Chapter 3
General Features

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Radio Paging

FEATURE DESCRIPTION

Radio Paging is a function to send signals to a pager. If an 'In-house Dial Pager System' is connected, signals are sent to the pager via a transmitter interlocked with the DCS Gateway.

PROGRAMMING IN MAP

Setting the COS

Select the MAP menu as follows:
[Database Management]➔[System DB Management I]➔[Class Of Service (COS)]

Set up the following fields when the COS setup screen appears:

[104] Radio Paging
Indicates Radio Paging available class.

Press the [Tx] button to save the settings.

Setting Radio Paging Group Information

Radio Paging is an incoming wireless call function, and if an In-house Dial Pager System is connected it sends signals to pagers via a transmitter interlocked with the DCS Gateway.
Set Radio Paging Group information (Tenant, Port number, Node number) and look up, register, add and delete member.

1. Select following fields in the MAP screen.
   Database Management ⇒ Data, Paging DB Management => Radio Paging DB
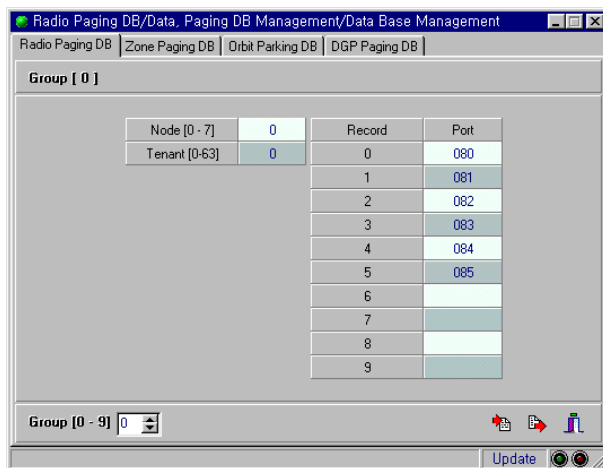
2. Press the [Rx] button after entering Radio Paging Group number (0-9).

3. Enter Node number and Tenant number of group, and set Port number by Record.
   The maximum number of pagers in a Radio Paging Group is 10.
   Enter Trunk (LOOP Trunk) Port number in each port number by record.
   When a group is called, one of the 10 pagers available is connected.
   Extension of non-available tenant goes through tenant blocking.

4. Press the [Tx] button to save the settings.

OPERATING PROCEDURES

1. Press the **Radio Paging** key or soft key or dial the Radio Raging feature code.

2. Dial Radio Paging Group (0-9) to call.

3. After the confirmation tone, dial the Record number registered in the database (0-9).

The DTMF value of a caller's telephone number is transmitted to the pager and the calling number is displayed in the pager.

RESTRICTIONS

Radio Paging Group number : 10 Groups
Record number by group : 10 Records

Zone Paging

FEATURE DESCRIPTION

Zone paging broadcasts messages through external speakers by zones. Broadcasting can be to selected zones or all zones as required.

PROGRAMMING IN MAP

Setting the COS

Select MAP menu as follows:
[Database Management]➔[System DB Management I]➔[Class Of Service (COS)]
Select following fields when the COS setup screen appears.

[103] Zone Paging
Indicates zone paging function available class.

Save settings by pressing the [Tx] button.

Setting Zone Paging Group Information

Set the Tenant number and node number in zone paging group information and look up and register member. The maximum number of zones in a zone Paging Group is 10. Record 0 of each group is set as 'ALL Paging' to be used for broadcasting to all zones within the group. Enter Trunk (E&M, LOOP Trunk) Port number in port number by record. External speaker charging of each zone is connected to this trunk port.

1. Select following fields in the MAP main screen.
Database Management ⇒ Data, Paging DB Management => Zone Paging DB
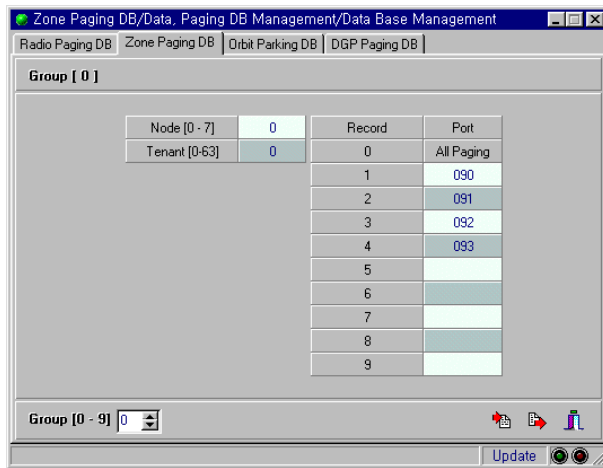
2. Enter Zone Paging Group number (0-9) and press the [Rx] button.

3. Set tenant number, node number of group and trunk port (E&M, LOOP Trunk) number by record.

4. Save settings by pressing the [Tx] button.

OPERATING PROCEDURES

1. Press the **Zone Paging** key or soft key or dial the Zone Paging feature code.

2. Dial zone paging group number (0-9) of zone to which you want to broadcast.

3. Dial record number (0-9) of zone to which you want to broadcast. If you want to broadcast to all zones, dial 0.

4. Make your broadcast after the confirmation tone.

RESTRICTION

- Number of Zone Paging Groups: 10
- Number of Records by Group : 10
- Record 0 of each Group: broadcasting in whole area of Group

DGP (Digiphone) Paging

FEATURE DESCRIPTION

Digiphone Paging is a function to broadcast through the speakers of keysets registered in the digiphone broadcasting group.

PROGRAMMING IN MAP

Setting the COS

Select MAP menu as follows.
[Database Management]➔[System DB Management I]➔[Class Of Service (COS)]

Select following items when COS setup screen appears.

> [105] Digiphone Paging
> Indicates DGP paging available class.

Press [Tx] button to save.

DGP Paging Group Information Setup

You can register a new group and add or delete members in each group.

1. **Menu Selection**
   Select following fields in MAP screen.
   Database Management ⇨ Data, Paging DB Management => DGP Paging DB

2. **Group Information Access**
   Select Group [Rx] tab, enter group number (0-99) and press the [Rx] button. You can look up Tenant and member of pertinent group. Only digital keyset users can be the members of DGP group.

3. **Registration of a user in DGP Paging Group**
   Select New Designation [Tx] tab to set Tenant number and enter telephone number of new member in Append Tel. field. Entering a non-DGP user will result in an error.

4. **Appending member**
   Select Append [Tx] tab and enter number of existing registered member in Connect Tel field. Enter new member's number to append in Append Tel. field.

5. **Deleting member**
   Select Delete [Tx] tab and enter telephone number of member to delete in Delete Tel. field.

OPERATING PROCEDURES

1. Press **DGP Paging** key or soft key or dial the DGP Paging feature code.

2. Dial two digits (0-99) of DGP Paging Group number desired for broadcasting.

3. Make your broadcast after the confirmation tone. If COS Blocking or Tenant Blocking are set it is regarded as an error, and if all members are busy it is processed as busy.

4. Broadcasting can be heard with all members' speakers opening.

RESTRICTION

- Number of DGP Paging Groups : 100

- Number of members by group : 32. All users allowed by COS can use the DGP Paging function but only Digiphone users can become a DGP Paging Group member. (SLT users cannot become group members.)

- If any Group member is in DND mode, the DND function is ignored and DGP paging is executed.

Dispatch

FEATURE DESCRIPTION

The Dispatch function is used to call several members within a Dispatch Group simultaneously for meetings or for paging. You can page up to 128 people at the same time. A maximum of 30 persons (including the caller) from the members for whom the Conference function is set can join a telephone conference; the other members are paged.

PROGRAMMING IN MAP

Setting the COS

Select MAP menu as follows:
[Database Management]➔[System DB Management I]➔[Class Of Service (COS)]
Set following field when the COS setup screen appears.

    [88]   Dispatch
             Indicates Dispatch function available class.

Save the settings by pressing the [Tx] button

Dispatch Group Information Setup

Set Dispatch Group information. The maximum number of Dispatch Groups is 16, and 128 members can be registered in each Group. Up to 30 members can join a telephone conference, including the caller. Dispatch member includes station user number, ATC number and Trunk user (Trunk calling number + called party number)

1. Select following fields in MAP screen.
    Database Management ⇒ Station DB Management ⇒ Dispatch Info

If the ATC calling code or feature code is included in Dispatch Tel, the member can be entered but the Dispatch call does not reach the ATC. However, if the physical telephone number of the ATC is entered, the Dispatch call is connected to the ATC.

2. Enter Dispatch group number and member's index and press [Rx] button.

3. Enter telephone number of member in Dispatch Tel field and select conference fields for those members who are to use the Conference function.

> **NOTE** When entering a dispatch member, make sure to enter successively from index 0 without blank lines. If there is a blank line, members entered below it are not recognised.

4. Save by pressing [Tx] button.

Dispatch function Option

1. Set the following field:
   Database Management ⇒ System DB Management I ⇒ System Option

   [32]   Digit Count of Dispatch Group

   Set this to 1 or 2. This specifies the number of digits (1 or 2) for each dispatch group that will need to be entered when executing Dispatch using the **Dispatch** key or Dispatch feature code.

2. Select the following field to print details of a dispatch call on the system printer or save it to a file.
   Database Management ⇒ System DB Management I ⇒ System Option

   [33]   Answer Print Out of Dispatch Call

OPERATING PROCEDURES

Dispatch Function Use

1. Press the **Dispatch** key or soft key or dial the Dispatch feature code.

2. Enter Dispatch Group number. (If Digit Count of Dispatch Group value is set as '1', use 0–7. If it is '2', use 00–15)

3. If all members are available, all members ring at the same time.
   If others are using the dialed Dispatch Group, it is set as 'Group Busy.'
   Error tone sounds if all Dispatch members are busy or not available.

4. If two or more members who can use the Conference function respond, conferencing can take place. The first 29 respondents will be able to join the conference. Members who cannot use the Conference function hear only the caller speaking after responding.

RESTRICTION

1. Number of Dispatch Groups : 16

2. Number of member in Group : 128

3. Number of members available for conference call : 30

4. Refer to printout after dispatch call to check dispatch call details (if printer connected). Print out whether each member's call was successful or not and cause of problem in case of failure. (Print items are: call success, no response, busy, No Ans).

5. When Dispatch calls are received, all members ring, ignoring any DND, No Ring or Auto Answer set.

7. Dispatch call cannot be picked up.

8. If a Dispatch member has FWD set, FWD is applied.

9. If Dispatch member is on Multi-line, the primary LPS flashes and any other LPS will go busy when the Dispatch call is received.

10. Answering member cannot use other functions such as Call Transfer during a Dispatch call. The caller can do a transfer.

Station Group Service

FEATURE DESCRIPTION

Station Group Service distributes received calls through a group pilot number to user group members according to three types of distribution method (HUNT, Distribution, and Equality Service).
Virtual Pilot number (Pseudo Pilot) of user group pilot number is a non-existent number in a physical port and is used only as a number to represent each station group. Not applicable to Equality Service method.
Real Pilot number (Real Pilot) is a user number installed in the port information database with a physical port and performs as the user pilot number.

HUNT method

This is a consecutive call reception method and distributes incoming calls through a pilot number to members within the group in a predetermined order starting with the first available member. If the first member is busy, the second available member receives the call. Pilot numbers can be both real pilot numbers and pseudo pilot numbers. If a group member's number is called, group service is not provided.

Distribution method

This is an equal reception method, which distributes an incoming call to the member following the member who answered the last call. Pilot numbers can be real pilot numbers and pseudo pilot numbers.
If a group member's number is called, group service is not provided.

Equality Service method

This makes all members pilot numbers and enables group service in a set order only when a pilot number is busy or unavailable. Only a real pilot number can be a pilot number. Since a pilot number is a real number, pilot numbers are prioritised for service all the time and if the pilot number is busy then the system looks for the next number in order. Actually this method operates as if it were a normal call rather than user group call when the pilot is available, but looks for the next member if the pilot is not available.
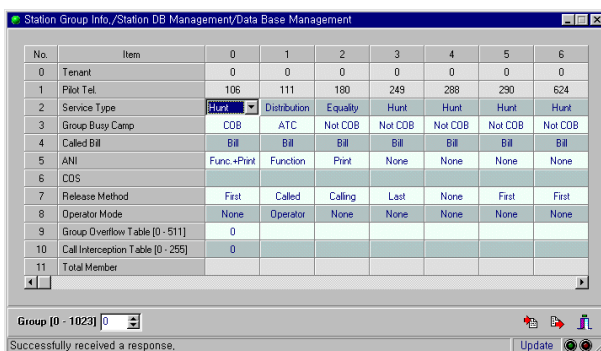
PROGRAMMING IN MAP

Station Group Information DB setup

Select Tenant number, service type, COS of station group.

1. Select following menu in MAP.
   Database Management ⇒ Station DB Management ⇒ Station Group Info

2. Enter station group number and press [Rx] button

3. Enter following fields in the station group you want.

- **Tenant**
  Indicates Tenant number of Station Group. Set Tenant number in Station Group Config screen when registering group .

- **Service Type (HUNT, Distribution, Equality)**
  Select service type of station group.

- **Pilot Tel.**
  Displays pilot number to receive calls as a selected station group. HUNT and distribution methods can use real numbers and pseudo numbers while Equality method can use only real numbers. Pilot numbers are set in Station Group Config screen when registering group.

- **COS**
  Select COS of station group.

- **Release method**
  Select call release method.

  ✓ FirstParty   : Call is released if one party (caller or called party) hangs up.
  ✓ CalledParty: Call is released if called user hangs up.
  ✓ LastParty   : Call is released if both parties hang up.

- **Group Busy Camp**
  If a called station group is busy, this item decides the next procedure. Select from: NOT COB, COB and ATC.

  ✓ NOT COB : You cannot camp call on when station group is busy.
  ✓ COB   : Camp on call to busy station group. Caller hear ringback tone.
  ✓ ATC   : Call is received through ATC.

- **Called Bill**
  Select billing method of station group call.

  ✓ Bill   : incoming call billing
  ✓ No Bill   : no incoming call billing

- **ANI**
  Select whether to display ANI (calling number) when receiving station group call.

  ✓ Function   : Display calling party number in LCD after receiving ANI.
  ✓ Print   : Print out information regarding calling party number and called party number.
  ✓ Function + Print : Display called party number in LCD and print it out.

- **Overflow Table**
  Select overflow number if station group busy.
  Refer to Group Overflow database in Overflow index and forward call to available number of each route.
  Number in Overflow Table becomes Group Overflow DB number.
  Refer to Group Overflow function.

- **Interception Table**
  If the station group call fails, this determines whether to intercept and connect to other numbers.
  Refer to Call Interception function.

- **Total Member**
  Displays total number of users registered in station group.

3. Press the [Tx] button to save the settings.

Station Group Registration

Browse, register, append and delete members registered in station group.

1. **Select following items in MAP.**
   Database Management ⇒ Station DB Management ⇒ Station Group Config

2. **Browsing to Station Group member**
   Service type, Tenant number, COS, Pilot number, number of member by node and member's telephone number can be accessed.
   Select [Group Rx] tab, enter station group number and press [Rx] button.

3. **Registration of Station Group**
   Register pilot number (real number and pseudo number) of station group.
   Select [New Designation Tx] tab and enter tenant number and Pilot Tel.
   If a real number, the pilot number becomes the first member; if a pseudo number, there are no registered members.

4. **Addition of Station Group member**
   Add new member in station group.
   Select [Append Tx] tab to enter member's number registered with Connect Tel. (If there is no registered member, leave blank). Enter the station number to append in Append Tel. field.

5. **Deletion of Station Group member**
   Delete member in station group.
   Select [Delete Tx] tab and enter number to delete in Delete Tel. field.

Forward Option with Station Group

You can choose whether to forward an incoming station call (when the station is engaged) to another idle station that belongs to the same group (Distribution) or to forward the call to a number set by the station which is engaged (Forward).
Select following fields as option with station group service.
Database Management ⇒ Station DB Management ⇒ Station Service Option

[218] Priority of Group Distribution & Forward
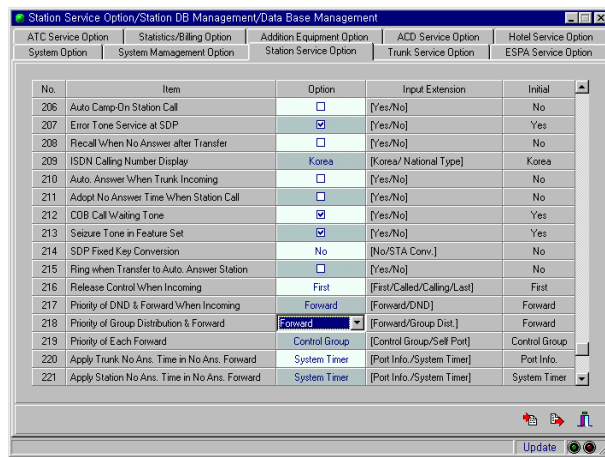
Station Group Service Type Priority

This option is used to distribute calls only to members who have not registered a forward function. If all station member are forwarded it becomes 'group busy'.

Forward Priority

This option is used to distribute call to members who registered forward function or who are free. If a call is distributed to the real pilot user by HUNT group those who registered forward, the call is always received at the forwarded number. If Pilot number of HUNT Group is real pilot and the pilot number is registered for forwarding, calls incoming to this group are received at the forwarded number.

OPERATING PROCEDURES

General Incoming Call

When dialing a station pilot number, the extension number that is available rings according to the service type set for the station group.

Leaving a message if no response from station group or group is busy

1. If there is no response from a called station group or the group is busy, press the **Message** key or soft key or dial the Message feature code.

2. Hang up after the confirmation tone.

3. The Message key LED lights on the phone belonging to the member who received the call distributed to the group. When a member picks up the phone, message tone is heard.

4. If a member presses the **Message** key twice, the station will ring the number which left the message.

RESTRICTION

*   Number of station groups : 512 (M150), 64 (DCS Gateway)

*   Number of members per group : 128

*   Members belonging to one station group cannot be members of another station group.

*   Members belonging to an ACD Group cannot be members of a station group.

Ring Groups

FEATURE DESCRIPTION

This rings all members of a group at the same time when a call is coming in to the group pilot number. The Pilot Tel number of a ring group can be a pseudo pilot number or real number.

PROGRAMMING IN MAP

Ring Group Setup

Browse, register, append and delete Ring Group member.

1. Selecting Menu
    Database Management ⇒ Station DB Management ⇒ Ring Group Configuration
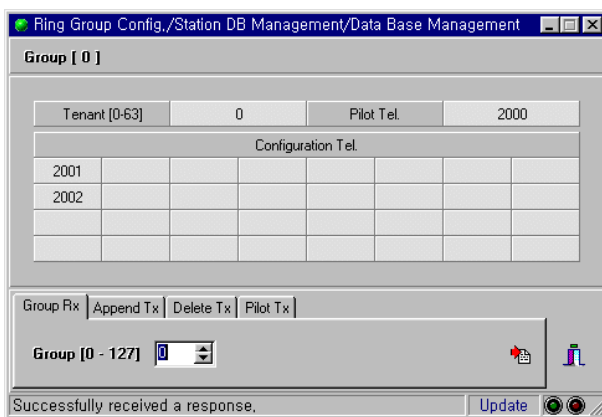
2. Browsing
    Select [Group Rx] tab to enter ring group number and press [Rx] button.

3. Appending
    Select [Append Tx] tab and enter registered number in Connect Tel field. Enter a number to append in Append Tel field and press [Tx] button.

4. Deletion
    Select [Delete Tx] tab, enter a number to delete and press [Tx] button.

5. Group Registration
    Select [Pilot Tx] tab and enter a tenant number. Enter a pilot number and press [Tx] button.

OPERATING PROCEDURES

Set the phone numbers to be in a ring group. In this case, all members of the group will ring at the same time.

Enter ring group pilot number.

When any member of the ring group responds, the ring to all members is stopped and the call is connected.

RESTRICTIONS

- Number of Ring groups : 128

- A Ring group consists of users in the same node.

- A number registered in one ring group cannot be registered in another ring group at the same time.

- The pilot number of a ring group can be a pseudo number.

Ring Group Call Waiting

FEATURE DESCRIPTION

Keyphones in station ring groups have indications of another call waiting to be answered.

PROGRAMMING IN MAP

1. Setting up Station option

Select the MAP menu as follows:
[Database Management]➔[Station DB Management]➔[Station Service Option]

Set up the following options when the Station option selection screen appears:
[212] COB Call Waiting Tone: call waiting indication

[195] Buzzer Tone Mode: Beep Ring/Tone

[196] Buzzer Tone Retry Count: count of beep

Press the [Tx] button to save option values.

2. Setting up the System Timer

Select the MAP menu as follows:
[Database Management]➔[System DB Management I]➔[System Timer]

Set up the following options when the System Timer setup screen appears:
[12] Call Waiting Tone Period: period of beep ring/tone

Press the [Tx] button after setting up the timer value.

Ring Group Log In/Out

FEATURE DESCRIPTION

Each extension is able to log in and out of a ring group. This feature is similar to ACD group log in/out (see Chapter 10).

PROGRAMMING IN MAP

1. Setting up COS

Select the MAP menu as in the following:
[Database Management]➔[System DB Management I]➔[Class Of Service (COS)]
Set up the following options when the COS setup screen appears:
[172]: In-Out Group

Press the [Tx] button to save the values.

2. Set up Feature Code

Select the following menu from the MAP screen:
[Database Management]➔[System DB Management I]➔[Feature Code]
Set up the following options when the Feature Code setup screen appears:
[49]: In-Out Group

Press the [Tx] button to save the values.

Group Call Pick Up

FEATURE DESCRIPTION

Direct Call Pick Up

With this function, you can pick up a call a received at another extension by dialling the Pick Up feature code and the ringing station number.

Group Call Pick Up

Members registered in a Pick Up Group can pick up a call which another member answered using the Pick Up key or Pick Up feature code.

PROGRAMMING IN MAP

Setting the COS

1. Select following fields in MAP.
   Database Management ⇒ System DB Management I ⇒ Class Of Service (COS)

2. Select following fields for transmission.

   [38]   Direct Pick-Up
          Indicates Direct Call Pick Up function available class.

   [39]   Group Pick-Up
          Indicates Group Call Pick Up function available class.

Pick Up group setup
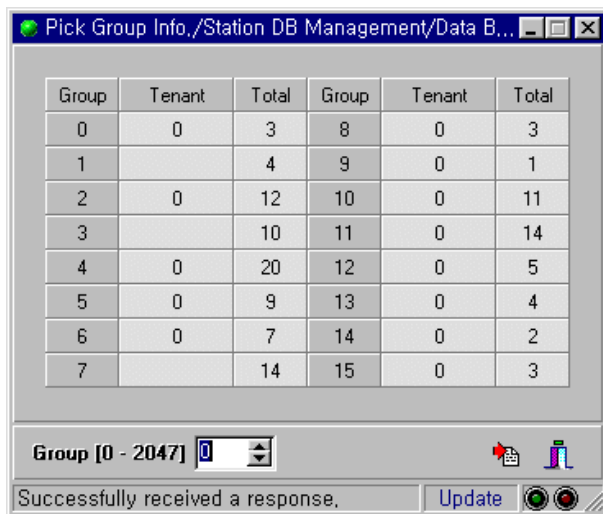
Register, access, append and delete Pick Up Group.

1. Select following fields:
    Database Management ⇒ Station DB Management ⇒ PICK Group Configuration

2. Browsing
    Select [Group Rx] tab and enter Pick Group number for reception.
    Access tenant number, number of Pick Group member by node and all members' numbers.

3. Appending
    Select [Append Tx] tab and enter the registered number in Connect Tel field (leave blank if no number is registered). Enter numbers of members to append in Append Tel field and save by pressing the [Tx] button.

4. Deleting
    Select [Delete Tx] tab and enter number of member to delete. Press the [Tx] button.

5. Group Registration
    Select [New Designation Tx] tab, enter tenant number and enter numbers of members to append. Press the [Tx] button.

Pick group Accessing

You can access tenant number of Pick Group and total number of members.

1. Select following menu.
    Database Management ⇒ Station DB Management ⇒ Pick Group Information

2. Enter Pick Group number for reception.
    Access Tenant number and total number of members by group.

Option with respect to Pick Up

Select following fields that determine whether to conduct Camp Ring Pick Up when you pick up.
Set if you wish to enable another number to pick up a camp call ring back.
 DB Management ⇒ System DB Management I ⇒ System Option

[17]   Camp Ring Pick Up

System Option/System DB Management I/Data Base Management

No.	Item	Option	Input Extension	Initial
15	Simul. Wake-Up Ring Count in Each LPM	30	[20 - 255]	30
16	Recall Flow on Hook-On after Hook-Flash	Hang-Up	[Recall/Hang-Up]	Recall
17	Camp Ring Pick-Up	☑	[Yes/No]	No
18	.	.	.	.
19	DISA Password Retry Count	2	[1 - 5]	2
20	ANI Type ID Reference	Port	[Port/DTS]	Port
21	Mute on Interception	Mute	[Mute/Intercept/1Time]	Mute
22	Distinct Recall Ring Cadence (Station/Trunk)	☑	[Yes/No]	Yes
23	Select Ring Type	KT	[KT/PTT]	PTT
24	Dissuasion Tone	Silent	[Dial Tone/Silent]	Silent
25	SDP Type Apply		[System Option/Port Info.]	System Option
26	SDP Type		[SDP/DCS]	SDP
27	Redial Only C.O.	☐	[Yes/No]	No
28	Transfer to Busy Pilot	☐	[Yes/No]	No
29	Trunk Call Transfer Prohibit	☐	[Yes/No]	No
30	Trunk Auto Repeat Count	100	[1 - 255]	100

OPERATING PROCEDURES

Direct Pick Up

When a call rings at another extension:

1. Dial the Direct Pick Up feature code and dial the ringing extension number. (Direct Pick Up does not have a function key.)

2. Ringing stops and the call is connected to your extension.

Group Pick Up

When a call rings at another extension:

1. Press the **Group Pick Up** function key or dial the Group Pick Up feature code.

2. Ringing stops and the call is connected to your extension.

RESTRICTIONS

- Number of Pick Up Groups : 64
- You have to know the ringing station number and feature code for Direct Pick Up.
- A Dispatch call cannot be picked up.

Tenant operation

FEATURE DESCRIPTION

A DCS Gateway system may have different Numbering Plans for each Tenant by having different Digit Translation Tables for each Tenant. Identical numbers can exist for several Tenants simultaneously and the numbers can be effectively managed within the system.

Multiple Number Plans

Different Digit Translation Tables for Tenants allow for effective and diverse numbering plans. The same digits can be used for different call types and functions in different plans.

Inter Tenant Call Barring

Different services can be provided for each Tenant by dividing system users into several Tenants and sorting groups and users by Tenant. You can control call procedures between Tenants in the database.

PROGRAMMING IN MAP

Setting Multiple Numbering Plan

1. Set following fields.
   Database Management System DB Management ⇒ Digit Translation
   Database Management System DB Management ⇒ Numbering Plan

NOTE Please refer to 'Digit Translation and Numbering Plan DB' section.

Setting Inter Tenant Call Barring

Set following fields:
Database Management System DB Management ⇒ Service Allowance Inter Tenant

Each item consists of 16 items as follows.

- Station to Station Call : Whether to allow call between station tenants
- Station to Trunk Call : Whether to allow call between extension and trunk tenant
- Station to ATC Call : Whether to allow call between extension and ATC Tenant
- Station to Data Line Call : Whether to allow call between extension and data line tenant
- Trunk to Station Call : Whether to allow call between trunk and station tenant
- Trunk to Trunk Call : Whether to allow call between trunk tenants
- Trunk to ATC Call : Whether to allow call between trunk and ATC Tenant
- Trunk to Data Line Call : Whether to allow call between trunk and data line tenant
- ATC to Station Call : Whether to allow call between ATC and station tenant
- ATC to Trunk Call : Whether to allow call between ATC and trunk tenant
- ATC to ATC Call : Whether to allow call between ATC Tenants
- ATC to Data Line Call : Whether to allow call between ATC and data line tenant
- Terminal to Terminal Call : Whether to allow call between data terminal tenants
- Terminal to Host Call : Whether to allow call between data terminal and host tenant

• Data Line to Data Line Call : Whether to allow call between data line and data line

Determine the service allowance between tenants by selecting any of the above 16 items

OPERATING PROCEDURES

Inter Tenant Call Barring

1. Execute tenant blocking between stations from tenant 0 to tenant 1.
   Execute tenant blocking between station trunks from tenant 0 to tenant 1.

2. Set a certain station user as tenant 0 and another station user as tenant 1 so that tenant 0 makes a call to tenant 1.

3. Caller hears error tone. On a digiphone, tenant block will be displayed.

4. Station user of Tenant 0 accesses trunk group of tenant 1.

5. Caller hears error tone and tenant block is displayed on digiphone.

RESTRICTIONS

Number of Tenants : 8

Call barring between COS

FEATURE DESCRIPTION

DCS Gateway can restrict access by function through COS (Class of Service). When restricting functions through COS, each can be either 'allow' or 'disallow' only. You can also restrict functions according to circumstances.

• Service Block Inter-COS : You can restrict service according to COS of the other party.

• External Call Lock COS Change : you can restrict service by converting to another COS when the External Call Lock function is running.

PROGRAMMING IN MAP

Setting Service Block Inter-COS

You can restrict service according to the other party's COS while restriction of service through COS can be set as allow or disallow only.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Service Block Inter-COS]

2. If the other party's COS subject to service restriction is set, service is blocked. For example, if you want to allow calls from a station with COS 0 to a trunk with COS 0, but restrict calls to trunks with COS 1 ~ 10, you would set as follows:

> **NOTE**
> If each service is not allowed in COS set up, service is not available even if you set to make partial service possible because it is ignored.

Setting External Call Lock COS Change

In order to block trunk calling by disallowed users, you can use the External Call Lock function.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Ext. Call Lock COS Change]

2. If External Call Lock is activated, Original COS is changed to Trans. COS. When it's set to be changed to COS 63 for which trunk calling is impossible in case that COS 0 station, for which trunk calling is possible, is locked.

3. Enter a 4-digit password to be used by each external call lock. (COS [59] External Call Lock Entry/Release.)

> **NOTE**
> Although the External Call Lock function is activated, the original COS does not change if the Trans. COS field has no value.

OPERATING PROCEDURES

How Service Block Inter-COS works

Pick up the handset and listen for dial tone.

If COS of called station is subject to service block, error tone sounds and "Class Block" message is displayed

To use External Call Lock COS Change

1. Execute External Call Lock function by pressing the function key or dialling the feature code.

2. Enter 4-digit password to be used for locking/unlocking.

3. Confirmation tone is heard. "Locked" is also displayed on the LCD

4. If trunk calling is attempted while in locked status, error tone is heard and "Class Block" message is displayed.

5. To release External Call Lock, repeat steps 1 and 2 using the same password.

RESTRICTIONS

- Types of COS available in DCS Gateway : 64 maximum
- If each service is not allowed in COS setup, service is not available even if you set to enable partial service in [Service Block Inter-COS] DB.
- Even if External Call Lock function is activated, the original COS does not change if there is no value in the Trans. COS field of [Ext. Call Lock COS Change] DB.

Day/Night and Holiday Operation
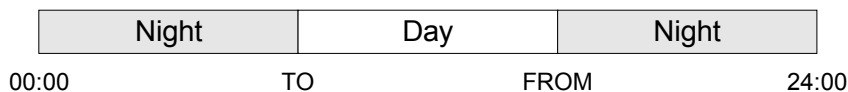
FEATURE DESCRIPTION

"Day / Night and Holiday Mode" exists for setting service restrictions according to time periods. For example, during the working day, making a call to a trunk is allowed, but in the evening or during holidays, making a trunk call is prohibited.

PROGRAMMING IN MAP

Configuring Night Service Time

Set night service time by day of the week.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Night Service Time]

2. There are three patterns you can enter as follows:

Night	Day	Night

00:00   TO   FROM   24:00

Day	Night	Day

00:00   FROM   TO   24:00

Night	Night

00:00   FROM = TO   24:00

If you want to set nighttime from 18:00 in the evening to 09:00 the next morning, set up as follows:
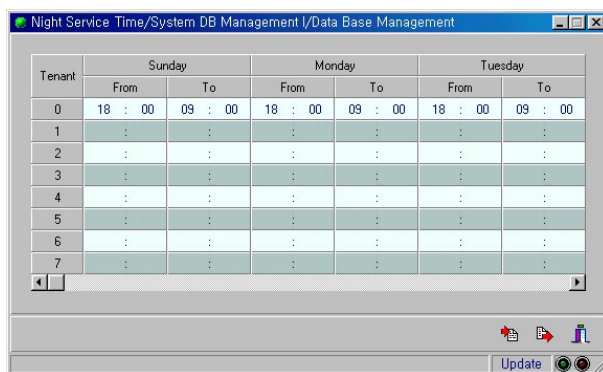
> **NOTE** Settings in this menu will be overridden by other DB settings for the ATC and ACD. Please refer to 'ATC and ACD operation' for more information.

Configuring Holiday Service Date

Set holidays based on one year.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Holiday Service Date]

2. Sunday is automatically recognised as a holiday. Therefore, enter all holidays except Sundays.

> **NOTE** Settings in this menu will be overridden by other DB settings for ACD. Please refer to 'ACD operation' section for more information.
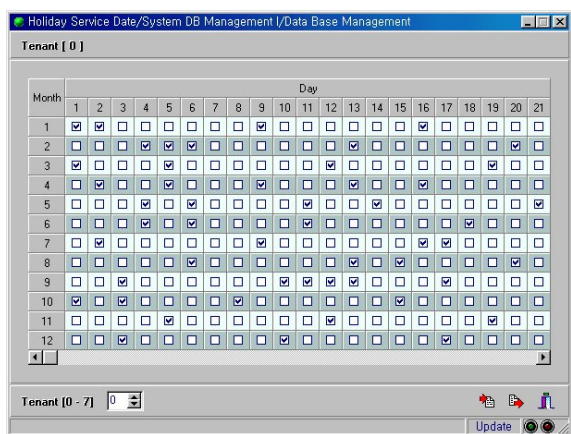
Setting Night & Holiday COS

Set up so that current COS can be changed into a different COS according to time period.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Night & Holiday COS]

2. Set COS to be changed by time period.
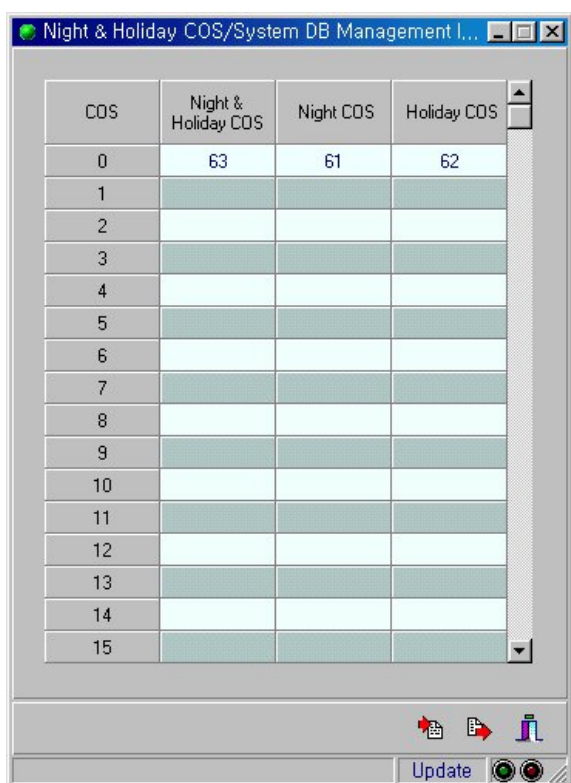
If External Call Lock is activated, COS of the user is changed to the Trans. COS of the Ext Call Lock COS.

OPERATING PROCEDURES

To use Night & Holiday COS

When a call is attempted, the system tries making a call after changing to the COS set in the [Night & Holiday COS] DB.

RESTRICTIONS

- ATC and ACD are affected by databases other than [Night Service Time].

- ACD is affected by databases other than [Holiday Service Date].

- Sunday is recognised as a holiday regardless of setup.

Hot line Dialing

FEATURE DESCRIPTION

Hot Line is a service that automatically dials the number predefined in the system when a particular station subscriber picks up the telephone handset.

NOTE
1. Hot Line   - A call is made immediately after picking up the handset
2. Warm Line - A call is made when the handset is off-hook for a fixed period of time

PROGRAMMING IN MAP

You have to use [Port information (total)] menu to register, modify and release system Hot (or Warm) Line. You can use the system hot dial menu in order to access and change registered numbers.

Setting, Modifying and Deleting System Hot Dial

1. Selecting Menu
   [Port Information (Total)]

2. Setting Hot Dial Number
   Enter the station number or the port of the station on which to register a hot dial. Press [Rx] button to access registered information and set [Hot Mode] as "Hot" or "Warm" and enter the outgoing number (number to dial) in [Hot Dial No.]

   Modifications can be made on the same screen.

NOTE   If [Hot Mode] is "None", there should be no value in [Hot Dial No.]

Retrieving and Modifying System Hot Dial

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [System Hot Dial]

2. Modifying Hot Dial Number
   You can search and modify all "Hot/Warm Dial" entries registered in the system with the [System Hot Dial] menu. Enter station number you want in Hot Dial field in order to modify hot dial. For Warm dial, set [Hot Mode] as "Warm" before going through the same procedure.

Warm Line Interval Time Setup

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [System Timer]

2. Enter the interval time (seconds) from the moment you pick up a handset until number is dialed in [28 : Warm Line Interval Time].

> **NOTE** In the case of a station where Warm Line function is activated, [0 : Station 1st Digit Waiting Time] is overridden

OPERATING PROCEDURES

To use a Hot Line service

Pick up the handset. If Hot Line is set, a call is automatically made to the registered number.

To use a Warm Line service

Pick up the handset. If Warm Line is set, you hear dial tone, and after a short period a call is automatically made to the registered number.

RESTRICTIONS

- The maximum number of Hot Dials registered in a node is 512 .
- You can enter up to 20 digits for Hot Dial.

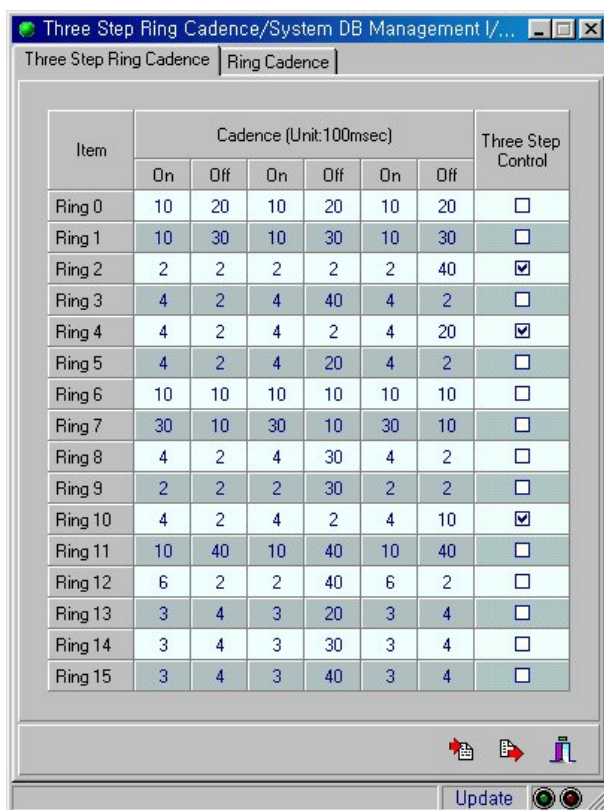# Ring Types and Cadences for Different Calls

FEATURE DESCRIPTION

When an extension receives a call, incoming ring can be different depending on the caller. You can have up to 16 ring types. You can also define function ring types such as recall, wake-up, camp and DND.

PROGRAMMING IN MAP

Setting Three Step Ring Cadence

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Three Step Ring Cadence]

2. Set On/Off Cadence in 100 msec units for ring types (0–15) and select the "Three Step Control" option. Unless "Three Step Control" is selected, this option will operate as the ring set in [Ring Cadence].

Three Step Ring Cadence/System DB Management I/...

Three Step Ring Cadence | Ring Cadence

Item	Cadence (Unit:100msec)						Three Step Control
	On	Off	On	Off	On	Off	
Ring 0	10	20	10	20	10	20	☐
Ring 1	10	30	10	30	10	30	☐
Ring 2	2	2	2	2	2	40	☑
Ring 3	4	2	4	40	4	2	☐
Ring 4	4	2	4	2	4	20	☑
Ring 5	4	2	4	20	4	2	☐
Ring 6	10	10	10	10	10	10	☐
Ring 7	30	10	30	10	30	10	☐
Ring 8	4	2	4	30	4	2	☐
Ring 9	2	2	2	30	2	2	☐
Ring 10	4	2	4	2	4	10	☑
Ring 11	10	40	10	40	10	40	☐
Ring 12	6	2	2	40	6	2	☐
Ring 13	3	4	3	20	3	4	☐
Ring 14	3	4	3	30	3	4	☐
Ring 15	3	4	3	40	3	4	☐

Update

NOTE Problems may be caused when overloaded use three step ring occurs.

Setting Ring Cadence

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Ring Cadence]

2. Set On/Off Cadence in 100 msec units for ring types. If "Three Step Control" option was selected in [Three Step Ring Cadence] menu, the settings in [Ring Cadence] menu will be overridden by the settings in [Three Step Ring Cadence] menu.

Item	Cadence (Unit: 100 msec)			
	On	Off	On	Off
Ring 0	10	20	10	20
Ring 1	10	30	10	30
Ring 2	2	2	2	2
Ring 3	4	2	4	40
Ring 4	4	2	4	2
Ring 5	4	2	4	20
Ring 6	10	10	10	10
Ring 7	30	10	30	10
Ring 8	4	2	4	30
Ring 9	2	2	2	30
Ring 10	4	2	4	2
Ring 11	10	40	10	40
Ring 12	6	2	2	40
Ring 13	3	4	3	20
Ring 14	3	4	3	30
Ring 15	3	4	3	40

> **NOTE** For a DGP, Cadence cannot be modified because Cadence value is set on the phone according to ring type.

Caller Ring Setup

Change [Caller Ring] field in port information in order to apply different rings according to caller.

1. Selecting Menu
   [Port Information (Total)]

2. Set ring type that called party will hear in "Caller Ring"

> **NOTE** Decides ring type to be heard at receiving station according to "Caller Ring" of trunk port when an external call is received.

Feature Ring Setup

Different rings for recall, wake-up, camp or DND can be set using the Feature Ring menu.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Feature Ring]

2. Set ring type according to each function.

No.	Feature Ring	Ring
0	Station Recall	Ring 3
1	Trunk Recall	Ring 3
2	ATC Recall	Ring 3
3	Trunk Camp	Ring 4
4	Station Camp	Ring 1
5	COM Call	Ring 6
6	Wake-Up	Ring 7
7	Dial Call	Ring 4
8	Intercom	Ring 4
9	DND	Ring 8
10	Request	Ring 8
11	DID Recall	Ring 3
12	-	-
13	-	-
14	-	-
15	-	-

Successfully received a r | Update

RESTRICTIONS

- Maximum number of ring types that can be set in one system is 16.

- For a DGP, settings in [(Three Step) Ring Cadence] do not have any effect because ON/OFF Cadence is set on the phone according to ring type.

Tone Assignment

FEATURE DESCRIPTION

Setting Tone cadence

Sets tone cadence and control method of the telephone of each tone port.

Setting Tone Options

Sets source tone type and port number.

Setting Ring Back Tone cadence

Sets the cadence of the Ring Back Tone (RBT) which is used to notify the caller that the other party's phone is ringing. A type is decided by an RBT cadence that is the sum of RBT ON Time and RBT OFF Time.

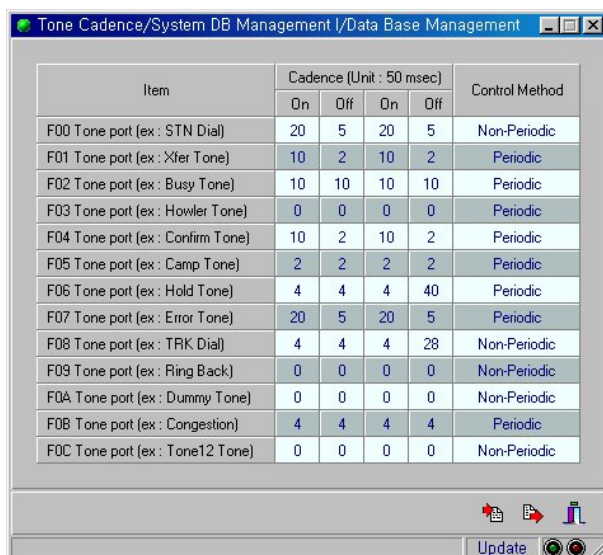### Detecting or setting the cadence of the LPM Tone

Sets or detects the cadence of dial tone, busy tone, error tone and ring back tone of LPM tone of each tenant.

PROGRAMMING IN MAP

Setting tone cadence

Sets tone cadence and control method of the telephone of each tone port. The tone type must be set to 'System Tone' in the 'Tone Option' menu to make this value effective after setting Tone cadence.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Tone Cadence]

2. The information will be displayed as follows. Input the Tone cadence (On/Off cadence in 50msec units) for each Tone port. If you set the [Control Method] to 'Periodic', Tone cadence will be controlled periodically.

Tone Cadence/System DB Management I/Data Base Management

Item	Cadence (Unit : 50 msec)				Control Method
	On	Off	On	Off	
F00 Tone port (ex : STN Dial)	20	5	20	5	Non-Periodic
F01 Tone port (ex : Xfer Tone)	10	2	10	2	Periodic
F02 Tone port (ex : Busy Tone)	10	10	10	10	Periodic
F03 Tone port (ex : Howler Tone)	0	0	0	0	Periodic
F04 Tone port (ex : Confirm Tone)	10	2	10	2	Periodic
F05 Tone port (ex : Camp Tone)	2	2	2	2	Periodic
F06 Tone port (ex : Hold Tone)	4	4	4	40	Periodic
F07 Tone port (ex : Error Tone)	20	5	20	5	Periodic
F08 Tone port (ex : TRK Dial)	4	4	4	28	Non-Periodic
F09 Tone port (ex : Ring Back)	0	0	0	0	Non-Periodic
F0A Tone port (ex : Dummy Tone)	0	0	0	0	Non-Periodic
F0B Tone port (ex : Congestion)	4	4	4	4	Periodic
F0C Tone port (ex : Tone12 Tone)	0	0	0	0	Non-Periodic

Update

The cadence of Port F00 ~ F0C can be changed, but that of F0D ~ F0F cannot be changed since it is tone for specific purposes:

- F0D: Mute Tone
- F0E: Howler Tone
- F0F: Music Tone

Setting Tone Options

Sets tone type and port number of a telephone.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Tone Option]

2. Input the Node number or Tenant number and press the [Rx] button.

3. Select the Tone Source from SYSTEM TONE, TRUNK TONE, and SPECIAL TONE in the Option window. Select 'SYSTEM TONE' if the tone source is provided by the ROM (SYSTEM). Select 'TRUNK TONE' if the tone source is from outside the system and uses the TRUNK ports. If the tone source is none of the above, select 'SPECIAL TONE'. Enter the port number to which the new tone type will be applied.

| No.	Tone Type	Option	Port	No.	Tone Type	Option	Port
0	Dial Tone	System Tone	F00	17	No Answer Tone	System Tone	F0F
1	Transfer Tone	System Tone	F01	18	Hook-Flash Tone	System Tone	F00
2	Busy Tone	System Tone	F02	19	DND Tone	System Tone	F07
3	Howler Tone	System Tone	F0D	20	Congestion Tone	System Tone	F0B
4	Confirm Tone	System Tone	F04	21	No Answer (Day)	System Tone	F0F
5	Camp Tone	System Tone	F05	22	No Answer (Night)	System Tone	F0F
6	Hold Tone	System Tone	F0F	23	No Answer (Emergency)	System Tone	F0F
7	Error Tone	System Tone	F07	24	DISA Dial Tone	System Tone	F08
8	Ex-Dial Tone	System Tone	F08	25	DISA Password Tone	System Tone	F08
9	Ring-Back Tone	System Tone	F09	26	DISA Re-Password Tone	System Tone	F08
10	Dumb Tone	System Tone	F0A	27	Back Ground Music	Trunk Tone	0B1
11	Wake-Up Tone	System Tone	F0F	28	Forward Tone	System Tone	F00
12	Message Tone	System Tone	F0F	29	Control Group Forward	System Tone	F00
13	Vacant Tone	System Tone	F07	30	External Call Lock	System Tone	F00
14	.	.	.	31	Analysis Test Tone	System Tone	F00
15	Break-In Tone	System Tone	F08	32	Station Error Tone	System Tone	F00
16	Wrong Number Tone	System Tone	F07	33	LCR Next Route	System Tone	F00

Setting Ring Back Tone cadence

Sets the cadence of the Ring Back Tone (RBT) which is used to notify the caller that the other party's keyset is ringing.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Ring Back Tone Cadence]

2. There are four Ring Back Tone Types. A type is decided by an RBT cadence that is the sum of RBT On Time and RBT Off Time.

3. Select a Ring Back Tone Type and press the [Tx] button to save the selected value.
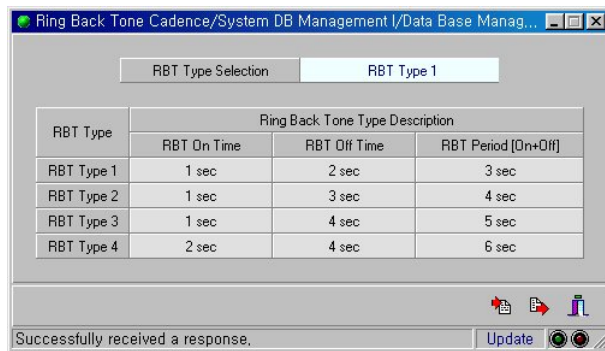
Detecting or setting the cadence of the LPM Tone

Sets or detects the cadence of dial tone, busy tone, error tone and ringback tone of LPM tone for each tenant.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [LPM Tone Detect]

2. Input the Tenant number and press the [Rx] button.

3. Set the cadence (On/Off cadence in 50msec units) of Dial Tone, Busy Tone, Error Tone, and Ring Back Tone.
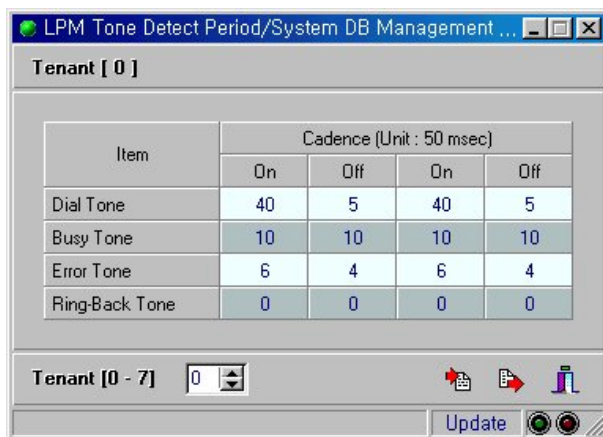
RESTRICTIONS

There are 16 system tone types that can be used in one system (13 of which can have the cadence changed).

Music on Hold—Multiple and Single MOH

FEATURE DESCRIPTION

External announcement devices such as Music On Hold (MOH) can be used for background music or virtual announcements if accessed via the GLOOP2 trunk port or the E&M card port. MOH refers to external devices such as radio, CD players and cassette tapes which offer music.

PROGRAMMING IN MAP

Setting GLOOP2, E&M for MOH

One or more ports can be used as MOH ports on the GLOOP2 or E&M card. MOH function using trunk card is available in trunk, ATC and ACD.

1. Selecting Menu
   [Port Information (Total)]

2. Select port to be used as MOH in installed GLOOP or E&M card. Select "Ext-Music" in [Outside Connect] field. Set [CID Trunk] field in case of GLOOP card. Connect music channel to selected port.

Setting MOH Table

1. Selecting Menu
   [Database Management] ⇒ [Trunk DB Management] ⇒ [MOH Table DB]

2. Set CID LOOP or MOH port of E&M for each index.

Setting MOH Priority

You can use the MOH port set in [Port Information(Total)] for each extension(Multiple MOH) and trunk, or MOH port set for each tenant according to system option (Single MOH).

1. Selecting Menu
    [Database Management] ⇒ [System DB Management I] ⇒ [System Option]

2. If [1 : MOH Priority] is set as "Port", MOH port is determined according to MOH index in each [Port Information (Total)]. In this case, the MOH port set for each tenant is automatically used unless MOH port is specified. If it is set as "Tenant", hold tone port of [Tone Option DB] is used as MOH port.

> **NOTE** Please refer to 'Tone Assignment' section, above, for more information regarding hold tone setup.
>
> For Trunk MOH, the option for HOLD tone in the tone option DB should be Trunk Tone.

MOH Setup on Station, Trunk Port

1. Selecting Menu
   [Port Information (Total)]

2. Enter MOH Table DB index in [MOH Index]

Assigning Hotel ATC Routing MOH Port

This function allows you to set numbers of MOH1, MOH2, MOH3, and MOH 4, which are used for music service steps, provided queue for each routing number of hotel ATC.

1. Selecting Menu
   [Database Management] ⇒ [Hotel DB Management] ⇒ [Hotel ATC Route MOH Port]

2. Input the Node number and Route number and press the [Rx] button. If there are music steps in the routing, this specifies each of the MOH ports.

Programming Hotel routing table

This function allows you to set the 'routing' for a call coming in to the hotel console queue until it is answered.

1. Selecting Menu
   [Database Management] ⇒ [Hotel DB Management] ⇒ [Hotel Route Table Programming]

2. Enter the Route number and press the [Rx] button.

3. As an example of routing, consider the routing table below:

When you configure routing as shown above, music and announcements for the waiting call are broadcast in the following order using the timings shown:

❶ Ring Back tone is first sent to the waiting call for 20 seconds.

❷ The 1st Announcement is heard.

❸ If the call is not answered at the end of the 1st Announcement, the primary music (MOH 1) is played for 60 seconds.

❹ If the call is still not answered after 60 seconds, the 2nd Announcement is heard.

❺ If the call is not answered at the end of 2nd Announcement, the secondary music (MOH 2) is played for 60 seconds.

❻ If the call is still not answered after 60 seconds, the system goes back to step 1 and repeats the above steps up to three times.

❼ If the call is still not answered after three repetitions, the call is transferred to extension # 399.

❽ The system cuts off the call if the call is not answered.

4. Press the [Tx] button to save your settings.

Background Music Setup

Background music (BGM) is a function to let you hear music when you press the HOLD key in an idle state. If you do not want to hear music, you can stop it by pressing HOLD key again.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Class Of Service (COS)]

2. Set [108 : Back Ground Music]. If you press the HOLD key when this option is set, the port set in [27 : Back Ground Music] of [Tone Option DB] is referred to regardless of [MOH Priority] setup.
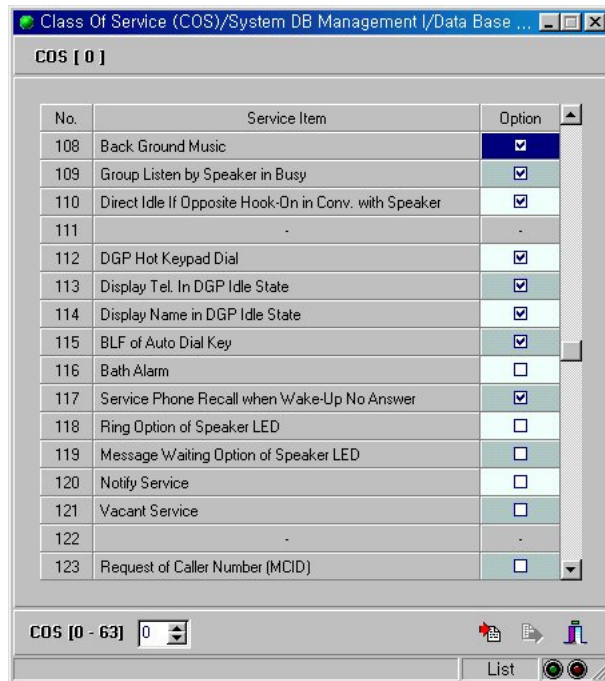
3. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Tone Option]

4. Enter "Trunk Tone" in "Option" and enter MOH Port to which music channel is connected in "Port" in [27 : Back Ground Music].

OPERATING PROCEDURES

MOH Connection

Connect external announcement devices such as MOH via a trunk port (ports of E&M, GLOOP2 card provide background music.)

RESTRICTIONS

- Connection of MOH equipment must be via a Line Isolation Unit with a telecommunications compliance label.
- Back Ground Music is not supported with Multiple MOH.

Conditional Interception

FEATURE DESCRIPTION

In the case of an incoming trunk call, this function transfers the call from specified callers to a predefined number. If there is an incoming R2 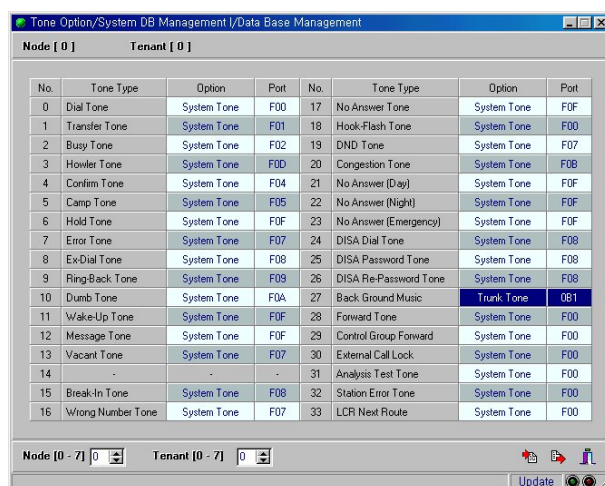trunk call, the system checks whether the conditional call transfer function in the 'COS' has been selected. If the result is 'Yes', it searches the transfer table with the caller number to find matching entries. If any matching entries exist, it transfers the call to the corresponding number. This function transfers the call according to the conditions in the table and activates the FWD function of the terminated station.

If conditional interception takes place, details will be printed through the system error printer.

PROGRAMMING IN MAP

Activation and inactivation of Conditional Interception function

1. Selecting Menu
   [Database Management] ⇒ [Trunk DB Management] ⇒ [Trunk Service Option]

2. [131] Condition Intercept Incoming Call should be selected in order to use conditional interception with trunks supporting Automatic Number Identification (ANI). If no number for call forwarding is registered in the Conditional Interception DB, use the number registered in [132 : Default Tel. Condition Intercept] field.

Managing Conditional Interception DB

1. Selecting Menu
   [Database Management] ⇒ [System DB Management II] ⇒ [Conditional Interception DB]

2. Set DB, paying attention to the following fields:

   - ANI Tel. : number of caller

   - Forward Tel. : number to receive forwarded call when selected forwarding condition is met

   - All Forward : Forwarding calls regardless of receiving condition. If this option is selected, Busy/No Answer Forward options do not need setting.

   - Busy Forward : Forwarding calls when the line is busy

   - No Answer Forward : Forwarding calls if no response after a predefined time.

Conditional Interception DB/System DB Management II/Data Base Management

Registed Count [4]

Index	ANI Tel.	Forward Tel.	All Forward	Busy Forward	No Answer Forward
0	912345301	399	☑	☐	☐
1	912345302	399	☐	☑	☐
2	912345303	399	☐	☐	☑
3	912345304	399	☐	☑	☑
4			☐	☐	☐
5			☐	☐	☐
6			☐	☐	☐
7			☐	☐	☐
8			☐	☐	☐
9			☐	☐	☐
10			☐	☐	☐
11			☐	☐	☐
12			☐	☐	☐
13			☐	☐	☐
14			☐	☐	☐
15			☐	☐	☐

Screen Info. Tx

Index Rx | ANI Tel. Rx | Append Tx | Delete Tx

Index [0 - 127] 0

Successfully received a response.   Update

OPERATING PROCEDURES

1. When receiving a trunk call, the system will check whether "Conditional Intercept Incoming Call" of the Trunk Service Option is selected.

2. If "Conditional Intercept Incoming Call" is selected, the system will search for the ANI number in the Conditional Interception DB. If the system finds the number, it will transfer the incoming call to the number. Calls can be transferred in different ways according to the conditions set in the transfer table.

RESTRICTIONS

• Conditional Interception is applicable only when a call is received via a trunk supporting ANI.

• The maximum number of Conditional Interceptions that can be registered in one system is 128.

Call Interception

FEATURE DESCRIPTION

This function provides call connection to a predefined number if a call fails between a caller and called party in the same PISN.

PROGRAMMING IN MAP

Setting the COS

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [Class Of Service (COS)]

2. Determine whether to activate functions subject to each condition.
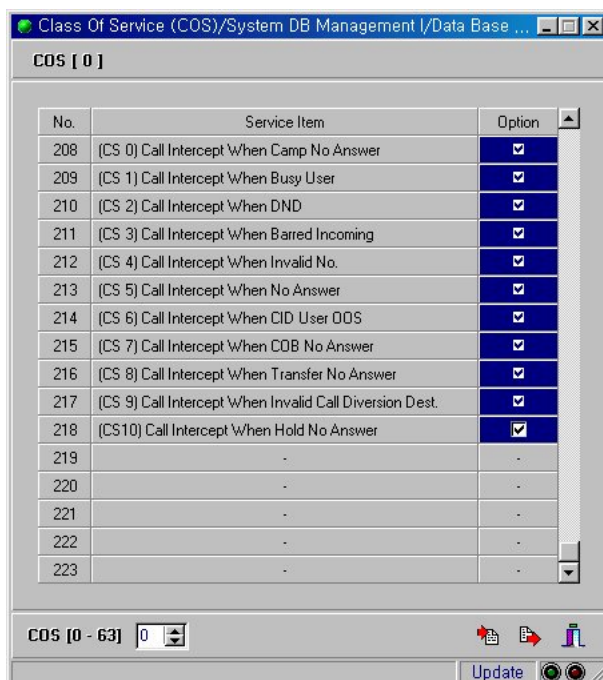
Setting the Network COS

For incoming trunk calls, the "Call Intercept feature will not be restricted by the COS of the incoming trunk port. It will be restricted by the network COS determined from the "Network COS Mapping DB"

1. Selecting Menu
   [Database Management] ⇒ [System DB Management II] ⇒ [N/W COS DB]

[Database Management] ⇒ [System DB Management II] ⇒ [N/W COS mapping DB]

2. Determine whether to activate functions subject to each condition.

[N/W COS DB]

[N/W COS mapping DB]

Managing Call Interception DB

Register the applicable Forwarding Telephone number in order to meet the conversion conditions.

1. Selecting Menu
   [Database Management] ⇒ [Station DB Management] ⇒ [Tenant interception DB.]

2. <mark>Set Call Interception DB index for reference when any condition requiring interception in Call Interception Table.</mark>
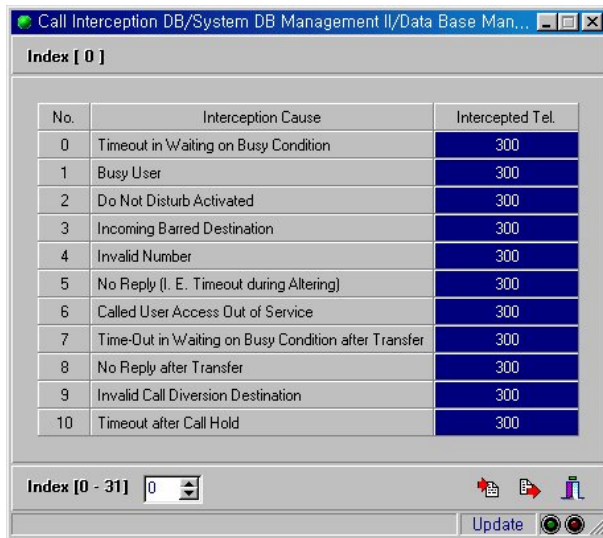
Tenant	Call Interception Index [0 - 255]	Tenant	Call Interception Index [0 - 255]	Tenant	Call Interception Index [0 - 255]	Tenant	Call Interception Index [0 - 255]
0	0	16		32		48	
1	1	17		33		49	
2	2	18		34		50	
3	0	19		35		51	
4	0	20		36		52	
5	0	21		37		53	
6	3	22		38		54	
7		23		39		55	
8		24		40		56	
9		25		41		57	
10		26		42		58	
11		27		43		59	
12		28		44		60	
13		29		45		61	
14		30		46		62	
15		31		47		63	

Update

3.Selecting Menu

[Database Management] ⇒ [System DB Management II] ⇒ [Call Interception DB]

Select index that has been set in step 2 and specify number in Intercepted Tel.field to receive a call forwarding when any condition requiring interception occurs.

NOTE

1. Station, Trunk, Trunk Tel., LCR and feature codes can be entered in Intercepted Tel. field and a maximum of 16 digits can be entered.

2. Maximum count must be set to prevent call from overflowing indefinitely if Conditional Interception, Call Interception and Group Overflow function together. Please refer to *Group Overflowing* (below) in order to set the maximum overflow count.

OPERATING PROCEDURES

Call Interception does not have a general operation procedure. When there is a trunk or station incoming call, the call may encounter a condition such as called party busy, DND, no answer, invalid number, etc. In this case the Call Interception feature can provide an alternative party to intercept the call. The intercepting party will depend on the reason for the interception.

For example, when there is an incoming call from the C.O to a station and the station does not answer, the call will follow the steps shown below.

1. Decide N/W COS from own COS which is in port information.
2. Check if this interception reason is allowed by the N/W COS.
3. Decide the interception table index from the Tenant Interception DB.
4. Decide the intercepting party from the interception table for the interception reason.
5. The call will be intercepted and sent to the interception party.

RESTRICTIONS

- The maximum number of Call Interceptions that can be registered in one system is 32.

- There can be many combinations of interception conditions. However, some combinations are not meaningful. The following table shows which conditions are meaningful and which are not.

	Cs 0	Cs 1	Cs 2	Cs 3	Cs 4	Cs 5	Cs 6	Cs 7	Cs 8	Cs 9	Cs 10
STN to STN (normal)		OK	OK	OK	OK	OK	OK		OK		OK
STN to STN (xfer)		OK	OK	OK	OK	OK	OK	OK	OK		
STN to STNG (normal)		OK		OK				OK	OK		
STN to STNG (xfer)		OK		OK				OK	OK		
STN to ACDG				OK			OK				
STN to ATC				OK			OK				
STN to ATCG (normal)				OK			OK				
STN to ATCG (xfer)				OK			OK				
STN to TRK		OK		OK							
STN to LCR		OK		OK							
STN to TRKTEL		OK		OK							
STN to DTS		OK		OK							
STN to TRK (xfer)		OK		OK							
STN to LCR (xfer)		OK		OK							
STN to TRKTEL (xfer)		OK		OK							
STN to DTS (xfer)		OK		OK							
ATC to STN (normal)		OK	OK	OK	OK	OK	OK		OK		OK
ATC to STN (xfer)		OK	OK	OK	OK	OK	OK	OK	OK		
ATC to STNG (normal)		OK		OK				OK	OK		
ATC to STNG (xfer)		OK		OK				OK	OK		
ATC to ACDG				OK			OK				
ATC to ATC				OK			OK				
ATC to ATCG (normal)				OK			OK				
ATC to ATCG (xfer)				OK			OK				
ATC to TRK		OK		OK							
ATC to LCR		OK		OK							
ATC to TRKTEL		OK		OK							
ATC to DTS		OK		OK							

	CS 0	CS 1	CS 2	CS 3	CS 4	CS 5	CS 6	CS 7	CS 8	CS 9	CS 10
ATC to TRK (xfer)		OK		OK							
ATC to LCR (xfer)		OK		OK							
ATC to TRKTEL (xfer)		OK		OK							
ATC to DTS (xfer)		OK		OK							
TRK to STN (normal)	Qsig	OK	OK	OK	OK	OK	OK	OK	OK	Qsig	OK
TRK to STN (xfer)											
TRK to STNG (normal)		OK		OK				OK	OK		
TRK to STNG (xfer)											
TRK to ACDG				OK			OK				
TRK to ATC				OK			OK				
TRK to ATCG (normal)				OK			OK				
TRK to ATCG (xfer)											
TRK to TRK		OK		OK							
TRK to LCR		OK		OK							
TRK to TRKTEL		OK		OK							
TRK to DTS		OK		OK							
TRK to TRK (xfer)											
TRK to LCR (xfer)											
TRK to TRKTEL (xfer)											
TRK to DTS (xfer)											

How to read this table:

CS 0	Timeout in waiting on busy condition
CS 1	Busy user
CS 2	Do not disturb activated
CS 3	Incoming barred destination
CS 4	Invalid number
CS 5	No reply (i.e. Timeout during Alerting)
CS 6	Called user access out of service
CS 7	Time-out in waiting on busy condition after transfer
CS 8	No reply after transfer
CS 9	Invalid call diversion destination
CS 10	Timeout after call hold

STN	Station
STNG	Station group (which means the station group pilot number)
ACDG	ACD group (which means the ACD group pilot number)
ATC	Attendant Console
ATCG	Attendant Console group (which means the ATC group pilot number)
TRK	Trunk incoming/outgoing
LCR	Trunk outgoing via Least Cost Routing feature
TRKTEL	Trunk outgoing via direct trunk selection using trunk port telephone number
DTS	Trunk outgoing via direct trunk selection using DTS number
Normal	Direct call from caller to called party.
Xfer	Transfer

Qsig	Qsig only

For example, "TRK to STN (xfer)" means that there is an incoming trunk call to a station, and this station transferred the call to another station.

Group Overflowing

FEATURE DESCRIPTION

The function provides call forwarding to predefined numbers when all members of a group are busy. For ACD, an incoming call is forwarded to a predefined station or another ACD group.

PROGRAMMING IN MAP

Station, ATC Group Overflow Setup

1. Selecting Menu
   [Database Management] ⇒ [Station DB Management] ⇒ [Station Group Config.]
   [Database Management] ⇒ [ATC DB Management] ⇒ [ATC Group Info.]

2. Set up Group Overflow DB index in Group Overflow Table for reference in case of overflow.

> **NOTE** Carry out the same procedures for ATC.

3. Selecting Menu
   [Database Management] ⇒ [System DB Management II] ⇒ [Group Overflow DB]

4. Select group index set in step 2 and list the numbers for overflow.

NOTE

1. Station, Trunk, Trunk Tel., LCR and feature code can be entered in Route Tel. and a maximum of 16 digits can be entered.

2. Pilot Tel. of other group can be entered in Route Tel. If specified group is busy, call goes to the next Route. (Non-Recursive.)

3. Route 1 is the highest in the order of priority and Route PNA is the lowest.

Setting up maximum number of Overflow

In order to prevent indefinite overflow, you can limit the maximum count for overflowing when Conditional Interception, Call Interception and Group Overflow function together. If an incoming call made to the trunk supporting ANI is conditionally intercepted and forwarded to Tel. A, and the call is intercepted to be forwarded to station group B because Tel. A is busy, and then group overflow takes place because station group B is busy, the count increases by one when the transfer takes place. If this count becomes bigger than the Maximum Overflow Count, transfer does not occur any more and it is processed as busy.

1. Selecting Menu
   [Database Management] ⇒ [System DB Management I] ⇒ [System Option]

2. Set maximum number of overflow.

Setup of ACD Group Overflowing

1. Selecting Menu
   [Database Management] ⇒ [ACD & Infolink DB Management] ⇒ [Route Table Program]

2. Select Group overflow in Parameter 2. Select Extension Overflow in Parameter 3

NOTE

1. For Group overflow, allowed group numbers are 0 to 31.

2. For Extension overflow, you can enter up to a max of 7 digits.

OPERATING PROCEDURES

1. Pick up the handset and listen for dial tone.

2. Make a call to Pilot Tel. in which group overflow is set.

3. If all members in group are busy, search if "Overflow Count" exceeds maximum count.

4. When group overflow may occur, search [Group Overflow DB] in order to transfer to proper Tel.

RESTRICTIONS

- Maximum number of group overflows that can be registered in one system is 128

- Group overflow applies to station, ATC and ACD only.

Multi-Line & CTI

FEATURE DESCRIPTION

You can use the Multi-Line feature of the DCS Gateway with CTI applications (see Chapter 10 for a description of CTI on Gateway systems). If you use the Multi-Line feature with CTI applications, CTI has to conform with the specifications of the Multi-Line feature.

SETTING THE MAP

Setting up the OAI device.
Every port has an OAI device option.
[Port Information]
OAI Terminal

FEATURE LIMITATION

1. CTI has to conform to the specifications of the DCS Gateway Multi-Line feature. CTI is based on the device telephone no. and not the device port no. For example, if station A has the secondary LPS of station B, and station A answers a call by pressing the secondary LPS of station B, then station B is displayed as in busy state. If station A makes a call by pressing the secondary LPS of station B, then station B is displayed as in dial state.

2. Information for the secondary LPS is not displayed on CTI; e.g. if station A has the secondary LPS of station B and there is a call to station B, only station B is displayed as in ring state. Station A is displayed as in idle state.

3. If station A has the secondary LPS of station B, the OAI Terminal options of Station A and Station B have to be the same.