Normal End.
- **REQUEST NG:** Failed to load the status from corresponding IPCS (IP-BS). IPCS (IP-BS) is not in active state, No response from the Network, etc.
- **CS KIND NG:** Specified PCN-ERN-GRN-CSN is not a IPCS (IP-BS).

TIME: Time and day on which wireless synchronization status load was executed.

CS-ID: CS-ID of the IPCS (IP-BS) specified. (Displayed in Hexadecimal)

SYS-ID: SYS-ID of the specified IPCS (IP-BS). (Displayed on Decimal)

<Parameters>

Synchronous STS (Synchronous status) Note 1

The following indicate wireless synchronization status.

- **Master search:** Searching for other CS in Primary Mode.
- **Master synchronization:** Synchronizing with other CS in Primary Mode.
- **Master on autonomous:** Synchronizing autonomously with other CS in Primary Mode.
- **Sub-master search:** Searching for other CS in Sub-Primary Mode.
- **Sub-master synchronization:** Synchronizing with other CS in Sub-Primary Mode.
- **Sub-master re-search:** re-searching for other CS in Sub-Primary Mode.
- **Slave search:** Searching for other CS in Secondary Mode.
- **Slave synchronization:** Synchronizing with other CS in Secondary Mode.
- **Slave re-search:** re-searching for other CS in Secondary Mode.

Note 1: IPCS (IP-BS) is not synchronized in a normal manner when status other than “Master Synchronization”, “Master Autonomous” or “Sub-Master Synchronization” is displayed. In that case, call establishment probability may go down. Change the wireless synchronization mode by reviewing the CS location plan or delete the office data using AICSN command, then re-assign the appropriate office data.

Interrupt STS (Interrupt Status) <to be used by NEC engineers only>

Each value is displayed in decimal. Meanings for each value are as below.

1= Basic Synchronization waiting for Uwlrt

2= Basic Synchronization waiting for Sllrt 1

3= Basic Synchronization waiting for Sllrt 2

4= Waiting for Basic Synchronization to end

5= Waiting for slot number to be set

6= Waiting for slot to complete the synchronization

7= Waiting for LCCH counter to be set

8= Receiving LCCH

9= Waiting for slot number to match

SYNC-bit (Synchronization bit) <to be used by NEC engineers only>

Displays the synchronization bit of destination CS for specified IPCS (IP-BS).

Slot NUM (Slot number) <to be used by NEC engineers only>

Displays the slot number of SYNC destination in decimal.

Channel NUM (Channel number) <to be used by NEC engineers only>

Displays the channel of SYNC destination in decimal.

SYNC CS-ID (CS-ID of synchronizing)

Displays the CS-ID of SYNC destination in Hexadecimal (eleven digits).

SYNC SYS-ID (SYS-ID of synchronizing) Note 1

Displays the SYS-ID of SYNC destination in decimal, which is included in CS-ID. When the SYNC destination was the public CS, it is displayed as “Public CS synchronization”. While synchronized to the CS of other PHS system, SYS-ID used in that system is displayed.

SYNC ERN-GRN-CSN (ERN-GRN-CSN of synchronizing) Note 1

Displays the Area number, Group number and CS number of the SYNC destination CS, which is included in CS-ID. No information is displayed when the SYNC destination was the public CS. While synchronized to the CS of other PHS system, Area number, Group number and CS number of that system is displayed.

Note 1: When planning the CS location, maintenance personnel are able to know if the CS is synchronized to the correct destination by referring to the “SYNC SYS-ID” and “SYNC ERN-GRN-CSN” parameters.

COCS6L: Change of Synchronous Status of IPCS/IPZT Data Read for LDM

1. GENERAL

This command is used to show the wireless synchronization status of the IPCS (IP-BS) accommodated in the Local Node. The maintenance personnel can design the ideal CS location plan and office data by referring to the synchronization status loaded by this command.

2. PRECAUTIONS

This command is used in each Local Node.

This command is used only for IPCS (IP-BS).

This command is used for the IPCS (IP-BS) in actual operation, otherwise it will be READ NG.

3. DATA ENTRY INSTRUCTION

<When “INDIVIDUAL” was chosen>

<Key data to Enter>

PCN (PHS COMMUNITY NUMBER to load the wireless synchronization status):1-1024

ERN (CALLING AREA NUMBER to load the wireless synchronization status):1-32

GRN (GROUP NUMBER to load the wireless synchronization status):1-8

CSN/ZTN (CS/ZT NUMBER to load the wireless synchronization status):1-32

<When “COLLECTIVE” was chosen>

<Key data to Enter>

PCN (First PHS COMMUNITY NUMBER to load the wireless synchronization status):1-1024

Start ERN (First CALLING AREA NUMBER to load the wireless synchronization status):1-32

End ERN (Last CALLING AREA NUMBER to load the wireless synchronization status):1-32

Start GRN (First GROUP NUMBER to load the wireless synchronization status):1-8

End GRN (Last GROUP NUMBER to load the wireless synchronization status):1-8

Start CSN/ZTN (First CS/ZT NUMBER to load the wireless synchronization status):1-32

End CSN/ZTN (Last CS/ZT NUMBER to load the wireless synchronization status):1-32

<Key data to Get>

PCN-ERN-GRN-CSN: The PHS Community number of the IPCS (IP-BS) [PCN], Calling Area number [ERN], Group number [GRN], and IPCS (IP-BS) number [CSN] of which wireless synchronization status loaded is displayed.

RESULT: The following result of wireless synchronization status load is displayed.

- **READ OK:** Wireless Synchronization Load Normal End.
- **REQUEST NG:** Failed to load the status from corresponding IPCS (IP-BS). IPCS (IP-BS) is not in active state, No response from the Network, etc.
- **CS KIND NG:** Specified PCN-ERN-GRN-CSN is not a IPCS (IP-BS).

TIME: Time and day on which wireless synchronization status load was executed.

CS-ID: CS-ID of the IPCS (IP-BS) specified. (Displayed in Hexadecimal)

SYS-ID: SYS-ID of the specified IPCS (IP-BS). (Displayed on Decimal)

<Parameters>

Synchronous STS (Synchronous status) Note 1

The following indicate wireless synchronization status.

- **Master search:** Searching for other CS in Primary Mode.
- **Master synchronization:** Synchronizing with other CS in Primary Mode.
- **Master on autonomous:** Synchronizing autonomously with other CS in Primary Mode.
- **Sub-master search:** Searching for other CS in Sub-Primary Mode.
- **Sub-master synchronization:** Synchronizing with other CS in Sub-Primary Mode.
- **Sub-master re-search:** re-searching for other CS in Sub-Primary Mode.
- **Slave search:** Searching for other CS in Secondary Mode.
- **Slave synchronization:** Synchronizing with other CS in Secondary Mode.
- **Slave re-search:** re-searching for other CS in Secondary Mode.

Note 1: IPCS (IP-BS) is not synchronized in a normal manner when status other than “Master Synchronization”, “Master Autonomous” or “Sub-Master Synchronization” is displayed. In that case, call establishment probability may go down. Change the wireless synchronization mode by reviewing the CS location plan or delete the office data using AICSL/AICSN command, then re-assign the appropriate office data.

Interrupt STS (Interrupt Status) <to be used by NEC engineers only>

Each value is displayed in decimal. Meanings for each value are as below.

1= Basic Synchronization waiting for Uwlrt

2= Basic Synchronization waiting for Sllrt 1

3= Basic Synchronization waiting for Sllrt 2

4= Waiting for Basic Synchronization to end

5= Waiting for slot number to be set

6= Waiting for slot to complete the synchronization

7= Waiting for LCCH counter to be set

8= Receiving LCCH

9= Waiting for slot number to match

SYNC-bit (Synchronization bit) <to be used by NEC engineers only>

Displays the synchronization bit of destination CS for specified IPCS (IP-BS).

Slot NUM (Slot number) <to be used by NEC engineers only>

Displays the slot number of SYNC destination in decimal.

Channel NUM (Channel number) <to be used by NEC engineers only>

Displays the channel of SYNC destination in decimal.

SYNC CS-ID (CS-ID of synchronizing)

Displays the CS-ID of SYNC destination in Hexadecimal (eleven digits).

SYNC SYS-ID (SYS-ID of synchronizing) Note 1

Displays the SYS-ID of SYNC destination in decimal, which is included in CS-ID. When the SYNC destination is the public CS, it is displayed as “Public CS synchronization”. While synchronized to the CS of other PHS system, SYS-ID used in that system is displayed.

SYNC ERN-GRN-CSN (ERN-GRN-CSN of synchronizing) Note 1

Displays the Area number, Group number and CS number of the SYNC destination CS, which is included in CS-ID. No information is displayed when the SYNC destination is the public CS. While synchronized to the CS of other PHS system, Area number, Group number and CS number of that system are displayed.

Note 1: When planning the CS location, maintenance personnel are able to know if the CS is synchronized to the correct destination by referring to the “SYNC SYS-ID” and “SYNC ERN-GRN-CSN” parameters.

COCS6N: Change of Synchronous Status of IPCS/IPZT Data Read for NDM

1. GENERAL

This command is used to show the wireless synchronization status of the IPCS (IP-BS) accommodated in the Network Control Node. The maintenance personnel can design the ideal CS location plan and office data by referring to the synchronization status loaded by this command.

2. PRECAUTIONS

This command is used in each Network Control Node.

This command is used only for IPCS (IP-BS).

This command is used for the IPCS (IP-BS) in actual operation, otherwise it will be READ NG.

3. DATA ENTRY INSTRUCTION

<When “INDIVIDUAL” was chosen>

<Key data to Enter>

PCN (PHS COMMUNITY NUMBER to load the wireless synchronization status):1-1024

ERN (CALLING AREA NUMBER to load the wireless synchronization status):1-32

GRN (GROUP NUMBER to load the wireless synchronization status):1-8

CSN/ZTN (CS/ZT NUMBER to load the wireless synchronization status):1-32

<When “COLLECTIVE” was chosen>

<Key data to Enter>

PCN (First PHS COMMUNITY NUMBER to load the wireless synchronization status):1-1024

Start ERN (First CALLING AREA NUMBER to load the wireless synchronization status):1-32

End ERN (Last CALLING AREA NUMBER to load the wireless synchronization status):1-32

Start GRN (First GROUP NUMBER to load the wireless synchronization status):1-8

End GRN (Last GROUP NUMBER to load the wireless synchronization status):1-8

Start CSN/ZTN (First CS/ZT NUMBER to load the wireless synchronization status):1-32

End CSN/ZTN (Last CS/ZT NUMBER to load the wireless synchronization status):1-32

<Key data to Get>

PCN-ERN-GRN-CSN: The PHS Community number of the IPCS (IP-BS) [PCN], Calling Area number [ERN], Group number [GRN], and IPCS (IP-BS) number [CSN] of which wireless synchronization status loaded is displayed.

FPC: Displays the Fusion Point Code (FPC) of node, which accommodates the SYNC destination CS.

RESULT: The following result of wireless synchronization status load is displayed.

- **READ OK:** Wireless Synchronization Load Normal End.
- **REQUEST NG:** Failed to load the status from corresponding IPCS (IP-BS). IPCS (IP-BS) is not in active state, No response from the Network, etc.
- **CS KIND NG:** Specified PCN-ERN-GRN-CSN is not a IPCS (IP-BS).

TIME: Time and day on which wireless synchronization status load was executed.

CS-ID: CS-ID of the IPCS (IP-BS) specified. (Displayed in Hexadecimal)

SYS-ID: SYS-ID of the specified IPCS (IP-BS). (Displayed on Decimal)

<Parameters>

Synchronous STS (Synchronous status) Note 1

The following indicate wireless synchronization status.

- **Master search:** Searching for other CS in Primary Mode.
- **Master synchronization:** Synchronizing with other CS in Primary Mode.
- **Master on autonomous:** Synchronizing autonomously with other CS in Primary Mode.
- **Sub-master search:** Searching for other CS in Sub-Primary Mode.
- **Sub-master synchronization:** Synchronizing with other CS in Sub-Primary Mode.
- **Sub-master re-search:** re-searching for other CS in Sub-Primary Mode.
- **Slave search:** Searching for other CS in Secondary Mode.
- **Slave synchronization:** Synchronizing with other CS in Secondary Mode.
- **Slave re-search:** re-searching for other CS in Secondary Mode.

Note 1: IPCS (IP-BS) is not synchronized in a normal manner when status other than “Master Synchronization”, “Master Autonomous” or “Sub-Master Synchronization” is displayed. In that case, call establishment probability may go down. Change the wireless synchronization mode by reviewing the CS location plan or delete the office data using AICSN command, then re-assign the appropriate office data.

Interrupt STS (Interrupt Status) <to be used by NEC engineers only>

Each value is displayed in decimal. Meanings for each value are as below.

1= Basic Synchronization waiting for Uwlrt

2= Basic Synchronization waiting for Sllrt 1

3= Basic Synchronization waiting for Sllrt 2

4= Waiting for Basic Synchronization to end

5= Waiting for slot number to be set

6= Waiting for slot to complete the synchronization

7= Waiting for LCCH counter to be set

8= Receiving LCCH

9= Waiting for slot number to match

SYNC-bit (Synchronization bit) <to be used by NEC engineers only>

Displays the synchronization bit of destination CS for specified IPBS (IPCS).

Slot NUM (Slot number) <to be used by NEC engineers only>

Displays the slot number of SYNC destination in decimal.

Channel NUM (Channel number) <to be used by NEC engineers only>

Displays the channel of SYNC destination in decimal.

SYNC CS-ID (CS-ID of synchronizing)

Displays the CS-ID of SYNC destination in Hexadecimal (eleven digits).

SYNC SYS-ID (SYS-ID of synchronizing) Note 2

Displays the SYS-ID of SYNC destination in decimal, which is included in CS-ID. When the SYNC destination is the public CS, it is displayed as “Public CS synchronization”. While synchronized to the CS of other PHS system, SYS-ID used in that system is displayed.

SYNC ERN-GRN-CSN (ERN-GRN-CSN of synchronizing) Note 2

Displays the Area number, Group number and CS number of the SYNC destination CS, which is included in CS-ID. No information is displayed when the SYNC destination is the public CS. While synchronized to the CS of other PHS system, Area number, Group number and CS number of that system is displayed.

Note 2: When planning the CS location, maintenance personnel are able to know if the CS is synchronized to the correct destination by referring to the “SYNC SYS-ID” and “SYNC ERN-GRN-CSN” parameters.

CSDLL: CS Program Download for LDM

1. GENERAL

This command is used to assign necessary data to CS which performs CS program download. This command also can start the download and monitor the status after the download, displaying the result.

2. PRECAUTIONS

This command is used at each Local Control Node.

This command cannot be used for IPCS (IP-BS).

IPCS (IP-BS) cannot be set as a Primary CS.

Only CS whose CS kind is set to V3 (**Note 1**) can download CS program.

Note 1: CS kind is assigned in the KIND box of ACSDL/ACSDN command.

3. DATA ENTRY INSTRUCTION

Download Type: All (Specified PCN)/Specified Range **Note 2**

Note 2: By specifying the Start and End of the secondary CS accommodation information (PCN, ERN, GRN, CSN), the program version of the CSs within the range can be read out.

Transfer Speed: 64 kbps/32 kbps

<Master (Primary CS Accommodation Information)>

PCN: PHS Community Number of Primary CS [1-1024]
ERN: Calling Area Number of Primary CS [1-32]
GRN: Group Number of Primary CS [1-8]
CSN: CS Number of Primary CS [1-32]

<Target (Secondary CS Accommodation Information)> When Download Type = ALL

PCN: PHS Community Number of Secondary CS [1-1024]

<Start/End (Secondary CS Accommodation Information)> When Download Type = Specified Range

PCN: PHS Community Number of Secondary CS [1-1024]
ERN: Calling Area Number of Secondary CS [1-32]
GRN: Group Number of Secondary CS [1-8]
CSN: CS Number of Secondary CS [1-32]

Version-Down Check Box

Unchecked: Protected

Checked: Permit Version-Down **Note 3**

Note 3: When checked the downloaded CS can be restored to the original status.

STATUS (Download Result)

OK: Download success
NG: Download failure

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

Station Hunting data and Uniform Call Distribution (UCD) data are displayed.

3. DATA ENTRY INSTRUCTIONS

(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

3: 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

(c) Call Pickup

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 : Primary Tenant Number

MASTER STN : Primary station number

MASTER LENS : Primary Line Equipment Numbers

MASTER TN : Primary Tenant Number

MASTER TEC : Primary Telephone Equipment Number

MASTER RSC : Primary Route Restriction Class

MASTER SFC : Primary 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

DSYRL: Display of System-ID for Local Data Memory

1. GENERAL

This command is used to display and print out the SYS-ID and to write the SYS-ID read from Control CS into Local Data Memory (LDM).

2. PRECAUTIONS

-

3. DATA ENTRY INSTRUCTIONS

PCN: PHS Community Number: 1-1024

DSYRN: Display of System-ID for Network Data Memory

1. GENERAL

This command is used to display and print out the SYS-ID and to write the SYS-ID read from Control CS into Network Data Memory (NDM).

2. PRECAUTIONS

-

3. DATA ENTRY INSTRUCTIONS

PCN: PHS Community Number: 1-1024

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

-

3. DATA ENTRY INSTRUCTIONS

■ Input Data

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.

■ Display Data

FPC:

Fusion Point Code [1-253]

TN:

Tenant Number [1-System MAX]

PS STN:

PS Station Number (Physical PS Number)

KIND:

PS Kind

1=V1PS

2=V2PS

3=Standard PS

5=Dterm-PS

6=Dterm-PS2

7=Dterm-PS2 Sub Line

RSC:

Route Restriction Class [0-15]

SFC:

Service Feature Restriction Class [0-15]

PS-ID:

PS-Identify [1-268435455]

IND-PS:

Individual PS Number

TYPE:

PS Number Type

1=12 Digits or Less (Decimal)

2=13 Digits or Less (Decimal)

3=13 Digits or Less (Hexadecimal)

DRPS : Display for Reverse Develop PS Data

PS NO:	PS Number
NWN:	Network Number [1-65535]
ADERA:	Additional Area [1-255]
CTRN:	Country Number [1-65535]
SUBSYS-ID NO.:	Sub System-Identify Number [0-10]
SUBSYS-ID:	Sub System-Identify [1-268435455]
PHIN:	Phantom Equipment Number
ICON:	Visitor PS
	0=Not in service
	1=In service
ND:	Name Display
	0=Invalid
	1=Valid

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. PRECAUTIONS

-

3. DATA ENTRY INSTRUCTIONS

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 CSs in node that the command is executed.

Each Pcn Number: Total measured value of All CSs in PCN (1-1024) programmed in office data.

Each Call Area Number: Total measured value of All CSs 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 CS 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.

LCSVL: Listup of CS Program Version for LDM

1. GENERAL

This command is used to read out the program version of CS, displaying the result of list up.

2. PRECAUTIONS

The program version of IP-BS cannot be read out by this command.

Only CS whose CS kind is set to V3 (**Note 1**) can be read out of CS program version.

Note 1: CS kind is assigned in the KIND box of ACSDL/ACSDN command.

3. DATA ENTRY INSTRUCTIONS

Read Type: All (Specified PCN)
Specified Range

<Read Type = All>

PCN: PHS Community Number (1-1024) Enter the PCN of CS whose version to be read out.

<Read Type = Specified Range>

[START]

PCN: PHS Community Number (1-1024) PCN of SATRT-CS whose version to be read out.

ERN: Calling Area Number (1-1024) ERN of SATRT-CS whose version to be read out.

GRN: Group Number (1-8) GRN of SATRT-CS whose version to be read out.

CSN: CS Number (1-32) CSN of SATRT-CS whose version to be read out.

[END]

ERN: Calling Area Number (1-1024) ERN of END-CS whose version to be read out.

GRN: Group Number (1-8) GRN of END-CS whose version to be read out.

CSN: CS Number (1-32) CSN of END-CS whose version to be read out.

STATUS (CS Program Version List Up Result)

OK: List Up success

NG: List Up failure

CS CNT: CS Count

MBCSL: Make Busy of CS for Local Data Memory

1. GENERAL

This command is used to assign and delete IDLE/BUSY status of B/D channel of the CS.

2. PRECAUTIONS

1. This command is used in the Local Node.
2. When the Make Busy of an IP-BS is canceled, the system message “CS Operation Start Notification” is output when the IP-BS is placed into operation.
3. Please, take note in the following when making busy IP-BS by using MBNCSL/MBNCSN command.
 - IP-BS indicated as “Master Synchronization” or “Master on Autonomous” on COCS6L/COCS6N command is operating as an IP-BS synchronization source. If the Primary IP-BS or Sub-Primary IP-BS is placed in make-busy state, all IP-BS that are synchronizing with the Primary or Sub-Primary IP-BS will become inoperative.
 - When you want to disable some IP-BS for a testing purpose, make busy the speech channel of the IP-BS by using the MBCSL/MBCSN command.
 - If the IP-BS is placed in make busy state by other than “Speech Channel Make-Busy”, the IP-BS cannot start operation if the Primary IP-BS or Sub-Primary IP-BS is not operating.

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]
APCH:	Appointment Channel
	CS/ZT: Make-busy cancel/set between CS and CS
	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)

MBCSN: Make Busy of CS for Network Data Memory

1. GENERAL

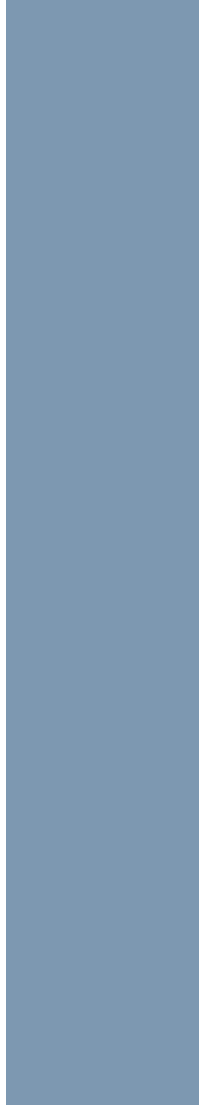
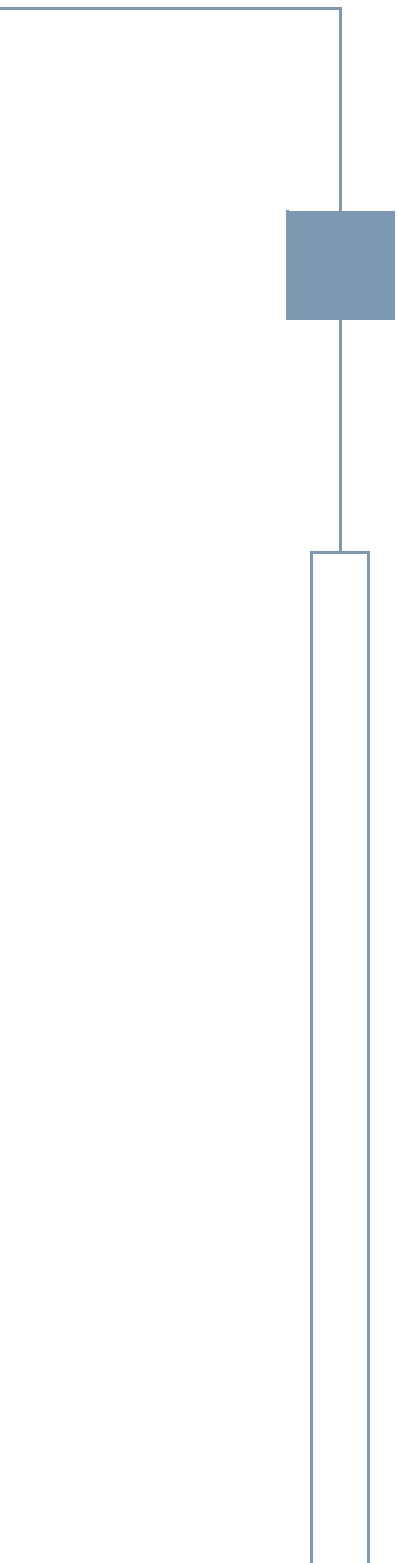
This command is used to assign and delete IDLE/BUSY status of B/D channel of the CS.

2. PRECAUTIONS

1. This command is used in the Network Control Node.
2. When the Make Busy of an IP-BS is canceled, the system message “CS Operation Start Notification” is output when the IP-BS is placed into operation.
3. Please, take note in the following when making busy IP-BS by using MBNCSL/MBNCSN command.
 - IP-BS indicated as “Master Synchronization” or “Master on Autonomous” on COCS6L/COCS6N command is operating as an IP-BS synchronization source. If the Primary IP-BS or Sub-Primary IP-BS is placed in make-busy state, all IP-BS that are synchronizing with the Primary or Sub-Primary IP-BS will become inoperative.
 - When you want to disable some IP-BS for a testing purpose, make busy the speech channel of the IP-BS by using the MBCSL/MBCSN command.
 - If the IP-BS is placed in make busy state by other than “Speech Channel Make-Busy”, the IP-BS cannot start operation if the Primary IP-BS or Sub-Primary IP-BS is not operating.

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]
APCH:	Appointment Channel
	CS/ZT: Make-busy cancel/set between CS and CS
	B2: Make-busy cancel/set of B2 channel
	B3: Make-busy cancel/set of B3 channel
	B4: Make-busy cancel/set of B4 channel
FPC:	Fusion Point Code [1-253]
LENS:	Line Equipment Numbers (Only Display)
MB:	Make Busy/Idle Data
	0: Idle
	1: Busy
FLT:	NG Cause (Only Display)



CHAPTER 4 SYSTEM OPERATION AND MAINTENANCE

This chapter covers the following procedures:

- CSINT CIRCUIT CARD MAKE-BUSY SET/CANCEL
- CS PEG COUNT FOR TRAFFIC CONTROL
- OFFICE DATA MANAGEMENT
- REPLACEMENT PROCEDURE OF CSINT CIRCUIT CARD/CS
- SYSTEM MESSAGE

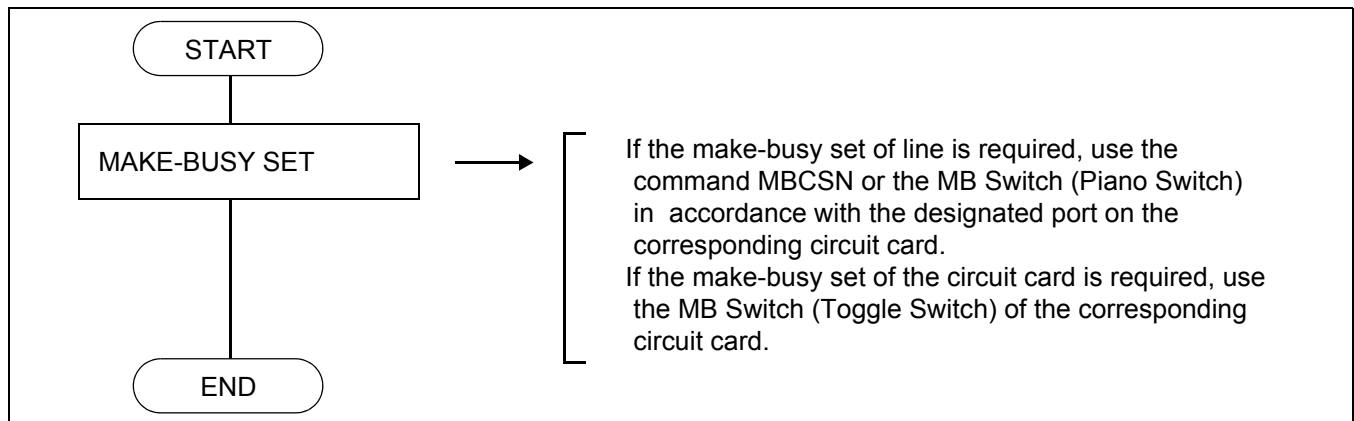
1. CSINT CIRCUIT CARD MAKE-BUSY SET/CANCEL

1. Make-Busy Set and Cancel of CSINT Circuit Card

Explained below are methods to set the CSINT circuit card in a state of make-busy and cancel the busy state.

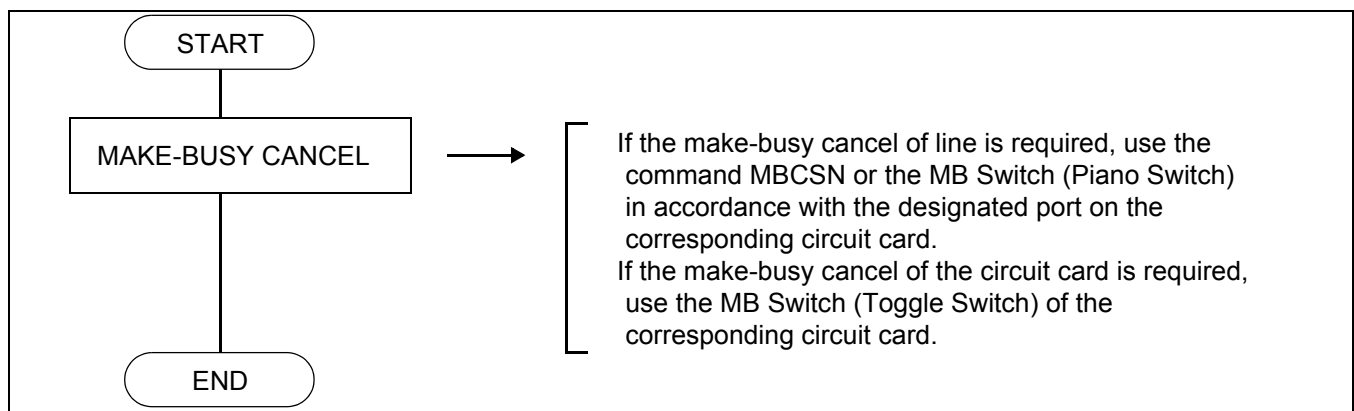
- Make-Busy Set

Make-busy Set of CSINT Circuit Card



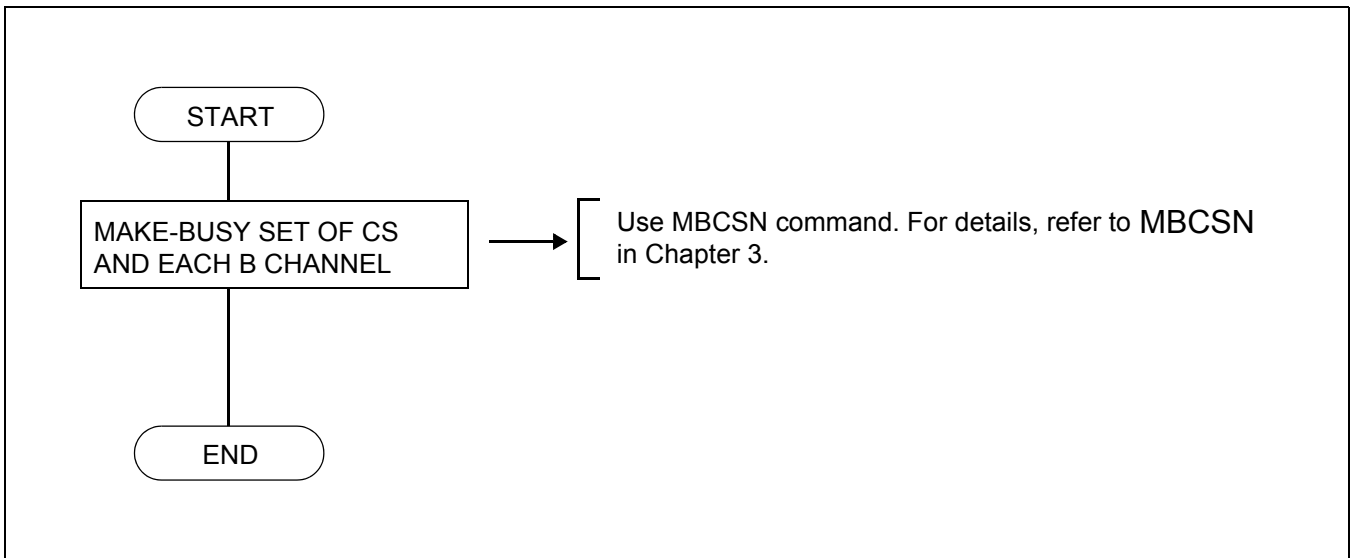
- Make-Busy Cancel

Make-busy Cancel of CSINT Circuit Card

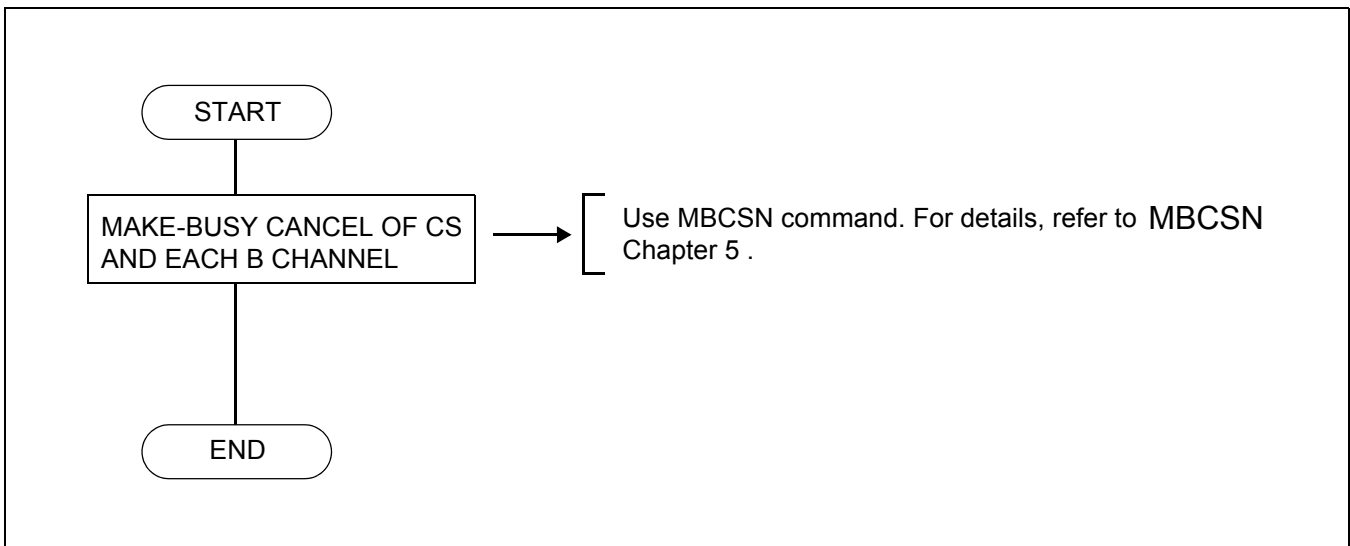


2. Make-busy Set and Cancel of CS and B Channel

- Make-Busy Set

Make-busy Set of CS and Each B Channel

- Make-Busy Cancel

Make-busy Cancel of CS and Each B Channel

2. CS PEG COUNT FOR TRAFFIC CONTROL

1. General

Below are some items that can be measured in the traffic control of CSs.

Items	Meanings
Outgoing Calls	Measurement of the number of the PS in off-hook status. This is counted to CS that is grabbed when PS does Off Hook.
Completed Outgoing Calls	Measurement of the number of the call that the called party answered. This includes the number of the call connecting to Announcement Trunk. This is counted to CS that PS is connected to.
Terminating Calls	Measurement of the number of the incoming calls to PS. This is counted to CS that is grabbed when PS rings.
Completed Terminating Calls	Measurement of the number of the incoming call answered by the PS. This is counted to CS that is grabbed when PS answers.
Line-Key Terminating Calls Note 1	Measurement of the number of the “Line-Key Terminating Calls” answered by the PS.
Paging Terminating Calls Note 2	Measurement of the number of the “Paging Terminating calls”.
Completed Paging Terminating Calls Note 2	Measurement of the number of the Paging Terminating calls answered by the PS.
No Answer of Ringing Calls	Measurement of the count that the calls can not terminate to PS. The cause of not terminating to PS is as follows: - PS power off. - PS is out of Zone. - There is not idle Bch/Tch. This is counted to Calling Area that PS does “Location Registration”. This is not counted on a per PCN basis and ZT basis.
Re-Connected Channel Changeover	Measurement of the number of the requested Hand-Over. This is counted to CS that PS does Hand-Over to.
Completed Re-Connected Channel Changeover	Measurement of the number of the completed Hand-Over. This is counted to CS that PS does Hand-Over to.
Position Assignment Request Count	Measurement of the number of the “PS Location Registration”. PS does “Location Registration” in the following cases. - PS Power ON. - PS moves the Calling Area. This is counted to CS that PS is connected to for the “PS Location Registration”.
Bch All Busy Count for CS/ZT	Measurement of the number of the Bch all busy on CS basis. In the case that Bch is made busy by command, even if other Bch became busy, this is not counted.

Note 1: “Line-Key Terminating” is not available.

Note 2: “Paging Terminating” is not available.

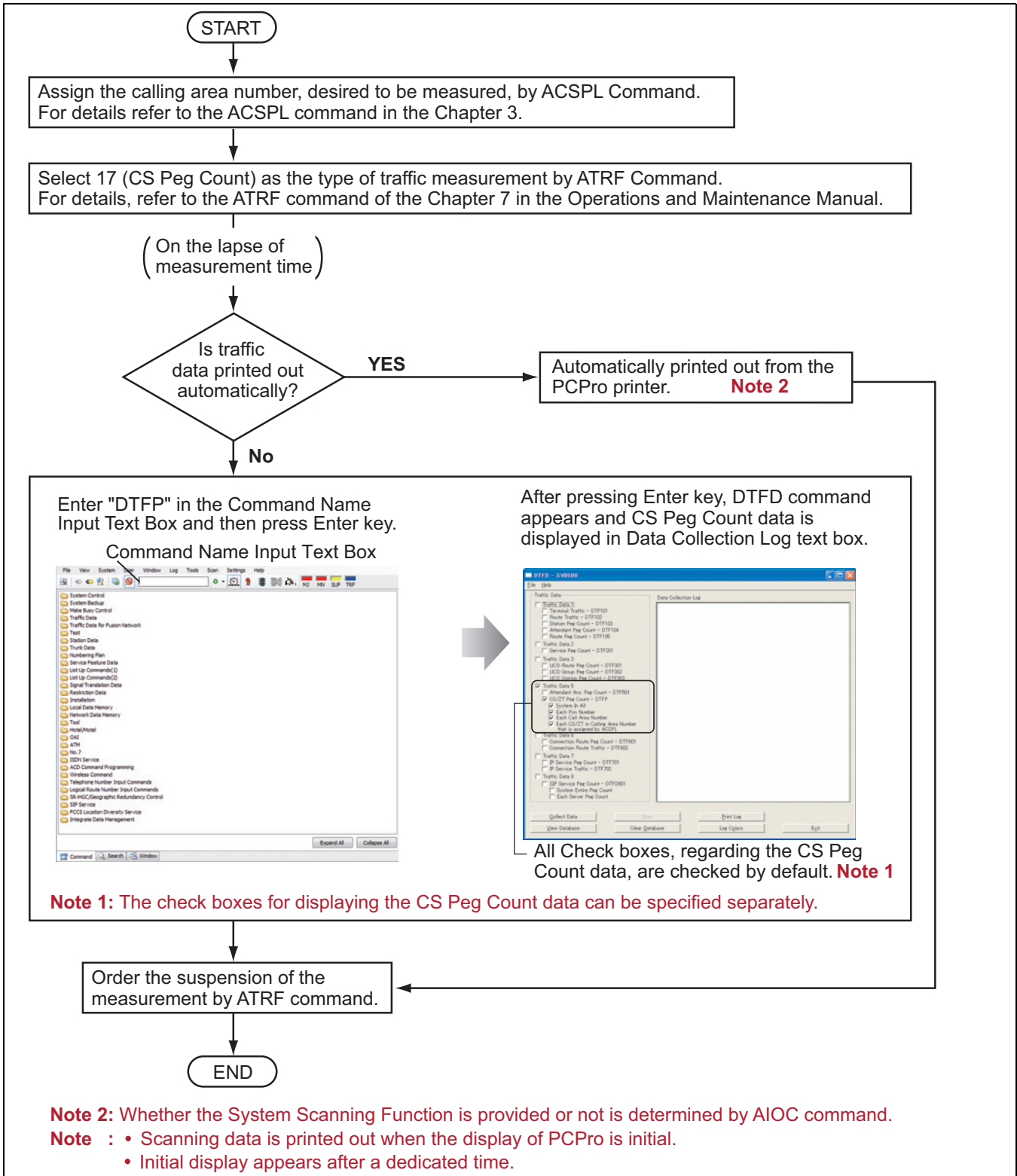
Items	Meanings
Abnormal Access Count	Measurement of the number of the call that authentication fails. This is counted to CS that PS is connected to when authentication fails.
Roaming Count for Home Office	Measurement of the count that the PS of Self Node roams to other Node. This includes the count that the PS roams from other Node to still other Node. This is counted on a per PCN basis (Kind=1,2). This is not counted on a per Calling Area basis and CS basis (Kind=3,4).
Roaming Terminating Calls for Home Office	Measurement of the number of the incoming calls to PS that is roaming to other Node. This is counted to the Calling Node. This is not counted on a per Calling Area basis and CS basis (Kind=3,4).
Roaming Count for Visitor Office	Measurement of the count that the PS of other Node roams to Self Node. This is counted to CS that PS is connected to when PS does Location Registration.
Abnormal Access for Visitor Office	Measurement of the number of the call that authentication fails on the roaming PS. This is counted to CS that PS is connected to when authentication fails.
T-ch cannot Connect Note 3	Measurement of the count that Tch establishment fails by cause of radio part. This is counted to CS that Tch establishment fails.
Release-out of Cell Note 3	Measurement of the number of the “squellch disconnect”. This is counted to CS that the “squellch disconnect” occurred at.
Channel Changeover for CS/ZT Note 3, Note 4	Measurement of the number of the Channel changeover inside of CS. This is counted to CS that PS is connected to.

Note 3: This is counted to the Calling Area that is assigned by ACSPL.

Note 4: “Channel changeover inside of CS” is not available.

2. Operation Procedures

The following chart explains the operation procedure concerning CS Peg Count.



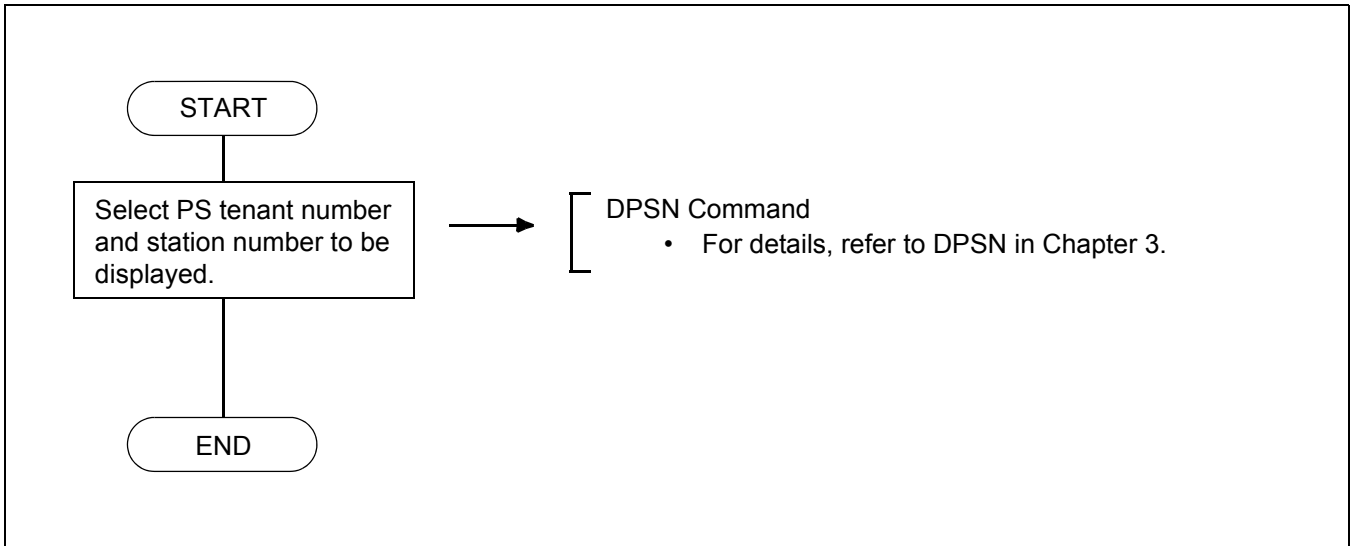
3. OFFICE DATA MANAGEMENT

3.1 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

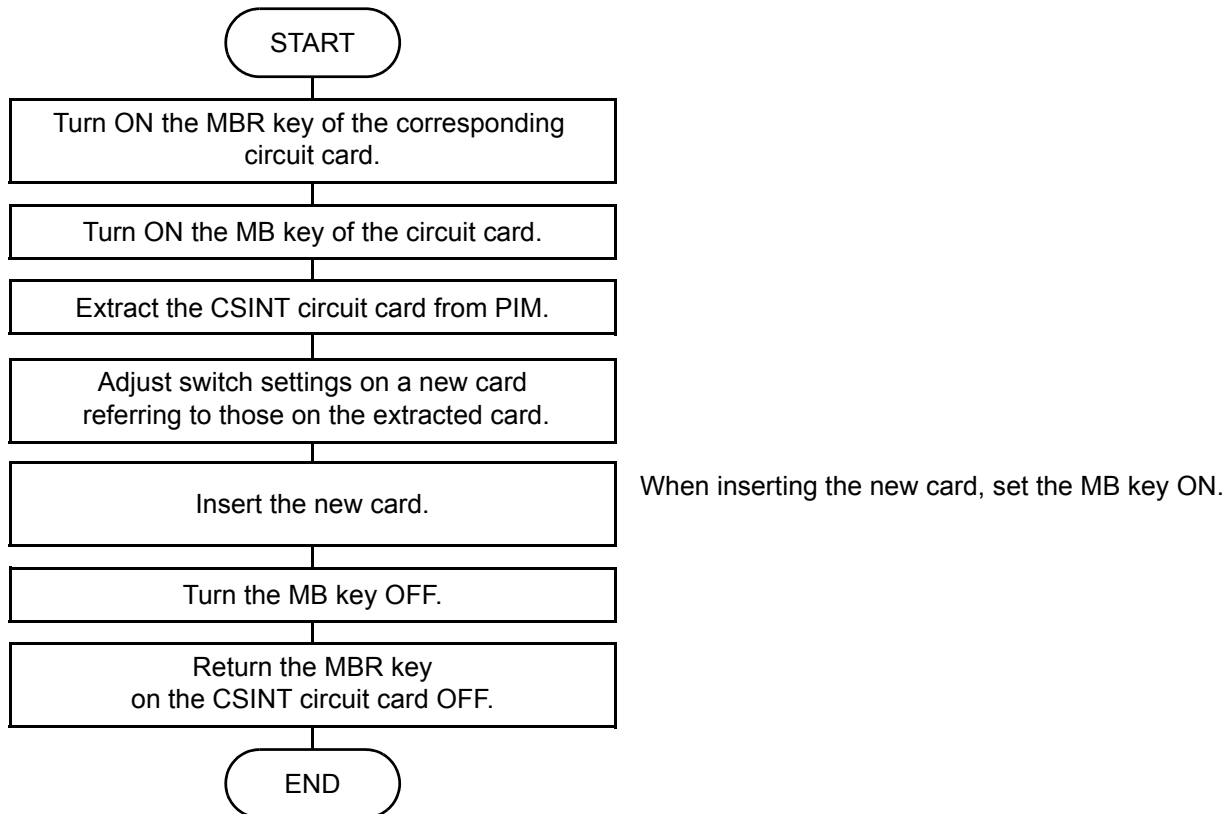


4. REPLACEMENT PROCEDURE OF CSINT CIRCUIT CARD/CS

This chapter explains how to replace CSINT circuit card and CSs. Refer to the Operations and Maintenance Manual for the circuit cards mounted on the Telephony Server that are not covered here.

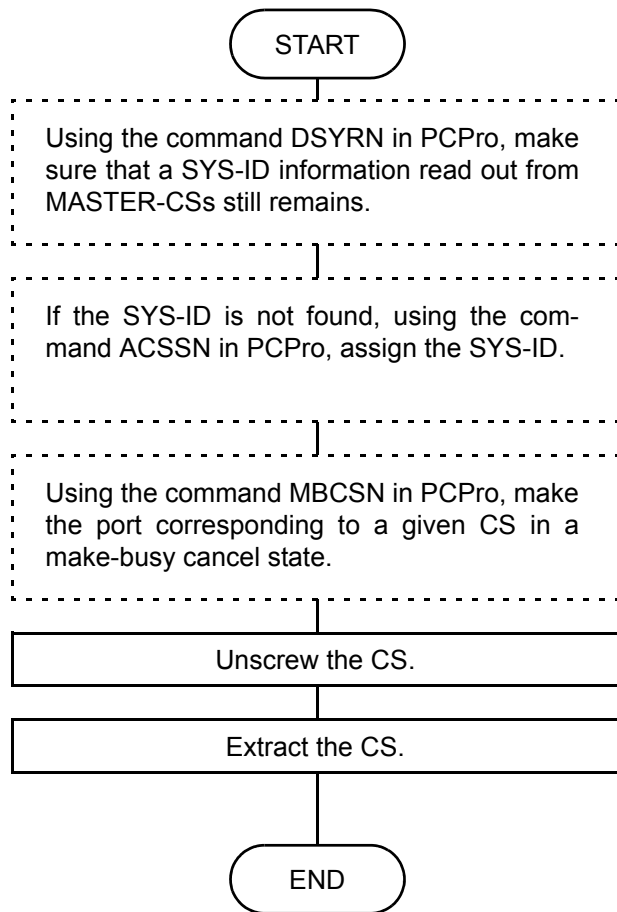
1. Replacement Procedure of CSINT Circuit Card

Confirm the BLn1 (n=0~3) is flashing and other BL lamps light off (Not used).



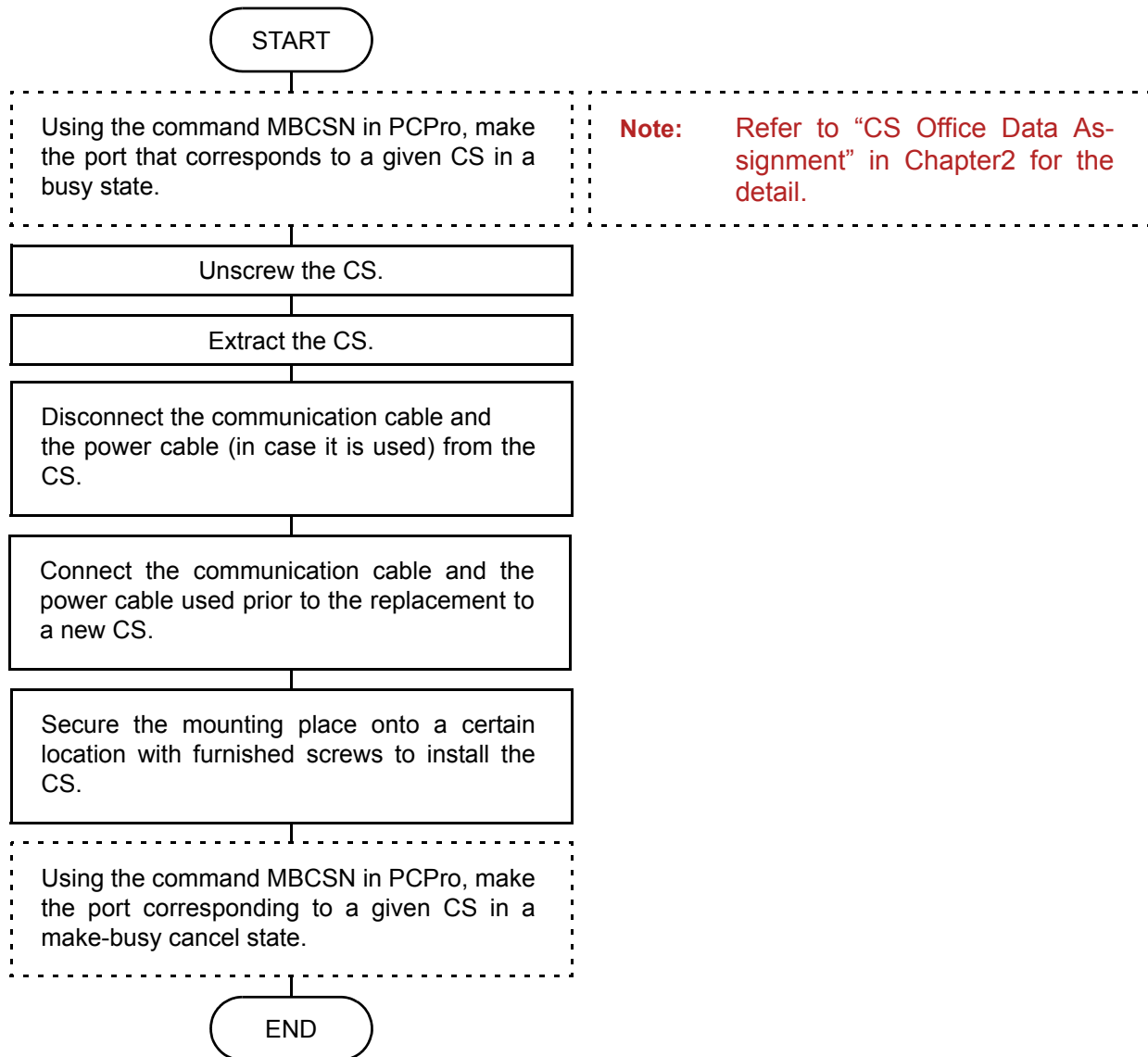
2. If MASTER-CSs Become Unavailable:

Here describes how to deal with the case the operating MASTER-CS is disabled because of a failure or circuit card replacement.



Note: Be sure not to assign/connect other terminals including CS on the accommodating location where the MASTER-CS has been assigned.

3. Replacement Procedure of CSs



5. SYSTEM MESSAGE

This chapter describes the system messages concerning the CS. Other system messages are to be explained in the “Operations and Maintenance Manual” of the Telephony Server.

(1) Detection of CS Fault

In cases where any trouble or faulty part is detected concerning the CSs, the following messages appear.

“25-A” CS Fault Notification

“25-B” CS Fault Recovery Notification

“25-C” CS Routine Diagnosis NG Notification

“25-D” CS/Bch Status Adjustment Normal Notification

“25-E” CS/Bch Status Adjustment Abnormal Notification

“25-F” CS Start NG Notification

“25-G” CS Operation Start Notification

“25-H” CS Operation Stop Notification

“25-I” CS Routine Diagnosis Time Out Notification

- System Messages and the Meaning are as follows.

MESSAGE NAME	MEANING	SYSTEM MESSAGE
CS Fault Notification	Indicates CS automatically detects a fault and the fault notification (maintenance signal) has been sent.	25-A
CS Fault Recovery Notification	Indicates CS reset is finished automatically and the fault recovery notification (maintenance signal) has been sent.	25-B
Routine Diagnosis NG Notification	Indicates CS regular examination retry out occurs or discrepancy of SYS-ID, additional ID, CS status, Bch status are detected.	25-C
CS/Bch Status Adjustment Normal Notification	Indicates matching of a discrepancy of CS/Bch status which has been detected in a CS routine diagnosis is complete.	25-D
CS/Bch Status Adjustment Abnormal Notification	Indicates matching of a discrepancy of CS/Bch status which has been detected in a CS routine diagnosis is not complete.	25-E
CS Start NG Notification	Indicates CS initial start-up ends in failure.	25-F
CS Operation Start Notification	Indicates CS is put into normal operation.	25-G
CS Operation Stop Notification	Indicates Layer 1 or 2 of CS fault is detected.	25-H
CS Routine Diagnosis Time Out Notification	Indicates that no response is given for a dedicated time in a CS routine diagnosis.	25-I

For 16-IMG, the ALM of the smallest numbered IMG in the LMG which accommodates the IP-BS will light.

(2) Detail of Each Message

(a) “25-A” CS Fault Notification

Detailed message data

1: XX XX XX 00 00 00 00 ~

Fault information

- 00: Radio Zone out of 5ms synchronization
- 01: PLL Lock Alarm
- 02: Other CS trouble
- 08: Abnormal ID-ROM
- 09: Abnormal inactive MEM
- 80: Restart Notice

CS which sends notification

G	L
MG	U

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(b) “25-B” CS Fault Recovery Notification

Detailed message data

1: XX XX XX 00 00 00 00 ~

Notification information

- 80: Recovery from a fault (Fixed)

CS which sends notification

G	L
MG	U

(c) “25-C” CS Routine Diagnosis NG Notification

Detailed message data

1: XX XX XX XX XX XX 00 00 ~

Additional information

Cause of NG notification

00: Routine diagnosis retry out (without additional information)

01: SYS-ID discrepancy (without additional information)

02: Additional ID discrepancy information (without additional information)

03: CS status discrepancy

Additional information

XX XX

Telephony Server information

00: Inactive

01: Busy

02: In operation

CS information

00: Inactive

01: Busy

02: In operation

04: Discrepancy of B channel status

Additional information

XX XX XX

Telephony Server information

00: In operation-open

01: In operation-busy

02: Busy

CS information

00: In operation-open

01: In operation-busy

02: Busy

Detected Bch

01: B1

02: B2

03: B3

Detected CS

G				L	
MG				U	

Repair Procedure: page 335

(d) “25-D” CS/Bch Status Adjustment Normal Notification

Detailed message data

1: XX XX 00 XX XX XX 00 00 ~

Additional information

Matching status kind

00: CS status matching

Additional information

XX XX

Telephony Server information

00: Inactive

01: Busy

02: In operation

CS information

00: Inactive

01: Busy

02: In operation

01: B channel status matching

Additional information

XX XX XX

Telephony Server information

00: In operation-open

01: In operation-busy

02: Busy

CS information

00: In operation-open

01: In operation-busy

02: Busy

Detected Bch

02: B2

03: B3

04: B4

Detected CS

G				L	
MG				U	

(e) “25-E” CS/Bch Status Adjustment Abnormal Notification

Detailed message data

1: XX XX 01 XX XX XX 00 00 ~

└ Matching NG factor

- 00~02 : SYS-ID upload processing NG
- 03~04 : SYS-ID upload processing time-out
- 05~08 : SYS-ID download processing NG
- 09~0A : SYS-ID download processing time-out
- 0B~0D : CS data download processing NG
- 0E~10 : CS data download processing time-out
- 11 : CS-ID setting NG
- 12 : CS-ID setting time-out
- 13 : LCCH transmission location registration processing NG
- 14 : LCCH transmission location registration answer time-out
- 15 : CS communication ready setting NG
- 17 : CS make-busy processing NG
- 18 : CS make-busy answer 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 NG
- 20 : CS operation parameter change processing NG
- 21 : CS operation parameter change processing time-out
- 22 : CS status request processing NG
- 23 : CS status request processing time-out
- 30,32,34,35,37,39 : CS expansion data download processing NG
- 31,33,36,38,3A : CS expansion data download processing time-out
- 7E : Layer 2 link failure (including MB key setting of circuit card)

└ Match status kind

- 00: CS status matching
- 01: Bch status matching

└ Detected CS

G	L
MG	U

(f) “25-F” CS Start NG Notification

Detailed message data

1: XX XX XX 00 00 00 00 00 ~

Start-up NG factor

- 00~02 : SYS-ID upload processing NG
- 03~04 : SYS-ID upload processing time-out
- 05~08 : SYS-ID download processing NG
- 09~0A : SYS-ID download processing time-out
- 0B~0D : CS data download processing NG
- 0E~10 : CS data download processing time-out
- 11 : CS-ID setting NG
- 12 : CS-ID setting time-out
- 13 : LCCH transmission location registration processing NG
- 14 : LCCH transmission location registration answer time-out
- 15 : CS communication ready setting NG
- 17 : CS make-busy processing NG
- 18 : CS make-busy answer time-out
- 19 : Bch B channel make-busy/cancel processing NG
- 1A : Bch B channel make-busy/cancel processing time-out
- 20 : CS operation parameter change processing NG
- 21 : CS operation parameter change processing time-out
- 22 : CS status request processing NG
- 23 : CS status request processing time-out
- 30,32,34,35,37,39 : CS expansion data download processing NG
- 31,33,36,38,3A : CS expansion data download processing time-out
- 7E : Layer 2 link failure (including MB key setting of circuit card)

Detected CS

G	L
MG	U

(g) “25-G” CS Operation Start Notification

Detailed message data

1: XX XX 00 00 00 00 00 00 ~

↑
Detected CS

G	L
MG	U

(h) “25-H” CS Operation Stop Notification

Detailed message data

1: XX XX 00 00 00 00 00 00 ~

↑
Detected CS

G	L
MG	U

(i) “25-I” CS Routine Diagnosis Time Out Notification

Detailed message data

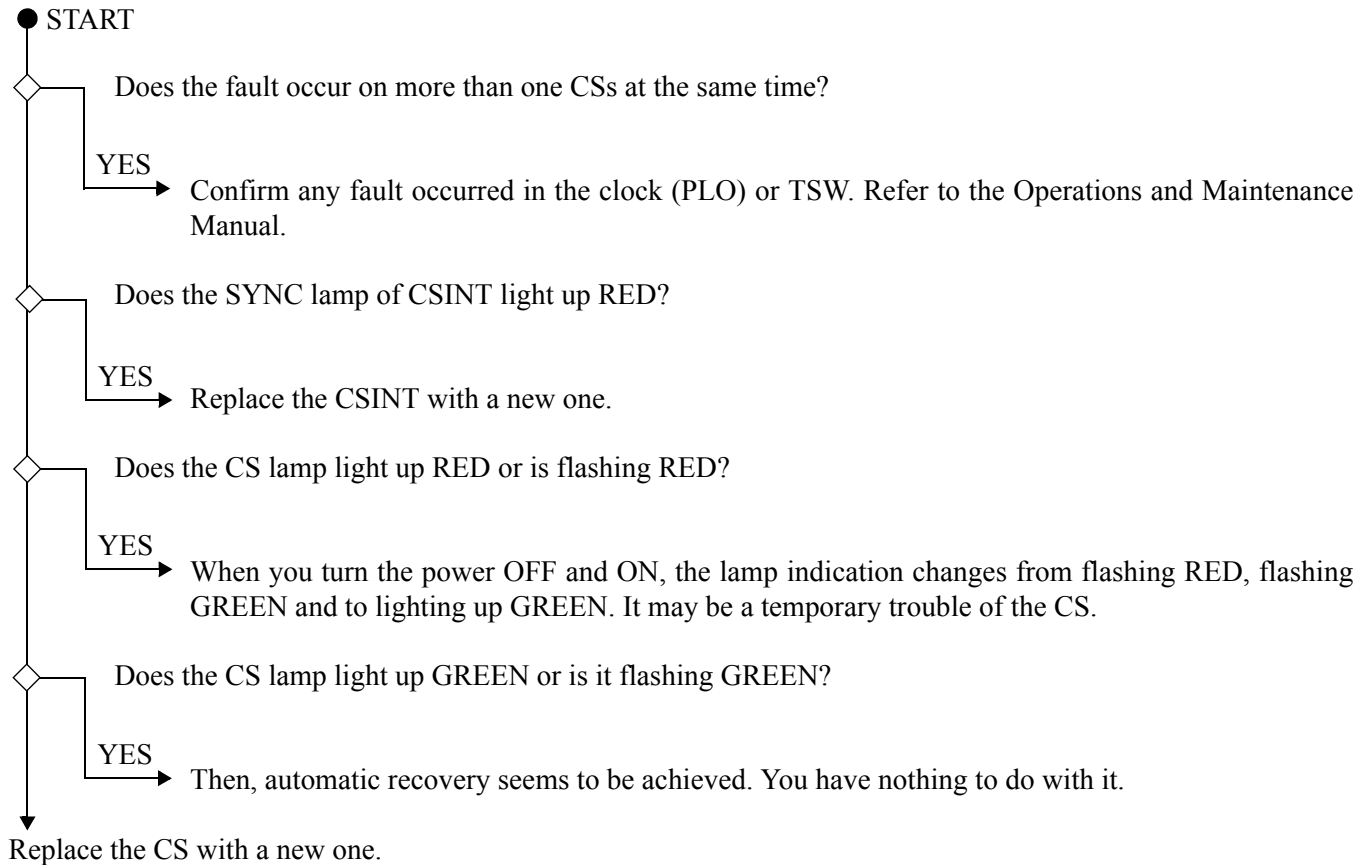
1: XX XX 00 00 00 00 00 00 ~

↑
Detected CS

G	L
MG	U

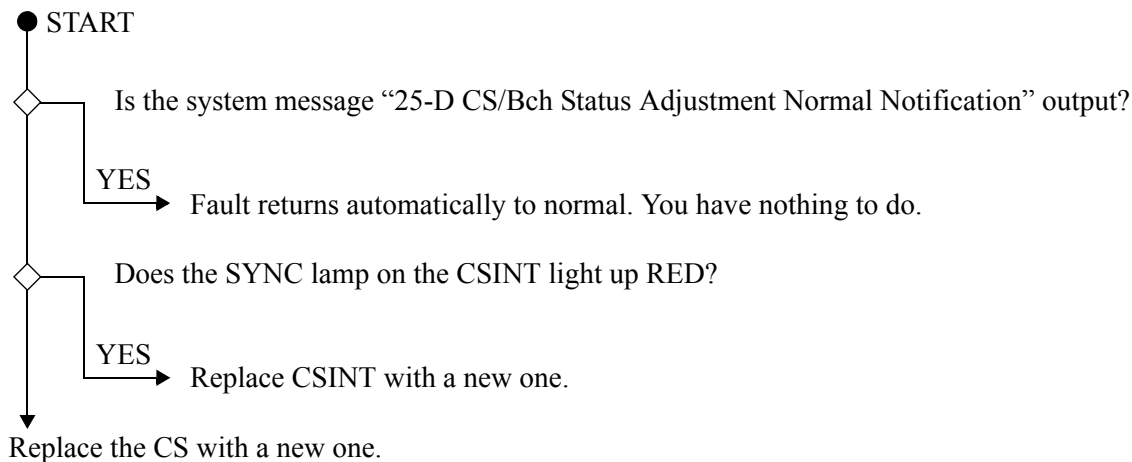
(3) Repair Procedures

(a) “25-A” CS Fault Notification



(b) “25-C” CS Routine Diagnosis NG Notification

This message indicates that the matching discrepancy between the main body and the CS is detected. This fault might be automatically recovered.



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