

NEAX 2000 IPS

INTERNET PROTOCOL SERVER

WCS Features and Specifications

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Table of Features

Feature	NEAX 2000 IPS						
	3000	3100	3200 R6.2	3300	3400	3500	3600
Analog PBX Interface	X	→	→	→	→	→	→
Announcement - PS No Answer	X	→	→	→	→	→	→
Announcement - PS Out of Cell	X	→	→	→	→	→	→
Automatic Release - Out of Cell Calls	X	→	→	→	→	→	→
Call Forwarding - Not Available	X	→	→	→	→	→	→
Call Forwarding - PS Out of Cell	-	X	→	→	→	→	→
CCIS Interface	X	→	→	→	→	→	→
Calling Name Display - PS	X	→	→	→	→	E	→
Calling Number Display - PS	X	→	→	→	→	→	→
DTMF Signal Sender	X	→	→	→	→	→	→
Group Call - Automatic Conference (6/10-Party)	X	→	→	→	→	→	→
Group Calling - 2 Way Calling	X	→	→	→	→	→	→
Handover	X	→	→	→	→	→	→
Individual PS Calling	X	→	→	→	→	→	→
Multi-Line Operation - PS	X	→	→	→	→	→	→
Number Sharing	X	→	→	→	→	→	→
Out of Cell Indication	X	→	→	→	→	→	→
Preset Dialing	X	→	→	→	→	→	→
PS Authorization	X	→	→	→	→	→	→
PS Location Indication	-	X	→	→	→	→	→
PS Location Registration	X	→	→	→	→	→	→
Quick Dialing	X	→	→	→	→	→	→
Radio Channel Changeover	X	→	→	→	→	→	→
Redial - PS	X	→	→	→	→	→	→
Soft Phone Wireless Handset	-	-	-	-	X	→	→
Speech Encryption	X	→	→	→	→	→	→
Station Hunting - Not Available	X	→	→	→	→	→	→
Station Speed Dialing - PS	X	→	→	→	→	→	→
Voice Mail Indication	X	→	→	→	→	→	→
WCS Integrated Type	X	→	→	→	→	→	→
WLAN Handset Registration/Service	-	-	-	-	-	-	X
- = not available X = available → = carried over to next level software E = enhanced							

Table of Features by Configuration Type

Feature	Adjunct Type		Integrated Type
	LC-COT Interface	CCIS Interface	
Analog PBX Interface	X	–	–
Announcement - PS No Answer	X	X	X
Announcement - PS Out of Cell	X	X	X
Automatic Release - Out of Cell Calls	X	X	X
Call Forwarding - Not Available	–	–	X
Call Forwarding - PS Out of Cell	–	–	X
CCIS Interface	–	X	–
Calling Name Display - PS	–	X	X
Calling Number Display - PS	–	X	X
DTMF Signal Sender	X	X	X
Group Call - Automatic Conference (6/10-Party)	–	–	X
Group Calling - 2 Way Calling	–	–	X
Handover	X	X	X
Individual PS Calling	X	X	X
Multi-Line Operation - PS	X	X	X
Number Sharing	–	–	X
Out of Cell Indication	X	X	X
Preset Dialing	X	X	X
PS Authorization	X	X	X
PS Location Indication	–	–	X
PS Location Registration	X	X	X
Quick Dialing	X	X	X
Radio Channel Changeover	X	X	X
Redial - PS	X	X	X
Soft Phone Wireless Handset	–	–	X
Speech Encryption	X	X	X
Station Hunting - Not Available	–	–	X
Station Speed Dialing - PS	X	X	X
Voice Mail Indication	–	–	X
WCS Integrated Type	–	–	X
WLAN Handset Registration/Service	–	X	X
X = available – = not available			

Introduction

Terms in this document

PBX system name

Usually, PBX system is designated as “PBX” or “system”.

When we must distinguish between PBX systems, they are designated as follows:

2000 IPS: NEAX 2000 IPS

2400 IPX: NEAX 2400 IPX

This page is for your notes.

Analog PBX Interface

General Description

This feature allows the WCS to be integrated with many types of PBXs and to activate various PBX services by sending hookflash signal and DTMF tone.

Configuration Application

Adjunct Type with the LC-COT interface

Operating Procedure

To place a call using Quick Dialing:

1. Press the L1 key and receive extension dial tone from the PBX.
2. Dial the desired number and receive ringback tone from the PBX.

To place a call using Preset Dialing:

1. Dial the desired number, press the L1 key, and receive ringback tone from the PBX.

To place an outside call using Quick Dialing:

1. Press the L1 key and receive extension dial tone from the PBX.
2. Dial the trunk access code.
3. Receive outside dial tone.
4. Dial the desired outside number and receive ringback tone.

To place an outside call using Preset Dialing:

1. Dial the trunk access code and the desired outside number, then press the L1 key and receive ringback tone.

To send the hooking signal:

1. While engaged in a call, press the TRF key. The hooking signal is sent to the PBX.

To send the DTMF signal:

1. While engaged in a call, press any dial key. DTMF signal is automatically sent from the WCS to the other party.
* Refer to the description of the feature, DTMF Signal Sender.

To place a call on Consultation Hold:

1. While engaged in a call, press the TRF key and receive Feature Dial Tone from the PBX. The called party hears Music On Hold if the PBX provides the service.

Analog PBX Interface

To transfer the call in progress:

1. While connected to the first party, press the TRF key and receive Feature Dial Tone. The number displayed on the LCD is cleared. The held party hears Music on Hold, if provided by the PBX.
2. Dial the third party number and receive ringback tone. The number is displayed.
3. Press the END key before the third party answers. The first and third parties will be connected when the third party answers.
or
Wait for the third party to answer and announce the transfer. Press the END key, then the first and third parties will be connected.

Service Conditions

1. The signal type of the following cases can be programmed on a route-by-route basis between the WCS and the PBX.
 - a. To dial for placing a call.
 - b. To dial for accessing to the PBX service.
 - c. To dial after sending hookflash.
2. The signal type of dial while a call is established is DTMF. It is not programmable.
3. If the PBX requires a pause timing between a trunk access code and an external number, the WCS can automatically insert the pause timing.
4. The called/calling party number is not displayed on the LCD of a PS.
5. The interface between a PBX and the WCS is a LC and a COT. The same number of LC and COT as PS are required.
6. Code Restriction and Class of Service are provided by the PBX.
7. Any type of call is originated via the PBX even a PS-to-PS call.
8. The trunk circuit of the WCS can recognize a momentary open signal as a release signal, if the PBX provides it.
9. The station number of a PS can be assigned flexibly. The limitation of the number and maximum digits depends on the PBX.

Announcement - PS No Answer / Announcement - PS Out of Cell

General Description

This feature allows calls to a PS that cannot be paged in a predetermined period of time to be routed to an announcement. The announcement notifies the calling party that the PS cannot answer. Announcements can be divided between Announcement-PS No Answer and Announcement - PS Out of Cell depending on the PS condition.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

By dialing predetermined access code from a station or a PS

To replay an announcement:

1. Dial the access code to replay the announcement assigned by CM20.
2. Dial the Digital Announcement Trunk Circuit Number (000 ~ 127).
3. Press the L1 key.
4. Receive a message.
5. Press END key.

To record an announcement:

1. Dial the access code to record the announcement assigned by CM20.
2. Dial the Digital Announcement Trunk Circuit Number (000 ~ 127).
3. Press the L1 key.
4. Receive three (3) seconds of service set tone.
5. Record a message. **Note**
6. Press END key.

To delete an announcement:

1. Dial the access code to delete the announcement assigned by CM20.
2. Dial the Digital Announcement Trunk Circuit Number (000 ~ 127).
3. Press the L1 key.
4. Receive three (3) seconds of service set tone.
5. Press END key.

Note: *An announcement may be a maximum of 120 seconds long.*

Service Conditions

1. This feature is available to the PS allowed in system data.
2. This feature is activated when any of the following apply to the called PS.
 - a. Announcement - PS No Answer
 - The PS does not answer in a predetermined period of time.
 - b. Announcement - Out of Cell
 - The power of the PS is off.
 - The PS is out of the service area.
 - All the channels of the calling area to which the PS belongs are busy.
 - All the channels of the CS to which the PS belongs are busy.
3. The default period until the Announcement - PS No Answer activates is 32 seconds and until the Announcement-PS Out of Cell activates is 8 seconds. During this time, the calling party hears the ringback tone. The timer data for each announcement service can be specified by system data programming respectively.
4. The timer period to send each announcement can be specified by system data programming. Only one sort of data can be set per one system.
5. 64 types of messages can be assigned to each tenant of the PS and each PS tenant group can have a different message. Besides, more than two tenant groups can share one message.
6. This feature can be allowed or denied according to the tenant class of the called PS. If this feature is not allowed, the calling person keeps hearing the ringback tone.
7. The CO incoming calls are subject to charging.
8. The calling position registration of the PS is available but originating/ receiving a call from/ to the PS is not available during the PBX is sending the announcement. (The calling person hears the busy tone.)
9. The calling person hears the reorder tone if the duration for sending the announcement elapses.
10. When several calls are connected with the Digital Announcement Trunk, an announcement for the first-connected call can be heard from the beginning. Subsequent calls received after the announcement begins hear the remainder of the announcement. If the Digital Announcement Trunk is all busy, the calling person keeps hearing the ringback tone.

Automatic Release - Out of Cell Calls

General Description

This feature affects PS users engaged in calls move out of the service area or enter a radio zone where all the channels are busy and communication becomes unavailable. Such users are disconnected automatically, and the other party receives reorder tone.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

No manual operation is required.

Service Conditions

1. When the electric field strength becomes weak due to the PS user moving out of the service area or entering a radio zone where all the channels are busy, Out of Cell Indication is activated.
2. When the electric field strength becomes so weak that communication is no longer available, the call will be disconnected automatically.

Call Forwarding - Not Available

General Description

When a PS's power is off or it is out of cell, a call directed to the PS is forwarded to a VMS, and a voice mail message can be recorded to the VMS and checked from the PS. Also the VMS can page the PS automatically after the voice mail message is recorded.

Configuration Application

Integrated Type

Operating Procedure

To set Call Forwarding - Not Available:

1. Press L1 key and receive dial tone.
2. Dial access code and receive Service Set Tone.

OR

1. Dial access code.
2. Press L1 key and receive dial tone.

To cancel Call Forwarding - Not Available:

1. Press L1 key and receive dial tone.
2. Dial access code and receive Service Set Tone.

OR

1. Dial access code.
2. Press L1 key and receive dial tone.

To check a voice mail message from the PS by accessing the VMS:

1. Press L1 key.
2. Dial the VMS station number and receive ringback tone.
3. Follow the instruction given by the VMS.

To check a voice mail message from the PS by hearing Dial Tone, Special Dial Tone or Voice Guide:

1. Press L1 key and receive dial tone or Special Dial Tone.
Special Dial Tone: Message exists.
Dial Tone: No message exists.
Announcement: Message exists.
2. Press End key.

To check a voice mail message by paging from the VMS (if provided by the VMS):

1. When a voice mail message is recorded, the VMS pages the PS automatically.

Service Conditions

1. After an incoming call to a “Not Available-PS” is forwarded, if the PS becomes available (power on or goes into cell), the PS can originate or receive a call even if the previous incoming call is connected to the VMS.
2. This feature has a priority to Announcement - PS No Answer/PS Out of Cell features.
3. A maximum of 3 digits can be used for the access codes for setting and canceling Call Forwarding - Not Available.
4. The type of dial tone that the PS receives when there is a message (dial tone, Special Dial Tone or Voice Guide) can be specified by the system data programming.

Call Forwarding - PS Out of Cell

General Description

This feature allows calls directed to a PS which is power off or out of cell to be routed to another station, an Attendant, an outside number or voice mail equipment. The call forwarding destination can be set/cancelled from the PS station or MAT/CAT.

Station Application

Integrated Type

Operating Procedure

To set Call Forwarding - PS Out of Cell from a PS

1. Press L1 or L2 key and receive dial tone.
2. Dial feature access code for Call Forwarding - PS Out of Cell and receive feature dial Tone.
3. Dial the call forwarding destination number and receive service set tone.
4. Press the END key.

OR

1. Dial feature access code for Call Forwarding - PS Out of Cell and the call forwarding destination number.
2. Press L1 or L2 key and receive service set tone.
3. Press the END key.

To cancel Call Forwarding - PS Out of Cell from a PS

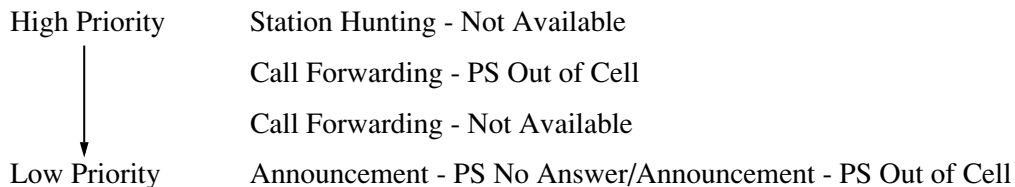
1. Press L1 or L2 key and receive dial tone.
2. Dial cancellation code for Call Forwarding - PS Out of Cell and receive feature dial tone.
3. Press the END key.

OR

1. Dial cancellation code for Call Forwarding - PS Out of Cell.
2. Press L1 or L2 key and receive service set tone.
3. Press the END key.

Service Conditions

1. **This feature is available from Series 3100 software.**
2. The call forwarding destination can be assigned from a PS or MAT/CAT on a PS station basis.
3. The call forwarding destination can be an another station, an Attendant, an outside number or a voice mail equipment.
4. Service priority order is activated with the following priority order when a call is directed to the PS which is power off or out of cell.



When all the above features are not assigned, the caller will keep receive ring back tone or no tone in system data assignment.

5. When a call forwarding destination is an outside number, there are following conditions.
 - a. Maximum 496 outside numbers can be assigned at the same time including Call Forwarding - All Calls - Outside and Call Forwarding - No Answer - Outside.
 - b. The same memory for which the outside numbers are stored is used with Call Forwarding - All Calls/ Busy Line/ No Answer/ Outside.
6. When a call is terminated from a trunk to a PS and the PS set outside destination (Trunk to Trunk tandem connection), the caller will hear ring back tone continuously in the following case.
 - a. When the tandem connection of the incoming and outgoing trunk route is restricted.
 - b. When all outgoing trunks are busy.
7. PS out of cell or PS power off is identified by no answer timeout (CM40, Y=0, 1st data=85).
8. When the call is forwarded from PS to Voice Mail (AD8), the Call Type Code is "Call Incomplete".
9. When the call is forwarded from PS to Voice Mail via MCI, the Call Type Code is "No Answer".
10. When this service is assigned, it must be set "not send RBT to caller when the called PS is out of cell or power-off" in system data assignment (CM08, 503).
11. When a calling party and a call forwarding destination is a D^{term} with LCD and the call is forwarded by this feature, the LCD of the calling station shows "CF-NANS" and the call forwarding destination station number, and the LCD of the call forwarding destination shows the calling station number.

CCIS Interface

General Description

This feature allows the WCS to be integrated with NEC PBXs with CCIS interface.

Configuration Application

Adjunct Type with CCIS interface

Operating Procedure

To place a call using Quick Dialing:

1. Press the L1 key and receive extension dial tone.
2. Dial the desired number and receive ringback tone.

To place a call using Preset Dialing:

1. Dial the desired number, press the L1 key, and receive ringback tone.

To place an outside call using Quick Dialing:

1. Press the L1 key and receive extension dial tone.
2. Dial the trunk access code.
3. Receive outside dial tone.
4. Dial the desired outside number and receive ringback tone.

To place an outside call using Preset Dialing:

1. Dial the trunk access code and the desired outside number, press the L1 key, and receive ringback tone.

To send the DTMF signal:

1. While engaged in a call, press any dial key. DTMF signal is automatically sent from the WCS to the other party.
* Refer to the description of the feature, DTMF Signal Sender.

To place a call on Consultation Hold:

1. While engaged in a call, press the TRF key, and receive Feature Dial Tone. The called party hears Music on Hold, if the PBX provides the service.

To transfer the call in progress:

1. While connected to the first party, press the TRF key and receive Feature Dial Tone. The number displayed on the LCD is cleared. The held party hears Music on Hold, if the PBX provides the service.
2. Dial the third party number and receive ringback tone. The number is displayed.
3. Press the END key before the third party answers. The first and third parties will be connected when the third party answers.
or
Wait for the third party to answer and announce the transfer. Press the END key, then the first and third parties will be connected.

Service Conditions

1. The service conditions of each feature are the same as those of the Single Line Telephone of CCIS features, except the following features:
 - a. Calling Number Display - PS
 - b. Stack Dial - PS
 - c. Station Speed Dialing - PS
2. If the PBX requires a pause timing between a trunk access code and an external number, the WCS can automatically insert the pause timing.
3. The interface between a PBX and the WCS is CCIS. The number of voice link depends on the traffic except PS-to-PS calls.
4. Code Restriction and Class of Service are provided by the PBX.
5. Any type of call is originated via the PBX even a PS-to-PS call.
6. The station number of D^{term} PS can be assigned flexibly. A PS number can contain up to four digits.
7. If the SMDR is needed, an AP00 card is required and the upper PBX must have a center node feature of Centralized Billing - CCIS.

Calling Name Display - PS

General Description

Before a user answers an incoming call or an on-hold call on their PS, the calling party's name appears on the PS's LCD.

Configuration Application

Integrated Type and Adjunct Type with CCIS interface

Operating Procedure

No manual operation is required.

Service Conditions

1. One of the following is displayed on the LCD.
 - a. Guest Name Display
 - b. Station Name Display
 - c. Caller ID Class
 - d. CCIS
 - e. ISDN Name Display (when ISDN network provides the service)
 - f. Calling Party Name (when calling party number and name are registered to Station Speed Dialing)
 - g. ACIS Trunk Name (when no calling party number is provided such as COT/ODT/DTI)(**Series 3500 software enhancement**)
 - h. Attendant Console Number and Name (**Series 3500 software enhancement**)
2. A maximum of 11 letters of the calling party's name can be displayed. When more than 11 letters are received, the digits move from right to left, displaying only the most recently received letters.
3. When an incoming call terminates to a PS, both the calling party's name and number will be displayed during ringing. Only the name will be displayed during the conversation.
4. When only calling party's name is received, only the name is displayed and when only calling party's number is received, only the number is displayed. If neither calling party's name nor number is received, an indication "CALL" is displayed.
5. When a call terminates to L2 while the PS user is busy on L1, information of the call terminates to L2 is displayed for approximately 10 seconds, and then returns to the previous display.
6. When a call is forwarded to the PS by Call Forwarding-All Calls/-Busy Line/-Don't Answer/-Not Available, an indication "CF" is displayed in the left side of the LCD.

Conditions for ACIS Trunk Name / Attendant Console Number and Name display (**Series 3500 software enhancement**)

1. The calling party name is displayed according to the name set by system data to each station number, trunk route and attendant console number. If the name is not assigned, this feature is not available.
2. If the trunk name is not assigned for the trunk route by system data when a PS is called from the ACIS trunk without calling party number, "DDD" is displayed for CO lines, and "TIE" is displayed for Tie lines.

3. When station A or an attendant console calls a PS with Consultation Hold of another station B or a trunk, the incoming call displayed on the PS can be selected whether station A/attendant console or the held station B/trunk according to system data programming.

Note 1: *A trunk is displayed only when the calling party number is received. If not, station A or an attendant console is displayed regardless of system data.*

Note 2: *If station A or an attendant console is released while station B or the attendant console calls a PS in Consultation Hold state, the incoming call displayed on the PS is changed to the held station B or trunk. In this case, note that the display of the calling party number is not changed. Only the display of the calling party name is changed to the held party name.*

Calling Number Display - PS

General Description

This feature provides a display on the LCD of a PS receiving a call, indicating the station number.

Configuration Application

Integrated Type and Adjunct Type with CCIS interface

Operating Procedure

No manual operation is required.

Service Conditions

1. For internal or CCIS incoming calls, the calling extension number will be displayed. For trunk calls, the calling subscriber's number for ANI and the calling ISDN terminal number will be displayed. The trunk number cannot be displayed.
2. A maximum of 11 digits of the calling number can be displayed.
3. When an incoming call terminates to a PS and begins ringing, the calling number will be displayed (no flashing) and when the line is connected, the call duration will be displayed. Once the display is cleared by pressing a Feature key (F1/F2/F3), the number will not be displayed again.

DTMF Signal Sender

General Description

This feature allows a PS user to send the DTMF signal (tone) to the called party (terminal, voice mail system, etc.) while engaged in communication.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

To send the DTMF signal:

1. While engaged in communication, press a dial key. The WCS automatically sends the corresponding signal tone to the called party.

Service Conditions

1. When the DTMF signal is sent, there may be an interruption in the communication.
2. The DTMF signal tone varies between 64 ms to 128 ms.
3. When this feature is activated, the number pressed is displayed on the LCD. The display on the LCD is cleared after 20 seconds, but the called party number previously displayed will not be displayed again.

Group Call - Automatic Conference (6/10-Party)

General Description

This feature permits a PS user, D^{term} user or Single Line Telephone user within the system to establish a conference among as many as six or ten parties. From a PS/D^{term}/Single Line Telephone, a maximum of 9 PSs can be paged simultaneously except the conference leader. The PSs are assigned through system data as participants in the paging groups.

Configuration Application

Integrated Type

Operating Procedure

To make a conference call:

From PS/D^{term}/Single Line Telephone;

1. Press the Speaker/L1 key or go off hook, and receive a dial tone.
2. Dial the access code or press feature key (D^{term} only) for a desired paging group, and receive a ringback tone.

OR

From PS only;

1. Dial the access code for a desired paging group.
2. Press the L1 key and receive a ringback tone.

If the CFT trunks are all busy or the leader is not assigned as the conference leader with service feature class, a reorder tone is heard.

3. You can converse sequentially with the participants of the conference in order of their answering.

To answer the paging:

1. When the conference call terminates, the LCD shows the station number of the conference leader.
2. Answer the ringing of paging from the conference leader.
3. You can converse with the conference leader and other participants.

To participate in the middle of the conference:

From PS/D^{term}/Single Line Telephone;

1. Press the Speaker/L1 key or go off hook, and receive a dial tone.
2. Dial the access code or press feature key (D^{term} only) for re-participation to the paging group.

OR

From PS only;

1. Dial the access code for re-participation to the paging group.
2. Press the L1 key.

If the CFT trunks are all busy, a reorder tone is heard.

3. You can participate in the conference if the CFT trunk has an idle circuit.

Service Conditions

1. A maximum of nine stations is paged simultaneously except the conference leader.
Even if more than nine stations are assigned to one group except the leader, the first nine stations are paged in order of registered number on the system data.
2. Single Line Telephones, D^{term}s and PSs can be assigned as the stations within the conference groups (Virtual line cannot be assigned). A station can belong to plural groups.
3. Up to eight groups can be assigned as the conference group by system data.
4. The maximum number of participants which can be connected in a conference is:
 - Six participants (including of the leader)
 - Ten participants (including of the leader)

Up to four CFT trunks can be accommodated in the system.

The maximum number of conference groups per system when using four CFT trunks (maximum) is:

- Four, 6-party conference groups
- Two, 10-party conference groups
- Two, 6-party conference groups and one, 10-party conference group

A CFT trunk is used for either a 6-party or 10-party conference. Dialed access codes determine which CFT trunk is used for a conference. If the leader dials the access code or press the feature key for a 10-party conference when only one CFT trunk is idle, the leader is restricted and hears the reorder tone.

5. A Single Line Telephone, D^{term} and PS can be a conference leader and make a conference call to a group, even if it does not belong to the group.
6. A Single Line Telephone, D^{term} and PS, which does not belong to the group, can be a participant in a conference by dialing the re-participation access code or by pressing the feature key (D^{term} only), when the CFT trunk has an idle circuit.
7. A conference leader cannot page two or more groups simultaneously.
A group cannot be paged simultaneously by the multiple conference leaders.
A group cannot be paged while a conference of the group is in progress.
8. If all stations within the paged group are busy, the conference leader hears the reorder tone.
If a station does not answer the paging by certain time (which is determined by the system data), the conference leader hears the busy tone.
9. When a station cannot answer a page because it is out of the cell, the page timed out, or because the station is busy, the station can still participate in the conference. It does this by dialing the re-participation access code or by pressing the feature key (D^{term} only) while the conference is in progress and when the CFT trunk has an idle circuit.
10. If a conference leader left from the conference once, he/she can participate again by dialing the re-participation access code or by pressing the feature key (D^{term} only) while the conference is in progress and when the CFT trunk has an idle circuit.
11. A station can be paged while it is idle. When the station is busy at the time of paging, the station cannot be paged even if the station returns to idle later.
12. Even if a station sets Call Forwarding, the conference leader can page the station.
13. If a paged PS is out of cell or if its power is off, the system keeps paging it for a period of time.
While the paging is in progress, the PS can be paged when it returns into the cell or when its power is turned on.

14. During a conference, Handover of PS is available. But a hooking operation or camp-on setting is not effective.

Group Call - 2 Way Calling

General Description

This feature permits a PS/D^{term}/Single Line Telephone to page a maximum of fifteen parties simultaneously except the group call leader. After one of paged parties answers, the paging becomes the 2 Way Calling between the leader and the first answered party, and paging other parties stops automatically. The PSs are assigned through system data as participants in the simultaneous paging groups.

Configuration Application

Integrated Type

Operating Procedure

To page stations of a group:

From PS/D^{term}/Single Line Telephone;

1. Press the L1 key or go off hook, and receive a dial tone.
2. Dial the access code or press feature key (D^{term} only) for a desired paging group, and receive a ringback tone.

OR

From PS;

1. Dial the access code for a desired paging group.
2. Press the L1 key and receive a ringback tone.

If the paged stations are all busy or the leader is not assigned as the conference leader with service feature class, a reorder tone is heard.

3. Paging stops after one of paged parties answered.

To answer the paging:

1. When the paging call terminates, the LCD shows the station number of the group call leader.
2. Answer the ringing of paging from the group call leader.
3. Paging stops after one of paged PSs answered.

Service Conditions

1. A maximum of fifteen stations is paged simultaneously except the group call leader. Even if more than fifteen stations are assigned to one group except the leader, the first fifteen stations are paged in order of registered number on the system data. Also one station can belong to multiple groups.
2. Single Line Telephones, D^{term}s, PSs can be assigned as the stations within the group call groups (Virtual line cannot be assigned). A station can belong to multiple groups.
3. Up to eight groups can be assigned as the call group by system data, including voice paging and Group Call-Automatic Conference.
4. A Single Line Telephone, D^{term}, and PS can be a group call leader and page a group, even if it does not belong to the group.

Group Call - 2 Way Calling

5. A group call leader cannot page two or more groups simultaneously.
A group cannot be paged simultaneously by multiple group call leaders.
6. If all stations within the paged group are busy, the group call leader hears a reorder tone.
If a station does not answer the paging by certain time (which is determined by the system data), the group call leader hears a busy tone.
7. A station can be paged while idle state. When the station is busy at the time of paging, the station cannot be paged even if the station returns to idle later.
8. Even if a station sets Call Forwarding, the group call leader can page the station.
9. If a paged PS is out of cell or its power is off, the system keeps paging it for a period of time. While the paging is in progress, the PS can be paged when it returns into the cell or when its power returns to on.
10. During a group call, Handover of PS is available.

Handover

General Description

When the signal transmission quality becomes inferior, a PS re-originates a call automatically and seizes another radio channel, making the WCS handover the call to another CS to maintain the speech quality.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

No manual operation is required. The PS sends the Handover request to the WCS automatically.

Service Conditions

1. This feature is activated when a PS is engaged in communication.
2. The communication may be interrupted during operation of this feature. The interruption is usually within a second, to a maximum of ten seconds.
3. This feature is also available when a PS user moves to the far end of the radio zone and encounters inferior transmission quality. In this case, the PS searches for the radio zone of stronger electric field. If the radio zone is found, Handover is activated and the conversation is continued in that zone. If there is no idle channel in the new radio zone, the conversation is continued in the current zone until the communication becomes unavailable. Then, Automatic Release - Out of Cell Calls is activated.
4. PS Authorization is activated every time this feature is activated.

Individual PS Calling

General Description

This feature allows the calling party to page the individual PS.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

To activate:

1. Dial the unique number assigned to each PS. The designated PS will be called. If the calling number display is available, the lower 11 digits of the number are displayed on the LCD of the called PS.
2. There are two answering options:
 - a. Any-key answering mode
The called PS user presses any one of the keys (numbers 0 to 9, #, *, or function keys) to answer.
 - b. Automatic answering mode
The called PS is connected automatically without ringing.

Service Conditions

1. The PS will be paged in the paging area where its location has been registered.
2. This feature is available for:
 - a. calls from a PS
 - b. calls from a PBX station (D^{term}, Single Line Telephone) or Attendant Console
 - c. Direct-In Termination (DIT) calls
 - d. Direct Inward Dialing (DID) calls
 - e. Direct Inward System Dialing (DISA) calls
 - f. Tie Line calls.
3. If the PS cannot be called because the PS user is out of the service area, the announcement can be provided to the calling party (The Digital Announcement Trunk card is required.). If the called PS is out of the service area, Out of Cell Indication is activated.
4. When all speech channels of the CS in the paging area are busy, Announcement - PS Out of Cell is activated, if allowed in the tenant basis service feature class. If not allowed in the service feature class, the PS user receives reorder tone.
5. PS Authorization is activated for every call termination.
6. The answering options, the any-key answering mode, and the automatic answering mode can be selected by the PS user, using the FNC key.

Multi-Line Operation - PS

General Description

PS equipped with two line keys, L1 key and L2 key, and different station numbers can be assigned to each of two lines. The number assigned to L1 key of the PS is called My Line and the other number assigned to L2 key is called Sub Line. My Line and Sub Line of a PS can be assigned to appear on the Flexible Line Keys of a D^{term} and the D^{term} can share the PS lines.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

Refer to the PHS Handset II User's Guide.

Service Conditions

1. A Sub Line number of PS cannot be overlapped with station numbers of My Line/Sub Line of D^{term}, SLT, and My Line of PS, but the same Sub Line number of PS can be assigned to multiple PSs.
2. There is no limitation in the number of PS which can share a Sub Line.
3. Some PBX services are available for My Line as well as for subline, but some of the services such as "Message Waiting" are not available to subline.
4. When a call terminates to a Sub Line, all PSs sharing the Sub Line ring and each L2 key of the PSs lights for 60 seconds. If one of those PSs originates or holds on the Sub-Line call, each L2 key of other PSs does not light.
5. While either My Line or Sub Line is in communication, Multiline Hold is available by pressing **HLD** key and other PSs/D^{term}s sharing the line can answer by pressing the held line key. Exclusive Hold is available by pressing **HLD** key twice and only the PS on Exclusive Hold can answer the call. Other PSs receive ROT and cannot answer the call.
6. While either Sub Line or My Line is in communication, the PS user can do any of the following by pressing **HLD** key and the other line key:
 - answer an incoming call
 - answer a call on Multiline Hold
 - originate an outgoing call on the other lineIf the PS user answers the second line without pressing **HLD** key, the first line is disconnected.
7. Handover on Sub Line is available as well as the My Line.
8. When a call is terminating to a Sub Line which is not set Announcement - PS No Answer/ - PS Out of Cell, paging continues for 60 seconds, then stops.

Number Sharing

General Description

This feature allows the D^{term} user to have a PS as Sub Station and to get service with one telephone number. In case that one user has both D^{term} and PS, with this feature used, the user is not required to have two separate telephone numbers.

- When a user is at his desk, a call is terminated to his D^{term}.
- When a user leaves his desk with PS, a call is terminated to his PS.

In this feature, the D^{term} and PS are referred as Main Station and Sub Station, respectively.

Configuration Application

Integrated Type

Station Application

Main Station: D^{term} My Line

Sub Station: PS, Single Line Telephone

Operating Procedure

<To forward a call to PS>

To set from the D^{term} (Main Station):

While in idle state, press the feature key for this feature.
→The lamp associated with the feature key lights red.

To cancel from the D^{term} (Main Station):

While in idle state, press the feature key for this feature.
→The lamp associated with the feature key goes out.

To set from the PS (Sub Station):

Off hook and dial the access code for this feature.
→Receive Service Set Tone.
→The lamp associated with the feature key on the D^{term} (Main Station) lights red.

To cancel from the PS (Sub Station):

Off hook and dial the cancel code for this feature.
→Receive Service Set Tone.
→The lamp associated with the feature key on the D^{term} (Main Station) goes out.

Note: *This setting is usually done from D^{term}.*

Service Conditions

1. Calling Number Display to D^{term}
 When $D^{\text{term}}-A$ is connected to the PS (Sub Station), the station number of the D^{term} (Main Station) instead of PS (Sub Station) is displayed on $D^{\text{term}}-A$.
 - a. Main Station number is always displayed even if PS (Sub Station) is called up by directly dialing PS's number irrespective of forwarding being set.
 - b. As for Name Display, PS name is displayed to calling $-A$. The same name can be assigned to PS/ D^{term} by system data setting.
2. Calling Number Display through CCIS
 When $D^{\text{term}}-A$ is connected to the PS (Sub Station) through CCIS, the station number of the D^{term} (Main Station) instead of PS (Sub Station) is displayed on $D^{\text{term}}-A$.
 - a. Main Station number is always displayed even if PS (Sub Station) is called up by directly dialing PS's number irrespective of forwarding being set.
 - b. As for Name Display, PS name is displayed to calling $D^{\text{term}}-A$. The same name can be assigned to PS/ D^{term} by system data setting.
3. When a call is originated from PS (Sub Station) to ISDN, the Sub Station number is sent out.
4. When a call is originated from PS (Sub Station) or a call is terminated to PS (Sub Station), service class and tenant number assigned to PS (Sub Station) are referred.

Note: Do not assign data as follows;

- Main Station : Allow to access ISDN

- Sub Station : Restrict to access ISDN

In this case, $D^{\text{term}}PS$ is not able to access ISDN when forwarding is set from D^{term} .

5. When a call is originated from the PS (Sub Station), billing information is recorded as a call originated from the D^{term} (Main Station).
6. When a call is transferred from the PS (Sub Station) to the Voice Mail System by Call Forwarding - All Calls/Busy Line/Don't Answer, the voice mail is recorded on the mail box of the D^{term} (Main Station). The system controls Message Waiting Indication on both the D^{term} (Main Station) and PS (Sub Station).

Note: Sub Station is required message waiting lamp or equivalent.

7. When a call is terminated to Main Station while this feature is setting, services assigned to Main Station, (such as Call Forwarding - All Calls/Busy Line/Don't Answer/Station Hunting/UCD/DND) are invalid. The services assigned to PS (Sub Station) are valid.
8. When a call is terminated to PS (Sub Station) but the PS (Sub Station) is busy, the following services can be assigned to PS (Sub Station).
 - Call Forwarding - Busy Line
 - Call Back
 - Call Waiting
 - Whisper Page
 - Attendant Camp-On
 - Executive Right of Way

Out of Cell Indication

General Description

When a PS user moves out of the service area and the electric field strength becomes weak, this feature notifies the user with an LCD display.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

No manual operation is required.

Service Conditions

1. When a PS user turns the power on while the user is out of the service area or when the user moves out of the service area while idle or engaged in a call, Out of Cell Indication is displayed.
2. When the electric field strength becomes so weak that communication cannot be continued, Automatic Release - Out of Cell Calls is activated.

Preset Dialing

General Description

This feature allows a PS user to confirm the number to be dialed before originating a call.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

To originate a call:

1. Dial the desired number. The number will be stored and displayed on the LCD.
2. After confirming the number, press the L1 key.
3. To end a call, press the END key.

Service Conditions

1. A maximum of 40 digits (numbers 0 to 9, #, *, and pause) can be stored. A maximum of 11 digits can be displayed on the LCD from left to right. When more than 12 digits are dialed, the digits exceeding 12 move from right to left, displaying only the most recently dialed digits.
2. If a wrong number is dialed, press the FNC key. The number just dialed will be deleted. If the FNC key is pressed for more than 0.5 seconds, the numbers will be deleted successively. Also, if no number is entered for 20 seconds, the service is cleared, and the PS returns to the idle state (stand by status).
3. If the user dials a number after pressing the L1 key, it will be recognized as a DTMF signal sending.
4. PS Authorization is activated for every call origination.

PS Authorization

General Description

This feature is to confirm the identity of a PS to avoid an unauthorized D^{term} PS from accessing the system.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

No manual operation is required.

The PS identity is confirmed automatically by checking whether the PS possesses the key information unique to it. This check is performed between the WCS and the PS.

Service Conditions

1. This feature is activated in the following circumstances:
 - a. when the PS user originates a call.
 - b. when a call terminates to the PS.
 - c. when Handover service is activated.
 - d. when the PS registers its location to the system (when idle).

PS Location Indication

General Description

When a PS calls a D^{term}/Attendant Console or vice versa, this feature allows to indicate the location name of the Cell Station (CS) that is connected to the PS on the LCD of the D^{term}.

Configuration Application

Integrated Type

Operating Procedure

No manual operation is required.

Service Conditions

1. This feature is available, regardless of a Nation Code and system configuration such as the number of ports or PIMs.
2. SPN-SC03B 8CSH-A (AP) can be used as CSH.
3. The CS Name is displayed on the LCD of a D^{term} and Attendant Console. And it is not changed by Nation Code.
4. When the D^{term} or Attendant Console user makes/receives a call to/from a PS, CS Name of which the PS is connected is displayed on the LCD of the D^{term} if the CS Name is assigned by system programming.
 - a. When the CS name is not assigned in the system, the display on the LCD is the same as a normal call.
 - b. CS Number is not displayed.
5. Conditions to display the CS Name are as follows.
 - a. To display on the LCD of a D^{term}
 - 1) Station Data 1 (CM12 YY=02; Service Class of a virtual LC assigned by CM10) and Service Restriction Class (CM15 YYY=148, 2nd data; PS Location Indication) must be assigned to “allow” this feature for desired PSs.
 - 2) Station Data 1 (CM12 YY=02) and Service Restriction Class (CM15 YYY=149, 2nd data; PS Location Indication) must be assigned to “allow” this feature for desired D^{term}s.
 - * The CS Name is not displayed on the LCD of the D^{term} when the data of the D^{term}/PS is assigned to “restrict” at Item 1) or 2), and only the PS number or PS number with name is displayed.
 - b. To display on an Attendant Console
 - 1) Station Data 1 (CM12 YY=02; Service Class of a virtual LC assigned by CM10) and Service Restriction Class (CM15 YYY=148, 2nd data; PS Location Indication) must be assigned to “allow” this feature for desired PSs.
 - 2) CM08 1st = 521 (PS Location Indication on Attendant Console) must be assigned to “allow” this feature.
 - * The CS Name is not displayed on the LCD of the Attendant Console when the data of the Attendant Console/PS is assigned to “restrict” at Item b-1 and b-2, and only the PS number or PS number with name is displayed.

PS Location Indication

6. CS Name can be assigned for CS Number 000 - 127 by CM77 Y=8 (Assigned by Character Code) or Y=9 (Assigned by Character). Max. 16 characters can be assigned as the CS name.
7. This feature has priority over Calling Name Display - PS feature. When both feature are assigned, the CS name is displayed on the LCD of the D^{term} or Attendant Console (the PS name is not displayed).
8. When a D^{term} user makes/receives a call to/from a roaming PS, the CS name is not displayed on the LCD of the D^{term}.
9. This feature is not available for data communications by PS.
10. When a PS in conversation with a D^{term} moves by handover, the CS name displayed will be changed to the CS name of the CS after handover.
11. When a PS user makes a call to a D^{term} via CCIS, a CS name is not displayed on the LCD of the D^{term}.
12. When a D^{term} user receives a call from a PS, a CS name is displayed (flashing) on the LCD of the D^{term}. When the D^{term} user answers the call, the name is displayed for 6 seconds (no flashing) then changes to the display of date/time.
13. When a PS user makes a call to station-A, which sets Call Forwarding(-All Calls/ -Busy/ -No Answer) to station-B (D^{term}), the LCD Display of the D^{term} (station-B) will be as follows.
 - 1) Name of the called station-A is displayed. (Refer to 14-3.)
 - 2) When station-A is a PS, CS name of the called PS is not displayed. (Refer to 14-2.)
14. Examples of the LCD Display are described below.

- 14-1-1) When a D^{term} user receives a call from PS 200 that is connected to a CS named "Conf. Room #200", the called D^{term} displays as follow:

200 Conf. Room #200	←PS number
	←CS Name (1-16 characters)

Note 1: When a PS uses Multi-Line Operation and the PS user makes a call using L1(My Line: #200), the display on the LCD of the D^{term} will be same as above.

Note 2: When a PS uses Multi-Line Operation and the PS user makes a call using L2(Sub Line: #200), the display on the LCD of the D^{term} will be same as above.

- 14-1-2) When a D^{term} user makes a call to PS 200 that is connected to CS named "Conf. Room #200", the calling D^{term} displays as follows:

200 Conf. Room #200	←PS number
	←CS Name (1-16 characters)

Note 1: The Display on the LCD is same as 14-1-1, but the CS Name is displayed after the called PS rings.

Note 2: When the call reaches to L2 (Sub Line: #200) of the PS, the CS Name is displayed after the PS user answers the call.

Note 3: When the call reaches to L2(Sub Line: #200) of the PS that the PS name is assigned, the PS name is displayed at the time the D^{term} makes a call and it is changed to the CS name at the time the PS user answers the call.

14-2-1) When PS 200(CS Name: Conf. Room #200) makes a call to PS 201(CS Name: Conf. Room #201) that sets Call Forwarding-No Answer to D^{term} -A, the display on the D^{term} -A is as follows:

Forward	201	200	←Called PS No.	Calling PS No.
	Conf. Room	#200	←	CS Name of calling PS

Note: CS Name of the intermediate PS is not displayed.

14-2-2) When PS 200(CS Name: Conf. Room #200) makes a call to PS 201(CS Name: Not Display, PS Name: Yamada) that sets Call Forwarding-No Answer to D^{term} -A, the display on the D^{term} -A is as follows:

Forward	201	200	←	Intermediate PS No.	Calling PS No.
Yamada	Conf. Room	#200	←	Intermediate PS Name	CS Name of Calling PS

Note: Intermediate PS Name is displayed.

14-2-3) When PS 200(CS Name: Conf. Room #200) makes a call to PS 201(CS Name: Not Display, PS Name: Not Assigned) that sets Call Forwarding-No Answer to D^{term} -A, the display on the D^{term} -A is as follows.

Forward	201	200	←	Intermediate PS No.	Calling PS No.
	Conf. Room	#200	←		CS Name of Calling PS

14-3) When PS 200(CS Name: Conf. Room #200) makes a call to D^{term} -A(Extension: #301, PS Name: Yamada) that sets Call Forwarding-No Answer to D^{term} -B, the Display on the D^{term} -B is as follows.

Forward	301	200	←	D^{term} -A No.	Calling PS No.
Yamada	Conf. Room	#200	←	D^{term} -A Name	CS Name of Calling PS

Note: The name of the intermediate D^{term} is displayed.

Note 1: When the called D^{term} is a D^{term} 65 Series, there are following conditions.

- Max. 16 characters of name of the calling PS (#200) is displayed.
- When name of the calling PS (#200) is 9 through 16 characters, name of intermediate D^{term} (#301) is displayed.
- When the name of the calling PS (#200) is 1 through 8 digit(s) or is not assigned, max 8 characters of name of the intermediate D^{term} (#301) is displayed. (When the name of the called D^{term} (#301) is more than 8 characters, only 8 characters are displayed.)

Note 2: When the called D^{term} is a D^{term} 75 Series, there are following conditions.

- Max. 16 characters of name of the calling PS (#200) is displayed.
- Max. 8 characters of name of the intermediate D^{term} (#301) is displayed. (When the name is more than 8 characters, only 8 characters are displayed.)

PS Location Registration

General Description

This feature allows the WCS to supervise the location of each PS, upon receiving the location registration request, to allow call termination.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

No manual operation is required.

Service Conditions

1. This feature is activated every time a PS enters a different paging area. A maximum of 32 calling areas can be installed in a WCS.
2. A maximum of 128 Call Station can be installed in a calling area.
3. PS Authorization is activated every time the PS requests location registration.

Quick Dialing

General Description

This feature allows a PS user to receive dial tone and dial the desired number to originate a call.

Configuration Application

Integrated type and Adjunct Type

Operating Procedure

To originate a call:

1. Press the L1 key and receive dial tone.
2. Dial the desired number. The dialed numbers will be displayed on the LCD.
3. To end a call, press the END key.

Service Conditions

1. A maximum of 40 digits (numbers 0 to 9, #, and *) can be dialed. A maximum of 11 digits can be displayed on the LCD.
2. The PS user can dial the number before hearing dial tone.
3. If no number is dialed within approximately 10 seconds, the user receives reorder tone.
4. If the interdigit timer expires while the user is dialing the number, the numbers dialed before the timer will be sent out.
5. PS Authorization is activated for every call origination.

Radio Channel Changeover

General Description

This feature is to supervise and changeover the channel automatically to avoid interference and to maintain the speech quality.

Configuration Application

Integrate Type and Adjunct Type

Operating Procedure

No manual operation is required.

Service Conditions

1. There is no interruption in the speech when this feature is activated.
2. The new channel is assigned to the party which has moved into the service area.
3. When there is no idle channel, the call is continued on the same channel until communication becomes unavailable, then Automatic Release - Out of Cell Calls is activated.

Redial - PS

General Description

This feature enables a PS to remember the numbers dialed in the preceding ten calls including the last number dialed. The stored numbers are sequentially displayed on the LCD, allowing the station user to make an outgoing call by selecting the desired number from the display.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

To store the number:

Dial the desired number, using either Quick Dialing or Preset Dialing. The number dialed is stored automatically.

To redial the stored number:

Refer to the PS User's Guide.

Service Conditions

1. A maximum of 40 digits (the numbers 0 to 9, #, *, and the function keys) can be stored.
2. The numbers are stored in the memory in order they are dialed. If the number identical to the one in the memory is dialed, that number is recognized as the last number, and the one already stored will be deleted. Regardless how many times the same number is dialed, it is stored only once.

Soft Phone Wireless Handset

General Description

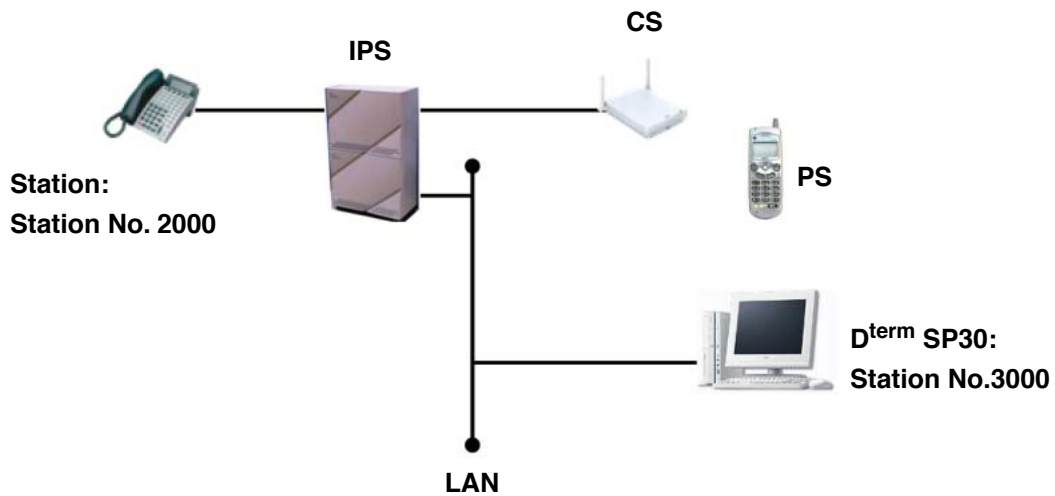
This feature allows a Soft Phone (D^{term} SP30) user to use a PS terminal as the handset of the Soft Phone. The user can select a handset (Soft Phone Handset or PS) by pressing the Handset Switch key on the Soft Phone.

Configuration Application

Integrated Type

Operating Procedure

The operating procedure is described using the example below.



- A call is originated by dialing from a PS or D^{term} SP30. A call can also be originated using the address book button, call logs or member buttons of D^{term} SP30.
- PS interactive operation can be set and cancelled, by pressing the function key on D^{term} SP30.
- Hold, Call Transfer, and Call Forwarding - All Calls/Busy Line/Don't Answer can be operated from either a PS or D^{term} SP30.
- When the PS is out of cell, a call is forwarded to the logout destination of the D^{term} SP30.
- Even if a PS originates a call, the station number of D^{term} SP30 is displayed on the called party terminal.

To originate a call

■ To dial after placing the PS off-hook

1. Place the PS off-hook (hear dial tone).
2. Dial a desired station number 2000 from the PS.
3. The station answers to start conversation (3000 is displayed on the LCD of the station as a calling number).

Note: Only the PS can cancel dialing and end conversation. (Operation from the D^{term} SP30 is disabled.)

■ To dial before placing the PS off-hook

1. Place the D^{term} SP30 off-hook.
2. Dial a desired station number 2000 from the D^{term} SP30, or select from the address book button, call logs, or member buttons.
3. Place the PS off-hook, after dialing all digits from the D^{term} SP30.
4. The station answers to start conversation (3000 is displayed on the LCD of the station as a calling number).

Note 1: Only the D^{term} SP30 can cancel dialing in step 2. (Operation from the PS is disabled.)

Note 2: Only the PS can cancel operation of step 3 and later or end conversation. (Operation from the D^{term} SP30 is disabled.)

■ To originate a call using a trunk key/Sub Line key

1. Press a trunk key/Sub Line key registered in the D^{term} SP30.
2. Place the PS off-hook (hear dial tone).
3. Dial a destination number from the PS.

Note 1: Place the PS off-hook within 10 seconds after pressing a trunk key/Sub Line key.

Note 2: When originating a call using a Sub Line key, the station number of the Sub Line is notified to the called party.

To answer a call

■ To answer a call to D^{term} SP30

1. A station dials D^{term} SP30 station number 3000.
2. Both of the D^{term} SP30 and PS ring.
3. The PS answers to start conversation.

Note: D^{term} SP30 cannot answer the incoming call.

■ To answer a call to a trunk key/Sub Line key

1. Press the trunk key/Sub Line key where a call is terminated.
2. Place the PS off-hook to start conversation.

Note 1: Place the PS off-hook within 10 seconds after pressing a trunk key/Sub Line key.

Note 2: When terminating a call to My Line, a call terminated to the trunk key/Sub Line key cannot be answered.

Note 3: In order to answer with a trunk key, the trunk termination method must be "Trunk Line Appearance" or "TAS".

To hold a call in progress

1. Conversation is in progress with a station or CO line/tie line.
2. Press the Hold button on the D^{term} SP30.
3. Hear service set tone from the PS.
4. The PS is released.

Note 1: Exclusive Hold is disabled.

Note 2: In the case of hold on a trunk, the call is held on the trunk key when the trunk is registered in a function key. The call is held on My Line key when the trunk is not registered in a function key.

To answer a call on hold

1. Press the line key placed on hold.
2. Place the PS off-hook.
3. Start conversation with the call on hold.

<During canceling the interactive operation between PS and D^{term} SP30> To originate a call from D^{term} SP30

1. Dial a desired station number 2000, or select from the address book button, call logs, or member buttons.
2. The station answers to start conversation (3000 is displayed on the LCD of the station as a calling number).

To originate a call from PS

1. Dial a desired station number 2000.
2. The station answers to start conversation (3000 is displayed on the LCD of the station as a calling number).

To answer a call

1. A station dials D^{term} SP30 station number 3000.
2. The D^{term} SP30 rings.
3. Answer the call to start conversation with the handset of D^{term} SP30.

Service Conditions

General Conditions

1. **This feature is available from Series 3400 software, and D^{term} SP30 Version C or later is required.**
2. The D^{term} SP30 must be set as the main station, and a PS must be set as the sub station in system data programming.
3. When the D^{term} SP30 is started or restarted, the interactive operation is set (lamp of the handset switch button: off), regardless of the previous state.
4. The same service restriction class must be set for the D^{term} SP30 and the PS.
5. If controlling of both of the main station and sub station when message waiting control is received from voice mail is set in system data programming, message waiting is controlled on the main station and sub station also during the interactive operation is cancelled.
6. The Multi-Line Operation - PS and the D^{term} SP30 interactive operation cannot be used together.

Conditions during Interactive operation

1. If the sub station (PS) sets Call Transfer or Do Not Disturb during interactive operation, the setting is set to the main station (D^{term} SP30), and is not set to the sub station (PS).
2. When a service is set using a feature access code from the D^{term} SP30, place the PS off-hook after all digits of the access code are dialed.
3. After dialing only a trunk access code from the D^{term} SP30, it is impossible for the PS to go on-hook and dial a destination number.
4. Answer operation is enabled only from the PS.
5. Exclusive Hold operation is disabled.

Conditions on other service features

1. Display services such as intermediate station state display and service type display are not available.
2. When using Call Pickup, register the main station (D^{term} SP30) and sub station (PS) in the same group.
3. Timed Reminder, Automatic Wake-Up and UCD are not available.
4. During interactive operation, Message Reminder, Return Schedule, and Absent-subscriber Announcement Service are not available.

Speech Encryption

General Description

This feature protects a call from being tapped.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

No manual operation is required.

Service Conditions

1. This feature is activated for every originating call from a PS and every terminating call to a PS. For every call, the encryption assignment message is sent from the PS to the CS.
2. Speech Encryption is automatically activated throughout the call. Encryption cannot be canceled during the call.

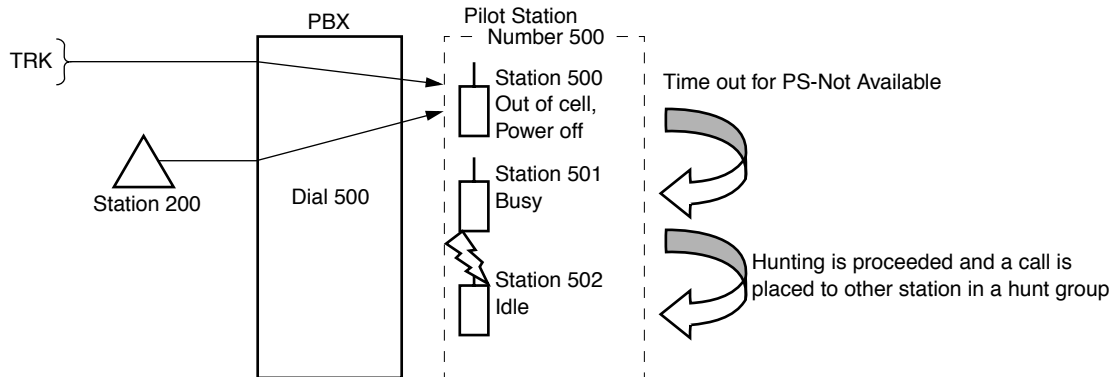
Station Hunting - Not Available

General Description

This feature allows a call placed to a PS station which is out of cell or power off to be forwarded to an idle station in a hunt group. Two Station Hunting arrangements are available.

Station Hunting - Circular processes the call regardless of which station in the hunt group is called.

Station Hunting - Terminal initiates a hunt only when the pilot number of a hunt group is called.



In the above example (Station Hunting - Terminal) Station Number 200 dials Pilot PS Station Number 500. The call is not answered because the PS 500 is out of cell or its power is off. Forward the call to the idle station in the hunt group. The call will be terminated to PS Station Number 502 in above.

Configuration Application

Integrated Type.

Operating Procedure

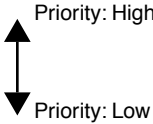
No manual operation is required.

Service Conditions

1. PS out of cell or power off will be revealed by timeout of PS - Not available's programmable timer. After the timeout, another PS will be called.
2. When a station in the hunt group is busy or sets Call forwarding - All Calls, Busy Line, No Answer, calls already in the hunt process bypass the station and continue hunting.
3. If all stations in a hunt group are busy, busy tone will be heard.

11. Service priority order is following when a call is not answered.

- Station Hunting - Not Available
- Call Forwarding - Not Available
- Announcement - PS No Answer /
- Announcement - PS Out of Cell



If this service is not activated or the hunting does not proceed, Call forwarding - Not Available or Announcement - PS No Answer / Announcement - PS Out of Cell is activated.

Station Speed Dialing - PS

General Description

This feature allows a PS user to dial the certain frequently called numbers using abbreviated call codes.

Configuration Application

Integrated Type and Adjunct Type

Operating Procedure

The Speed Dialing data is set via the user-definable data assignment. For detailed operation procedure, refer to the PS User's Guide.

Service Conditions

1. Each abbreviated call code can store a maximum of 40 digits (the numbers 0 to 9, #, *, and the function keys).
2. A maximum of 100 call codes can be assigned.

Voice Mail Indication

General Description

When a message is mailed in the PS , the envelope icon is displayed in the LCD of the PS.

Configuration Application

Integrated Type

Operating Procedure

To retrieve a voice mail message

1. Press the L1 key and receive dial tone.
2. Dial the VMS station number and receive ringback tone.
3. Follow the instruction given by the VMS.
4. Listen to the message.

Service Conditions

1. The envelope icon is displayed only when a message is mailed to the L1(My Line PS).
2. VMI (Voice Mail Indication) is displayed only for a message mailed to My Line. When the message is mailed, the PBX sends a VMI signal to PS only once. At that time, if PS is out of cell or PS's power is off, the VMI is not displayed until the PS connects to the PBX and disconnects again.
3. When the message is mailed to the My Line PS, the PBX sends an envelope icon on signal to PS only once. At that time, if the PS is out of cell or its power is off, the envelope icon is not displayed until the PS connects to the PBX and disconnects again.
4. Other service conditions are in common with those of "Message Waiting" in Business Features and Specifications.

WCS Integrated Type

General Description

This feature allows a system to have Wireless PBX feature. The system provides several integrated features adding on the adjunctive configuration.

Configuration Application

Integrated Type

Operating Procedure

To place a call using Quick Dialing:

1. Press the L1 key and receive extension dial tone.
2. Dial the desired number and receive ringback tone.

To place a call using Preset Dialing:

1. Dial the desired number, press the L1 key, and receive ringback tone.

To place an outside call using Quick Dialing:

1. Press the L1 key and receive extension dial tone.
2. Dial the trunk access code.
3. Receive outside dial tone.
4. Dial the desired outside number and receive ringback tone.

To place an outside call using Preset Dialing:

1. Dial the trunk access code and the desired outside number, press the L1 key, and receive ringback tone.

To send the DTMF signal:

1. While engaged in a call, press any dial key. DTMF signal is automatically sent from the WCS to the other party.
* Refer to the description of the feature, DTMF Signal Sender.

To place a call on Consultation Hold:

1. While engaged in a call, press the TRF key and receive Feature Dial Tone. The called party hears Music on Hold, if the PBX provides the service.

To transfer the call in progress:

1. While connected to the first party, press the TRF key and receive Feature Dial Tone. The number displayed on the LCD is cleared. The held party hears Music on Hold, if the PBX provides the service.
2. Dial the third party number and receive ringback tone. The number is displayed.
3. Press the END key before the third party answers. The first and third parties will be connected when the third party answers.
or
Wait for the third party to answer and announce the transfer. Press the END key, then the first and third parties will be connected.

Service Conditions

1. The service conditions of each feature are the same as for the Single Line Telephone, except for the following:
 - a. Calling Number Display - PS
 - b. Stack Dial - PS
 - c. Station Speed Dialing - PS
2. The station number of a PS can be assigned flexibly. The limitation of the number and maximum digits are the same as the regular system.

WLAN Handset Registration/Service

General Description

This feature allows the 2000 IPS to accommodate the WLAN Handset (MH210/MH220) as a station. A terminal is connected to the 2000 IPS through Access Point and SIP Handler and operates under the control of the virtual CS on the SIP Handler. Station-to-Station calls between WLAN stations and calls between WLAN stations and existing stations/trunks are available.

Configuration Application

Integrated Type and Adjunct Type with CCIS interface

Operating Procedure

Refer to the WLAN Handset User's Guide.

Service Conditions

General Conditions

1. **This feature is available from Series 3600 software.**
2. Following devices are required to use MH210/220 as a WLAN station.
 - Wireless Controller
 - Access Point
 - In-skin SIP Handler (PZ-VM02 with SC-3465 UV70 SP PROG-R5)
3. Standard SIP telephones, SIP Multiline Terminals and D^{term}SP30 (SIP mode) cannot be accommodated.
4. One SIP terminal license is required for one WLAN station. Even if the licenses for more than the maximum value of WLAN stations are registered, the maximum available license is 64.
5. It is possible to accommodate WLAN station (Virtual CS for WLAN) and PS (Legacy CS/IP-BS) to the same system. Maximum 64 WLAN stations can be operated in one system. The following table shows the conditions regarding the combination of WLAN station and PS in the same system.

Terminal type	Maximum sets	Total sets
WLAN terminal (MH210/MH220)	64	512
PS	512	

SIP Handler Conditions

1. One SIP Handler can be accommodated per system, in Main site only.
2. If the SIP Handler is disconnected from the network and calls are in progress, the calls are released. When a SIP Handler is restarted during operation, the power of the WLAN station must be restored.

3. If the System data related to the SIP Handler is changed while the Handler is in operation, the SIP Handler must be restarted for the changes to take effect.

Service Feature Conditions

1. ISDN trunk is strongly recommended for central office line.
2. Only LCR origination is available as trunk origination method from WLAN station. The maximum sending digit for trunk should be set.
3. WLAN station executes a kind of health check periodically with the SIP Handler within a cell. If WLAN station stays out of cell for a long time (approximately for one hour), the validity of the registration information on the SIP Handler is expired and the power of the terminal must be restored.
4. Handover Conditions
During communication with WLAN station, the handover between Access Points is available.
5. Wireless Service Conditions
For using wireless services supported by a WLAN station, the same system data configuration as that of wireless services is required. Since PS and WLAN station use common system data, the system data set in each system will apply for both the PS and the WLAN station.
Wireless service features supported by the WLAN station are as follows:

X: Available - : Not available

Feature Name	Availability	Remarks
Analog PBX Interface	-	
Announcement - PS No Answer/Out of Cell	X	
Automatic Release - Out of Cell Calls	X	
Call Forwarding - Not Available	X	
Call Forwarding - PS Out of Cell	X	
CCIS Interface	X	
Calling Name Display - PS	-	
Calling Number Display - PS	X	
DTMF Signal Sender	X	
Group Call - Automatic Conference (6/10-party)	X	
Group Call - 2 Way Calling	X	
Handover	X	PBX is not involved.
Individual PS Calling	X	
Multi-Line Operation - PS	-	
Number Sharing	-	
Out of Cell Indication	X	
Preset Dialing	X	
PS Authorization	-	Digest Authentication
PS Location Indication	-	

WLAN Handset Registration/Service

X: Available -: Not available

Feature Name	Availability	Remarks
PS Location Registration	-	
Quick Dialing	X	
Radio Channel Changeover	X	
Redial - PS	X	
Soft Phone Wireless Handset	-	
Speech Encryption	-	
Station Hunting - Not Available	X	
Station Speed Dialing - PS	X	
Voice Mail Indication	-	
WCS Integrated Type	X	

6. Conditions for Digest Authentication

To avoid connecting a false terminal, the Digest Authentication should be used during normal operation (Default Operation).

7. Interaction with other service features

Combination with Remote PIM over IP is available, but in this case the SIP Handler must be installed in main site. While the remote site is in survival mode operation, the WLAN station cannot be used in the site.