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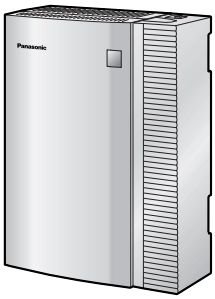

Advanced Hybrid & Wireless PBX

Feature Guide

Model No. KX-TAW848

Thank you for purchasing the Panasonic Advanced Hybrid & Wireless PBX, KX-TAW848.
Please read this manual carefully before using this product and save this manual for future use.

Introduction

About the Feature Guide

The Feature Guide is designed to serve as an overall reference describing the features of the Panasonic Advanced Hybrid & Wireless PBX. It explains what the PBX can do, as well as how to obtain the most of its many features and facilities.

The Feature Guide is divided into the following sections:

Section 1 Call Handling Features

Describes the call handling features of the PBX.

Section 2 System Configuration and Administration Features

Describes the features which allow the PBX to be configured and administered to suit the needs of its users.

Section 3 Programming Instructions

Serves as an overall system programming reference for the PBX.

Section 4 KX-TAW848 Maintenance Console Operating Instructions

Serves as reference operating instructions when using the Panasonic KX-TAW848 Maintenance Console software to program the PBX.

Section 5 Appendix

Provides tables which describe the resource capacity of the PBX, as well as its different tones and ring tones. Abbreviations used frequently throughout the Feature Guide are also briefly explained here.

Index

An alphabetical listing of features and terms, as well as the page numbers of related sections.

References Found in the Feature Guide

Installation Manual References

The Advanced Hybrid & Wireless PBX Installation Manual provides instructions detailing the installation and maintenance of the PBX. Sections from the Installation Manual are listed throughout the Feature Guide for your reference.

Feature Guide References

Related sections of the Feature Guide are listed for your reference.

User Manual References

The Advanced Hybrid & Wireless PBX User Manual describes how users can access commonly used PBX features and functions with their proprietary telephones (PTs), single line telephones (SLTs), portable stations (PSs), and DSS Consoles. Sections from the User Manual are listed throughout the Feature Guide for your reference.

PT Programming References

Commonly used settings can be programmed using a display PT (→ 2.3.2 PT Programming). These PT programming items are noted throughout the Feature Guide for your reference by title and program number.

The following is an example of a PT Programming reference:

"Idle extensions are automatically searched for according to a preprogrammed hunting type (→ Idle Extension Hunting Type [680])."

Notes

- Certain PTs, features, and optional service cards are not available in some areas. Consult your dealer for more information.
- Every system programming setting can be accessed using a PC and the Panasonic KX-TAW848 Maintenance Console software (→ 2.3.1 PC Programming). For programming details, refer to the on-line help which is installed along with KX-TAW848 Maintenance Console (→ 3.2.1 Installing and Starting KX-TAW848 Maintenance Console).

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Feature Highlights

Voice Mail Features

A Voice Processing System (VPS) can be connected to the PBX to provide Voice Mail (VM) and Automated Attendant (AA) services. A Panasonic VPS which supports DPT (Digital) Integration can be connected to the PBX effortlessly and with minimal setup required. Conventional DTMF (analog) voice mail systems, including those from other manufacturers, are also supported.
(→ 1.19.1 Voice Mail (VM) Group)

Portable Station (PS) Features

A Panasonic PS can be used in place of a PT to provide wireless access to PBX features and call handling. When in Wireless XDP Parallel Mode, a PS can share an extension number with a wired telephone, allowing extension users to use their PSs when they are away from their desks to answer or make calls as if they were using their wired telephones.
(→ 1.20 Portable Station (PS) Features)

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Section 1

Call Handling Features

1.1 Incoming Call Features

1.1.1 Incoming CO Line Call Features

1.1.1.1 Incoming CO Line Call Features—OVERVIEW

Description

CO lines are used to connect a PBX to a public network, i.e., the telephone company.

1. **Distribution Method**

   Each CO line port uses a method of distributing calls to their destinations as they are received.

Distribution Method	Description	Details in
Direct In Line (DIL)	Directs a call to a preprogrammed destination, such as an operator, based on the CO line carrying the call.	• 1.1.1.2 Direct In Line (DIL)
Calling Line Identification (CLI) Distribution	Directs a call to its preprogrammed destination if the caller's telephone number and its CLI destination has been stored in the System Speed Dialing Table.	• 1.1.1.3 Calling Line Identification (CLI) Distribution

2. **Available Destination**

   The following destination types can be programmed as DIL or CLI destinations.

Destination Type	Availability
Wired Extension (PT/SLT)	✔
PS	✔
ICD Group	✔
PS Ring Group	✔
VM Group (DTMF/DPT)	✔
External Pager (TAFAS)	✔
DISA	✔
Analog Remote Maintenance	✔
Idle Line Access no. + Phone no.	
CO Line Group Access no. + CO Line Group no. + Phone no.	

3. Intercept Routing

After a call has been directed to its DIL or CLI destination, the following Intercept Routing features, if programmed, can redirect the call.

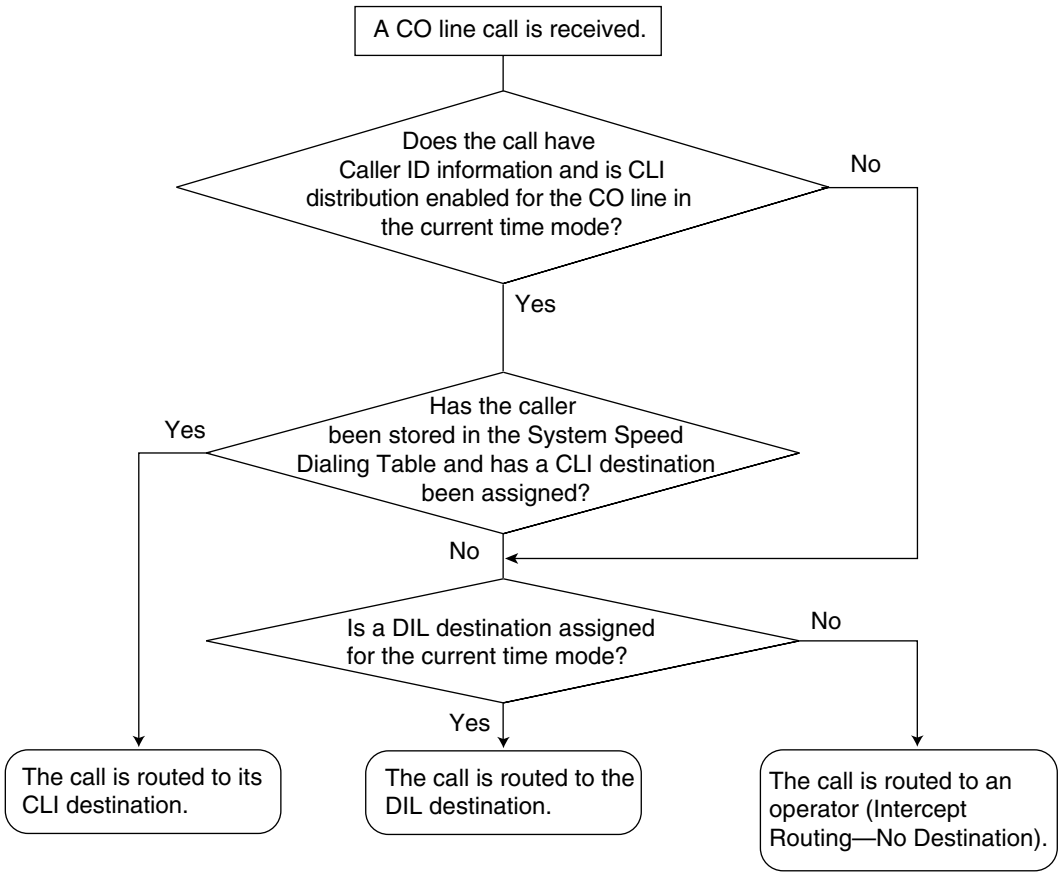
Type	Description	Details in
No Answer (IRNA)	If a called party does not answer a call within a preprogrammed time period (Intercept time), the call is redirected to a preprogrammed destination.	• 1.1.1.4 Intercept Routing
Busy	If a called party is already handling another call, the new call is redirected to a preprogrammed destination.	
DND	If a called party is in Do Not Disturb (DND) mode, the call is redirected to a preprogrammed destination.	
No Destination	If a destination is not assigned, the call is redirected to an operator.	• 1.1.1.5 Intercept Routing—No Destination

1.1.1.2 Direct In Line (DIL)

Description

Directs an incoming CO line call to a preprogrammed destination based on the CO line carrying the call. Each CO line has a destination for each time mode.

[Method Flowchart]



[Programming Example: DIL Table]

The table can be programmed for each CO line.

Port No. (CO Line No.)	CLI Distribution				DIL Destination*			
	Day	Lunch	Break	Night	Day	Lunch	Break	Night
01	Enable	Disable	Enable	Disable	101	100	101	100
02	Enable	Disable	Disable	Disable	102	100	102	100

* → DIL 1:1 Destination [450]

In this example:

If a CO line call is received on CO line 01:
In day mode: Calling Line Identification (CLI) distribution is enabled. The call is routed to its CLI destination, if assigned. If not assigned, the call is routed to the Direct In Line (DIL) destination, extension 101.
In lunch mode: CLI distribution is disabled. The call is routed to the DIL destination, extension 100.

Note

Tenant numbers and VPS trunk (CO line) group numbers (not shown here) can also be programmed in the DIL Table.

The tenant number programmed here is used only to determine the Time Table used by each CO line; selecting tenant 3 means the CO line will use Time Table 3, for example. The VPS trunk (CO line) group number set here is used to determine the Incoming Call Service and greeting message used by the Voice Processing System (VPS) during the current time mode. (→ 1.19.2 Voice Mail DPT (Digital) Integration).

Feature Guide References

1.1.1.3 Calling Line Identification (CLI) Distribution

2.2.4 Time Service

1.1.1.3 Calling Line Identification (CLI) Distribution

Description

Directs an incoming CO line call to a specific destination when the caller's telephone number matches a number in the System Speed Dialing Table. Each telephone number in this table can be assigned its own Calling Line Identification (CLI) destination.
CLI distribution allows you to direct calls from specific people to specific destinations, and has many applications. For example, you can program the PBX to automatically connect calls from priority clients to their sales representatives, or automatically connect mobile phone calls from an executive to his or her assistant.
In order for CLI distribution to function, the PBX must receive Caller ID information from the telephone company.
CLI distribution works in conjunction with Direct In Line (DIL) distribution; it can be enabled or disabled for each time mode assigned on each CO line.
When a call has Caller ID information and CLI distribution is enabled for the current time mode, CLI distribution will direct the call to its destination, ignoring preprogrammed DIL destinations.

[Programming Example: System Speed Dialing Table]

Location (System Speed Dialing No.)	System Speed Dialing Name*1	Telephone No.*2	CLI Destination
000	ABC Company	912125551234	200
001	XYZ Company	913135551234	300

*1 → System Speed Dialing Name [002]
*2 → System Speed Dialing Number [001]

In this example:

If the caller's telephone number is "1-212-555-1234":

1) The PBX looks for the number in the System Speed Dialing Table. (The CO Line Access number, "9", is disregarded.) The number is found in location 000.
2) If CLI distribution is enabled in the current time mode for the CO line carrying the call (for DIL distribution), the call is routed to its CLI destination, extension 200.

Conditions

- **If Automatic Caller ID Modification is used:**
  Store the modified number in the System Speed Dialing Table.

Feature Guide References

1.1.1.2 Direct In Line (DIL)

1.6.1.4 Speed Dialing—Personal/System

1.16.1 Caller ID

1.1.1.4 Intercept Routing

Description

Redirects an incoming CO line call to a preprogrammed destination when the original destination does not, or can not, answer the call. There are four types of Intercept Routing, described below.

Type	Description
No Answer (IRNA)	If a called party does not answer a call within a preprogrammed time period (→ Intercept Time [203]), the call is redirected to a preprogrammed intercept destination.
Busy	If a called party is already handling a call, new calls are redirected to a preprogrammed intercept destination.
DND	If a called party is in Do Not Disturb (DND) mode, the call is redirected to a preprogrammed intercept destination.
No Destination	If a call has no destination (i.e., if a destination is not assigned), the call is redirected to an operator. (→ 1.1.1.5 Intercept Routing—No Destination)

Intercept Routing redirects calls to destinations based on the original destination of the call, as shown in the table below. Different intercept destinations can be programmed for each time mode. Note that calls redirected by Intercept Routing—No Answer/Busy/DND are directed to the same destination, and that the intercept destination for Intercept Routing—No Destination is always an operator.

When the original destination is:	The Available Intercept Destination is:
• Wired Extension (PT/SLT) • PS	The destination assigned to the original extension (→ Extension Intercept Destination [604])
• ICD Group	The ICD Group Overflow destination assigned to the group (→ Destination for Overflow Time Expiration [625]) (→ 1.2.2.5 Overflow Feature)
• PS Ring Group • VM Group (DTMF/DPT) • External Pager (TAFAS)	The destination assigned to the CO line group carrying the call (→ CO Line Group Intercept Destination [470])

When the original destination is:	The Available Intercept Destination is:
• DISA	The destination assigned to the CO line group carrying the call* (→ CO Line Group Intercept Destination [470])
• Analog Remote Maintenance • Idle Line Access no. + Phone no. • CO Line Group Access no. + CO Line Group no. + Phone no.	Not assignable (Intercept Routing is not available.)

* Intercept Routing will redirect a call only if the Direct Inward System Access (DISA) line is busy. Once a call reaches the destination extension using the DISA feature, the call can be redirected to the Intercept Routing destination assigned to that extension.

[Available Intercept Destination]

The following can be used as intercept destinations:

Intercept Destination	Availability
Wired Extension (PT/SLT)	✔
PS	✔
ICD Group	✔
PS Ring Group	✔
VM Group (DTMF/DPT)	✔
External Pager (TAFAS)	✔
DISA	✔
Analog Remote Maintenance	✔
Idle Line Access no. + Phone no.	✔
CO Line Group Access no. + CO Line Group no. + Phone no.	✔

Conditions

- **If the intercept destination is busy or in DND mode and therefore cannot receive the call:**
  - **a)** When the call was intercepted via Intercept Routing—No Answer, the call is sent back to the original destination and continues to ring at the original destination until answered.
  - **b)** When the call was intercepted via Intercept Routing—Busy, the call waits at the original destination. If the extension has Call Waiting activated, the user will hear a call waiting tone.
  - **c)** When the call was intercepted via Intercept Routing—DND, the call waits at the original destination and it rings.
- **If the intercept destination can, but does not, answer the call:**
  The call continues to ring at the intercept destination until answered.

- **Intercept Routing—Busy/DND on/off**
  Intercept Routing—Busy and Intercept Routing—DND can each be enabled or disabled for the entire system, through system programming. If enabled, calls will be routed to the appropriate destination.
  If disabled, the caller will hear a ringback tone. If busy, the extension will not ring. If in DND mode, the extension will ring.
- **Idle Extension Hunting**
  If an extension is a member of an idle extension hunting group, calls to that extension will not be redirected by Intercept Routing—Busy/DND. If the extension is busy or in DND mode, calls to that extension will be redirected to the next extension in the idle extension hunting group.

Feature Guide References

1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)

1.1.1.5 Intercept Routing—No Destination

Description

Directs a CO line call to an operator when the call has no assigned destination.

Conditions

- **If an operator is not assigned:**
  The default intercept destination will be the extension connected to the lowest numbered port, on the card installed in the lowest numbered slot.
- Intercept Routing—No Destination also applies to calls from doorphones.

Feature Guide References

2.2.5 Operator Features

1.1.2 Internal Call Features

1.1.2.1 Internal Call Features—OVERVIEW

Description

There are two types of internal calls, described below.

Feature	Description	Details in
Intercom Call	A call from one extension to another.	• 1.5.3 Intercom Call
Doorphone Call	A call made from a doorphone to its preprogrammed destination, assigned to the doorphone's port, for the current time mode. (→ 2.2.4 Time Service)	• 1.15.1 Doorphone Call

[Available Destination]

The following destinations can be called internally.

Destination	When calling from	
	Extension	Doorphone
Wired Extension (PT/SLT)	✔	✔
PS	✔	✔
ICD Group	✔	✔
PS Ring Group	✔	✔
VM Group (DTMF/DPT)	✔	✔
External Pager (TAFAS)	✔	✔
DISA		
Analog Remote Maintenance	✔	
Idle Line Access no. + Phone no.	✔	✔
CO Line Group Access no. + CO Line Group no. + Phone no.	✔	✔

✔ Available

1.1.2.2 Internal Call Block

Description

Internal calls can be restricted based on the Class of Service (COS) assigned to the caller and to the called party.

[Programming Example: Internal Call Block]

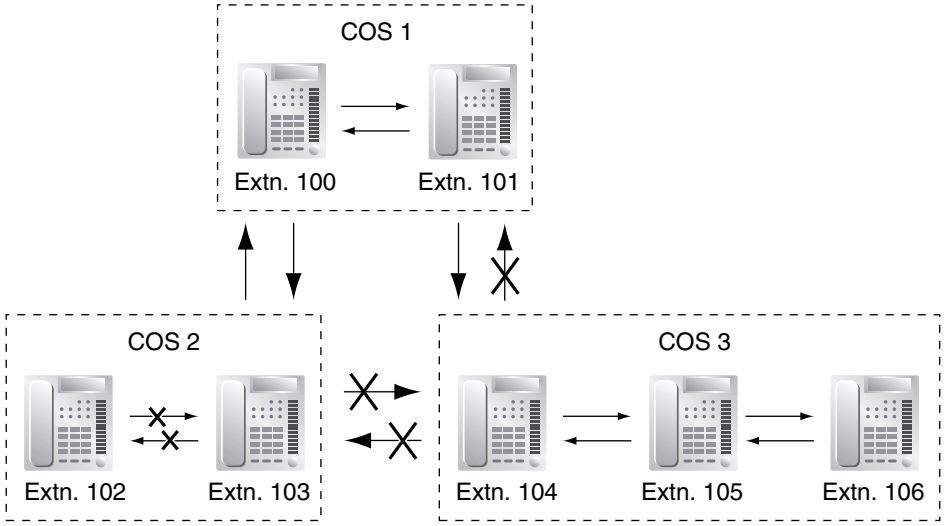
Caller	Called Party			
	COS 1	COS 2	COS 3	COS...
COS 1				
COS 2		Block	Block	Block
COS 3	Block	Block		Block

In this example:

a) COS 1 can make calls to all extensions.

b) COS 2 can make calls to COS 1 only. (COS 2 cannot make calls to COS 2.)

c) COS 3 can make calls to COS 3 only.



Conditions

- Internal Call Block also prohibits certain features, such as Walking Extension and Walking COS, from being performed between certain extensions.
- Any extension can make an Operator Call regardless of the Internal Call Block setting of its COS. (→ 2.2.5 Operator Features)
- Because each doorphone port is assigned a COS, the Internal Call Block feature can restrict certain extensions from calling certain doorphones. (→ 1.15.1 Doorphone Call)

Feature Guide References

2.2.1 Class of Service (COS)

1.1.3 Incoming Call Indication Features

1.1.3.1 Incoming Call Indication Features—OVERVIEW

Description

Extension telephones can indicate an incoming call in various ways, described below.

Indication Type	Feature	Description	Details in
Ring Tone	**Ring Tone Pattern Selection**	A telephone rings when receiving a call. A different ring tone pattern can be assigned to each incoming call type.	• 1.1.3.2 Ring Tone Pattern Selection
Voice-calling	**Alternate Receiving—Ring/Voice**	Proprietary telephone (PT) users can choose how their telephones receive intercom calls, by selecting to hear ring tones or the caller's voice.	• 1.5.3 Intercom Call

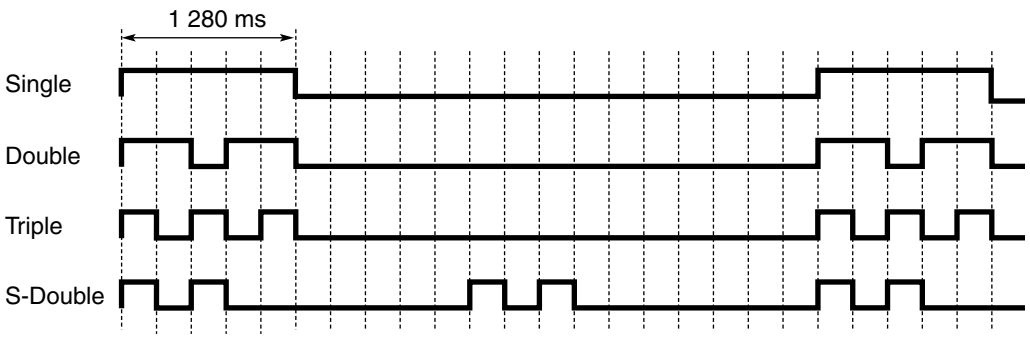
Indication Type	Feature	Description	Details in
LED	**LED Indication**	The LED indicator on a PT can indicate the status of different lines using light patterns and colors.	• 1.18.3 LED Indication
Display (Caller Information)	**Display Information**	A user's PT can show a variety of information on the display, such as the line number, the caller's name and number, the original destination if the call was forwarded, etc.	• 1.18.4 Display Information
External Pager	**Trunk Answer from Any Station (TAFAS)**	A pager (loudspeaker) can be used to indicate when a call is received, useful in noisy or large workplaces.	• 1.15.3 Trunk Answer From Any Station (TAFAS)
Tone/Voice during a Conversation	**Call Waiting**	When an extension user is on another call, the user can be alerted to a new call by a call waiting tone.	• 1.1.3.3 Call Waiting

1.1.3.2 Ring Tone Pattern Selection

Description

A different ring tone pattern can be assigned to each incoming call type, based on the Ring Tone Pattern Table of the extension.
There are several programmable Ring Tone Pattern Tables. Each table designates a ring tone for intercom calls, CO line calls, doorphone calls, etc., and each extension can choose its preferred ring tone pattern by selecting a table.

[Ring Tone Patterns]



[Programming Example: Ring Tone Pattern Table]

Table No.	Intercom Call/Hold Recall	CO Line Call/Hold Recall			Doorphone Call			Timed Reminder	Call Back	LCS
		TRG1	TRG2	TRG...	Port 1	Port 2	Port...			
1	Double	Single			Single					
2	Single	Double			Double					

1.1.3.3 Call Waiting

Description

A busy extension user can be alerted to a new call by a tone heard through the handset or built-in speaker. The busy extension user can then answer the second call either by disconnecting the current call or placing it on hold.
Call Waiting can be enabled or disabled for intercom calls and CO line calls separately.
Note that doorphone calls and CO line calls transferred from another extension or received via an incoming call distribution group are treated as CO line calls.

This feature is also known as Busy Station Signaling (BSS).

Conditions

- An extension in a VM group (DPT/DTMF) cannot receive a call waiting tone. This is to prevent call waiting tones from interrupting the recording of voice mail messages.
- **Data Line Security**
  When an extension user activates Data Line Security, Call Waiting is turned off. (→ 1.10.4 Data Line Security)
- **Call Waiting Tone**
  A proprietary telephone (PT) user can select the preferred call waiting tone through personal programming (Call Waiting Tone Type Selection).
- **Caller Information**
  When an extension receives a call waiting tone, the caller's information will flash on the display for five seconds at 15-second intervals.
- **Call Waiting from the Telephone Company**
  Besides the Call Waiting feature provided by the PBX, you can also subscribe to your telephone company's Call Waiting service and receive call waiting tones from the telephone company's analog lines. If you do, this external call waiting tone will alert an extension user of another incoming CO line call that is waiting. The user can answer the second call by disconnecting the current call or placing it on hold.
  For details, consult your telephone company.
  Call Waiting Caller ID (Visual Caller ID)
  When using the call waiting tone supplied by the telephone company over analog lines, the caller's telephone number will flash on the display twice for five seconds at 15-second intervals.

Feature Guide References

1.7.4 Call Waiting Tone

User Manual References

User Manual

1.4.4 Call Waiting

3.1.2 Settings on the Programming Mode

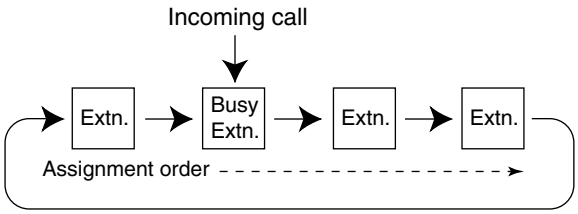
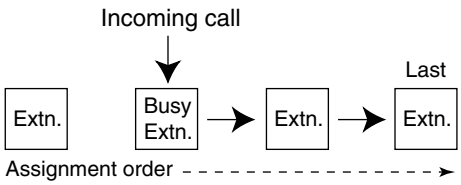
1.2 Receiving Group Features

1.2.1 Idle Extension Hunting

Description

If a called extension is busy or in Do Not Disturb (DND) mode, Idle Extension Hunting redirects the call to an idle member of the same idle extension hunting group, which can be programmed through system programming (→ Idle Extension Hunting Group Member [681]). Idle extensions are automatically searched for according to a preprogrammed hunting type (→ Idle Extension Hunting Type [680]).

This feature is also known as Station Hunting.

Type	Description
Circular Hunting	An idle extension is searched for in a circular fashion in the order in which the extensions were assigned to the group. 
Terminated Hunting	An idle extension is searched for in the order in which the extensions were assigned to the group, until reaching the last extension assigned. 

Assignment order: Idle extensions are searched for in the order in which the extensions were assigned as members of the group through system programming. For example, if a call is directed to the fifth extension assigned to the group, hunting begins with the sixth extension.

Conditions

- **Idle Extension Hunting applies to:**
  Intercom, CO line, and doorphone calls made to a single extension.
- An extension can belong to only one idle extension hunting group.
- **If all the searched extensions are busy:**
  The PBX redirects the call to an overflow destination which can be assigned for each idle extension hunting group and each time mode.

[Available Destination]

The following can be used as overflow destinations assigned to an idle extension hunting group.

Destination	Availability
Wired Extension (PT/SLT)	✔
PS	✔
ICD Group	✔
PS Ring Group	✔
VM Group (DTMF/DPT)	✔
External Pager (TAFAS)	✔
DISA	✔
Analog Remote Maintenance	✔
Idle Line Access no. + Phone no.	✔
CO Line Group Access no. + CO Line Group no. + Phone no.	✔

- **FWD/DND Mode**
  While searching for an idle extension, any extension which has set FWD—All Calls or DND will be skipped.

Feature Guide References

1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)

1.2.2 Incoming Call Distribution (ICD) Group Features

1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Description

An incoming call distribution (ICD) group is a group of extensions which is assigned a floating extension number. This floating extension number allows extensions in the group to answer calls directed to the group, as opposed to calls directed to just a single extension. ICD groups and their member extensions can be programmed in a variety of ways to handle incoming calls as desired.

The number of agents (extensions which can handle calls at the same time) is programmable for each ICD group, and each group can be assigned a distribution method used to distribute incoming calls to its agents. Once all agents are busy, additional calls can be placed in a queue as they are received. When the number of calls in the queue reaches a specified limit, they can be redirected to another destination.

Extensions are assigned as members of an ICD group through system programming (→ ICD

Group Member [620]), and can belong to more than one group.

[Programming Example: ICD Group]

A			B	C	D	E	F					
Group No.	Floating Extn. No.*1	Group Name*2	Distribution Method*3	Max. No. of Busy Extensions (No. of Agents)*4	Queuing Call Capacity*5	Hurry-up Level*6	Overflow Time*7	Overflow Destination*8				Tenant No.*9
								Day	Lunch	Break	Night	
1	290	Sales	Ring	3	5	3	60	100	103	100	100	1
2	291	Engineering	UCD	Max.	11	8	90	200	203	200	200	5
3												

*1 → ICD Group Floating Extension Number [622]
*2 → ICD Group Name [623]
*3 → ICD Group Distribution Method [624]
*4 → Maximum Number of Agents [632]
*5 → Queuing Call Capacity [628]
*6 → Queuing Hurry-up Level [629]
*7 → Overflow Time [626]
*8 → Destination for Overflow Time Expiration [625]/Destination When All Busy [627]
*9 The tenant number programmed here is used to determine:

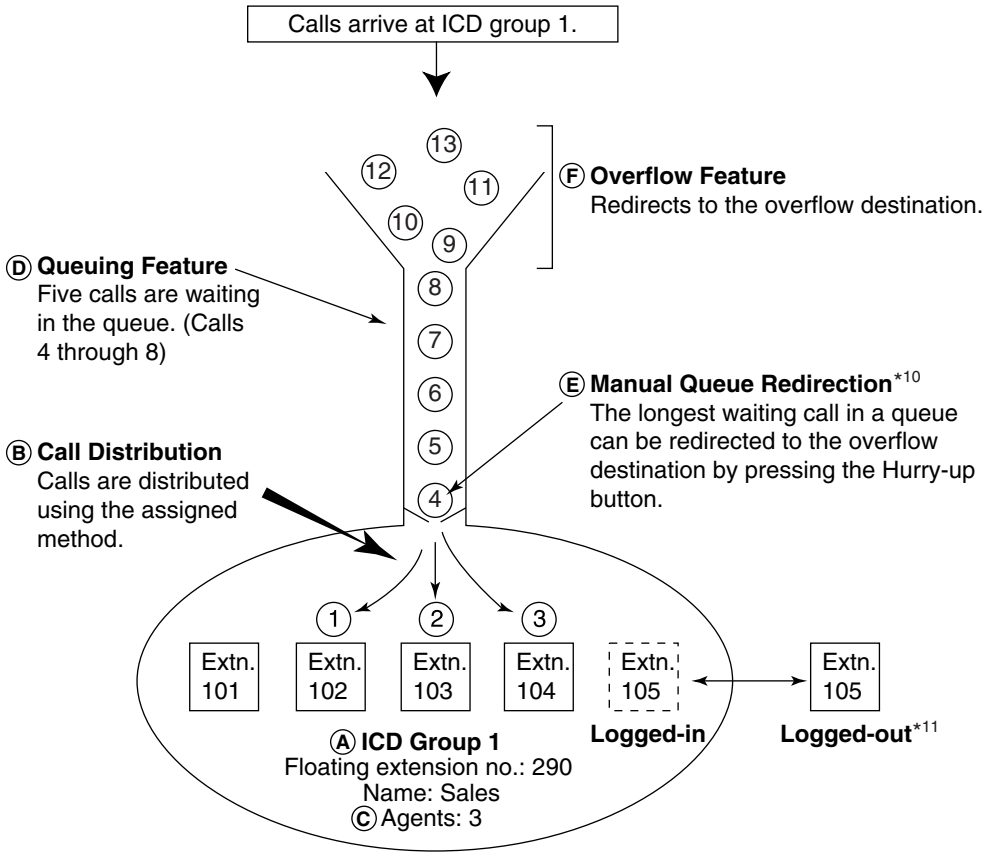
a) The audio source for Music on Hold

b) The Time Table used by each ICD group. (Selecting tenant 3 means the group will use Time Table 3, for example.)

Items A through F in the programming example above are described in the following diagram.

[Example of ICD Group 1 (Above)]

A through F below indicate settings shown above in "Programming Example: ICD Group". The numbers found in circles below indicate calls and the order in which they arrived.



*10 → 1.2.2.3 Queuing Feature

*11 → 1.2.2.6 Log-in/Log-out

1. Group Call Distribution [→ 1.2.2.2 Group Call Distribution]

Incoming calls are distributed to agents of an ICD group using one of three methods, described below.

Distribution Method	Description
Uniform Call Distribution (UCD)	Each call is distributed to the extension following the last extension to answer a call, ensuring calls are distributed evenly.
Priority Hunting	An idle extension is searched for in a preprogrammed order.
Ring	All extensions in the ICD group ring simultaneously.

2. Queuing Feature [→ 1.2.2.3 Queuing Feature]

If a preprogrammed number of extensions in an ICD group are busy, a preprogrammed number of additional calls can be placed in a queue as they are received.

While calls are waiting in the queue, an outgoing message (OGM) or Music on Hold can

be played for waiting callers.

3. **VIP Call** [→ 1.2.2.4 VIP Call]
   ICD groups can be assigned a priority, allowing calls in higher-priority groups to be answered before calls in lower-priority groups.

4. **Overflow Feature** [→ 1.2.2.5 Overflow Feature]
   When calls cannot be answered or queued, they can be redirected to a preprogrammed destination via ICD Group Overflow.

5. **ICD Group Control Features**

Feature	Description	Details in
Log-in/Log-out	Member extensions can join (log-in) the group to handle calls, or leave (log-out) the group to take a break. Wrap-up time can be given to users after each call, allowing them time to finish their paperwork before being eligible to receive a new call.	• 1.2.2.6 Log-in/Log-out

Conditions

- An extension can belong to more than one ICD group.
- **G-DN button**
  Normally incoming calls will arrive on a CO button or on the INTERCOM button of an extension user's telephone. When a call arrives, a button will light accordingly. In this situation however, it is difficult to tell whether an incoming call is directed to the individual user, or to an ICD group the user belongs to.
  Using flexible buttons, extension users can create a Group Directory Number (G-DN) button for each ICD group they are a member of. These buttons can then be used to receive incoming calls to the corresponding group, indicate the user's Log-in/Log-out status, etc.
  An extension can have more than one G-DN button for the same ICD group. (**Multiple G-DN**). If every G-DN button of the same group is occupied on all agents' telephones, the next incoming call will be held in a queue or will overflow.
  Even though an extension can have a G-DN button for an ICD group that the extension is not a member of, the G-DN button will not receive calls to that group and will have no function.
- **Group FWD**
  The Call Forwarding (FWD) feature can be programmed for each ICD group, allowing all calls to that group to be forwarded to a specific destination. The forward destination can be an outside party if the COS assigned to the group allows it.
- **Internal Call Block**
  Internal calls from an extension to an ICD group can be restricted based on the COS assigned to the extension and the group.

Feature Guide References

1.3.1.2 Call Forwarding (FWD)

1.18.2 Flexible Buttons

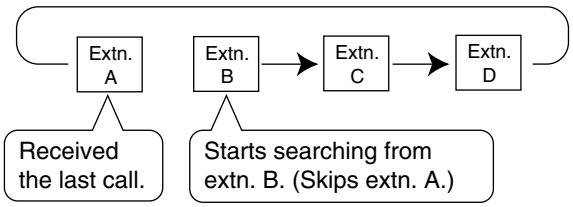
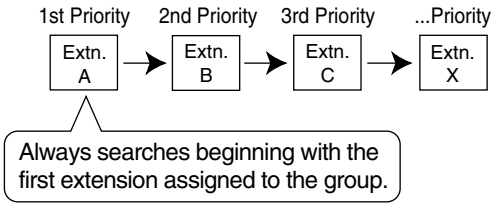
1.2.2.2 Group Call Distribution

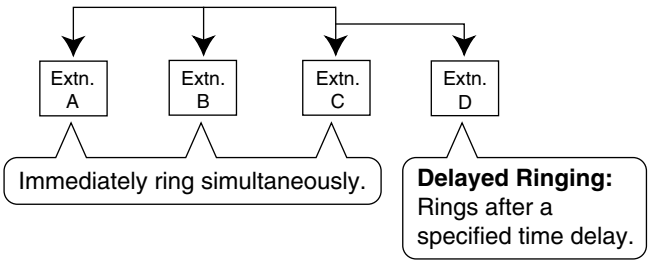
Description

Each incoming call distribution (ICD) group has a specified number of extensions which can handle calls at the same time. (→ Maximum Number of Agents [632]) This allows you to devote some of your staff to answering calls (call agents) while others carry on with their work. As calls are directed to the group, they are distributed to extensions using the desired distribution method until the preprogrammed number of agents are busy with calls. Once this number is exceeded, new calls to the group are placed in a queue (→ 1.2.2.3 Queuing Feature).

1. Distribution Method

Each ICD group can use a different method of distributing calls to its member extensions (→ ICD Group Distribution Method [624]), described below.

Distribution Method	Description
Uniform Call Distribution (UCD)	Available extensions are searched for in the order in which they were assigned to the group, starting with the extension assigned after the last extension to answer a call. Searching is circular, i.e., if a call is answered by the last extension assigned to the group, the next call will start searching for an available extension beginning with the first extension. 
Priority Hunting	Available extensions are searched for in the order in which they were assigned to the group. 

Distribution Method	Description
Ring	All extensions in the group ring simultaneously. **Delayed Ringing** Each extension can be programmed for Delayed Ringing (→ ICD Group Delayed Ringing [621]), which allows extensions to be alerted to calls by flashing buttons only. Each extension can be programmed to not ring at all, or to ring only after a preprogrammed time has passed. Received calls can be answered even if they are not ringing. 

2. Call Waiting for ICD Group (Group Call Waiting)

If all agents in a group are busy when a call arrives they can receive a call waiting tone. The Group Call Waiting mode selected through system programming determines how the call waiting tone is distributed to the agents.

Note

Each member extension must turn on Call Waiting for his or her extension in order to receive a group call waiting tone. (→ 1.1.3.3 Call Waiting)

[How the Group Call Waiting Feature Works]

The selected Group Call Waiting mode and Group Call Distribution method determine how call waiting tones are distributed to agents of a group.

When Group Call Waiting Mode is:	And Group Call Distribution Method is:	Group Call Waiting Distribution will be:	Compatible Telephone
Distribution	UCD	UCD	PT/PS with idle G-DN button
	Priority Hunting	Priority Hunting	
	Ring	Not available*	Any telephone
All	Any of the above	Ring (All busy extensions hear a call waiting tone)	

* Incoming calls are placed in the queue upon arrival. Member extensions will not hear call waiting tones.

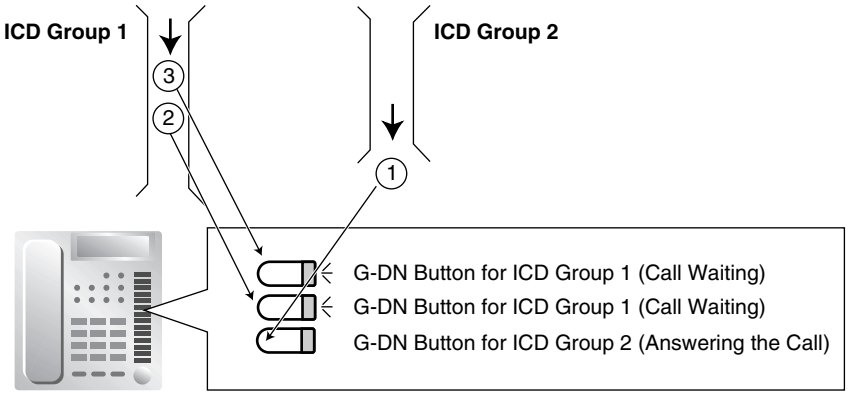
If Group Call Waiting mode is "Distribution" and Group Call Distribution method is "Priority Hunting", the extension with priority will hear a call waiting tone.
If Group Call Waiting mode is "All", every extension will hear a call waiting tone, no matter which Group Call Distribution method is programmed.

[G-DN Button for Group Call Waiting]

Group Call Waiting works differently depending on the assigned Group Call Waiting Distribution method, as follows:

a) **Ring:** All busy extensions hear a call waiting tone simultaneously for the first incoming call, even if they do not have a Group Directory Number (G-DN) button. Additional calls are placed in the queue upon arrival.

b) **UCD/Priority Hunting:** A call waiting tone is heard and an idle G-DN button flashes on an agent's telephone, according to the group's distribution method (UCD or Priority Hunting). As calls continue to arrive, they will be received on G-DN buttons until every G-DN button on every agent's telephone is occupied, after which additional calls will be placed in the queue, as shown in the figure below. Note that if an extension's G-DN buttons for a certain group are completely occupied, the Group Call Waiting for the group will not work at that extension.



3. No Reply Redirection (UCD or Priority Hunting Method)

If a call received at an agent's extension is not answered within a preprogrammed time period (No Answer time), the call will be redirected to the next agent according to the group's distribution method. If there is no available agent, the call waits until one becomes available.

Conditions

- **FWD/DND Extension**
  Although members of an ICD group can set Call Forwarding (FWD) or Do Not Disturb (DND) for their extensions, each group can be programmed to ignore these settings, in which case the extensions will ring. (→ 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND))
- Group Call Waiting cannot be used simultaneously with VIP Call (→ 1.2.2.4 VIP Call) and/or Wrap-up (→ 1.2.2.6 Log-in/Log-out), as Call Waiting must be turned off in order for VIP Call or Wrap-up to function.

1.2.2.3 Queuing Feature

Description

When a preprogrammed number of extensions (→ Maximum Number of Agents [632]) in an incoming call distribution (ICD) group are busy, additional calls can be placed in a queue as they arrive. Once a preprogrammed number of calls are waiting in the queue (→ Queuing Call Capacity [628]), additional calls will be directed to the group's overflow destination (→ 1.2.2.5 Overflow Feature). While calls are waiting in the queue, the calls are handled according to a Queuing Time Table (→ Queuing Time Table [630]), which can be assigned for each time mode (→ 2.2.4 Time Service).

Each Queuing Time Table consists of up to 16 sequences. Each sequence consists of a command which plays audio for the caller or controls how the call is routed, and once one sequence has been performed, the next sequence is performed if the caller is still waiting. The commands which can be selected for each sequence are explained below.

[Queuing Time Table Commands]

Command	Description	Condition
OGM	An outgoing message (OGM) is played for the caller.	Once the message has been played, the next sequence is activated.
Wait	The caller waits for the specified time while hearing a ringback tone or Music on Hold.	Music on Hold is played for the caller for the specified amount of time. If an OGM command has not been programmed for a sequence preceding the Wait command, the caller will hear a ringback tone for the specified amount of time.
Sequence	Jumps to a specified sequence. Used to create a loop within the table.	None
Overflow	Directs the call to the overflow destination.	None
Disconnect	Disconnects the call.	None
None	Skips to the next sequence.	If assigned to sequence 01, the Queuing Time Table will be disabled.

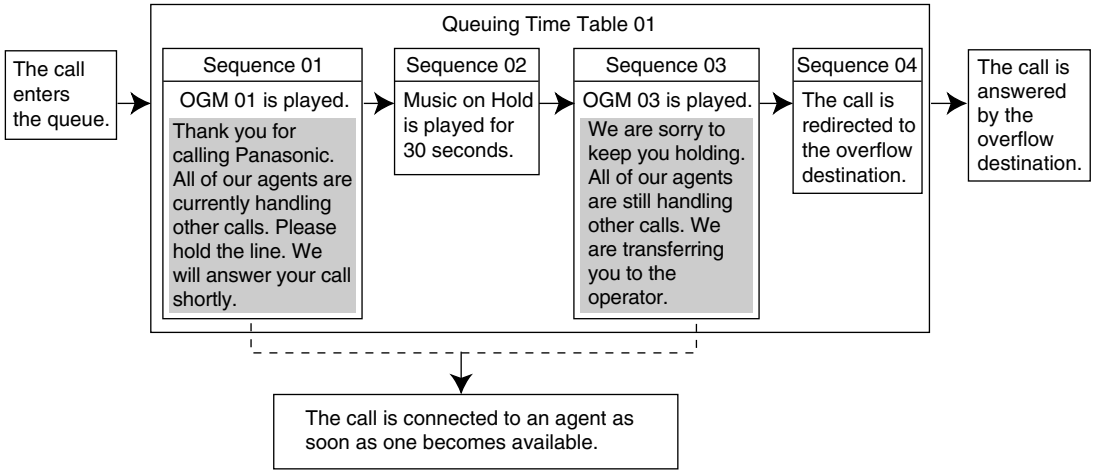
[Programming Example: Queuing Time Table]

Queuing Time Table No.	Sequence*1					
	Sequence 01	Sequence 02	Sequence 03	Sequence 04	...	Sequence 16*2
01	OGM 01	Wait 30 s	OGM 03	Overflow		
02	Wait 20 s	OGM 08	Sequence 01			

*1 → Sequences in Queuing Time Table [631]

*2 A call will always be disconnected if it is not answered by the end of Sequence 16.

Example of Queuing Time Table 01 (Above)



Conditions

- If a call is transferred to an ICD group and is handled by the Queuing Time Table, Transfer Recall will not occur even if the Transfer Recall time expires (→ 1.11.1 Call Transfer).
- **Manual Queue Redirection**
  The call which has waited the longest in the queue can be redirected manually to the overflow destination by pressing the Hurry-up button. Note that if a call is already ringing at an extension, it cannot be overflowed.
  This feature is also known as Hurry-up Transfer.
  Hurry-up Button
  Any flexible button can be customized as the Hurry-up button. This button can be used for Manual Queue Redirection, and will also indicate the status of the group's queue using different light patterns, as described below.

Light Pattern	Calls in the Waiting Queue
Off	No queued calls
Red on	Calls are waiting in the queue
Rapid red flashing	The number of calls in the queue has exceeded the Queuing Hurry-up level (→ Queuing Hurry-up Level [629])

Feature Guide References

1.2.2.5 Overflow Feature

1.18.2 Flexible Buttons

User Manual References

User Manual

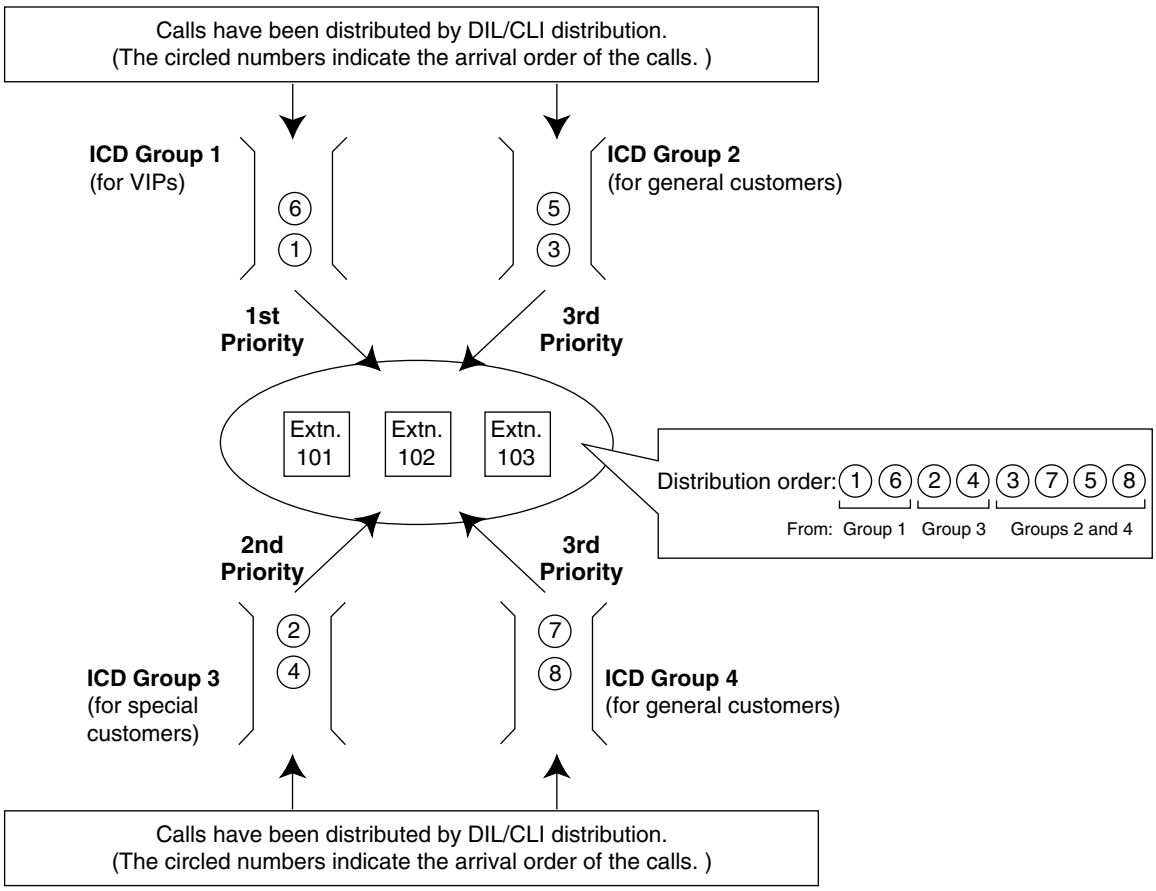
1.8.2 Manual Queue Redirection

1.2.2.4 VIP Call

Description

Incoming call distribution (ICD) group can be assigned a priority, allowing calls in higher-priority groups (VIP calls) to be answered before calls in lower-priority groups.
To use VIP Call mode, it must first be enabled for at least one ICD group. Once it has been enabled, the priority of each group's calls is determined by its group number (lower-numbered groups have higher priority) and this priority affects which calls get directed to agents first. When an extension belongs to more than one group and it becomes idle, the next call it receives will be from the group with the highest priority of the groups it belongs to.
VIP Call mode is only useful in situations where extensions belong to multiple ICD groups. Also note that when VIP Call mode is disabled for two or more groups, calls to these groups are distributed evenly in arrival order.

In the example below, the three extensions are members of ICD groups 1 through 4. VIP Call mode is enabled for groups 1 and 3. Because group 1 is a lower-numbered group than 3, its calls will be answered first. Group 3 calls will be answered next, and groups 2 and 4, which do not have VIP Call mode enabled, are treated as equals. Calls from these two groups will be answered in arrival order after calls received by groups 1 and 3 are answered.



Conditions

- Group Call Waiting (→ 1.2.2.2 Group Call Distribution) cannot be used simultaneously with VIP Call. Even if VIP Call mode is enabled, it will not function when group extensions

have turned on Call Waiting. Call Waiting must be turned off on all member extensions in order for VIP Call to function.

1.2.2.5 Overflow Feature

Description

When all agents in an incoming call distribution (ICD) group are handling calls, additional calls can be directed to a queue. When the queue is unable to accommodate additional calls (→ Queuing Call Capacity [628]), its calls can be handled by the Overflow feature. This feature can direct calls to an overflow destination. Overflow destinations can be assigned for each ICD group and each time mode.

Overflow Feature	Description	Works When:	Conditions
ICD Group Overflow	Redirects calls to a different overflow destination depending on the reason for the overflow. A destination can be assigned for each time mode.	**a)** There is no space in the queue. **b)** A Queuing Time Table is not assigned and there are no extensions logged-in.	A destination must be assigned. (→ Destination When All Busy [627])
		c) An Overflow command is assigned to the Queuing Time Table. **d)** The Overflow time (Overflow time [626]) expires. **e)** Manual Queue Redirection is performed. (Pressing the Hurry-up button.)	A destination must be assigned. (→ Destination for Overflow Time Expiration [625])

[Available Destination]

The following can be used as overflow destinations.

Destination	Availability
Wired Extension (PT/SLT)	✔
PS	✔
ICD Group	✔
PS Ring Group	✔
VM Group (DTMF/DPT)	✔
External Pager (TAFAS)	✔
DISA	✔
Analog Remote Maintenance	✔
Idle Line Access no. + Phone no.	✔

Destination	Availability
CO Line Group Access no. + CO Line Group no. + Phone no.	✔

Conditions

- **If the Overflow time expires, and the overflow destination is unavailable:**
  The line is disconnected either when the caller has already heard an outgoing message (OGM) while waiting in a queue, or when the call reached an ICD group using Direct Inward System Access (DISA) (→ 1.15.6 Direct Inward System Access (DISA)).

Feature Guide References

1.2.2.3 Queuing Feature

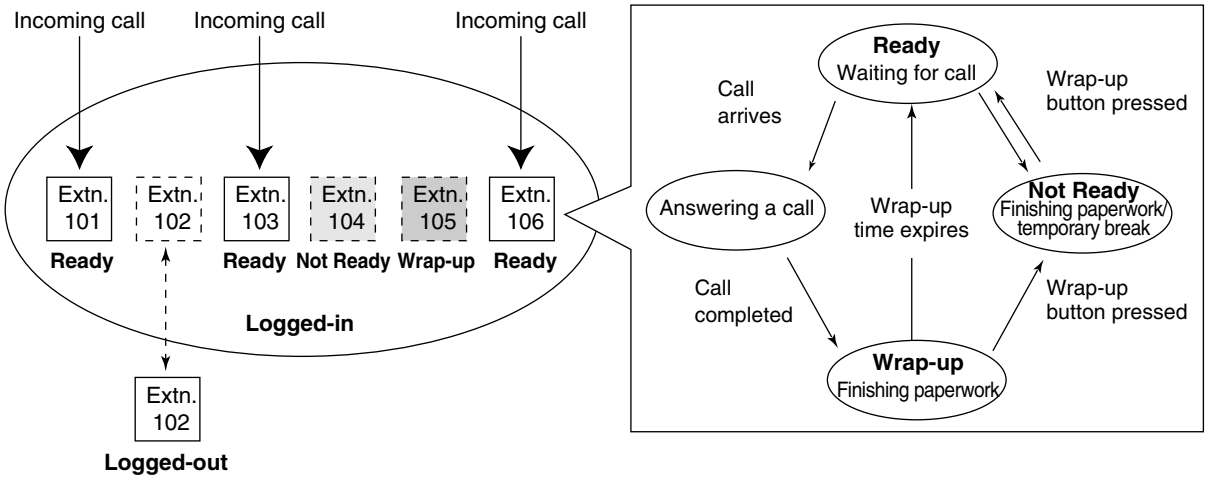
1.2.2.6 Log-in/Log-out

Description

Members of an incoming call distribution (ICD) group can join (log-in) or leave (log-out) groups manually. Group members can log-in at the beginning of a work shift when they are ready to answer calls, and log-out at the end of the day.

Wrap-up
While logged-in, ICD group members can be allotted a specified amount of time after completing a call (Wrap-up time) during which new calls will not be received by their extensions, allowing them to finish any necessary paperwork before being eligible to receive new calls. When Wrap-up time expires, new calls can be received at their extensions. Extension users can also customize a flexible button to be used as the Wrap-up button, which allows users to extend their Wrap-up time or make themselves temporarily unavailable (Not Ready). Pressing this button again will return a user to Ready status.

[Example of Log-in, Log-out, Wrap-up, Not Ready, Ready]



Conditions

- Generally, there should always be at least one extension in a group that is logged-in, however, all extensions can log-out if permitted through system programming.
- **Log-in/Log-out Button**
  Any flexible button can be customized as a Log-in/Log-out button. Three types of buttons can be programmed, as explained below.

Log-in/Log-out Button Type	Usage	Programming	Light Pattern	
			Red on	Off
Group not specified	Log-in/Log-out button is pressed, followed by the floating extension number or Group Directory Number (G-DN) button of the desired group. Press ✳ to log-in/log-out of all groups.	A flexible button must be customized as the Log-in/Log-out button.	—	—
Group is specified	Log-in/Log-out button is pressed. The preprogrammed group is logged-in to/logged-out from.	The desired group's floating extension number must be programmed when creating the Log-in/Log-out button.	When logged-out	When logged-in
All groups	Log-in/Log-out button is pressed. All groups the user belongs to are logged-in to/ logged-out from.	✳ must be entered when creating the Log-in/Log-out button.	When logged-out	When logged-in

- If a Log-in/Log-out button and a G-DN button are created for the same group, the G-DN button will also indicate the Log-in/Log-out status of the group (→ 1.18.3 LED Indication).
- **Wrap-up Button**
  Any flexible button can be customized as the Wrap-up button. It shows the current status as follows:

Light pattern	Status
Slow red flashing	Wrap-up
Red on	Not Ready
Off	Ready

- Group Call Waiting cannot be used simultaneously with Wrap-up. This is because when an extension user completes a call with Call Waiting, the extension starts to ring immediately—the user is not given any Wrap-up time. Call Waiting must be turned off on each extension that wants to use Wrap-up feature.
- When a portable station (PS) in Wireless XDP Parallel Mode completes a call, neither the PS nor its wired telephone can have Wrap-up time. (→ 1.20.3 Wireless XDP Parallel Mode)

- **Automatic Log-out**
  An extension may be logged-out from a group automatically after the preprogrammed number of calls go unanswered. This allows extensions to be logged-out automatically in the event users leave their desks and forget to log out.
  The number of consecutive unanswered calls before Automatic Log-out is applied can be programmed for each ICD group. If an extension is a member of more than one ICD group, all calls unanswered by the extension are tallied. Once an extension has been automatically logged out, the user can log back in manually.
  Automatic Log-out does not apply to extensions in an ICD group using Ring distribution.
- **Log-in/Log-out Information on SMDR**
  Log-in/Log-out information can be logged by Station Message Detail Recording (SMDR). (→ 1.21.1 Station Message Detail Recording (SMDR))

Feature Guide References

1.18.2 Flexible Buttons

1.2.2.2 Group Call Distribution

User Manual References

User Manual

1.8.1 Log-in/Log-out, Wrap-up

1.3 Call Forwarding (FWD)/Do Not Disturb (DND) Features

1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)

1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW

Description

When an extension user cannot answer calls (on a call, out of the office, etc.), it is possible to forward or refuse the calls using the following features:

1) Call Forwarding (FWD)

2) Do Not Disturb (DND)

1. **FWD**
   Extensions and incoming call distribution (ICD) groups can forward their incoming calls to preset destinations. (→ 1.3.1.2 Call Forwarding (FWD))

2. **DND**
   An extension user can send the tone to let the caller know he or she is not available. (→ 1.3.1.3 Do Not Disturb (DND))

Conditions

- **FWD and DND features apply to:**
  Intercom calls (including doorphone calls), and CO line calls (including a call from an extension that placed a CO line call on a consultation hold (→ 1.12.5 Consultation Hold).)
- **FWD/DND Button**
  Both the FWD and DND features for an extension can be customized on a single flexible button.
  Only one of these features can be active at a time.
  Multiple types of FWD/DND buttons can be customized on an extension.
- **Group FWD Button**
  The FWD feature for an ICD group can be customized on a flexible button. Multiple types of Group FWD buttons can be customized on an extension.

  [FWD/DND Button and Group FWD Button Types]

Type		Description
FWD/DND for Extension	FWD/DND—Internal	Works for incoming intercom calls
	FWD/DND—External	Works for incoming CO line calls
	FWD/DND—Both	Works for all incoming calls

Type		Description
FWD for ICD Group	Group FWD—Internal	Works for incoming intercom calls
	Group FWD—External	Works for incoming CO line calls
	Group FWD—Both	Works for all incoming calls

[Button Status—FWD/DND Button]
A FWD/DND button shows the current status as follows:

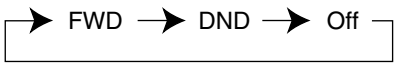
Light Pattern	Status (default)
Red on	DND on
Slow red flashing	FWD on
Off	FWD/DND off

The status indicated by the "on" and "flashing" patterns can be changed through system programming.

[Button Status—Group FWD Button]
A Group FWD button shows the current status as follows:

Light Pattern	Status (default)
Slow red flashing	FWD on
Off	FWD off

[Mode Change]
When either the FWD or DND feature is assigned, pressing the FWD/DND button changes the on/off setting alternately. When both features are assigned simultaneously, pressing the button changes the settings as follows:



Note

Pressing the FWD/DND button (fixed button) in idle status will produce one of the following results, selected through system programming:

When in FWD/DND Setting Mode:
Pressing the button will enter personal programming mode for the FWD/DND setting.

When in FWD/DND Cycle Switch Mode:
Pressing the button will cycle the settings as shown above in [Mode Change].

A FWD/DND button customized on a flexible button is always in FWD/DND Cycle Switch mode, and the mode cannot be changed.

- When intercom calls are set to be handled differently from CO line calls (forwarding type, forward destination, DND on/off), we recommend establishing separate buttons for both FWD/DND—Internal and FWD/DND—External, and/or Group FWD—Internal and Group FWD—External, because:

a) the light patterns of the FWD/DND—Both button (including FWD/DND button [fixed button]) and the Group FWD—Both button will indicate the setting for either CO line

calls or intercom calls, but not both.

Note

The FWD and DND icons on a PS display reflect the settings for CO line calls only.

b) pressing the FWD/DND—Both button (including FWD/DND button [fixed button]) or the Group FWD—Both button will not change the FWD or DND mode for intercom calls and CO line calls separately.

Feature Guide References

1.18.1 Fixed Buttons

1.18.2 Flexible Buttons

User Manual References

User Manual

3.1.2 Settings on the Programming Mode

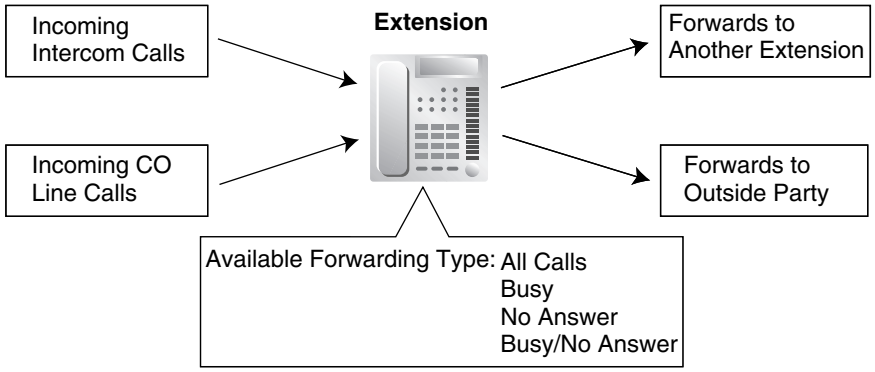
1.3.1.2 Call Forwarding (FWD)

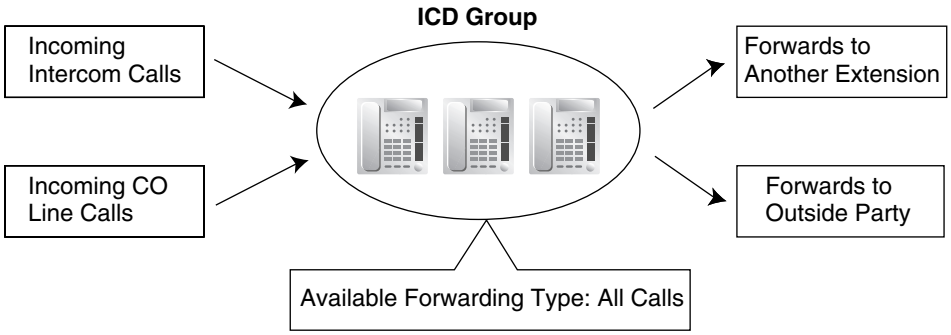
Description

Extensions and incoming call distribution (ICD) groups can forward their calls to preset destinations. There are four Call Forwarding (FWD) modes, described below.

Mode	Description
All Calls	All calls are forwarded. **Follow Me:** When an extension user fails to set this feature before leaving the desk, this feature can be set from the destination extension.
Busy	Calls are forwarded when the extension user's line is busy.
No Answer	Calls are forwarded when the extension user does not answer within a preprogrammed time (→ Call Forwarding—No Answer Time [605]).
Busy/No Answer	Calls are forwarded when the extension user's line is busy or the user does not answer within a preprogrammed time (→ Call Forwarding—No Answer Time [605]).

Depending on the type of incoming call (intercom or CO line call), it is possible to set different destination for each.





[Available Destination]

Destination	Availability	Condition for Original Extension/ICD Group
Wired Extension (PT/SLT)	✔	Only available when FWD to extension is allowed through Class of Service (COS) programming.*
PS	✔	
ICD Group	✔	
PS Ring Group	✔	–
VM Group (DTMF/DPT)	✔	–
External Pager (TAFAS)	✔	–
DISA	✔	Only available for incoming CO line calls. Incoming intercom and doorphone calls cannot be forwarded to a Direct Inward System Access (DISA) floating extension number.
Analog Remote Maintenance	✔	–
Idle Line Access no. + Phone no.	✔	Only available when FWD to CO line is allowed through COS programming.
CO Line Group Access no. + CO Line Group no. + Phone no.	✔	

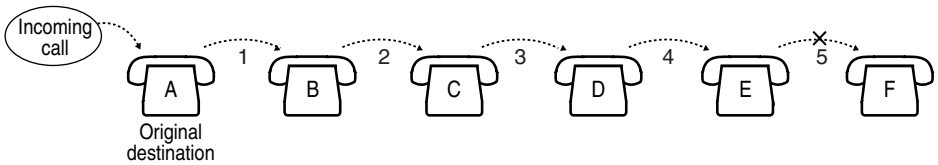
* If an extension user cannot call certain extensions on a COS basis (→ 1.1.2.2 Internal Call Block), the extension user cannot forward his or her calls to those extensions either.

Conditions

[General]

- **FWD for CO Line Calls/Intercom Calls**
  The FWD feature can be set for CO line calls, for intercom calls, or for both of them by the extension user.
- **FWD from ICD Group (Group FWD)**
  COS programming determines the ICD groups that can use this feature.
- **FWD to CO Line**
  COS programming determines the extensions or ICD groups that can forward calls to an outside party (→ Call Forwarding to CO Line [504]).
  The original extension's Toll Restriction (TRS) and Automatic Route Selection (ARS) still apply to the forwarded call. (→ 1.8.1 Toll Restriction (TRS), → 1.9.1 Automatic Route Selection (ARS))
- **CO Line Call Duration**
  If a call between an extension user and an outside party, or between two outside parties is established, the call duration can be restricted by a system timer (→ Extension-to-CO Line Call Duration [472], → CO-to-CO Line Call Duration [473]). If the timer expires, the line will be disconnected. (→ 1.10.7 CO Line Call Limitation)
- **Multiple FWD**
  Calls can be forwarded up to four times. The following forwarding features are counted as Multiple FWD:

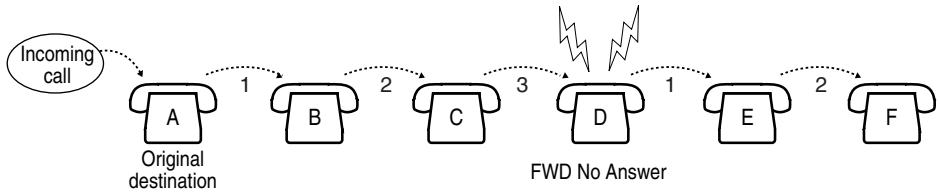
  – FWD—Busy or Busy/No Answer (in case a destination extension is busy), or All Calls
  – Idle Extension Hunting—Overflow
  – Intercept Routing—Busy/DND (in case a destination extension is busy or in DND mode)
  – ICD Group Overflow



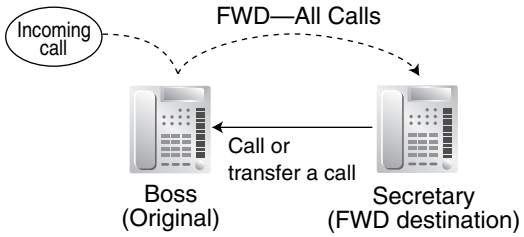
In the above illustration, forwarding stops at extension E. However, forwarding can go farther in the following cases:

– If a destination extension rings, and then the call is redirected to the forward destination by the FWD—No Answer or Busy/No Answer feature.
– If a destination extension rings, and then the call is redirected to the intercept destination by the Intercept Routing—No Answer feature.
– If a call waits in a queue of an ICD group, and then the call is redirected to the overflow destination by the Queuing Time Table. (→ 1.2.2.3 Queuing Feature)

In the above cases, the forwarding counters reset to zero, and calls can be forwarded up to four times again from the applicable extension that occurred in the case above.



- **Boss & Secretary feature**
  It is possible to call the original extension from the destination extension regardless of the forward setting.



- **Message Waiting**
  When a call is forwarded, Message Waiting information is not forwarded. The Message button light turns on at the originally called extension. (→ 1.17.1 Message Waiting)
- **Idle Extension Hunting**
  Idle Extension Hunting applies to calls forwarded to a busy extension in an idle extension hunting group.

[All Calls and Busy]

- If the forward destination is not available to answer a call, this feature is canceled and the original destination will ring for the following types of calls:
  - Doorphone call
  - CO Line calls

[No Answer and Busy/No Answer]

- **No Answer Time**
  The number of rings before the call is forwarded is programmable for each extension (→ Call Forwarding—No Answer Time [605]).

[Follow Me]

- This feature is only available when "`Deny Remote Operation by Other Extension`" is disabled for the original extension's COS.

Feature Guide References

1.1.1.4 Intercept Routing
1.2.1 Idle Extension Hunting
1.2.2.5 Overflow Feature

User Manual References

User Manual

1.5.1 Call Forwarding

1.3.1.3 Do Not Disturb (DND)

Description

An extension user can make use of the Do Not Disturb (DND) feature. If this feature is set, calls will not arrive at the extension, but arrive at other extension by using the Idle Extension Hunting feature (→ 1.2.1 Idle Extension Hunting) or the Intercept Routing—Busy/DND feature (→ 1.1.1.4 Intercept Routing). When a destination cannot be found, the calling extension will hear the DND tone, while the calling outside party will hear a busy tone.

Conditions

- **DND for CO Line Calls/Intercom Calls**
  The DND feature can be set for CO line calls, for intercom calls, or for both of them by the extension user.
- **DSS button in DND Mode**
  The DSS button light will turn red if the assigned extension has set DND.
- **DND Override**
  An extension in DND mode can be called by other extension users who are allowed to override DND based on their Class of Service (COS) (→ DND Override [507]).
- **Paging DND**
  It is programmable whether the PBX pages extensions in DND mode through system programming. (→ 1.14.1 Paging)
- **Intercept Routing—Busy/DND**
  If a call arrives at an extension which is in DND mode, the call can be redirected to the preprogrammed destination via the Intercept Routing—Busy/DND feature.
- **Idle Extension Hunting**
  While searching for an idle extension within an idle extension hunting group, any extension which has DND set will be skipped. The call will go to the next extension in the group, not to the Intercept Routing—Busy/DND destination.
- If a CO line call is directed to an extension which is in DND mode, and if the Intercept Routing—Busy/DND destination is not available and furthermore there is no available extension in the extension's idle extension hunting group, the original destination will ring even though it is in DND mode.
- Calls from a doorphone arrive at an extension even when the extension is in DND mode.

User Manual References

User Manual

1.2.4 When the Dialed Line is Busy or There is No Answer

1.7.2 Do Not Disturb (DND)

1.4 Answering Features

1.4.1 Answering Features

1.4.1.1 Answering Features—OVERVIEW

Description

An extension user can answer incoming calls by the following methods:

Called Extension	Feature	Description	Details in
The user's own extension (PT only)	**Line Preference—Incoming**	The user can select the line seized when going off-hook.	• 1.4.1.2 Line Preference—Incoming
	Direct One-touch Answering	The user can answer an incoming call simply by pressing the flashing button.	–
	Hands-free Answerback	The user can answer a call automatically and establish a hands-free conversation.	• 1.4.1.4 Hands-free Answerback
Another extension	**Call Pickup—Directed/Group**	The user can pick up a specific extension's call or a call in a specific call pickup group.	• 1.4.1.3 Call Pickup

1.4.1.2 Line Preference—Incoming

Description

A proprietary telephone (PT) user can select the method used to answer incoming calls from the following three line preferences.
Each of these line preferences can be assigned on each extension through personal programming (Preferred Line Assignment—Incoming).

Type	Description
No Line	Selects a line by pressing the desired Line Access button to answer an incoming call after you go off-hook.
Prime Line	Answers a call arriving at a Flexible CO button or G-DN button (on which the "Prime Line" is assigned) simply by going off-hook. This works even when multiple calls are received simultaneously.
Ringing Line (default)	Answers the longest ringing call when multiple calls arrive at one's own telephone simply by going off-hook.

Conditions

[Prime Line]

- The priority of the incoming call is as follows:
  1) The call arriving at a button on which the "Prime Line" is assigned.
  2) The call arriving at the INTERCOM button.

User Manual References

User Manual

3.1.2 Settings on the Programming Mode

1.4.1.3 Call Pickup

Description

An extension user can answer a call ringing at any other extension.
The following types of Call Pickup are available:

Type	Description
Directed	A specified extension's call is answered.
Group	A call within a specified call pickup group is answered.

Call Pickup Deny
An extension user can prevent other extensions from picking up calls ringing at his or her own extension.

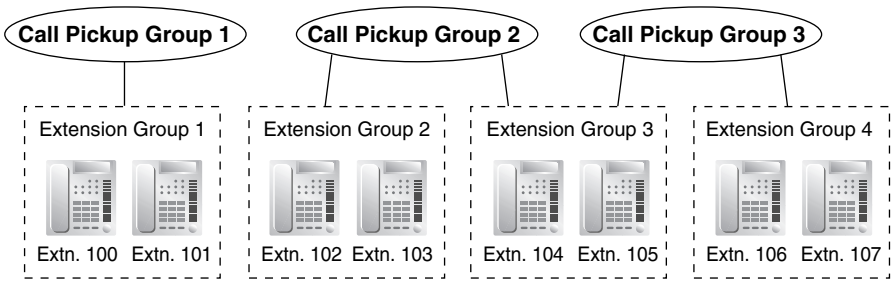
Conditions

- **Call Pickup applies to:**
  Intercom, CO line, and doorphone calls
- **Internal Call Block**
  An extension which cannot call certain extensions based on Class of Service (COS) programming (→ 1.1.2.2 Internal Call Block) also cannot pick up calls ringing at those extensions.

[Group Call Pickup]

- A specified number of call pickup groups can be created (→ Extension Groups of a Pickup Group [650]), each of which consists of extension groups. One extension group can belong to several call pickup groups. (→ 2.2.2 Group)

[Example]



User Manual References

User Manual

1.3.3 Call Pickup

1.4.1.4 Hands-free Answerback

Description

A proprietary telephone (PT) user with a speakerphone or optional headset can talk to a caller without lifting the handset. If the user receives a call in Hands-free Answerback mode, a hands-free conversation is established in the following method:

Call Type	Answering Method
Intercom Call	Established immediately after a beep tone at the called extension and the caller hears a confirmation tone.
CO Line Call*	Established after a specified number of rings, a called extension hears a beep tone.

* Including a call from an extension that placed a CO line call on a consultation hold. (→ 1.12.5 Consultation Hold)

Conditions

- **Hands-free Answerback applies to:**
  Intercom calls and CO line calls, including calls directed to an incoming call distribution (ICD) group in UCD or Priority Hunting distribution method. (→ 1.2.2.2 Group Call Distribution)
- **Hands-free Answerback for CO Line Calls**
  System programming is required to use this feature.
- **Secret Monitor**
  The beep tone heard by the called party before answering can be eliminated through system programming.
- **Alternate Receiving/Calling Mode (Ring/Voice) Override**
  Hands-free Answerback overrides the Alternate Receiving mode preset on the telephone and the Alternate Calling mode from the caller.
- **Hands-free Answerback with Headset**
  The Hands-free Answerback feature can also be used with a headset.

Feature Guide References

1.5.3 Intercom Call

User Manual References

User Manual

1.3.2 Hands-free Answerback

1.5 Making Call Features

1.5.1 Predialing

Description

A display proprietary telephone (PT) user can check and correct the number to be dialed on-hook. The call will be initiated after going off-hook.

Conditions

- **Storing the Predialed Number in Personal Speed Dialing**
  The predialed number can be stored in Personal Speed Dialing by pressing the AUTO DIAL/STORE button. (→ 1.6.1.4 Speed Dialing—Personal/System) In this case, the extension will enter personal programming mode automatically so that a name can be assigned to the stored number.

User Manual References

User Manual

3.1.2 Settings on the Programming Mode

1.5.2 Automatic Extension Release

Description

After going off-hook, if an extension user fails to dial any digits within a preprogrammed time period, the user will hear a reorder tone. This operation applies to intercom calls only.

This feature is also known as Automatic Station Release.

Conditions

- A proprietary telephone (PT)/portable station (PS) user hears a reorder tone for a preprogrammed time period, and then the PT/PS returns to idle status automatically. A single line telephone (SLT) user will hear a reorder tone until he or she goes on-hook.
- **This feature works in one of the following cases:**
  When making an intercom call
  a) The first digit is not dialed within a preprogrammed time period.
  b) A digit is dialed, but subsequent digits are not dialed within a preprogrammed time period.

1.5.3 Intercom Call

Description

An extension user can call another extension user.

Conditions

- **Extension Number/Name Assignment**
  Extension numbers (→ Extension Number [003]) and names (→ Extension Name [004]) are assigned to all extensions. The assigned number and name of the other extension are shown on display PTs during intercom calls.
- **DSS Button**
  It is possible to call another extension by simply pressing the corresponding Direct Station Selection (DSS) button. Any flexible button can be customized as a DSS button.
- **Call Directory—Extension Dialing**
  A KX-T7735 analog proprietary telephone (APT) user can make a call by selecting stored names on the display.
- **Alternate Receiving—Ring/Voice**
  A proprietary telephone (PT) user can select to receive intercom calls by ring tone or by voice, through personal programming (Alternate Receiving—Ring/Voice). If a user selects voice-calling, the calling party talks to the user immediately after a confirmation tone. Denying voice-calling can also be selected.
- **Alternate Calling—Ring/Voice**
  A caller can change the called party's preset call receiving method (ring tone or voice). By doing so, ring-calling is switched to voice-calling, or vice versa, at the called party. The called party may deny voice-calling.
- **Tone after Dialing**
  After dialing an extension number, a user will hear one of the following:

Type	Description
Ringback Tone	Indicates the called party is being called.
Confirmation Tone	Indicates the called party has set voice-calling.
Busy Tone	Indicates the called party is busy.
DND Tone	Indicates the called party has set DND.

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.2.1 Basic Calling

1.2.5 Alternate Calling—Ring/Voice

1.11.2 Directories

3.1.2 Settings on the Programming Mode

1.5.4 CO Line Call Features

1.5.4.1 CO Line Call Features—OVERVIEW

Description

An extension user can use the following features when making a CO line call:

Feature	Description	Details in
Emergency Call	A user can dial preprogrammed emergency numbers regardless of the restrictions imposed on the extension.	• 1.5.4.2 Emergency Call
Account Code Entry	A user can enter an account code to identify outgoing calls for accounting and billing purposes.	• 1.5.4.3 Account Code Entry
Pulse to Tone Conversion	A user can temporarily switch from Pulse mode to DTMF mode if necessary.	• 1.5.4.4 Dial Type Selection
Pause Insertion	A dialing pause can be manually inserted by pressing the PAUSE button, or can be automatically inserted after a user-dialed code, such as a Host PBX Access code or Special Carrier Access code. The length of the pause can be specified through system programming.	• 1.5.4.5 Pause Insertion • 1.5.4.6 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX) • 1.5.4.7 Special Carrier Access Code

1.5.4.2 Emergency Call

Description

An extension user can dial preprogrammed emergency numbers (→ Emergency Number [304]) after seizing a CO line regardless of the restrictions imposed on the extension.

Conditions

- A specified number of emergency numbers can be stored.
- Emergency numbers may be called, regardless of Toll Restriction (TRS) level (→ 1.8.1 Toll Restriction (TRS)), even when:
  - in Account Code—Forced mode (→ 1.5.4.3 Account Code Entry)
  - in Extension Lock (→ 1.8.2 Extension Lock)

1.5.4.3 Account Code Entry

Description

An account code is used to identify outgoing CO line calls for accounting and billing purposes. The account code is appended to the Station Message Detail Recording (SMDR) call record. For example, a firm can use an account code for each client to determine which calls were made for which client, and can submit a bill to the client according to the client's account code as shown on the SMDR call record.
There are two methods of entering account codes explained below.
One of the methods is selected for each extension based on Class of Service (COS) programming (→ Account Code Mode [508]).

Mode	Description
Option	An extension user can enter an account code, but is not required to.
Forced	An extension user must always enter an account code before seizing a CO line. This method ensures extension users will not forget to enter account codes.

Conditions

- An account code can be stored in Memory Dialing (One-touch Dialing, for example).
- **Account Button**
  A flexible button can be customized as the Account button. The Account button is used in place of the feature number for entering an account code. This button is useful because it can be used at any time, while feature number entry is allowed only when hearing a dial tone before seizing a CO line.
- Account code entry after receiving a disconnection signal from a CO line must be done while hearing a reorder tone. Otherwise the SMDR call record is logged and entry becomes impossible afterwards.
- If an account code is entered more than once, the code entered last is logged in the SMDR.
- Even in Forced mode, emergency numbers can be dialed without an account code. (→ 1.5.4.2 Emergency Call)
- Proprietary telephone (PT) users can also enter an account code for incoming CO line calls during a conversation.
- **Verified Code Entry**
  To identify who made a CO line call for accounting and billing purposes, a verified code can be used. This code can be used at any extension. (→ 1.8.5 Verified Code Entry)

Feature Guide References

1.18.2 Flexible Buttons

1.21.1 Station Message Detail Recording (SMDR)

User Manual References

User Manual

1.2.1 Basic Calling

1.5.4.4 Dial Type Selection

Description

The dialing mode (rotary or tone) can be selected for each CO line through system programming (→ LCOT Dialing Mode [410]) regardless of originating extension (under contract with the telephone company).

Mode	Description
DTMF (Dual Tone Multi-Frequency)	Numbers dialed by an extension user are transmitted to the CO line using analog tones.
Pulse Dial (Rotary)	Numbers dialed by an extension user are transmitted to the CO line using analog pulses.

Conditions

- **Pulse to Tone Conversion**
  It is possible for an extension user to temporarily switch from Pulse mode to DTMF mode in order to access special services such as computer-accessed long distance calling or voice mail services. To switch to DTMF mode, wait for a preprogrammed time period (Default: 5 seconds) after the CO line is connected, or press ✳. This feature works only on CO lines set to Pulse mode. DTMF mode cannot be changed to Pulse mode.
- It is possible to select a pulse rate for the CO line port which has been set to Pulse mode (→ LCOT Pulse Rate [411]). There are two pulse rates: Low (10 pps) and High (20 pps).
- It is possible to assign the minimum duration of the DTMF signal sent to the CO line port which has been set to DTMF mode (→ LCOT DTMF Minimum Duration [412]).

1.5.4.5 Pause Insertion

Description

A dialing pause of a preprogrammed length (→ LCOT Pause Time [416]) can be inserted manually or automatically when dialing.
Manual Insertion: Pressing the PAUSE button.
Automatic Pause Insertion: A pause will be automatically inserted between the user-dialed codes below and the following digits.

a) Host PBX Access code (→ 1.5.4.6 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX))

b) Special Carrier Access code (→ 1.5.4.7 Special Carrier Access Code)

c) Second Dial Tone Waiting code

Conditions

- The length of a pause is programmable for each CO line.
- Numbers stored in Memory Dialing can contain pauses.
- Pressing the PAUSE button while dialing a number inserts a pause of the preprogrammed length.

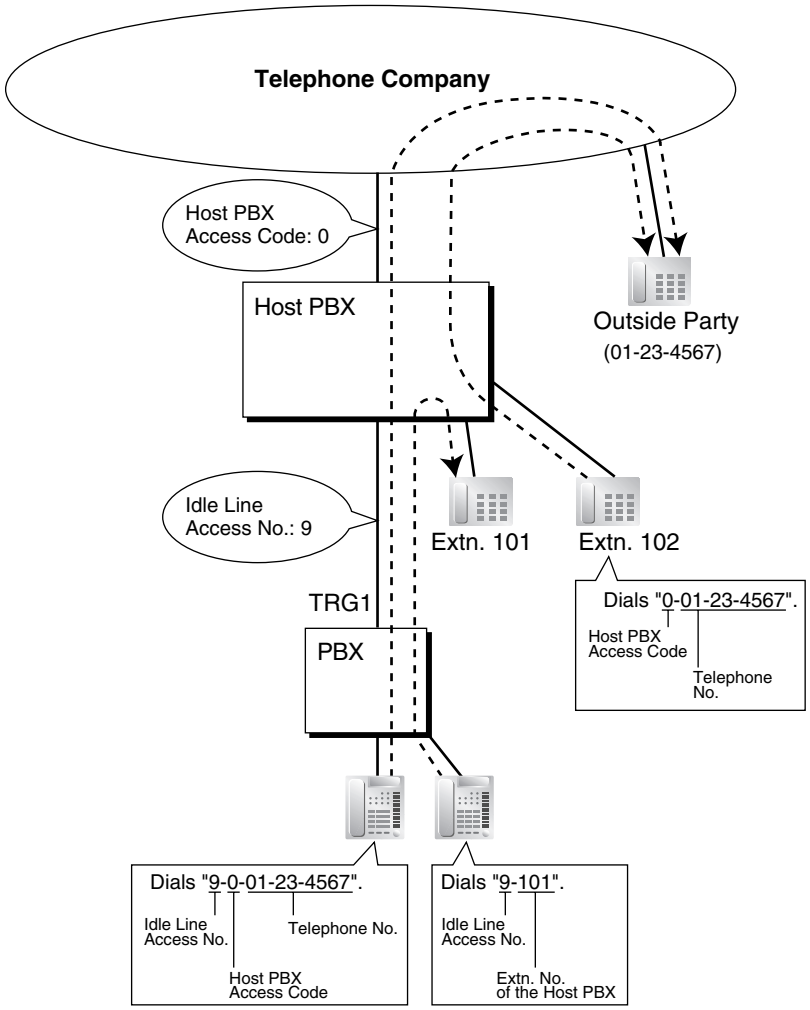
- When a preprogrammed Second Dial Tone Waiting code is dialed after seizing a CO line, pauses are inserted a preprogrammed number of times after the code.

1.5.4.6 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)

Description

This PBX can be installed behind an existing host PBX. This is performed by connecting extension ports of the host PBX to CO line ports of this PBX. A Host PBX Access code assigned through system programming (→ Host PBX Access Code [471]) is required to access the telephone company from the host PBX. The CO Line Access number of the host PBX should be stored as a Host PBX Access code on a CO line group of this PBX basis.
A pause of a preprogrammed length (→ LCOT Pause Time [416]) will be automatically inserted between the user-dialed Host PBX Access code and the following digits. (→ 1.5.4.5 Pause Insertion)

[Example]



Note

In this example, "0" should be assigned as a Host PBX Access code for CO line group (TRG) 1 of this PBX.

Conditions

- **TRS**
  TRS checks only the dialed telephone number excluding the Host PBX Access code when accessing the telephone company through the host PBX. (→ 1.8.1 Toll Restriction (TRS))
- **SMDR**
  The Host PBX Access code can be logged by SMDR along with the dialed number when accessing the telephone company through the host PBX.
- To log by SMDR only long distance calls (not local calls) originated via a specific CO line group, assign the long distance call code as a Host PBX Access code to the CO line group.

Feature Guide References

1.21.1 Station Message Detail Recording (SMDR)

1.5.4.7 Special Carrier Access Code

Description

If the PBX has access to multiple telephone companies, a Special Carrier Access code assigned through system programming (→ Special Carrier Access Code [303]) is required every time a CO line call is made.
A pause of a preprogrammed length (→ LCOT Pause Time [416]) will be automatically inserted between the user-dialed Special Carrier Access code and the following digits. (→ 1.5.4.5 Pause Insertion)

Conditions

- **TRS**
  TRS checks only the dialed telephone number excluding the Special Carrier Access code. (→ 1.8.1 Toll Restriction (TRS))
- **If this PBX is installed behind an existing host PBX:**
  A Special Carrier Access code and a Host PBX Access code should be assigned separately—these codes cannot be assigned together as one code. (→ 1.5.4.6 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX))

1.5.5 Seizing a Line Features

1.5.5.1 Seizing a Line Features—OVERVIEW

Description

An extension user can select the line that is seized in order to make a call, using one of the following features.

Feature	Description	Details in
Line Preference—Outgoing	A user can select the line seized when going off-hook.	• 1.5.5.2 Line Preference—Outgoing
CO Line Access	A user can select the CO Line Access method every time a CO line call is made.	• 1.5.5.3 CO Line Access

1.5.5.2 Line Preference—Outgoing

Description

Through personal programming, a proprietary telephone (PT) user can select the preferred method of seizing a line (Preferred Line Assignment—Outgoing) that is used each time the user goes off-hook.

Method	Description
Intercom	When an extension user goes off-hook, an extension line is selected automatically.
Idle Line	When an extension user goes off-hook, an idle CO line is selected automatically from the assigned CO line groups.
No Line	When an extension user goes off-hook, no line is selected. In order to make a call, the user must select the desired line manually.
Prime Line	When an extension user goes off-hook, the preset line is selected automatically. A prime line can be selected from the Line Access buttons: S-CO, G-CO, L-CO, G-DN.

Conditions

- **Line Preference Override**
  A user can override the preset Line Preference temporarily by pressing the desired Line Access button or a Memory Dialing button, such as One-touch Dialing, before going off-hook.
- To select Idle Line Preference, the CO line groups available to the extension should be programmed on a Class of Service (COS) basis (→ CO Line Group Number [500]). Also CO line groups available for Idle Line Access should be assigned (→ Idle Line Access (Local Access) [103]).

User Manual References

User Manual

3.1.2 Settings on the Programming Mode

1.5.5.3 CO Line Access

Description

There are three methods of accessing a CO line.

Method	Description	Operation
Idle Line Access (Local Access)	Selects an idle CO line automatically from the assigned CO line groups.	Dial the Idle Line Access number or press a L-CO button.
CO Line Group Access	Selects an idle CO line from the corresponding CO line group.	Dial the CO Line Group Access number and a CO line group number, or press a G-CO button.
S-CO Line Access	Selects the desired CO line directly.	Dial the S-CO Line Access number and the CO line number, or press the S-CO button.

Conditions

- Class of Service (COS) programming determines the CO line groups available for making calls (→ CO Line Group Number [500]).
- CO Line numbers can be referred on a CO line port basis (→ LCOT CO Line Number Reference [409]).
- **Button Assignment**
  A flexible button can be customized as a G-CO, L-CO, or S-CO button as follows:

Type	Assignable parameter
Loop-CO (L-CO)	Any CO line group that is made available for Idle Line Access through system programming is applied.
Group-CO (G-CO)	A CO line group is assigned.
Single-CO (S-CO)	A specified CO line is assigned.

  It is possible to assign CO lines in the following ways:

  – The same CO line to the S-CO button and to a G-CO button
  – The same CO line group to more than one G-CO button
  – More than one L-CO button

  Dialing the CO Line Access number selects a CO button according to the following priority: S-CO → G-CO → L-CO
- **Direct CO Line Access**
  If an extension user is on-hook when pressing an idle CO button, the proprietary telephone (PT) automatically enables hands-free operation mode. The user can dial without lifting the handset or pressing the SP-PHONE or MONITOR button.
- **Group Hunting Order for Idle Line Access**
  An idle CO line is selected from the CO line groups assigned for Idle Line Access. If multiple CO line groups are available, the CO line group hunting sequence can be determined through system programming.

- **CO Line Hunting Order for Idle Line Access and CO Line Group Access**
  The CO line hunting sequence in a CO line group (from lowest numbered CO line, from highest numbered CO line or rotation) can be determined through system programming.
- A company name or customer name can be assigned on a CO line port basis (→ LCOT CO Line Name [401]) so that the operator or extension user who is answering the call can view the destination which the caller is trying to reach before answering.
- It is possible to identify the CO line port that has a CO line connected to it (→ LCOT CO Line Connection [400]). This prevents extension users from originating a call to a CO line which is not connected.

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.2.1 Basic Calling

1.6 Memory Dialing Features

1.6.1 Memory Dialing Features

1.6.1.1 Memory Dialing Features—OVERVIEW

Description

An extension user can store frequently dialed numbers in the PBX. A stored number is dialed automatically with a simple operation.

1. Features

Feature		Storing Method	Details in
One-touch Dialing		• Personal Programming • System Programming (PC Programming only)	• 1.6.1.2 One-touch Dialing
Last Number Redial (Outgoing Call Log)		The last or most recent dialed numbers are automatically stored.	• 1.6.1.3 Last Number Redial
Speed Dialing	**Personal**	• Personal Programming • Personal Operation with the Feature Number • System Programming (PC Programming only)	• 1.6.1.4 Speed Dialing—Personal/System
	System	System Programming	
Quick Dialing		System Programming (PC Programming only)	• 1.6.1.5 Quick Dialing
Hot Line		• Personal Programming • Personal Operation with the Feature Number • System Programming (PC Programming only)	• 1.6.1.6 Hot Line
Incoming Call Log		Incoming call information is automatically stored.	• 1.16.2 Incoming Call Log

2. Valid Input

Input	Displayed while Entering	Description
0–9/✳/#	0–9/✳/#	Store digits, ✳ and # by pressing the corresponding buttons.

Input	Displayed while Entering	Description
PAUSE (Pause)	P	Store a dialing pause by pressing the PAUSE button. (→ 1.5.4.5 Pause Insertion)
FLASH/RECALL (Hooking)*	F	Store a flash/recall signal (EFA mode) by pressing the FLASH/RECALL button at the beginning of the number. (→ 1.10.6 External Feature Access (EFA))
INTERCOM (Secret)*	[/]	Conceal all or part of the number by pressing the INTERCOM button at the beginning and at the end of the number to be concealed. It is programmable whether the concealed part will be shown on the SMDR (→ 1.21.1 Station Message Detail Recording (SMDR)).
TRANSFER (Transfer)*	T	Store a transfer command by pressing the TRANSFER button at the beginning of the number (used only for One-touch Dialing). (→ 1.11.1 Call Transfer) **[Example]** Storing "T + 305"= Transferring a call to extension 305.

* Available only when in the system/personal programming mode

[Example]
When storing the number "9-123-456-7890", to conceal the telephone number "123-456-7890",

Enter [9] → [INTERCOM] → [1] [2] [3] [4] [5] [6] [7] [8] [9] [0] → [INTERCOM].

Notes

- It is possible to store a Memory Dialing feature number at the beginning of Memory Dialing numbers.
- It is possible to store several feature numbers in one Memory Dialing location.

Conditions

- **CO Line Access by Memory Dialing**
  A specific CO Line Access number can be stored along with the telephone number in Memory Dialing. However, if Memory Dialing is done after selecting a CO line, the stored CO Line Access number is ignored and the telephone number is sent using the selected CO line.

1.6.1.2 One-touch Dialing

Description

A proprietary telephone (PT) user can make a call or access a feature with a one-touch operation. This is possible by storing the number, such as an extension number, telephone number, or feature number, in a One-touch Dialing button.

Conditions

- **One-touch Dialing Button**
  Any flexible button can be customized as a One-touch Dialing button.
- **Full One-touch Dialing**
  There is no need to go off-hook before pressing a One-touch Dialing button.

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.2.2 Easy Dialing

1.6.1.3 Last Number Redial

Description

Every extension automatically saves the last external telephone number dialed, allowing the same number to be dialed again.

Outgoing Call Log
The last five (default) dialed numbers are automatically stored at each portable station (PS). A PS user can redial easily any of the stored numbers.

Conditions

- Memorized telephone numbers are replaced by new ones.
- **Interrupt Redial**
  When the called party or the seized CO line is busy, it is possible to press the REDIAL button continuously until the called party or the CO line becomes idle. There is no need to go off-hook before pressing the REDIAL button.

User Manual References

User Manual

1.2.3 Redial

1.11.1 Call Log

1.6.1.4 Speed Dialing—Personal/System

Description

An extension user can make calls using abbreviated dialing for frequently dialed numbers which are stored in the PBX, either in the extension's Personal Speed Dialing, or in System Speed Dialing (→ System Speed Dialing Number [001]).

Personal Speed Dialing is also known as Station Speed Dialing.

Conditions

[General]

- Any number, such as a telephone number or feature number, can be stored in Speed Dialing. A name can be assigned to each Personal Speed Dialing number through personal programming, and also to each System Speed Dialing number (→ System Speed Dialing Name [002]).
- **Call Directory—Speed Dialing**
  A KX-T7735 analog proprietary telephone (APT) users can make a call by selecting a stored name shown on the display.

[Personal Speed Dialing]

- **Personal Speed Dialing Display Lock**
  An extension user can lock his or her Personal Speed Dialing display to prevent others from viewing it. In this case, the Incoming Call Log information displays are also locked. An extension personal identification number (PIN) is required to use this feature. (→ 1.22.1 Extension Personal Identification Number (PIN))

[System Speed Dialing]

- **TRS Override by System Speed Dialing**
  It is possible to override Toll Restriction (TRS) when dialing a number using System Speed Dialing (→ TRS Level for System Speed Dialing [509]). (→ 1.8.1 Toll Restriction (TRS))

User Manual References

User Manual

1.2.2 Easy Dialing

1.11.1 Call Log

1.11.2 Directories

3.1.2 Settings on the Programming Mode

3.3 System Programming

1.6.1.5 Quick Dialing

Description

An extension user can make a call or access a feature easily. This is enabled by storing the number (extension number, telephone number, or feature number etc.) for Quick Dialing. Quick Dialing is convenient in situations such as the following:

- Room service calls in a hotel
- Calling your company's headquarters via the public network. Extension users can think of the Quick Dialing number as an extension number.

[Programming Example: Quick Dialing]

Location No.	Quick Dialing No.	Desired Number
Quick Dialing 01	110	9110 (CO Line Call)
Quick Dialing 02	5	3016 (Room Service)
Quick Dialing 03	2011	90123456789 (Headquarters)

Conditions

- Quick Dialing numbers follow the flexible numbering plan.
  (→ 2.3.5 Flexible Numbering/Fixed Numbering)

User Manual References

User Manual

1.2.2 Easy Dialing

1.6.1.6 Hot Line

Description

An extension user can make an outgoing call by simply going off-hook, if the user has previously stored the telephone number or the extension number.
If the Hot Line feature is set and the user goes off-hook, a dial tone is generated for a specified time assigned through system programming (→ Hot Line Waiting Time [204]) and then dialing starts. During this waiting time the user can dial another party, overriding the Hot Line feature.

This feature is also known as Pickup Dialing.

Conditions

- **Compatible Telephone**
  Proprietary telephone (PT), single line telephone (SLT), and portable station (PS)

User Manual References

User Manual

1.2.2 Easy Dialing

1.7 Busy Line/Busy Party Features

1.7.1 Automatic Callback Busy (Camp-on)

Description

If the line is busy when a call is made, a callback ring can inform the caller when the line becomes free.
If the called party was another extension, or if the dialed number is handled by Automatic Route Selection (ARS), the number is automatically redialed after the extension user answers the callback ring.

Conditions

- If the callback ring is not answered within 10 seconds, callback is canceled.
- If the extension hears a busy tone before dialing the telephone number, only the CO line or CO line group is reserved. After answering the callback ring, the extension should dial the telephone number.
- An extension can set only one Automatic Callback Busy. The last setting is effective.
- Multiple extension users can set this feature for the same CO line at the same time. However, a maximum of four extension users can set this feature to one extension.
- The priority of the callback is the setting order.
- This feature cannot be used for calls to a Voice Processing System (VPS).

User Manual References

User Manual

1.2.4 When the Dialed Line is Busy or There is No Answer

1.7.2 Executive Busy Override

Description

Allows an extension user to interrupt an existing call to establish a three-party conference call.

Executive Busy Override Deny
It is possible for extension users to prevent their calls from being interrupted by another extension user.

Conditions

- Class of Service (COS) programming determines extension users who can use the Executive Busy Override (→ Executive Busy Override [505]) and set the Executive Busy Override Deny mode (→ Executive Busy Override Deny [506]).
- This feature will not function when the busy extension:
  a) Has set Executive Busy Override Deny or Data Line Security (→ 1.10.4 Data Line Security).

b) Is being monitored by another extension (→ 1.7.3 Call Monitor).

c) Is on a conference call (→ 1.13.1 Conference Features).

d) Is on a doorphone call (→ 1.15.1 Doorphone Call).

e) Is using Live Call Screening (LCS) or Two-way Record (→ 1.19.2 Voice Mail DPT (Digital) Integration).

f) Has a call on a consultation hold (→ 1.12.5 Consultation Hold).

- This feature is not available for a CO-to-CO line call via Direct Inward System Access (DISA) (→ 1.15.6 Direct Inward System Access (DISA)).

User Manual References

User Manual

1.2.4 When the Dialed Line is Busy or There is No Answer

1.7.4 Executive Busy Override Deny

1.7.3 Call Monitor

Description

Allows an extension user to listen to a busy extension user's existing conversation. The user can hear the conversation but will not be heard. If desired, the monitoring user can interrupt the call to establish a three-party conference call.

Conditions

- Class of Service (COS) programming determines extension users who can use this feature.
- This feature is available only when the busy extension is in a conversation with another extension or outside party.
- This feature will not function when the busy extension:

a) Has set Executive Busy Override Deny (→ 1.7.2 Executive Busy Override) or Data Line Security (→ 1.10.4 Data Line Security).

b) Is on a conference call (→ 1.13.1 Conference Features).

c) Is on a doorphone call (→ 1.15.1 Doorphone Call).

d) Is using Live Call Screening (LCS) or Two-way Record (→ 1.19.2 Voice Mail DPT (Digital) Integration).

e) Has a call on a consultation hold (→ 1.12.5 Consultation Hold).

- This feature stops when the busy extension user presses the following buttons during a conversation (→ 1.18.1 Fixed Buttons, → 1.18.2 Flexible Buttons):
  - FLASH/RECALL button
  - HOLD button
  - TRANSFER button
  - CONF (Conference) button
  - DSS button
  - EFA button
  - Two-way Record button

– Two-way Transfer button
– One-touch Two-way Transfer button
– Voice Mail (VM) Transfer button

User Manual References

User Manual

1.2.4 When the Dialed Line is Busy or There is No Answer

1.7.4 Call Waiting Tone

Description

When attempting to call a busy extension (i.e., an extension that is ringing or having a conversation), an extension user can send a call waiting tone to the busy extension.

Conditions

- This feature functions only if the called extension has activated call waiting. If it is activated, the calling extension will hear a ringback tone. If not, the calling extension will hear a reorder tone.
- One of two call waiting tones can be selected (Tone 1 or Tone 2) through personal programming (Call Waiting Tone Type Selection).
- A call waiting tone can be sent when the called extension is having a conversation with other party. If the extension is not having a conversation but is unavailable to receive the notification (dialing a number, for example), the calling extension will be kept waiting until the called extension becomes available. Even while waiting, the calling extension will hear a ringback tone.

Feature Guide References

1.1.3.3 Call Waiting

User Manual References

User Manual

1.2.4 When the Dialed Line is Busy or There is No Answer

3.1.2 Settings on the Programming Mode

1.8 Toll Restriction (TRS) Features

1.8.1 Toll Restriction (TRS)

Description

Toll Restriction (TRS) can prohibit extension users from making certain CO line calls, based on the Class of Service (COS) assigned to them (→ Class of Service [602]).
Each COS is assigned a TRS level for each time mode; level 1 grants the highest level of authorization, allowing all CO line calls to be made, and level 7 grants the lowest level of authorization, prohibiting all CO line calls from being made. TRS levels 2 through 6 are used to restrict calls by combining preprogrammed Denied and Exception Code Tables, explained below.
Each COS can also have a separate TRS level applicable to calls made using System Speed Dialing.
A TRS check is applied each time a dialed number is sent to a CO line after an extension user goes off-hook and seizes a line.

Denied Code Tables

Denied Code Tables are preprogrammed lists containing the first few digits (leading number) of telephone numbers which may not be called. All outgoing CO line calls made by TRS level 2 through 6 users are compared to at least one Denied Code Table, and when the leading number of a dialed telephone number (not including the CO Line Access number) matches an entry found in the applicable table, the call is denied.
There are five Denied Code Tables. Each table applies to a corresponding TRS level as well as the level(s) preceding it, as explained below.

Exception Code Tables

Exception Code Tables are preprogrammed lists of leading digits or complete telephone numbers which are checked against every dialed number prohibited by a Denied Code Table. When a user dials a number prohibited by a Denied Code Table, it is compared to at least one Exception Code Table. If the dialed number matches an entry found in the applicable Exception Code Table, the call is permitted.
There are five Exception Code Tables. Each table applies to a corresponding TRS level as well as the level(s) preceding it, as explained below.

TRS Override by System Speed Dialing

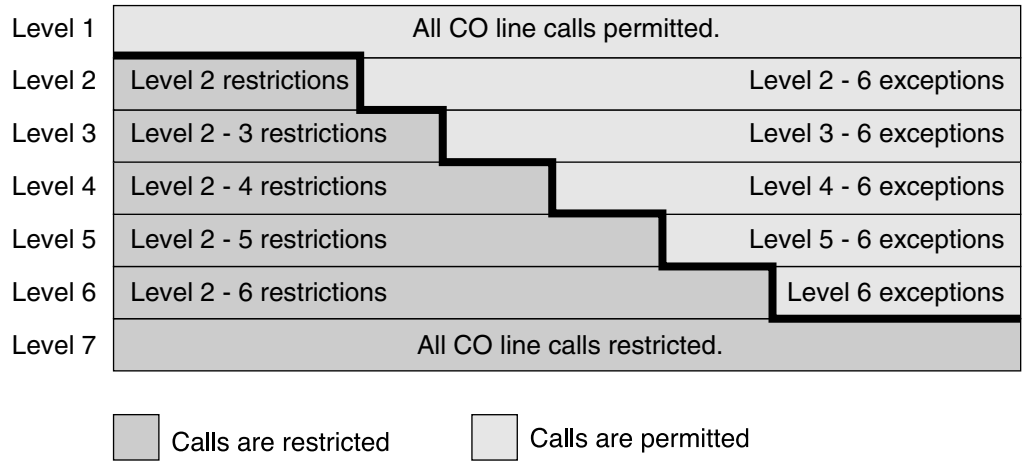
When TRS Override by System Speed Dialing is enabled for the PBX, each COS has an additional TRS level applicable only to calls made using System Speed Dialing.
This allows extension users to use System Speed Dialing to make CO line calls which are normally prohibited by the TRS level of their assigned COS. If, for example, a user's TRS level is 7, that user normally cannot make any CO line calls. However, if the same user's TRS level for System Speed Dialing is level 1, the user can make a CO line call to any number stored in System Speed Dialing.

TRS Level

The Denied Code Tables and Exception Code Tables which apply to each TRS level are explained below.

	Denied Code Tables*1	Exception Code Tables*2
Level 1	Not Programmable	Not Programmable
Level 2	Table for Level 2	Tables for Levels 2 through 6
Level 3	Tables for Levels 2 and 3	Tables for Levels 3 through 6
Level 4	Tables for Levels 2 through 4	Tables for Levels 4 through 6
Level 5	Tables for Levels 2 through 5	Tables for Levels 5 through 6
Level 6	Tables for Levels 2 through 6	Tables for Level 6
Level 7	Not Programmable	Not Programmable

*1 → TRS Denied Code [301]
*2 → TRS Exception Code [302]

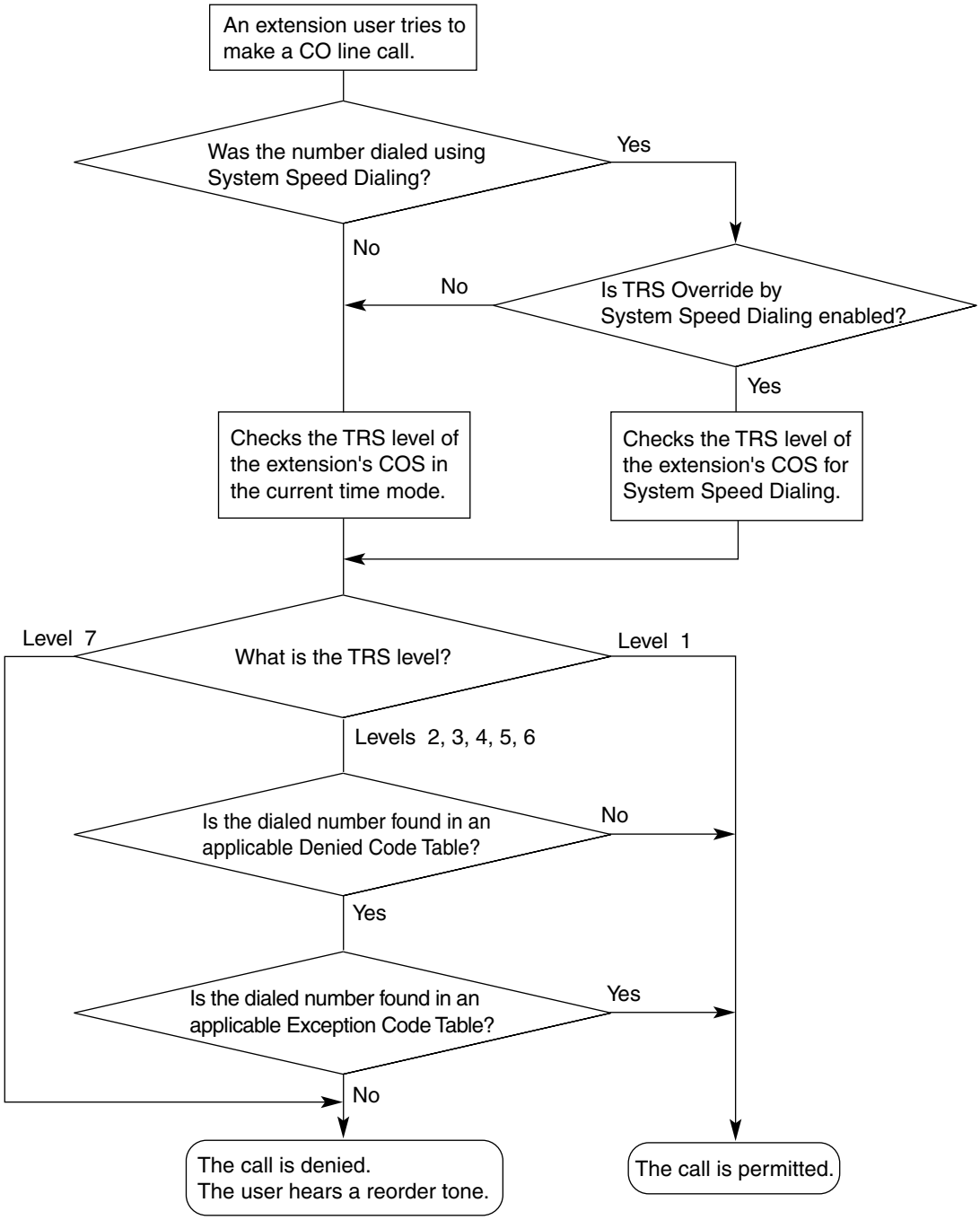


[Programming Example: TRS Level]

COS	TRS Level*1				TRS Level for System Speed Dialing*2
	Day	Lunch	Break	Night	
1	1	1	1	6	1
2	2	2	2	6	1

*1 → TRS Level [501]
*2 → TRS Level for System Speed Dialing [509]

[Flowchart]



Conditions

WARNING

The software contained in the TRS feature to allow user access to the network must be upgraded to recognize newly established network area codes and exchange codes as they are placed into service.

Failure to upgrade the premises PBXs or peripheral equipment to recognize the new codes as they are established will restrict the customer and the customer's employees

from gaining access to the network and to these codes.
KEEP THE SOFTWARE UP-TO-DATE WITH THE LATEST DATA.

- TRS checks are performed for all calls made by:
  - Any CO line access (Idle Line Access, CO Line Group Access, S-CO Line Access)
  - Automatic Route Selection (ARS)

- The PBX can also be programmed to perform a TRS check for numbers that contain non-digits (✳ or #). By default, the PBX ignores ("No Check") any non-digits that are dialed, which is useful in preventing unauthorized calls which could possibly be made using certain telephone company exchanges.
- TRS can also be programmed to check digits that are dialed after External Feature Access, such as when trying to transfer a call to an outside party. (→ 1.10.6 External Feature Access (EFA))
- **Host PBX Access Code/Special Carrier Access Code**
  TRS checks can be carried out on telephone numbers dialed using a Host PBX Access code (→ 1.5.4.6 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)) or Special Carrier Access code (→ 1.5.4.7 Special Carrier Access Code).

Access Code Type	Access Code is stored in the PBX		Access Code is not stored in the PBX
	Access Code is dialed	Access Code is not dialed	
Host PBX Access Code	TRS ignores the code and checks the remaining digits.	Number dialed is not a CO line call, so TRS does not check the number.	TRS checks the entire number.
Special Carrier Access Code	TRS ignores the code and checks the remaining digits.	TRS checks the entire number.	TRS checks the entire number.

- **ARS**
  If ARS is applied to a dialed number, TRS will check the user-dialed number, not the modified number produced by ARS. You do not need to program ARS-modified numbers in any of the TRS Tables. Additionally, when using ARS, TRS will ignore the Host PBX Access code or Special Carrier Access code.
- **Dialing Digit Restriction during Conversation**
  TRS can also limit the number of digits which may be dialed by an extension user while the user is engaged on a received CO line call. If the number of dialed digits exceeds the limit, the line will be disconnected.
- When one of the following features is used, the TRS level of the extension can be temporarily changed. If two or more of these features are used simultaneously (Dial Tone Transfer is used while the extension is locked, for example), the TRS level of the feature with the highest priority is applied for the duration of the call. The numbers below (1 through 4) indicate the priority of each feature, with 1 having the highest priority, and 4 having the lowest.
  1) Dial Tone Transfer (→ 1.8.3 Dial Tone Transfer)
  2) TRS Override by System Speed Dialing
  3) Walking COS/Verified Code Entry (→ 1.8.4 Walking COS, → 1.8.5 Verified Code Entry)
  4) Extension Lock (→ 1.8.2 Extension Lock)

Feature Guide References

1.5.5.3 CO Line Access

1.6.1.4 Speed Dialing—Personal/System

1.9.1 Automatic Route Selection (ARS)

2.2.4 Time Service

1.8.2 Extension Lock

Description

Extension users can lock their telephones to prevent unauthorized use—useful for situations when extension users must leave their desks temporarily.
When Extension Lock is engaged, the extension's Toll Restriction (TRS) level (→ 1.8.1 Toll Restriction (TRS)) is temporarily changed to another level, thereby determining which CO line calls can be made from the locked extension by another user.
An extension personal identification number (PIN) is required to unlock a locked extension (→ 1.22.1 Extension Personal Identification Number (PIN)), however, anyone can engage Extension Lock, as no PIN is required.

This feature is also known as Electronic Station Lockout.

Conditions

- This feature also restricts changing the Call Forwarding (FWD) destination. (→ 1.3.1.2 Call Forwarding (FWD))
- **Remote Extension Lock**
  Allows an extension assigned as a manager to lock or unlock an extension. When a manager locks an extension remotely, the extension's user cannot unlock it. When a user locks an extension, a manager can override the lock and unlock the extension.
  This feature is also known as Remote Station Lock Control.
- **TRS Level**
  The TRS level of a locked extension is assigned through system programming. (→ TRS Level for Extension Lock [510]).
- Other features can also temporarily change an extension's TRS level, similar to Extension Lock. If an extension is locked, the TRS level determined by the following features takes priority. The numbers below (1 through 3) indicate the priority of each feature, with 1 having the highest priority, and 3 having the lowest.
  1) Dial Tone Transfer (→ 1.8.3 Dial Tone Transfer)
  2) TRS Override by System Speed Dialing (→ 1.8.1 Toll Restriction (TRS))
  3) Walking COS/Verified Code Entry (→ 1.8.4 Walking COS, → 1.8.5 Verified Code Entry)

User Manual References

User Manual

1.5.3 Extension Lock

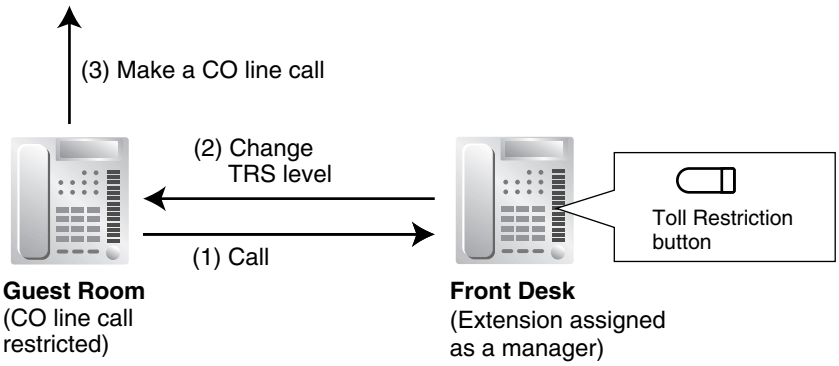
2.1.1 Extension Control

1.8.3 Dial Tone Transfer

Description

Allows an extension assigned as a manager change the Toll Restriction (TRS) level (→ 1.8.1 Toll Restriction (TRS)) of an extension for the purpose of making a single CO line call. The extension user first calls a manager, who then presses the Toll Restriction button, giving the extension user a dial tone from which the normally unauthorized call can be made.

[Example]
A hotel guest calls the front desk and asks for the telephone's toll restriction to be lifted in order to make an international call.



Toll Restriction Button
A manager extension must store the TRS level granted by the Dial Tone Transfer beforehand, when assigning a flexible button as the Toll Restriction button.

Conditions

- Dial Tone Transfer is effective for only one CO line call.

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

2.1.3 Dial Tone Transfer

1.8.4 Walking COS

Description

Extension users can temporarily assign their own Class of Service (COS) to another extension, allowing them to make calls as if from their own telephones.
This feature is useful when a manager needs to borrow another employee's telephone to make a call. The superior enters the Walking COS feature number followed by his or her extension number and extension personal identification number (PIN), then makes the call.

Other features can be accessed by Walking COS, such as DND Override (→ 1.3.1.3 Do Not Disturb (DND)) and Executive Busy Override (→ 1.7.2 Executive Busy Override). The same privileges and restrictions normally applied to a user are applied when using Walking COS.

Conditions

- Walking COS is effective for only one CO line call or one operation at a time.
- When making a call with Walking COS:
  - **a)** The extension number of the Walking COS user, not the borrowed extension, is logged by Station Message Detail Recording (SMDR). (→ 1.21.1 Station Message Detail Recording (SMDR))
  - **b)** The Walking COS user's Itemized Billing Code for ARS will be used.
- **Walking COS through DISA**
  This feature is also available through Direct Inward System Access (DISA). (→ 1.15.6 Direct Inward System Access (DISA))

Feature Guide References

2.2.1 Class of Service (COS)

User Manual References

User Manual

1.2.6 Calling without Restrictions

1.8.5 Verified Code Entry

Description

A verified code is a code which is assigned its own Class of Service (COS), and therefore contains a Toll Restriction (TRS) level (→ 1.8.1 Toll Restriction (TRS)). Using a verified code, a PBX user can use any extension to make CO line calls with his or her own set of privileges and restrictions. You may think of Verified Code Entry as Walking COS for PBX users who do not have their own extensions.
Because a verified code user normally has no extension telephone, the verified code will be logged by Station Message Detail Recording (SMDR) for identification or accounting purposes when making a CO line call.
Other features can be accessed by Verified Code Entry, such as DND Override, Executive Busy Override, etc.
Each verified code can be assigned a user name, COS, verified code, personal identification number (PIN), and Itemized Billing Code for ARS. A verified code PIN is required to use Verified Code Entry.

[Programming Example: Verified Codes]

Location No.	Verified Code*1	User Name*2	Verified Code PIN*3	COS No.*4	Itemized Billing Code for ARS
1	1111	Tom Smith	1234	1	2323
2	2222	John White	9876543210	3	4545

*1 → Verified Code [120]
*2 → Verified Code Name [121]
*3 → Verified Code Personal Identification Number (PIN) [122]
*4 → Verified Code COS Number [123]

Conditions

WARNING
When a third party discovers the personal identification number (PIN) (verified code PIN/ extension PIN) of the PBX, there will be a risk that they will make fraudulent phone calls using the telephone line, and the cost will be charged to your own account. In order to avoid this problem, we strongly recommend the following points:

a) Carefully maintain the secrecy of the PIN.
b) Specify a complicated PIN as long and random as you can make it.
c) Change the PIN frequently.

- Verified Code Entry is effective for only one CO line call or one operation at a time.
- When making a call with Verified Code Entry:
  a) The verified code, not the borrowed extension number, is logged by SMDR. (→ 1.21.1 Station Message Detail Recording (SMDR)) It will appear as ✳ + [the verified code].
  b) The verified code user's Itemized Billing Code for ARS will be used.
- **Verified Code PIN**
  A verified code PIN can also be assigned for each verified code through manager programming as well as through system programming.
- **Verified Code Entry through DISA**
  This feature is also available through Direct Inward System Access (DISA). (→ 1.15.6 Direct Inward System Access (DISA))
- **Verified Code PIN Lock**
  If the PIN is entered incorrectly three times, the line will be disconnected. If an incorrect PIN is entered a preprogrammed number of times, the PIN will be locked. Only an extension assigned as a manager can unlock a PIN, after which it will be reset.

Feature Guide References

1.9.1 Automatic Route Selection (ARS)
2.2.1 Class of Service (COS)
2.2.6 Manager Features

User Manual References

User Manual

1.2.6 Calling without Restrictions

3.2.2 Manager Programming

1.9 Automatic Route Selection (ARS) Features

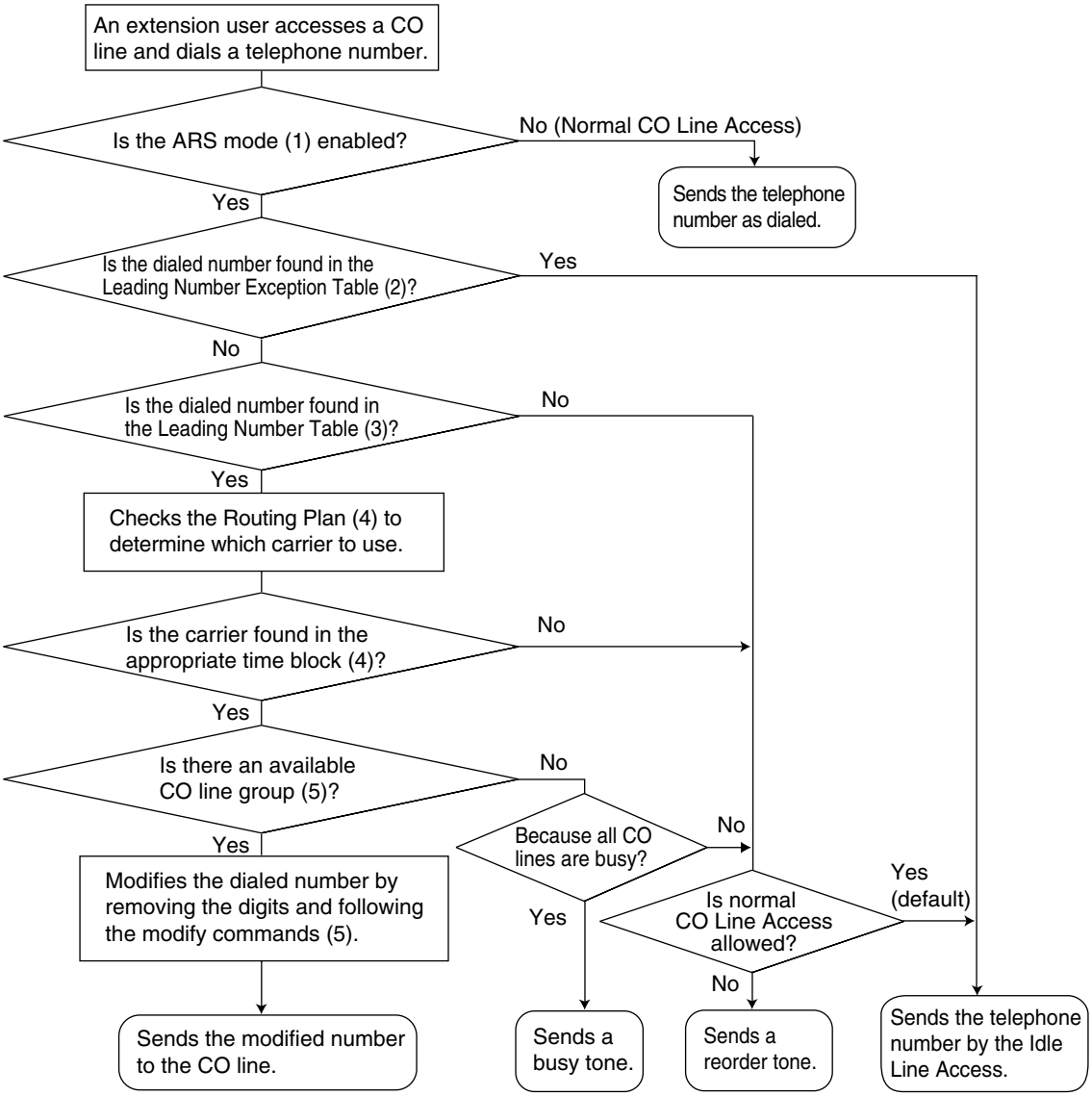
1.9.1 Automatic Route Selection (ARS)

Description

Different telephone carriers charge different rates for calls placed to different areas. Your PBX may use different telephone carriers to make calls to different areas in an effort to reduce costs. Automatic Route Selection (ARS) is a feature which automatically selects different carriers each time a CO line call is made. In order to use ARS effectively, various ARS-related tables must be preprogrammed to tell the PBX which calls should be placed using which carriers, during which time of day.

If you do not activate ARS, if ARS is bypassed, or if you do not use multiple carriers, CO line calls will be connected via the carrier contracted for each line (default carrier).

[Carrier Selection Procedure Flowchart]
The numbers in parentheses indicate the corresponding items found under [Programming Procedures] on the following pages.



[Programming Procedures]

1. **ARS Mode** (→ ARS Mode [320])
   ARS is turned on by selecting under which circumstances it operates – either when an extension user makes a call using the Idle Line Access method, or when any CO Line Access method is used. (→ 1.5.5.3 CO Line Access). ARS can also be turned off for the entire system.

2. **Leading Number Exception Table**
   Once ARS is activated, store the telephone numbers that will bypass ARS in the Leading Number Exception Table.
   Note that the first few digits (leading number) of a telephone number, such as an area code or local exchange, can also be stored, so that all calls to those areas or exchanges are exempted from ARS. Also note that the CO Line Access number is always ignored by ARS

and does not need to be programmed here.
Calls that are exempt from ARS are connected to the user-selected line, via the default carrier for that line.

[Programming Example: ARS Leading Number Exception Table]

Location No.	Leading No. Exception *1
1	555
2	556
3	567

*1 → ARS Exception Number [325]

In this example:
555, 556, and 567 are local exchanges. (555-XXXX, 556-XXXX, 567-XXXX)
These calls can be made using any carrier, and are therefore exempt from ARS.

3. Leading Number Table

Next, store the leading numbers of telephone numbers that should be routed by ARS, and assign a Routing Plan to each leading number that will control how calls containing these leading numbers are routed.
When an extension user dials a number which contains a leading number stored in the ARS Leading Number Table, the call will be routed the corresponding Routing Plan assigned here. Note that the CO Line Access number is always ignored by ARS and does not need to be programmed here.
Before programming the details of each Routing Plan (explained below), you can simply assign here the same Routing Plan number to all the different leading numbers which will be routed the same way.
If a dialed number matches two or more leading numbers stored in the ARS Leading Number Table, the lowest numbered location will have priority.

[Programming Example: ARS Leading Number Table]

Location No.	Leading No.*1	Additional No. of Digits	Routing Plan No.*2
1	1212	7	1
2	01181	0	5
3	01144	0	12

*1 → ARS Leading Number [321]
*2 → ARS Routing Plan Table Number [322]

Additional Number of Digits
In order for calls to be made using the desired carrier, telephone numbers dialed by extension users must be modified to meet the criteria required by the carrier. (Refer to 5. Carrier Table.) This modification usually involves removing digits and adding access codes to the beginning of the dialed number.
In situations where a preprogrammed number (such as an Itemized Billing Code) must be added automatically after the telephone number that was dialed by the extension user, set the Additional Number of Digits to a value greater than 0.

4. Routing Plan

Since the preferred carrier may vary depending on the time of day, you can create an ARS-specific time table and break each day of the week into different time blocks. A different carrier can then be assigned to each time block.

Routing Plan Time Table: For each Routing Plan, a different carrier can be assigned for each time of day and each day of the week. Each day can have up to four programmable time blocks.

Routing Plan Priority: For each Routing Plan, a different carrier can be assigned a different priority for each time of day. Generally, the carrier assigned to priority 1 will be used, however, if the CO lines assigned to this carrier are busy, a different available carrier will be used according to priority level.

ARS Leading Number Table

Location No.	Leading No.	Additional No. of Digits	Routing Plan No.
1	1212	7	1
2	01181	0	5
3	01144	0	12

ARS Routing Plan No. 1

Time Table*1			Carrier*2		
			Priority 1	Priority 2	
Monday	Time Block A	9:00	Carrier A	Carrier M	
	Time Block B	12:00	Carrier A	Carrier M	
	Time Block C	17:00	Carrier C	Carrier M	
	Time Block D	23:00	Carrier J	Carrier M	

*1 → ARS Routing Plan Time Table [330]

*2 → ARS Routing Plan Table (1–16) [331–346]

5. Carrier Table

Each carrier must be programmed in the Carrier Table. Here each carrier is assigned a carrier number, name, the CO lines it is used with, etc.

Carrier Name: Assign a name for the carrier. Used only as a reference.

CO Line Group: Assign the CO line groups which can be used when making calls via this carrier.

Carrier Access Code: Enter the carrier's access code. Consult carrier for details.

Removed Number of Digits: There may be circumstances where the user-dialed number must be modified in order for the carrier to connect the call. In this case, enter here the number of digits to be removed automatically from the beginning of the dialed number.

Modify Command: When a call is made using this carrier, the telephone number must be modified to meet the criteria required by the carrier in order to connect the call. Program here the commands needed to modify the user-dialed number as necessary.

[Command Explanation]

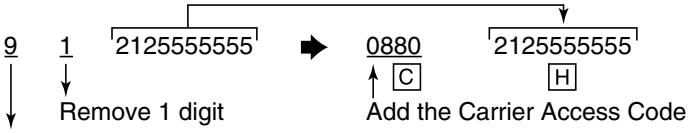
Command	Description
C	Inserts the Carrier Access Code
H	Inserts the user-dialed number minus any removed digits
P	Inserts a pause
A	Inserts the Authorization Code for Tenant
G	Inserts the Authorization Code for CO Line Group
I	Inserts the Itemized Billing Code
[0-9, ✳, #]	You can enter any of these digits in a modify command

[Programming Example: Carrier Table]

	Carrier 1	Carrier 2	
Carrier Name[*1]	Carrier A	Carrier J	
CO Line Group[*2]	1, 2, 3	4	
Carrier Access Code[*3]	0880	0700	
Removed No. of Digits[*4]	1	3	
Modify Command	CH	CPH	

In this example
Dialed number: 9-1-212-555-5555

Modification:



*1 → ARS Carrier Name [350]
*2 → ARS CO Line Group for Carrier Access [351]
*3 → ARS Carrier Access Code [353]
*4 → ARS Removed Number of Digits for Carrier Access [352]

6. ARS Options

Authorization Code for Tenant
A Carrier Authorization Code can be assigned to each tenant.

Authorization Code for CO Line Group
A Carrier Authorization Code can be assigned to each CO line group.

Itemized Billing Code
An Itemized Billing Code can be assigned for each extension and for each verified code. If a call is not made from an extension, such as via Direct Inward System Access (DISA), and no verified code is used, the Itemized Billing Code assigned to location 1 in the Verified Code Table will be used.

Conditions

WARNING
The software contained in the ARS feature to allow user access to the network must be upgraded to recognize newly established network area codes and exchange codes as they are placed into service.
Failure to upgrade the premises PBXs or peripheral equipment to recognize the new codes as they are established will restrict the customer and the customer's employees from gaining access to the network and to these codes.
KEEP THE SOFTWARE UP-TO-DATE WITH THE LATEST DATA.

- **Logging Outgoing Calls by SMDR**
  Whether SMDR logs the user-dialed number or the ARS-modified number is determined through system programming. (→ 1.21.1 Station Message Detail Recording (SMDR))
- **ARS Data Import/Export**
  ARS tables and data can be copied to and from the PBX and a PC using the KX-TAW848 Maintenance Console software. Files are saved in CSV (Comma Separated Value) format. Because of the large amounts of programming that may be necessary to use ARS effectively, you may choose to export ARS tables and data to a PC, edit them using the software of your choosing, then import the new data to the PBX. This is particularly convenient if you need to update your ARS tables for new area codes or telephone rates, or when you'd like to copy ARS tables from one PBX to another.
- **TRS**
  Toll Restriction (TRS) checks are performed before ARS number modification, so program TRS Denied Code Tables and Exception Code Tables accordingly. (→ 1.8.1 Toll Restriction (TRS))
- **When ARS Routing Takes Place**
  ARS routing takes place either when the inter-digit time expires, or after the preprogrammed number of digits (leading number + additional number of digits) have been dialed.

1.10 Conversation Features

1.10.1 Hands-free Operation

Description

A proprietary telephone (PT) user can talk to another party without lifting the handset. Pressing specific buttons, such as REDIAL, automatically activate hands-free mode.

Conditions

- **PTs with the MONITOR Button**
  PTs with the MONITOR button can dial in hands-free mode but cannot have hands-free conversations.

1.10.2 Mute

Description

During a conversation, a proprietary telephone (PT) user can disable the built-in microphone or the handset microphone to consult privately with others while listening to the other party on the phone through the built-in speaker or the handset receiver. The user can hear the other party's voice during Mute. Only your voice will be muted.

Conditions

- This feature is available on all PTs that have the AUTO ANS/MUTE button.

User Manual References

User Manual

1.4.6 Mute

1.10.3 Headset Operation

Description

This PBX supports headset compatible proprietary telephones (PTs). A PT user can talk to another party hands-free and without lifting the handset by using an optional headset. For connection and operation, refer to the Operating Instructions for the headset.

This feature is also known as Handset/Headset Selection.

Conditions

- Pressing the SP-PHONE button activates the headset, not the built-in speaker.

- **Answer/Release Button**
  A flexible button can be customized as an Answer button or a Release button. Such buttons are useful for headset operation. It is possible to answer an incoming call by pressing the Answer button. While hearing a call waiting tone during a conversation, pressing the Answer button enables one to answer the second call by placing the current call on hold. Pressing the Release button enables one to disconnect the line during or after conversation, or to complete a Call Transfer.

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.3.5 Answer/Release Button

1.4.7 Headset Operation

3.1.2 Settings on the Programming Mode

1.10.4 Data Line Security

Description

Once Data Line Security is set on an extension, communication between the extension and the other party is protected from signals such as Call Waiting, Hold Recall and Executive Busy Override. Extensions which have devices connected to them such as modems or fax machines may set this feature to maintain secure data transmission, by blocking tones or other interruptions during communication.

User Manual References

User Manual

1.7.6 Data Line Security

1.10.5 Flash/Recall/Terminate

Description

A proprietary telephone (PT) user can use the FLASH/RECALL button (Flash/Recall mode or Terminate mode) or Terminate button (Terminate mode) to disconnect the current call and originate another call without hanging up.

Flash/Recall Mode: Disconnects the line and the extension user hears the dial tone from the line used last. For example, if a CO line call is disconnected, the extension user will hear a new dial tone from the same CO line.

Terminate Mode: Disconnects the line and the extension user hears a dial tone via the preferred CO line. (→ 1.5.5.2 Line Preference—Outgoing)

Conditions

- **FLASH/RECALL Button Mode**
  One of the following modes can be selected for each extension through system programming:
  - Flash/Recall mode
  - Terminate mode
  - EFA mode. (→ 1.10.6 External Feature Access (EFA))
- **Terminate Button**
  Any flexible button can be customized as the Terminate button.
- **Disconnect Time (Only for Flash/Recall Mode)**
  The amount of time between successive accesses to the same CO line is programmable for each CO line port (→ LCOT Disconnect Time [418]).
- This feature generates a Station Message Detail Recording (SMDR) call record (→ 1.21.1 Station Message Detail Recording (SMDR)), restarts the call timer, inserts a pause, and checks the Toll Restriction (TRS) level (→ 1.8.1 Toll Restriction (TRS)) again.
- If Automatic Route Selection (ARS) is used (→ 1.9.1 Automatic Route Selection (ARS)) or if a CO line call is established using the INTERCOM button or G-DN button, Terminate mode will be effective even when Flash/Recall mode has been set.

Feature Guide References

1.18.2 Flexible Buttons

1.10.6 External Feature Access (EFA)

Description

An extension user can access features of a host PBX or the telephone company, such as Transfer, Hold, Call Waiting, etc. A flash/recall signal is sent to the host PBX or the telephone company. This is only available on CO line calls, including Host PBX Access (→ 1.5.4.6 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)).

Conditions

- **Flash/Recall Time**
  The Flash/Recall time can be assigned for each CO line port (→ LCOT Flash/Recall Time [417]).
- **EFA Button**
  A flexible button can be customized as the EFA button.
- This feature is accessed by pressing the FLASH/RECALL button which is set to EFA mode (→ 1.10.5 Flash/Recall/Terminate) or the EFA button. It is also possible to perform this feature by entering the feature number when the current call is placed on a consultation hold (→ 1.12.5 Consultation Hold).

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.9.2 Host PBX

1.10.7 CO Line Call Limitation

Description

CO Line calls are limited by the following features:

Feature	Description
Extension-to-CO Line Call Duration	If a call between an extension user and an outside party is established, the call duration can be restricted by the system timer selected for each CO line group (→ Extension-to-CO Line Call Duration [472]). Both parties will hear an alarm tone 15 seconds before the timer expires, at five-second intervals. If the timer expires, the line will be disconnected. Class of Service (COS) programming determines whether this feature is enabled or disabled (→ CO Line Call Duration Limitation [502]). Whether this feature is applied to outgoing calls only or to both incoming and outgoing calls is also programmable.
CO-to-CO Line Call (except Unattended Conference Call) Duration	If a call between two outside parties is established, the call duration can be restricted by the system timer selected for each CO line group (→ CO-to-CO Line Call Duration [473]). Both parties will hear an alarm tone 15 seconds before the timer expires at five-second intervals. If the timer expires, the line will be disconnected. This timer applies to CO line calls which are made via the PBX. If both calls are made by the extension (such as a CO line call made by an extension is transferred to an outside party), the shorter timer will apply to the call.
Dialing Digit Restriction during Conversation	While engaged on a received CO line call, the dialing of digits can be restricted. If the number of dialed digits exceeds the limitation, the line will be disconnected.

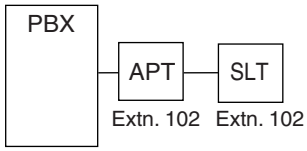
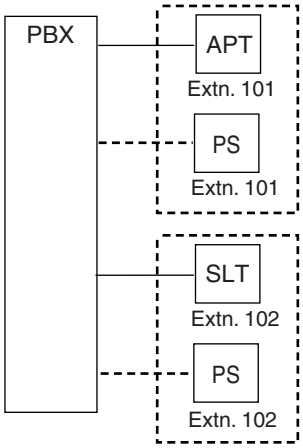
Conditions

- During an Unattended Conference Call, the Unattended Conference Recall time is applied. (→ 1.13.1.2 Conference)

1.10.8 Paralleled Telephone

Description

By connecting telephones in parallel, you can increase the number of telephones connected to the PBX without adding additional extension cards.
Both wired and wireless telephones can be connected in parallel. Single line telephones (SLTs) and analog proprietary telephones (APTs) can be connected to other telephones or connectors, allowing two telephones to be connected to the PBX through just one extension port. Additionally, portable stations (PSs) can be linked to other telephones wirelessly and be used as a "paired" extension.
The different type of parallel connections are described below.

Features	Descriptions	Connections
Parallel Mode	Allows an SLT to be connected to an APT which is connected to a preinstalled hybrid port of the PBX. When the two telephones are connected in parallel mode: • Both share one extension number (APT's extension number). • Either telephone can make or answer calls.	**APT + SLT** 
Wireless XDP Parallel Mode	For information on this type of parallel connection, refer to the Wireless XDP Parallel mode feature. (→ 1.20.3 Wireless XDP Parallel Mode)	**APT/SLT + PS** 

Conditions

[APT + SLT]

- If one telephone goes off-hook while the other is on a call, a three-party call is established. If one user goes on-hook, the other user continues the call.
- An extension user cannot originate a call from the SLT if the APT is:
  - playing background music (BGM)
  - receiving a paging announcement over the built-in speaker.

Installation Manual References

Installation Manual

2.6.2 Parallel Connection of the Extensions

1.10.9 Calling Party Control (CPC) Signal Detection

Description

The Calling Party Control (CPC) signal is an on-hook indication (disconnect signal) sent from a CO line when the other party hangs up. To maintain efficient utilization of CO lines, the PBX monitors each line's status and when CPC signal is detected on a line, the PBX disconnects the line and alerts the extension with a reorder tone.

Conditions

- CPC signal detection is programmable for incoming CO line calls (→ LCOT CPC Signal Detection Time—Incoming [414]), and for outgoing CO line calls (→ LCOT CPC Signal Detection Time—Outgoing [413]).
- If your telephone company sends signals similar to CPC, it is recommended not to enable CPC signal detection on outgoing CO line calls.
- If CPC signal is detected during a conference call (→ 1.13.1.2 Conference), the line is disconnected. The remaining parties stay connected.
- If CPC signal is detected during a call between a caller using the Direct Inward System Access (DISA) feature (→ 1.15.6 Direct Inward System Access (DISA)) and an extension or an outside party, the line is disconnected.

1.11 Transferring Features

1.11.1 Call Transfer

Description

An extension user can transfer a call to another extension or an outside party. The following features are available:

Feature	Transferring method
With Announcement	Transfer is completed after announcing the transfer to the destination party.
Without Announcement	Transfer is completed without an announcement. After dialing the transfer destination, the originator can replace the handset once a ringback tone is heard.

Call Transfer with Announcement is also known as Call Transfer—Screened.

Call Transfer without Announcement is also known as Call Transfer—Unscreened.

Conditions

- If Music on Hold is enabled, music can be sent to the held party while the call is being transferred. (→ 1.12.4 Music on Hold) It is programmable whether a ringback tone or music is sent to the caller. (→ Music for Transfer [712])
- If the transfer destination extension has set FWD to an outside party, the call will be transferred to the outside party. (→ 1.3.1.2 Call Forwarding (FWD))
- Class of Service (COS) programming determines the extensions that are able to transfer a call to an outside party (→ Call Transfer to CO Line [503]).
- **Transfer Recall for Call Transfer without Announcement**
  If the transfer destination does not answer within the preprogrammed Transfer Recall time (→ Transfer Recall Time [201]), the call will be redirected to the Transfer Recall destination assigned to the extension which transferred the call. If a Transfer Recall destination is not assigned, the call will return to the extension.

  [Available destination for Transfer Recall]

Destination	Availability
Wired Extension (PT/SLT)	✔
PS	✔
ICD Group	✔
PS Ring Group	
VM Group (DTMF/DPT)	
External Pager (TAFAS)	
DISA	
Analog Remote Maintenance	

Destination	Availability
Idle Line Access no. + Phone no.	
CO Line Group Access no. + CO Line Group no. + Phone no.	

- **One-touch Transfer**
  DSS Console users and the proprietary telephone (PT) users can hold a call and quickly transfer it to an extension by pressing the DSS button directly. A One-touch Dialing button can also be used if the TRANSFER command is stored with an extension number or a telephone number (→ 1.6.1 Memory Dialing Features).
- **Consultation Hold**
  When an extension user performs a Call Transfer, the call is placed automatically on consultation hold (→ 1.12.5 Consultation Hold).

User Manual References

User Manual

1.4.1 Call Transfer

1.12 Holding Features

1.12.1 Call Hold

Description

An extension user can put a call on hold. The following Hold features are available:

Feature	Description
Call Hold General	Any extension can retrieve a held call.
Exclusive Call Hold	Only the extension user who held the call can retrieve it.

The result of the holding operation can be determined through system programming. Pressing the HOLD button again just after the first time alternates the mode between General and Exclusive Call Hold.

Conditions

- Using the Call Hold feature, a proprietary telephone (PT) user can have one intercom call and multiple CO line calls on hold simultaneously. To hold multiple intercom calls, the user should use the Call Park feature. (→ 1.12.2 Call Park) Using the Call Hold feature, a single line telephone (SLT) user can have either one intercom call or one CO line call on hold. To hold multiple calls, the user should use the Call Park feature.
- **Music on Hold**
  Music, if available, is sent to the held party. (→ 1.12.4 Music on Hold)
- **Hold Recall**
  If a call on hold is not retrieved within a preprogrammed time period (→ Hold Recall Time [200]), the Hold Recall tone is heard at the extension which put the call on hold. If the extension is engaged in a call, the Hold Alarm will be heard.
- If an outside party is placed on hold and the call is not retrieved within a preprogrammed time period after the Hold Recall time expires, the call is automatically disconnected.
- **Automatic Call Hold**
  A PT can be configured through system programming to place the current call on hold when the PT user presses a CO, G-DN, or INTERCOM button to make or answer another call. If this feature is not enabled, the current call will be disconnected.

  [Example of Automatic Call Hold]
  It is possible to receive an incoming CO line call by pressing the flashing G-DN button. The current intercom call (on the INTERCOM button) is placed on hold. To return to the held call, press the INTERCOM button.
- **Call Hold Retrieve Deny**
  Internal Call Block (→ 1.1.2.2 Internal Call Block) also determines which extensions' calls an extension user can retrieve, i.e., if extension 101 cannot call extension 201, then it cannot retrieve extension 201's held calls either.
- **SLT Hold Mode**
  It is possible to choose how to hold and transfer a call with an SLT through system programming. The following methods are available:

	Hold	Transfer to CO Line	Transfer to Extension
Mode 1	Flashing the hookswitch + Going on-hook	Flashing the hookswitch + CO Line Access No.	Flashing the hookswitch + Extension No.
Mode 2 (Default)	Flashing the hookswitch + Hold Feature No. + Going on-hook	Flashing the hookswitch + CO Line Access No.	Flashing the hookswitch + Extension No.
Mode 3	Flashing the hookswitch + Hold Feature No. + Going on-hook	Flashing the hookswitch + Hold Feature No. + CO Line Access No.	Flashing the hookswitch + Extension No.
Mode 4	Flashing the hookswitch + Hold Feature No. + Going on-hook	Flashing the hookswitch + Hold Feature No. + CO Line Access No.	Flashing the hookswitch + Hold Feature No. + Extension No.

If one of the following occurs frequently with an SLT, choose "`Mode 2`", "`Mode 3`", or "`Mode 4`":

a) When an SLT user answers a call, a reorder tone is heard or no one is heard on the other end.

b) When an SLT user goes off-hook, a reorder tone is heard instead of a dial tone.

If a call is not terminated after going on-hook, the above cases occur. To avoid these problems, choose "`Mode 2`", "`Mode 3`", or "`Mode 4`". Every call will be terminated unless the Hold feature number is entered after flashing the hookswitch in Mode 2, Mode 3, and Mode 4.

- Hold Alarm tone pattern has a default (→ 5.2.1 Tones/Ring Tones).

User Manual References

User Manual

1.4.2 Call Hold

1.12.2 Call Park

Description

An extension user can place a call into a common parking zone of the PBX. The Call Park feature can be used as a transferring feature; this releases the user from the parked call to perform other operations. A parked call can be retrieved by any extension user.

Conditions

- **Automatic Call Park**
  It is possible to select an idle parking zone automatically.
- **Retry**
  If the specified parking zone is occupied or there is no vacant zone for Automatic Call Park, the originator will hear a busy tone. Retrying is possible while hearing a busy tone by selecting another parking zone or a vacant zone.
- **Call Park Recall**
  If a parked call is not retrieved within a preprogrammed time period, the Call Park Recall tone will be heard at the Transfer Recall destination assigned to the extension which parked the call. If the destination is engaged in a call, the Hold Alarm will be heard.
- If a parked CO line call is not retrieved within a preprogrammed time period (Default: 30 minutes), it is automatically disconnected.
- **Call Park Button**
  Pressing the Call Park button parks or retrieves a call in a preset parking zone.
  Any flexible button can be customized as the Call Park button. It shows the current status of the preset parking zone as follows:

Light pattern	Status
Slow red flashing	A call is parked in the preset parking zone
Off	There are no parked calls

- **Call Park (Automatic Park Zone) Button**
  Pressing the Call Park (Automatic Park Zone) button parks a call in an idle parking zone automatically. Any flexible button can be customized as the Call Park (Automatic Park Zone) button.
- **Call Park Retrieve Deny**
  Internal Call Block (→ 1.1.2.2 Internal Call Block) also determines which extensions' calls an extension user can retrieve from a parking zone, i.e., if extension 101 cannot call extension 201, then it cannot retrieve extension 201's parked calls either.

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.4.2 Call Hold

1.12.3 Call Splitting

Description

An extension user can speak alternately with two parties, similar to conventional call waiting. Placing the current call on hold allows the user to speak with the other party.

Conditions

- **Consultation Hold**
  While having a conversation with one party, the other party is on consultation hold. (→ 1.12.5 Consultation Hold)

User Manual References

User Manual

1.4.3 Call Splitting

1.12.4 Music on Hold

Description

Music can be played to any party on hold. The following audio sources are available:

a) Internal audio source

b) External audio source

c) Tone

Either a background music (BGM) or tone can be selected as the Music on Hold (→Music on Hold [711]).

The audio source for BGM can be selected through system programming (→Audio Source Selection for BGM [710]). Available audio sources include internal audio source 1 and 2, and an external audio source.

Conditions

- **Hardware Requirement:** User-supplied audio device (CD player, radio, etc.)
- **Volume Control**
  It is possible to change the volume of an internal and/or external audio source.
- Each tenant can be assigned an audio source. (→2.2.3 Tenant Service)

Installation Manual References

Installation Manual

2.9.1 Connection of Peripherals

1.12.5 Consultation Hold

Description

When an extension user is on a call and performs a Call Transfer (→ 1.11.1 Call Transfer), Call Splitting (→ 1.12.3 Call Splitting), or tries to establish a conference call (→ 1.13.1.2 Conference), the call is automatically placed on consultation hold. When the operation is completed or canceled, the consultation hold is released.

1.13 Conference Features

1.13.1 Conference Features

1.13.1.1 Conference Features—OVERVIEW

Description

A conference call allows three or more parties to have a conversation. The following features are available to establish a conference call:

Feature	Description	Details in
Conference	During a two-party conversation, an extension user can add other parties to establish a conference call with up to eight parties.	• 1.13.1.2 Conference
Executive Busy Override	An extension user can interrupt an existing call to establish a three-party conference call.	• 1.7.2 Executive Busy Override
Privacy Release	During a conversation with an outside party on the S-CO button, a proprietary telephone (PT) user can allow another extension to join the conversation.	• 1.13.1.3 Privacy Release

Conditions

- Up to 32 parties (including extension users and outside parties) can be engaged in different conference calls simultaneously. (4 eight-party conferences, 8 three-party conferences plus 2 four-party conferences, 10 three-party conferences, etc.)

1.13.1.2 Conference

Description

This PBX supports conference calls consisting of up to eight parties. During a two-party conversation, an extension user can add other parties to their conversation, thereby establishing a conference. Conferences of more than four parties are only possible when a proprietary telephone (PT) user originates the conference.

Unattended Conference
The PT user who originated the conference can leave a conference to allow other parties to continue the conversation. The user may return to the conference, if he or she desires.

Conditions

- **Conference Button**
  For a PT which does not have the CONF (Conference) button, a flexible button can be customized as the Conference button.
- **Unattended Conference Call Duration**
  The duration of an Unattended Conference can be restricted by the Unattended Conference Recall time. The Unattended Conference Recall time consists of the following programmable timers:
  a) **Unattended Conference Recall Start Time:** When the timer expires, Unattended Conference Recall starts to be heard at the conference originator. If the originator does not return to the conference, Unattended Conference Recall Continuous time before Sending Alarm Tone to CO will start.
  b) **Unattended Conference Recall Continuous Time before Sending Alarm Tone to CO:** When the timer expires, an alarm tone starts to be heard by parties in the Unattended Conference. If the originator does not return to the conference, Unattended Conference Recall & Alarm Continuous time before Disconnecting will start.
  c) **Unattended Conference Recall & Alarm Continuous Time before Disconnecting:** When the timer expires, the Unattended Conference call is disconnected.

  If the originator returns to the conference before the Unattended Conference call is disconnected, the timer will be canceled. If not, Unattended Conference Recall and an alarm tone will continue to be heard until the Unattended Conference call is disconnected.
- **For Conferences of Six or More Parties**
  An ECHO card is required, and Echocanceler should be enabled through system programming.
- **Consultation Hold**
  When an extension user tries to establish a conference call, the current call is placed automatically on consultation hold until the conference is established (→ 1.12.5 Consultation Hold).

Installation Manual References

Installation Manual

2.5.2 ECHO8 Card

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.4.5 Multiple Party Conversation

1.13.1.3 Privacy Release

Description

By default, all conversations which take place on CO lines, extension lines and doorphone lines are protected from others interrupting the conversations (**Automatic Privacy**).
Privacy Release allows a proprietary telephone (PT) user to suspend Automatic Privacy for an existing CO line call on the S-CO button in order to establish a three-party call.
System programming is required to enable or disable this feature.

Conditions

- **S-CO Button**
  Any flexible button can be customized as the S-CO button.
- **Privacy Release Time**
  Privacy is released for five seconds to allow the conversation to be joined.
- This feature overrides Data Line Security (→ 1.10.4 Data Line Security) and Executive Busy Override Deny (→ 1.7.2 Executive Busy Override).

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.4.5 Multiple Party Conversation

1.14 Paging Features

1.14.1 Paging

Description

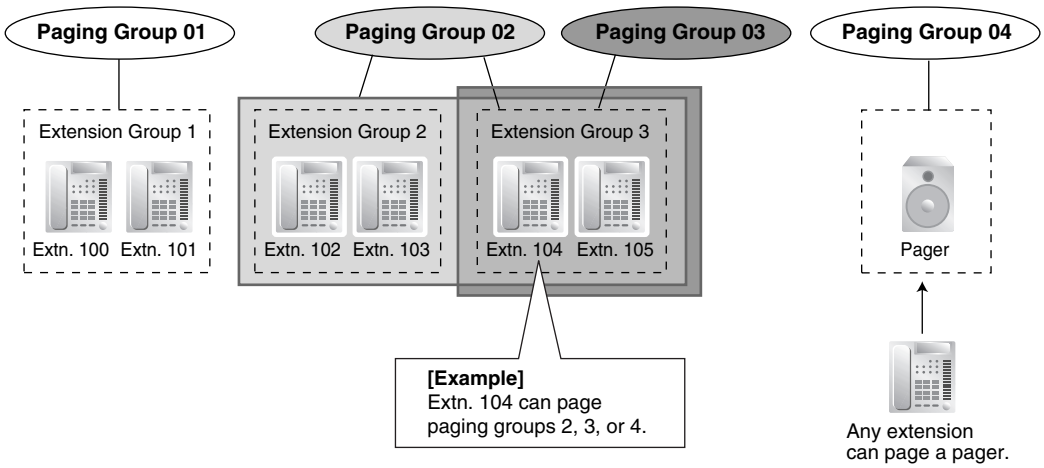
An extension user can make a voice announcement to several people at once.
The announcement is heard through the built-in speakers of proprietary telephones (PTs) and/or an external pager (loudspeaker) which belong to a paging group.
The paged person can answer the page from a nearby telephone.
It is possible to page with a call on hold in order to transfer the call.

Paging Deny
It is possible to deny being paged on an extension basis.

Paging Group

Each paging group consists of extension groups and an external pager. One extension group or external pager can belong to several paging groups.
An extension can page the extension members and the external pager of the same paging group only. If no extension group is assigned but an external pager is assigned to a paging group, any extension can page the external pager in the paging group.
(→ 2.2.2 Group)

[Example]



[Programming Example]

Paging Group No.	Extension Group No. *1				External Pager *2
	001	002	003	...	
01	✔				
02		✔	✔		
03			✔		
04					✔
05	✔	✔	✔		✔

✔ Constituent
*1 → Extension Groups of a Paging Group [640]
*2 → External Pager of a Paging Group [641]

Explanation:

Paging Group No.	Explanation
01	Extensions in extension group 001 can page or be paged.
02	Extensions in extension groups 002 and 003 can page or be paged.
03	Extensions in extension group 003 can page or be paged.
04	All extensions (all extension groups) can page through the external pager.
05	All extensions (all extension groups) can page or be paged. An external pager can also be paged.

Conditions

- Extensions which cannot be paged are:
  - Portable stations (PSs)
  - Single line telephones (SLTs)
  - Ringing or busy PTs
  - PTs in Paging Deny mode
  - PTs in Paging DND mode

  These extensions cannot be paged, but can answer a page.
- **External Pager Priority**
  The external pager can be used with the following priorities:
  Trunk Answer From Any Station (TAFAS) → Paging → Background Music (BGM)
  (→ 1.15.3 Trunk Answer From Any Station (TAFAS), → 1.15.4 Background Music (BGM))
- **Volume Control**
  The volume level of pages heard from an external pager can be changed through system programming.

- **Paging DND**
  When Do Not Disturb (DND) (→ 1.3.1.3 Do Not Disturb (DND)) is set for incoming calls, it is programmable whether an extension receives paging through system programming.

User Manual References

User Manual

1.6.1 Paging

1.6.2 Answering/Denying a Paging Announcement

1.15 Optional Device Features

1.15.1 Doorphone Call

Description

A visitor can use a doorphone to call its preprogrammed destination. Extension users can call a doorphone.

Conditions

- **Hardware Requirement:** An optional doorphone and DPH card.
- **Call Destination**
  The destination of doorphone calls can be assigned to each doorphone port for each time mode (→ Doorphone Call Destination [720]). The Time Table is determined by the tenant number assigned to each doorphone port. (→ 2.2.4 Time Service)
  Certain destinations cannot be the destination of doorphone calls. (→ 1.1.2.1 Internal Call Features—OVERVIEW)
- Class of Service (COS) programming determines the doorphone ports that are able to make an outgoing CO line call.
- Internal Call Block (→ 1.1.2.2 Internal Call Block) determines which extensions can call a doorphone.
- **Ring Duration**
  If an incoming doorphone call is not answered within a preprogrammed time period, ringing stops and the call is canceled.
- **Call Duration**
  The duration of doorphone calls can be restricted by a system timer. If the timer expires, the call will be disconnected.
- **Door Open**
  While engaged on a doorphone call, an extension user can unlock the door to let the visitor in. (→ 1.15.2 Door Open)
- A doorphone number can be referenced for each doorphone port (→ Doorphone Number Reference [729]).
- Certain pairs of doorphones (doorphones 1 and 2, and doorphones 3 and 4) cannot make or receive calls simultaneously.
  If a visitor presses the doorphone button while the other doorphone is engaged in a call, he or she will hear no tone. If an extension user calls a doorphone while the other doorphone is engaged in a call, the extension user will hear a busy tone.

Installation Manual References

Installation Manual

2.5.1 DPH4 Card

2.8.1 Connection of Doorphones and Door Openers

User Manual References

User Manual

1.9.1 Doorphone/Door Opener

1.15.2 Door Open

Description

Using an extension telephone, an extension user can unlock a door for a visitor.
The door can be unlocked by extension users who are allowed to unlock the door in the Class of Service (COS) programming (→ Permission for Door Open Access [512]). While engaged on a doorphone call, any extension user can unlock a door to let a visitor in (→ 1.15.1 Doorphone Call).

Conditions

- **Hardware Requirement**: A user-supplied door opener installed on each door.
- A door opener can unlock a door even if no doorphone is installed.
- **Door Open Duration**
  An opened door will remain unlocked for a preprogrammed length of time (→ Door Open Duration [207]).

Installation Manual References

Installation Manual

2.8.1 Connection of Doorphones and Door Openers

User Manual References

User Manual

1.9.1 Doorphone/Door Opener

1.15.3 Trunk Answer From Any Station (TAFAS)

Description

A ring tone is sent through an external pager (loudspeaker) when an incoming call is received. Any extension user can answer the call.

Conditions

- **Hardware Requirement:** A user-supplied external pager
- **Floating Extension Number**
  A floating extension number can be assigned to an external pager (→ External Pager Floating Extension Number [700]). An external pager is accessed by dialing its floating extension number.

- **Pager Volume**
  It is possible to change the volume level of an external pager through system programming.

Installation Manual References

Installation Manual

2.9.1 Connection of Peripherals

User Manual References

User Manual

1.3.4 Trunk Answer From Any Station (TAFAS)

1.15.4 Background Music (BGM)

Description

A proprietary telephone (PT) user can listen to background music (BGM) through the built-in speaker while on-hook and idle.

BGM—External
BGM can also be broadcast in the office through an external pager (loudspeaker) and can be turned on and off by an extension assigned as a manager.

Conditions

[BGM]

- **Hardware requirement:** A user-supplied external audio source, such as a CD player or radio.
- The music heard through the PT is interrupted when going off-hook.

[BGM—External]

- **Hardware requirement:** A user-supplied external pager
- The external pager can be used with the following priorities:
  Trunk Answer From Any Station (TAFAS) → Paging → BGM
  (→ 1.14.1 Paging, → 1.15.3 Trunk Answer From Any Station (TAFAS))

Installation Manual References

Installation Manual

2.9.1 Connection of Peripherals

User Manual References

User Manual

1.7.5 Background Music (BGM)

2.1.4 External Background Music (BGM)

1.15.5 Outgoing Message (OGM)

Description

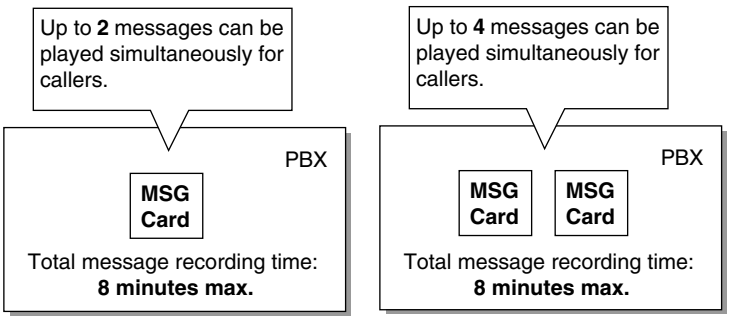
An extension assigned as a manager (manager extension) can record outgoing messages (OGMs) for the following features:

Feature	Usage	Details in
Direct Inward System Access (DISA)	When a call arrives on a DISA line, the caller will hear a message.	• 1.15.6 Direct Inward System Access (DISA)
Queuing Feature	If assigned in the Queuing Time Table of the incoming call distribution (ICD) group (→ Sequences in Queuing Time Table [631]), callers waiting in a queue will hear a message.	• 1.2.2.3 Queuing Feature
Timed Reminder	When answering the Timed Reminder Alarm, the user will hear a message.	• 1.22.4 Timed Reminder

Conditions

- **Hardware Requirement:** An MSG card.
- **Number of Messages and Recording Time**
  The PBX can record a maximum of 32 messages. The maximum recording time of each message is one minute. Note that the total recording time of the PBX is 8 minutes.
- A floating extension number can be assigned to each outgoing message (OGM) (→ Outgoing Message (OGM) Floating Extension Number [730]).
- Each MSG card can play two messages simultaneously. Adding additional MSG cards increases the number of messages that can be played simultaneously, but does not increase the total recording time or the number of messages that can be recorded.

  [Example]



Note

When an additional MSG card is added, it is blank—all necessary messages will need to be stored in the new card. This can be done in two ways:

a) By installing the new MSG card then recording each message again. The PBX will automatically store the new recordings in each MSG card.

b) By transferring messages from the PBX to a PC using KX-TAW848 Maintenance Console, then transferring them back to the PBX with the new MSG card installed.

- The same message can be played to multiple callers simultaneously.
- **Recording Methods**

  a) Record voice messages through the extension telephone.

  b) Transfer prerecorded voice messages from an external audio source to the PBX via an external music port.

  Note

  Record voice messages only; avoid the recording of music.

- After recording messages, a manager extension can also play them back for confirmation.
- A progress tone is sent to a manager extension before recording messages for a preprogrammed time period, or while clearing a prerecorded message assigned to a floating extension number.
- Record a message when PBX traffic is light, such as early morning or late evening.
- When a manager tries to record a message, he or she will hear a ringback tone if a message channel is in use. When all ports of the MSG card(s) become idle, the manager will hear the progress tone for a preprogrammed time period, then the PBX will automatically switch to the recording mode.

Installation Manual References

Installation Manual

2.5.3 MSG2 Card

User Manual References

User Manual

2.1.5 Outgoing Messages (OGM)

1.15.6 Direct Inward System Access (DISA)

Description

Direct Inward System Access (DISA) allows outside callers to be connected to their desired PBX destinations without the use of an operator. Callers can listen to an outgoing message (OGM) instructing them as to which numbers to dial to be connected to the person or department they would like to speak with.
DISA can also give PBX users access to PBX features, such as making CO line calls or changing their extension settings, when they are outside the office.
To use DISA, the incoming call must first be directed (via DIL distribution) to a floating extension number assigned to an OGM used by DISA. This OGM can then guide callers and allow them to:

- Make an intercom call to an operator, extension, or to a floating extension number, such as an incoming call distribution (ICD) group or a modem used for remote system administration.
- Call another outside party via the CO lines of the PBX.

- Set or operate PBX features, such as Call Forwarding (FWD) or Extension Lock, remotely.

OGM

When a call is directed to a floating extension number assigned to an OGM used by DISA, callers will hear the OGM. If using the DISA Automated Attendant (AA) service, this OGM will direct callers to press the appropriate digit (DISA AA number) to be connected to a specific destination. To access other PBX features, such as making intercom or CO line calls, the caller may dial the appropriate numbers while the OGM is playing.
Any extension assigned as a manager can record an OGM. (→ 1.15.5 Outgoing Message (OGM))

DISA AA Service

DISA AA service allows a caller to dial a single-digit number (DISA AA number) and be connected to the desired party automatically. Each DISA OGM can be assigned up to ten destinations that can be called by dialing a DISA AA number (0–9). These destinations can be any destination within the PBX which has an extension number or floating extension number. After or while listening to the OGM, the caller may dial a DISA AA number as directed by the OGM. ("Press 1 to speak to Sales. Press 2 to speak to Support.") Each DISA AA number directs the call to a preprogrammed location, which can even be another DISA floating extension number **(Multistep DISA AA Service)**.
Since DISA AA numbers are single-digits, if the caller dials a second digit within a preprogrammed time period (DISA Second Digit Time for Automated Attendant), DISA AA service will be bypassed because the PBX will assume the caller is trying to access a specific feature.

[Programming Example: DISA OGM Setting]

Each DISA OGM can be assigned a floating extension number, a destination for each DISA AA number, and the OGM number of the OGM played when the called destination is busy or in Do Not Disturb (DND) mode.

OGM No.	Floating Extn. No.*1	Automated Attendant No.										Busy/DND Message No.
		0	1	2	3	4	5	6	7	8	9	
01	300	100	301	200	103	202	101	102	400	104	205	04
02	301											05

*1 → Outgoing Message (OGM) Floating Extension Number [730]

DISA Intercept Routing—No Dial

If the caller fails to dial any digits within a preprogrammed time period (DISA First Digit Time for Routing to Operator When No Dial) following the OGM, the call is redirected to an operator extension.

DISA Intercept Routing—Busy/DND

If the destination of a DISA call is in DND mode or is busy (and has not set Call Waiting or FWD), the call will be redirected to an idle extension in the destination's idle extension hunting group. (→ 1.2.1 Idle Extension Hunting) If no extension in the group is available, or if the destination of the DISA call is not a member of an idle extension hunting group, the call will be handled in one of the following ways, according to system programming:

a) **Busy Tone:** The caller hears a busy tone.

b) **Intercept Routing:** The call will be routed to the Intercept Routing—Busy/DND destination assigned for the extension.

c) **OGM:** An OGM used only for when the destination is busy or DND can be played for the caller. ("The party you called is unavailable...")

DISA Intercept Routing—No Answer

If the destination of a DISA call does not answer the call within a preprogrammed time period (DISA Intercept time) (→ DISA Intercept Time [211]), the call will be redirected to the preprogrammed intercept destination. (→ 1.1.1.4 Intercept Routing)
If the intercept destination does not answer the call within a preprogrammed time period (DISA Disconnect Time after Intercept) after the DISA Intercept time expires, the call will be disconnected.

Call Retry

While hearing a ringback, reorder, or busy tone, the caller can press "✳" to "retry" the call. When a DISA call is retried, the caller will hear the original DISA OGM once again and can make the same or a different selection.

During a CO-to-CO line call, the caller can press "✳" to disconnect the CO line call and return to the original DISA OGM. If "`Mode When DISA Receives DTMF *`" is set to "`Send DTMF *`" the "✳" tone will be sent—the call will not be retried.

DISA Security Mode

Security can be enabled for the PBX to control the types of calls that can be made by callers using DISA. (→ DISA Security Mode [732]) However, note that the security setting does not effect DISA AA calls (AA calls can only be made to preprogrammed destinations and security is not an issue) or Operator Calls (→ 2.2.5 Operator Features).

Security Mode	Intercom Calls	CO Line Calls
All Security		
CO Line Security	✔	
No Security	✔	✔

✔ Permitted

Walking COS/Verified Code Entry through DISA

While the OGM is playing, DISA callers can use Walking COS (→ 1.8.4 Walking COS) and Verified Code Entry (→ 1.8.5 Verified Code Entry) to:

a) Make calls via DISA which are prohibited by the DISA Security Mode

b) Gain access to certain features, such as FWD, Extension Lock, etc. (Walking COS only)

This feature is particularly useful when a PBX user needs to make a business call while at home, or when an extension user forgets to set FWD on his or her extension before leaving the office.
All privileges and restrictions on making calls that apply when the user is using an extension telephone are also applied when using Walking COS or Verified Code Entry through DISA. Additionally, setting features by using Walking COS through DISA can be enabled or disabled

through system programming for each Class of Service (COS). (→ 1.22.5 Remote Extension Control by User)

CO-to-CO Line Calls through DISA

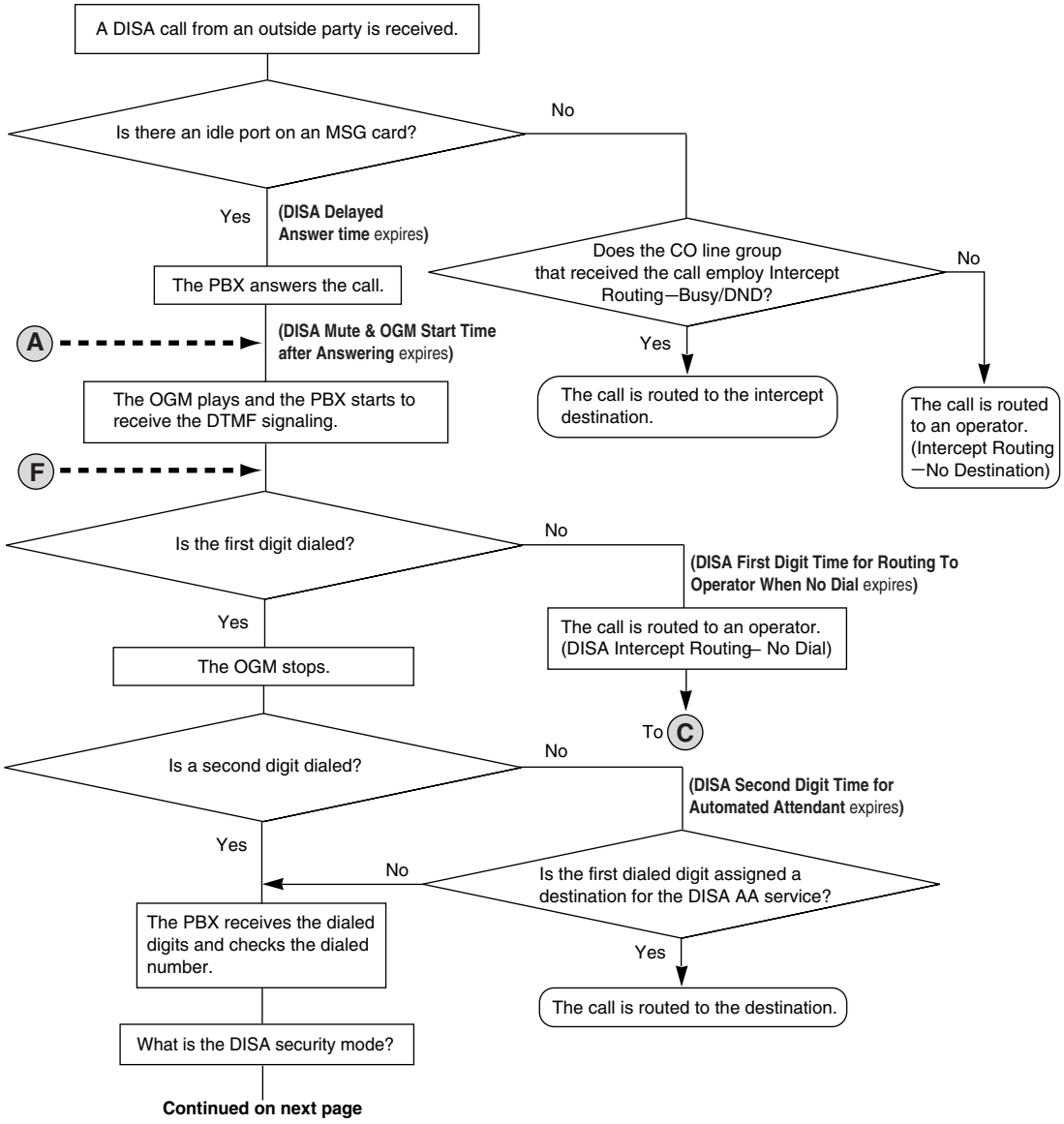
DISA callers can use DISA to make CO line calls in either of the following situations:

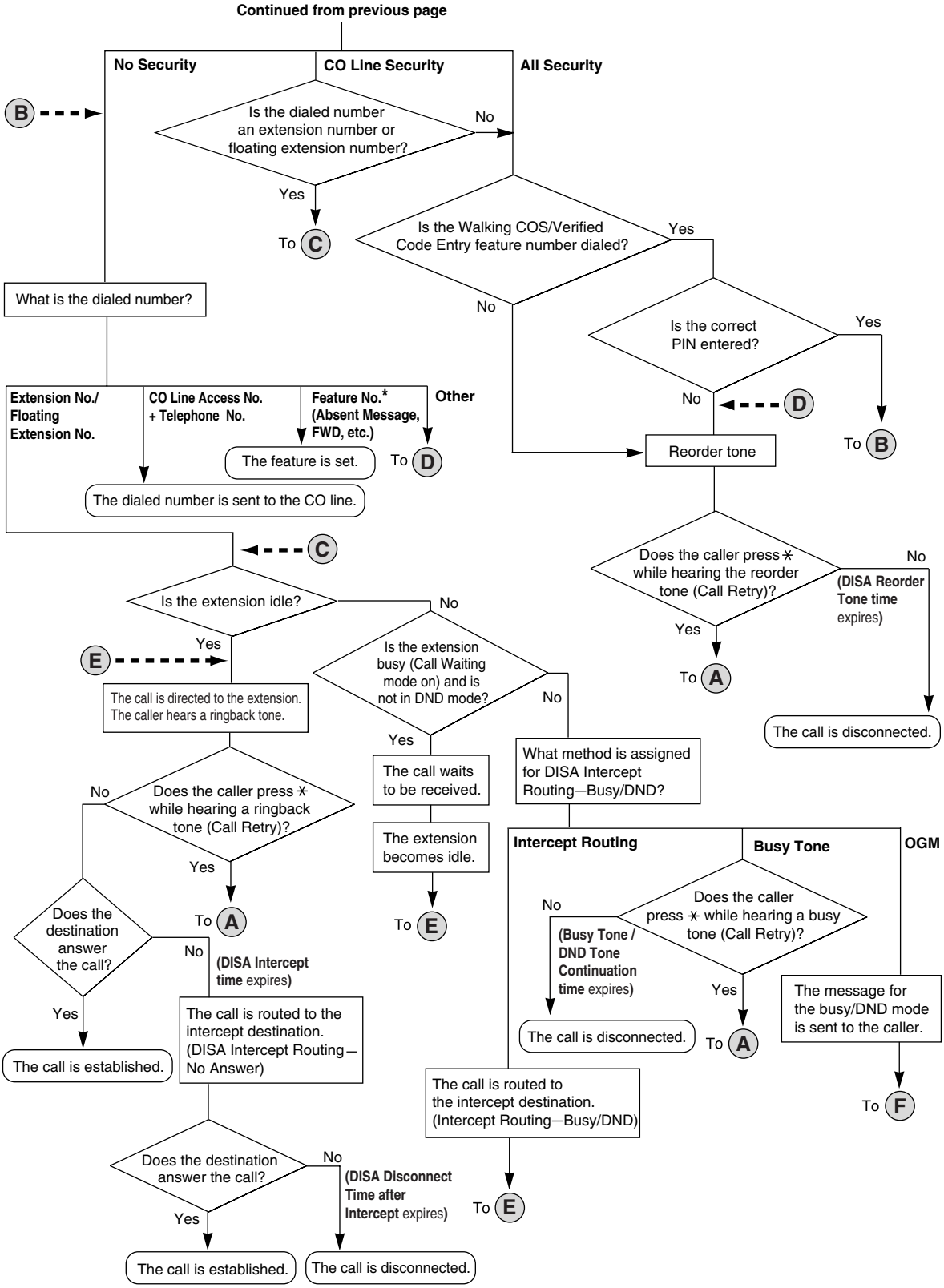
a) When the DISA Security Mode allows CO line calls

b) When the caller uses Walking COS or Verified Code Entry through DISA, and his or her COS allows CO line calls.

If a call between two outside parties is established via DISA, the length of the call can be limited to a preprogrammed duration. (→ 1.10.7 CO Line Call Limitation) A timer will activate when the call is connected, and a tone will be heard 15 seconds before the timer expires at five-second intervals.
At this point the call can be extended for a preprogrammed amount of time (→ DISA CO-to-CO Line Call Prolong Time [210]) by pressing any dialing button excluding "✳". 15 seconds before the extended time runs out, the tone will be heard again.
The number of times a CO-to-CO line call can be extended is also programmable; if set to "0", calls can be extended as many times as needed.
If the caller wishes to end the CO-to-CO line call but remain connected to the PBX in order to make other calls or access other DISA features, the caller can press "✳" at any time to return to the original DISA OGM (Call Retry).

[Flowchart]


A DISA call from an outside party is received.
Is there an idle port on an MSG card?
No
Yes
(DISA Delayed Answer time expires)
The PBX answers the call.
A
(DISA Mute & OGM Start Time after Answering expires)
The OGM plays and the PBX starts to receive the DTMF signaling.
F
Does the CO line group that received the call employ Intercept Routing—Busy/DND?
No
Yes
The call is routed to the intercept destination.
The call is routed to an operator. (Intercept Routing —No Destination)
Is the first digit dialed?
No
(DISA First Digit Time for Routing To Operator When No Dial expires)
Yes
The call is routed to an operator. (DISA Intercept Routing– No Dial)
The OGM stops.
To C
Is a second digit dialed?
No
(DISA Second Digit Time for Automated Attendant expires)
Yes
No
Is the first dialed digit assigned a destination for the DISA AA service?
The PBX receives the dialed digits and checks the dialed number.
Yes
The call is routed to the destination.
What is the DISA security mode?
Continued on next page



* Feature numbers are available only when the Walking COS feature is used.

Conditions

WARNING
There is a risk that fraudulent telephone calls will be made using the CO-to-CO Line Call feature of DISA.
The cost of such calls will be billed to the owner/renter of the PBX.
To protect the PBX from this kind of fraudulent use, we strongly recommend:

a) Enabling DISA security (CO Line Security or All Security).

b) Maintaining the secrecy of extension PINs and verified code PINs.

c) Selecting PINs which are complex and random, so that the PINs may not be easily guessed.

d) Changing PINs regularly.

- **Hardware Requirement:** An MSG card.
- **DISA Delayed Answer Time**

  It is possible to set the DISA Delayed Answer time (→ DISA Delayed Answer Time [209]) so that the caller will hear a ringback tone for a preprogrammed length of time before hearing an OGM.
- **DISA Mute Time**

  Certain DTMF signals, such as Caller ID information, may be sent from the telephone company when a call is first connected. Because these signals may interfere with DISA, the PBX can be programmed to ignore DTMF signals for a specified amount of time (DISA Mute & OGM Start Time after Answering) after a call is connected. After the DISA Mute time passes, DTMF signals are recognized by the PBX and the OGM begins playing.
- **SMDR**

  The following are logged by Station Message Detail Recording (SMDR) (→ 1.21.1 Station Message Detail Recording (SMDR)) for DISA calls:

  a) The floating extension number of the DISA OGM.

  b) The destination of the DISA call. (Extension number for internal calls, telephone number for CO-to-CO line calls.)

  c) The extension number used for Walking COS through DISA, or the verified code used for Verified Code Entry through DISA.
- **Tone Detection**

  Three different types of tone detection can be used to disconnect a CO-to-CO line call via DISA. Each tone detection type can be enabled or disabled for each CO line group.

  – Silence Detection (→ DISA Silence Detection [475])
  – Continuous Signal Detection (→ DISA Continuous Signal Detection [476])
  – Cyclic Signal Detection (→ DISA Cyclic Signal Detection [477])

- **DISA Reorder Tone Time**

  If a caller makes an invalid selection, a reorder tone will be sent to the caller. The caller can retry the call by pressing "✳", otherwise the call will be disconnected after a preprogrammed length of time (DISA Reorder Tone time).
- **Call Deny**

  Each COS can be programmed to accept or deny incoming DISA calls. A DISA call will be accepted or denied by an extension based on the COS of the extension.
- When using Walking COS or Verified Code Entry, a PIN must be entered. If the PIN is entered incorrectly three times when using DISA, the line will be disconnected. If an

incorrect PIN is entered a preprogrammed number of times, the PIN will be locked. Only an extension assigned as a manager can unlock a PIN, after which it will be reset.

- Each OGM can be assigned a name to be used as a reference while programming. (→ Outgoing Message (OGM) Name [731])
- Account Code Entry (→ 1.5.4.3 Account Code Entry) can be used when making a CO line call via DISA.

Installation Manual References

Installation Manual

2.5.3 MSG2 Card

Feature Guide References

1.1.1.4 Intercept Routing

1.1.1.5 Intercept Routing—No Destination

1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)

2.2.5 Operator Features

User Manual References

User Manual

1.2.7 Direct Inward System Access (DISA)

1.2.8 Remote Setting

1.16 Caller ID Features

1.16.1 Caller ID

Description

The PBX can receive Caller ID information (a caller's name and telephone number) from calls received on CO lines. This information can be shown on a proprietary telephone (PT) display when receiving a call and can be used to direct calls from specific callers to specific destinations automatically. Additionally, Caller ID information is logged in the Incoming Call Log of the extension which received the call, allowing the caller to view a record of incoming calls or make a call to a person in the call log later.
The PBX can be programmed to modify a caller's telephone number when it is received and, for example, add a CO Line Access number or add/delete certain digits of incoming telephone numbers automatically. This allows an extension user to be able to make a call later to a telephone number logged in his or her call log without worrying about CO Line Access numbers, area codes, etc.

Notes

- The term "Caller ID" used in this Feature Guide refers to features that can receive caller information sent from the telephone company and received on CO lines. Your network provider may use a different name for this type of service.
- To receive Caller ID information, you must subscribe to the telephone company's Caller ID service and enable Caller ID for the appropriate CO line through system programming.

Caller ID to SLT Port:

Caller ID information can also be shown on a single line telephone (SLT) display. This feature is available only for SLTs compatible with FSK-type Caller ID.

Note

This feature is compatible with ETSI-type FSK and Bellcore-type FSK.

1. Caller ID-Related Features

Features	Description	Details in
Calling Line Identification (CLI) Distribution	Caller ID information received by the PBX is used to direct calls from specific callers to specific destinations. The caller's telephone number and a destination must be assigned in the System Speed Dialing Table.	• 1.1.1.3 Calling Line Identification (CLI) Distribution
Incoming Call Log	Caller information is automatically recorded in the call log of the extension which received the call. This information can be used to view a record of incoming calls or make calls to any number in the call log.	• 1.16.2 Incoming Call Log

2. Automatic Caller ID Number Modification

When a call is received, the PBX can automatically modify the caller's telephone number according to a preprogrammed set of rules (Caller ID Modification Table). This modified number will be automatically stored in the extension's Incoming Call Log, allowing the extension user to make a call to this number later without worrying about CO Line Access numbers, area codes, etc.
Each CO line group can be assigned a modification table. Each table has ten formulas for modifying local/international numbers, and one formula for modifying long distance numbers. When a call is received, the PBX compares the received telephone number to the area codes programmed under "Local/International Call Data" first. If a match is not found, the telephone number will be modified according to the method programmed under "Long Distance Code".

[Programming Example: Caller ID Modification]

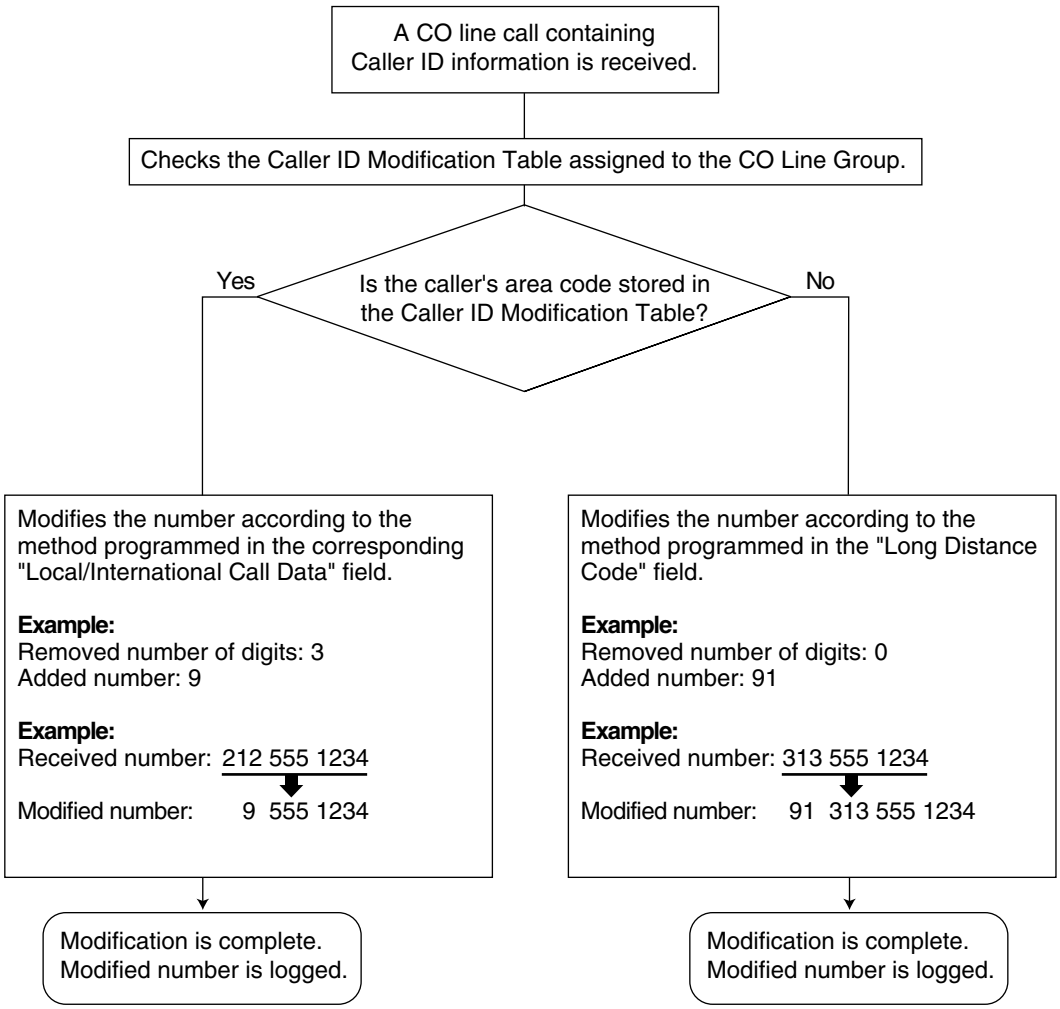
<Table Selection>

CO Line Group No.	Modification Table
1	1
2	3

<Modification Table>

Modification Table 1			
	Area Code	Removed No. of Digits	Added No.
Local/International Call Data 1	212	3	0
Local/International Call Data 2	011	3	001
Local/International Call Data 10			
Long Distance Code	[Not programmable]	0	0

<Modification Flowchart>



3. System Speed Dialing Table

The System Speed Dialing Table can store telephone numbers, names, and CLI destinations for hundreds of callers.

- **a)** **Telephone Number:** Contains a CO Line Access number and the caller's telephone number. If Automatic Caller ID Number Modification is used, telephone numbers should be stored in the System Speed Dialing Table in their modified format in order for CLI distribution to function.
- **b)** **Caller's Name:** Shown on the display and logged (Incoming Call Log, Station Message Detail Recording [SMDR]) when a call from this telephone number is received.
- **c)** **CLI Destination:** The destination to which an incoming call from the stored telephone number is directed via the CLI distribution feature.

[Programming Example: System Speed Dialing Table]

Location (System Speed Dialing No.)	System Speed Dialing Name*1	Telephone No.*2	CLI Destination
000	ABC Company	912125551234	200
001	XYZ Company	913135551234	300

*1 → System Speed Dialing Name [002]
*2 → System Speed Dialing Number [001]

4. Displaying the Caller's Name

In addition to the System Speed Dialing Table, each extension can store names and numbers in Personal Speed Dialing. Therefore, it is entirely possible for the same telephone number to be stored under a different name in different locations within the PBX.
When a call containing Caller ID information is received, the PBX will search for the caller's name in the following order, then show that name on the display and log it via SMDR.

1) Personal Speed Dialing data of the extension which received the call

2) System Speed Dialing Table

3) The Caller ID information received from the telephone company

If a caller's name is not stored in the PBX or sent from the telephone company, it will not be displayed or logged.

Conditions

[General]

- Caller ID signaling type can be selected through system programming (→ Caller ID Signal Type [490]).

[Caller ID to SLT Port]

- **Hardware Requirement:** An EXT-CID card.
- Up to 8 SLTs can be programmed to receive Caller ID information through system programming.
- When the caller's telephone number is sent to an SLT, a CO Line Access number can be automatically added to the telephone number through system programming.
- If the caller's telephone number exceeds 16 digits, the SLT receives only the first 16 digits, not counting the preceding CO Line Access number (if it is programmed to be added).
- If a call is transferred to an SLT, the transferring extension's information will be shown on the SLT. If the transferring extension goes on-hook, the original caller's information will be shown.
- When Caller ID information such as "Private", "Out of Area", or "Long Distance" is received, this information will be shown instead of the caller's number and name.
- Depending on the type of SLT being used, caller names may not be able to be displayed.
- Incoming Call Log information is not shown on the SLT.

Feature Guide References

1.6.1.4 Speed Dialing—Personal/System

1.21.1 Station Message Detail Recording (SMDR)

1.16.2 Incoming Call Log

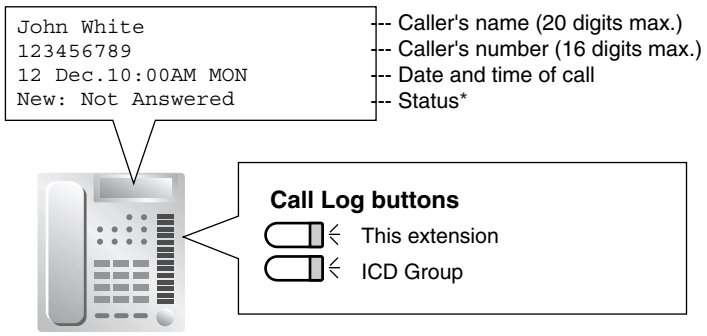
Description

When a call containing Caller ID information is received by an extension, the information is shown on the telephone display, notifying the extension user of the caller's identity. This information is also automatically logged in the Incoming Call Log of the extension, and can be viewed later or used to call that caller back.
Each extension and incoming call distribution (ICD) group has its own Incoming Call Log.

Call Log button

The Call Log button will alert an extension user to any missed (unanswered) calls. A flexible button can be customized as the Call Log button, and will indicate the status of the Incoming Call Log for the extension or corresponding ICD group, as shown below.

Light pattern	Status of the corresponding call log
Red on	There are call records in the log which have not been viewed.
Off	There are no new call records in the log.



* "New" is displayed for call records which have not previously been viewed;
"Old" is displayed for call records which have previously been viewed.

Conditions

- **If the answering destination is not the original destination (Call Forwarding (FWD)—No Answer and Call Pickup):**
  If a call is not answered and forwarded to another destination, or if an extension picks up a call ringing at another extension, the call is logged in the Incoming Call Logs of both the original and the answering destination.
- **Incoming Call Log for Calls to an ICD Group**
  If a call directed to an ICD group is not answered, the call is logged in the Incoming Call Log of the ICD group. If the call is answered, it is logged in the call log of the answering extension only.

- **Incoming Call Log for Calls to a PS**
  Each portable station (PS) also has an Incoming Call Log. When a call is directed to a PS, the call will be logged in the call log of the PS even when:
  a) The PS is out of range.
  b) The PS is turned off.
  c) The Cell Station (CS) is busy.
- **Incoming Call Log Display Lock**
  The Incoming Call Log of an extension can be locked through personal programming (Directory and Call Log Lock) to prevent other users from viewing its contents. If locked, the Outgoing Call Log and Personal Speed Dialing are also locked.
  An extension personal identification number (PIN) is required to use this feature. (→ 1.22.1 Extension Personal Identification Number (PIN))
- **Incoming Call Log Memory**
  The total number of incoming calls that can be logged by the PBX is limited. (→ 5.1.1 Capacity of System Resources) The maximum number of calls that can be logged in the Incoming Call Log of each extension and ICD group can be specified through system programming. When a call log is full, the oldest call will be replaced each time a call is received.
- **Automatic Caller ID Number Modification**
  If the PBX is programmed to automatically modify incoming telephone numbers, the modified numbers will be logged in the Incoming Call Log.

Feature Guide References

1.6.1.4 Speed Dialing—Personal/System

1.16.1 Caller ID

1.18.2 Flexible Buttons

User Manual References

User Manual

1.11.1 Call Log

3.1.2 Settings on the Programming Mode

1.17 Message Features

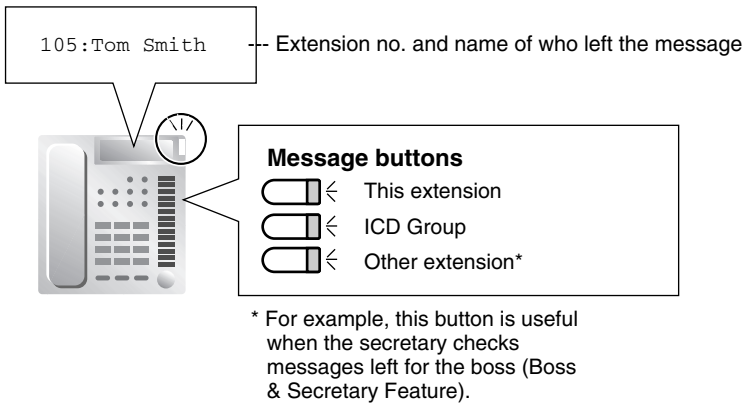
1.17.1 Message Waiting

Description

When an extension user calls another extension that does not or cannot answer the call, he or she can leave a Message Waiting notification. The appropriate button or lamp on the called extension user's telephone will light, indicating that a call was missed or a message recorded by the Voice Processing System (VPS) is waiting. A Message button can be used to call the caller back or listen to the message.

When a message is left for a proprietary telephone (PT), the Message button on it lights or the Message/Ringer Lamp turns red. Pressing the lit Message button while on-hook shows the caller's information as shown below:

[Example]



Conditions

- **Message Button**
  Any flexible button can be assigned as a Message button. This button can be used on a PT which does not have the MESSAGE button (fixed button), or can be used on any PT to access messages left for another extension or for an incoming call distribution (ICD) group.
- **Distinctive Dial Tone for Message Waiting**
  If Distinctive Dial mode is enabled, dial tone 4 will be sent to an extension when a message has been left on the extension. (→ 1.23.1 Dial Tone)
- It is possible to leave a Message Waiting notification while hearing a ringback tone, busy tone, or DND tone.
- Message Waiting notifications are always left on the original extension. Message Waiting notifications cannot be sent to a Call Forwarding (FWD) destination (→ 1.3.1.2 Call Forwarding (FWD)).
- Both the calling extension and the called extension can cancel a notification after it has been left.
- If a call is missed, the Message Waiting notification will be cleared when the called extension calls the caller back and the call is answered.

- **Message Waiting Notification via Voice Mail DPT (Digital) Integration**
  If a voice message is left for the called extension, the notification will be cleared after each new message has been played. (→ 1.19.2 Voice Mail DPT (Digital) Integration)
- **Message Waiting Notification via Voice Mail DTMF Integration**
  If a voice message is left for the called extension, the notification will be cleared either by the PBX after the MESSAGE button (or a Message button) is pressed, or by the VPS after each new message has been played, according to system programming. (→ 1.19.3 Voice Mail DTMF Integration)

Feature Guide References

1.18.2 Flexible Buttons

User Manual References

User Manual

1.2.4 When the Dialed Line is Busy or There is No Answer

1.9.3 Voice Processing System

1.17.2 Absent Message

Description

Extension users can prepare a brief text message (Absent Message) that will be displayed to other extension users when they are called. These messages can explain the reason for their absence, and may be edited through system programming and personal programming.

The following Absent Messages may be programmed:

Type	Message No.	Message (Example)	Description
System message	1	`Will Return Soon`	Messages may be edited through system programming (→ Absent Message [008]). They can be used by any extension user.
	2	`Gone Home`	
	3	`At Ext %%%%` (Extension Number)	
	4	`Back at %%:%%` (Hour:Minute)	
	5	`Out until %%/%%` (Month/Day)	
	6	`In a Meeting`	
	7		
	8		
Personal message	9		A message is programmable by each extension through personal programming (Personal Absent Message), which can only be used by that extension user.

Note

The "%" shown above indicates a parameter to be entered when assigning a message at an individual extension.
Up to seven "%"s can be stored for each message.

Conditions

- An extension user can select only one Absent Message at a time. The selected message is displayed at the extension while on-hook.
- The caller must use a display proprietary telephone (PT) to see the Absent Message.

User Manual References

User Manual

1.5.2 Absent Message

3.1.2 Settings on the Programming Mode

1.18 Proprietary Telephone (PT) Features

1.18.1 Fixed Buttons

Description

Proprietary telephones (PTs) and DSS Consoles feature a wide variety of feature buttons and Line Access buttons, explained below.
Note that certain models do not feature certain buttons.
For a description of the buttons found on portable station (PS), please refer to the Operating Instructions for each PS.

[PT]

Button		Usage
Navigator Key, Volume Key		Used to adjust the volume of the speaker, handset and headset, and also adjust the display contrast. The Navigator Key can also be used to select data from the Call Directory on the display.
PROGRAM		Used to enter and exit programming mode.
FLASH/RECALL		Used to disconnect the current call and make another call without hanging up (Flash/Recall mode or Terminate mode), or used to send a flash/recall signal to the telephone company or host PBX to access external features (External Feature Access mode). Also used as a CANCEL button while on-hook.
HOLD		Used to place a call on hold.
SP-PHONE (Speakerphone)		Used for hands-free operation. Also used to switch between handset and hands-free operation.
MONITOR		Used for hands-free dialing. Also used to monitor the other party's voice in hands-free mode.
MESSAGE		Used to leave a Message Waiting indication or call back the party who left the Message Waiting indication.
REDIAL		Used to redial the last number dialed.
TRANSFER		Used to transfer a call to another party.
Flexible CO		Used to access a CO line or CO line group when making or receiving a call according to the button's preprogrammed CO Line Access method (Default: S-CO). Can also be customized as a different feature button.

Button	Usage
INTERCOM	Used to make or receive intercom calls.
AUTO ANS (Auto Answer/ MUTE)	Used to receive an incoming call in hands-free mode, or used to mute the built-in microphone or handset during a conversation.
VOICE CALL	Used to monitor an intercom call automatically (a hands-free conversation is not possible).
AUTO DIAL/STORE	Used for System/Personal Speed Dialing and storing program changes.
CONF (Conference)	Used to establish a multiparty conversation.
FWD/DND	Used to set Call Forwarding (FWD) or Do Not Disturb (DND)
PAUSE	Used to insert a dialing pause in a stored number. Also used as the Program button on analog proprietary telephones (APTs) which do not have the PROGRAM button.
PF (Programmable Feature)	Used to access a preprogrammed feature with a one-touch operation. (no default)

[DSS Console]

Button	Usage
Flexible CO	Used to access a CO line or CO line group when making or receiving a call according to the button's preprogrammed CO Line Access method. Can also be customized as a different feature button.
Flexible DSS (Direct Station Selection)	Used to call an extension with a one-touch operation. Each button is programmed to correspond to an extension. DSS buttons can also be customized as other different feature buttons.
PF (Programmable Feature)	Used to access a preprogrammed feature with a one-touch operation. (no default)

Conditions

- Certain buttons are equipped with a light to indicate the status of the corresponding line or feature.

1.18.2 Flexible Buttons

Description

Flexible buttons are customized through either system or personal programming. The following types of flexible buttons are found on proprietary telephones (PTs), DSS Consoles, and/or portable stations (PSs):

a) Flexible CO buttons

b) Flexible Direct Station Selection (DSS) buttons

c) Programmable Feature (PF) buttons

[Button Usage]

Button	Usage
Single-CO (S-CO)	Used to access a specified CO line for making or receiving calls. (→ 1.5.5.3 CO Line Access)
Group-CO (G-CO)	Used to access an idle CO line in a specified CO line group for making calls. Incoming calls from CO lines in the assigned CO line group arrive at this button. (→ 1.5.5.3 CO Line Access)
Loop-CO (L-CO)	Used to access an idle CO line for making calls. Incoming calls from any CO line arrive at this button. (→ 1.5.5.3 CO Line Access)
Direct Station Selection (DSS)	Used to call an extension with a one-touch operation. (→ 1.5.3 Intercom Call)
One-touch Dialing	Used to call a preprogrammed party or access a feature with a one-touch operation. (→ 1.6.1.2 One-touch Dialing)
Group Directory Number (G-DN)	Used to access a specified incoming call distribution (ICD) group for making or receiving calls. (→ 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW)
Message	Used to leave a Message Waiting indication or call back the party who left the Message Waiting indication. (→ 1.17.1 Message Waiting)
FWD/DND (External/ Internal/Both)*	Used to set the FWD or DND feature for the extension. The feature is applied to CO line calls, intercom calls, or both. (→ 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW)
Group FWD (External/ Internal/Both)	Used to set the FWD feature for a specified ICD group. The feature is applied to CO line calls, intercom calls, or both. (→ 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW)
Account Code Entry (Account)	Used to enter an account code. (→ 1.5.4.3 Account Code Entry)
Conference	Used to establish a multiparty conversation. (→ 1.13.1.2 Conference)
Terminate	Used to disconnect the current call and make another call without hanging up. (→ 1.10.5 Flash/Recall/Terminate)
External Feature Access (EFA)	Used to send a flash/recall signal to the telephone company or host PBX to access external features. (→ 1.10.6 External Feature Access (EFA))
Call Park	Used to park or retrieve a call in a preset PBX parking zone. (→ 1.12.2 Call Park)
Call Park (Automatic Park Zone)	Used to park a call in an idle PBX parking zone automatically. (→ 1.12.2 Call Park)

Button	Usage
Call Log	Used to show a log of received calls. (→ 1.16.2 Incoming Call Log)
Log-in/Log-out*	Used to switch between Log-in and Log-out status. (→ 1.2.2.6 Log-in/Log-out)
Hurry-up	Used to redirect the longest waiting call in the queue of an ICD group to the overflow destination. (→ 1.2.2.3 Queuing Feature)
Wrap-up*	Used to switch between Wrap-up/Not Ready and Ready modes. (→ 1.2.2.6 Log-in/Log-out)
System Alarm	Used to display a PBX error. (→ 2.4.3 Local Alarm Information)
Time Service*	Used to change or display the current time mode (day/lunch/break/night). (→ 2.2.4 Time Service)
Answer	Used to answer an incoming call. (→ 1.10.3 Headset Operation)
Release	Used to disconnect the line during or after a conversation, or to complete a Call Transfer. (→ 1.10.3 Headset Operation)
Toll Restriction	Used to change the Toll Restriction (TRS) level of other extension users temporarily. (→ 1.8.3 Dial Tone Transfer)
Time Service Switching Mode (Automatic/Manual)*	Used to switch between Automatic Switching and Manual Switching mode. (→ 2.2.4 Time Service)
Two-way Record	Used to record a conversation into your own mailbox. (→ 1.19.2 Voice Mail DPT (Digital) Integration)
Two-way Transfer	Used to record a conversation into the mailbox of a specified extension. (→ 1.19.2 Voice Mail DPT (Digital) Integration)
One-touch Two-way Transfer	Used to record a conversation into the mailbox of a specified extension with a one-touch operation. (→ 1.19.2 Voice Mail DPT (Digital) Integration)
Live Call Screening (LCS)	Used to monitor your own voice mailbox while a caller is leaving a message and, if desired, intercept the call. (→ 1.19.2 Voice Mail DPT (Digital) Integration)
Voice Mail (VM) Transfer	Used to transfer a call to the mailbox of a specified extension. (→ 1.19.2 Voice Mail DPT (Digital) Integration, → 1.19.3 Voice Mail DTMF Integration)

* **One-touch Feature Setting Buttons:** Pressing these buttons while on-hook changes the feature settings. The new mode will be displayed for a preprogrammed time period.

User Manual References

User Manual

3.1.3 Customizing the Buttons

1.18.3 LED Indication

Description

The LED of the Message/Ringer Lamp and the following buttons (Line Status Buttons and Corresponding Extension Status Button) can indicate line status with a variety of light patterns.
Line Status Buttons: S-CO, G-CO, L-CO, INTERCOM, G-DN
Corresponding Extension Status Button: DSS

1. **Light Pattern of the Message/Ringer Lamp**
   - Incoming call: Red flashing
   - Message(s) present (no incoming call): Red on
   - No message(s) present (no incoming call): Off

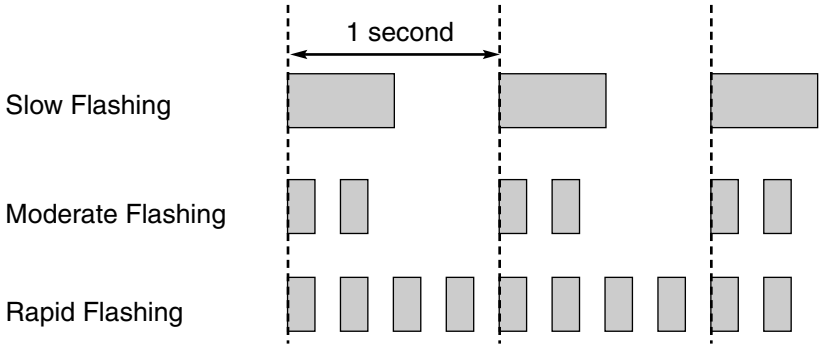
2. **Light Pattern of the Line Status Buttons**

<table>
<tr><th rowspan="2">Line Status Button: / Light Pattern</th><th colspan="3">CO Line Status</th><th>Intercom Line Status</th><th>Incoming Call Distribution (ICD) Group Line Status</th></tr>
<tr><th>S-CO</th><th>G-CO</th><th>L-CO</th><th>INTERCOM</th><th>G-DN</th></tr>
<tr><td>Off</td><td colspan="5">Idle</td></tr>
<tr><td>Green on</td><td colspan="5">This extension is using the line.</td></tr>
<tr><td>Slow green flashing</td><td colspan="5">This extension is holding the line.</td></tr>
<tr><td>Moderate green flashing</td><td colspan="5">This extension is holding the line using Exclusive Hold or using the line for an Unattended Conference.</td></tr>
<tr><td>Rapid green flashing</td><td>Incoming call/Privacy Release</td><td colspan="4">Incoming call</td></tr>
<tr><td>Red on</td><td>Incoming call for another extension/ Another extension is using the line/Another extension has the line on Exclusive Hold.</td><td>Other extensions are using all CO lines in the CO line group.</td><td>–</td><td>–</td><td>This extension is logged out of the ICD group.</td></tr>
<tr><td>Slow red flashing</td><td>Another extension is holding the line.</td><td>–</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>Rapid red flashing</td><td colspan="3">Incoming call to the ICD group in Ring distribution method</td><td>–</td><td>–</td></tr>
</table>

3. Light Pattern of the Corresponding Extension Status Button

Corresponding Extension Status Button / Light Pattern	DSS
Off	Idle
Red on	Busy/DND for CO line calls

4. Flashing Light Patterns



Conditions

- The incoming CO line call shows on the buttons in the following priority: G-DN→S-CO→G-CO→L-CO→INTERCOM

Feature Guide References

1.2.2.2 Group Call Distribution
1.2.2.6 Log-in/Log-out
1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)
1.12.1 Call Hold
1.13.1.2 Conference
1.13.1.3 Privacy Release

1.18.4 Display Information

Description

A display proprietary telephone (PT) can relay the following information to the user while making or receiving calls:

Display Item	Display Example	Condition
The extension number and name of the calling or called extension, or Incoming Call Distribution (ICD) Group	`123: Tom Smith`	–
Status of the called extension	`123: Busy`	–
The number and name of the optional device	`Door 02: 1st Door`	–
The telephone number dialed	`1234567890`	–

The received call information
a) Caller's name
b) Caller's number
c) CO line number/name
d) Original Destination, if the call is forwarded
	`ABC Company`
	`12345678`
	`Line 001: Sales`
	`→102:Mike`
		The first line message can be either (a) or (c) at each extension through system programming.

Duration of the current CO line call	`Line 001 11:02'28`	–

Conditions

- **Multilingual Display**
  Each extension can select its display language through personal programming (Display Language Selection).
- Characters (name) or digits (number) exceeding the display's limitations are not displayed. Although in this case information may not be displayed properly, the received information is not altered.

User Manual References

User Manual

3.1.2 Settings on the Programming Mode

1.19 Voice Mail Features

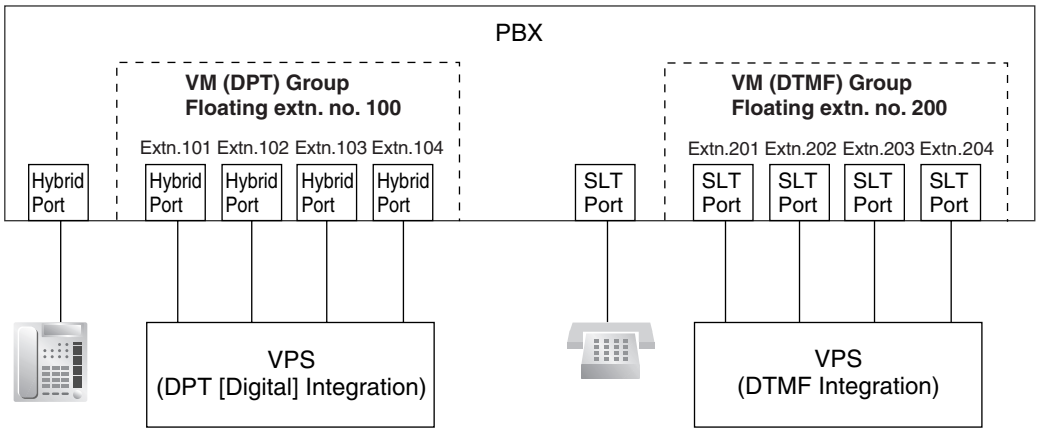
1.19.1 Voice Mail (VM) Group

Description

A Panasonic Voice Processing System (VPS) or similar product from another manufacturer can provide Voice Mail (VM) and Automated Attendant (AA) services when connected to the PBX.
VM service allows callers to leave voice messages in the VM mailboxes of the desired party.
AA service allows callers to dial a number and connect themselves to an extension by following directions provided by a voice prompt. ("Enter the extension number of the desired party...", "Press 1 for Sales...", etc.)
A VPS is connected to the APT, SLT, or hybrid ports of the PBX. The extension ports to which a VPS is connected make up a VM group. A VM group has a floating extension number, which allows the VPS to be set as the destination for incoming calls, or as the destination for redirected calls that are already being handled elsewhere in the PBX.
The type of VPS and/or the type of cards installed in the VPS determine whether the VPS is connected to the APT or hybrid ports of the PBX (DPT [Digital] Integration), or to the SLT ports (DTMF Integration).
A Panasonic VPS which supports DPT (Digital) Integration should be connected to the APT or hybrid ports of the PBX. These ports make up a VM group referred to hereafter as a "VM (DPT) group". DPT (Digital) Integration provides for effortless connection and setup, conveniences which are unachievable with non-Panasonic VPSs and DTMF Integration.
A non-Panasonic VPS can be connected to the SLT ports of the PBX. These ports make up a VM group referred to hereafter as a "VM (DTMF) group". Although DTMF Integration does not offer the ease of use that DPT (Digital) Integration does, the features available through DTMF Integration can satisfy many needs.

VM Group Type	Description	System Capacity
VM (DPT) Group	A group of APT or hybrid ports on the PBX connected to a Panasonic VPS which supports DPT (Digital) Integration.	• One VM (DPT) group can be assigned to the PBX. • Up to 4 ports (8 voice channels) can form a VM (DPT) group.
VM (DTMF) Group	A group of SLT ports on the PBX connected to a VPS. The PBX communicates with the VPS by sending DTMF tones through these SLT ports.	• Up to two VM (DTMF) groups can be assigned to the PBX. • Up to 24 ports can form one VM (DTMF) group.

[Example of VPS Configuration]



VM (DPT) Group Assignment

The VPS is connected to the APT or hybrid ports of the PBX. These extension ports, as well as VM (DPT) group settings, must be configured through system programming to allow DPT (Digital) Integration, as shown in the following programming examples, "Extension Port" and "VM (DPT) Group".
Note that every port in a VM (DPT) group must be connected to either the same HLC or PLC card, or to the preinstalled hybrid ports.

VM (DTMF) Group Assignment

The VPS is connected to the SLT ports of the PBX. These extension ports, as well as VM (DTMF) group settings, must be configured through system programming to allow DTMF Integration, as shown in the following programming examples, "Extension Port" and "VM (DTMF) Group".

[Programming Example: Extension Port]

Slot	Port	Port Type	Extn. No.	PT Property		
				Type*1	Port No. of VPS	
1	1	S-Hybrid	101	VM (DPT)	1	VM (DPT) Group
1	2	S-Hybrid	102	VM (DPT)	2	
4	1	SLT	201	Not assignable	Not assignable	VM (DTMF) Group 1
4	2	SLT	202	Not assignable	Not assignable	
5	1	SLT	301	Not assignable	Not assignable	VM (DTMF) Group 2
5	2	SLT	302	Not assignable	Not assignable	

[Programming Example: VM (DPT) Group]

Floating Extension No.*2	Group Name
100	Company A

[Programming Example: VM (DTMF) Group]

VM (DTMF) Group No.	Floating Extension No.	Group Name	Service Mode	Extension No. of Port Connected to VPS Port			
				1	2	3	
1	200	Company B	AA	201	202	203	
2	300	Company C	VM	301	302	303	

*1 → Terminal Device Assignment [601]
*2 → VM Group Floating Extension Number [660]

Incoming Calls to a VM Group

A VPS can receive calls through either the floating extension number assigned to one of its VM groups, or through one of the VM group's extension ports.
When calls are directed to a floating extension number assigned to a VM group, calls will hunt for an available extension port beginning with the lowest numbered extension port assigned to the group.

Conditions

- During typical use, the PBX should be configured through system programming to use a floating extension number assigned to a VM group for all VPS-related features. In the event that settings such as Call Forwarding (FWD) or Do Not Disturb (DND) are set for any of these ports (→ 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)), they are disregarded.
- An extension port assigned to a VM group can be called (or have calls directed to it) directly using the port's extension number. In this case, features such as FWD or DND can be enabled for the extension port and will function.
- When all extension ports assigned to a VM group are busy, additional calls to the group will be handled according to the "`Call Waiting on VM Group`" setting (enable or disable) made through system programming.
  - **a)** If enabled, callers will hear a ringback tone while waiting for a VPS port to become available. To prevent call waiting tones from interrupting VM operation, call waiting tones are not sent to the VPS.
  - **b)** If disabled, the calls will be redirected via Intercept Routing to the destination assigned to the CO line group carrying the call. (→ 1.1.1.4 Intercept Routing)

Feature Guide References

1.19.2 Voice Mail DPT (Digital) Integration
1.19.3 Voice Mail DTMF Integration

1.19.2 Voice Mail DPT (Digital) Integration

Description

A Panasonic Voice Processing System (VPS) which supports DPT (Digital) Integration can provide countless features and conveniences that are unachievable using traditional voice mail systems which rely on DTMF Integration.

Many of these features are explained below. For more information, refer to the Installation Manual supplied with your Panasonic VPS.

Basic Features

Voice Mail Service

Allows callers to leave voice messages for specific parties, such as an extension user or an incoming call distribution (ICD) group. Extension users can listen to messages left in their mailboxes at their convenience.

Automated Attendant (AA) Service

The VPS answers calls and directs callers to dial a number in order to connect themselves to the desired party. ("Enter the extension number of the desired party.")

Advanced Features

1. **Automatic Configuration—Quick Setup**

   The PBX shares information with the VPS during setup which allows the VPS to automatically create the appropriate mailboxes for all extension numbers and floating extension numbers of ICD groups within the PBX.

2. **FWD to a Mailbox of the VPS**

   An extension user can set his or her calls to be forwarded to the VPS. (→ 1.3.1.2 Call Forwarding (FWD)) When a call is received at the extension, the PBX sends the extension's mailbox number to the VPS and the VPS can answer the call with an outgoing message (OGM) ("Hi, I'm out of the office today...").

3. **Intercept Routing to a Mailbox of the VPS**

   CO line calls can be programmed to be automatically redirected to an extension user's mailbox when the extension user does not or cannot answer them. (→ 1.1.1.4 Intercept Routing) The VPS can answer the call with an OGM ("I can't take your call now...") and callers can leave messages in the mailbox. In order to use this feature, a floating extension number used by the VPS must be assigned as the intercept destination for the original destination (extension, ICD group, etc.) which received the call, and "`Intercept to Mailbox`" must be enabled through system programming.

4. **Transferring to a Mailbox of the VPS**

   Extension users can transfer calls to a mailbox, after which callers can leave a message for the desired party. (→ 1.11.1 Call Transfer) While answering a call, the extension user simply presses the Voice Mail (VM) Transfer button and enters the extension number of the party the caller wishes to leave a message for. The VPS will answer the transferred call and record a message.

   VM Transfer Button

   In order to use this feature, the extension user must use a flexible button customized as the VM Transfer button. A floating extension number of a VM group must be assigned to the button when creating it.

5. **Transfer Recall to a Mailbox of the VPS**

   When a call is directed to an extension via the VPS's AA service but is not answered within a preprogrammed amount of time (→ Transfer Recall Time [201]), the PBX can transfer the call to the extension's mailbox. The VPS can answer the call with an OGM ("I can't take your call now...") and the caller can leave a message. In order to use this feature, "`Transfer Recall to Mailbox`" must be enabled through system programming.

6. Listening to Recorded Messages (Direct Mailbox Access)

After the VPS records a message, it will light the appropriate lamp or button on the extension for which the message was intended, to indicate there is a new message. (→ 1.17.1 Message Waiting) The extension user can play the message back simply by pressing the button used for mailbox access; he or she does not need to enter a mailbox number. This button may be the MESSAGE button, depending on the proprietary telephone (PT) being used, or a One-touch Dialing button assigned to dial a floating extension number of a VM group. (→ 1.6.1.2 One-touch Dialing)
An extension user can, at any time, play back any messages in his or her mailbox, including old messages. The user simply dials a floating extension number used by the VM (DPT) group from his or her extension. (**Direct Mailbox Access**) A mailbox number does not need to be dialed. This feature is enabled or disabled according to the Class of Service (COS) assigned to the mailbox through VPS programming.

7. VPS CO Line Service & Automatic Time Mode Notification*

Multiple tenants can share a single VPS; a dedicated VPS port for each tenant is not required. This is possible because when CO line calls are directed or redirected to a VM (DPT) group, the PBX sends information to the VPS which determines the OGM that is heard by callers. ("Thank you for calling Company A", "Thank you for calling Company B", etc.)
If an incoming CO line call is directed via DIL distribution to a VM (DPT) group, the PBX sends to the VPS the corresponding information that is assigned in the DIL Table, namely, the VPS trunk (CO line) group number and the tenant number. (→ 1.1.1.2 Direct In Line (DIL))
This information is used to send the appropriate OGM to the caller for the current time mode (→ 2.2.4 Time Service), and is programmable for each CO line in the DIL Table.

* The software contained in the VPS may need to be updated before this feature can be used.

[Example]

In order for callers to hear the correct OGM for the current time mode, the DIL Table of the PBX must be programmed to match the settings of the VPS.

[Programming Example]

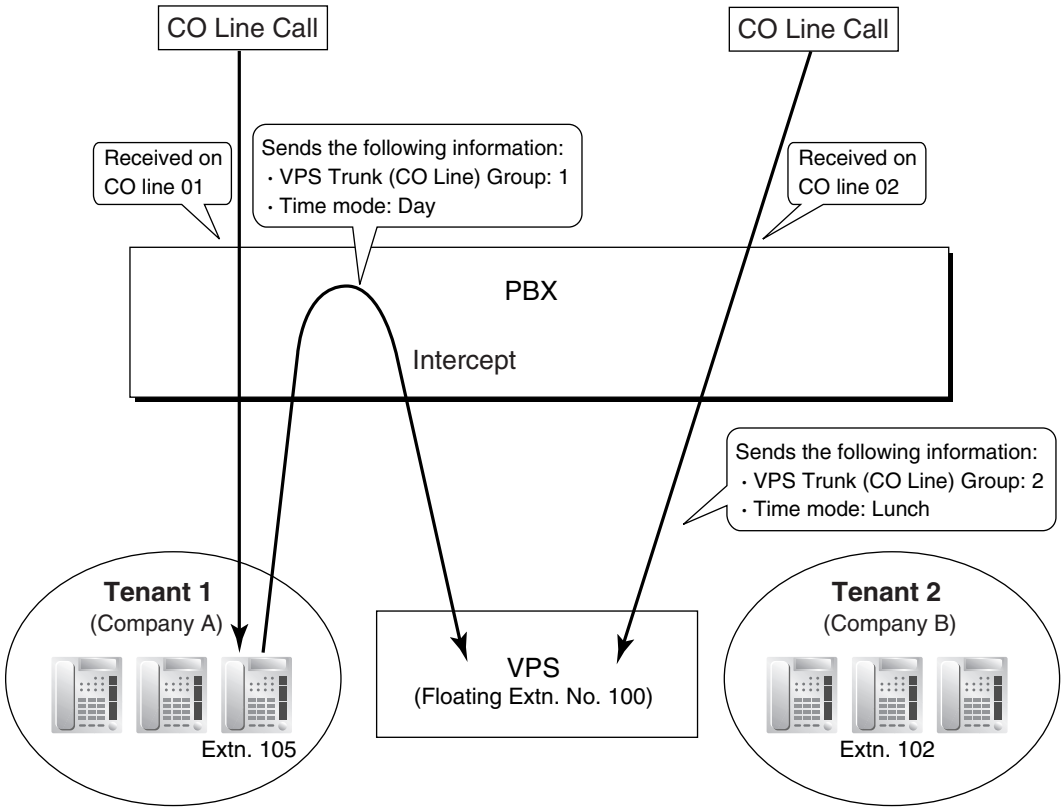
Each CO line can be assigned a VPS trunk (CO line) group number as well as a tenant number.

Port No. (CO Line No.)	DIL Destination				VPS Trunk (CO Line) Group No.	Tenant No.
	Day	Lunch	Break	Night		
01	105	100	105	100	1	1
02	102	100	102	100	2	2

[Programming Example: Trunk (CO Line) Group Assignment for VPS]

These settings are made on the VPS. The trunk (CO line) group number should correspond to the number programmed in the PBX's DIL Table.

Trunk (CO Line) Group No.		Company Greeting No.
①	Day	1
	Lunch	2
	Break	3
	Night	4
2	Day	5
	Lunch	6
	[illegible]	7



In this example:

A customer dials the telephone number for Company A.
The call is received on CO line 01 and is handled by DIL distribution according to system programming. (Refer to the above system programming example, "DIL Table".) The tenant number programmed for CO line 01 determines that the current time mode is Day (not shown here), and the call is therefore directed to extension 105.
If extension 105 does not answer the call, the call is redirected to extension 100 via Intercept Routing (not shown here), which is a floating extension number assigned to a VM (DPT) group. When the PBX redirects the call to the VPS, it also sends the VPS trunk (CO line) group number and tenant number as programmed in the DIL Table.
The VPS answers the call with the greeting message assigned to the trunk (CO line) group

number and current time mode, Company Greeting Number 1. (Refer to the above system programming example, "Trunk (CO Line) Group Assignment for VPS".)

A customer dials the telephone number for Company B.
The call is received on CO line 02 and is handled by DIL distribution according to system programming. (Refer to the above system programming example, "DIL Table".) The tenant number programmed for CO line 02 determines that the current time mode is Lunch (not shown here). The call is therefore directed to extension 100, which is a floating extension number assigned to a VM (DPT) group.
When the PBX directs the call to the VPS, it also sends the VPS trunk (CO line) group number and tenant number as programmed in the DIL Table.
The VPS answers the call with the greeting message assigned to the trunk (CO line) group number and current time mode, Company Greeting Number 6. (Refer to the above system programming example, "Trunk (CO Line) Group Assignment for VPS".)

8. Caller ID Information

If the PBX receives Caller ID information (caller's name and telephone number) when receiving a CO line call, the PBX sends this information to the VPS. This information can be used to play specific OGMs to specific callers, or announce the name of the calling party when listening to recorded messages.

9. Paging by the VPS

The VPS can page a called party. (→ 1.14.1 Paging) If the names of staff members have been previously recorded into the VPS, the VPS can announce, "I have a call for (name of staff member)". If Caller ID information is received by the PBX, and if the name of a caller has been previously recorded, the VPS can also announce the name of the caller.

10. Status Notification to the VPS

When a call is redirected to the VPS, the PBX sends the status of the called extension to the VPS. This allows the VPS to quickly handle the call, playing the appropriate OGM for the caller.

11. Live Call Screening (LCS)

Similar to a conventional home answering machine, LCS allows a proprietary telephone (PT) or portable station (PS) user to monitor his or her own mailbox as a caller is leaving a message and, if desired, answer the call simply by pressing the LCS button.
PT users can choose one of two ways to perform LCS, through personal programming (Live Call Screening Mode Set):

Hands-free mode: The user can screen the call automatically through the built-in speaker.

Private mode: The user will hear an alarm tone when a message is being recorded in his or her mailbox. To screen the call, the user goes off-hook with the handset, MONITOR button, or SP-PHONE button.

Note

Only Private mode is available for PS users. When using LCS, PS users cannot monitor a call through the speakerphone.

LCS Button
Any flexible button can be customized as the LCS button. Once LCS is turned on, it will stay on until turned off, therefore extension users may wish to turn LCS off when they are away from their desks to prevent others from screening their calls.

12. Two-way Recording into the VPS

PT users can record their own telephone conversations. These recordings can be stored in the PT user's own mailbox (**Two-way Record**) or in another user's mailbox (**Two-way Transfer**), depending on which button the user presses to begin recording.

Two-way Record/Two-way Transfer Button
A flexible button can be customized as the Two-way Record or the Two-way Transfer button.
If an extension number is assigned when creating the Two-way Transfer button, conversations will be recorded into that extension's mailbox by simply pressing this button (**One-touch Two-way Transfer Button**).

Note

When you record Two-way telephone conversations, you should inform the other party that the conversation is being recorded.

13. **Time Synchronization***

The VPS can automatically adjust its clock if the date and time settings of the PBX are adjusted. For example, if the PBX is programmed to automatically adjust to Daylight Saving Time, the VPS will adjust its clock as well. (→ 2.3.4 Automatic Time Adjustment)

* The software contained in the VPS may need to be updated before this feature can be used.

14. **Remote Call Forwarding Set***

While accessing the VPS from an extension or a remote location, a PBX user can set his or her calls to be forwarded, as well as select the destination of the forwarded calls. Calls can be forwarded to an outside party provided this feature is enabled through system programming (→ Call Forwarding to CO Line [504]).

* The software contained in the VPS may need to be updated before this feature can be used.

Conditions

[Live Call Screening (LCS)]

- To prevent the unauthorized screening of calls, it is recommended that extension users who use LCS assign an extension personal identification number (PIN). This PIN will be required when setting LCS. (→ 1.22.1 Extension Personal Identification Number (PIN))
- If an extension user is screening a call and then goes off-hook to answer it, the VPS will either stop or continue recording the message, according to personal programming (LCS Mode Set [After Answering]).
- If a single line telephone (SLT) is connected in parallel to a PT, and if LCS is activated for the PT in Private mode, both the PT and SLT can be used to screen calls while in idle status. The SLT will ring to indicate a message is being recorded. The call can be screened with the SLT by going off-hook. To intercept the call, press Flash/Recall button or flash the hookswitch. (→ 1.10.8 Paralleled Telephone)
- When using a PS that is in Wireless XDP Parallel Mode, LCS can be turned on or off from the wired telephone only. Turning LCS on or off on the PS has no effect. (→ 1.20.3 Wireless XDP Parallel Mode)

[Two-way Recording into the VPS]

- **If all ports of the VPS are busy when a user tries to record a conversation:**
  - **a)** The user hears an alarm tone when pressing the Two-way Record or the One-touch Two-way Transfer button.
  - **b)** The user hears an alarm tone after pressing the Two-way Transfer Button followed by an extension number.

Feature Guide References

1.18.2 Flexible Buttons

1.19.1 Voice Mail (VM) Group

User Manual References

User Manual

1.9.3 Voice Processing System

3.1.2 Settings on the Programming Mode

3.2.2 Manager Programming

1.19.3 Voice Mail DTMF Integration

Description

A Panasonic Voice Processing System (VPS) or similar product from another manufacturer can provide Voice Mail (VM) and Automated Attendant (AA) services when connected to the SLT ports of this PBX.
Connecting a VPS to the PBX via SLT ports is called "DTMF Integration" because the VPS and PBX communicate with each other by sending analog DTMF tones. For more information, refer to the documentation provided with your VPS.

1. **Voice Mail (VM) Service**

   Allows callers to leave voice messages for specific parties, such as an extension user or an incoming call distribution (ICD) group. Extension users can then listen to the messages left in their mailboxes at their convenience.

2. **Automated Attendant (AA) Service**

   Allows your VPS to answer calls and direct callers to dial a number in order to connect themselves to the desired party. ("Enter the extension number of the desired party.")

VM Service

1. **Accessing a Mailbox**

   There are two methods in which a call can reach an extension's mailbox. In the first method, the caller must dial a mailbox number. In the second method, the PBX sends DTMF tones to the VPS to indicate which mailbox should be accessed (**Follow on ID**).

   Method 1:

   1. An incoming CO line call is directed to a VM (DTMF) group.
   2. The caller listens to an outgoing message (OGM) which directs the caller to dial a mailbox number. ("Press 101 to leave a message for Sales. Press 102 to leave a message for Support.")
   3. The caller dials a mailbox number and then hears the called party's personal greeting. ("Please leave a message for our Sales team.")
   4. The caller leaves a message and hangs up.

   Method 2 (Follow on ID):

   1. An incoming CO line call is directed to an extension or ICD group.
   2. The PBX redirects the call to a mailbox via:

a) Call Forwarding (FWD)

b) Intercept Routing

c) Call Transfer

The PBX sends the appropriate DTMF tones to the VPS so that the caller does not need to dial a mailbox number.

3. The caller hears the called party's personal greeting. ("Please leave a message for our Sales team.")

4. The caller leaves a message and hangs up.

2. Transferring to a Mailbox

Extension users can transfer calls to a mailbox, after which callers can leave a message for the desired party. While answering a call, the extension user simply presses the Voice Mail (VM) Transfer button and enters the extension number of the party the caller wishes to leave a message for. The VPS will answer the transferred call and record a message.

VM Transfer Button

In order to use this feature, the extension user must use a flexible button customized as the VM Transfer button. A floating extension number of a VM group must be assigned to the button when creating it.

3. Listening to Recorded Messages

After your VPS records a message, it will light the appropriate lamp or button on the extension for which the message was intended, to indicate there is a new message. (→ 1.17.1 Message Waiting) The extension user can play the message back simply by pressing the button used for mailbox access. Depending on the proprietary telephone (PT) being used, this button may be the MESSAGE button, or a One-touch Dialing button assigned to dial a floating extension number of a VM group, the user's mailbox number, and other DTMF commands. (→ 1.6.1.2 One-touch Dialing) When the button is pressed, the PBX calls the floating extension number assigned to the appropriate VM group, then sends DTMF tones to the VPS to indicate the extension's mailbox number.

Whether the PBX turns off the message indication lamp after the button is pressed, or your VPS turns off the lamp after all new messages in the mailbox are played, is selectable by through system programming.

An extension user can also, at any time, play back any messages in his or her mailbox, including old messages, however this is not available as a one-touch operation with the MESSAGE button. The user must dial a floating extension number of a VM group, his or her mailbox number, and other DTMF commands manually, or customize a One-touch Dialing button.

AA Service

A VPS can also be used as an automated attendant. When a call is directed to a port of your VPS which is in AA service mode, the caller will hear an OGM. After or while listening to the OGM, the caller may dial an extension number as directed. ("Enter the extension number of the desired party.")

If the VPS transfers a call via the AA service, the PBX will inform the VPS of the status of the called party using a preprogrammed DTMF status signal so that the VPS will know the status without needing to listen to system tones, such as a busy tone or ringback tone. This enables the VPS to quickly play an appropriate OGM to the caller. ("I'm handling another call now...", "I'm away from my desk now...", etc.)

The default DTMF status signals sent by the PBX are explained below. Change the DTMF status signals through system programming to match the settings of your VPS.

[DTMF Status Signals]

Status	Condition	Default DTMF Status Signal
Ringback Tone	The PBX is ringing the corresponding extension.	1
Busy Tone	The called extension is busy.	2
Reorder Tone	The dialed number is invalid.	3
DND Tone	The called extension has set Do Not Disturb (DND). (→ 1.3.1.3 Do Not Disturb (DND))	4
Answer	The called extension has answered the call.	5
Confirm	The PBX confirms that a feature (such as Message Waiting) has been set or canceled on the extension.	9
Disconnect	The caller has hung up.	#9
FWD to VM Ringback Tone	The called extension has set FWD to VPS and the PBX is calling another port of the VPS.	6
FWD to VM Busy Tone	The called extension has set FWD to VPS and all ports of the VPS are busy.	7
FWD to Extension Ringback Tone	The PBX is calling an extension other than the one dialed, most likely because the called extension has set its calls to be forwarded to another extension or because it is a member of an idle extension hunting group. (→ 1.2.1 Idle Extension Hunting)	8

System Programming

The service mode for each VM (DTMF) group and various DTMF settings must be programmed through system programming to match the settings of your VPS. If the settings of the PBX and your VPS do not agree, the VPS will not perform as expected.

1. **Service Mode Assignment**

   Through system programming, assign a service mode (VM or AA) to each VM (DTMF) group to match the settings of your VPS.

2. **DTMF Status Signal Assignment**

   When using AA service, the PBX will communicate with your VPS by sending DTMF tones to indicate the status of PBX extensions. Assign these DTMF status signals through PBX system programming to match the settings of your VPS.

3. **DTMF Command Assignment**

   The PBX also sends DTMF tones to your VPS to command the VPS to play or record messages, or to switch between VM and AA service modes. Assign these DTMF commands through PBX system programming to match the settings of your VPS.

4. **Redirecting Calls to the VPS via FWD or Intercept Routing**

   When a call is redirected to the VPS via FWD or Intercept Routing it will be redirected to either the VM service or the AA service of your VPS, based on system programming. This allows a caller to, for example, be connected to an extension via AA service, then be connected to that extension's mailbox if the extension does not answer.

FWD to the VPS

An extension user can set his or her calls to be forwarded to your VPS. The way in which the VPS will then handle these calls is determined through system programming.

a) If "FWD to the VPS Sequence" is set to "Answer by Mailbox", the PBX will direct forwarded calls to the VM service of your VPS. The PBX will send the extension's mailbox number to the VPS via Follow on ID, allowing callers to leave a message for the extension user without dialing a mailbox number.

b) If "FWD to the VPS Sequence" is set to "AA", the PBX will direct forwarded calls to the AA service of your VPS. Callers will hear the AA greeting ("Enter the extension number of the desired party.") and can connect themselves to a destination.

c) If "FWD to the VPS Sequence" is set to "None", the PBX will direct forwarded calls to whichever service (VM or AA) is assigned to the VM (DTMF) group.

Intercept Routing to the VPS

CO line calls which are not answered can be programmed to be redirected to your VPS. The way in which the VPS will then handle these calls is determined through system programming.

a) If "Intercept Routing to the VPS Sequence" is set to "Answer by Mailbox", the PBX will direct calls to the VM service of your VPS. The PBX will send the extension's mailbox number to the VPS via Follow on ID, allowing callers to leave a message for the extension user without dialing a mailbox number.

b) If "Intercept Routing to the VPS Sequence" is set to "AA", the PBX will direct calls to the AA service of your VPS. Callers will hear the AA greeting ("Enter the extension number of the desired party.") and can connect themselves to a destination.

c) If "Intercept Routing to the VPS Sequence" is set to "None", the PBX will direct calls to whichever service (VM or AA) is assigned to the VM (DTMF) group.

DTMF Commands Sent to the VPS

In order to access the appropriate feature of your VPS (playing or recording messages, playing the OGM used by the AA service, etc.), the PBX sends preprogrammed DTMF tones which command the VPS. Assign these DTMF commands through system programming to match the settings of your VPS. If the settings of the PBX and VPS do not agree, the VPS will not perform as expected.

[Programming Example: DTMF Commands]

Feature	DTMF Command Sent to VPS*
Record a message	H
Play a message	✳H
Switch to VM	#6
Switch to AA	#8

H = Mailbox Number. The appropriate mailbox number will be sent to the VPS in place of the "H".

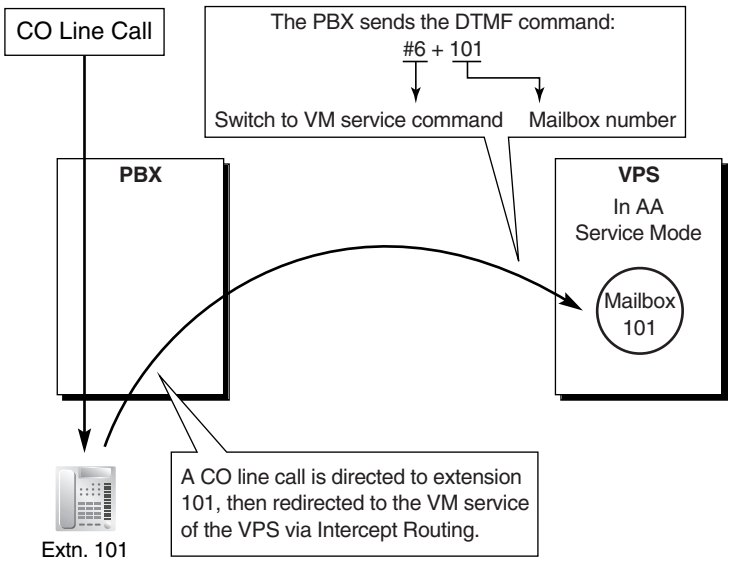
* The DTMF commands here are the default commands used by the PBX. Program either the PBX or your VPS so that these settings match. Note, however, that non-Panasonic VPSs may use different feature names.

[DTMF Commands Sent to the VPS]

VPS Access Method		DTMF Command Sent to VPS*	
		When VM (DTMF) Group is in VM Service Mode	When VM (DTMF) Group is in AA Service Mode
FWD	Answer by Mailbox	H	#6 + H
	AA	#8	#8
	None	No command is sent.	
Intercept Routing	Answer by Mailbox	H	#6 + H
	AA	#8	#8
	None	No command is sent.	
Transfer (pressing the VM Transfer button and dialing an extension no.)		H	#6 + H
Pressing the MESSAGE button or similar operation		✳H	#6 + ✳H

* The DTMF commands here are the default commands used by the PBX. Program either the PBX or your VPS so that these settings match.

[Example of a DTMF Command Sent to the VPS]



Conditions

- After the VPS answers a call, the PBX sends Follow on ID information to the VPS. The amount of time before the PBX sends this data is programmable.
- After the VPS transfers a call to the PBX via AA service, the PBX sends a DTMF status signal to indicate the status of the called party. The amount of time before the PBX sends this status signal is programmable.
- The amount of time (inter-digit time) between each individual DTMF tone sent by the PBX can be specified through system programming.
- The length of each DTMF tone sent by the PBX can be specified through system programming.
- By default, each extension's and ICD group's mailbox number is the same as its corresponding extension number/floating extension number, however, a different mailbox number can be specified through PBX system programming for each extension and ICD group. The specified mailbox number will be used when "`Mailbox for Extension`" is set to "`Programmed Mailbox Number`".
- In order to achieve proper recording quality, Data Line Security is turned on automatically for extensions in a VM (DTMF) group. (→ 1.10.4 Data Line Security)

Feature Guide References

1.1.1.4 Intercept Routing

1.3.1.2 Call Forwarding (FWD)

1.11.1 Call Transfer

1.18.2 Flexible Buttons

1.19.1 Voice Mail (VM) Group

User Manual References

User Manual

1.9.3 Voice Processing System

1.20 Portable Station (PS) Features

1.20.1 Portable Station (PS) Connection

Description

A Panasonic KX-TD7680 or KX-TD7690 portable station (PS) can be used in place of a proprietary telephone (PT), providing wireless access to PBX features and call handling.

1. Registration

Before a PS can be used, it must be registered with the PBX through system programming (→ PS Registration [690]) and assigned an extension number.
Because a PS transmits radio waves, it is possible that a PS belonging to a neighboring PBX can be registered to your PBX. To prevent this sort of unauthorized registration, a personal identification number (PIN) can be programmed for this PBX that must be entered on the PS during registration. (→ Personal Identification Number (PIN) for PS Registration [692]). This PIN, if programmed, is only used during the PS registration process.
Each PS can be registered to more than one PBX if necessary, and registration can be canceled if a PS will no longer be used with one of these PBXs. (→ PS Termination [691])

2. Connection

There are two ways a PS can be used.

As an Extension

A PS is assigned its own extension number when it is registered to a PBX. The PS can use this extension number to make and receive calls, just as a wired telephone can. A PS can be a member of an incoming call distribution (ICD) group, can be assigned as the destination for redirected calls, etc., just as a wired telephone can.
A PS can also be a member of a PS ring group (→ 1.20.2 PS Ring Group). A PS ring group is a way for several PSs to be notified of an incoming call simultaneously, but does not offer all of the features provided by an ICD group. (→ 1.2.2 Incoming Call Distribution (ICD) Group Features)

In Wireless XDP Parallel Mode

A PS can share an extension number with a wired telephone, allowing extension users to use their PSs when they are away from their desks to answer or make calls as if they were using their wired telephones. (→ 1.20.3 Wireless XDP Parallel Mode)

3. PS Interaction with CS

Each PS communicates with the PBX wirelessly through a cell station (CS). Each CS is connected to the PBX and sends and receives radio waves to and from different PSs within its range, using different channels for different PSs. Each CS has two channels, i.e., up to two calls (conversations) can be handled simultaneously by one CS.
A PS must be within range of a CS in order to be used, however, multiple CSs can be used with the same PBX to offer a greater area of wireless coverage. Additionally, a PS does not need to be used with a specific CS; any PS can communicate with any CS provided the PS is registered to the PBX, and provided the CS has at least one channel available.

Handover

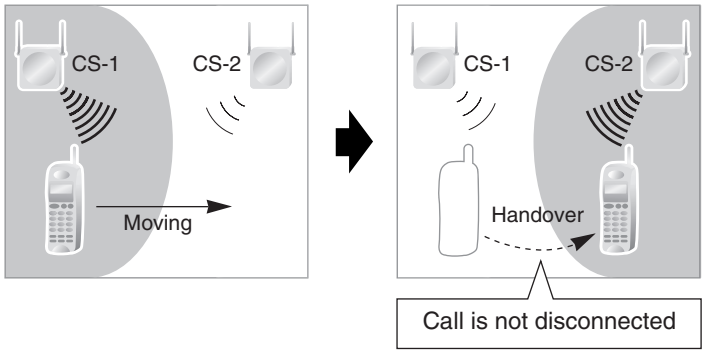
If a PS is within range of more than one CS, the PS will communicate with the CS which has the greatest signal strength and an available channel. When a PS user moves out of range of one CS and moves in range of another CS, the PS will "hand over" its communications to the new CS. Handover is possible when:

a) The PS is on an intercom call or on a call with an outside party. (The call will not be disconnected during the handover.)

b) A call is ringing at the PS. (The call will continue to ring after the handover.)

c) The PS is in idle status (i.e., waiting to receive calls).

[Example of Handover]



Handover is not possible when the PS is:

a) Not within range of another CS.

b) Within range of another CS but that CS is busy.

c) On a conference call. (→ 1.13.1 Conference Features)

d) Screening a call via Live Call Screening (LCS) or recording a call via Two-way Record (→ 1.19.2 Voice Mail DPT (Digital) Integration)

e) Paging other extensions. (→ 1.14.1 Paging)

f) On a doorphone call.

g) Dialing digits to make a CO line call.

Conditions

- If every CS that a PS is in range of is busy when that PS is called, the call will not be connected and the caller will hear a busy tone.

Installation Manual References

Installation Manual

2.7 Connection of 2.4 GHz Portable Stations

1.20.2 PS Ring Group

Description

A PS ring group is a way for several portable stations (PSs) to be notified of an incoming call simultaneously, while using only one channel of a cell station (CS).
Normally when a PS receives a call, one channel of a CS is used to ring the PS (→ 1.20.1 Portable Station (PS) Connection). If several PSs are members of an incoming call distribution (ICD) group, the available channels of a CS will become busy just by ringing each PS. Assigning a group of PSs to a PS ring group alleviates this strain on the CS because only one channel is needed to ring a PS ring group's members.
PS ring group members and related parameters are assigned through system programming, as explained below.

a) **Floating Extension Number:** When this number is called, all PSs in the group ring.

b) **Group Name:** Can be displayed on a ringing PS to indicate that the incoming CO line call is a group call, and not a call directed to the PS's extension number. This is only available when Incoming CO Line Call Information Display is set to "`Called Number`".

c) **Incoming CO Line Call Information Display:** Determines which information is shown on the PS display when a group call is received. Select "`Caller ID`" to display the caller's telephone number or name, or "`Called Number`" to display the name of the PS ring group which is receiving the call.

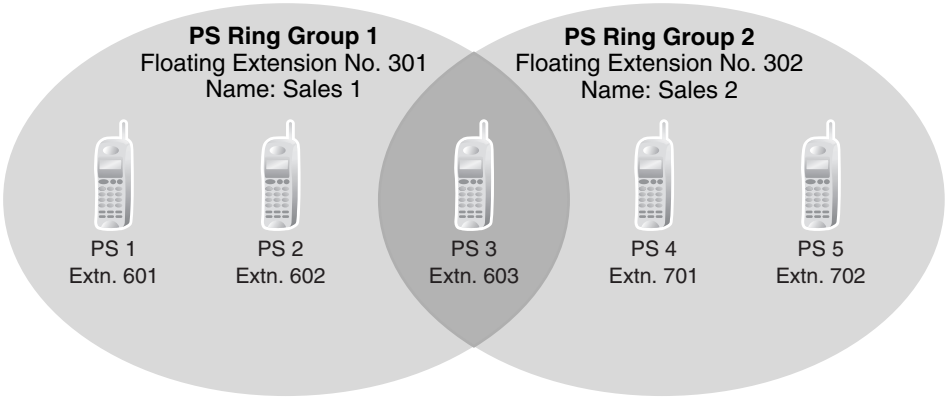
d) **Member PSs:** Select each PS that will be a member of the corresponding PS ring group. Note that a PS can belong to more than one PS ring group.

[Programming Example: PS Ring Group]

	PS Ring Group 1	PS Ring Group 2	PS Ring Group 3
Floating Extension No.	301	302	303
Group Name	Sales 1	Sales 2	Customer Service
Incoming CO Line Information Display	Caller ID	Called Number	Caller ID
PS 1	✔		
PS 2	✔		
PS 3	✔	✔	
PS 4		✔	
PS 5		✔	
PS 6			✔
PS 7			✔
PS 8			✔

✔ PS Ring Group Member

[Example of PS Ring Groups 1 and 2]



Explanation:

PS Ring Group 1

PS 1, PS 2, and PS 3 will ring simultaneously when a call is directed to floating extension number 301, and, in the case of a CO line call, will display the Caller ID information for the call. These PSs will ring individually when a call is directed to their assigned extension numbers (programming not shown here).

PS Ring Group 2

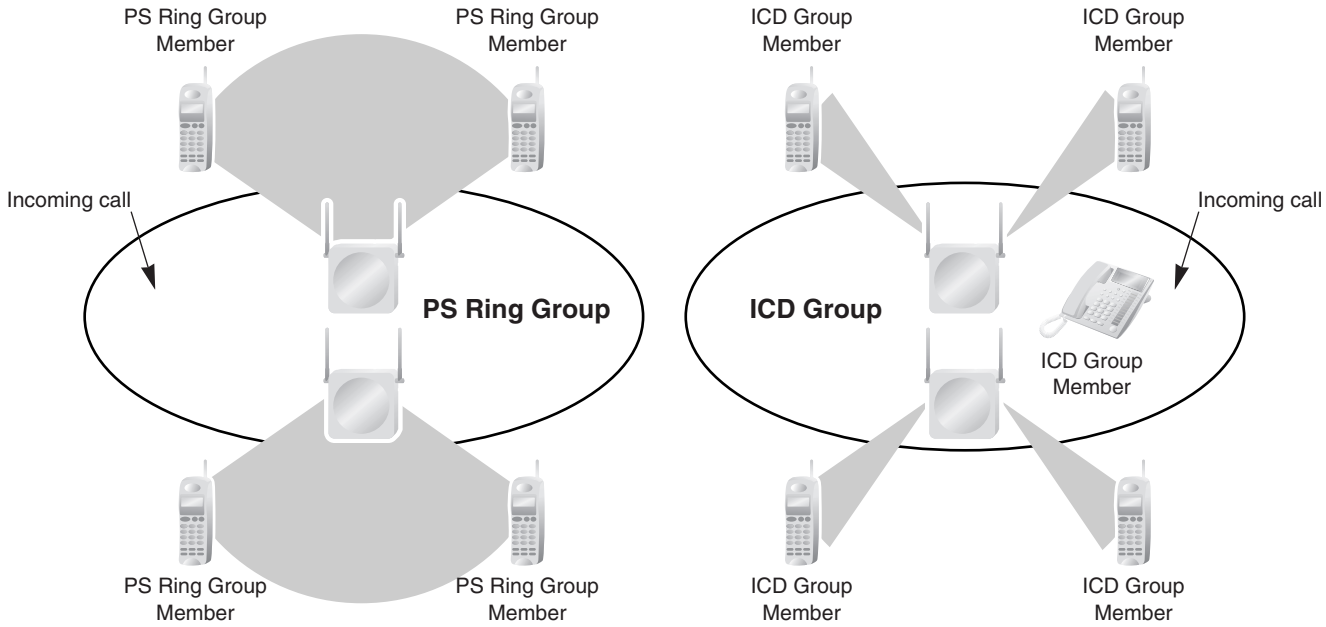
PS 3, PS 4, and PS 5 will ring simultaneously when a call is directed to floating extension number 302, and, in the case of a CO line call, will display "Sales 2".
These PSs will ring individually when a call is directed to their assigned extension numbers (programming not shown here).

ICD Groups vs. PS Ring Groups

Assigning PSs to either an ICD group or a PS ring group will allow multiple PSs to receive group calls simultaneously. The differences between the two are highlighted below:

Features	PS Ring Group	ICD Group
Members can ring simultaneously when a call is received	✔	✔
Calls can be distributed to member extensions using different methods		✔
The CS is less likely to be busy; ringing all member PSs uses only one CS channel	✔	
Members can log-in, log-out, and use Wrap-up time, G-DN button		✔
Both PTs and PSs can belong to the same group		✔
Each member can belong to more than one group	✔	✔
Calls can wait in a queue if they cannot be answered		✔

[Example of CS Channels Used for PS Ring Group Calls and ICD Group Calls]



Explanation:

The PS ring group has four members which are in range of two different CSs. When a call arrives, each CS uses one channel to ring all member PSs within its range.
The ICD group has one proprietary telephone (PT) member, as well as four PS members which are in range of two different CSs. When a call arrives, each CS uses all two of its channels to ring each of the member PSs within its range.

Conditions

- A maximum of 32 PS ring groups can be programmed.
- Each member of a PS ring group must be a PS, but each member does not need to be in range of the same CS. When a call is directed to a PS ring group, all CSs connected to the PBX will try to ring members of the group.
- PS ring groups do not have Log-in or Log-out features. There is no way for a PS to log-in to or log-out from a PS ring group.
- A PS ring group may be assigned as a member of an ICD group, but the PS ring group cannot log-in to or log-out from an ICD group. The PS ring group (and therefore its members) will always be logged-in.
- When a PS is assigned to a PS ring group, the following settings are used if it receives a call directly, but are disregarded when it receives a group call:
  - **a)** Delayed Ringing (All PSs will ring simultaneously.)
  - **b)** The incoming call display preference assigned to the PS through system programming.
  - **c)** Features set on the PS, such as Call Forwarding (FWD). Note, however, that if a PS user has set Do Not Disturb (DND), that PS will not ring for group calls either.
- When a call is directed to a PS ring group, the PBX will try to ring the group's members regardless of whether or not they are already on another call. If all members of a PS ring

group are busy when the group is called, their PSs will not ring but the caller will hear a ringback tone.

- A PS ring group will only ring one call at a time on its member PSs. If a PS ring group is ringing one call when another call is directed to the group, the group will appear busy to the caller. If a call is directed to a specific PS within the group in this situation and the PS is available to answer calls, the PS will ring as usual.
- The PBX will ring calls for only two PS ring groups at a time. In other words, if two calls directed to two different PS ring groups are ringing, no other PS ring group calls will ring until one of the other ringing calls is answered.
- If a PS in a PS ring group has set the DND feature for CO line calls, the PS will not ring for CO line calls as well as intercom calls directed to the group.
- **Compatible PS**
  A Panasonic KX-TD7680 and KX-TD7690 can be assigned to PS ring groups.

Feature Guide References

1.2.2 Incoming Call Distribution (ICD) Group Features

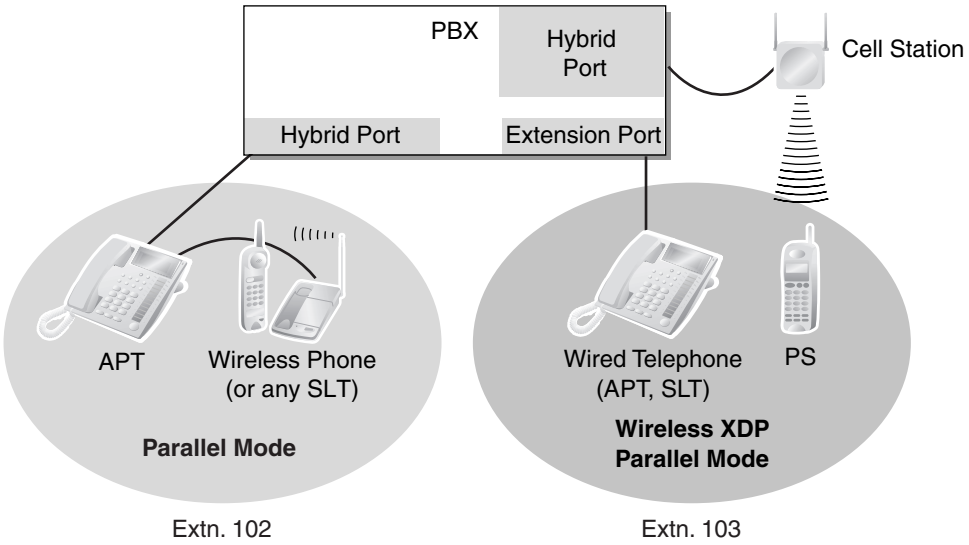
1.3.1.3 Do Not Disturb (DND)

1.20.3 Wireless XDP Parallel Mode

Description

A portable station (PS) can be used in parallel with a wired telephone, i.e., an analog proprietary telephone (APT), or single line telephone (SLT), allowing an extension user to make or receive calls with either the wired telephone or the PS. The PS will use the same extension number as the wired telephone, and many of the wired telephone's extension settings (Call Forwarding [FWD], Class of Service [COS], etc.) are also used by the PS.
In order to use a PS in Wireless XDP Parallel mode, the mode must be turned on using the PS.

[Example of Wireless XDP Parallel Mode, Parallel Mode]



Conditions

- Whether or not a PS is allowed to pair itself with a wired telephone is determined by the COS assigned to the extension number of the wired telephone. (→ Wireless XDP Parallel Mode for Paired Telephone [515])
- Wireless XDP Parallel mode can be turned on or off using the PS only.
- To switch between the wired telephone and the PS during a conversation, simply go off-hook with the other telephone. Alternatively, to seize a separate line, use another method, such as pressing a CO or INTERCOM button.
  In addition, going off-hook with the other telephone seizes a separate line when the extension is:
  a) Engaged in a conference call. (→ 1.13.1 Conference Features)
  b) Screening a call using Live Call Screening (LCS) or when recording a conversation using Two-way Record. (→ 1.19.2 Voice Mail DPT (Digital) Integration)
  c) Being monitored by another extension. (→ 1.7.3 Call Monitor)
  d) When the extension has a call on consultation hold. (→ 1.12.5 Consultation Hold)
- When a PS in Wireless XDP Parallel mode is on a call, other extension users cannot perform Executive Busy Override when they call this extension.
- When a PS is paired with a wired telephone, most of the extension settings assigned to the wired telephone (extension number, extension name, etc.) will be used by the PS, and the PS will use its own extension settings once again when Wireless XDP Parallel mode is canceled. Note, however, that the following extension settings of the wired telephone are copied to the extension settings of the PS when Wireless XDP Parallel mode is activated, and will remain in effect for the PS after the mode is canceled.
  - Call Waiting Setting (→ 1.1.3.3 Call Waiting)
  - FWD/Do Not Disturb (DND) Setting (→ 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND))
  - Call Pickup Deny Setting (→ 1.4.1.3 Call Pickup)
  - Executive Busy Override Deny Setting
  - Itemized Billing Code for Automatic Route Selection (ARS) (→ 1.9.1 Automatic Route Selection (ARS))
  - Extension Personal Identification Number (PIN) (→ Extension Personal Identification Number (PIN) [005]) (→ 1.22.1 Extension Personal Identification Number (PIN))
  - COS Programming (→ Class of Service [602]) (→ 2.2.1 Class of Service (COS))
  - Extension Group (→ Extension Group [603]) (→ 2.2.2 Group)
  - Transfer Recall Destination for Call Transfer and Call Park
- The PS will retain its original settings for the following items even when in Wireless XDP Parallel mode. These settings can be set on the wired telephone and PS independently, and the settings can be different.
  - Ring Tone Pattern Table Selection (→ 1.1.3.2 Ring Tone Pattern Selection)
  - Preferred Line Assignment—Incoming (→ 1.4.1.2 Line Preference—Incoming)
  - Preferred Line Assignment—Outgoing (→ 1.5.5.2 Line Preference—Outgoing)
  - Hot Line Setting (→ 1.6.1.6 Hot Line)
  - Display Language (→ 1.18.4 Display Information)
  - Flexible Button Assignment (→ 1.18.2 Flexible Buttons)
  - Transfer Recall Destination for Call Transfer and Call Park (The setting assigned to the wired telephone will first be copied to the PS's extension settings, then can be changed for the PS if necessary.)

If an extension number is required when changing any PS settings while in Wireless XDP Parallel mode, use the original extension number assigned to the PS, not the extension number of the paired (wired) telephone.

- If the Extension Feature Clear is performed, the corresponding extension data for both the wired telephone and the PS will be cleared. (→ 1.22.2 Extension Feature Clear)
- When a call arrives, both the wired telephone and the PS will ring. However, when one of the following settings is made, only the telephone which was used to make the setting will ring.
  - Automatic Callback Busy
  - Transfer Recall
  - Hold Recall (→ 1.12.1 Call Hold)
  - Call Park Recall

Feature Guide References

1.7.1 Automatic Callback Busy (Camp-on)

1.7.2 Executive Busy Override

1.11.1 Call Transfer

1.12.2 Call Park

User Manual References

User Manual

1.7.8 Wireless XDP Parallel Mode

1.20.4 PS Directory

Description

A portable station (PS) user can make a call or access PBX features using information stored in the PS and PBX.
Refer to the Operating Instructions supplied with your PS for available directories and usage.

Directory Type	Description	Programming
PS Dialing Directory	A list of names and telephone numbers. Used to make a call to one of the stored parties.	Stored in the PS by the PS user.
Quick Dialing	A list of frequently dialed feature numbers as well as names and telephone numbers. Used to quickly access one of the stored features, or quickly make a call to one of the stored parties.	Stored in the PS by the PS user.
System Speed Dialing Directory	A system-wide list of names and telephone numbers. Used to make a call to one of the stored parties.	Stored in the PBX. (→ System Speed Dialing Number [001], → System Speed Dialing Name [002])

Directory Type	Description	Programming
PBX Extension Dialing Directory	A system-wide list of extension names. Used to make a call to one of the stored extensions.	Stored in the PBX. (→ Extension Name [004])

1.20.5 PS Feature Buttons

Description

Although a portable station (PS) does not feature as many buttons as a proprietary telephone (PT), a PS can be customized to give a PS user access to PBX features, just as the flexible buttons on a PT can be customized. (→ 1.18.2 Flexible Buttons)

1.21 Administrative Information Output Features

1.21.1 Station Message Detail Recording (SMDR)

Description

Automatically logs detailed information for each extension.

1. **SMDR Output Port**

   The Serial Interface (RS-232C) port can be used to output Station Message Detail Recording (SMDR) data to a PC, printer, etc.

2. **SMDR Output Data**

   The following data can be recorded and sent to the SMDR output port:

   a) CO line call information (incoming/outgoing)

   b) Intercom call information (outgoing)

   c) Log-in/Log-out information

   d) PBX error log (→ 2.4.3 Local Alarm Information)

   Memory for SMDR: A specified number of records (data) can be remembered by the PBX. When memory is full, the oldest data is overwritten by new data.

3. **SMDR Format and Contents**

   The following three types of output format can be selected through system programming:

   Pattern A: 80-column text without call charge information

```
Date      Time      Ext   CO  Dial Number                  Ring  Duration  ACC Code   CD
(8 digits) (7)      (4)   (2) (25)                         (4)   (8)       (10)       (3)
-----------------------------------------------------------------------------------------
01/02/02 10:03AM  1200  01  <I>12345678901234567890  5'15  00:00'00                NA
01/02/02 10:07AM  1200  01  <I>                      0'05  00:01'05  9876543210
01/02/02 10:15AM  1200  01  1234567890123456              00:01'05  9876543210  TR
01/02/02 10:30AM  *123  01  1234567890123456              00:01'05  9876543210


01/02/02 01:07PM  1234  01  <I>ABC COMPANY12345678  0'05  00:01'05  9876543210
01/02/02 01:07PM  1234  01  <I>Q COMPANY23456789    0'05  00:01'05  9876543210
01/02/02 01:07PM  1234  01  ABC COMPANY12345678           00:01'05
01/02/02 01:07PM  1234  01  123.............              00:01'05


01/02/02 08:33AM  1234      In the office
01/02/02 01:07PM  1234      LOG IN
01/02/02 03:35PM  1234      LOG OUT
01/02/02 03:45PM  1234      EXT12355

 :        :        :   :     :                        :     :         :        :
(1)      (2)      (3) (4)   (5)                      (6)   (7)       (8)      (9)
```

Pattern B: 80-column text with call charge information

```
Date      Time      Ext   CO  Dial Number                Duration  Cost        ACC Code   CD
(8 digits)(7)       (4)   (2) (20)                       (8)       (8+2)       (10)       (3)
-------------------------------------------------------------------------------------------
01/02/02 10:03AM  1210  01  <I>                                                          NA
01/02/02 10:07AM  2005  01  12345678901234567890  00:00'05  00560.00EU  9876543210
  :        :        :    :     :                      :        :           :          :
 (1)      (2)      (3)  (4)   (5)                    (7)      (10)        (8)        (9)
```

Pattern C: 120-column text

```
Date      Time      Ext   CO  Dial Number                      Ring  Duration  Cost        ACC Code   CD
(8 digits) (7)      (4)   (4) (50)                             (4)   (8)       (8+3)       (10)       (3)
-------------------------------------------------------------------------------------------------------
01/02/02 10:03AM  1230  0001 12345678901234567890123456789 0        00:00'05  00560.00EUR 9876543210 TR
01/02/02 10:07AM  1230  0001 <I>ABC COMPANY123456789012345 0'05     00:00'05              9876543210 TR
  :        :        :    :     :                              :        :         :           :        :
 (1)      (2)      (3)  (4)   (5)                            (6)      (7)       (10)        (8)      (9)
```

[Explanation]
The following table explains the types of data logged by SMDR. Each description below refers to data indicated above by the numbers in parentheses.

Number in the Pattern	Data	Description
(1)	**Date**	Shows the date of the call.
(2)	**Time**	Shows the end time of a call as hour/minute/AM or PM.
(3)	**Ext (Extension)**	Shows the extension number, floating extension number, etc., which was engaged in the call. Also shows the following codes: **Dxxx:** Outgoing CO line call from a doorphone (xxx=doorphone number) (→ 1.15.1 Doorphone Call) ***xxx:** Verified call (xxx=verified code) (→ 1.8.5 Verified Code Entry)
(4)	**CO**	Shows the CO line number used for the call.

Number in the Pattern	Data	Description
(5)	**Dial Number**	**[CO Line Call]** **Outgoing CO Line Call** Shows the dialed telephone number. Digits shown are as follows: **0 through 9, ✳ , #** **P:** Pause **F:** External Feature Access (EFA) signal **=:** Host PBX Access code (→ 1.5.4.6 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)) **. (dot):** Secret dialing **–:** Transferred call If the transfer destination extension enters additional digits, those digits will be added after "–". **Incoming CO Line Call** Shows <I> + the caller's identification name/number.
		[Outgoing Intercom Call] Shows the dialed extension number followed by "EXT".
		[Log-in/Log-out] Shows the Log-in or Log-out status.
(6)	**Ring**	Shows the ring duration before the call was answered in minutes/seconds.
(7)	**Duration**	Shows the duration of the CO line call in hours/minutes/seconds.
(8)	**Acc Code (Account Code)**	Shows the account code appended to the call. (→ 1.5.4.3 Account Code Entry)
(9)	**CD (Condition Code)**	Shows other call information using the following codes: **TR:** Transfer **FW:** Call Forwarding (FWD) to CO line **D0:** Call using Direct Inward System Access (DISA) **RM:** Remote maintenance (modem) (→ 2.3.1 PC Programming) **NA:** Not answered call
(10)	**Cost**	Shows the call charge. This is not available if your telephone company does not provide a call charge reporting service.

The following data can be controlled through system programming to adjust whether (or how) they are printed or displayed by SMDR.

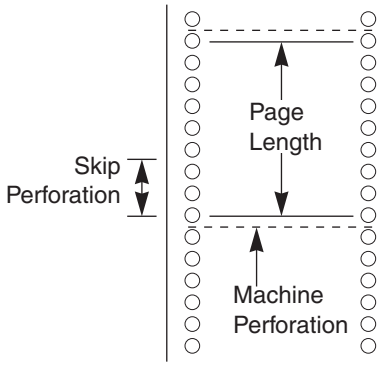
[Programmable Items]

Item	Description
Outgoing CO line call	Controls whether outgoing CO line calls are shown. This setting is common throughout the PBX (→ SMDR Outgoing Call Printing [804]). Class of Service (COS) programming is also required.
Incoming CO line call	Controls whether incoming CO line calls are shown (→ SMDR Incoming Call Printing [805]).
Outgoing intercom call	Controls whether outgoing intercom calls are logged.
Log-in/Log-out status	Controls whether the Log-in/Log-out status of extensions is logged.
ARS dial	Controls whether the user-dialed number or the ARS-modified number is shown. A Host PBX Access code ("=" followed by the access code) can be shown (as supplementary information) only when the modified number is selected in this setting. (→ 1.9.1 Automatic Route Selection (ARS))
Caller's identification	Controls whether a caller's telephone number, name, number and name, or nothing is shown. If "none" is selected, <I> will not be shown.
Secret dialing	Controls the display of secret dialing, when ARS dial, above, is set to show ARS-modified numbers. If enabled, numbers dialed secretly will be shown as dots. If ARS dial is set to show user-dialed numbers, secretly dialed numbers are always shown as dots in SMDR, regardless of this setting.
Date order	Controls the date format. (MM-DD-YY, DD-MM-YY, YY-MM-DD, or YY-DD-MM)

Conditions

- **SMDR Format**
  The following SMDR format parameters can be set through system programming in order to match the paper size being used by the printer:
  a) **Page Length:** determines the number of lines per page (→ SMDR Page Length [802]).
  b) **Skip Perforation:** determines the number of lines to be skipped at the end of every page (→ SMDR Skip Perforation [803]).
  The page length should be at least four lines longer than the skip perforation length.

Explanation:



- SMDR data is not deleted even if the PBX is reset.
- If the PBX is reset during a conversation, the call will not be logged by SMDR.
- The following calls are regarded as two separated calls in the SMDR:
  - Calls before and after the flash/recall/EFA signal is manually sent during a conversation
  - CO-to-CO line calls by Call Transfer, FWD or DISA (each is logged as both an "incoming call" and an "outgoing call")
- The PBX waits for a preprogrammed length of time (→ Call Duration Count Starting Time for LCOT [208]) after the end of dialing before starting the SMDR timer for outgoing CO line calls. When the PBX has sent out all dialed digits to the telephone company and this timer expires, the PBX begins measuring the duration of the call. A display proprietary telephone (PT) shows the elapsed time of the call. The starting time and the total duration of the call are logged by SMDR.
- **Serial Interface (RS-232C) Parameters**
  The following communication parameters can be assigned for the Serial Interface (RS-232C port) (→ RS-232C Parameter—New Line Code [800], → RS-232C Parameter—Baud Rate [800], → RS-232C Parameter—Word Length [800], → RS-232C Parameter—Parity Bit [800], → RS-232C Parameter—Stop Bit Length [800]).
  a) **New Line Code:** Select the code appropriate for the PC or printer. If the PC or printer automatically feeds lines with carriage return, select "CR". If not, select "CR+LF".
  b) **Baud Rate:** Baud rate indicates the transmission speed of data from the PBX to the PC or printer.
  c) **Word Length:** Word length indicates how many bits compose each character.
  d) **Parity Bit:** Parity bit indicates what type of parity is used to detect errors in the string of bits composing a character. Make an appropriate selection depending on the requirements of the PC or printer.
  e) **Stop Bit Length:** Stop bit indicates the end of a bit string which composes a character. Select an appropriate value depending on the requirements of the PC or printer.

Installation Manual References

Installation Manual

2.9.1 Connection of Peripherals

Feature Guide References

1.2.2.6 Log-in/Log-out

1.11.1 Call Transfer

1.15.6 Direct Inward System Access (DISA)

1.22 Extension Controlling Features

1.22.1 Extension Personal Identification Number (PIN)

Description

Each extension can be assigned a personal identification number (PIN) through system programming (→ Extension Personal Identification Number (PIN) [005]) or personal programming (Extension PIN [Personal Identification Number]). This PIN is used to set features or access the extension remotely.
The following features require a valid PIN:

a) Live Call Screening (LCS)* (→ 1.19.2 Voice Mail DPT (Digital) Integration)

b) Incoming Call Log Display Lock (→ 1.16.2 Incoming Call Log), Personal Speed Dialing Display Lock (→ 1.6.1.4 Speed Dialing—Personal/System)

c) Walking Extension (→ 1.22.3 Walking Extension)

d) Extension Lock (→ 1.8.2 Extension Lock)

e) Remote Extension Control (→ 1.22.5 Remote Extension Control by User) and Walking COS (→ 1.8.4 Walking COS)

f) Remote Extension Control and Walking COS using Direct Inward System Access (DISA) (→ 1.15.6 Direct Inward System Access (DISA))

*: If an extension user has assigned an extension PIN, the PIN is required when activating this feature.

Conditions

WARNING
When a third party discovers the personal identification number (PIN) (verified code PIN/ extension PIN) of the PBX, there will be a risk that they will make fraudulent phone calls using the telephone line, and the cost will be charged to your own account. In order to avoid this problem, we strongly recommend the following points:

a) Carefully maintain the secrecy of the PIN.

b) Specify a complicated PIN as long and random as you can make it.

c) Change the PIN frequently.

- **Extension PIN Lock**
  If the extension PIN is entered incorrectly three times, the line will be disconnected. If an incorrect PIN is entered a preprogrammed number of times, the PIN will be locked. Only an extension assigned as a manager can unlock a PIN, after which it will be reset.
  This feature is also known as Station Password Lock.
- **Remote Extension PIN Clear**
  If an extension user forgets his or her PIN, a manager can clear (reset) the PIN, and the extension user can assign a new PIN.
- **Extension PIN Display**
  It is possible to select whether to show the extension PIN on the display through system programming. By default, it is shown as dots.

User Manual References

User Manual

3.1.2 Settings on the Programming Mode

3.2.2 Manager Programming

1.22.2 Extension Feature Clear

Description

Extension users can clear the following features set on their own telephone all at once:

Features	After Setting
Absent Message	**Off**
BGM	**Off**
FWD*/DND*	**Off**
Call Pickup Deny	**Allow**
Call Waiting*	**Enable (Call Waiting tone)**
Data Line Security	**Off**
Executive Busy Override Deny	**Allow**
Log-in/Log-out	**Log-in**
Message Waiting	**All messages left by other extensions will be cleared.**
Paging Deny	**Allow**
Hot Line*	**Off**
Timed Reminder	**Cleared**

* These features can be programmed to not be canceled by Extension Feature Clear.

This feature is also known as Station Program Clear.

Conditions

- Extension Lock (→ 1.8.2 Extension Lock) and the extension personal identification number (PIN) (→ 1.22.1 Extension Personal Identification Number (PIN)) will not be cleared by this feature.
- **If dial tone 2 is heard after Extension Feature Clear:**
  After performing Extension Feature Clear, Call Waiting will be enabled if "`Extension Clear: Call Waiting`" is set to "`Clear`" through system programming. In this case, dial tone 2 will be heard when going off-hook. (→ 1.23.1 Dial Tone)

User Manual References

User Manual

1.7.9 Extension Feature Clear

1.22.3 Walking Extension

Description

It is possible for an extension user to trade extension settings with another extension. When Walking Extension is executed, all extension settings (extension number, Class of Service (COS), One-touch Dialing memory, etc.) of the "old" extension are exchanged with the "new" extension.
This feature is useful when an extension user moves desks, or when an extension user has no permanent desk.

This feature is also known as Walking Station.

Conditions

- This feature is available by switching the telephone between proprietary telephone (PT) and PT, single line telephone (SLT) and SLT, PT and SLT. Moving across the tenants is also possible.
- Incoming calls to your extension will reach you at your new location.
- An extension personal identification number (PIN) is required to use this feature. (→ 1.22.1 Extension Personal Identification Number (PIN))
- If a DSS Console is connected to a PT and the DSS Console is continuously used with the PT after the Walking Extension has been performed, the new extension number of the PT must be assigned as the paired extension through system programming (→ Console Paired Telephone [007]).

User Manual References

User Manual

1.10.1 Walking Extension

1.22.4 Timed Reminder

Description

Each extension user can set an alarm to be used as a wake-up call or reminder. This feature can be programmed to activate daily or once only. If the user goes off-hook during the alarm, a special dial tone will be heard. If a voice message is used, a prerecorded voice message will be heard.

Conditions

- Be sure that the PBX clock is set to the correct time.
- Setting a new alarm time clears the previous alarm time.

- **Programmable Time**
  The Alarm Ringing time, the number of alarm repeat times, and Interval time are programmable through system programming.
- **To use the voice message feature:**
  An MSG card is required and a message must be recorded. An extension assigned as a manager can record messages. (→ 1.15.5 Outgoing Message (OGM)) A different message can be assigned for each time mode (→ 2.2.4 Time Service).

Installation Manual References

Installation Manual

2.5.3 MSG2 Card

User Manual References

User Manual

1.7.1 Timed Reminder

1.22.5 Remote Extension Control by User

Description

Extension users can remotely change the feature settings, such as Call Forwarding (FWD), and time service mode for their own extensions from inside or outside the PBX using Direct Inward System Access (DISA) (→ 1.15.6 Direct Inward System Access (DISA)). This feature can be used only on the extensions which, through Class of Service (COS) programming are allowed to be controlled remotely.

The following feature settings can be changed:

a) FWD/Do Not Disturb (DND) (→ 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND))

b) Log-in/Log-out (→ 1.2.2.6 Log-in/Log-out)

c) Absent Message (→ 1.17.2 Absent Message)

d) Extension Lock (→ 1.8.2 Extension Lock)

e) Time Service—Changing the Time Mode (day/lunch/break/night) (→ 2.2.4 Time Service)

This feature is also known as Remote Station Control by User.

Conditions

- **Extension PIN**
  An extension personal identification number (PIN) (→ Extension Personal Identification Number (PIN) [005]) is required to use this feature. (→ 1.22.1 Extension Personal Identification Number (PIN)) If the PIN is entered incorrectly three times, the line will be disconnected.
- Internal Call Block (→ 1.1.2.2 Internal Call Block) also determines which extensions can perform remote operations on which extensions, i.e., if extension 101 cannot call extension 201, then it cannot remotely operate extension 201 either.

User Manual References

User Manual

1.2.8 Remote Setting

1.23 Audible Tone Features

1.23.1 Dial Tone

Description

The following dial tones inform extension users about features activated on their extensions: Each dial tone type has two frequencies, such as dial tone 1A and dial tone 1B.

Type	Description
Tone 1A/1B	A normal dial tone is heard when: **a)** No features listed for dial tones 2 through 4 has been set, or **b)** Automatic Route Selection (ARS) is used.
Tone 2A/2B	Heard when any one of the following features is set. • Absent Message • BGM • Call Forwarding (FWD) • Call Pickup Deny • Call Waiting • Do Not Disturb (DND) • Extension Lock • Executive Busy Override Deny • Hot Line • Timed Reminder
Tone 3A/3B	Heard while a called PS is being searched, or when any one of the following features is performed. • Account Code Entry • Consultation Hold • Answering a Timed Reminder call with no message
Tone 4A/4B	Heard when messages are waiting for the extension.

Conditions

- **Dial Tone Type A/B**
  Through system programming, it is possible to select dial tone type A or B for dial tones 1 through 4. If "`Type A`" is selected, all dial tones 1 through 4 will become dial tone type A. The dial tone type for ARS feature can be selected separately. If "`Type A`" is selected for ARS, dial tone 1A will be heard. If "`Type B`" is selected, dial tone 1B will be heard.
- **Distinctive Dial tone**
  Distinctive dial tone mode can be disabled. In this case, dial tone 1 will be heard.
- **Dial Tone Patterns**
  All dial tone patterns have a default (→ 5.2.1 Tones/Ring Tones).
- Only dial tone 1 is sent to the extensions in a VM (DPT/DTMF) group. (→ 1.19.1 Voice Mail (VM) Group)

1.23.2 Confirmation Tone

Description

At the end of feature operations, the PBX confirms the success of the operation by sending a confirmation tone to extension users.

Type	Description
Tone 1	**a)** Sent when the setting is accepted. **b)** Sent when a call is received in voice-calling mode (Alternate Receiving—Ring/Voice). The caller's voice will be heard after the tone.
Tone 2	**a)** Sent from an external paging device or an extension before being paged. **b)** Sent when a call is received while an extension is in Hands-free Answerback mode.
Tone 3-1	**a)** Sent before a conversation is established using the Paging feature. **b)** Sent to the caller when a conversation is established with an extension in one of the following modes: • Hands-free Answerback mode • Voice-calling mode (Alternate Receiving—Ring/Voice)
Tone 3-2	Sent before a conversation is established when accessing the following features by their feature numbers: • Call Park Retrieve • Call Pickup • Hold Retrieve • Paging Answer • Trunk Answer From Any Station (TAFAS)
Tone 4-1	Sent when a call changes from a two-party call to a three-party call. (For example, Executive Busy Override, Conference, Privacy Release, Two-way Record.)
Tone 4-2	Sent when a call changes from a three-party call to a two-party call. (For example, Executive Busy Override, Conference, Privacy Release, Two-way Record.)
Tone 5	Sent when a call is placed on hold (including a consultation hold).

Conditions

- **Confirmation Tone Patterns**
  All confirmation tone patterns have a default (→ 5.2.1 Tones/Ring Tones).
- It is possible to eliminate each tone.

Section 2

System Configuration and Administration Features

2.1 System Configuration—Hardware

2.1.1 Extension Port Configuration

Description

There are three types of extension ports, used to connect analog proprietary telephones (APTs), single line telephones (SLTs), Cell Stations (CSs), DSS Consoles, and Voice Processing Systems (VPS) to the PBX. The devices which can be connected to each type of port are listed below.

a) **APT Port:** APT, DSS Console, and Panasonic VPS which supports DPT (Digital) Integration

b) **SLT Port:** SLT and VPS which supports DTMF Integration

c) **Hybrid Port:** APT, SLT, CS, DSS Console, and VPS

Conditions

- **Automatic Detection on Hybrid Port**
  An APT, SLT, or CS can be connected to a hybrid port with no programming required.
- **APT and SLT in Parallel Mode**
  An APT and an SLT can also be connected to a hybrid port and used in parallel mode.
- **Wireless XDP Parallel Mode**
  A PS can be used in Wireless XDP Parallel mode with a wired telephone.
  (→ 1.20.3 Wireless XDP Parallel Mode)
- **DSS Console and Paired Telephone Assignment**
  When a DSS Console is connected, a PT must be paired with the DSS Console through system programming (→ Console Paired Telephone [007]).

2.2 System Configuration—Software

2.2.1 Class of Service (COS)

Description

Each extension is assigned a Class of Service (COS) number (→ Class of Service [602]). The following features operate differently depending on an extension's COS.

a) Internal Call Block (→ 1.1.2.2 Internal Call Block)
b) Call Forwarding (FWD) (→ 1.3.1.2 Call Forwarding (FWD))
c) Do Not Disturb (DND) Override (→ 1.3.1.3 Do Not Disturb (DND))
d) Call Pickup (→ 1.4.1.3 Call Pickup)
e) Account Code Entry (→ 1.5.4.3 Account Code Entry)
f) External Call Block (→ 1.5.5.3 CO Line Access)
g) Executive Busy Override (→ 1.7.2 Executive Busy Override)
h) Call Monitor (→ 1.7.3 Call Monitor)
i) Toll Restriction (TRS) (→ 1.8.1 Toll Restriction (TRS))
j) Extension Lock (→ 1.8.2 Extension Lock)
k) Walking COS (→ 1.8.4 Walking COS)
l) CO Line Call Limitation (→ 1.10.7 CO Line Call Limitation)
m) Call Transfer (→ 1.11.1 Call Transfer)
n) Door Open (→ 1.15.2 Door Open)
o) Direct Inward System Access (DISA) (→ 1.15.6 Direct Inward System Access (DISA))
p) Wireless XDP Parallel Mode (→ 1.20.3 Wireless XDP Parallel Mode)
q) Station Message Detail Recording (SMDR) for Outgoing CO Line Call (→ 1.21.1 Station Message Detail Recording (SMDR))
r) Time Service Switching (→ 2.2.4 Time Service)
s) Manager Features (→ 2.2.6 Manager Features)
t) PT Programming (→ 2.3.2 PT Programming)

Conditions

- **Walking COS**
  Extension users can make a call from extensions of a less-privileged COS by using their own COS temporarily.

User Manual References

User Manual

1.2.6 Calling without Restrictions

2.2.2 Group

Description

This PBX supports various types of groups.

1. CO Line Group

CO lines can be grouped into CO line groups based on carrier, CO line type, etc. (→ LCOT CO Line Group Number [402]). Several settings can be assigned on a CO line group basis. All CO lines belonging to a CO line group follow the programming for that CO line group. Each CO line can belong to only one CO line group. CO lines are assigned to a CO line group based on their port numbers.

2. Extension Group

Extensions can be grouped into extension groups (→ Extension Group [603]). Extension groups then compose the following groups:

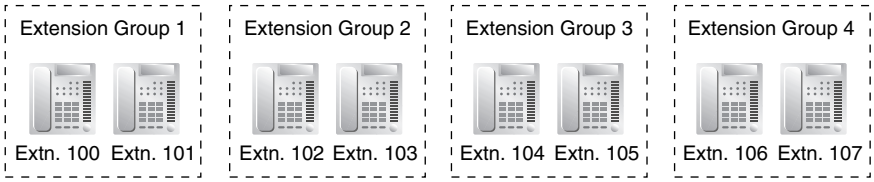
a) Tenant (→ 2.2.3 Tenant Service)

b) Call Pickup Group (See below.)

c) Paging Group (See below.)

Every extension must belong to one extension group and cannot belong to more than one extension group.
Assignable Extensions: Proprietary telephone (PT)/single line telephone (SLT)/portable station (PS)

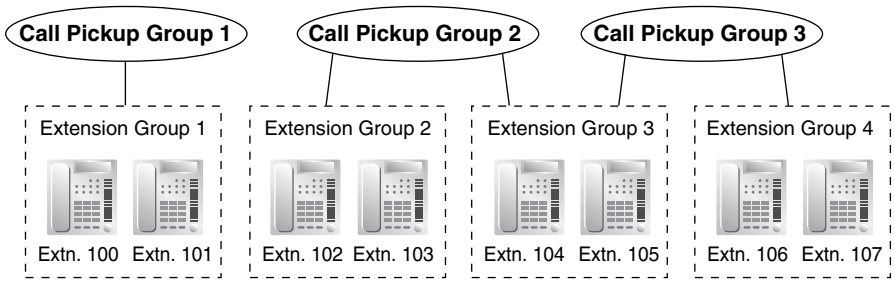
[Example]



2.1. Call Pickup Group (→ Extension Groups of a Pickup Group [650])

Using the Group Call Pickup feature, extensions can answer any calls within the call pickup group to which they belong. One extension group can belong to several call pickup groups.
(→ 1.4.1.3 Call Pickup)

[Example]

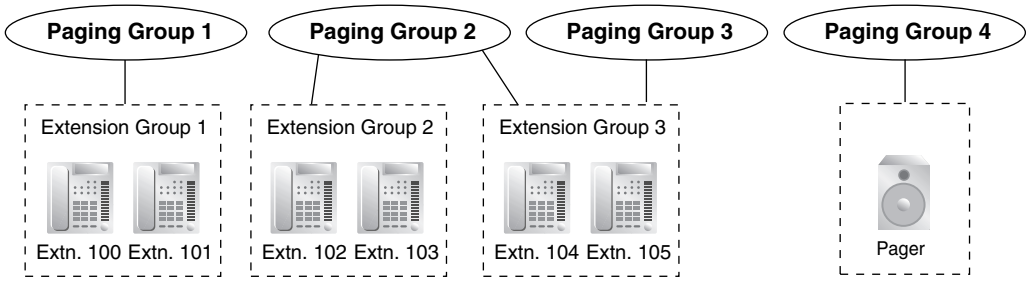


2.2. Paging Group (→ Extension Groups of a Paging Group [640])

Using the Paging feature, extensions can page or answer a page within their groups. One extension group or external pager (loudspeaker) can belong to several paging

groups.
(→ 1.14.1 Paging)

[Example]



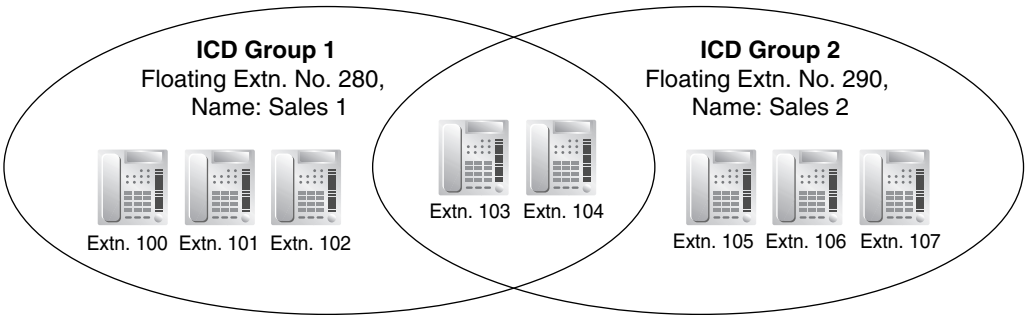
3. Idle Extension Hunting Group

If a called extension is busy or in Do Not Disturb (DND) mode, Idle Extension Hunting redirects the incoming call to an idle member of the same idle extension hunting group. Members are programmed through system programming (→ Idle Extension Hunting Group Member [681]). When calls are received, idle extensions are automatically searched for according to a preprogrammed hunting type: Circular Hunting or Terminated Hunting (→ Idle Extension Hunting Type [680]).
(→ 1.2.1 Idle Extension Hunting)

4. Incoming Call Distribution Group (ICD Group)

An ICD group is a group of extensions which receives incoming calls directed to the group (→ ICD Group Member [620]). Each ICD group has a floating extension number (→ ICD Group Floating Extension Number [622]) and name (→ ICD Group Name [623]). One extension can belong to multiple ICD groups.
Assignable Extensions: PT/SLT/PS/PS ring group
(→ 1.2.2 Incoming Call Distribution (ICD) Group Features)

[Example]



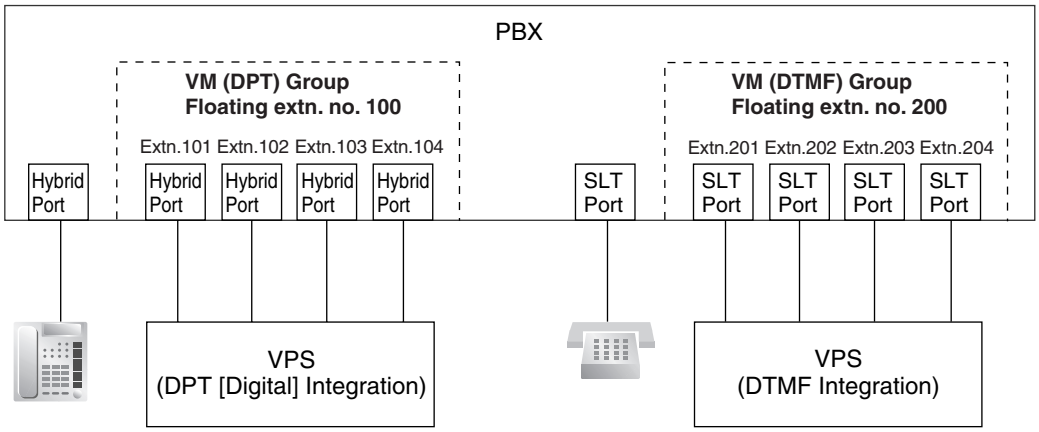
5. VM Group

There are two types of VM groups, explained below.

Type	Description
VM (DPT) Group	A group of APT or hybrid ports (→ VM Group Floating Extension Number [660]) which use Voice Mail DPT (Digital) Integration features.
VM (DTMF) Group	A group of SLT ports which use Voice Mail DTMF Integration features. One SLT port can belong to only one group.

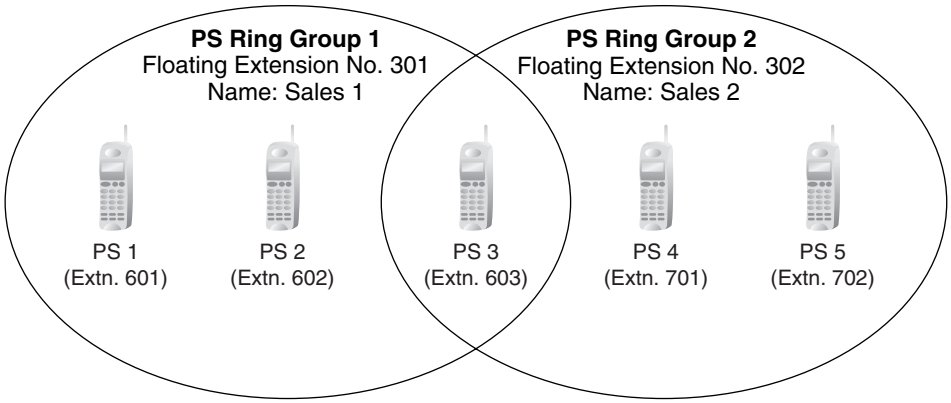
(→ 1.19.1 Voice Mail (VM) Group)

[Example]



6. PS Ring Group

A PS ring group is a group of PS extensions which receives incoming calls directed to the group. Each group has a floating extension number and name assigned through system programming. One PS can belong to multiple PS ring groups.
(→ 1.20.2 PS Ring Group)



2.2.3 Tenant Service

Description

Tenant service is a cost-effective method of providing PBX services to different offices or companies located in the same building, while using only one PBX.

1. Tenant Configuration

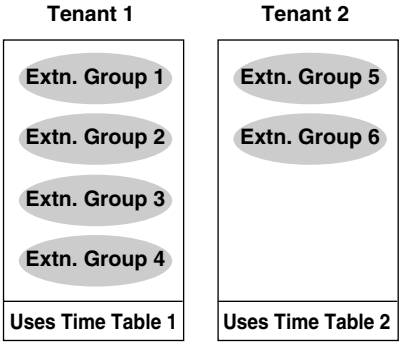
1.1. Tenant Members

Extensions are assigned to a tenant indirectly; they are assigned to extension groups, and these extension groups are assigned to tenants. An extension can belong to only one extension group and an extension group can belong to only one tenant, therefore an extension can belong to only one tenant. (→ 2.2.2 Group)

1.2. Time Service

Time modes are used by many PBX features to determine how they will function during different times of day (→ 2.2.4 Time Service). The start and end times of each time mode (day/lunch/break/night) for each day of the week are programmed in a Time Table. Each Time Table has a number which corresponds to the tenant number of the tenant it serves. (Tenant 1 uses Time Table 1, etc.)

[Example of Tenant Configuration]



2. System Management

Each of the following system management items can be assigned to each tenant.

a) **Tenant Operator:** Determines the destination for calls directed to the tenant's operator. If no operator is designated, the PBX operator will serve as the tenant's operator. (→ 2.2.5 Operator Features)

b) **ARS Mode:** Determines under which circumstances Automatic Route Selection (ARS) operates for calls made by the tenant's extensions — either when a call is made using the Idle Line Access method, or when any CO Line Access method is used. (→ 1.5.5.3 CO Line Access). The ARS mode for each tenant can also be programmed to be the same ARS mode assigned to the entire PBX, or turned off. (→ 1.9.1 Automatic Route Selection (ARS))

c) **Audio Source for Music on Hold:** Determines the audio source for the Music on Hold heard by the tenant's callers. Either a tone or background music (BGM) can be used. The audio source for each tenant can also be programmed to use the same audio source used for Music on Hold assigned to the entire PBX. (→ 1.12.4 Music on Hold)

3. Call Blocking

Through Class of Service (COS) programming, it is possible to:

1. Prevent extensions of one tenant from calling extensions of another tenant. (Tenant-to-Tenant Call Block)
2. Limit the CO line groups which can be used by the extensions of each tenant. (External Call Block)

3.1. Tenant-to-Tenant Call Block

Using Internal Call Block, certain features, such as making intercom calls, can be restricted based on the COS assigned to extensions. (→ 1.1.2.2 Internal Call Block) Well-planned COS programming can prevent extensions of one tenant from:

– Calling an extension or doorphone which belongs to another tenant

– Picking up calls ringing at extensions belonging to another tenant (→ 1.4.1.3 Call Pickup)
– Retrieving calls being held by another tenant (→ 1.12.1 Call Hold)

[Programming Example: Internal Call Block]

Caller	Called Party						
	COS 1	**COS 2**	**COS 3**	**COS 4**	**COS 5**	**COS 6**	
COS 1							
COS 2							
COS 3					Block	Block	
COS 4					Block	Block	
COS 5	Block	Block	Block	Block			
COS 6	Block	Block	Block	Block			

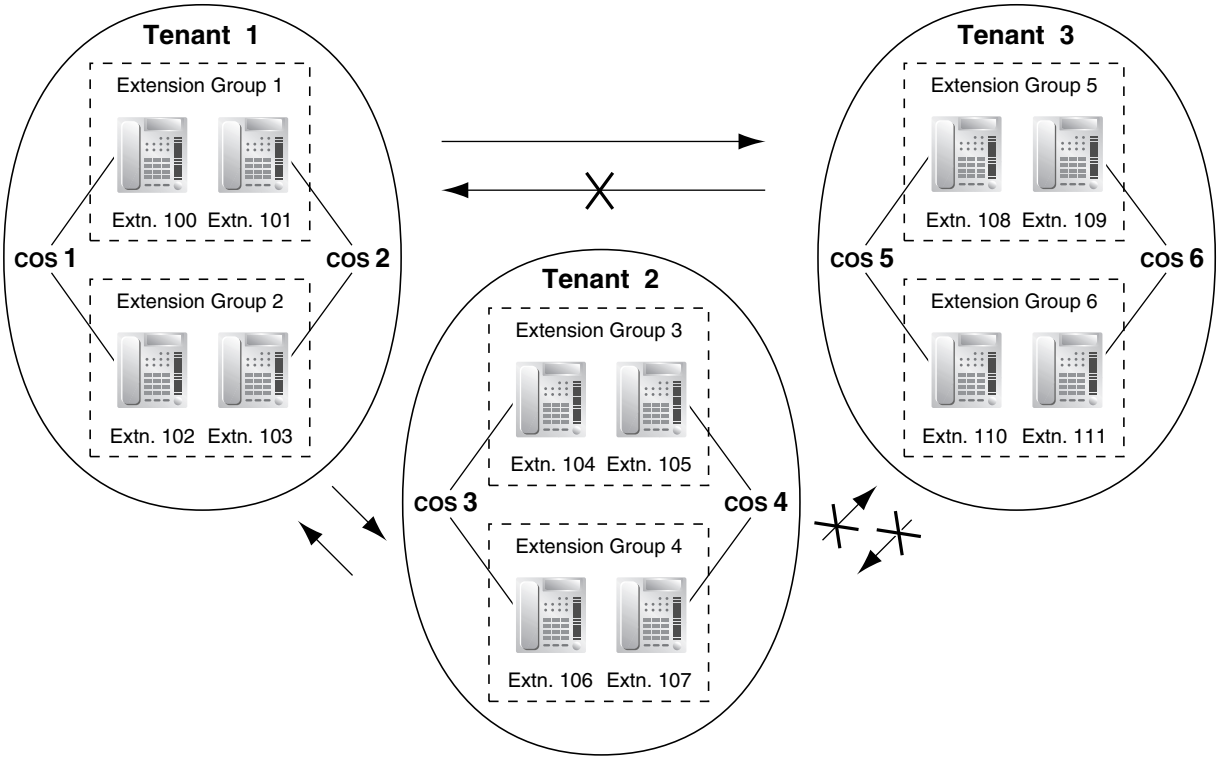
In this example:

Internal Call Block is employed to block calls between certain tenants.
Each extension in a tenant is assigned a COS that is not assigned to extensions which belong to another tenant.

a) Extensions in Tenant 1 are either COS 1 or 2. They can make calls to extensions in Tenants 1, 2, and 3.

b) Extensions in Tenant 2 are either COS 3 or 4. They can make calls to extensions in Tenants 1 and 2, but not 3.

c) Extensions in Tenant 3 are either COS 5 or 6. They can make calls to other extensions in Tenant 3 only.



3.2. External Call Block

If multiple tenants are using the PBX, the External Call Block feature should be programmed to control which COS numbers are allowed to access which CO line groups. By preventing certain COS numbers from accessing certain CO line groups, each tenant can be given its own CO line groups which no other tenant can access.

[Programming Example: External Call Block]

COS	CO Line Group 1	CO Line Group 2	CO Line Group 3	CO Line Group 4	CO Line Group 5	CO Line Group 6
COS 1			Block	Block	Block	Block
COS 2			Block	Block	Block	Block
COS 3	Block	Block			Block	Block
COS 4	Block	Block			Block	Block
COS 5	Block	Block	Block	Block		
COS 6	Block	Block	Block	Block		

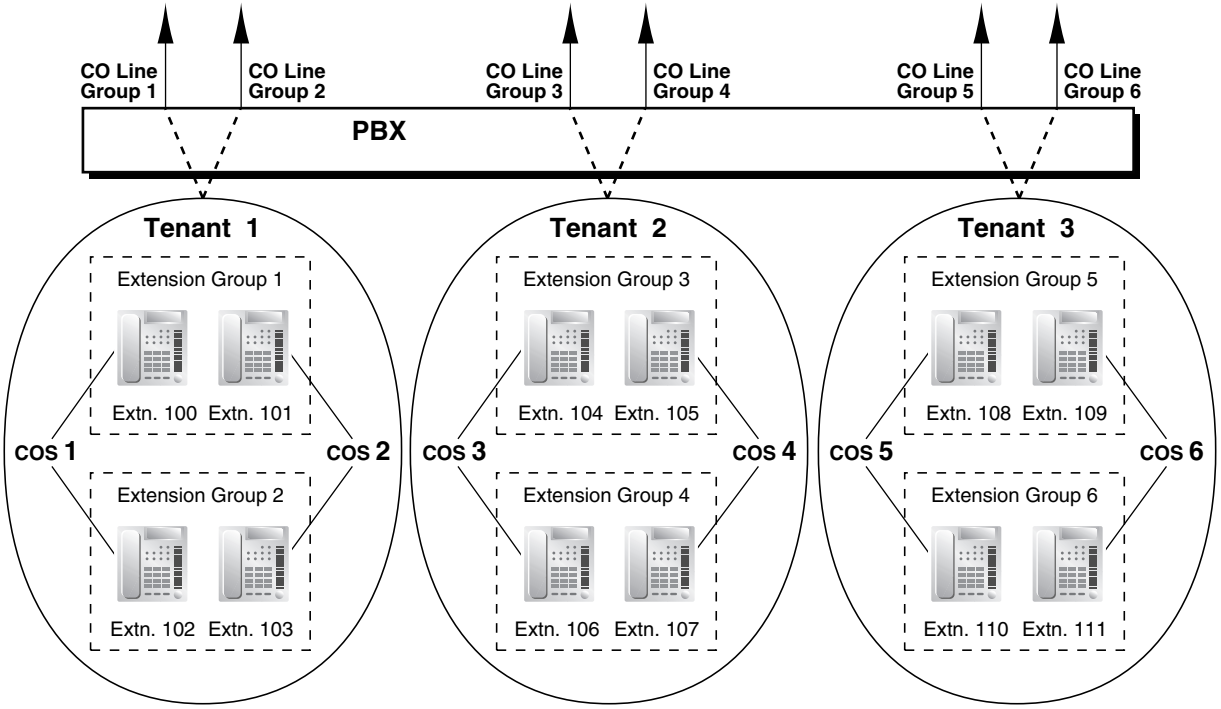
In this example:

External Call Block is employed to prevent tenants from accessing all CO line groups except the ones designated to them. Each extension in a tenant is assigned a COS that is not assigned to extensions which belong to another tenant.

a) Extensions in Tenant 1 are either COS 1 or 2. They can access CO line groups 1 and 2.

b) Extensions in Tenant 2 are either COS 3 or 4. They can access CO line groups 3 and 4.

c) Extensions in Tenant 3 are either COS 5 or 6. They can access CO line groups 5 and 6.



Conditions

- The following features used by incoming call distribution (ICD) group are determined by the tenant number assigned to them (→ 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW):
  - The Music on Hold heard by a caller while waiting in a queue.
  - The Time Table used by the ICD group to determine the current time mode. An overflow destination and Queuing Time Table can be assigned for each time mode.

2.2.4 Time Service

Description

Time modes are used by many PBX features to determine how they will function during different times of day. For example, incoming calls can be directed to sales staff during the day and to a Voice Processing System (VPS) at night, extension users can be prohibited from making long distance calls during lunch time, etc.
There are four time modes—day, lunch, break, and night. The start and end times of each time mode are programmed for each day of the week in a Time Table. Each Time Table has a number which corresponds to the tenant it serves, i.e., Tenant 1 uses Time Table 1, etc.

1. Time Service Switching Mode

The current time mode can switch automatically to another time mode at the preprogrammed time assigned in the Time Table. It is possible, however, to switch time modes manually.
Whether time modes are normally switched manually or automatically is determined

through system programming (→ Time Service Switching Mode [101]). Each tenant is assigned a switching mode.

Time Mode Switching	Description	Condition
Automatic	The current time mode will switch automatically to another time mode at the time programmed in the tenant's Time Table, and can be switched manually by pressing the Time Service button or by dialing the Time Service Switch feature number.	The current time mode (day/lunch/break/night) and the switching mode (automatic/manual) can be switched manually by an extension assigned as a manager, or by an extension whose Class of Service (COS) is authorized (→ Time Service Manual Switching [514]).
Manual	The current time mode will switch only when the Time Service button is pressed or when the Time Service Switch feature number is dialed.	

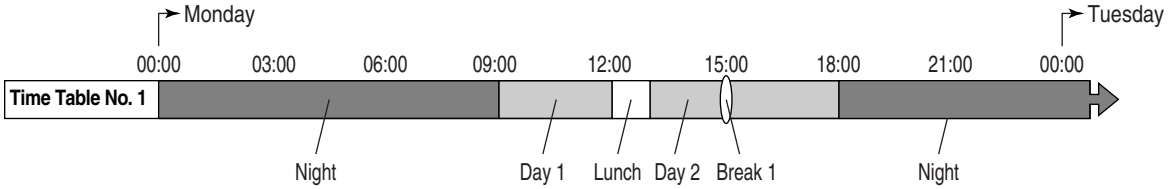
2. Time Table

Each tenant has a Time Table that is used when the tenant is in Automatic Time Service Switching mode. Each Time Table has four basic modes—day, lunch, break, and night—and also provides for multiple "breaks", such as morning breaks and afternoon breaks, and multiple "days", such as the morning shift and the afternoon shift following lunch.
A tenant's Time Table is programmed to control when each time mode starts (and therefore, ends) and can be programmed separately for each day of the week.
Each Time Table has a number which corresponds to the tenant number of the tenant it serves. (Tenant 1 uses Time Table 1, etc.)

[Programming Example: Time Table]

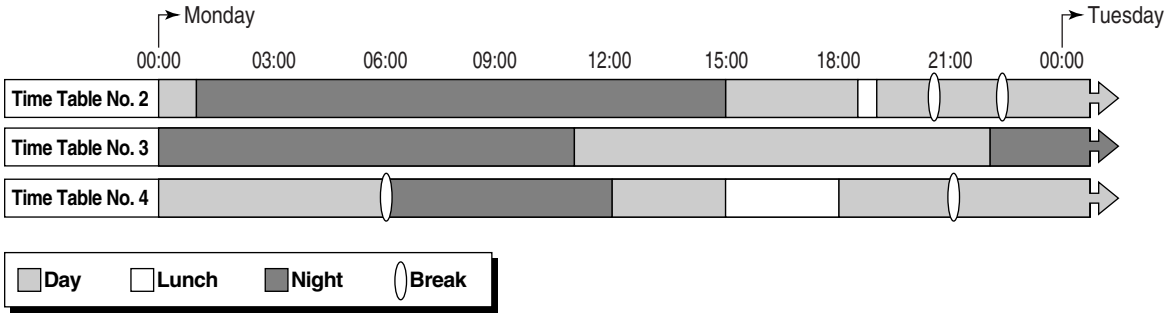
Time Schedule		Time Table No. (Tenant No.)				
		1	2	3	4	
MON	Day 1	09:00	15:00	11:00	12:00	
	Lunch	12:00	18:30		15:00	
	Day 2	13:00	19:00		18:00	
	Break 1 start	15:00	20:30		06:00	
	Break 1 end	15:15	20:45			
	Break 2 start		22:30		21:00	
	Break 2 end		22:45		21:15	
	Night	18:00	01:00	22:00	06:15	
TUE	Day 1	09:00	15:00	11:00		

[Visualization of Time Schedule for Tenant 1]



Note that in this example, the day mode (Day 2) resumes automatically when the break mode (Break 1) ends.

[Visualization of Time Schedule for Other Tenants]



Note that time modes can be arranged as they are needed (for example, night mode can occur in the morning and afternoon, if necessary) and not all time modes need to be used in a tenant's time schedule.
Also note that Tenant 4's Break 1 is followed by the night mode because no end time is programmed for the break.

3. Features Using Time Service

The following features can be programmed separately for each time mode:

- **a)** Destination of incoming CO line calls (Direct In Line (DIL) (→ 1.1.1 Incoming CO Line Call Features)
- **b)** Destination of calls handled by Intercept Routing (→ 1.1.1.4 Intercept Routing)
- **c)** Queuing Time Table used by an incoming call distribution (ICD) group (→ 1.2.2.3 Queuing Feature)
- **d)** Destination of calls that are overflowed while waiting in a queue for an available agent of an ICD group (→ 1.2.2.5 Overflow Feature)
- **e)** Destination of incoming doorphone calls (→ 1.15.1 Doorphone Call)
- **f)** Destination of Operator Calls (→ 2.2.5 Operator Features)
- **g)** Toll Restriction (TRS) level of each COS
- **h)** COS numbers which are permitted/restricted to access certain CO line groups (External Call Block) (→ 1.5.5.3 CO Line Access)
- **i)** Outgoing Message (OGM) for Timed Reminder (→ 1.22.4 Timed Reminder)

[Programming Example: DIL Table]

The DIL Table can be programmed to direct calls to a different destination for each time mode based on the CO line receiving the call. Calls can, for example, be directed to an ICD group during the day mode, or to the Voice Mail (VM) service of a VPS during the lunch and night modes.

Port No. (CO Line No.)	Tenant (Time Table) No.	DIL Destination			
		Day	Lunch	Break	Night
01	1	105	150	105	150
02	2	210	200	210	200

Explanation:

A call is received at 20:00 on CO line 01.

1) The call will be handled by Time Table 1.

2) The current time mode is "night" (shown in "Programming Example: Time Table", above).

3) The call is directed to extension 150, which is a floating extension number used by the VPS (programming not shown here).

4. Holiday Mode

The PBX can also accommodate 24 different holidays. The start and end date of each holiday can be programmed, and all holidays are assigned a single time mode. For example, if the "night" mode is assigned as the time mode for holidays, and a holiday begins December 31st and ends January 1st, all PBX features will use their "night" settings from 0:00 A.M. on December 31st until 0:00 A.M. on January 1st.

5. Time Service Button

A flexible button can be customized as one of the following Time Service buttons:

a) Day/Night button

b) Day/Night/Lunch button

c) Day/Night/Break button

d) Day/Night/Lunch/Break button

These buttons can be used to switch the current time mode: pressing the Day/Night button will toggle between the day and night modes, for example.
Each Time Service button will display the current time mode using a different light pattern or color, as shown below.

Light Pattern	Current Time Mode
Off	Day
Red on	Night
Green on	Lunch
Slow green flashing	Break
Slow red flashing	Holiday

Note

Pressing a Time Service button will change the current time mode only if the COS assigned to the extension is authorized to do so (→ Time Service Manual Switching [514]) or if the extension is assigned as a manager. All other extension users can press this button on their proprietary telephones (PTs) to display the current time mode.

Conditions

- The start times of the following time modes can be specified through PC programming as well as PT programming (→ Time Service Starting Time [102]).
  - Day 1 and 2
  - Lunch
  - Night

  The start and end times of the following break modes can be specified through PC programming only.
  - Break 1
  - Break 2
  - Break 3

  Note that if an end time is programmed for a break, the day mode will start or resume at this time, as shown previously in "Visualization of Time Schedule for Tenant 1" example. If no end time is programmed, the break will continue until the start of the next time mode, as shown in Time Table 4 in "Visualization of Time Schedule for Other Tenants".
- **Time Service Switching Mode (Automatic/Manual) Button**
  Any flexible button can be customized as the Time Service Switching Mode (Automatic/Manual) button.

Feature Guide References

1.8.1 Toll Restriction (TRS)

1.18.2 Flexible Buttons

2.2.3 Tenant Service

User Manual References

User Manual

1.7.7 Time Service

2.1.2 Time Service Mode Control

2.2.5 Operator Features

Description

This PBX supports separate operators for both the PBX and each tenant. Any extension or incoming call distribution (ICD) group can be designated as an operator. Operators are the destination of Operator Calls.

Type	Description
PBX operator	A different extension or ICD group can be assigned as a PBX operator for each time mode (→ Operator Assignment [006]).

Type	Description
Tenant operator	Each tenant can be assigned an operator. This operator is the same for all time modes and can be either an extension or an ICD group. A tenant's operator does not need to be an extension assigned to the tenant it serves.

Operator Call
An extension user can call an operator by dialing the preprogrammed Operator Call feature number, often simply, "0". When an Operator Call is made, the call is directed to the tenant operator of the calling extension's tenant. If no tenant operator is assigned, the call is routed to the PBX operator. The tenant number of the calling extension determines the current time mode which is then used to determine the current PBX operator.
If neither a tenant operator nor a PBX operator is assigned, the caller will hear a reorder tone.

Conditions

- An extension or ICD group can be assigned as both a tenant operator and the PBX operator.
- The same tenant operator can be assigned as the operator for multiple tenants.

Feature Guide References

2.2.3 Tenant Service

User Manual References

User Manual

1.2.1 Basic Calling

2.2.6 Manager Features

Description

An extension assigned as a manager (manager extension) is allowed to use certain features which most extensions cannot. Class of Service (COS) programming determines which extensions are manager extensions (→ Manager Assignment [511]) and can therefore use the following manager features:

Feature		Description	Manager Password	Details in
Manager Programming	**Manager Password Change**	Changes the manager password.	Required	–
	Verified Code Personal Identification Number (PIN) Set	Sets a Verified Code PIN for each Verified Code.	Required	• 1.8.5 Verified Code Entry
	Remote PIN Clear	Clears the extension PIN of an extension remotely, or a verified code PIN. PIN Lock is also unlocked.	Required	• 1.22.1 Extension Personal Identification Number (PIN) • 1.8.5 Verified Code Entry
	Remote Extension Lock	Sets or cancels the Extension Lock on an extension remotely.	Required	• 1.8.2 Extension Lock
Dial Tone Transfer		Changes the Toll Restriction (TRS) level of an extension temporarily, allowing the extension user to make a normally unauthorized call.	Not required	• 1.8.3 Dial Tone Transfer
Outgoing Message (OGM)		Records and plays back OGMs.	Not required	• 1.15.5 Outgoing Message (OGM)
Time Service		Switches the time mode manually.	Not required	• 2.2.4 Time Service
BGM—External		Turns the External BGM on and off.	Not required	• 1.15.4 Background Music (BGM)

Conditions

WARNING

When a third party discovers the personal identification number (PIN) (verified code PIN/ extension PIN) of the PBX, there will be a risk that they will make fraudulent phone calls using the telephone line, and the cost will be charged to your own account. In order to avoid this problem, we strongly recommend the following points:

a) Carefully maintain the secrecy of the PIN.

b) Specify a complicated PIN as long and random as you can make it.

c) Change the PIN frequently.

- **Manager Password**
  Only one manager password can be assigned per PBX (→ Manager Password [112]).

User Manual References

User Manual

2.1 Control Features

3.2.2 Manager Programming

2.3 System Data Control

2.3.1 PC Programming

Description

Although many PBX features can be programmed using a proprietary telephone (PT) (→ 2.3.2 PT Programming), a PC connected to the PBX can use the KX-TAW848 Maintenance Console software to program in further detail. System programming, diagnosis, and data upload/download can be performed either through on-site programming or remote programming.

1) **On-site Programming:** Programming that is performed using an on-site PC connected directly to the PBX.
2) **Remote Programming:** Programming that is performed using an off-site PC that connects to the PBX via a CO line.

1. Connection Methods for On-site Programming

Method	Description	Required Hardware
Serial Interface (RS-232C port)	The PC is connected to the PBX via the Serial Interface (RS-232C port) of the PBX.	—
USB	The PC is connected to the PBX via the USB port.	—
Modem (connected to SLT port)*	The PC is connected to a modem, which is then connected to an SLT port of the PBX. Use the modem to dial the floating extension number assigned to the analog remote maintenance feature (→ Modem Floating Extension Number [811]) to access the PBX.	RMT card and user-supplied modem

* Remote access must be enabled through system programming (→ Remote Programming [810]) when performing on-site programming via modem.

2. Connection Methods for Remote Programming

Method	Description	Required Hardware
Off-site modem	Call the PBX and have the call directed to the floating extension number assigned to the analog remote maintenance feature (→ Modem Floating Extension Number [811]) using one of the following methods: **Direct Access:** Using the off-site modem, dial a telephone number with the modem which will direct your call (via Direct In Line [DIL] distribution) to the floating extension number assigned to the analog remote maintenance feature. **DISA:** Using a telephone, dial a telephone number which will direct your call (via DIL distribution) to a floating extension number used by the Direct Inward System Access (DISA) feature (→ 1.15.6 Direct Inward System Access (DISA)). Next, dial the floating extension number assigned to the analog remote maintenance feature. Then access the PBX with the modem. **Call Transfer:** Using a telephone, dial a telephone number which will direct your call to an operator (or other extension of the PBX) and request to be transferred to the floating extension number assigned to the analog remote maintenance feature. (→ 1.11.1 Call Transfer) Then access the PBX with the modem.	RMT card and user-supplied modem
On-site modem	The modem is connected to the Serial Interface (RS-232C port) and also to either an extension port which is assigned as the DIL destination, or to a CO line directly. AT commands can be sent to the modem automatically when it is connected to the Serial Interface (RS-232C port) and can be programmed beforehand, through system programming, to initialize the modem. AT commands can also be sent manually in the PT system programming mode (→ External Modem Control [801]).	User-supplied modem

Conditions

- Only one system programming session is permitted at a time. Access will be denied when a second party tries to perform system programming, including system programming via a PT.
- **Programmer Code and Password for System Programming**
  To access system programming, a programmer code (login ID for the programmer) and its password must be entered. There are three programmer codes, which are set at the factory and cannot be changed. Each programmer code has a unique password which is also set at the factory. These passwords can be changed through system programming. If the wrong password is entered a preprogrammed number of times during remote (off-site)

programming (Default: None [no limitation]), access will be locked and can only be unlocked by enabling remote access once again through on-site system programming (→ Remote Programming [810]).

Programmer Code	Password	Authorized Programming
Installer Level Programmer Code	**System Password for Installer**	All settings can be programmed.
Administrator Level Programmer Code	**System Password for Administrator—for PC Programming**	Authorized programming is limited to extension settings, PBX operator assignments, and System Speed Dialing entries.
User Level Programmer Code	**System Password for User—for PC Programming**	An extension user can add or modify entries to the System Speed Dialing Table.

- **Remote Programming Limitation**
  It is possible to disable remote access through system programming (→ Remote Programming [810]). Disabling this feature will also disable the ability to perform on-site programming via modem.
- If an extension user sets Walking Extension at the same time that the extension's data is being programmed through PC programming, the data may not be transferred properly. (→ 1.22.3 Walking Extension)

Installation Manual References

Installation Manual

2.5.5 RMT Card

3.1 Overview

3.2 Connection

3.3 Installation of the PC Programming Software

Feature Guide References

1.1.1.2 Direct In Line (DIL)

3.2 PC Programming

2.3.2 PT Programming

Description

A proprietary telephone (PT) can be used to customize the settings of the PBX or of an extension, using the following programming features:

Programming Type	Description	Example	Authorized Programmer
Personal Programming	Used by an extension user to customize the extension's settings.	PT Display Language, Call Waiting Tone, etc.	Extension user

Programming Type	Description	Example	Authorized Programmer
System Programming	Used by an authorized party to customize the PBX.	Intercept Destination, ARS Mode, Date and Time, etc.	Authorized administrator or extension user
Manager Programming	Used by an extension assigned as a manager to customize the current state of an extension, or to grant special privileges temporarily to an extension user.	Switching the current time mode, Remote Extension Lock, Remote PIN Clear, etc.	Extension assigned as a manager

Conditions

- Class of Service (COS) programming determines the level of programming an extension user is authorized to perform (→ Programming Mode Limitation [516]):
  - System programming and personal programming
  - Personal programming only
  - No programming may be performed
- The extension which is connected to the lowest numbered port on the card installed in the lowest numbered slot can perform both personal programming and system programming regardless of the extension's COS.
- COS programming determines which extensions are manager extensions and can therefore perform manager programming.
- During programming, the PT is considered to be busy and will not receive calls.
- Only one system programming (including PC programming) or manager programming session is permitted at a time, i.e., these two programming features cannot be performed simultaneously by two users.
- The PBX will allow 16 simultaneous personal programming sessions, or one system or manager programming session and 15 personal programming sessions.
- **System Programming Password Level**
  To access system programming, a valid password must be entered. There are two types of passwords; they are set at the factory but can be changed through system programming.

Password Type	Authorized Programming	Password Assignment
System Password for Administrator—for PT Programming	All system programming that is available through PT programming.	• System Password for Administrator—for PT Programming [110]
System Password for User—for PT Programming	System programming that has been made accessible to PT users through PC programming.	• System Password for User—for PT Programming [111]

- **Personal Programming Data Reset**
  A PT user can return settings made through personal programming (Preferred Line Assignment, Live Call Screening Mode, etc.) to their default settings all at once.

Feature Guide References

2.2.6 Manager Features
3.3 PT Programming

User Manual References

User Manual

3.1 Personal Programming
3.2 Manager Programming
3.3 System Programming

2.3.3 Quick Setup

Description

Basic PBX parameters can be programmed the first time the PBX is accessed with a PC using the KX-TAW848 Maintenance Console software.
When the PBX is accessed with the Installer Level Programmer Code and default password (→ 2.3.1 PC Programming), for the first time (i.e., accessed after the PBX's settings have been initialized or when the PBX's settings are still set to their default values), Quick Setup will launch automatically. From here the following basic parameters can be programmed as desired:

Item	Parameter	Description
Date & Time Set	Year/Month/Date/ Hour/Minute	The date and time set on the PC can be used by default.
System Password for Installer	4–10 characters	Select the password that will be required to access the PBX using the Installer Level Programmer Code.
Operator & Manager	Extension Number	Assign a PBX operator. (→ 2.2.5 Operator Features) This extension will be the operator for all time modes, and is automatically assigned manager status to perform manager operations. (→ 2.2.6 Manager Features)
Flexible Numbering Type	1. Pattern 1 (with ✳) 2. Pattern 2 (without ✳)	Select whether or not the prefix "✳" must be entered before dialing feature numbers. **[Example]** Call Pickup feature number **Pattern 1 (with ✳):** ✳41 **Pattern 2 (without ✳):** 41 Note that certain feature numbers (Line Access numbers, Operator Call, etc.) never need this prefix. For a list of the default flexible numbers, refer to the [Flexible Numbering Table (available while a dial tone is heard)] (→ 2.3.5 Flexible Numbering/Fixed Numbering).

Item	Parameter	Description
Operator/ Local Access	1. 0/9 2. 9/0	Select the feature numbers for Operator Call and Idle Line Access. These will be either 0 and 9, respectively, or 9 and 0, respectively.
Remote Maintenance Number	Remote Maintenance Dial Number	Enter the complete telephone number of the PBX (including the country code). When necessary, this number will be used to access the PBX from a remote location for maintenance purposes.

2.3.4 Automatic Time Adjustment

Description

The PBX clock can be adjusted automatically in the following two ways:

1. **Daylight Saving Time Setting**
   The start and end dates of Daylight Saving Time can be programmed. The PBX clock will automatically adjust itself one hour forward or backward at 2:00 A.M. on the programmed date, if enabled through system programming. At 2:00 A.M. on the start date, the clock will change to 3:00 A.M., and at 2:00 A.M. on the end date, the clock will change to 1:00 A.M.

   Note
   If a Timed Reminder (Wake-up call) is set:

   – On the Daylight Saving Time start date, a reminder set for between 2:00 A.M. and 3:00 A.M. will not ring.
   – On the Daylight Saving Time end date, a reminder set for between 1:00 A.M. and 2:00 A.M. will ring twice.

2. **Time Information from Telephone Company**
   Time information can be received when an incoming call with Caller ID which includes time information is received.

   The PBX clock will be adjusted everyday with the first call after 3:05 AM, if enabled through system programming.

   Note
   If a Timed Reminder (Wake-up call) is set, the setting will not ring or will ring twice depending on the adjustment.

Conditions

- Station Message Detail Recording (SMDR) will log call information using the PBX clock so that the logging time will be overlapped at the end of Daylight Saving Time. (→ 1.21.1 Station Message Detail Recording (SMDR))

Feature Guide References

1.22.4 Timed Reminder

2.3.5 Flexible Numbering/Fixed Numbering

Description

To dial another extension user or to access PBX features, access numbers (extension numbers or feature numbers) are required.
There are three types of numbering plans:

1) Flexible Numbering (available while a dial tone is heard)

2) Flexible Numbering (available while a busy, DND, or ringback tone is heard)

3) Fixed Numbering (available while dialing or talking)

1. Flexible Numbering (available while a dial tone is heard)
Extension numbers and feature numbers which are available while a dial tone is heard can be customized for easy use (→ Flexible Numbering [100]). The numbers must not conflict. It is also possible to use the default numbering (Pattern 1 or Pattern 2) shown in the following table:

a) Extension Numbers (Extension Numbering Scheme 1 through 32): Extension numbers can consist of up to four digits. They consist of either a one- or two-digit leading number (0-9 or 00-99) and a one- or two-digit suffix (0-9 or 00-99). The default suffix is a two-digit number (00-99).

[Example]
If the number "3" is programmed as a leading number for the 1st extension numbering scheme, and "XX" is programmed as the additional digits, extension numbers 300 through 399 are available.

b) Feature Numbers: Up to four-digit number consisting of 0–9, "*", and "#"

[Flexible Numbering Table (available while a dial tone is heard)]
The default Flexible Numbering Table (Pattern 1 or Pattern 2) is selected when running Quick Setup (→ 2.3.3 Quick Setup).

Feature	Default	
	Pattern 1 (with *)	**Pattern 2 (without *)**
Extension Numbering Scheme 1—Leading Number	**1**	**1**
Extension Numbering Scheme 2—Leading Number	**2**	**2**
Extension Numbering Scheme 3—Leading Number	**3**	**None**
Extension Numbering Scheme 4—Leading Number	**4**	**None**
Extension Numbering Scheme 5—Leading Number	**5**	**None**
Extension Numbering Scheme 6—Leading Number	**6**	**None**

Feature	Default	
	Pattern 1 (with ✳)	Pattern 2 (without ✳)
Extension Numbering Scheme 7–32—Leading Number	None	None
Operator Call	0	0
Idle Line Access (Local Access)	9	9
CO Line Group Access	8	8
Redial	#	#
Speed Dialing—System/Personal	✳✳	✳
Personal Speed Dialing—Programming	✳30	30
Doorphone Call	✳31	31
Group Paging	✳33	33
External BGM on/off	✳35	35
Outgoing Message (OGM) playback/record/clear	✳36	36
S-CO Line Access	✳37	37
Group Call Pickup	✳40	40
Directed Call Pickup	✳41	41
TAFAS—Calls through an External Pager	✳42	42
Group Paging answer	✳43	43
Automatic Callback Busy cancel	✳46	46
User Remote Operation/Walking COS/Verified Code Entry	✳47	47
Wireless XDP Parallel Mode set/cancel	✳48	48
Account Code Entry	✳49	49
Call Hold/Call Hold Retrieve	✳50	50
Call Hold Retrieve—Specified with a Holding Extension Number	✳51	51
Call Park/Call Park Retrieve	✳52	52
Call Hold Retrieve—Specified with a Held CO Line Number	✳53	53
Door Open	✳55	55
External Feature Access	✳60	60
Message Waiting set/cancel/callback	✳70	70

Feature	Default	
	Pattern 1 (with ✳)	Pattern 2 (without ✳)
FWD/DND set/cancel—Both	✳710	710
FWD/DND set/cancel—External	✳711	711
FWD/DND set/cancel—Internal	✳712	712
FWD/DND No Answer Timer set	✳713	713
Group FWD set/cancel—Both	✳714	714
Group FWD set/cancel—External	✳715	715
Group FWD set/cancel—Internal	✳716	716
Call Pickup Deny set/cancel	✳720	720
Paging Deny set/cancel	✳721	721
Walking Extension	✳727	727
Data Line Security set/cancel	✳730	730
Call Waiting for Intercom Calls set/cancel	✳731	731
Call Waiting for CO Line Calls (including doorphone calls, calls for an incoming call distribution group) set/cancel	✳732	732
Executive Busy Override Deny set/cancel	✳733	733
Not Ready Mode on/off	✳735	735
Log-in/Log-out	✳736	736
Hot Line program/set/cancel	✳740	740
Absent Message set/cancel	✳750	750
BGM set/cancel	✳751	751
Timed Reminder set/cancel	✳760	760
Extension Lock set/cancel	✳77	77
Time Service Switch	✳780	780
Remote Extension Lock off	✳782	782
Remote Extension Lock on	✳783	783
Extension Feature Clear	✳790	790
Extension Personal Identification Number (PIN) set/cancel	✳799	799
Quick Dialing 1–80	None	None

2. **Flexible Numbering (available while a busy, DND, or ringback tone is heard)**
Feature numbers which are available while a busy, DND, or ringback tone is heard can be customized for easy use. The numbers should be one digit (0–9, "✳", or "#") and must not conflict. For a list of the default settings, refer to the following table:

[Flexible Numbering Table (available while a busy, DND, or ringback tone is heard)]

Feature	Default
Call Waiting/DND Override	**1 or 2***
Executive Busy Override	**3**
Message Waiting set	**4**
Call Monitor	**5**
Automatic Callback Busy	**6**
Alternate Calling—Ring/Voice	**✳**

* To use Call Waiting/DND Override, both "1" and "2" are available by default.

3. **Fixed Numbering (available while dialing or talking)**
Features which are available while dialing or talking have fixed numbers, as shown in the following table:

[Fixed Numbering Table (available while dialing or talking)]

Feature	Fixed Numbering
Pulse to Tone Conversion	**✳**
Conference	**3**
Door Open	**5**

Conditions

- The following are examples of feature number conflicts: 1 and 11, 0 and 00, 2 and 21, 10 and 101, 32 and 321, etc.
- **Feature number + Additional number (Parameter)**
Certain flexible feature numbers require additional digits to make the feature active. For example, to set Call Waiting, the feature number for "Call Waiting" must be followed by "1" and to cancel it, the same feature number should be followed by "0".
- Rotary single line telephone (SLT) users cannot dial feature numbers which include "✳" or "#".
- Portable station (PS) users cannot use the following features:
  - Personal Speed Dialing
  - OGM playback/record
  - S-CO Line Access
  - Walking Extension
  - BGM set/cancel

– Timed Reminder

User Manual References

User Manual

4.2.1 Feature Number Table

2.3.6 Floating Extension

Description

Virtual extension numbers can be assigned to resources to make them as easily accessible as extensions.
These numbers are referred to as "floating extension numbers" and can be assigned as a destination of incoming calls, intercepted calls, etc.

This feature is also known as Floating Station.

Resource		Description
Device	**External Pager**	Used as the destination for the Trunk Answer From Any Station (TAFAS) feature (→ External Pager Floating Extension Number [700]). (→ 1.15.3 Trunk Answer From Any Station (TAFAS))
	Outgoing Message (OGM)	Used to play messages for callers via the Direct Inward System Access (DISA) feature (→ Outgoing Message (OGM) Floating Extension Number [730]). (→ 1.15.6 Direct Inward System Access (DISA))
	Analog Remote Maintenance	Used to access PC programming mode through a modem on a PC (→ Modem Floating Extension Number [811]).
Group	**Incoming Call Distribution (ICD) Group**	Used to call an ICD group (→ ICD Group Floating Extension Number [622]). (→ 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW)
	PS Ring Group	Used to call a PS ring group. (→ 1.20.2 PS Ring Group)
	VM (DPT) Group	Used to call a VM (DPT) group (→ VM Group Floating Extension Number [660]).
	VM (DTMF) Group	Used to call a VM (DTMF) group.

Conditions

- Certain resources which are assigned a floating extension number can also be assigned a name (→ ICD Group Name [623], → Outgoing Message (OGM) Name [731]).

Feature Guide References

1.19.1 Voice Mail (VM) Group

2.3.1 PC Programming

2.3.7 Software Upgrading

Description

It is possible to upload software from a PC to the PBX to upgrade the following:

Data File	Storing Area
Main Processing (MPR) software data	Operating system data area on the Main Board
Default system programming data for each country/area	Country/area data area on the Main Board
Language data for PT display	Each language data area on the Main Board. There are two types: **Type 1:** Proprietary telephone (PT) display except for PT system programming (→ 2.3.2 PT Programming) (five languages max.) **Type 2:** PT system programming data (one language max.)
Cell Station (CS) software data	Flash ROM on the CS

Conditions

- The software version of the MPR can be confirmed through system programming (→ Main Processing (MPR) Software Version Reference [190]).

2.4 Fault Recovery/Diagnostics

2.4.1 Power Failure Transfer

Description

If the power supply to the PBX fails, specific single line telephones (SLTs) are automatically connected to specific CO lines (**Power Failure Connections**). The PBX will switch from the current connections to Power Failure Connections, and all existing conversations will be disconnected.
Only CO line conversations handled by Power Failure Connections can be made during a power failure.

Conditions

- Only ports 1 and 2 of the preinstalled LCOT4 card and ports 1 and 2 of the preinstalled hybrid ports can be used for Power Failure Connections.

  Note

  When power is restored to the PBX and the Main Board is recovering, Power Failure Connections remain established so that any existing conversations can be maintained.

- Only CO line conversations are possible during a power failure. All other features will not work.

Installation Manual References

Installation Manual

2.10.1 Power Failure Connections

2.4.2 Power Failure Restart

Description

When the electricity is turned back on, the PBX restarts, loads its stored data automatically, and logs the event as a System Restart in the error log.

Conditions

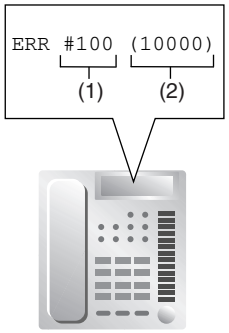
- In the event of a power failure, PBX memory is protected by a factory-installed lithium battery. There is no memory loss except the memories of Automatic Callback Busy (Camp-on) (→ 1.7.1 Automatic Callback Busy (Camp-on)) and Call Park (→ 1.12.2 Call Park).

2.4.3 Local Alarm Information

Description

When the PBX detects an error, the System Alarm button on the proprietary telephone (PT) of an extension which is allowed to use this feature through system programming (a maximum of two extensions per PBX), lights red. Pressing the button will show the error number on the display. If multiple errors occur, the error number will be displayed in order of highest priority to lowest. The System Alarm button light turns off automatically after all error numbers have been displayed.
For details regarding errors and their solutions, refer to the Installation Manual.

[Error Example]



[Explanation]

Number in the Example	Item	Description
(1)	**Error Code**	Shows three-digit error code.
(2)	**Sub Code**	Shows five-digit sub code (XYYZZ). **X:** Cabinet number (1–4) **YY:** Slot number (00–11) **ZZ:** Physical port number (01–08)

Conditions

- **System Alarm Button**
  Any flexible button can be customized as the System Alarm button.
- The alarm information will be logged on the Station Message Detail Recording (SMDR) if enabled through system programming.
- The PBX can be automatically diagnosed at a preprogrammed time everyday.

Installation Manual References

Installation Manual

4.1.5 Troubleshooting by Error Log

Feature Guide References

1.18.2 Flexible Buttons

1.21.1 Station Message Detail Recording (SMDR)

Section 3

Programming Instructions

3.1 Introduction

3.1.1 Introduction

These programming instructions are designed to serve as an overall system programming reference for the PBX.
The PBX has default settings which can be changed to meet your needs. These settings control the manner in which the PBX features described in this Feature Guide function, and changing these settings is referred to as "system programming".
System programming can be performed by only one person at a time. A second person attempting to program the system will be denied access to system programming.

Ways to Program

There are two programming methods:

- **PC Programming**
  All system programming can be performed. PC programming is described in Section 3.2 PC Programming.
- **PT (Proprietary Telephone) Programming**
  A subset of system programming can be performed. PT programming is described in Section 3.3 PT Programming. An extension user can perform system programming by entering 3-digit programming numbers with a PT.

Password Security

To maintain system security, a password is required to perform system programming. To avoid unauthorized access and possible fraudulent dialing, do not disclose the password.

Warning to the Administrator regarding the system password

1. Please inform the customer of the importance of the password and the possible dangers.
2. To avoid unauthorized access and possible fraudulent dialing, maintain the secrecy of the password.
3. Please change the password periodically.
4. We strongly recommend that a password of 10 digits or 10 characters including digits is used for maximum protection against unauthorized access.
5. If the system password is forgotten, you can examine a backup of the system programming to recall it.
   - If you have a backup of the system data, you can find the password by loading the backup system data into a PC and check the password using the programming tool. For more information regarding the backing up of system data, refer to Section 3.3.4 PBX Maintenance in the Installation Manual.
   - If you do not have a backup of the system data, you have to reset the PBX to its factory defaults and reprogram it, therefore, we recommend maintaining a backup of the system data.

3.2 PC Programming

3.2.1 Installing and Starting KX-TAW848 Maintenance Console

System programming, diagnosis, and data upload/download can be performed with a PC using the KX-TAW848 Maintenance Console software.
This section briefly describes how to install and start KX-TAW848 Maintenance Console on a PC which is connected to the PBX via USB.

System Requirements

Operating System

- Microsoft® Windows® 98 SE, Windows Me, Windows 2000, or Windows XP

Hardware

- CPU: 133 MHz Intel® Pentium® or faster
- RAM: At least 64 MB of available RAM (128 MB recommended)
- Hard disk space: At least 100 MB of space for the installation, and approximately 2 MB of additional space for user files.

Installing KX-TAW848 Maintenance Console

1. Copy the KX-TAW848 Maintenance Console setup file to a local drive on the PC. (Its icon is shown here, on the left.)
2. Double-click the setup file to run the installer.
3. Follow the on-screen instructions provided by the installation wizard.
4. Click [Finish].
5. Click [OK].

Notes

- To install or uninstall the software on a PC running Windows 2000 Professional or Windows XP Professional, you must be logged in as a user which is in either the "Administrators" or "Power Users" group.
- When the PBX is first connected to the PC via USB, a wizard should appear and ask you to select the appropriate USB driver. Browse for and select the KX-TDA USB driver, which is copied to the local drive during installation.

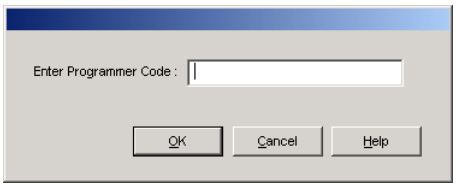
Starting KX-TAW848 Maintenance Console

Note

The screenshots shown here are for reference only, and may differ from the screens displayed on your PC.

1. Connect the PC to the PBX with a USB cable.

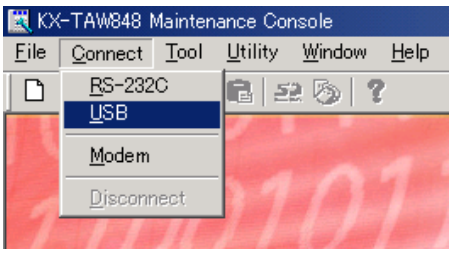
2. Click "**Start**" → "**Programs**" → "**KX-TAW848 Maintenance Console**" → "**KX-TAW848 Maintenance Console**".



3. Enter a valid programmer code (**INSTALLER**, **ADMIN**, or **USER**), then click [OK].

Note

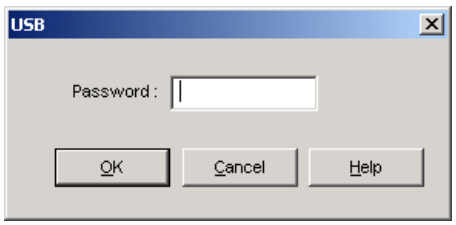
When starting KX-TAW848 Maintenance Console for the first time (i.e., either when the PBX is still set to the factory default settings, or after initializing the PBX), Quick Setup can be launched automatically by entering the Installer Level Programmer Code and password. (→ 2.3.3 Quick Setup)



4. Click "**Connect**" → "**USB**" from the menu bar.

Note

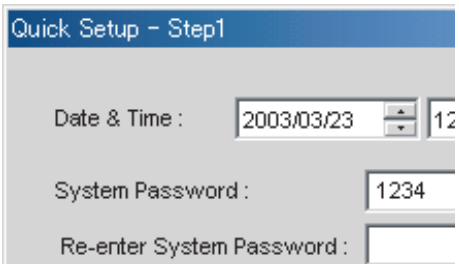
To connect to the PBX via USB, the KX-TDA USB driver must be installed on the PC, as explained above in "Installing KX-TAW848 Maintenance Console".



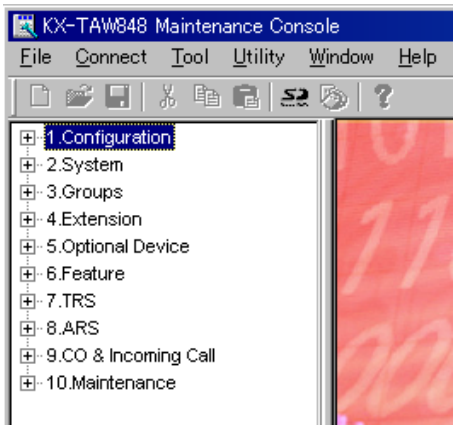
5. Enter the password appropriate to the programmer code entered in Step 3 and click [OK].

Note

The password for each programmer code is **1234** by default. (→ 2.3.1 PC Programming)



6. Follow the Quick Setup instructions if starting KX-TAW848 Maintenance Console for the first time, otherwise, proceed to the next step.



7. The program menu appears. You may now begin programming the PBX.

Notes

- During long programming sessions, it is highly recommended that you periodically save the system data to the SD Memory Card. If the PBX suffers a sudden power failure or if the system is reset for some reason and all system data is lost, it can be restored from the SD Memory Card.
  To save the system data to the SD Memory Card, either click the "**SD Memory Backup**" icon, or exit KX-TAW848 Maintenance Console and click "Yes" to save when prompted.
- When programming PBX data which can be displayed on a proprietary telephone (PT) (extension names, group names, System Speed Dialing names, etc.), it is possible to enter characters which cannot be displayed.
  Characters which can be displayed on a PT are shown below in the white cells.

	00	01	02	03	04	05	06	07	08	09	0a	0b	0c	0d	0e	0f
00																
10																
20		!	"	#	$	%	&	'	(	)	*	+	,	-	.	/
30	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
50	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
60	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
70	p	q	r	s	t	u	v	w	x	y	z	{	|	}	~	
80	€		‚	ƒ	„	…	†	‡	ˆ	‰	Š	‹	Œ		Ž	
90		‘	’	“	”	•	–	—	˜	™	š	›	œ		ž	Ÿ
a0		¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬		®	¯
b0	°	±	²	³	´	µ	¶	·	¸	¹	º	»	¼	½	¾	¿
c0	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
d0	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
e0	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
f0	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

- Software features, design, and system requirements are subject to change.

CAUTION

Do not remove the SD Memory Card while it is being accessed. Doing so will corrupt the system data and possibly damage the SD Memory Card.

3.3 PT Programming

3.3.1 Programming Instructions

Requirements

PBX settings can be customized through system programming by using a proprietary telephone (PT) with a display, such as the KX-T7735. To access system programming, the Class of Service (COS) assigned to the PT's extension must be programmed to allow system programming, or the PT must be connected to the lowest numbered port on the card installed in the lowest numbered slot.

Only one system programming session can be performed at a time, i.e., only one extension user can access system programming at a time. This includes PC programming.

Buttons and Functions

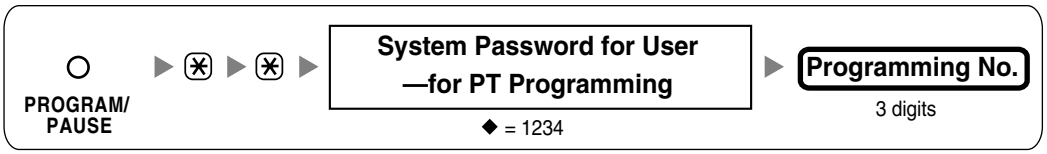
Fixed Buttons	Function
	PREVIOUS
	NEXT
	(Page up)
	(Page down)
	SELECT
	PROGRAM
	STORE
	END
	CLEAR
	FLASH
	SECRET

Entering System Programming Mode

Using a PT to perform system programming allows an authorized extension user to set a wide range of PBX features and parameters.
There are two levels of system programming that can be performed with a PT—administrator level programming and user level programming.

Administrator Level: All system programming that can be performed with a PT is accessible.

User Level: System programming that has been made accessible to PT users through PC programming can be performed.



Note

◆ is used throughout these pages to indicate the default value for the given setting.

Programming Structure

Programming Number	Programming Group Title	Description
[0XX]	Basic Programming	Frequently used programming steps
[1XX]	System Programming	Global system parameters
[2XX]	Time Programming	Flexible system timers
[3XX]	TRS/ARS Programming	Toll Restriction (TRS) and Automatic Route Selection (ARS) parameters
[4XX]	CO Line Programming	CO line and CO line group settings
[5XX]	COS Programming	COS parameters
[6XX]	Extension Programming	Assignment of extension features
[7XX]	Resource/Interface Programming	Assignment of various interfaces of the PBX
[8XX]	SMDR & Maintenance Programming	Setting of Station Message Detail Recording (SMDR) and maintenance features
[9XX]	Card Programming	Used to display the cards currently installed in the PBX, or to "delete" a card from system programming before physically removing it.

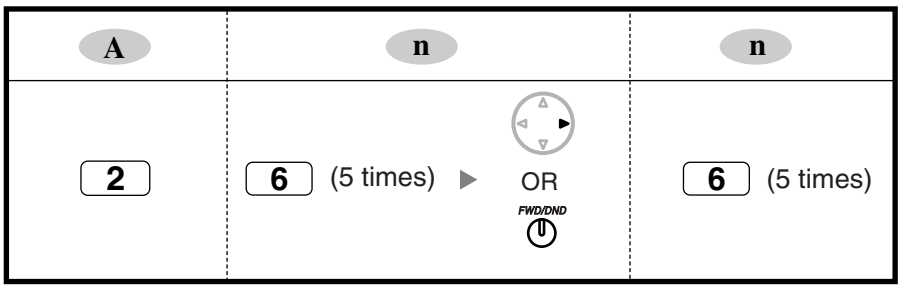
Entering Characters

The PT's dialing buttons can be used to enter characters when storing a name or message. The following table depicts the available characters.

Times / Buttons	1	2	3	4	5	6	7	8	9
1	!	?	"	1					
2	A	B	C	a	b	c	2		
3	D	E	F	d	e	f	3		
4	G	H	I	g	h	i	4		
5	J	K	L	j	k	l	5		
6	M	N	O	m	n	o	6		
7	P	Q	R	S	p	q	r	s	7
8	T	U	V	t	u	v	8		
9	W	X	Y	Z	w	x	y	z	9
0	(space)	.	,	'	:	;	0		
*	/	+	–	=	<	>	*		
#	$	%	&	@	(	)			#

[Example of Character Entry]

To enter "Ann":

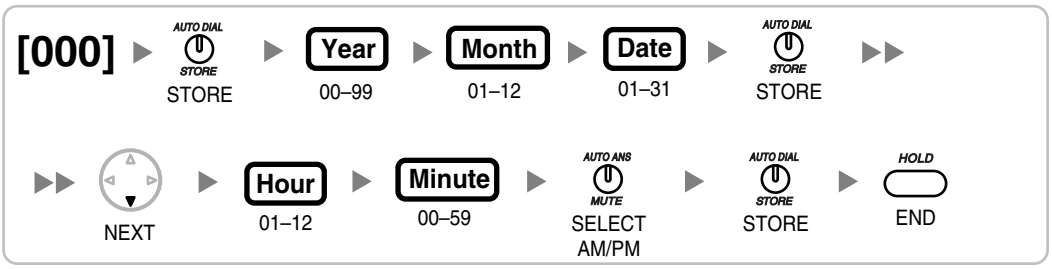


Notes

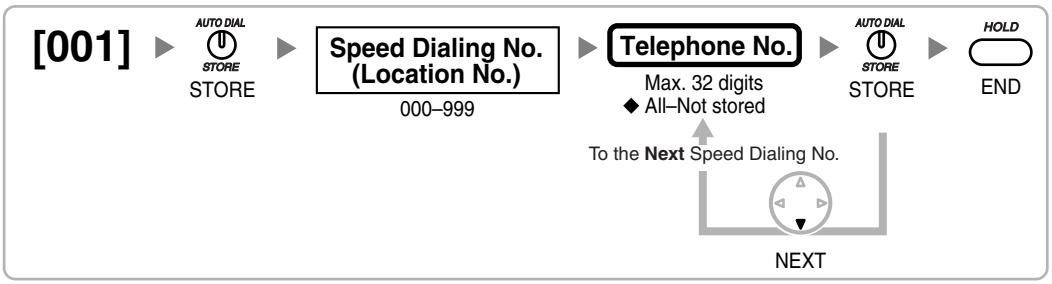
- To move the cursor left or right, press ◀ or ▶, respectively.
- To delete a character, move the cursor left or right to highlight it, then press CLEAR.
- Press SELECT to cycle through the characters located on a dialing button in reverse order.

3.3.2 Basic Programming

Date & Time [000]

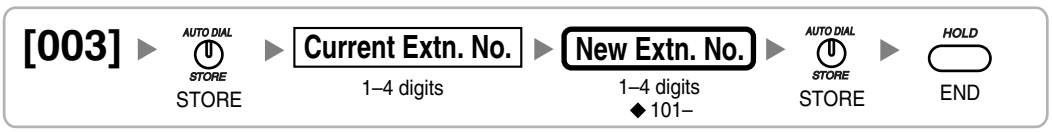


System Speed Dialing Number [001]

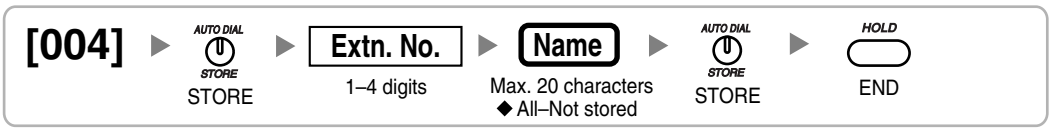


System Speed Dialing Name [002]

Extension Number [003]



Extension Name [004]



Extension Personal Identification Number (PIN) [005]

WARNING

When a third party discovers the personal identification number (PIN) (verified code PIN/ extension PIN) of the PBX, there will be a risk that they will make fraudulent phone calls using the telephone line, and the cost will be charged to your own account. In order to avoid this problem, we strongly recommend the following points:

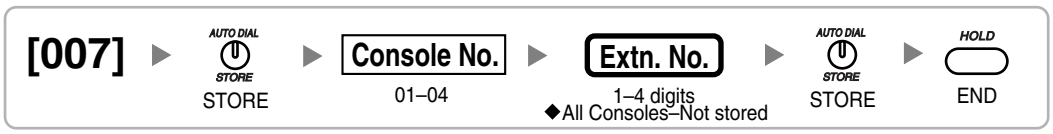
a) Carefully maintain the secrecy of the PIN.

b) Specify a complicated PIN as long and random as you can make it.

c) Change the PIN frequently.

Operator Assignment [006]

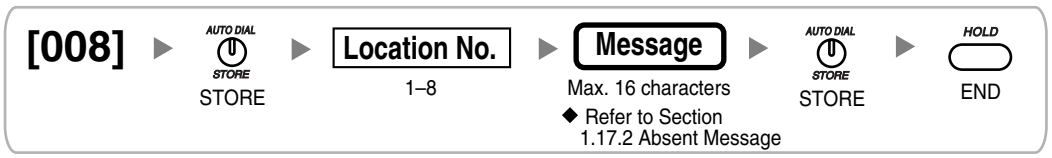
Console Paired Telephone [007]



Note

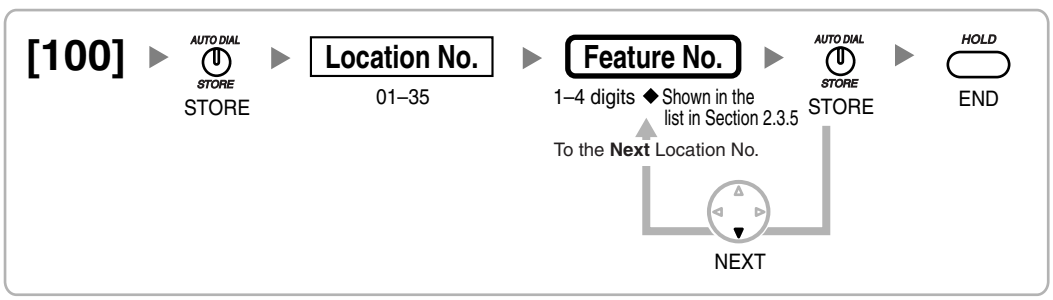
This program is available after the port connected to the DSS Console is assigned as "Console" in Terminal Device Assignment [601].

Absent Message [008]



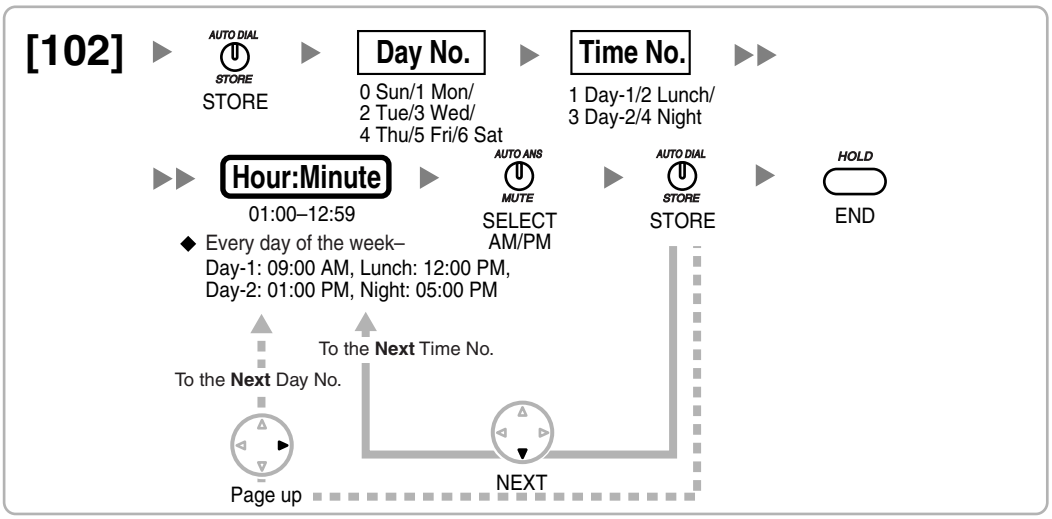
3.3.3 System Programming

Flexible Numbering [100]

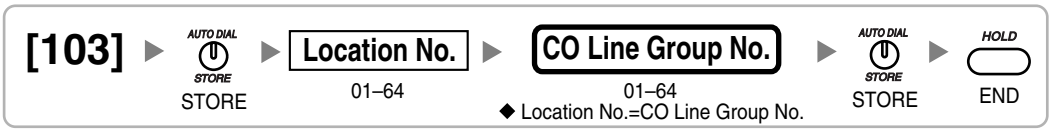


Time Service Switching Mode [101]

Time Service Starting Time [102]



Idle Line Access (Local Access) [103]

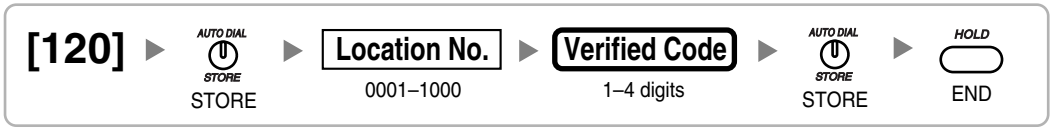


System Password for Administrator—for PT Programming [110]

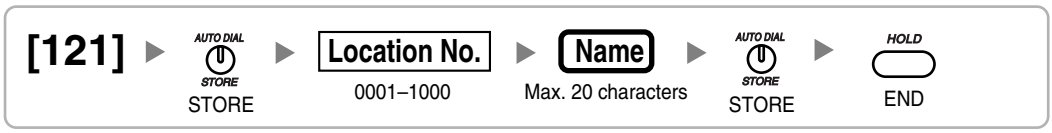
System Password for User—for PT Programming [111]

Manager Password [112]

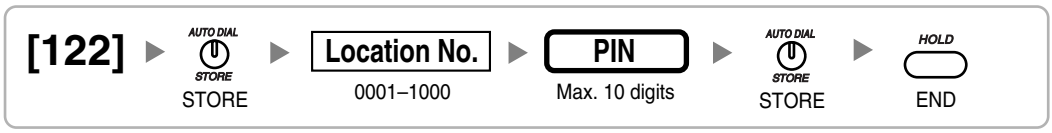
Verified Code [120]



Verified Code Name [121]



Verified Code Personal Identification Number (PIN) [122]



WARNING

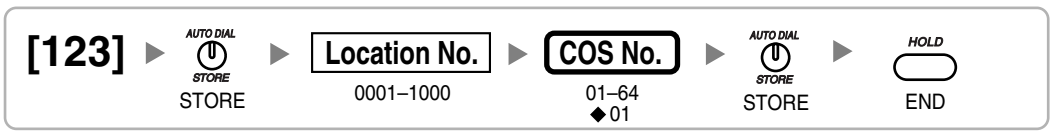
When a third party discovers the personal identification number (PIN) (verified code PIN/ extension PIN) of the PBX, there will be a risk that they will make fraudulent phone calls using the telephone line, and the cost will be charged to your own account. In order to avoid this problem, we strongly recommend the following points:

a) Carefully maintain the secrecy of the PIN.

b) Specify a complicated PIN as long and random as you can make it.

c) Change the PIN frequently.

Verified Code COS Number [123]



Main Processing (MPR) Software Version Reference [190]

3.3.4 Time Programming

Hold Recall Time [200]

Transfer Recall Time [201]

Intercept Time [203]

Hot Line Waiting Time [204]

Door Open Duration [207]

Call Duration Count Starting Time for LCOT [208]

DISA Delayed Answer Time [209]

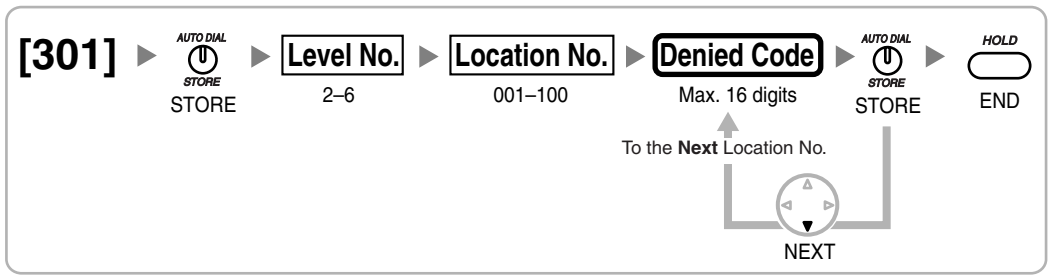
DISA CO-to-CO Line Call Prolong Time [210]

DISA Intercept Time [211]

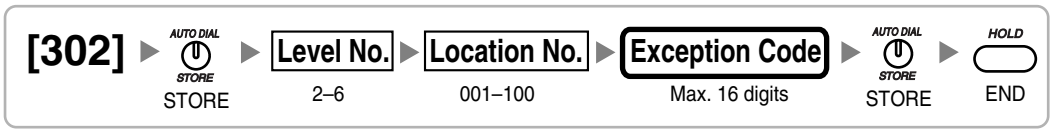
3.3.5 TRS/ARS Programming

TRS Override by System Speed Dialing [300]

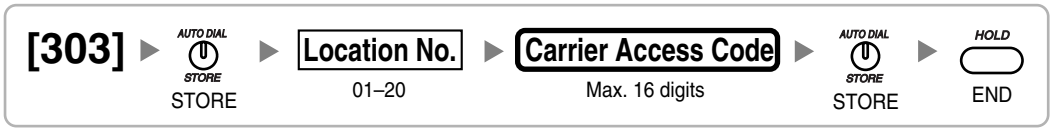
TRS Denied Code [301]



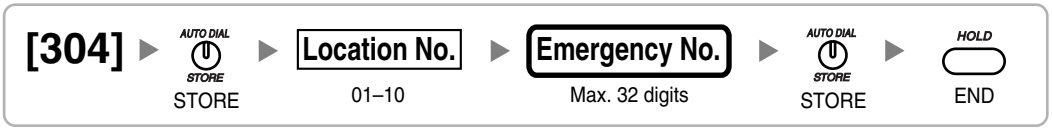
TRS Exception Code [302]



Special Carrier Access Code [303]

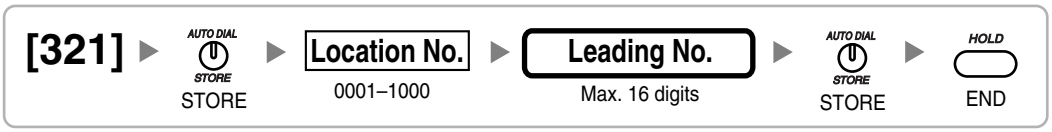


Emergency Number [304]

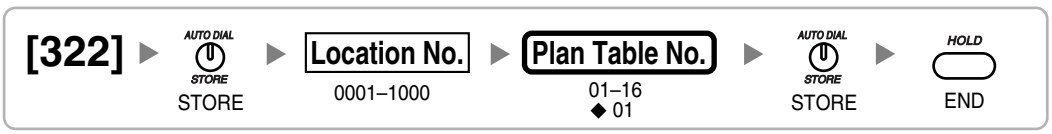


ARS Mode [320]

ARS Leading Number [321]

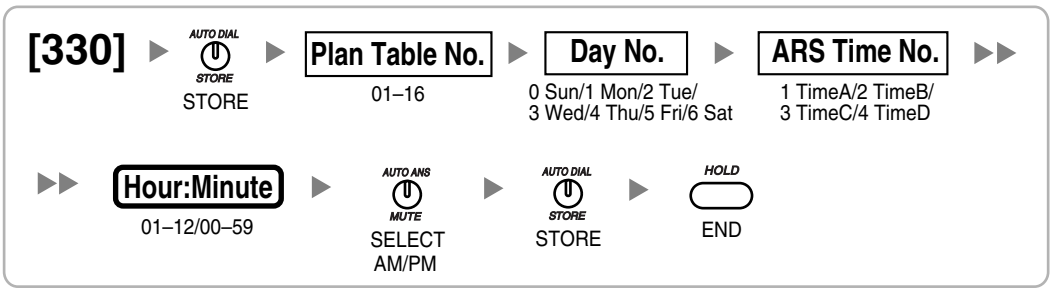


ARS Routing Plan Table Number [322]

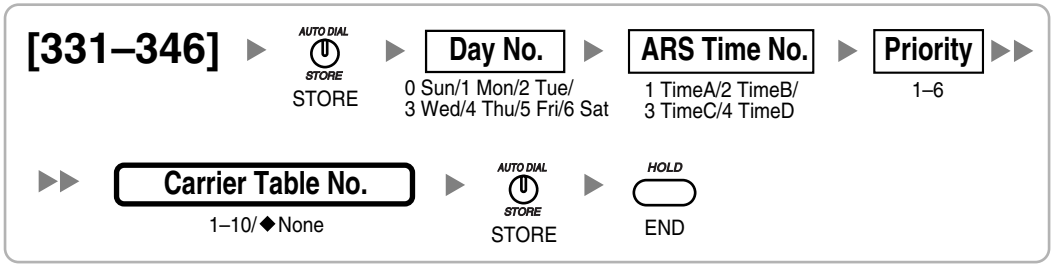


ARS Exception Number [325]

ARS Routing Plan Time Table [330]

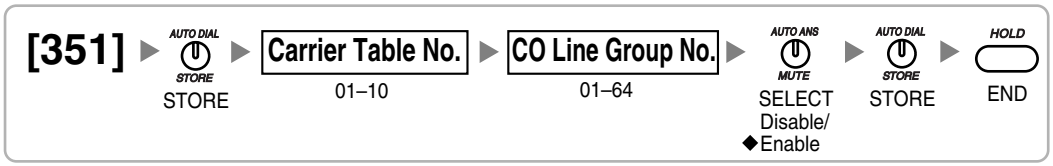


ARS Routing Plan Table (1–16) [331–346]

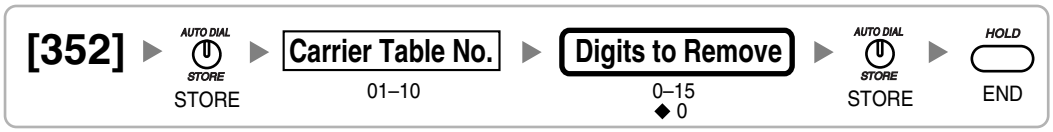


ARS Carrier Name [350]

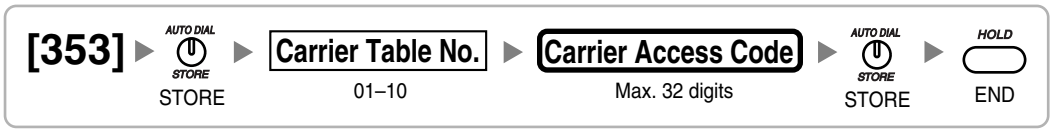
ARS CO Line Group for Carrier Access [351]



ARS Removed Number of Digits for Carrier Access [352]

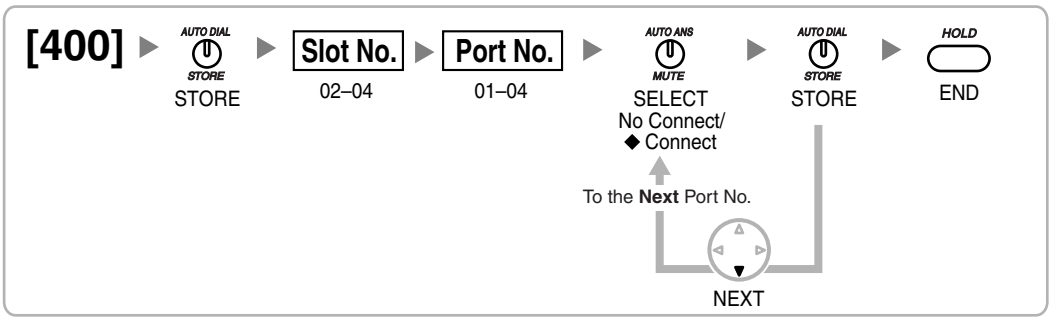


ARS Carrier Access Code [353]

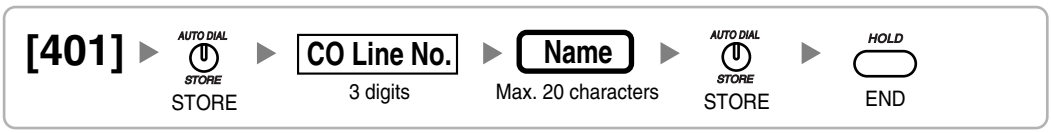


3.3.6 CO Line Programming

LCOT CO Line Connection [400]



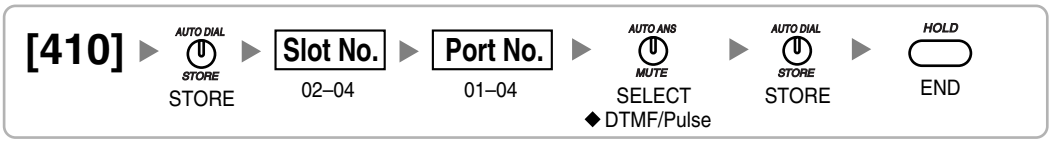
LCOT CO Line Name [401]



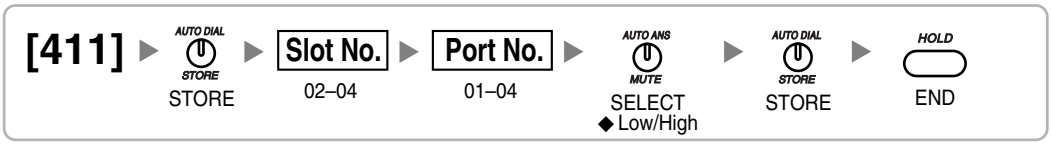
LCOT CO Line Group Number [402]

LCOT CO Line Number Reference [409]

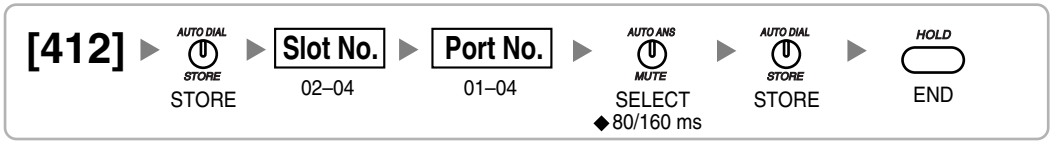
LCOT Dialing Mode [410]



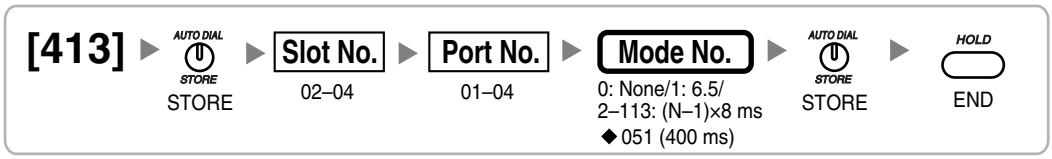
LCOT Pulse Rate [411]



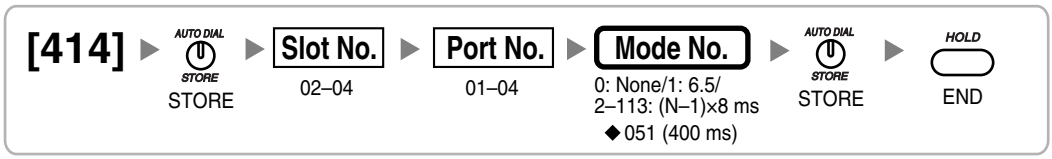
LCOT DTMF Minimum Duration [412]



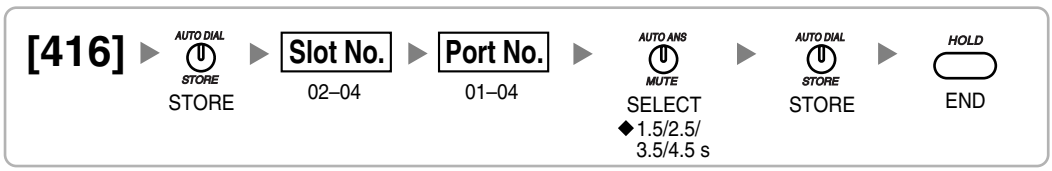
LCOT CPC Signal Detection Time—Outgoing [413]



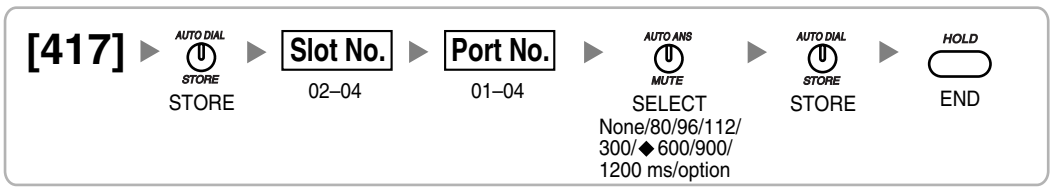
LCOT CPC Signal Detection Time—Incoming [414]



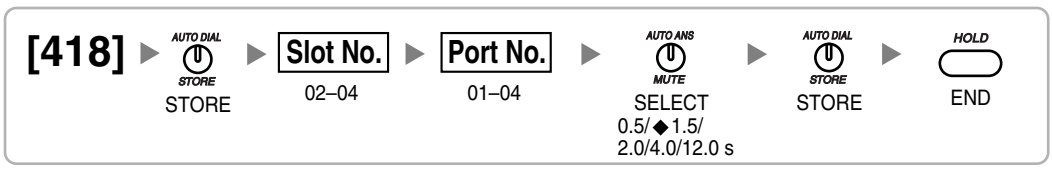
LCOT Pause Time [416]



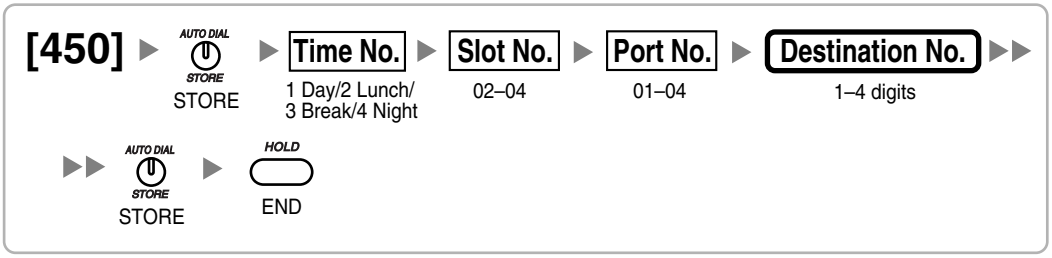
LCOT Flash/Recall Time [417]



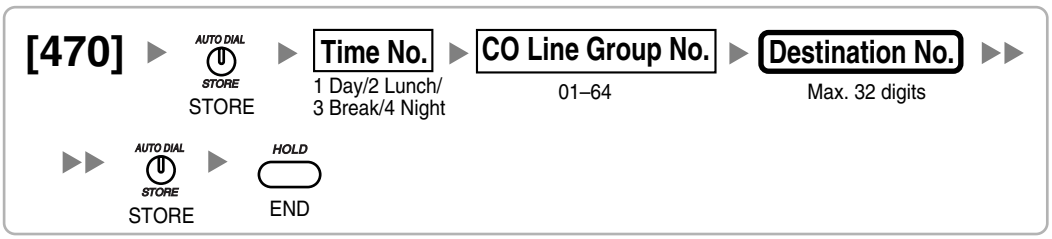
LCOT Disconnect Time [418]



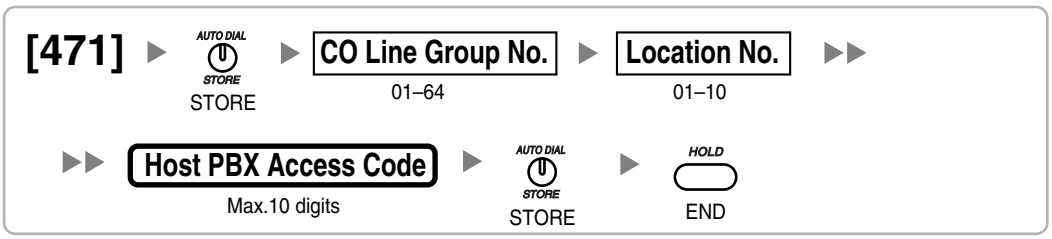
DIL 1:1 Destination [450]



CO Line Group Intercept Destination [470]



Host PBX Access Code [471]

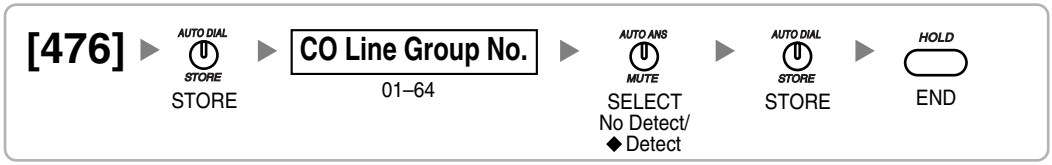


Extension-to-CO Line Call Duration [472]

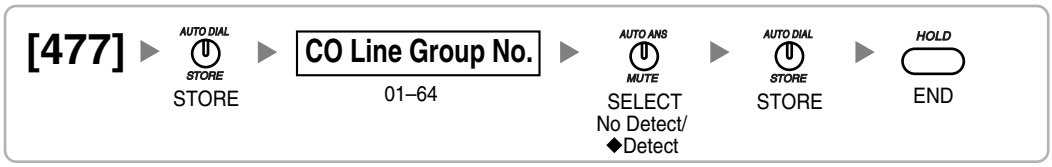
CO-to-CO Line Call Duration [473]

DISA Silence Detection [475]

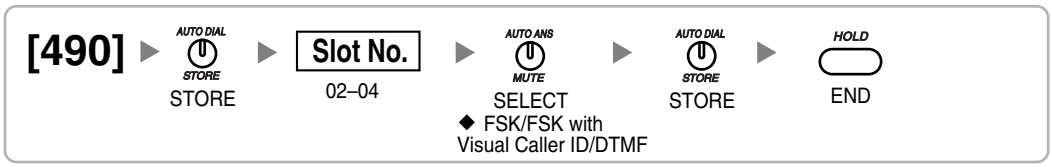
DISA Continuous Signal Detection [476]



DISA Cyclic Signal Detection [477]

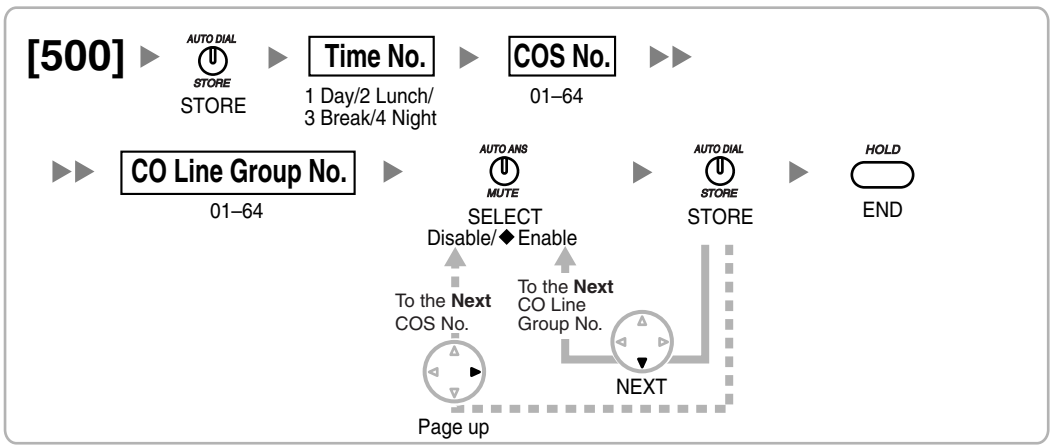


Caller ID Signal Type [490]

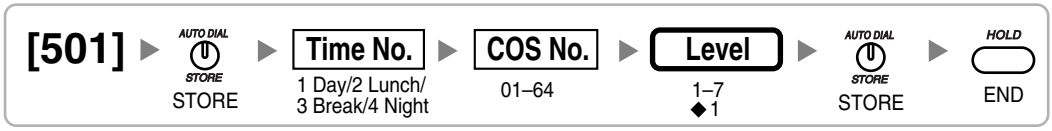


3.3.7 COS Programming

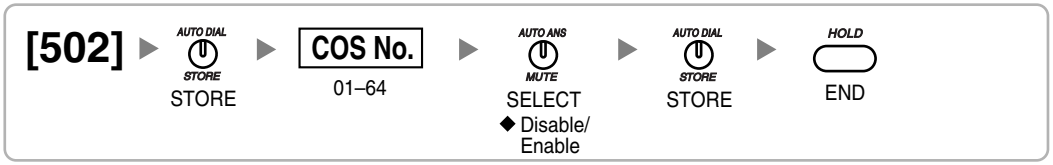
CO Line Group Number [500]



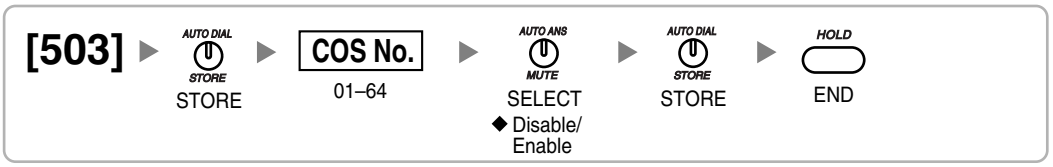
TRS Level [501]



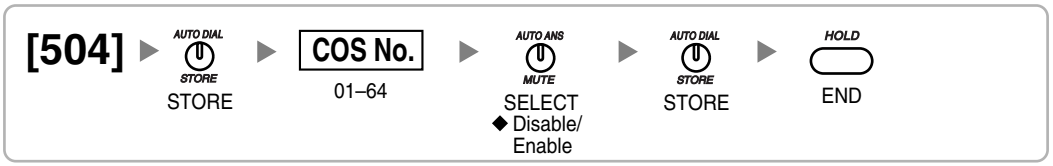
CO Line Call Duration Limitation [502]



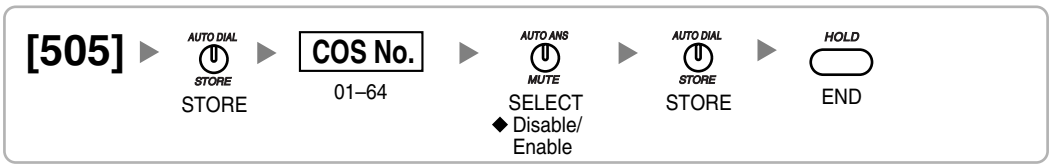
Call Transfer to CO Line [503]



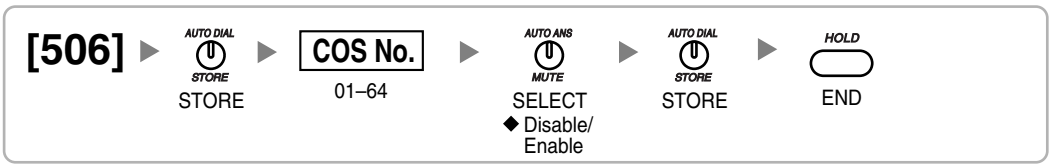
Call Forwarding to CO Line [504]



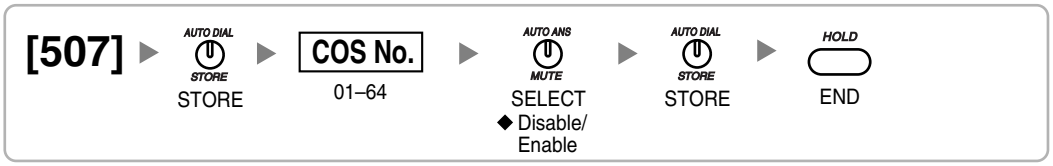
Executive Busy Override [505]



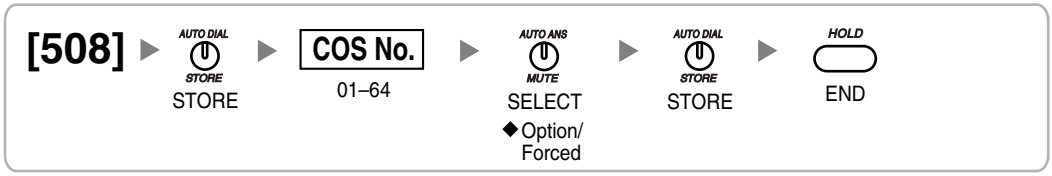
Executive Busy Override Deny [506]



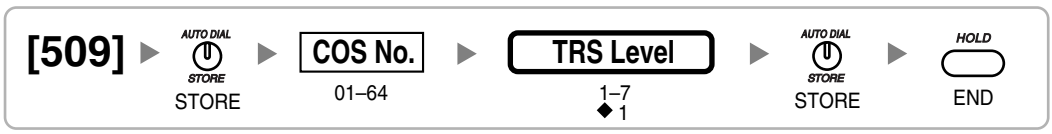
DND Override [507]



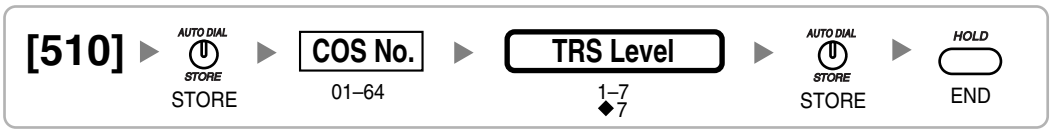
Account Code Mode [508]



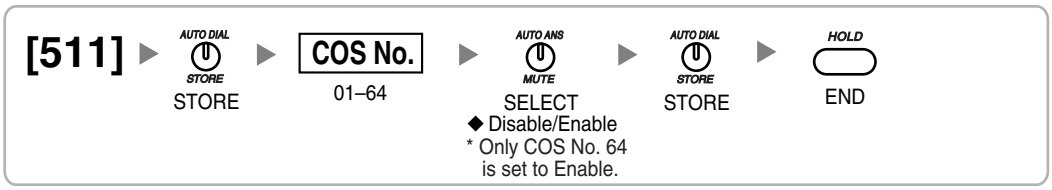
TRS Level for System Speed Dialing [509]



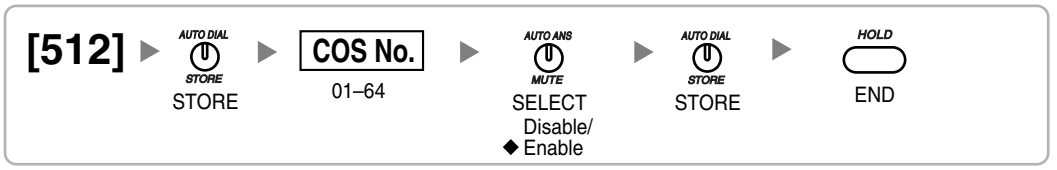
TRS Level for Extension Lock [510]



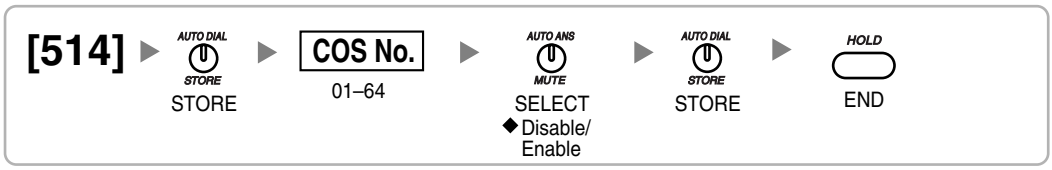
Manager Assignment [511]



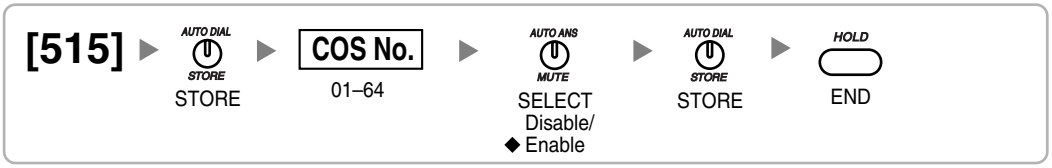
Permission for Door Open Access [512]



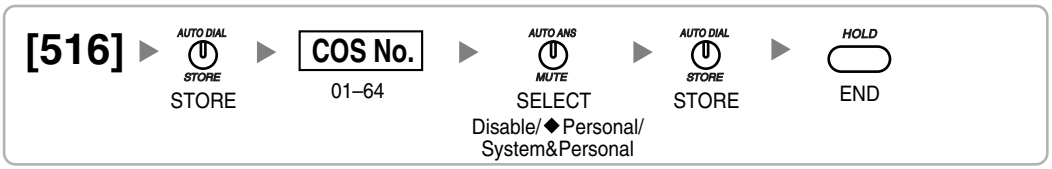
Time Service Manual Switching [514]



Wireless XDP Parallel Mode for Paired Telephone [515]

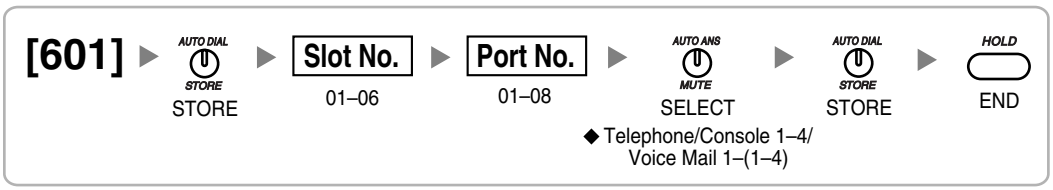


Programming Mode Limitation [516]

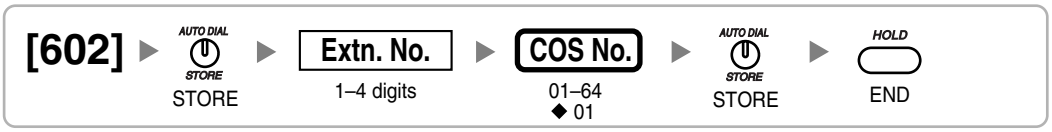


3.3.8 Extension Programming

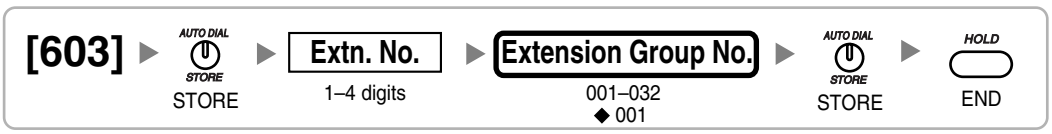
Terminal Device Assignment [601]



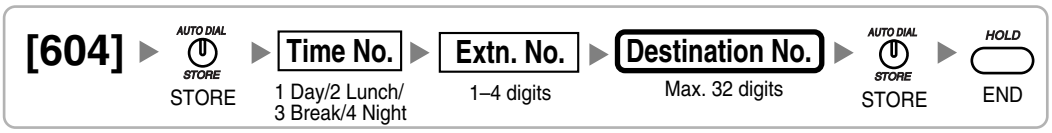
Class of Service [602]



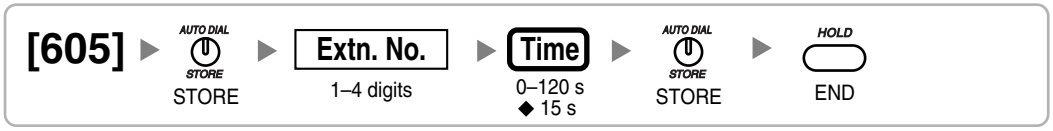
Extension Group [603]



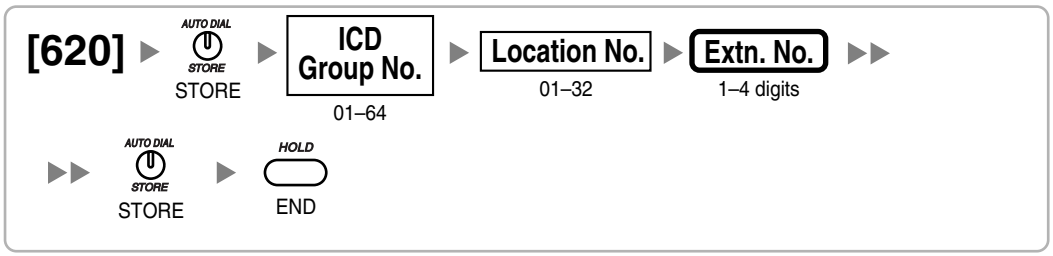
Extension Intercept Destination [604]



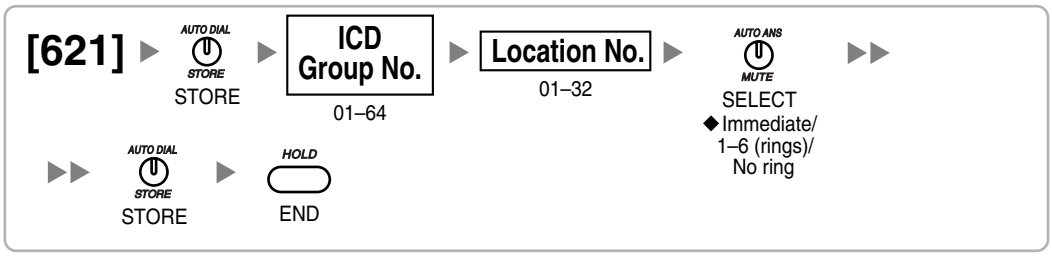
Call Forwarding—No Answer Time [605]



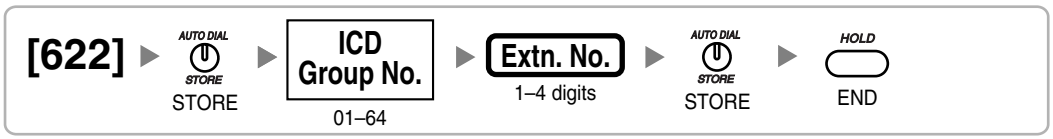
ICD Group Member [620]



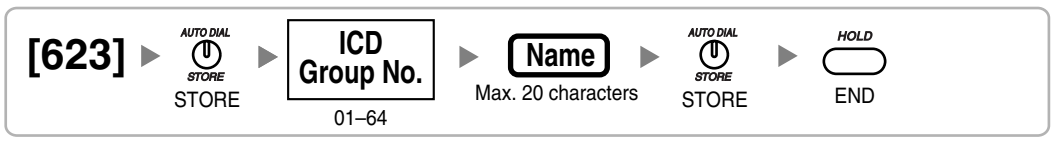
ICD Group Delayed Ringing [621]



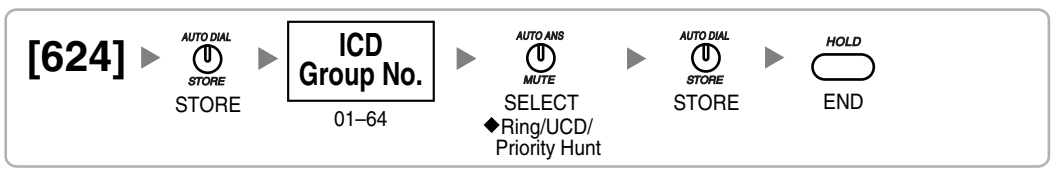
ICD Group Floating Extension Number [622]



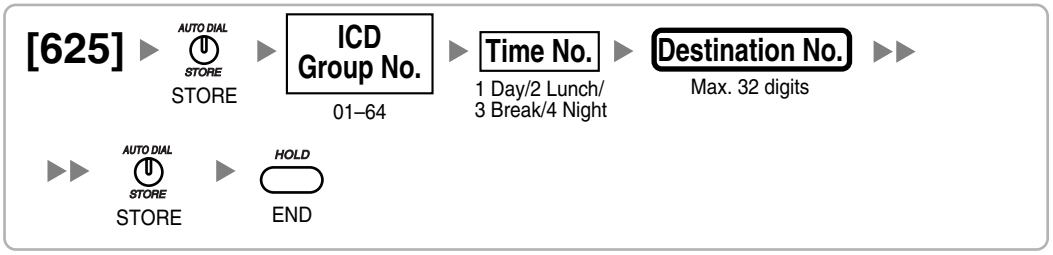
ICD Group Name [623]



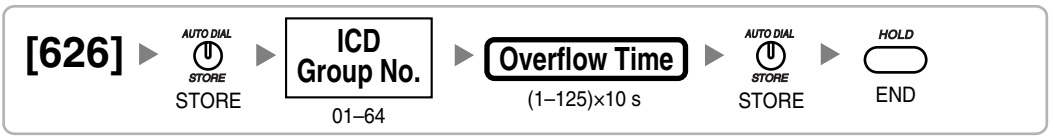
ICD Group Distribution Method [624]



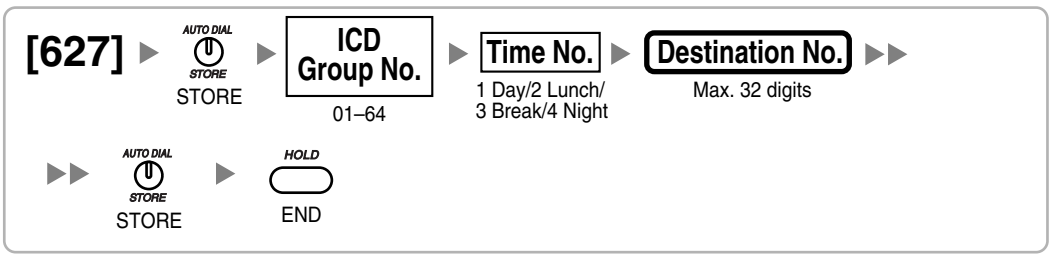
Destination for Overflow Time Expiration [625]



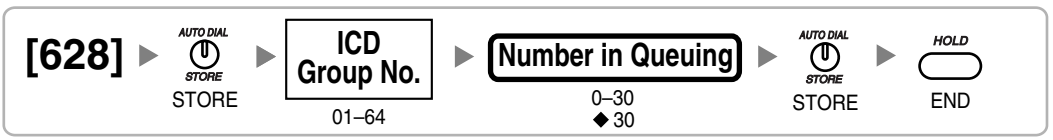
Overflow Time [626]



Destination When All Busy [627]

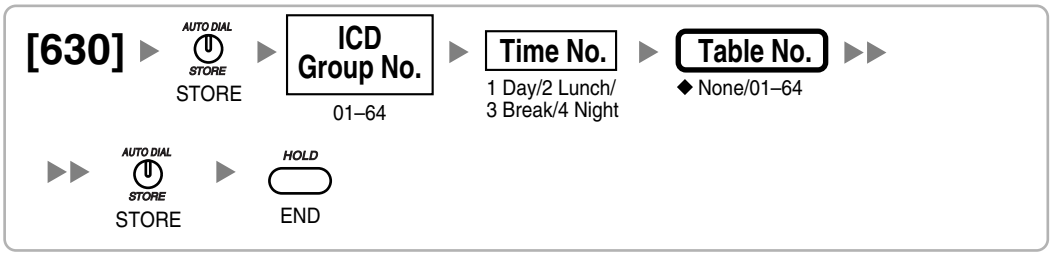


Queuing Call Capacity [628]

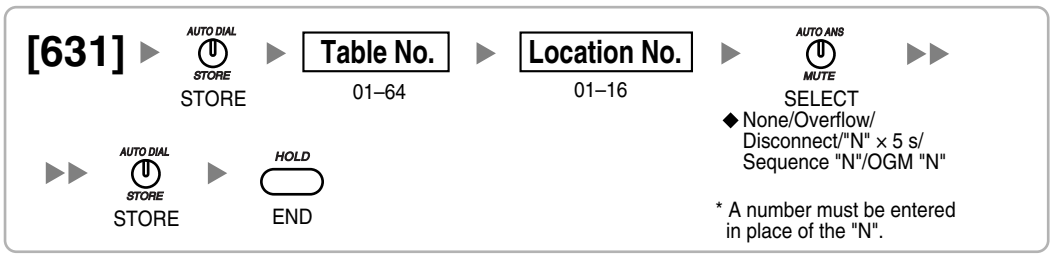


Queuing Hurry-up Level [629]

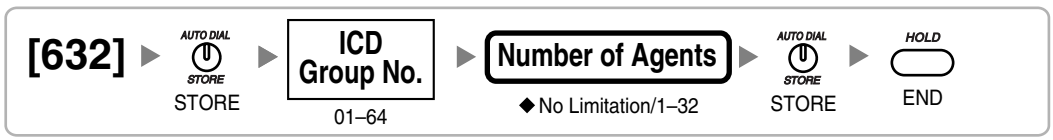
Queuing Time Table [630]



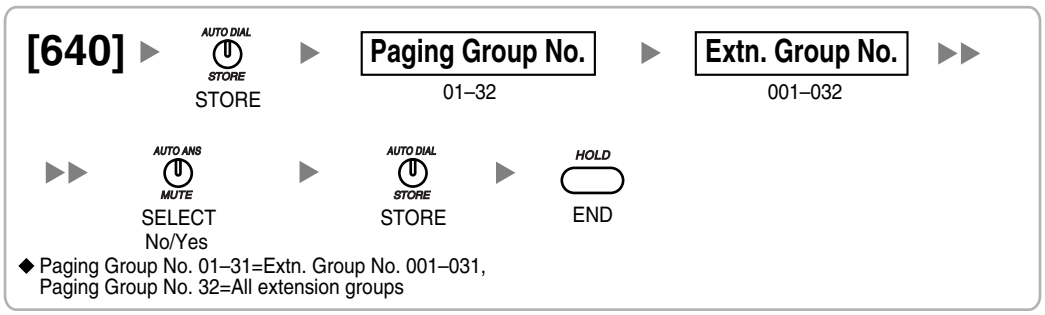
Sequences in Queuing Time Table [631]



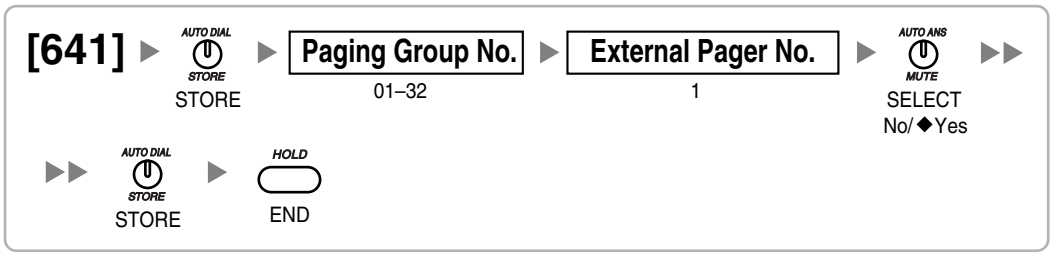
Maximum Number of Agents [632]



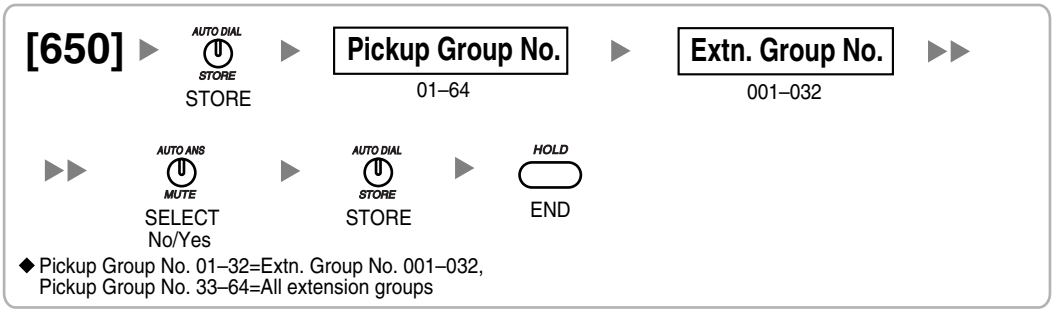
Extension Groups of a Paging Group [640]



External Pager of a Paging Group [641]



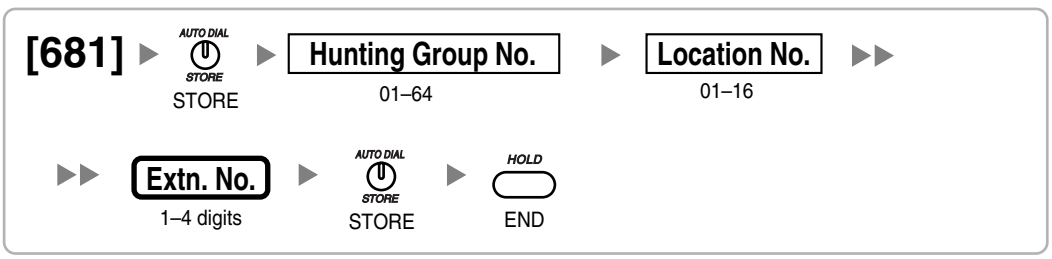
Extension Groups of a Pickup Group [650]



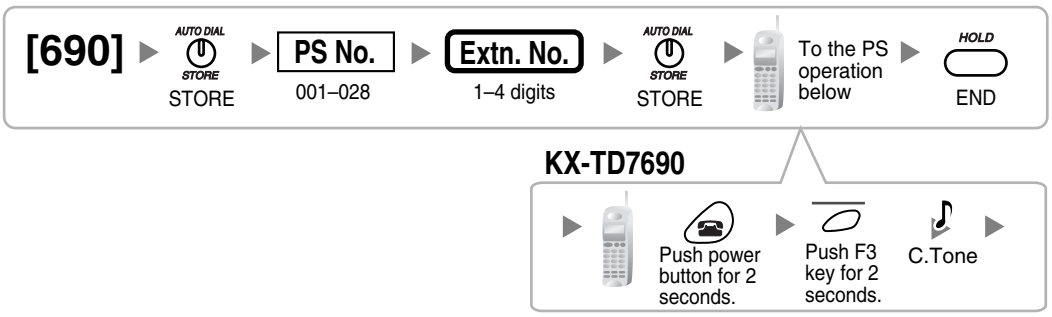
VM Group Floating Extension Number [660]

Idle Extension Hunting Type [680]

Idle Extension Hunting Group Member [681]



PS Registration [690]

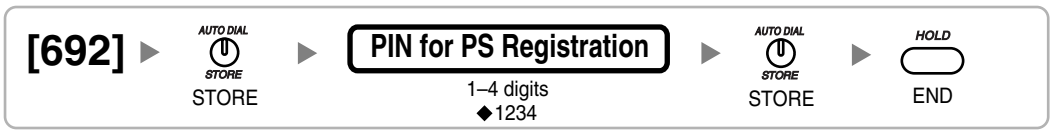


Note

Please refer to Installation Manual for more information regarding Portable Station (PS) registration.

PS Termination [691]

Personal Identification Number (PIN) for PS Registration [692]

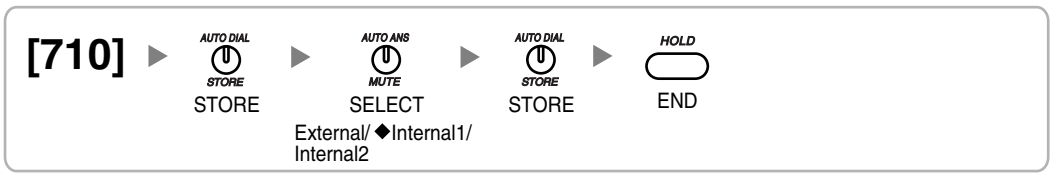


CS Status Reference [699]

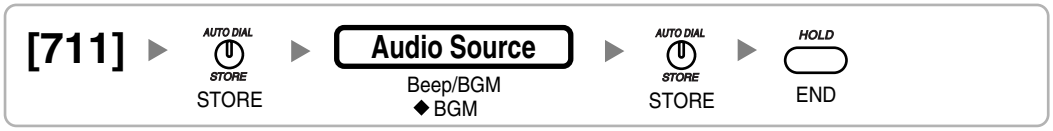
3.3.9 Resource/Interface Programming

External Pager Floating Extension Number [700]

Audio Source Selection for BGM [710]

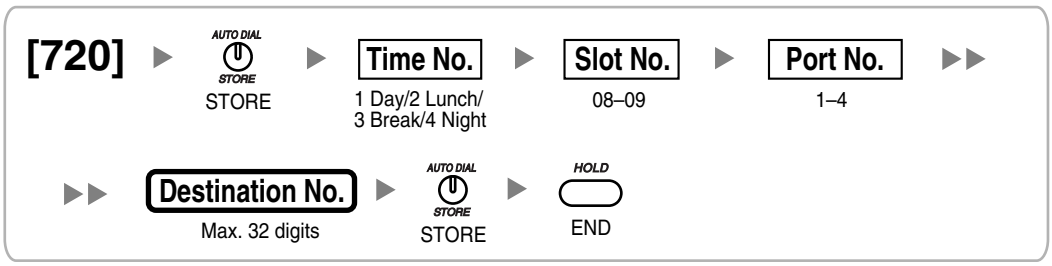


Music on Hold [711]

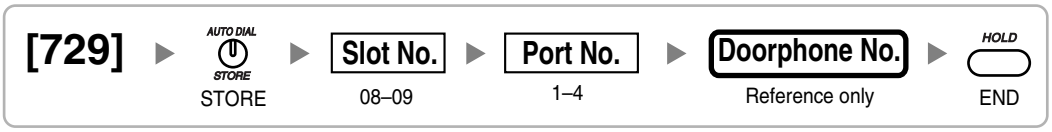


Music for Transfer [712]

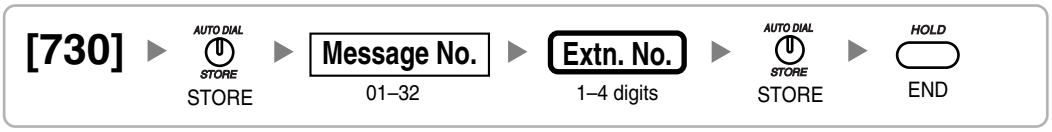
Doorphone Call Destination [720]



Doorphone Number Reference [729]

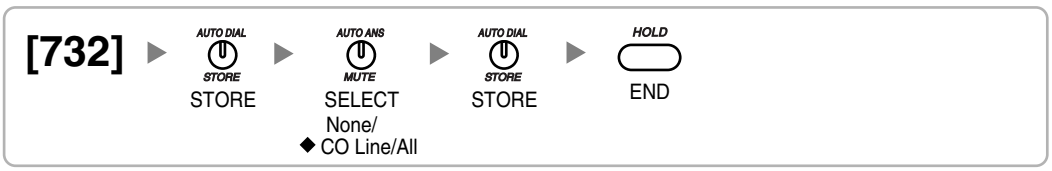


Outgoing Message (OGM) Floating Extension Number [730]



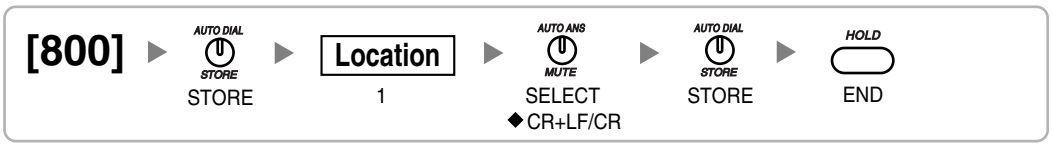
Outgoing Message (OGM) Name [731]

DISA Security Mode [732]

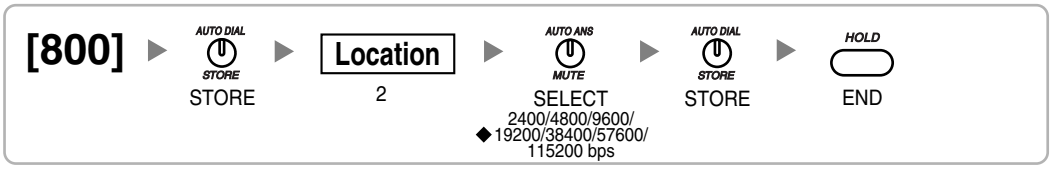


3.3.10 SMDR & Maintenance Programming

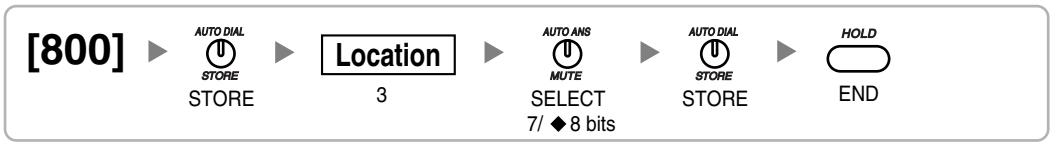
RS-232C Parameter—New Line Code [800]



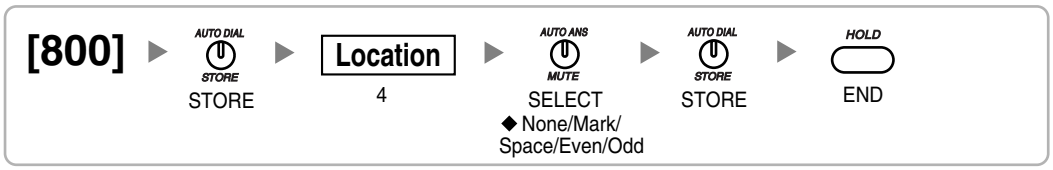
RS-232C Parameter—Baud Rate [800]



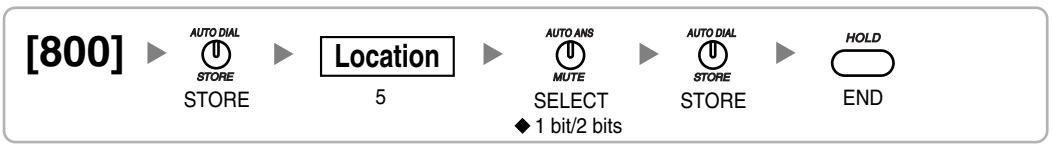
RS-232C Parameter—Word Length [800]



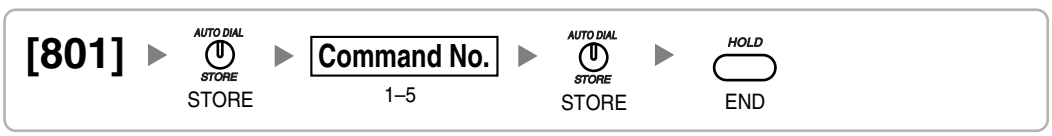
RS-232C Parameter—Parity Bit [800]



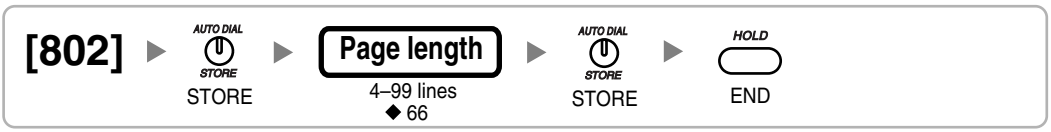
RS-232C Parameter—Stop Bit Length [800]



External Modem Control [801]



SMDR Page Length [802]



SMDR Skip Perforation [803]

SMDR Outgoing Call Printing [804]

SMDR Incoming Call Printing [805]

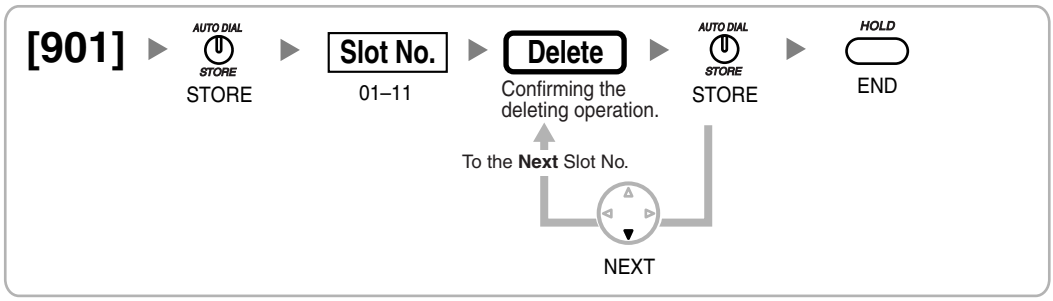
Remote Programming [810]

Modem Floating Extension Number [811]

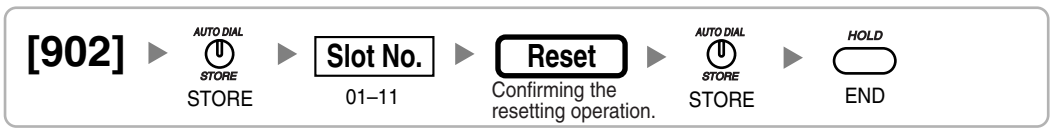
3.3.11 Card Programming

Slot Card Type Reference [900]

Slot Card Deletion [901]



Slot Card Reset [902]



Section 4

KX-TAW848 Maintenance Console Operating Instructions

4.1 Configuration [1]

4.1.1 Slot [1-1]

The operating characteristics associated with each service card can be programmed.

Slot Type

Indicates the type of each slot (reference only).

Default Not applicable.

Value Range
Fixed Slot: For initially installed 4 hybrid ports
Free Slots Type A (02–04): For LCOT4/HLC4/PLC4
Free Slots Type B (05–06): For PLC8/SLC8
Option Slots (08–09): For MSG2/DPH4/ECHO8/EXT-CID card
Option Slots (10–11): For MSG2/ECHO8/EXT-CID card

Installation Manual References

- 2.2.6 Installing/Removing the Optional Service Cards

Feature Guide References

- None

Card Type

Indicates the type of service card that is installed or pre-installed in each slot (reference only). This column offers two ways to open the screen to specify the property of each card:

- Click the desired card in the column.
- Use the arrow keys to select the desired card in the column, and then click **Property**.

Default
Slot 00: MPR (Main Processing Card: fixed)
Slot 01: HLC4 (hybrid ports: fixed)
Slot 02: LCOT4 (4-Port Analog Trunk Card: installed by default)
Other slots: Not stored.

Value Range

Card Type:

HLC4: 4-Port Hybrid Extension Card
PLC8: 8-Port Proprietary Extension Card
PLC4: 4-Port Proprietary Extension Card
SLC8: 8-Port Single Line Telephone Extension Card
LCOT4: 4-Port Analog Trunk Card
MSG2: 2-Channel Message Card
DPH4: 4-Port Doorphone Card
ECHO8: 8-Channel Echo Canceller Card
EXT-CID: Extension Caller ID Card

Maximum Quantity:

Extension card: 3 (1 in the Free Slots Type A; 2 in the Free Slots Type B)
Trunk card: 2
MSG2 card: 2
DPH4 card: 1
ECHO8 card: 1
EXT-CID card: 1

Installation Manual References

- 1.3.1 Options

Feature Guide References

Feature References

- None

Programming References

- 4.1.2 Slot [1-1] Extension Card Property
- 4.1.3 Slot [1-1] LCO Card Property
- 4.1.4 Slot [1-1] DPH Card Property

Status

Indicates the status of the service card in each slot (reference only).
This column offers two ways to open the screen to select the card command:

- Click the desired cell in the column.
- Use the arrow key to select the desired cell in the column, and then click **Command**.

Default

Slot 00: - (fixed)
Other slots: Current status

Value Range

INS: The card is in service.

OUS: The card is out of service.

Fault: The card has been removed from the slot, or is not communicating with the PBX.

Fault-OVER: The number of CO line and/or extension ports exceed the system capacity.

Fault-DIF: The card installed in the slot differs from the programmed card type.

Pre-Install: There is no card in the slot, but the card type is programmed for the slot.

Idle: There is no card in the slot, nor programming of the card type for the slot.

Feature Guide References

Feature References

- None

Programming References

- 4.1.6 Slot [1-1] Card Command

◆ Version

Indicates the version of the installed card (reference only).

Default Current version number
Value Range Version number

Feature Guide References

- None

4.1.2 Slot [1-1] Extension Card Property

The property for the extension cards can be specified.

◆ SLT Pulse Dial Mode

Selects the type of pulse dial transmission appropriate to your area.

Default Normal
Value Range Normal, Sweden, New Zealand

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

◆ SLT Off Hook Time

Specifies the minimum time required by the PBX to recognize the pulse dial sent from an SLT as an off-hook signal.

Default 160 ms
Value Range 8 × n (n=3–255) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

SLT Off Hook Guard Time

Specifies the length of time used to prevent the PBX from mistaking an off-hook signal as a pulse dial.

Default 504 ms
Value Range 8 × n (n=12–63) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

SLT Pulse Maximum Break Width

Specifies the maximum length of the break signal in a pulse dial.

Default 96 ms
Value Range 8 × n (n=9–20) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

SLT Pulse Minimum Make Width

Specifies the minimum length of the make signal in a pulse dial.

Default 8 ms
Value Range 8 × n (n=1–5) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

SLT Flash Detection

Enables the PBX to detect a flash signal an SLT user sent by pressing the hookswitch or the Flash/Recall button.

Default Enable
Value Range Disable: The PBX disconnects the line to prevent placing the call on hold.
Enable: The PBX places the call on consultation hold.

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Flash Timing - Min.

Specifies the timing that the PBX starts recognizing a hookswitch flash signal sent from an SLT.

Default 112 ms
Value Range 8 × n (n=3–63) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Flash Timing - Range

Specifies the length of time required by the PBX to recognize a hookswitch flash signal sent from an SLT.

Default 904 ms
Value Range 8 × n (n=3–191) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

DTMF-R STD Detection Time

Specifies the minimum time required by the PBX to detect the DTMF tone.

Default 30 ms
Value Range 2 × n (n=1–31) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

4.1.3 Slot [1-1] LCO Card Property

The properties of the analog CO line cards can be specified.

Outgoing Guard Time

Specifies the length of time after a CO line is disconnected, during which the PBX cannot seize the line.

Default 3 s
Value Range 3–6 s

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

First Dial Timer (CO)

Specifies the minimum time that the PBX waits after seizing a CO line, before sending the dialed digits to the telephone company. This allows the telephone company to have enough time to accept the dialed digits correctly.

Default 1.0 s
Value Range 0.5 × n (n=1–16) s

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

CO Feed Back Tone

Specifies whether to turn on or turn off the pulse feedback tone. For outgoing CO line calls, the dialed number is toned out, which informs the extension user that the dialed number has been dialed out.

Default Yes
Value Range No, Yes

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Bell Detection—Bell Start Detection Timer

Specifies the minimum time required by the PBX to confirm the bell signal sent from the telephone company, before the PBX detects an arriving call.

Default 144 ms
Value Range 24 × n (n=1–50) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Bell Detection—Bell Off Detection Timer

Specifies the minimum time required by the PBX to confirm that the bell signal is no longer sent from the telephone company, before the PBX realizes the call is lost.

Default 6.0 s
Value Range 1.0 s–15.0 s

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Pulse / DTMF Dial—DTMF Inter Digit Pause

Specifies the length of the DTMF inter-digit pause. This allows the telephone company to have enough time to accept the dialed digits correctly.

Default 112 ms
Value Range 16 × n (n=4–19) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Pulse / DTMF Dial—Pulse Inter Digit Pause

Specifies the length of the pulse inter-digit pause. This allows the telephone company to have enough time to accept the dialed digits correctly.

Default 830 ms
Value Range 630 ms, 830 ms, 1030 ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Low Speed Pulse Dial—Pulse % Break

Specifies the % break for a low speed pulse dial. This is the ratio between the break (on-hook) signal and make (off-hook) signal in a pulse dial.

Default 60 %
Value Range Other, 60 %, 67 %

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]
- 4.1.9 LCO Port [1-4]

Low Speed Pulse Dial—Break Width

Specifies the maximum length of the break signal in a low speed pulse dial. **Low Speed Pulse Dial—Pulse % Break** on this screen determines the value that can be specified here.

Default 60 ms
Value Range 4 × n (n=6–20) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]
- 4.1.9 LCO Port [1-4]

Low Speed Pulse Dial—Make Width

Specifies the minimum length of the make signal in a low speed pulse dial. **Low Speed Pulse Dial—Pulse % Break** on this screen determines the value that can be specified here.

Default 40 ms
Value Range 4 × n (n=3–15) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]
- 4.1.9 LCO Port [1-4]

High Speed Pulse Dial—Pulse % Break

Specifies the % break for a high speed pulse dial. This is the ratio between the break (on-hook) signal and make (off-hook) signal in a pulse dial.

Default 60 %
Value Range Other, 60 %, 67 %

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]
- 4.1.9 LCO Port [1-4]

High Speed Pulse Dial—Break Width

Specifies the maximum length of the break signal in a high speed pulse dial. **High Speed Pulse Dial—Pulse % Break** on this screen determines the value that can be specified here.

Default 32 ms
Value Range 4 × n (n=4–18) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]
- 4.1.9 LCO Port [1-4]

High Speed Pulse Dial—Make Width

Specifies the minimum length of the make signal in a high speed pulse dial. **High Speed Pulse Dial—Pulse % Break** on this screen determines the value that can be specified here.

Default 20 ms
Value Range 4 × n (n=3–15) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]
- 4.1.9 LCO Port [1-4]

Pulse Type

Selects the type of pulse dial transmission appropriate to your area.

Default Normal
Value Range Normal, Sweden, New Zealand

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Option Card Equipment—Option 1 and Option 2

Indicates the type of the card that is installed in the LCOT card (reference only).

Default Current option card type
Value Range None, Caller ID Card

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]
- 4.1.9 LCO Port [1-4]—Caller ID Detection

Caller ID—Caller ID Signaling

Selects the signaling type of the Caller ID that the telephone company provides.

Default FSK
Value Range FSK (Frequency Shift Keying), FSK (with Visual Caller ID), DTMF

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Caller ID—Max Receive Time

Specifies the maximum number of times that the PBX receives a Caller ID series.

Default 1
Value Range 0 (no limit), 1, 2, 3

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Caller ID—Caller ID (FSK) Carrier Detection

Enables the PBX to detect the carrier when receiving Caller ID. To enable this setting, **Caller ID Signaling** on this screen should be assigned to **FSK**.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Caller ID—Caller ID (FSK) END Detection

Selects the method used to detect the end of Caller ID information.

Default Length + Timer
Value Range Length + Timer, Timer

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Caller ID—Caller ID (FSK) Header Examination

Enables the PBX to check the header of received Caller ID information. To enable this setting, **Caller ID Signaling** on this screen should be assigned to **FSK**.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Caller ID—Caller ID (FSK) Detection Start Timer

Specifies the length of time that the PBX waits before detecting Caller ID information, after receiving a call. To enable this setting, **Caller ID Signaling** on this screen should be assigned to **FSK**.

Default 80 ms
Value Range None, 80 × n (n=1–15) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Caller ID—Caller ID (FSK) Detection Timer

Specifies the total time required by the PBX to detect Caller ID information. To enable this setting, **Caller ID Signaling** on this screen should be assigned to **FSK**.

Default	2000 ms
Value Range	None, 80 × n (n=13–50) ms

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

4.1.4 Slot [1-1] DPH Card Property

Status of the DPH ports can be referred to, or set to INS (in service) or OUS (out of service).

Slot

Indicates the slot position (reference only).

Default	Current slot number
Value Range	Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port Number

Indicates the port number (reference only).

Default	Current port number
Value Range	Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port Status

Indicates the port status (reference only).
This column offers two ways to open the screen to select the port command:

- Click the desired cell in the column.
- Use the arrow key to select the desired cell in the column, and then click **Command**.

Default	Current status
Value Range	INS: The port is in service. OUS: The port is out of service. Fault: The port is not communicating with the network.

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]
- 4.1.5 Slot [1-1] DPH Port Command

4.1.5 Slot [1-1] DPH Port Command

Commands for the DPH ports can be programmed.

INS

Puts the port in service.

Default	Not applicable.
Value Range	Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.4 Slot [1-1] DPH Card Property

OUS

Takes the port out of service. This enables a temporal non-use of the port, for example, for the purpose of repair.

Default	Not applicable.
Value Range	Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.4 Slot [1-1] DPH Card Property

4.1.6 Slot [1-1] Card Command

Commands for the service cards can be programmed.

INS

Puts the card in service.

Default Not applicable.
Value Range Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

OUS

Takes the card out of service. This enables a temporal non-use of the card, for example, for the purpose of repair.

Default Not applicable.
Value Range Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Pre-INS

Assigns the card type to a certain sub-slot (Pre-installation).

Default Not applicable.
Value Range **Card Type:**
HLC4: 4-Port Hybrid Extension Card
PLC8: 8-Port Proprietary Extension Card
PLC4: 4-Port Proprietary Extension Card
SLC8: 8-Port Single Line Telephone Extension Card
LCOT4: 4-Port Analog Trunk Card
MSG2: 2-Channel Message Card
DPH4: 4-Port Doorphone Card
ECHO8: 8-Channel Echo Canceller Card
EXT-CID: Extension Caller ID Card

Installation Manual References

- 1.3.1 Options

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Delete

Assigns the card type to be deleted from the slot.

Default	Not applicable.
Value Range	Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

4.1.7 Portable Station [1-2]

Various portable station (PS) settings can be programmed. A maximum of 28 PS can be registered.

PS Registration and De-registration

A PS must be registered to the PBX by programming both the PBX and PS before it can be used. Programming instructions of the PBX are given below; programming instructions of the PS are found in the Installation Manual.
If desired, it is possible to de-register the PS later on.

Registration

Follow the steps below to register the PS.

1. Specify the extension number of the PS, and then click **Apply**.
2. Select the PS by clicking the **Select** cell and set it to **ON**.
   More than one PS can be selected at a time (only the unregistered PS with an extension number can be selected).
3. Click **Registration**.
   A dialog box will appear when the registration starts to execute.
4. While the registration is executing, program the PS referring to "2.7.7 Connecting a Cell Station to the PBX" of the Installation Manual.
5. Click **Confirm**.
   - If the registration is still in the process, the dialog box will show "Waiting: PS Registration". Click **Close**.
   - If the registration is successful, the dialog box will show "Registration Succeed". If there are more PSs to be registered, click **Continue** to resume or **Quit** to terminate the registration. If not, click **Close**.
   - If the registration is unsuccessful, the dialog box will show "Registration Error". Click **Close**. The registration will be terminated.

Once the PS is successfully registered, the status of the PS will update to show "Registered".

While the registration is executing, it is possible to abort registration by clicking **Halt** in the step 5 above. However, if the registration is already completed, the registration cannot be aborted and the dialog box will show "Registration Halt: NG". Click **Continue** and confirm the progress of registration.

De-registration

Follow the steps below to de-register the PS.

1. Select the PS by clicking the **Select** cell and set it to **ON**.
   More than one PS can be selected at a time (only the registered PS can be selected).
2. Click **De-registration**.
   - If the de-registration is successful, the dialog box will show "De-registration Succeed".
     If there are more PSs to be de-registered, click **Continue** to resume or **Quit** to terminate the de-registration. If not, click **Close**.
   - If the de-registration is unsuccessful, the dialog box will show "De-registration Error". Click **Close**. De-registration will be terminated.

   Once the PS is successfully de-registered, the status of the PS will update to show "None".

Forced De-registration

Follow the steps below to forcibly de-register the PS when normal de-registration has been unsuccessful or de-registration has been performed only on the PS.

1. Select the PS by clicking the **Select** cell and set it to **ON**.
   More than one PS can be selected at a time (only the unregistered PS with an extension number can be selected).
2. Click **Forced De-registration**.
3. Click **OK**.
   If the forced de-registration is successful, the dialog box will show "Forced De-registration Succeed".
   If there are more PSs to be de-registered, click **Continue** to resume or **Quit** to terminate the forced de-registration. If not, click **Close**.

   Once the PS is successfully de-registered, the status of the PS will update to show "None".

Index

Indicates the PS number (reference only).

Default	Not applicable.
Value Range	1–28

Feature Guide References

Feature References

- 1.20 Portable Station (PS) Features

Programming References

- None

Extension No.

Specifies the extension number of a PS.
In Wireless XDP Parallel Mode, the PS can be used as a sub telephone with a wired main telephone (PT/SLT), and two of them will share one extension number of the main telephone. However, note that the PS extension number specified here will not be altered by the extension number of the main telephone even if the PS is in Wireless XDP Parallel Mode.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.20.1 Portable Station (PS) Connection

Programming References

- None

Status

Indicates whether a certain PS is registered (reference only).

Default None
Value Range None, Registered

Feature Guide References

Feature References

- 1.20.1 Portable Station (PS) Connection

Programming References

- None

Select

Selects the PS to be registered or deregistered.

Default OFF
Value Range ON, OFF

Feature Guide References

Feature References

- 1.20.1 Portable Station (PS) Connection

Programming References

- None

Personal Identification Number

Specifies the Personal Identification Number (PIN) of the PBX used to avoid unexpected registration to another PBX.
Note that the same PIN of the PBX should be registered into the PS, before the PS is registered to the PBX.

Default 1234
Value Range Max. 4 digits (consisting of 0–9)

Installation Manual References

- 2.7.7 Connecting a Cell Station to the PBX

Feature Guide References

Feature References

- 1.20.1 Portable Station (PS) Connection

Programming References

- None

4.1.8 Option [1-3]

System options can be programmed.

Extension Number Set Mode

Selects whether extension numbers are assigned to extension ports automatically or manually.

Default Automatic
Value Range Automatic, Manual

Feature Guide References

- None

Status after Card Install

Selects the initial status of the card after the installation.

Default In Service (INS)
Value Range In Service (INS), Out of Service (OUS)

Feature Guide References

- None

4.1.9 LCO Port [1-4]

Various settings can be programmed for each analog CO port.

Slot

Indicates the slot position (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

- None

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

- None

Connection

Indicates the port status (reference only).
This column offers two ways to open the screen to select the port command:

- Click the desired cell in the column.
- Use the arrow keys to select the desired cell in the column, and then click **Command**.

Default Current status
Value Range INS: The port is in service.
OUS: The port is out of service.

Feature Guide References

Feature References

- None

Programming References

- 4.1.10 LCO Port [1-4] Port Command

Dialing Mode

Selects the type of signal used to dial out to the analog CO line.

Default DTMF
Value Range DTMF, Pulse

Feature Guide References

- None

CPC Signal Detection Time—Outgoing, Incoming

Specifies the length of time required by the PBX to detect a CPC signal on outgoing or incoming CO line calls before disconnecting the line .

Default 400 ms
Value Range None, 6.5 ms, 8 × n (n=1–112) ms

Feature Guide References

- None

DTMF Width

Selects the length of the DTMF tone sent to the analog CO line.

Default 80 ms
Value Range 80 ms, 160 ms

Feature Guide References

- None

Pulse Speed

Selects the speed at which pulse dials are sent to the analog CO line.

Default Low
Value Range Low, High

Feature Guide References

- None

Caller ID Detection

Enables the PBX to detect a Caller ID signal from the analog CO line.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- None

Programming References

- 4.1.3 Slot [1-1] LCO Card Property

Pause Time

Specifies the length of a pause.

Default 1.5 s
Value Range 1.5 s, 2.5 s, 3.5 s, 4.5 s

Feature Guide References

- None

Flash Time

Specifies the length of a flash signal.

Default 608 ms
Value Range None, 16 × n (n=1–255) ms

Feature Guide References

- None

Disconnect Time

Specifies the length of time after a CO line is disconnected, during which the PBX cannot seize the line.

Default 1.5 s
Value Range 0.5 s, 1.5 s, 2.0 s, 4.0 s, 12.0 s

Feature Guide References

- None

4.1.10 LCO Port [1-4] Port Command

Commands for the LCO ports can be programmed.

INS

Puts the port in service.

Default Not applicable.
Value Range Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.9 LCO Port [1-4]

OUS

Takes the port out of service. This enables a temporal non-use of the port, for example, for the purpose of repair.

Default Not applicable.
Value Range Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.9 LCO Port [1-4]

4.1.11 Extension Port [1-5]

Various settings can be programmed for each extension port.

Slot

Indicates the slot position (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

- None

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

- None

Port Type

Indicates the port type (reference only).

Default Current port type
Value Range APT: APT port (PLC)
SLT: SLT port (SLC)
Hybrid: Hybrid port (HLC)

Feature Guide References

- None

Telephone Type

Indicates the connected telephone type (reference only).
The number of all connected telephones and Cell Stations can be viewed by clicking **Port Type View**.

Default Current connected telephone type
Value Range APT: APT is connected.
DSS: DSS Console is connected.
VM: VPS is connected.
SLT: SLT is connected (or no telephone is connected to the hybrid or SLT port).
CS: CS is connected.

Feature Guide References

Feature References

- None

Programming References

- 4.1.13 Extension Port [1-5] Port Type View

Connection

Indicates the port status (reference only).
This column offers two ways to open the screen to select the port command as follows:

- Click the desired cell in the column.
- Use the arrow keys to select the desired cell in the column, and then click **Command**.

Default Current status
Value Range INS: The port is in service.
OUS: The port is out of service.
Fault: The port is not communicating with the PBX.

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Number

Specifies the extension number of the port.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default	Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the extension name of the port. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

PT Property—Type (for APT or Hybrid port)

Selects the port type.

To change the port type of an extension port, follow the steps below:

1. Set the status of the extension port to "**OUS**".
2. Change the port type of the extension port, then click **Apply**.
3. Set the status of the extension port to "**INS**".

Default	Normal

Value Range Normal: For connecting a PT
DSS: For connecting a DSS Console (A maximum of 4 DSS Consoles can be connected to the PBX.)
VM (DPT): For connecting a Panasonic VPS through DPT Integration

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

◆ PT Property—Location No. (for APT or Hybrid port)

Specifies the location number of the connected DSS Console.

Default 1
Value Range 1–4

Feature Guide References

- None

◆ PT Property—VM Unit No. (for APT or Hybrid port)

Selects the unit number of the connected VPS.

Default 1
Value Range 1

Feature Guide References

- None

◆ PT Property—VM Port No. (for APT or Hybrid port)

Specifies the VM port number for the port.

Default 1
Value Range 1–4

Feature Guide References

- None

4.1.12 Extension Port [1-5] Port Command

Commands for the extension ports can be programmed.

◆ INS

Puts the port in service.

Default Not applicable.
Value Range Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

OUS

Takes the port out of service. This enables a temporal non-use of the port, for example, for the purpose of repair.

Default Not applicable.
Value Range Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

4.1.13 Extension Port [1-5] Port Type View

Displays the number of connected telephones and Cell Stations (CSs).

Type

Indicates the types of telephone (reference only).

Default Not applicable.
Value Range APT, SLT, DSS Console, VM, Other, CS

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Total Count

Indicates the connected number for each type of telephone and CS (reference only). The CS is counted on the basis of extension port to which the CS is connected.

Default Not applicable.
Value Range Not applicable.

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

4.2 System [2]

4.2.1 Date & Time/Daylight Saving—Date & Time [2-1-1]

The date and time of the PBX can be programmed. The date and time will be shown on the display of the extensions (e.g., PT, PS).

Date & Time—Year, Month, Date, Week, Hour, Second

Indicates the current time and date. If needed, each parameter can be specified as desired (the day of the week is changed automatically to reflect the assigned date).

Default	Current date and time
Value Range	Year: 2000–2099 Month: 1–12 Date: 1–31 Week: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday Hour: 00–23 Minute: 00–59 Second: 00–59

Feature Guide References

- None

4.2.2 Date & Time / Daylight Saving—Daylight Saving [2-1-2]

Daylight Saving Time sets the clock one hour forward at 2:00 AM on the start date, and one hour back at 2:00 AM on the end date. The start and end dates of a maximum of 20 different Daylight Saving Times can be programmed.

Setting

Enables Daylight Saving Time.

Default	Enable
Value Range	Enable, Disable

Feature Guide References

Feature References

- 2.3.4 Automatic Time Adjustment

Programming References

- None

Start Date—Year, Month, Day

Specifies the Daylight Saving Time start date.

Default Year: 2003 (For Daylight Saving Time number 1. The year advances by one for the subsequent Daylight Saving Times.)
Month: 4
Day: Day of the first Sunday of the month

Value Range Year: 2000–2099
Month: 1–12
Day: 1–31

Feature Guide References

Feature References

- 2.3.4 Automatic Time Adjustment

Programming References

- None

End Date—Year, Month, Day

Specifies the Daylight Saving Time end date.

Default Year: 2003 (For Daylight Saving Time number 1. The year advances by one for the subsequent Daylight Saving Times.)
Month: 10
Day: Day of the last Sunday of the month

Value Range Year: 2000–2099
Month: 1–12
Day: 1–31

Feature Guide References

Feature References

- 2.3.4 Automatic Time Adjustment

Programming References

- None

4.2.3 PBX Operator [2-2]

For each time mode (day/lunch/break/night), a number (extension number or floating extension number of incoming call distribution group) can be programmed to be designated as the PBX operator.

Day

Specifies the number (extension number or floating extension number of incoming call distribution group) to be designated as the PBX operator in the day mode.

Default 101

Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.2.5 Operator Features

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]
- 4.2.10 Numbering Plan—Extension [2-6-1]
- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Lunch

Specifies the number (extension number or floating extension number of incoming call distribution group) to be designated as the PBX operator in the lunch mode.

Default 101
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.2.5 Operator Features

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]
- 4.2.10 Numbering Plan—Extension [2-6-1]
- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Break

Specifies the number (extension number or floating extension number of incoming call distribution group) to be designated as the PBX operator in the break mode.

Default 101
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.2.5 Operator Features

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]
- 4.2.10 Numbering Plan—Extension [2-6-1]
- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Night

Specifies the number (extension number or floating extension number of incoming call distribution group) to be designated as the PBX operator in the night mode.

Default 101
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.2.5 Operator Features

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]
- 4.2.10 Numbering Plan—Extension [2-6-1]
- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

4.2.4 BGM / Music on Hold [2-3]

The audio source of the music to be played when a party is placed on hold or transferred can be selected.

Music Source of BGM

Selects the audio source of BGM.

Default Internal BGM 1
Value Range External BGM, Internal BGM 1, Internal BGM 2

Feature Guide References

Feature References

- 1.12.4 Music on Hold

Programming References

- None

Music on Hold

Selects the audio source for Music on Hold.

Default BGM
Value Range Tone, BGM

Feature Guide References

Feature References

- 1.12.4 Music on Hold

Programming References

- None

Sound on Transfer

Selects the audio source for Sound on Transfer (either the same music source chosen for the Music on Hold, or ringback tone).

Default Same as Music on Hold
Value Range Same as Music on Hold, Ring Back Tone

Feature Guide References

Feature References

- 1.11.1 Call Transfer

Programming References

- None

4.2.5 Timers & Counters—CO / Extension [2-4-1]

Various system timers and counters can be programmed.

Intercept Timer

Specifies the length of time until a CO line call is redirected to the intercept routing destination.

Default 40 s
Value Range 1–240 s

Feature Guide References

Feature References

- 1.1.1.4 Intercept Routing

Programming References

- None

Hold Recall Timer

Specifies the length of time until the holding extension receives a Hold Recall ring when a held call remains unretrieved.

Default 60 s
Value Range 0 (disable the Hold Recall)–240 s

Feature Guide References

Feature References

- 1.12.1 Call Hold

Programming References

- None

Transfer Recall Timer

Specifies the length of time a transferred call waits to be answered, before being redirected to the Transfer Recall destination assigned to the transferring extension.

Default 60 s
Value Range 1–240 s

Feature Guide References

Feature References

- 1.11.1 Call Transfer

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]

Call Park Recall Timer

Specifies the length of time a parked call waits to be retrieved, before the Transfer Recall destination assigned to the parking extension hears a Call Park Recall ring.

Default 60 s

Value Range 1–240 s

Feature Guide References

Feature References

- 1.12.2 Call Park

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]

Forced CO Line Disconnect Timer for Hold Recall

Specifies the length of time until a held CO line call is disconnected after the holding extension receives the Hold Recall.

Default 30 min
Value Range 1–30 min

Feature Guide References

Feature References

- 1.12.1 Call Hold

Programming References

- None

Hot Line (Pickup Dial) Start Timer

Specifies the length of time until automatic dialing starts after going off-hook.

Default 1 s
Value Range 0–15 s

Feature Guide References

Feature References

- 1.6.1.6 Hot Line

Programming References

- None

Extension First Digit Timer

Specifies the length of time within which the first digit of a feature number (e.g., extension number) must be dialed before reorder tone is heard.

Default 10 s
Value Range 0–15 s

Feature Guide References

Feature References

- 1.5.2 Automatic Extension Release

Programming References

- None

Extension Inter Digit Timer

Specifies the length of time within which subsequent digits must be dialed before the PBX sends reorder tone.

Default 10 s
Value Range 0–15 s

Feature Guide References

Feature References

- 1.5.2 Automatic Extension Release

Programming References

- None

Analog CO First Digit Timer to Mute Caller's Voice during Dialing

Specifies the length of time within which the first digit of a telephone number must be sent to an analog CO line before the PBX recognizes end of dialing and cancels muting caller's voice sent to the analog CO line.

Default 10 s
Value Range 1–15 s

Feature Guide References

- None

Analog CO Inter Digit Timer to Mute Caller's Voice during Dialing

Specifies the length of time within which subsequent digits of a telephone number must be sent to an analog CO line before the PBX recognizes end of dialing and cancels muting caller's voice sent to the analog CO line.

Default 5 s
Value Range 1–15 s

Feature Guide References

- None

Call Duration Start Timer for Analog CO

Specifies the length of time between the end of dialing and the start of the SMDR timer for outgoing analog CO line calls.

Default 0 s
Value Range 0–60 s

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

Extension PIN Lock Counter

Specifies the number of successive incorrect PIN entries before the extension PIN is locked. (Specifying "0" disables the counter.)

Default 0
Value Range 0–15

Feature Guide References

Feature References

- 1.22.1 Extension Personal Identification Number (PIN)

Programming References

- None

4.2.6 Timers & Counters—DISA/DPH/CONF/T. Reminder [2-4-2]

Various system timers and counters can be programmed.

DISA Delayed Answer Timer

Specifies the length of time the caller hears a ringback tone before hearing an OGM.

Default 5 s
Value Range 0–30 s

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

DISA Mute & OGM Start Timer after Answering

Specifies the length of time until the caller hears an OGM after reaching the DISA line.

Default 1.8 s
Value Range 0.0–12.0 s

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

DISA First Digit Timer for Routing to Operator when No Dial

Specifies the length of time after the OGM in which the caller must begin dialing before the call is redirected to the operator.

Default 10 s

Value Range 0–120 s

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.2.3 PBX Operator [2-2]
- 4.5.4 DISA—Message Setting [5-3-2]
- 4.6.7 Tenant [6-6]—Operator (Extension Number)

DISA Second Digit Timer for Automated Attendant

Specifies the length of time after the OGM in which the caller must dial the second digit before the DISA AA Service activates.

Default 2 s
Value Range 0–5 s

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

DISA Intercept Timer

Specifies the length of time until a DISA call is intercepted and redirected to the intercept routing destination after the original destination receives the call.

Default 20 s
Value Range 0–60 s

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.3.1 Trunk Group—TRG Settings [3-1-1]—Intercept—Intercept Destination—Day, Lunch, Break, Night
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 1—Intercept Destination—Day, Lunch, Break, Night
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Option 1—Intercept Destination—Day, Lunch, Break, Night
- 4.5.4 DISA—Message Setting [5-3-2]

DISA Disconnect Timer after Intercept

Specifies the length of time until an intercepted DISA call is disconnected after the DISA Intercept time expires.

Default 60 s
Value Range 0–60 s

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

DISA CO-to-CO Line Call Prolong Counter

Specifies the number of times the caller can prolong a CO-to-CO line call on the DISA line. (Specifying "0" enables the caller to prolong the CO-to-CO line call without restriction.)

Default 10
Value Range 0–15

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

DISA CO-to-CO Line Call Prolong Time

Specifies the length of time a CO-to-CO line call on the DISA line can be prolonged each time the caller prolongs the call. (Specifying "0" disables the caller to prolong the CO-to-CO line call.)

Default 3 min
Value Range 0–7 min

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

Progress Tone Continuation Time before Recording Message

Specifies the length of time a progress tone is sent to the manager extension before recording an OGM.

Default 5 s
Value Range 0–7 s

Feature Guide References

Feature References

- 1.15.5 Outgoing Message (OGM)

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

DISA Reorder Tone Duration Time

Specifies the length of time a reorder tone is sent to the caller before the call is disconnected.

Default 10 s
Value Range 1–15 s

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

Doorphone Call Duration Time

Specifies the length of time until the ringing stops and the call is canceled when there is no answer.

Default 30 s
Value Range 10 × n (n=1–15) s

Feature Guide References

Feature References

- 1.15.1 Doorphone Call

Programming References

- 4.5.1 Doorphone [5-1]

Doorphone Call Duration Limitation Time

Specifies the length of time until a doorphone call is disconnected.

Default 60 s
Value Range 10 × n (n=0–30) s

Feature Guide References

Feature References

- 1.15.1 Doorphone Call

Programming References

- 4.5.1 Doorphone [5-1]

Door Open Duration Time

Specifies the length of time the door stays unlocked.

Default 5 s
Value Range 2–7 s

Feature Guide References

Feature References

- 1.15.2 Door Open

Programming References

- 4.5.1 Doorphone [5-1]

Timed Reminder : Repeat Counter

Specifies the number of times the alarm is repeated.

Default 3
Value Range 1–15

Feature Guide References

Feature References

- 1.22.4 Timed Reminder

Programming References

- None

Timed Reminder : Interval Time

Specifies the length of time between the repeated alarms.

Default 30 s
Value Range 10 × n (n=1–120) s

Feature Guide References

Feature References

- 1.22.4 Timed Reminder

Programming References

- None

Timed Reminder : Alarm Ringing Duration Time

Specifies the length of time the alarm rings.

Default 30 s
Value Range 10 × n (n=1–30) s

Feature Guide References

Feature References

- 1.22.4 Timed Reminder

Programming References

- None

Unattended Conference : Recall Start Time

Specifies the length of time until the conference originator receives an Unattended Conference Recall tone.

Default 10 min
Value Range 0–60 min

Feature Guide References

Feature References

- 1.13.1.2 Conference

Programming References

- None

Unattended Conference : Recall Continuous Time before Sending Alarm Tone to CO

Specifies the length of time until the parties involved in the Unattended Conference receive an alarm tone after the conference originator has received the Unattended Conference Recall tone but remained unattended to the conference.

Default 30 s
Value Range 0–240 s

Feature Guide References

Feature References

- 1.13.1.2 Conference

Programming References

- None

Unattended Conference : Recall & Alarm Continuous Time before Disconnecting

Specifies the length of time until the Unattended Conference is disconnected after the parties involved in the conference received an alarm tone but the conference originator remained unattended to the conference.

Default 15 s
Value Range 0–240 s

Feature Guide References

Feature References

- 1.13.1.2 Conference

Programming References

- None

4.2.7 Timers & Counters—Miscellaneous [2-4-3]

Various system timers and counters can be programmed.

Busy Tone / DND Tone Continuation Time

Specifies the length of time a busy/DND tone is heard when a call is made to an extension in busy status or DND mode. A reorder tone will be sent when this timer expires. (For a call through DISA, the call will be disconnected when this timer expires.)

Default 10 s
Value Range 0–15 s

Feature Guide References

Feature References

- 1.7 Busy Line/Busy Party Features

Programming References

- None

Reorder Tone Continuation Time for PT Handset Mode

Specifies the length of time a reorder tone is heard from the handset of a PT. The PT will return to idle status when this timer expires.

Default 10 s
Value Range 1–15 s

Feature Guide References

Feature References

- 1.5.2 Automatic Extension Release

Programming References

- None

Reorder Tone Continuation Time for PT Hands Free Mode

Specifies the length of time a reorder tone is heard from the built-in speaker of a PT in hands-free mode. The PT will return to idle status when this timer expires. This setting is applied to a PS as well as a PT.

Default 3 s
Value Range 1–15 s

Feature Guide References

Feature References

- 1.5.2 Automatic Extension Release

Programming References

- None

Current PT Display Keeping Time after moving to Idle mode

Specifies the length of time the current information remains on the display after the extension returns to idle status.

Default 5 s
Value Range 1–15 s

Feature Guide References

- None

DTMF Length while talking

Specifies the length of time a DTMF signal is sent when a number is dialed from a PT or PS during a conversation.

Default 160 ms
Value Range 80 ms, 160 ms, 240 ms, 320 ms

Feature Guide References

- None

DTMF Inter Digit Pause while talking

Specifies the length of time between DTMF signals when numbers are dialed in succession from a PT or PS during a conversation.

Default 112 ms
Value Range 64 + 16 × n (n=0–15) ms

Feature Guide References

- None

Pause Time while talking

Specifies the length of the pause inserted when the PAUSE button is pressed during a conversation.

Default 1.5 s
Value Range 1.5 s, 2.5 s, 3.5 s, 4.5 s

Feature Guide References

Feature References

- 1.5.4.5 Pause Insertion

Programming References

- None

Waiting Timer to Receive Analog Caller ID

Specifies the length of time the PBX waits before receiving Caller ID from an analog CO line. If the Caller ID is received through the analog CO line card on which no Caller ID card is mounted or through the port to which Caller ID Detection is disabled, this timer is not applicable.

Default 5 s
Value Range 0–15 s

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- 4.6.1 Speed Dialing & Caller ID—Main Table [6-1-1]
- 4.6.2 Speed Dialing & Caller ID—Caller ID Modification [6-1-2]

Visual Caller ID Display Timer

Specifies the length of time the Caller ID number, with the Call Waiting tone offered by an analog line from the telephone company, is shown on the display. The Caller ID number flashes on the display twice for five seconds at 15-second intervals.

Default 30 s
Value Range 0–250 s

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting

Programming References

- None

4.2.8 Time Service—Week Table [2-5-1]

A specific time mode (day, night, lunch, or break) can be selected for operation depending on the time of the day. The time mode can be switched either automatically or manually. Select the desired switching mode from the **Time Service Switching Mode** list.
The number of a Time Table corresponds to the number of a tenant. Select the desired Time Table from the **Time Table No.** list.
When in the Automatic Switching mode, time modes of the tenant are switched as programmed in the corresponding Time Table. Manual switching is possible only from an authorized extension (determined by COS).

Day / Lunch / Night

Time Tables containing day, lunch, and night start times can be programmed for each day of the week.

Day 1 Start—Setting

Enables the setting of the Day 1 start time.

Default	Enable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Day 1 Start—Hour

Specifies the hour of the Day 1 start time.

Default	9
Value Range	0–23

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Day 1 Start—Minute

Specifies the minute of the Day 1 start time.

Default 0
Value Range 0–59

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Lunch Start—Setting

Enables the setting of the Lunch start time.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Lunch Start—Hour

Specifies the hour of the Lunch start time.

Default 12
Value Range 0–23

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Lunch Start—Minute

Specifies the minute of the Lunch start time.

Default 0
Value Range 0–59

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Day 2 Start—Setting

Enables the setting of the Day 2 start time (Lunch end time).

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Day 2 Start—Hour

Specifies the hour of the Day 2 start time.

Default 13
Value Range 0–23

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Day 2 Start—Minute

Specifies the minute of the Day 2 start time.

Default 0
Value Range 0–59

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Night Start—Setting

Enables the setting of the Night start time.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Night Start—Hour

Specifies the hour of the Night start time.

Default 17
Value Range 0–23

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Night Start—Minute

Specifies the minute of the Night start time.

Default 0
Value Range 0–59

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Break

Break start and end times can be programmed for each day of the week for Time Tables that contain breaks.

Break 1, 2, 3 Start—Setting

Enables the setting of each break mode start time.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Break 1, 2, 3 Start—Hour

Specifies the hour of each break mode start time.

Default 0
Value Range 0–23

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Break 1, 2, 3 Start—Minute

Specifies the minute of each break mode start time.

Default 0
Value Range 0–59

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Break 1, 2, 3 End (Day Mode)—Setting

Enables the setting of each break mode end time (back to day mode).

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Break 1, 2, 3 End (Day Mode)—Hour

Specifies the hour of each break mode end time.

Default 0
Value Range 0–23

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

Break 1, 2, 3 End (Day Mode)—Minute

Specifies the minute of each break mode end time.

Default	0
Value Range	0–59

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.3.3 Extension Group [3-2]

4.2.9 Time Service—Holiday Table [2-5-2]

A specific time mode (day, night, lunch, or break) can be selected for operation during holidays. Select the desired time mode from the **Holiday Mode** list. The start and end dates of a maximum of 24 different holidays can be programmed.

Setting

Enables the setting of the holiday.

Default	Disable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- None

Start Date—Month

Specifies the month of the holiday start date.

Default	1
Value Range	1–12

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- None

Start Date—Day

Specifies the day of the holiday start date.

Default 1
Value Range 1–31

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- None

End Date—Month

Specifies the month of the holiday end date.

Default 1
Value Range 1–12

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- None

End Date—Day

Specifies the day of the holiday end date.

Default 1
Value Range 1–31

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- None

4.2.10 Numbering Plan—Extension [2-6-1]

The leading numbers and the number of additional digits of the extension numbers for a maximum of 32 different extension numbering schemes can be programmed.

Leading Number

Specifies the leading number of the extension numbers and floating extension numbers.

Default Extension Numbering Scheme 01: 1
Extension Numbering Scheme 02: 2
Extension Numbering Scheme 03: 3
Extension Numbering Scheme 04: 4
Extension Numbering Scheme 05: 5
Extension Numbering Scheme 06: 6
Extension Numbering Scheme 07–32: Not stored.

Value Range Max. 2 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]
- 4.3.11 VM(DPT) Group—Unit Setting [3-7-2]
- 4.3.13 VM(DTMF) Group—Group Setting [3-8-2]
- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]
- 4.5.4 DISA—Message Setting [5-3-2]
- 4.10.3 Miscellaneous [10-3]

Additional Digits

Specifies the number of additional digits following the leading number.

Default XX

Value Range None: 0 digit
X: 1 digit
XX: 2 digits

Feature Guide References

Feature References

- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

4.2.11 Numbering Plan—Feature [2-6-2]

Feature numbers to access various PBX features can be programmed. The following features are available while hearing a dial tone.

Operator Call

Specifies the feature number used for calling the operator.

Default 0

Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 2.2.5 Operator Features
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.3 PBX Operator [2-2]
- 4.6.7 Tenant [6-6]

Idle Line Access (Local Access)

Specifies the feature number used for making a CO line call by Idle Line Access (selects an idle CO line automatically).

Default 9
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.5.5.3 CO Line Access
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.2 Trunk Group—Local Access Priority [3-1-2]

Trunk Group Access

Specifies the feature number used for making a CO line call using an idle CO line from a certain CO line group.

Default 8
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 2.3.5 Flexible Numbering/Fixed Numbering
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.9.1 CO Line Setting [9-1]

Redial

Specifies the feature number used for dialing the last number dialed.

Default #
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.6.1.3 Last Number Redial
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

System Speed Dialing / Personal Speed Dialing

Specifies the feature number used for making a call using System/Personal Speed Dialing number.

Default **
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.6.1.4 Speed Dialing—Personal/System
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.4.3 Wired Extension—Speed Dial [4-1-3]
- 4.6.1 Speed Dialing & Caller ID—Main Table [6-1-1]

Personal Speed Dialing - Programming

Specifies the feature number used for programming Personal Speed Dialing numbers at an extension.

Default *30
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.6.1.4 Speed Dialing—Personal/System
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Doorphone Call

Specifies the feature number used for making a call to a doorphone.

Default *31
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.15.1 Doorphone Call
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.5.1 Doorphone [5-1]

Group Paging

Specifies the feature number used for paging a certain paging group.

Default *33
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.14.1 Paging
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.5 Paging Group [3-4]

External BGM On / Off

Specifies the feature number, available for manager extensions, used for turning on or off the external BGM.

Default *35
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.15.4 Background Music (BGM)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.4 BGM / Music on Hold [2-3]
- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Manager

OGM Record / Clear / Playback

Specifies the feature number, available for manager extensions, used for recording, clearing, or playing back a certain OGM.

Default *36
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.15.5 Outgoing Message (OGM)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]
- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Manager

Single-CO Line Access

Specifies the feature number used for making a CO line call using a certain CO line.

Default *37
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.5.5.3 CO Line Access
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.9.1 CO Line Setting [9-1]

Group Call Pickup

Specifies the feature number used for answering a call ringing in a certain call pickup group.

Default *40
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.4.1.3 Call Pickup
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.4 Call Pickup Group [3-3]

Directed Call Pickup

Specifies the feature number used for answering a call ringing at a certain extension.

Default *41
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.4.1.3 Call Pickup
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 3—Call Pickup Deny
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Option 3—Call Pickup Deny

TAFAS Answer

Specifies the feature number used for answering a CO line call notified through an external pager.

Default *42
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.15.3 Trunk Answer From Any Station (TAFAS)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.5.2 External Pager [5-2]

Group Paging Answer

Specifies the feature number used for answering a page to a paging group.

Default *43
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.14.1 Paging
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.5 Paging Group [3-4]

Automatic Callback Busy Cancel

Specifies the feature number used for canceling Automatic Callback Busy.

Default *46
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.7.1 Automatic Callback Busy (Camp-on)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

User Remote Operation / Walking COS / Verified Code

Specifies the feature number used for changing the COS of an extension temporarily, and also changing the feature settings (for example, FWD, DND etc.) of an extension from another extension or through DISA.

Default *47
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.8.4 Walking COS
- 1.8.5 Verified Code Entry
- 1.22.5 Remote Extension Control by User
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Deny Remote Operation by Other Extension

Wireless XDP Parallel Mode Set / Cancel

Specifies the feature number used for setting or canceling Wireless XDP Parallel mode.

Default *48

Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.20.3 Wireless XDP Parallel Mode
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Accept Wireless XDP Parallel Set by Other PS

Account Code Entry

Specifies the feature number used for entering the Account Code.

Default *49
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.5.4.3 Account Code Entry
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Call Hold / Call Hold Retrieve

Specifies the feature number used for holding a call or retrieving a call on hold from the holding extension.

Default *50
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.12.1 Call Hold
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Call Hold Retrieve : Specified with a Holding Extension Number

Specifies the feature number used for retrieving a held call from a different extension by specifying a holding extension number.

Default *51
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.12.1 Call Hold
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Call Park / Call Park Retrieve

Specifies the feature number used for holding a call in a parking zone or retrieving a call held in a parking zone.

Default *52
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.12.2 Call Park
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Hold Retrieve : Specified with a Held CO Line Number

Specifies the feature number used for retrieving a held CO line call from a different extension by specifying a held CO line number.

Default *53
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.12.1 Call Hold
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Door Open

Specifies the feature number used for opening a door.

Default *55
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.15.2 Door Open
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.5.1 Doorphone [5-1]

External Feature Access

Specifies the feature number used for accessing features of a host PBX or the telephone company.

Default *60
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.10.6 External Feature Access (EFA)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Message Waiting Set / Cancel / Call Back

Specifies the feature number used for setting or canceling Message Waiting, or calling back the caller.

Default *70
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.17.1 Message Waiting
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

FWD/DND Set / Cancel: Call from CO & Extension

Specifies the feature number used for setting or canceling FWD/DND for incoming CO line and intercom calls.

Default *710
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD/DND Set / Cancel: Call from CO

Specifies the feature number used for setting or canceling FWD/DND for incoming CO line calls.

Default *711

Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD/DND Set / Cancel: Call from Extension

Specifies the feature number used for setting or canceling FWD/DND for incoming intercom calls.

Default *712
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD No Answer Timer Set

Specifies the feature number used for setting the length of time before a call is forwarded.

Default *713
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

Group FWD Set / Cancel: Call from CO & Extension

Specifies the feature number used for setting or canceling FWD for incoming CO line and intercom calls to an incoming call distribution group.

Default *714
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Group FWD Set / Cancel: Call from CO

Specifies the feature number used for setting or canceling FWD for incoming CO line calls to an incoming call distribution group.

Default *715
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Group FWD Set / Cancel: Call from Extension

Specifies the feature number used for setting or canceling FWD for incoming intercom calls to an incoming call distribution group.

Default *716
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.3.1 Call Forwarding (FWD)/Do Not Disturb (DND)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Call Pickup Deny Set / Cancel

Specifies the feature number used for setting or canceling Call Pickup Deny (i.e., preventing or allowing the other extensions to pick up calls to your extension).

Default *720
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.4.1.3 Call Pickup
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Paging Deny Set / Cancel

Specifies the feature number used for setting or canceling Paging Deny (i.e., preventing or allowing other extensions to page your extension).

Default *721
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.14.1 Paging
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.5 Paging Group [3-4]

Walking Extension

Specifies the feature number used for using the same extension settings at a new extension.

Default *727
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.22.3 Walking Extension
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Data Line Security Set / Cancel

Specifies the feature number used for setting or canceling the Data Line Security (i.e., preventing or allowing signals from other extensions during data transmission).

Default *730
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.10.4 Data Line Security
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Call Waiting Mode: Call from Extension

Specifies the feature number used for setting or changing the method of receiving a Call Waiting from an extension.

Default *731
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Call Waiting Mode: Call from CO

Specifies the feature number used for setting or canceling a Call Waiting from a CO line, doorphone, or a call via an incoming call distribution group.

Default *732
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Executive Override Deny Set / Cancel

Specifies the feature number used for setting or canceling Executive Busy Override (i.e., preventing or allowing the other extensions to join your conversation).

Default *733
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.7.2 Executive Busy Override
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Main—Executive Busy Override
- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Executive Busy Override Deny

Not Ready (Manual Wrap-up) Mode On / Off

Specifies the feature number used for entering or leaving the Not Ready mode.

Default *735
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Log-in / Log-out

Specifies the feature number used for joining or leaving the incoming call distribution group.

Default *736
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Hot Line ([Pickup Dial) Program / Set / Cancel

Specifies the feature number used for setting/canceling, or programming a number for Hot Line.

Default *740
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.6.1.6 Hot Line
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.5 Timers & Counters—CO / Extension [2-4-1]—Hot Line (Pickup Dial) Start Timer

Absent Message Set / Cancel

Specifies the feature number used for setting or canceling the presentation of an Absent Message.

Default *750
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.17.2 Absent Message
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

BGM Set / Cancel

Specifies the feature number used for setting or canceling the BGM heard through the telephone speaker while on-hook.

Default *751
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.15.4 Background Music (BGM)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.4 BGM / Music on Hold [2-3]

Timed Reminder Set / Cancel

Specifies the feature number used for setting or canceling a Timed Reminder.

Default *760
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.22.4 Timed Reminder
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Extension Lock Set / Cancel

Specifies the feature number used for locking or unlocking the extension to make certain CO line calls and change the forward destination.

Default *77
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.8.2 Extension Lock
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Time Service (Day / Lunch / Break / Night) Switch

Specifies the feature number, available for manager extensions, used for changing the time mode manually.

Default *780
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 2.2.4 Time Service
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Time Service Switch
- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Manager

Remote Extension Lock Off

Specifies the feature number, available for manager extensions, used for unlocking other extensions.

Default *782
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.8.2 Extension Lock
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Manager

Remote Extension Lock On

Specifies the feature number, available for manager extensions, used for locking other extensions.

Default *783
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.8.2 Extension Lock
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Options—Manager

Extension Feature Clear

Specifies the feature number used for resetting certain features of an extension to the default.

Default *790
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.22.2 Extension Feature Clear
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Extension PIN Set / Cancel

Specifies the feature number used for setting a PIN to an extension.

Default *799
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.22.1 Extension Personal Identification Number (PIN)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

4.2.12 Numbering Plan—Quick Dialing [2-6-3]

Quick Dialing numbers are used to call extensions or outside parties, or access certain features without having to dial their full numbers, if they are properly programmed. A maximum of 80 Quick Dialing numbers can be programmed.

Dial

Specifies the Quick Dialing number.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.6.1.5 Quick Dialing
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Phone Number

Specifies the number to be dialed when the corresponding Quick Dialing number is used.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.6.1.5 Quick Dialing
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

4.2.13 Numbering Plan—B/NA DND Call Feature [2-6-4]

Feature numbers used to access various PBX features can be programmed. The following features are available while hearing a busy, DND, or ringback tone. Each feature must have a unique feature number.

BSS / DND Override

Specifies the feature number used for notifying a busy extension of a second call by Call Waiting, or calling an extension in DND mode.

Default 1
Value Range 1 digit (0–9, *, or #)

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting
- 1.3.1.3 Do Not Disturb (DND)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 2—C. Waiting for Call from Extension
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Option 2—C. Waiting for Call from Extension

Executive Busy Override

Specifies the feature number used for interrupting an existing call to establish a three-party conference call.

Default 3
Value Range 1 digit (0–9, *, or #)

Feature Guide References

Feature References

- 1.7.2 Executive Busy Override
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Main—Executive Busy Override
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 3—Executive Override Deny
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Option 3—Executive Override Deny

Alternate Calling - Ring / Voice

Specifies the feature number for allowing a caller to change the called extension's preset call receiving method to ring tone or voice.

Default *
Value Range 1 digit (0–9, *, or #)

Feature Guide References

Feature References

- 1.5.3 Intercom Call
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Message Waiting Set

Specifies the feature number used for leaving a Message Waiting notification.

Default 4
Value Range 1 digit (0–9, *, or #)

Feature Guide References

Feature References

- 1.17.1 Message Waiting
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

Call Monitor

Specifies the feature number used for listening to a busy extension's conversation.

Default 5
Value Range 1 digit (0–9, *, or #)

Feature Guide References

Feature References

- 1.7.3 Call Monitor
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Main—Call Monitor
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 3—Executive Override Deny
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Option 3—Executive Override Deny

Automatic Callback Busy

Specifies the feature number used to reserve a busy line and receive callback ringing when the line becomes idle.

Default 6
Value Range 1 digit (0–9, *, or #)

Feature Guide References

Feature References

- 1.7.1 Automatic Callback Busy (Camp-on)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- None

BSS / DND Override-2

Specifies the feature number used for notifying a busy extension of a second call by Call Waiting, or calling an extension in DND mode. This is the same setting as **BSS / DND Override** on this screen.

Default 2
Value Range 1 digit (0–9, *, or #)

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting
- 1.3.1.3 Do Not Disturb (DND)
- 2.3.5 Flexible Numbering/Fixed Numbering

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 2—C. Waiting for Call from Extension
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Option 2—C. Waiting for Call from Extension

4.2.14 Class of Service—COS Settings [2-7-1]

Each extension, doorphone port, incoming call distribution group, and CO line group belongs to a certain COS. Certain features can be programmed to behave differently depending on the COS. A maximum of 64 COS can be programmed.

TRS / CO

Restrictions to features related to making CO line calls can be programmed for each COS.

TRS Level—Day, Lunch, Break, Night

Specifies the Toll Restriction (TRS) level for making CO line calls in each time mode.

Default 1
Value Range 1: Allows all CO line calls
2–6: Restricts CO line calls according to the combination of the Denied and Exception Code Tables
7: Restricts all CO line calls

Feature Guide References

Feature References

- 1.8.1 Toll Restriction (TRS)

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]
- 4.3.1 Trunk Group—TRG Settings [3-1-1]—Main—COS
- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]—Main—COS
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS
- 4.5.1 Doorphone [5-1]—COS
- 4.7.1 Denied Code [7-1]
- 4.7.2 Exception Code [7-2]

TRS Level on Extension Lock

Specifies the TRS level for making CO line calls when an extension is locked.

Default 7
Value Range 1: Allows all CO line calls
2–6: Restricts CO line calls according to the combination of the Denied and Exception Code Tables
7: Restricts all CO line calls

Feature Guide References

Feature References

- 1.8.2 Extension Lock

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS
- 4.7.1 Denied Code [7-1]
- 4.7.2 Exception Code [7-2]

TRS Level for System Speed Dialing

Specifies the TRS level for making a CO line call using System Speed Dialing numbers, which overrides the TRS set for the current time mode.

Default 1

Value Range 1: Allows all CO line calls
2–6: Restricts CO line calls according to the combination of the Denied and Exception Code Tables
7: Restricts all CO line calls

Feature Guide References

Feature References

- 1.8.1 Toll Restriction (TRS)

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS
- 4.6.1 Speed Dialing & Caller ID—Main Table [6-1-1]
- 4.7.4 Miscellaneous [7-4]—TRS Override by System Speed Dialing

Extension-CO Line Call Duration Limit

Enables the extension-to-CO line call duration feature. The length of the call duration can be programmed.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.10.7 CO Line Call Limitation

Programming References

- 4.2.21 System Options—Option 2 [2-9-2]—Extension - CO Call Limitation
- 4.3.1 Trunk Group—TRG Settings [3-1-1]—Main—COS
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Transfer to CO

Enables the transferring of a call to a CO line.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.11.1 Call Transfer

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Call Forward to CO

Enables the forwarding of a call to a CO line.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS
- 4.4.8 Portable Station—FWD/DND [4-2-2]

Main

The use of features related to extension operations can be programmed for each COS.

Account Code Mode

Specifies whether the entry of an account code is optional or mandatory when making a CO line call.

Default Option
Value Range Option, Forced

Feature Guide References

Feature References

- 1.5.4.3 Account Code Entry

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Outgoing CO Call Printout (SMDR)

Enables the automatic recording of outgoing CO line calls for SMDR output.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS
- 4.10.1 SMDR [10-1]

Executive Busy Override

Enables the authorization for interrupting an existing call to establish a three-party conference call.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.7.2 Executive Busy Override

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

DND Override

Enables the authorization for making a call to an extension in DND mode by entering the feature number.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.7 Portable Station—Extension Settings [4-2-1]
- 4.4.8 Portable Station—FWD/DND [4-2-2]—Main—COS

Door Unlock

Enables the authorization to open the door.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.15.2 Door Open

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Call Monitor

Enables the authorization for listening to a busy extension's conversation.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.7.3 Call Monitor

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—COS

Options

The use of features related to extension settings can be programmed for each COS.

Time Service Switch

Enables the authorization to switch time modes manually.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.2.4 Time Service

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Executive Busy Override Deny

Enables the authorization to prevent other extensions from interrupting calls.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.2.1 Class of Service (COS)

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Group Forward Set

Enables setting call forwarding for calls to an incoming call distribution group.

Default Enable-Group
Value Range Disable: An extension cannot set call forwarding for any group.
Enable-All: An extension can set call forwarding for all groups.
Enable-Group: An extension can only set call forwarding for the group to which the extension belongs.

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.3.7 Incoming Call Distribution Group—Member [3-5-2]
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Deny Remote Operation by Other Extension

Enables the authorization to use the Walking COS or Remote Extension Control feature from a remote location (inside, or outside the PBX using DISA).

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.8.4 Walking COS
- 1.22.5 Remote Extension Control by User

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Accept the Call from DISA

Enables the authorization to receive calls from DISA.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS
- 4.5.4 DISA—Message Setting [5-3-2]

Accept Wireless XDP Parallel Set by Other PS

Enables the authorization to allow Wireless XDP Parallel Mode to be set by a PS.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.20.3 Wireless XDP Parallel Mode

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS

Programming Mode Level

Specifies the level of authorization for performing PT programming.

Default	PROG Only
Value Range	Disable: A PT user cannot perform any programming. PROG Only: A PT user can perform only personal programming. PROG and PROG **/*#: A PT user can perform personal and system programming.

Feature Guide References

Feature References

- 2.3.2 PT Programming

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

Manager

Specifies the authorization to use manager features.

Default	Disable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 2.2.6 Manager Features

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS

4.2.15 Class of Service—External Call Block [2-7-2]

Each COS can have different CO line groups available for making CO line calls, depending on the time mode (day/lunch/break/night). Select the desired time mode from the list.

Outgoing Trunk Group 1–64

Specifies the available CO line groups.

Default	All Trunk groups: Non Block
Value Range	Block, Non Block

Feature Guide References

Feature References

- 1.5.5.3 CO Line Access

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]
- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]
- 4.9.1 CO Line Setting [9-1]

4.2.16 Class of Service—Internal Call Block [2-7-3]

Internal Call Block determines the restrictions placed on making intercom calls. The extensions, incoming call distribution groups, and doorphones belonging to a certain COS can be programmed to not receive intercom calls from those belonging to a certain COS.

COS Number of the Extension Which Receive the Call from Other Extension 1–64

Specifies the COS combination that blocks intercom calls.

Default All extensions: Non Block
Value Range Block, Non Block

Feature Guide References

Feature References

- 1.1.2.2 Internal Call Block

Programming References

- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]—Main—COS
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—COS
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—COS
- 4.5.1 Doorphone [5-1]—COS

4.2.17 Ring Tone Patterns—Call from CO [2-8-1]

Different ring tone patterns can be selected for incoming CO line calls depending on the CO line groups the calls come through. A maximum of 8 Ring Tone Pattern Tables can be programmed, and any pattern table can be selected for use by an extension.

Ring Tone Pattern Table 1–8

Specifies the ring tone pattern for incoming CO line calls.

Default Single
Value Range Single, Double, Triple

Feature Guide References

Feature References

- 1.1.3.2 Ring Tone Pattern Selection

Programming References

- 4.9.1 CO Line Setting [9-1]—Trunk Group Number
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—Ring Pattern Table
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—Ring Pattern Table

4.2.18 Ring Tone Patterns—Call from Doorphone [2-8-2]

Different ring tone patterns can be selected for incoming doorphone calls depending on the doorphone ports the calls come through. A maximum of 8 Ring Tone Pattern Tables can be programmed, and any pattern table can be selected for use by an extension.

Ring Tone Pattern Table 1–8

Specifies the ring tone pattern for incoming doorphone calls.

Default Triple
Value Range Single, Double, Triple, S-Double

Feature Guide References

Feature References

- 1.1.3.2 Ring Tone Pattern Selection

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—Ring Pattern Table
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—Ring Pattern Table
- 4.5.1 Doorphone [5-1]

4.2.19 Ring Tone Patterns—Call from Others [2-8-3]

Different ring tone patterns can be selected for incoming intercom calls and ringing triggered by certain PBX features (Timed Reminder, Call Back, and Live Call Screening). A maximum of 8 Ring Tone Pattern Tables can be programmed, and any pattern table can be selected for use by an extension.

Extension—Ring Tone Pattern Table 1–8

Specifies the ring tone pattern for incoming intercom calls.

Default Double
Value Range Single, Double, Triple

Feature Guide References

Feature References

- 1.1.3.2 Ring Tone Pattern Selection

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—Ring Pattern Table
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—Ring Pattern Table

Timed Reminder—Ring Tone Pattern Table 1–8

Specifies the ring tone pattern for alarm ringing by Timed Reminder.

Default Triple
Value Range Single, Double, Triple

Feature Guide References

Feature References

- 1.1.3.2 Ring Tone Pattern Selection

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—Ring Pattern Table
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—Ring Pattern Table

Call Back—Ring Tone Pattern Table 1–8

Specifies the ring tone pattern for callback ringing by Automatic Callback Busy.

Default S-Double
Value Range Single, Double, Triple, S-Double

Feature Guide References

Feature References

- 1.1.3.2 Ring Tone Pattern Selection

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—Ring Pattern Table
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—Ring Pattern Table

Live Call Screening—Ring Tone Pattern Table 1–8

Specifies the ring tone pattern for alarm ringing by LCS.

Default Triple
Value Range Single, Double, Triple

Feature Guide References

Feature References

- 1.1.3.2 Ring Tone Pattern Selection

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—Ring Pattern Table
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—Ring Pattern Table

4.2.20 System Options—Option 1 [2-9-1]

Various system settings can be programmed.

Time Display (12H/24H)

Selects the time format shown on the displays of extensions. The time display format assigned here applies when setting time for the Timed Reminder.

Default 12H
Value Range 12H, 24H

Feature Guide References

Feature References

- 1.22.4 Timed Reminder

Programming References

- None

Date Display

Selects the order month and date are shown on the displays of extensions.

Default Month-Date
Value Range Date-Month, Month-Date

Feature Guide References

- None

Password / PIN Display Mode

Selects to hide or show passwords or PINs (Personal Identification Number) on the displays of extensions while entering them.

Default Hide
Value Range Display, Hide

Feature Guide References

- None

LED Indication - FWD

Selects the light pattern of the FWD/DND button while the FWD feature is activated.

Default Flash
Value Range On (Solid): Red on
Flash: Slow red flashing

Feature Guide References

Feature References

- 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

LED Indication - DND

Selects the light pattern of the FWD/DND button while the DND feature is activated.

Default On (Solid)
Value Range On (Solid): Red on
Flash: Slow red flashing

Feature Guide References

Feature References

- 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

SCO button operation during CO conversation

Selects the function of the S-CO button while there is an ongoing CO line call.

Default	Privacy release
Value Range	Privacy release, LCD switch

Feature Guide References

Feature References

- 1.13.1.3 Privacy Release

Programming References

- None

Ringing Time before Automatic Answer for Call from CO

Specifies the number of times a PT in Hands-free Answerback mode will ring before a conversation is established automatically when it receives a call from a CO line.

Default	1 Ring
Value Range	0 Ring, 1 Ring, 2 Rings, 3 Rings

Feature Guide References

Feature References

- 1.4.1.4 Hands-free Answerback

Programming References

- None

FWD/DND press mode on the idle status

Selects the function of the FWD/DND button (fixed button) when it is pressed in idle status. (A FWD/DND button customized on a flexible button is always in FWD/DND Cycle Switch mode, and the mode cannot be changed.)

Default	FWD/DND Cycle Switch Mode
Value Range	FWD/DND Setting Mode: Enter programming mode for the FWD/DND setting. FWD/DND Cycle Switch Mode: Switch the FWD on/DND on/Off mode instead of entering the programming mode for the FWD/DND setting. (When there are separate FWD/DND settings for calls from CO lines and calls from extensions, mode switching cannot be performed.)

Feature Guide References

Feature References

- 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

4.2.21 System Options—Option 2 [2-9-2]

Various system settings can be programmed.

Paging for DND Extension

Specifies whether the extension can receive paging when in DND mode.

Default Do Not Page
Value Range Do Not Page, Page

Feature Guide References

Feature References

- 1.14.1 Paging

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]
- 4.3.5 Paging Group [3-4]

Automatic Hold by ICM / CO / G-DN button

Selects to disconnect or hold a call when INTERCOM, CO, or G-DN button is pressed while having a conversation.

Default Disconnect
Value Range Disconnect, Hold

Feature Guide References

Feature References

- 1.12.1 Call Hold

Programming References

- 4.4.4 Wired Extension—Flexible Key [4-1-4]
- 4.4.9 Portable Station—Flexible Key [4-2-3]

Call Hold Mode

Selects which extension can retrieve a held call or a call that is transferred by Call Transfer without Announcement feature.

Default Hold
Value Range Hold: Any extension can retrieve a held call.
Exclusive Hold: Only the holding extension can retrieve a held call.

Feature Guide References

Feature References

- 1.12.1 Call Hold

Programming References

- None

SLT Hold Mode

Selects how to hold a line and transfer a call with an SLT.

Default Mode 2
Value Range Mode 1, Mode 2, Mode 3, Mode 4

Feature Guide References

Feature References

- 1.12.1 Call Hold

Programming References

- None

System CODEC

Selects the CODEC type for PS.

Default Mu-Law
Value Range A-Law, Mu-Law

Feature Guide References

- None

Extension Clear : Call Waiting

Specifies whether the Call Waiting setting is cleared when the Extension Feature Clear feature is performed.

Default Clear
Value Range No Clear, Clear

Feature Guide References

Feature References

- 1.22.2 Extension Feature Clear

Programming References

- None

Extension Clear : FWD/DND

Specifies whether the FWD/DND setting is cleared when the Extension Feature Clear feature is performed.

Default Clear
Value Range No Clear, Clear

Feature Guide References

Feature References

- 1.22.2 Extension Feature Clear

Programming References

- None

Extension Clear : Hot Line (Pickup Dial)

Specifies whether the Hot Line setting is cleared when the Extension Feature Clear feature is performed.

Default Clear
Value Range No Clear, Clear

Feature Guide References

Feature References

- 1.22.2 Extension Feature Clear

Programming References

- None

Extension - CO Call Limitation

Selects whether the time limit for extension-to-CO line calls applies to outgoing calls only or for both outgoing and incoming calls. COS determines the use of this feature, and the length of time limit can be assigned on a CO line group basis.

Default for Outgoing
Value Range for Outgoing, for Outgoing + Incoming

Feature Guide References

Feature References

- 1.10.7 CO Line Call Limitation

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—TRS / CO—Extension-CO Line Call Duration Limit
- 4.3.1 Trunk Group—TRG Settings [3-1-1]—Main—Extension-CO Duration Time

Save the Dial as Redial after Called Party's Answer

Specifies whether the number of the connected party to use for redialing is saved.

Default Yes
Value Range No, Yes

Feature Guide References

Feature References

- 1.6.1.3 Last Number Redial

Programming References

- None

Automatic Time Adjustment by Caller ID (FSK) Service

Enables the PBX to adjust its clock everyday according to the time information that the network provides with the first call after 3:05 AM.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.3.4 Automatic Time Adjustment

Programming References

- None

4.2.22 System Options—Option 3 [2-9-3]

Various system settings can be programmed.

Confirmation Tone 1 : Press Doorphone Button / Receive Voice Call

Enables the PBX to send Confirmation Tone 1. Confirmation Tone 1 is heard from a doorphone when the doorphone button is pressed, or from a PT when it receives a call in voice-calling mode.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.23.2 Confirmation Tone

Programming References

- None

Confirmation Tone 2 : Paged / Auto Answer

Enables the PBX to send Confirmation Tone 2. Confirmation Tone 2 is heard from a PT when it receives paging or a call in Hands-free Answerback mode.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.23.2 Confirmation Tone

Programming References

- None

Confirmation Tone 3-1 : Start Talking after Making Call

Enables the PBX to send Confirmation Tone 3-1. Confirmation Tone 3-1 is heard from an extension when, for example, it pages another extension.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.23.2 Confirmation Tone

Programming References

- None

Confirmation Tone 3-2 : Start Talking after Answering Call

Enables the PBX to send Confirmation Tone 3-2. Confirmation Tone 3-2 is heard from an extension when answers a call by, for example, the Call Pickup feature.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.23.2 Confirmation Tone

Programming References

- None

Confirmation Tone 4-1 : Start Conference

Enables the PBX to send Confirmation Tone 4-1. Confirmation Tone 4-1 is heard from an extension when a new party joins a conference call.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.23.2 Confirmation Tone

Programming References

- None

Confirmation Tone 4-2 : Finish Conference

Enables the PBX to send Confirmation Tone 4-2. Confirmation Tone 4-2 is heard from an extension when a party leaves a conference call.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.23.2 Confirmation Tone

Programming References

- None

Confirmation Tone 5 : Hold

Enables the PBX to send Confirmation Tone 5. Confirmation Tone 5 is heard from an extension when it holds a call.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.23.2 Confirmation Tone

Programming References

- None

Distinctive Dial Tone

Enables the PBX to send dial tones at different frequencies depending on the setting of an extension.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.23.1 Dial Tone

Programming References

- None

Dial Tone Type for Extension

Selects the dial tone the PBX sends to the extensions to inform of the features activated on them.

Default Type A
Value Range Type A, Type B

Feature Guide References

Feature References

- 1.23.1 Dial Tone

Programming References

- None

Dial Tone Type for ARS

Selects the dial tone the PBX sends to the caller instead of the network when a call is made by the ARS feature.

Default Type B
Value Range Type A, Type B

Feature Guide References

Feature References

- 1.23.1 Dial Tone

Programming References

- 4.8.1 System Setting [8-1]

Echo Cancel Control for Conference

Enables the use of the ECHO card (installed in an Option Slot) for conference calls.

Default Enable
Value Range Disable, Enable

Feature Guide References

- None

Echo Cancel Control for CO to CO

Enables the use of the ECHO card (installed in an Option Slot) for CO-to-CO line calls.

Default Enable
Value Range Disable, Enable

Feature Guide References

- None

Echo Cancel Control for Extension to Analog Line

Enables the use of the ECHO card (installed in an Option Slot) for extension-to-analog CO line calls.

Default Disable
Value Range Disable, Enable

Feature Guide References

- None

Timed Reminder Message - Day, Lunch, Break, Night

Specifies the prerecorded message to play when answering the Timed Reminder in each time mode.

Default None
Value Range None, 1–32

Feature Guide References

Feature References

- 1.22.4 Timed Reminder

Programming References

- 4.5.4 DISA—Message Setting [5-3-2]

Transfer to busy extension without BSS operation

Enables a transferred call to queue when the transfer destination is busy.

Default	Disable
Value Range	Disable: The call is not transferred. (If the transfer destination sets call waiting notification feature, it is possible to inform of transferring a call.) Enable: The transferred call queues to be answered for a time period specified in **Transfer Recall Timer** in **Timers & Counters—CO / Extension [2-4-1]**.

Feature Guide References

Feature References

- None

Programming References

- 4.2.5 Timers & Counters—CO / Extension [2-4-1]—Transfer Recall Timer

4.2.23 System Options—Option 4 [2-9-4]

Various system settings can be programmed.

It is possible to clear the master CS information (Master CS Port and Radio System ID) by following the procedure below in the batch mode:

1. Click **Clear Master CS**.
2. Click **OK**. To abort the procedure, click **Cancel**.

If the system data is downloaded to the PBX after the master CS information has been cleared, it is necessary to register all PSs again in the interactive mode. Master CS information will be assigned automatically when a CS is connected to the PBX. Without the Radio System ID, PSs cannot be registered.

Master CS Port

Indicates the location of the master CS port (reference only).

Default	Current slot number-Master CS port number
Value Range	Not applicable.

Feature Guide References

- None

Radio System ID

Indicates the radio system ID used to register a PS (reference only).

Default	Radio system ID
Value Range	Not applicable.

Feature Guide References

- None

4.2.24 Audio Gain—Paging/MOH [2-10-1]

Gain levels for the External Pager/External BGM ports can be programmed.

EPG (External Pager)

Specifies the paging volume on the External Pager.

Default 3 dB
Value Range -15–15 dB

Feature Guide References

Feature References

- 1.14.1 Paging

Programming References

- 4.3.5 Paging Group [3-4]

MOH (Music On Hold)

Specifies the music volume on the External BGM.

Default 0 dB
Value Range -11–11 dB

Feature Guide References

Feature References

- 1.15.4 Background Music (BGM)

Programming References

- 4.2.4 BGM / Music on Hold [2-3]

4.2.25 Extension Caller ID [2-11]

Various settings for extension Caller ID can be programmed.

Extension Caller ID Resource-1, 2

Specifies a group of 4 SLT ports that can send Caller ID information to an SLT.

Default Disable
Value Range Disable: No port
Slot 01:HLC4: Initially installed 4 hybrid ports
Slot nn:SLC8 1-4: Ports 1 to 4 of the SLC8 card (nn=slot number)
Slot nn:SLC8 5-8: Ports 5 to 8 of the SLC8 card (nn=slot number)

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 7—Extension Caller ID

Extension Caller ID Modulation Type

Specifies the modulation frequency to be used when sending Caller ID information to an SLT.

Default Bell202(Bellcore)
Value Range V.23(ETSI), Bell202(Bellcore)

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Channel Seizure Signal bits

Specifies the number of seizure bits to send when sending Caller ID information to an SLT.

Default 300 bits
Value Range 10 × n (n=3–40) bits

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Mark Signal bits

Specifies the number of mark bits to send when sending Caller ID information to an SLT.

Default 180 bits
Value Range 10 × n (n=3–40) bits

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Channel Seizure Wait Time

Specifies the length of time the PBX waits before starting to send the seizure signal following the first ring when sending Caller ID information to an SLT.

Default 512 ms
Value Range 64 × n (n=5–35) ms

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Additional Local Trunk Access Code to Extension Caller ID

Enables the PBX to automatically add a Trunk Access number to the received telephone number when sending a Caller ID number of an incoming trunk call to an SLT.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Send Date & Time of Extension Caller ID

Enables the PBX to send date and time of an incoming call when sending Caller ID information to an SLT.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Send Name of Extension Caller ID

Enables the PBX to send caller's name of an incoming call when sending Caller ID information to an SLT.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Send Long Distance of Extension Caller ID

Enables the PBX to send a call qualifier (Long Distance) when it is received from a trunk when sending Caller ID information to an SLT.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

4.3 Groups [3]

4.3.1 Trunk Group—TRG Settings [3-1-1]

CO lines are grouped into CO line groups. The settings of the CO line groups determine the settings of their CO lines. A maximum of 64 CO line groups can be programmed.

Main

Group Name

Specifies the name of the CO line group for programming reference. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 2.2.2 Group

Programming References

- 4.9.1 CO Line Setting [9-1]

COS

Specifies the COS of the CO line group.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 2.2.2 Group

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.9.1 CO Line Setting [9-1]

Line Hunting Order

Specifies the CO line hunting sequence for the CO line group. The hunting sequence can be programmed to start from the lowest or highest numbered CO lines, or to rotate uniformly among all CO lines.

Default High -> Low
Value Range High -> Low, Low -> High, Rotation

Feature Guide References

Feature References

- 1.5.5.3 CO Line Access
- 2.2.2 Group

Programming References

- 4.9.1 CO Line Setting [9-1]

DISA Tone Detection—Silence

Enables the disconnection of a DISA-originated CO-to-CO line call by silence detection.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)
- 2.2.2 Group

Programming References

- 4.5.3 DISA—System Setting [5-3-1]
- 4.9.1 CO Line Setting [9-1]

DISA Tone Detection—Continuous

Enables the disconnection of a DISA-originated CO-to-CO line call by continuous signal detection.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)
- 2.2.2 Group

Programming References

- 4.5.3 DISA—System Setting [5-3-1]
- 4.9.1 CO Line Setting [9-1]

DISA Tone Detection—Cyclic

Enables the disconnection of a DISA-originated CO-to-CO line call by cyclic signal detection.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)
- 2.2.2 Group

Programming References

- 4.5.3 DISA—System Setting [5-3-1]
- 4.9.1 CO Line Setting [9-1]

CO-CO Duration Time

Specifies the length of time a CO-to-CO line call can be maintained before being disconnected.

Default 10 min
Value Range None, 1–60 min

Feature Guide References

Feature References

- 1.10.7 CO Line Call Limitation
- 2.2.2 Group

Programming References

- 4.9.1 CO Line Setting [9-1]

Extension-CO Duration Time

Specifies the length of time an extension-to-CO line call can be maintained before being disconnected.

Default 10 min
Value Range None, 1–60 min

Feature Guide References

Feature References

- 1.10.7 CO Line Call Limitation
- 2.2.2 Group

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.2.21 System Options—Option 2 [2-9-2]
- 4.9.1 CO Line Setting [9-1]

Caller ID Modify Table

Specifies the table to be used for modifying the caller information (telephone number).

Default 1
Value Range 1–4

Feature Guide References

Feature References

- 1.16.1 Caller ID
- 2.2.2 Group

Programming References

- 4.6.2 Speed Dialing & Caller ID—Caller ID Modification [6-1-2]
- 4.9.1 CO Line Setting [9-1]

Intercept

Group Name

Specifies the name of the CO line group for programming reference. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 2.2.2 Group

Programming References

- 4.9.1 CO Line Setting [9-1]

Intercept Destination—Day, Lunch, Break, Night

Specifies the intercept routing destination of unanswered calls (whose original destination is a floating extension number of a PS Ring Group, VM Group, External Pager [TAFAS], or DISA) in each time mode.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.1.1.4 Intercept Routing
- 2.2.2 Group

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]
- 4.9.1 CO Line Setting [9-1]

Host PBX Access Code

Group Name

Specifies the name of the CO line group for programming reference. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 2.2.2 Group

Programming References

- 4.9.1 CO Line Setting [9-1]

Host PBX Access Code 1–10

Specifies the feature number used to access a CO line from the host PBX.

Default	Not stored.
Value Range	Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.5.4.6 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)
- 2.2.2 Group

Programming References

- 4.9.1 CO Line Setting [9-1]

4.3.2 Trunk Group—Local Access Priority [3-1-2]

CO line groups can be assigned a priority for Idle Line Access. When making a CO line call by Idle Line Access, the PBX will search CO line groups for an idle CO line according to a priority assigned here.

Trunk Group No. & Name

Specifies the CO line group assigned to the corresponding priority level.

Default	Priority 1–64 = Trunk Group No. 1–64
Value Range	Trunk Group No. 1–64

Feature Guide References

Feature References

- 1.5.5.3 CO Line Access

Programming References

- 4.9.1 CO Line Setting [9-1]

4.3.3 Extension Group [3-2]

Extensions can be assigned to a tenant according to their extension group. An extension group can belong to only one tenant. However, one extension group can belong to several call pickup groups and several paging groups. A maximum of 8 tenants can be programmed.

Extension Group Name

Specifies the name of the extension group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 2.2.2 Group

Programming References

- 4.3.4 Call Pickup Group [3-3]
- 4.3.5 Paging Group [3-4]
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Main—Extension Group
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Main—Extension Group

Tenant Number

Specifies the tenant to which the extension group belongs.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 2.2.2 Group
- 2.2.3 Tenant Service

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]

4.3.4 Call Pickup Group [3-3]

Extensions can be assigned to a call pickup group according to their extension group. One extension group can belong to multiple call pickup groups. A maximum of 64 call pickup groups can be programmed.

Extension Group 1-16

Extension Group 1–16

Specifies whether the extension group belongs to the corresponding pickup group.

Default Extension Group 1–16: ON for the same-numbered call pickup group and group 33–group 64; OFF for other call pickup groups
Value Range ON, OFF

Feature Guide References

Feature References

- 1.4.1.3 Call Pickup
- 2.2.2 Group

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]

Extension Group 17-32

Extension Group 17–32

Specifies whether the extension group belongs to the corresponding pickup group.

Default Extension Group 17–32: ON for the same-numbered call pickup group and group 33–group 64; OFF for other call pickup groups

Value Range ON, OFF

Feature Guide References

Feature References

- 1.4.1.3 Call Pickup
- 2.2.2 Group

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]

4.3.5 Paging Group [3-4]

Extensions can be assigned to a paging group according to their extension group. External pagers can also be assigned to a paging group. One extension group or external pager can belong to multiple paging groups. A maximum of 32 paging groups can be programmed.

Extension Group 1-16

Extension Group 1–16

Specifies whether the extension group belongs to the corresponding paging group.

Default Extension Group 1–16: ON for the same-numbered paging group and group 32; OFF for other paging groups

Value Range ON, OFF

Feature Guide References

Feature References

- 1.14.1 Paging
- 2.2.2 Group

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]

Extension Group 17-32

Extension Group 17–32

Specifies whether the extension group belongs to the corresponding paging group.

Default Extension Group 17–32: ON for the same-numbered paging group and group 32; OFF for other paging groups
Value Range ON, OFF

Feature Guide References

Feature References

- 1.14.1 Paging
- 2.2.2 Group

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]

External Pager

External Pager 1

Specifies whether the external pager belongs to the corresponding paging group.

Default ON for all paging groups
Value Range ON, OFF

Feature Guide References

Feature References

- 1.14.1 Paging
- 2.2.2 Group

Programming References

- 4.4.1 Wired Extension—Extension Settings [4-1-1]
- 4.4.7 Portable Station—Extension Settings [4-2-1]

4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]

Extensions can be assigned as members of an incoming call distribution group. Calls to an incoming call distribution group are distributed to its member extensions as programmed. A maximum of 64 incoming call distribution groups can be programmed.

Main

Floating Extension Number

Specifies the floating extension number of the incoming call distribution group.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group Name

Specifies the name of the incoming call distribution group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Distribution Method

Selects the call distribution method for idle extensions of the incoming call distribution group.

Default	Ring
Value Range	Ring, UCD, Priority Hunting

Feature Guide References

Feature References

- 1.2.2.2 Group Call Distribution

Programming References

- None

Call Waiting Distribution

Selects the call waiting distribution method for busy extensions of the incoming call distribution group.

Default	All
Value Range	All, Distribution

Feature Guide References

Feature References

- 1.2.2.2 Group Call Distribution

Programming References

- None

FWD Mode

Specifies whether the extension rings in FWD mode when a call comes in to the incoming call distribution group.

Default	Ring
Value Range	No Ring, Ring

Feature Guide References

Feature References

- 1.2.2.2 Group Call Distribution

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

DND Mode

Specifies whether the extension rings in DND mode when a call comes in to the incoming call distribution group.

Default No Ring
Value Range No Ring, Ring

Feature Guide References

Feature References

- 1.2.2.2 Group Call Distribution

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]
- 4.4.8 Portable Station—FWD/DND [4-2-2]

Tenant Number

Specifies the tenant to which the incoming call distribution group belongs, to determine the Time Table and the audio source for the group. (The tenant number corresponds to the Time Table number.)

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- 4.2.4 BGM / Music on Hold [2-3]
- 4.2.8 Time Service—Week Table [2-5-1]
- 4.6.7 Tenant [6-6]—Music on Hold

COS

Specifies the COS of the incoming call distribution group. Depending on the COS, calls from certain extensions are restricted as determined by the Internal Call Block feature. Also, when calls are forwarded or overflowed to a CO line, the TRS assigned for the COS of the incoming call distribution group applies.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]
- 4.2.15 Class of Service—External Call Block [2-7-2]
- 4.2.16 Class of Service—Internal Call Block [2-7-3]

Overflow Queuing Busy

Floating Extension Number

Specifies the floating extension number of the incoming call distribution group.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group Name

Specifies the name of the incoming call distribution group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Queuing Busy—Destination—Day, Lunch, Break, Night

Specifies the overflow destination of calls that cannot be queued in each time mode.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.2.2.5 Overflow Feature

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]

Queuing Busy—Queuing Call Capacity

Specifies the number of calls that can wait in a queue.

Default 30
Value Range None, 1–30

Feature Guide References

Feature References

- 1.2.2.3 Queuing Feature

Programming References

- None

Overflow No Answer

Floating Extension Number

Specifies the floating extension number of the incoming call distribution group.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group Name

Specifies the name of the incoming call distribution group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Time out & Manual Queue Redirection—Destination—Day, Lunch, Break, Night

Specifies the overflow destination of queued calls when they are not answered or are redirected by Manual Queue Redirection in each time mode.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.2.2.5 Overflow Feature

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]

Time out & Manual Queue Redirection—Overflow Time

Specifies the length of time calls wait in a queue before they are redirected to the overflow destination.

Default 10 s
Value Range None, 10 × n (n=1–125) s

Feature Guide References

Feature References

- 1.2.2.5 Overflow Feature

Programming References

- None

Hurry-up Level

Specifies the number of calls to hold in the queue before prompting the Manual Queue Redirection by flashing the Hurry-up button.

Default None
Value Range None, 1–30

Feature Guide References

Feature References

- 1.2.2.3 Queuing Feature

Programming References

- 4.4.4 Wired Extension—Flexible Key [4-1-4]
- 4.4.9 Portable Station—Flexible Key [4-2-3]

Queuing Time Table

Floating Extension Number

Specifies the floating extension number of the incoming call distribution group.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group Name

Specifies the name of the incoming call distribution group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Queuing Time Table—Day, Lunch, Break, Night

Specifies the Queuing Time Table to be used in each time mode.

Default None
Value Range None, Table 1–Table 64

Feature Guide References

Feature References

- 1.2.2.3 Queuing Feature

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]

Queuing Time Table When Extension Ringing

Enables the PBX to play messages/BGM to the caller according to the Queuing Time Table, when the call arrives at an extension without being queued or after being queued.

Default Disable (Ringback Tone)
Value Range Disable (Ringback Tone), Enable

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Miscellaneous

Floating Extension Number

Specifies the floating extension number of the incoming call distribution group.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group Name

Specifies the name of the incoming call distribution group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Extension No Answer Time

Specifies the length of time a call queues at an extension before it is redirected to the next member extension of the incoming call distribution group in UCD or Priority Hunting distribution method.

Default	None
Value Range	None, 10 × n (n=1–15) s

Feature Guide References

Feature References

- 1.2.2.2 Group Call Distribution

Programming References

- None

Automatic Log-out

Specifies the number of consecutive unanswered calls before a member extension is automatically logged out from the incoming call distribution group.

Default	None
Value Range	None, 1–15

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out

Programming References

- None

Maximum No. of Busy Extensions

Specifies the number of extensions that can accept calls at one time simultaneously in the incoming call distribution group.

Default Max.
Value Range Max: Call arrives at an idle extension.
1–32: Call will not arrive at an idle extension when the number of busy extensions exceeds the assigned number.

Feature Guide References

Feature References

- 1.2.2.2 Group Call Distribution

Programming References

- None

Last Extension Log-out

Allows or prohibits the last extension logged-in to the incoming call distribution group to log-out.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out

Programming References

- None

VIP Call Mode

Enables the VIP Call mode to prioritize incoming call distribution groups.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.2.2.4 VIP Call

Programming References

- None

Programmed Mailbox No.

Specifies the VPS mailbox number of the incoming call distribution group. The mailbox number programmed here is to be used only by VM (DTMF) group.

Default Not stored.
Value Range Max. 16 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Group Log / Group FWD

Floating Extension Number

Specifies the floating extension number of the incoming call distribution group.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group Name

Specifies the name of the incoming call distribution group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Incoming Call Log Memory

Specifies the number of unanswered calls to the incoming call distribution group that can be logged in the call log memory.

Default	10
Value Range	0–100

Feature Guide References

Feature References

- 1.16.2 Incoming Call Log

Programming References

- None

Group FWD for Call from CO—Setting

Sets or cancels the FWD feature for incoming CO line calls directed to the incoming call distribution group.

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group FWD for Call from CO—Destination

Specifies the forward destination of incoming CO line calls directed to the incoming call distribution group.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group FWD for Call from Extension—Setting

Sets or cancels the FWD feature for incoming intercom calls directed to the incoming call distribution group.

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

Group FWD for Call from Extension—Destination

Specifies the forward destination of incoming intercom calls directed to the incoming call distribution group.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- None

4.3.7 Incoming Call Distribution Group—Member [3-5-2]

Each incoming call distribution group can have a maximum of 32 members (extensions) assigned to it, and each member can have its own Delayed Ringing and Wrap-up time settings. An extension can be a member of multiple incoming call distribution groups. Select the desired incoming call distribution group (1–64) from the **Incoming Call Distribution** list.

◆ Extension No.

Specifies the extension number of each member. In addition to the extension numbers of the PT, SLT, and PS extensions, floating extension numbers of PS Ring groups can also be specified.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.2.2.1 Incoming Call Distribution (ICD) Group Features—OVERVIEW

Programming References

- 4.3.14 PS Ring Group [3-9]

◆ Delayed Ring

Specifies the Delayed Ringing setting of each member. (Applicable when the call distribution method of the incoming call distribution group is set to **Ring**.)

Default Immediate
Value Range Immediate, 1–6 Rings, No Ring

Feature Guide References

Feature References

- 1.2.2.2 Group Call Distribution

Programming References

- None

◆ Wrap-up Time

Specifies the length of time that must pass after completing a call before the member can accept another call.

Default 0 s
Value Range 10 × n (n=0–300) s

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out

Programming References

- None

4.3.8 Incoming Call Distribution Group—Queuing Time Table [3-5-3]

A Queuing Time Table can contain up to 16 sequences which control how calls waiting in a queue are handled. A maximum of 64 Queuing Time Tables can be programmed.

Queuing Sequence—Sequence 01–16

Specifies the command activated by the corresponding sequence.

Default	None
Value Range	None: Redirects the call to the next sequence Overflow: Redirects the call to the overflow destination when there is no answer Disconnect: Disconnects the line Sequence 01–16: Redirects the call to a different sequence OGM 01–32: Sends a certain OGM Wait 5 × n (n=1–16) s: If preceded by an OGM, plays the Music on Hold for the specified period of time; if not preceded by an OGM, sends a ringback tone for the specified period of time.

Feature Guide References

Feature References

- 1.2.2.3 Queuing Feature

Programming References

- None

4.3.9 Extension Hunting Group [3-6]

If an extension within an idle extension hunting group is called when it is busy or in DND mode, the call can be redirected to another extension in the same hunting group, according to a preprogrammed hunting type. If there is no idle extension in the group, the call can then be redirected to the overflow destination, which can be different depending on the time mode (day/lunch/break/night). A maximum of 64 hunting groups can be programmed, each containing up to 16 extensions.

Hunting Type

Specifies the hunting type for the hunting group.

Default	Circular
Value Range	Circular: Circulates until the call is answered or overflowed Terminated: Terminates at the last extension

Feature Guide References

Feature References

- 1.2.1 Idle Extension Hunting

Programming References

- None

◆ Overflow—Day, Lunch, Break, Night

Specifies the overflow destination of an unanswered call in the day mode.

Default	Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.2.1 Idle Extension Hunting

Programming References

- None

◆ Member Extension 1–16

Specifies the extension number of each member extension of the idle extension hunting group.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.2.1 Idle Extension Hunting

Programming References

- None

4.3.10 VM(DPT) Group—System Setting [3-7-1]

A Panasonic Voice Processing System (VPS) with DPT Integration can be connected to hybrid/APT ports of the PBX. The hybrid/APT ports that are connected to the VPS are called a VM (DPT) Group.
A maximum of 1 VM (DPT) Group can be programmed.

◆ Call Waiting on VM Group

Enables the queuing of calls when all extension ports of the VM (DPT) group are busy. (Call Waiting tone is not sent to any VM port.)

Default	Enable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group

Programming References

- 4.1.11 Extension Port [1-5]

Intercept to Mailbox

Enables the PBX to send the mailbox number of the called extension to the VPS when a CO line call is redirected to the VM (DPT) group by Intercept Routing. When the VPS receives the mailbox number, the VPS answers the call with the appropriate mailbox.

Default	Enable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.2 Voice Mail DPT (Digital) Integration

Programming References

- 4.1.11 Extension Port [1-5]
- 4.3.1 Trunk Group—TRG Settings [3-1-1]—Intercept—Intercept Destination—Day, Lunch, Break, Night
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 1—Intercept Destination—Day, Lunch, Break, Night
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Option 1—Intercept Destination—Day, Lunch, Break, Night

Transfer Recall to Mailbox

Enables the PBX to send the mailbox number of the transfer destination extension to the VPS when a call is transferred to an extension by the Call Transfer without Announcement feature using the Automated Attendant (AA) service of the VPS and the call is not answered within a programmed time period, or when the VPS is assigned as the Transfer Recall destination of a certain extension. When the VPS receives the mailbox number, the VPS answers the call with the appropriate mailbox.

Default	Enable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.2 Voice Mail DPT (Digital) Integration

Programming References

- 4.1.11 Extension Port [1-5]

4.3.11 VM(DPT) Group—Unit Setting [3-7-2]

A VM (DPT) group has a floating extension number, which can be assigned as the destination for redirected calls and incoming calls.

Floating Extension No.

Specifies the floating extension number of the VM (DPT) group.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group

Programming References

- 4.1.11 Extension Port [1-5]

Group Name

Specifies the name of the VM (DPT) group, which will be shown on the display of the extension that has called the VM (DPT) group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group

Programming References

- 4.1.11 Extension Port [1-5]

4.3.12 VM(DTMF) Group—System Setting [3-8-1]

A Panasonic Voice Processing System (VPS) with DTMF Integration can be connected to SLT ports of the PBX. The SLT ports that are connected to the VPS are called a VM (DTMF) Group. A maximum of 2 VM (DTMF) Groups can be programmed.

VM DTMF Status Signal—Ringback Tone

Specifies the DTMF status signal the PBX sends to the VPS when the called extension is ringing.

Default 1
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—Busy Tone

Specifies the DTMF status signal the PBX sends to the VPS when the called extension is busy.

Default 2
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—Reorder Tone

Specifies the DTMF status signal the PBX sends to the VPS when the dialed number is invalid.

Default 3
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—DND tone

Specifies the DTMF status signal the PBX sends to the VPS when the called extension is in DND mode.

Default 4
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—Answer

Specifies the DTMF status signal the PBX sends to the VPS when the called extension has answered the call.

Default 5
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—Confirm

Specifies the DTMF status signal the PBX sends to the VPS when a certain feature (e.g., Message Waiting) has been successfully set or canceled on an extension.

Default 9
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—Disconnect

Specifies the DTMF status signal the PBX sends to the VPS when the caller hangs up.

Default #9
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—FWD to VM Ringback Tone

Specifies the DTMF status signal the PBX sends to the VPS when the call has been forwarded to the VPS and the PBX is calling another port of the VPS.

Default 6
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—FWD to VM Busy Tone

Specifies the DTMF status signal the PBX sends to the VPS when the call has been forwarded to the VPS and all ports of the VPS are busy.

Default 7
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Status Signal—FWD to Extension Ringback Tone

Specifies the DTMF status signal the PBX sends to the VPS when the call has been forwarded to another extension and the PBX is calling the destination extension.

Default 8
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group
- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Command—Recording Message

Specifies the DTMF command the PBX sends to the VPS when a call is forwarded, intercepted, or transferred to the VPS, so that the caller can leave a message in a certain mailbox.

Default H
Value Range Max. 4 digits (consisting of 0–9, *, #, and H [H=mailbox number])

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Command—Listening Message

Specifies the DTMF command the PBX sends to the VPS when an extension user answers a message waiting notification from the VPS, so that the extension user can retrieve a new message in a certain mailbox without having to dial the mailbox number manually.

Default *H
Value Range Max. 4 digits (consisting of 0–9, *, #, and H [H=mailbox number])

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Command—Switching to AA

Specifies the DTMF command the PBX sends to the VPS when in the VM Service Mode to activate the AA Service Mode instead.

Default #8
Value Range Max. 4 digits (consisting of 0–9, *, #, and H [H=mailbox number])

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

VM DTMF Command—Switching to VM

Specifies the DTMF command the PBX sends to the VPS when in the AA Service Mode to activate the VM Service Mode instead.

Default #6
Value Range Max. 4 digits (consisting of 0–9, *, #, and H [H=mailbox number])

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Timing—DTMF Length for VM

Specifies the length of the DTMF signal the PBX sends to the VPS.

Default 80 ms
Value Range 80 ms, 160 ms

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Timing—Inter-digit Time

Specifies the length of pause time between DTMF signals the PBX sends to the VPS.

Default 80 ms
Value Range 80 ms, 160 ms

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Timing—Waiting Time before Sending Follow on ID

Specifies the length of time the PBX waits before sending the Follow on ID to the VPS after the VPS has answered a call.

Default 1.5 s
Value Range 0.5 s, 1.0 s, 1.5 s, 2.0 s

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Timing—Waiting Time before Sending VM DTMF Status Signal

Specifies the length of time the PBX waits before sending the DTMF status signal to the VPS after the VPS has finished dialing.

Default 1.5 s
Value Range 0.5 s, 1.0 s, 1.5 s, 2.0 s

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Others—Call Waiting on VM Group

Enables the queuing of calls when all extension ports of the VM (DTMF) group are busy. (Call Waiting tone is not sent to any VM port.)

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group

Programming References

- None

Others—FWD to the VPS Sequence

Specifies which DTMF commands the VPS receives from the PBX when a call is forwarded to the VPS, so that the VPS can answer the call either with a mailbox or in the AA service mode. It is also possible to send no DTMF signal to the VPS.

Default Answer by Mailbox
Value Range None, Answer by Mailbox, AA

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Others—Intercept Routing to the VPS Sequence

Specifies which DTMF commands the VPS receives from the PBX when a call is intercepted to the VPS, so that the VPS can answer the call either with a mailbox or in the AA service mode. It is also possible to send no DTMF signal to the VPS.

Default None
Value Range None, Answer by Mailbox, AA

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Others—Mailbox for Extension

Specifies whether the mailboxes use the same numbers as the extensions and incoming call distribution groups, or use different numbers as programmed for each extension or incoming call distribution group.

Default Extension Number
Value Range Extension Number, Programmed Mailbox Number

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- 4.3.6 Incoming Call Distribution Group—Group Settings [3-5-1]—Miscellaneous—Programmed Mailbox No.
- 4.4.1 Wired Extension—Extension Settings [4-1-1]—Option 1—Programmed Mailbox No.
- 4.4.7 Portable Station—Extension Settings [4-2-1]—Option 1—Programmed Mailbox No.

Others—Message Waiting Lamp Control

Specifies whether the PBX or VPS cancels the Message Waiting feature (e.g., turning off the MESSAGE button light) when an extension user answers the message waiting notification from the VPS.

Default	By PBX
Value Range	By PBX, By VM

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

4.3.13 VM(DTMF) Group—Group Setting [3-8-2]

A VM (DTMF) group has a floating extension number, and can be assigned as the destination for redirected calls and incoming calls.

Floating Ext No.

Specifies the floating extension number of the VM (DTMF) group.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group

Programming References

- None

Group Name

Specifies the name of the VM (DTMF) group, which will be shown on the display of the extension that has called the VM (DTMF) group. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group

Programming References

- None

Type

Specifies the initial service mode in which the VPS answers calls.

Default AA
Value Range AA, VM

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Extension Number of the SLT Port Connected to VM 1–24

Specifies the extension number of the SLT ports that belongs to the VM (DTMF) group.

To assign an extension port to a VM (DTMF) group, follow the steps below:

1. Type the extension number of the SLT port that belongs to the VM (DTMF) group.
2. Set the status of the extension port to "**OUS**", then "**INS**".

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.19.1 Voice Mail (VM) Group

Programming References

- 4.1.12 Extension Port [1-5] Port Command

4.3.14 PS Ring Group [3-9]

PS ring group is a group of PS extensions that receives incoming calls. Each group has a floating extension number and name. One PS can belong to multiple PS ring groups. A maximum of 32 PS ring groups can be programmed, each containing up to 28 PS extensions.

Floating Extension No.

Specifies the floating extension number of the PS ring group.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.20.2 PS Ring Group

Programming References

- None

Group Name

Specifies the name of the PS ring group, which will be shown on the display of the extension that has called the PS ring group when **Incoming Trunk Call Information Display** on this screen is set to **Called Number**. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 1.20.2 PS Ring Group

Programming References

- None

Incoming Trunk Call Information Display

Specifies the information of the incoming CO line call to be shown on the displays of the PSs that belong to the PS ring group. If the caller's name or called party's name is not recognized, the telephone number will be shown.

Default	Caller ID
Value Range	Caller ID, Called Number

Feature Guide References

Feature References

- 1.20.2 PS Ring Group

Programming References

- None

Portable Station 1–28

Specifies whether the PS belongs to the PS ring group. A PS can be assigned to a PS ring group, even when the PS is working in parallel with a wired telephone (in Wireless XDP Parallel Mode). (Refer to "4.1.7 Portable Station [1-2]" for more information about PS numbers.)

Default	Group No. 1: ON, Group No. 2–32: OFF
Value Range	ON, OFF

Feature Guide References

Feature References

- 1.20.2 PS Ring Group

Programming References

- 4.1.7 Portable Station [1-2]

4.4 Extension [4]

4.4.1 Wired Extension—Extension Settings [4-1-1]

For each slot in which an extension card is installed, a certain number of extension ports are displayed. For each extension port, various extension settings can be assigned.

Main

Slot

Indicates the slot position of each extension card (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

Port Type

Indicates the extension port type (reference only).

Default	Current port type
Value Range	APT: APT port (PLC) SLT: SLT port (SLC) Hybrid: Hybrid port (HLC)

Feature Guide References

Feature References

- 2.1.1 Extension Port Configuration

Programming References

- None

Telephone Type

Indicates the type of telephone connected to the extension port (reference only).

Default	Current connected telephone type
Value Range	APT: APT is connected. DSS: DSS Console is connected. VM: VPS is connected. SLT: SLT is connected (or no telephone is connected to the hybrid or SLT port). CS: CS is connected. No Connection: No telephone is connected.

Feature Guide References

- None

Wireless XDP

Specifies the extension number of the PS with which the Wireless XDP Parallel Mode is established. To enable the Wireless XDP Parallel Mode, the PS must be turned off once and then turned on after assigning this setting.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.20.3 Wireless XDP Parallel Mode

Programming References

- None

Extension Group

Specifies the extension group to which the extension belongs. The extension group is used to compose call pickup groups and paging groups.

Default 1
Value Range 1–32

Feature Guide References

Feature References

- 2.2.2 Group

Programming References

- None

COS

Specifies the COS of the extension.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 2.2.1 Class of Service (COS)

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]

Ring Pattern Table

Specifies the Ring Tone Pattern Table to be used by the extension.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.1.3.2 Ring Tone Pattern Selection

Programming References

- 4.2.17 Ring Tone Patterns—Call from CO [2-8-1]
- 4.2.18 Ring Tone Patterns—Call from Doorphone [2-8-2]
- 4.2.19 Ring Tone Patterns—Call from Others [2-8-3]

Option 1

Slot

Indicates the slot position of each extension card (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

- None

Intercept Destination—Day, Lunch, Break, Night

Specifies the Intercept Routing destination of CO line calls in each time mode for Intercept Routing–No Answer and Intercept Routing–Busy/DND feature.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.1.1.4 Intercept Routing

Programming References

- None

Programmed Mailbox No.

Specifies the mailbox number of the extension's mailbox for Voice Processing Systems (VPS) with DTMF Integration.

Default Same number as the corresponding extension number.
Value Range Max. 16 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Transfer Recall Destination

Specifies the transfer recall destination when an extension user transfer a call with Call Transfer without Announcement feature and the transferred call is not answered within the certain time period.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.11.1 Call Transfer

Programming References

- None

Option 2

Slot

Indicates the slot position of each extension card (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

- None

Extension PIN

Specifies the PIN of the extension.

Default Not stored.
Value Range Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.22.1 Extension Personal Identification Number (PIN)

Programming References

- None

ARS Itemized Code

Specifies the itemized billing code used by the ARS feature for identifying the calls made from the extension for accounting and billing purposes.

Default Not stored.
Value Range Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.8.5 Verified Code Entry
- 1.9.1 Automatic Route Selection (ARS)

Programming References

- 4.8.5 Carrier [8-5]

C. Waiting for Call from Extension

Selects the method of receiving call waiting notification from other extensions.

Default BSS
Value Range Off: No notification
BSS: Tone from the handset or built-in speaker

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting

Programming References

- None

C. Waiting for Call from CO

Specifies whether to receive call waiting notification for a call from CO line, a doorphone call or a call via an incoming call distribution group.

Default On
Value Range Off, On

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting

Programming References

- None

Pickup Dial Set

Sets or cancels the Hot Line feature. The number specified in **Pickup Dial Number** on this screen is dialed automatically after going off-hook by the Hot Line feature.

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.6.1.6 Hot Line

Programming References

- 4.2.5 Timers & Counters—CO / Extension [2-4-1]–Hot Line (Pickup Dial) Start Timer

Pickup Dial Number

Specifies the number to be dialed automatically after going off-hook via the Hot Line feature.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.6.1.6 Hot Line

Programming References

- None

Data Mode

Sets or cancels the protection against tones or interruptions from other extensions during communication.

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.10.4 Data Line Security

Programming References

- None

Option 3

Slot

Indicates the slot position of each extension card (reference only).

Default	Current slot number
Value Range	Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default	Current port number
Value Range	Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default	Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

Call Pickup Deny

Enables the prevention of calls being picked up by other extensions.

Default	Disable
Value Range	Disable: Allows other extension users to pick up the calls to your extension Enable: Denies other extension users to pick up the calls to your extension

Feature Guide References

Feature References

- 1.4.1.3 Call Pickup

Programming References

- None

Executive Override Deny

Enables the prevention of calls being interrupted by other extensions.

Default	Disable
Value Range	Disable: Allows other extension users to interrupt an existing call Enable: Denies other extension users to interrupt an existing call

Feature Guide References

Feature References

- 1.7.2 Executive Busy Override

Programming References

- None

Absent Message

Specifies the Personal Absent Message which, unlike System Absent Message, is a customized message used only by the certain extension. As for the available characters, refer

to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 16 characters

Feature Guide References

Feature References

- 1.17.2 Absent Message

Programming References

- None

Option 4

Slot

Indicates the slot position of each extension card (reference only).

Default	Current slot number
Value Range	Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default	Current port number
Value Range	Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default	Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

Outgoing Preferred Line

Selects the line to be seized after going off-hook to make a call.

Default	ICM
Value Range	No Line: No line is seized. Idle: An idle CO line is seized automatically from the programmed CO line groups. ICM: An extension line is seized. F-1–F-12: A CO line programmed for a flexible CO button (F-1–F-12) is seized. A flexible CO button customized as a Single-CO, Group-CO, Loop-CO, or G-DN button must be selected.

Feature Guide References

Feature References

- 1.5.5.2 Line Preference—Outgoing

Programming References

- 4.4.4 Wired Extension—Flexible Key [4-1-4]

Incoming Preferred Line

Selects the line on which an incoming call is answered after going off-hook.

Default	Ringing Line
Value Range	No Line: No line is selected. Select a line by pressing the desired Line Access button to answer a call. Ringing Line: The longest ringing call is selected. F-1–F-12: The call arriving at a flexible CO button (F-1–F-12) is selected. A flexible CO button customized as a Single-CO, Group-CO, Loop-CO, or G-DN button must be selected.

Feature Guide References

Feature References

- 1.4.1.2 Line Preference—Incoming

Programming References

- 4.4.4 Wired Extension—Flexible Key [4-1-4]

Intercom Call by Voice

Selects the method of receiving intercom calls. When **Deny Voice Call** is selected, the called party always receives calls by a ring tone: the caller cannot change the called party's call receiving method.

Default Tone Call
Value Range Tone Call, Voice Call, Deny Voice Call

Feature Guide References

Feature References

- 1.5.3 Intercom Call

Programming References

- None

Call Waiting Tone Type

Selects the type of Call Waiting tone sent to the busy extension.

Default CW Tone 1
Value Range CW Tone 1, CW Tone 2

Feature Guide References

Feature References

- 1.7.4 Call Waiting Tone

Programming References

- None

LCS Recording Mode

Specifies whether to continue or stop recording the message in the extension's mailbox after the extension user answer the call while monitoring.

Default Stop Record
Value Range Stop Record, Keep Record

Feature Guide References

Feature References

- 1.19.2 Voice Mail DPT (Digital) Integration

Programming References

- None

LCS Answer Mode

Specifies whether the extension's mailbox is monitored in Hands-free or Private mode.

Default Hands free
Value Range Hands free: Monitor through the built-in speaker
Private: Monitor through the handset or the built-in speaker after hearing an alarm tone

Feature Guide References

Feature References

- 1.19.2 Voice Mail DPT (Digital) Integration

Programming References

- None

Display Language

Selects the display language of the extension telephone.

Default Language 1
Value Range Language 1–Language 5

Feature Guide References

Feature References

- 1.18.4 Display Information

Programming References

- None

Option 5

Slot

Indicates the slot position of each extension card (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default	Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

Incoming Call Display

Selects which caller information is shown on the first line of the extension's display.

Default	Caller ID Name
Value Range	Caller ID Name, CO Line Name

Feature Guide References

Feature References

- 1.18.4 Display Information

Programming References

- None

Automatic LCD Switch when start talking

Enables the first line of the display to show the call duration automatically after answering a CO line call.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.18.4 Display Information

Programming References

- None

Key Pad Tone

Specifies whether the key pad tones are heard when dialing.

Default On
Value Range Off, On

Feature Guide References

- None

Automatic Answer for CO Call

Enables the extension user to answer an incoming CO line call automatically after a certain number of rings without going off-hook, when Hands-free Answerback has been set on the extension. This setting is only effective when **Forced Automatic Answer** on this screen has been set to **Off**.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.4.1.4 Hands-free Answerback

Programming References

- None

Forced Automatic Answer

Specifies whether the extension user automatically answers all incoming calls (both intercom and CO line calls) without going off-hook, regardless of the Hands-free Answerback setting.

Default Off
Value Range Off, On

Feature Guide References

- None

Flexible Key Programming Mode

Specifies whether the extension user can modify all flexible CO buttons without limitation, or only the One-touch Dialing buttons. When the mode is set to **One-touch Dial Only**, there is no need to enter "2" before the number.

Default No Limitation
Value Range No Limitation, One-touch Dial Only

Feature Guide References

- None

Option 6

Slot

Indicates the slot position of each extension card (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

Incoming Call Log Lock

Locks or unlocks the Incoming Call Log display (i.e., prevents or allows the other extension users to see the Incoming Call Log information at the extension).

Default	Unlock
Value Range	Unlock, Lock

Feature Guide References

Feature References

- 1.16.2 Incoming Call Log

Programming References

- None

Paging Deny

Enables the prevention of being paged by other extensions.

Default	Disable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.14.1 Paging

Programming References

- None

Flash mode during CO Conversation

Selects the function of the FLASH/RECALL button during a CO line conversation.

Default	Flash Recall
Value Range	EFA, Terminate, Flash Recall

Feature Guide References

Feature References

- 1.10.5 Flash/Recall/Terminate

Programming References

- None

Incoming Call Log Memory

Specifies the number of incoming CO line calls that are retained in the extension's Incoming Call Log memory.

Default 10
Value Range 0–100

Feature Guide References

Feature References

- 1.16.2 Incoming Call Log

Programming References

- None

Group CW w/o Tone (Ring after Call)

Enables an incoming call to an incoming call distribution group to arrive at a previously busy extension at the time of going on-hook after a call.

Default Disable
Value Range Disable, Enable

Feature Guide References

- None

Option 7

Slot

Indicates the slot position of each extension card (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default	Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

Extension Caller ID

Enables the extension to send Caller ID information to an SLT.
Note that the setting of this parameter is only effective when a resource for sending extension Caller ID is assigned in **Extension Caller ID Resource-1, 2** for the port in **Extension Caller ID [2-11]**.

Default	Disable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- 4.2.25 Extension Caller ID [2-11]—Extension Caller ID Resource-1, 2

Incoming Call Wait Timer for Extension Caller ID

Specifies the length of time the ringing for a call is delayed when the call follows immediately after the previous unanswered call. When receiving two calls in quick succession (e.g., when a call waiting in a queue is directed to an extension immediately after the previous call stops ringing), some SLTs require a pause, after the first call stops ringing, to receive the second call's Caller ID information.
Note that the setting of this parameter is only effective when a resource for sending extension Caller ID is assigned in **Extension Caller ID Resource-1, 2** for the port in **Extension Caller ID [2-11]**.

Default	0 s
Value Range	0–15 s

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- 4.2.25 Extension Caller ID [2-11]—Extension Caller ID Resource-1, 2

FWD / DND Reference

Call Forwarding (FWD) and Do Not Disturb (DND) settings for each extension can be referred. FWD and DND settings can be programmed separately for each extension in **Wired Extension—FWD/DND [4-1-2]**.

Slot

Indicates the slot position of each extension card (reference only).

Default	Current slot number
Value Range	Slot number

Feature Guide References

Feature References

- None

Programming References

- 4.1.1 Slot [1-1]

Port

Indicates the port number (reference only).

Default	Current port number
Value Range	Port number

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]

Extension Number

Specifies the extension number of the extension.

To change the extension number of a wired extension, follow the steps below:

1. Type the new extension number, then click **Apply**.
2. Set the status of the extension port to "**OUS**", then "**INS**".

When changing the extension number, make sure that the extension port is not in use. If the extension number is changed while the port is in use, the new extension number will not come into effect.

Default	Starting at 101 (For port 01 of the first extension card that is installed. Extension numbers are preset for subsequent extensions by adding one to the previous extension number.)
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.12 Extension Port [1-5] Port Command

Extension Name

Specifies the name of the extension. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

FWD Set for Call from CO

Indicates the current FWD status for incoming CO line calls (reference only).

Default	Off
Value Range	Off, On

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

DND Set for Call from CO

Indicates the current DND status for incoming CO line calls (reference only).

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

FWD Mode for Call from CO

Indicates the forwarding type of incoming CO line calls (reference only).

Default None
Value Range None, FWD ALL, FWD Busy, FWD N/A, FWD Busy N/A

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

FWD Destination for Call from CO

Indicates the forwarding destination of incoming CO line calls (reference only).

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

FWD Set for Call from Extension

Indicates the current FWD status for incoming intercom calls (reference only).

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

DND Set for Call from Extension

Indicates the current DND status for incoming intercom calls (reference only).

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

FWD Mode for Call from Extension

Indicates the forwarding type of incoming intercom calls (reference only).

Default None
Value Range None, FWD ALL, FWD Busy, FWD N/A, FWD Busy N/A

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

FWD Destination for Call from Extension

Indicates the forwarding destination of incoming intercom calls (reference only).

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

FWD No Answer Time

Indicates the length of time an incoming call rings at the extension before the call is forwarded (reference only).

Default 15 s
Value Range 0–120 s

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.2 Wired Extension—FWD/DND [4-1-2]

4.4.2 Wired Extension—FWD/DND [4-1-2]

For each extension, separate Call Forwarding (FWD) and Do Not Disturb (DND) settings can be programmed for incoming intercom and CO line calls. Select the desired extension from the **Extension Number / Name** list.

Call from CO—Present Button Status

Indicates the current status of the FWD/DND—External button (reference only).

Default Current status
Value Range OFF, FWD, DND

Feature Guide References

Feature References

- 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW

Programming References

- None

Call from CO—FWD Status Availability

Turns on or off the FWD feature for incoming CO line calls.

Default OFF
Value Range OFF, ON

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from CO—DND Status Availability

Turns on or off the DND feature for incoming CO line calls.

Default OFF
Value Range OFF, ON

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- None

Call from CO—FWD Mode

Specifies the circumstances when incoming CO line calls are forwarded.

Default None
Value Range None, FWD ALL, FWD Busy, FWD N/A, FWD Busy N/A

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from CO—FWD Destination

Specifies the forwarding destination of incoming CO line calls.

Default	Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from Extension—Present Button Status

Indicates the current status of the FWD/DND—Internal button (reference only).

Default	Current status
Value Range	OFF, FWD, DND

Feature Guide References

Feature References

- 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW

Programming References

- None

Call from Extension—FWD Status Availability

Turns on or off the FWD feature for incoming intercom calls.

Default	OFF
Value Range	OFF, ON

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from Extension—DND Status Availability

Turns on or off the DND feature for intercom calls.

Default	OFF
Value Range	OFF, ON

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- None

Call from Extension—FWD Mode

Specifies the circumstances when incoming intercom calls are forwarded.

Default None
Value Range None, FWD ALL, FWD Busy, FWD N/A, FWD Busy N/A

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from Extension—FWD Destination

Specifies the forwarding destination of incoming intercom calls.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

FWD No Answer Timer

Specifies the length of time an incoming call rings at the extension before the call is forwarded.

Default 15 s
Value Range 0–120 s

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

4.4.3 Wired Extension—Speed Dial [4-1-3]

Personal Speed Dialing allows extension users to dial frequently dialed numbers using two-digit speed dialing number (00–09). A maximum of 10 Personal Speed Dialing numbers can

be programmed for each extension. Select the desired extension from the **Extension Number / Name** list.

Speed Dialing Name

Specifies the name of the Personal Speed Dialing number to call using the Personal Speed Dialing Directory shown on the extension's display. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 1.6.1.4 Speed Dialing—Personal/System

Programming References

- None

Dialing Number

Specifies the number to be dialed by the Personal Speed Dialing number.

Default	Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.6.1.4 Speed Dialing—Personal/System

Programming References

- None

4.4.4 Wired Extension—Flexible Key [4-1-4]

Each flexible CO button can be customized to allow one-touch access to a certain feature. A maximum of 12 flexible CO buttons can be customized for each extension. Select the desired extension from the **Extension Number / Name** list.

Type

Specifies the feature to be assigned to the flexible CO button.

Default	Key Location 1–8: Single CO Key Location 9–12: Not Stored

Value Range Not Stored, Loop CO, Single CO, Group CO, DSS, One-touch, G-DN, Message Waiting, FWD/DND (Both), FWD/DND (External), FWD/DND (Internal), Group FWD (Both), Group FWD (External), Group FWD (Internal), Account, Conference, Terminate, EFA, Call Park, Call Log, Log-in/Log-out, Hurry-up, Wrap-up, System Alarm, Time Service, Answer, Release, TRS Level Change, Time Service - Automatic / Manual, Two-way Record, Two-way Transfer, LCS, Voice Mail Transfer

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Parameter Selection (for Single CO)

Specifies the CO line to be accessed.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Parameter Selection (for Group CO)

Specifies the CO line group to be accessed.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Parameter Selection (for Call Park)

Specifies whether a call is parked in an idle parking zone automatically or in a specific parking zone.

Default Automatic
Value Range Automatic, Specific

Feature Guide References

Feature References

- 1.12.2 Call Park
- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Parameter Selection (for Log-in/Log-out)

Specifies which incoming call distribution groups that the extension belongs to are logged-in to or logged-out from.

Default	None
Value Range	None: The incoming call distribution group is selected manually. All: All incoming call distribution groups that the extension belongs to. Incoming Group: A specified incoming call distribution group

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out
- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Parameter Selection (for Time Service)

Selects which time modes are switched manually.

Default	All
Value Range	All (Day/Night/Lunch/Break), Day/Night/Break, Day/Night/Lunch, Day/Night

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons
- 2.2.4 Time Service

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Parameter Selection (for TRS Level Change)

Specifies the TRS level to be used temporarily on a certain extension.

Default	1
Value Range	1–7

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Parameter Selection (for Time Service - Automatic / Manual)

Specifies the Time Table to be used when the Time Service Switching Mode is set to automatic.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons
- 2.2.4 Time Service

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for DSS)

Specifies the number of an extension to be accessed.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for G-DN)

Specifies the floating extension number of an incoming call distribution group to be accessed.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Message Waiting)

Specifies the number of an extension or floating extension number of an incoming call distribution group for which messages are checked. If this cell is left empty, the extension will check its own messages only.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (Both))

Specifies the floating extension number of an incoming call distribution group to which both intercom and CO line calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (External))

Specifies the floating extension number of an incoming call distribution group to which CO line calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (Internal))

Specifies the floating extension number of an incoming call distribution group to which intercom calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Call Log)

Specifies the extension's own number or the floating extension number of an incoming call distribution group for which call log information is displayed. If the cell is left empty, the extension will display its own call log information.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Log-in/Log-out)

Specifies the floating extension number of an incoming call distribution group to log-in to or log-out from.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Hurry-up)

Specifies the floating extension number of an incoming call distribution group for which Manual Queue Redirection is performed for the longest waiting call.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Two-way Record)

Specifies the floating extension number of the VM (DPT) group containing the extension's mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Two-way Transfer)

Specifies the floating extension number of the VM (DPT) group containing the desired mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Voice Mail Transfer)

Specifies the floating extension number of the VM (DTMF/DPT) group containing the desired mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Dial (for One-touch)

Specifies the number to be dialed. The PBX can have a maximum of 1000 One-touch Dialing buttons for extensions and DSS Consoles.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

Optional parameter (or Ringing Tone Type Number) (for Time Service)

Specifies the Time Table to be used for changing time modes in the Automatic Switching mode.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

◆ Optional parameter (or Ringing Tone Type Number) (for Loop CO, Single CO, Group CO, G-DN)

Specifies the ring tone type.

Default 1
Value Range 1–30

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

◆ Optional parameter (or Ringing Tone Type Number) (for Call Park)

Specifies the number of the parking zone a call is to be parked by pressing the Call Park button whose **Parameter Selection** on this screen is **Specific**.

Default Not stored.
Value Range 0–99

Feature Guide References

Feature References

- 1.12.2 Call Park
- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

◆ Extension Number of Mailbox (for Two-way Transfer)

Specifies the number of the extension whose mailbox will be used to record conversations. (For example, a secretary records a conversation into the mailbox of a boss.) This setting establishes the One-touch Two-way Transfer button. If the cell is left empty, the extension user can specify the number of an extension each time.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

4.4.5 Wired Extension—Flexible Key [4-1-4] Flexible Key Data Copy

The flexible CO button settings of an extension can be copied to different extensions. Select the extension that has the settings to copy to other extensions from the **Extension Number / Name** list, then click **Copy To**.

Destination Extension Line

Select the number and name of the extension that will receive the copied settings. Multiple extensions can be selected. To select all extensions at once, click **Select All**.

Feature Guide References

Feature References

- None

Programming References

- 4.4.4 Wired Extension—Flexible Key [4-1-4]

4.4.6 Wired Extension—PF Key [4-1-5]

Each Programmable Feature (PF) button can be customized to access a certain feature with one-touch. A maximum of 12 PF buttons can be customized for each extension. Select the desired extension from the **Extension Number / Name** list.

Type

Specifies whether to store a dialing number for the one-touch access.

Default	Not Stored
Value Range	Not Stored, One-Touch

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- None

Dial

Specifies the number to be dialed.

Default	Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- None

4.4.7 Portable Station—Extension Settings [4-2-1]

For each Portable Station (PS), various extension settings can be assigned. A maximum of 28 PSs can be programmed.

Main

Extension Number

Indicates the extension number of the PS (reference only).

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.7 Portable Station [1-2]

Extension Name

Specifies the name of the PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

- None

Property

Indicates the property (reference only).

Default Portable Station
Value Range Not applicable.

Feature Guide References

- None

Extension Group

Specifies the extension group to which the PS belongs. The extension group is used to compose call pickup groups and paging groups.

Default 1
Value Range 1–32

Feature Guide References

Feature References

- 2.2.2 Group

Programming References

- None

COS

Specifies the COS of the PS.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 2.2.1 Class of Service (COS)

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]

Ring Pattern Table

Specifies the Ring Tone Pattern Table to be used by the PS.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.1.3.2 Ring Tone Pattern Selection

Programming References

- 4.2.17 Ring Tone Patterns—Call from CO [2-8-1]
- 4.2.18 Ring Tone Patterns—Call from Doorphone [2-8-2]
- 4.2.19 Ring Tone Patterns—Call from Others [2-8-3]

Option 1

Extension Number

Indicates the extension number of the PS (reference only).

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.7 Portable Station [1-2]

Extension Name

Specifies the name of the PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

- None

Intercept Destination—Day, Lunch, Break, Night

Specifies the Intercept Routing destination of CO line calls in each time mode for Intercept Routing–No Answer and Intercept Routing–Busy/DND feature.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.1.1.4 Intercept Routing

Programming References

- None

Programmed Mailbox No.

Specifies the mailbox number of the PS's mailbox for Voice Processing Systems (VPS) with DTMF Integration.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.19.3 Voice Mail DTMF Integration

Programming References

- None

Transfer Recall Destination

Specifies the transfer recall destination when an extension user transfer a call with Call Transfer without Announcement feature and the transferred call is not answered within a certain time period.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.11.1 Call Transfer

Programming References

- None

Option 2

Extension Number

Indicates the extension number of the PS (reference only).

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.7 Portable Station [1-2]

Extension Name

Specifies the name of the PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

- None

Extension PIN

Specifies the PIN of the PS.

Default Not stored.
Value Range Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.22.1 Extension Personal Identification Number (PIN)

Programming References

- None

ARS Itemized Code

Specifies the itemized billing code used by the ARS feature for identifying the calls made from the PS for accounting and billing purposes.

Default Not stored.
Value Range Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.8.5 Verified Code Entry
- 1.9.1 Automatic Route Selection (ARS)

Programming References

- 4.8.5 Carrier [8-5]

C. Waiting for Call from Extension

Selects the method of receiving call waiting notification from other extensions.

Default	BSS
Value Range	Off: No notification BSS: Tone from the handset or built-in speaker

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting

Programming References

- None

C. Waiting for Call from CO

Specifies whether to receive call waiting notification for a call from CO line, a doorphone call or a call via an incoming call distribution group.

Default	On
Value Range	Off, On

Feature Guide References

Feature References

- 1.1.3.3 Call Waiting

Programming References

- None

Pickup Dial Set

Sets or cancels the Hot Line feature. The number specified in **Pickup Dial Number** on this screen is dialed automatically after going off-hook by the Hot Line feature.

Default	Off
Value Range	Off, On

Feature Guide References

Feature References

- 1.6.1.6 Hot Line

Programming References

- 4.2.5 Timers & Counters—CO / Extension [2-4-1]—Hot Line (Pickup Dial) Start Timer

Pickup Dial Number

Specifies the number to be dialed automatically after going off-hook via the Hot Line feature.

Default	Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.6.1.6 Hot Line

Programming References

- None

Option 3

Extension Number

Indicates the extension number of the PS (reference only).

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.7 Portable Station [1-2]

Extension Name

Specifies the name of the PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

Call Pickup Deny

Enables the prevention of calls being picked up by other extensions.

Default	Disable
Value Range	Disable: Allows other extension users to pick up the calls to your PS Enable: Denies other extension users to pick up the calls to your PS

Feature Guide References

Feature References

- 1.4.1.3 Call Pickup

Programming References

- None

Executive Override Deny

Enables the prevention of calls being interrupted by other extensions.

Default	Disable
Value Range	Disable: Allows other extension users to interrupt an existing call Enable: Denies other extension users to interrupt an existing call

Feature Guide References

Feature References

- 1.7.2 Executive Busy Override

Programming References

- None

Absent Message

Specifies the Personal Absent Message which, unlike System Absent Message, is a customized message used only by the certain PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 16 characters

Feature Guide References

Feature References

- 1.17.2 Absent Message

Programming References

- None

Option 4

Extension Number

Indicates the extension number of the PS (reference only).

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.7 Portable Station [1-2]

Extension Name

Specifies the name of the PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

- None

Outgoing Preferred Line

Selects the line to be seized after going off-hook to make a call.

Default ICM
Value Range No Line: No line is seized.
Idle: An idle CO line is seized automatically from the programmed CO line groups.
ICM: An extension line is seized.
F-1–F-12: A CO line programmed for a flexible CO button (F-1–F-12) is seized. A flexible CO button customized as a Single-CO, Group-CO, Loop-CO, or G-DN button must be selected.

Feature Guide References

Feature References

- 1.5.5.2 Line Preference—Outgoing

Programming References

- 4.4.9 Portable Station—Flexible Key [4-2-3]

Incoming Preferred Line

Selects the line on which an incoming call is answered after going off-hook.

Default Ringing Line
Value Range No Line: No line is selected. Select a line by pressing the desired Line Access button to answer a call.
Ringing Line: The longest ringing call is selected.
F-1–F-12: The call arriving at a flexible CO button (F-1–F-12) is selected. A flexible CO button customized as a Single-CO, Group-CO, Loop-CO, or G-DN button must be selected.

Feature Guide References

Feature References

- 1.4.1.2 Line Preference—Incoming

Programming References

- 4.4.9 Portable Station—Flexible Key [4-2-3]

Call Waiting Tone Type

Selects the type of Call Waiting tone sent to the busy extension.

Default CW Tone 1
Value Range CW Tone 1, CW Tone 2

Feature Guide References

Feature References

- 1.7.4 Call Waiting Tone

Programming References

- None

LCS Recording Mode

Specifies whether to continue or stop recording the message in the PS's mailbox after the PS user interrupts the call recording while monitoring.

Default Stop Record
Value Range Stop Record, Keep Record

Feature Guide References

Feature References

- 1.19.2 Voice Mail DPT (Digital) Integration

Programming References

- None

Display Language

Selects the display language of the PS.

Default Language 1
Value Range Language 1–Language 5

Feature Guide References

Feature References

- 1.18.4 Display Information

Programming References

- None

Option 5

Extension Number

Indicates the extension number of the PS (reference only).

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.7 Portable Station [1-2]

Extension Name

Specifies the name of the PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

- None

Incoming Call Display

Selects which caller information is shown on the first line of the PS's display.

Default	Caller ID Name
Value Range	Caller ID Name, CO Line Name

Feature Guide References

Feature References

- 1.18.4 Display Information

Programming References

- None

Automatic LCD Switch when start talking

Enables the first line of the display to show the call duration automatically after answering a CO line call.

Default	Enable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.18.4 Display Information

Programming References

- None

Flexible Key Programming Mode

Specifies whether the PS user can modify all flexible CO buttons without limitation, or only the One-touch Dialing buttons. When the mode is set to **One-touch Dial Only**, there is no need to enter "2" before the number.

Default	No Limitation
Value Range	No Limitation, One-touch Dial Only

Feature Guide References

- None

Option 6

Extension Number

Indicates the extension number of the PS (reference only).

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.7 Portable Station [1-2]

Extension Name

Specifies the name of the PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

- None

Flash mode during CO Conversation

Selects the function of the FLASH/RECALL button during a CO line conversation.

Default Flash Recall
Value Range EFA, Terminate, Flash Recall

Feature Guide References

Feature References

- 1.10.5 Flash/Recall/Terminate

Programming References

- None

Incoming Call Log Memory

Specifies the number of incoming CO line calls that are retained in the PS's Incoming Call Log memory.

Default 10
Value Range 0–100

Feature Guide References

Feature References

- 1.16.2 Incoming Call Log

Programming References

- None

Outgoing Call Log Memory

Specifies the number of telephone numbers dialed by the PS that are retained in the PS's Outgoing Call Log memory.

Default 5
Value Range 1–100

Feature Guide References

Feature References

- 1.6.1.3 Last Number Redial

Programming References

- None

Group CW w/o Tone (Ring after Call)

Enables an incoming call to an incoming call distribution group to arrive at a previously busy PS at the time of going on-hook after a call.

Default Disable
Value Range Disable, Enable

Feature Guide References

- None

FWD / DND Reference

Call Forwarding (FWD) and Do Not Disturb (DND) settings for each PS can be referred. FWD and DND settings can be programmed separately for each PS in **Portable Station—FWD/DND [4-2-2]**.

Extension Number

Indicates the extension number of the PS (reference only).

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- None

Programming References

- 4.1.7 Portable Station [1-2]

Extension Name

Specifies the name of the PS. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

- None

FWD Set for Call from CO

Indicates the current FWD status for incoming CO line calls (reference only).

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

DND Set for Call from CO

Indicates the current DND status for incoming CO line calls (reference only).

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD Mode for Call from CO

Indicates the forwarding type of incoming CO line calls (reference only).

Default None
Value Range None, FWD ALL, FWD Busy, FWD N/A, FWD Busy N/A

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD Destination for Call from CO

Indicates the forwarding destination of incoming CO line calls (reference only).

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD Set for Call from Extension

Indicates the current FWD status for incoming intercom calls (reference only).

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

DND Set for Call from Extension

Indicates the current DND status for incoming intercom calls (reference only).

Default Off
Value Range Off, On

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD Mode for Call from Extension

Indicates the forwarding type of incoming intercom calls (reference only).

Default None
Value Range None, FWD ALL, FWD Busy, FWD N/A, FWD Busy N/A

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD Destination for Call from Extension

Indicates the forwarding destination of incoming intercom calls (reference only).

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

FWD No Answer Time

Indicates the length of time an incoming call rings at the PS before the call is forwarded (reference only).

Default 15 s
Value Range 0–120 s

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- 4.4.8 Portable Station—FWD/DND [4-2-2]

4.4.8 Portable Station—FWD/DND [4-2-2]

For each PS, separate Call Forwarding (FWD) and Do Not Disturb (DND) settings can be programmed for incoming intercom and CO line calls. Select the desired PS from the **Extension Number / Name** list.

Call from CO—Present Button Status

Indicates the current status of the FWD/DND—External button (reference only).

Default Current status
Value Range OFF, FWD, DND

Feature Guide References

Feature References

- 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW

Programming References

- None

Call from CO—FWD Status Availability

Turns on or off the FWD feature for incoming CO line calls.

Default OFF
Value Range OFF, ON

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from CO—DND Status Availability

Turns on or off the DND feature for incoming CO line calls.

Default	OFF
Value Range	OFF, ON

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- None

Call from CO—FWD Mode

Specifies the circumstances when incoming CO line calls are forwarded.

Default	None
Value Range	None, FWD ALL, FWD Busy, FWD N/A, FWD Busy N/A

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from CO—FWD Destination

Specifies the forwarding destination of incoming CO line calls.

Default	Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from Extension—Present Button Status

Indicates the current status of the FWD/DND—Internal button (reference only).

Default	Current status
Value Range	OFF, FWD, DND

Feature Guide References

Feature References

- 1.3.1.1 Call Forwarding (FWD)/Do Not Disturb (DND)—OVERVIEW

Programming References

- None

Call from Extension—FWD Status Availability

Turns on or off the FWD feature for incoming intercom calls.

Default OFF
Value Range OFF, ON

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from Extension—DND Status Availability

Turns on or off the DND feature for incoming intercom calls.

Default OFF
Value Range OFF, ON

Feature Guide References

Feature References

- 1.3.1.3 Do Not Disturb (DND)

Programming References

- None

Call from Extension—FWD Mode

Specifies the circumstances when incoming intercom calls are forwarded.

Default None
Value Range None, FWD ALL, FWD Busy, FWD N/A, FWD Busy N/A

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

Call from Extension—FWD Destination

Specifies the forwarding destination of incoming intercom calls.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

FWD No Answer Timer

Specifies the length of time an incoming call rings at the PS before the call is forwarded.

Default 15 s
Value Range 0–120 s

Feature Guide References

Feature References

- 1.3.1.2 Call Forwarding (FWD)

Programming References

- None

4.4.9 Portable Station—Flexible Key [4-2-3]

Each flexible CO button can be customized to allow one-touch access to a certain feature. A maximum of 12 flexible CO buttons can be customized for each PS. Select the desired PS from the **Extension Number / Name** list.

Type

Specifies the feature to be assigned to the flexible button.

Default Key Location 1–8: Single CO
Key Location 9–12: Not Stored
Value Range Not Stored, Loop CO, Single CO, Group CO, DSS, One-touch, G-DN, Message Waiting, FWD/DND (Both), FWD/DND (External), FWD/DND (Internal), Group FWD (Both), Group FWD (External), Group FWD (Internal), Account, Conference, Terminate, EFA, Call Park, Log-in/Log-out, Hurry-up, Wrap-up, Time Service, TRS Level Change, Time Service - Automatic / Manual, Two-way Record, Two-way Transfer, LCS, Voice Mail Transfer

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Parameter Selection (for Single CO)

Specifies the CO line to be accessed.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Parameter Selection (for Group CO)

Specifies the CO line group to be accessed.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Parameter Selection (for Call Park)

Specifies whether a call is parked in an idle parking zone automatically, or in a specific parking zone.

Default Automatic
Value Range Automatic, Specific

Feature Guide References

Feature References

- 1.12.2 Call Park
- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Parameter Selection (for Log-in/Log-out)

Specifies which incoming call distribution groups that the PS belongs to are logged-in to or logged-out from.

Default None
Value Range None: The incoming call distribution group is selected manually.
All: All incoming call distribution groups that the PS belongs to.
Incoming Group: A specified incoming call distribution group

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out
- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Parameter Selection (for Time Service)

Selects which time modes are switched manually.

Default All
Value Range All (Day/Night/Lunch/Break), Day/Night/Break, Day/Night/Lunch, Day/Night

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons
- 2.2.4 Time Service

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Parameter Selection (for TRS Level Change)

Specifies the TRS level to be used temporarily on a certain PS.

Default 1
Value Range 1–7

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Parameter Selection (for Time Service - Automatic / Manual)

Specifies the Time Table to be used when the Time Service Switching Mode is set to automatic.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons
- 2.2.4 Time Service

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for DSS)

Specifies the number of an extension to be accessed.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for G-DN)

Specifies the floating extension number of an incoming call distribution group to be accessed.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Message Waiting)

Specifies the number of an extension or floating extension number of an incoming call distribution group for which messages are checked. If this cell is left empty, the PS will check its own messages only.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (Both))

Specifies the floating extension number of an incoming call distribution group to which both intercom and CO line calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (External))

Specifies the floating extension number of an incoming call distribution group to which CO line calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (Internal))

Specifies the floating extension number of an incoming call distribution group to which intercom calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Log-in/Log-out)

Specifies the floating extension number of an incoming call distribution group to log-in to or log-out from.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Hurry-up)

Specifies the floating extension number of an incoming call distribution group for which Manual Queue Redirection is performed for the longest waiting call.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Two-way Record)

Specifies the floating extension number of the VM (DPT) group containing the PS's mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Two-way Transfer)

Specifies the floating extension number of the VM (DPT) group containing the desired mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Voice Mail Transfer)

Specifies the floating extension number of the VM (DTMF/DPT) group containing the desired mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Dial (for One-touch)

Specifies the number to be dialed. The PBX can have a maximum of 500 One-touch Dialing buttons for PSs.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Optional parameter (or Ringing Tone Type Number) (for Time Service)

Specifies the Time Table to be used for changing time modes in the Automatic Switching mode.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Optional parameter (or Ringing Tone Type Number) (for Call Park)

Specifies the number of the parking zone a call is to be parked by pressing the Call Park button whose **Parameter Selection** on this screen is **Specific**.

Default Not stored.
Value Range 0–99

Feature Guide References

Feature References

- 1.12.2 Call Park
- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

Extension Number of Mailbox (for Two-way Transfer)

Specifies the number of the extension whose mailbox will be used to record conversations. (For example, a secretary records a conversation into the mailbox of a boss.) This setting establishes the One-touch Two-way Transfer button. If the cell is left empty, the extension user can specify the number of an extension each time.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

4.4.10 Portable Station—Flexible Key [4-2-3] Flexible Key Data Copy

The flexible CO button settings of a PS can be copied to different PSs. Select the PS that has the settings to copy to other PSs from the **Extension Number / Name** list, then click **Copy To**.

Destination Extension Line

Select the number and name of the PS that will receive the copied settings. Multiple PSs can be selected. To select all PSs at once, click **Select All**.

Feature Guide References

Feature References

- None

Programming References

- 4.4.9 Portable Station—Flexible Key [4-2-3]

4.4.11 DSS Console—Main [4-3-1]

A DSS Console can be used in conjunction with a PT. A maximum of 4 DSS Consoles can be programmed. The **PT Property–Type** of the extension port that DSS Console is connected must be set to **DSS** in **Extension Port [1-5]**.

DSS Console Type

Indicates the status of the extension port that the DSS Console is connected (reference only).

Default	Current status
Value Range	DSS, No Connection

Feature Guide References

Feature References

- None

Programming References

- 4.1.11 Extension Port [1-5]—PT Property—Type (for APT or Hybrid port)

Pair Extension Number

Specifies the extension number of the PT to be used in pair with the DSS Console.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.1.1 Extension Port Configuration

Programming References

- None

4.4.12 DSS Console—Flexible Key [4-3-2]

Each flexible DSS button can be customized to access a certain feature. A maximum of 66 flexible DSS buttons can be customized for each DSS Console. Select the desired DSS Console from the **DSS Console No./ Pair Extension** list.

Type

Specifies the feature to be assigned to the flexible DSS button.

Default Not Stored
Value Range Not Stored, Loop CO, Single CO, Group CO, DSS, One-touch, G-DN, Message Waiting, FWD/DND (Both), FWD/DND (External), FWD/DND (Internal), Group FWD (Both), Group FWD (External), Group FWD (Internal), Account, Conference, Terminate, EFA, Call Park, Call Log, Log-in/Log-out, Hurry-up, Wrap-up, System Alarm, Time Service, Answer, Release, TRS Level Change, Time Service - Automatic / Manual, Two-way Record, Two-way Transfer, LCS, Voice Mail Transfer

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Parameter Selection (for Single CO)

Specifies the CO line to be accessed.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Parameter Selection (for Group CO)

Specifies the CO line group to be accessed.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Parameter Selection (for Call Park)

Specifies whether a call is parked in an idle parking zone automatically or in a specific parking zone.

Default Automatic
Value Range Automatic, Specific

Feature Guide References

Feature References

- 1.12.2 Call Park
- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Parameter Selection (for Log-in/Log-out)

Specifies which incoming call distribution groups that the paired extension belongs to are logged-in to or logged-out from.

Default None
Value Range None: The incoming call distribution group is selected manually.
All: All incoming call distribution groups that the paired extension belongs to.
Incoming Group: A specified incoming call distribution group

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out
- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Parameter Selection (for Time Service)

Selects which time modes are switched manually.

Default All
Value Range All (Day/Night/Lunch/Break), Day/Night/Break, Day/Night/Lunch, Day/Night

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons
- 2.2.4 Time Service

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Parameter Selection (for TRS Level Change)

Specifies the TRS level to be used temporarily on a certain extension.

Default 1

Value Range 1–7

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Parameter Selection (for Time Service - Automatic / Manual)

Specifies the Time Table to be used when the Time Service Switching Mode is set to automatic.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons
- 2.2.4 Time Service

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for DSS)

Specifies the number of an extension to be accessed.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for G-DN)

Specifies the floating extension number of an incoming call distribution group to be accessed.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Message Waiting)

Specifies the number of an extension or floating extension number of an incoming call distribution group for which messages are checked. If this cell is left empty, the paired extension will check its own messages only.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (Both))

Specifies the floating extension number of an incoming call distribution group to which both intercom and CO line calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (External))

Specifies the floating extension number of an incoming call distribution group to which CO line calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Group FWD (Internal))

Specifies the floating extension number of an incoming call distribution group to which intercom calls are forwarded.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Call Log)

Specifies the paired extension's number or the floating extension number of an incoming call distribution group for which call log information is displayed. If the cell is left empty, the paired extension will display its own call log information.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Log-in/Log-out)

Specifies the floating extension number of an incoming call distribution group to log-in to or log-out from.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Hurry-up)

Specifies the floating extension number of an incoming call distribution group for which Manual Queue Redirection is performed for the longest waiting call.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Two-way Record)

Specifies the floating extension number of the VM (DPT) group containing the paired extension's mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Two-way Transfer)

Specifies the floating extension number of the VM (DPT) group containing the desired mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Ext No. or Floating Ext No. (for Voice Mail Transfer)

Specifies the floating extension number of the VM (DTMF/DPT) group containing the desired mailbox.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Dial (for One-touch)

Specifies the number to be dialed. The PBX can have a maximum of 1000 One-touch Dialing buttons for extensions and DSS Consoles.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

◆ Optional parameter (or Ringing Tone Type Number) (for Time Service)

Specifies the Time Table to be used for changing time modes in the Automatic Switching mode.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

◆ Optional parameter (or Ringing Tone Type Number) (for Loop CO, Single CO, Group CO, G-DN)

Specifies the ring tone type.

Default 1
Value Range 1–30

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

◆ Optional parameter (or Ringing Tone Type Number) (for Call Park)

Specifies the number of the parking zone a call is to be parked by pressing the Call Park button whose **Parameter Selection** on this screen is **Specific**.

Default Not stored.
Value Range 0–99

Feature Guide References

Feature References

- 1.12.2 Call Park
- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

Extension Number of Mailbox (for Two-way Transfer)

Specifies the number of the extension whose mailbox will be used to record conversations. (For example, a secretary records a conversation into the mailbox of a boss.) This setting establishes the One-touch Two-way Transfer button. If the cell is left empty, the paired extension user can specify the number of an extension each time.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.18.2 Flexible Buttons

Programming References

- 4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

4.4.13 DSS Console—Flexible Key [4-3-2] Flexible Key Data Copy

The flexible DSS button settings of a DSS Console can be copied to different DSS Consoles. Select the DSS Console that has the setting to copy to other DSS Consoles from the **DSS Console No./ Pair Extension** list, then click **Copy To**.

Destination DSS Console

Select the number of the DSS Console and paired extension. Multiple DSS Consoles can be selected. To select all DSS Consoles at once, click **Select All**.

Feature Guide References

Feature References

- None

Programming References

- 4.4.12 DSS Console—Flexible Key [4-3-2]

4.5 Optional Device [5]

4.5.1 Doorphone [5-1]

The settings to establish doorphone calls can be programmed.

Physical—Slot

Indicates the slot position (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

Feature References

- 1.15.1 Doorphone Call

Programming References

- 4.1.1 Slot [1-1]

Physical—Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

Feature References

- 1.15.1 Doorphone Call

Programming References

- 4.1.1 Slot [1-1]

Name

Specifies the doorphone name. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.15.1 Doorphone Call

Programming References

- None

Destination—Day, Lunch, Break, Night

Specifies the destination number of doorphone calls for each port in each time mode.

Default Not stored.

Value Range Max. 32 digits (consisting of 0–9, *, #, [,] [Secret], and P [Pause])

Feature Guide References

Feature References

- 1.15.1 Doorphone Call

Programming References

- 4.2.8 Time Service—Week Table [2-5-1]

Tenant Number

Specifies the tenant number for the doorphone port in order to apply the Time Table (day/lunch/break/night).

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.15.1 Doorphone Call

Programming References

- None

COS

Specifies the Class of Service (COS) number. COS programming determines the doorphone ports that are able to make CO line calls, and sets restrictions on intercom calls from certain extensions (Internal Call Block).

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 1.1.2.2 Internal Call Block
- 1.15.1 Doorphone Call

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—TRS / CO—TRS Level—Day, Lunch, Break, Night
- 4.2.16 Class of Service—Internal Call Block [2-7-3]

VM Trunk Group Number

Specifies the number of the VPS trunk (CO line) group sent to the VPS when the doorphone call destination is the floating extension number of a VM (DPT) group.
The VPS trunk (CO line) group number is used to send the applicable company greeting message of the VPS to the caller.

Default 1
Value Range 1–48

Feature Guide References

Feature References

- 1.15.1 Doorphone Call
- 1.19.2 Voice Mail DPT (Digital) Integration

Programming References

- None

4.5.2 External Pager [5-2]

Settings for an external pager (external speaker) can be specified.

Floating Extension Number

Specifies the floating extension number of the external pager.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.14.1 Paging
- 1.15.3 Trunk Answer From Any Station (TAFAS)
- 1.15.4 Background Music (BGM)

Programming References

- None

Name

Specifies the name of the external pager. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 1.14.1 Paging
- 1.15.3 Trunk Answer From Any Station (TAFAS)
- 1.15.4 Background Music (BGM)

Programming References

- None

4.5.3 DISA—System Setting [5-3-1]

Direct Inward System Access (DISA) enables outside callers to access specific PBX features as if the caller were an SLT extension user on the PBX.

DISA Security Mode

Selects the DISA security mode to prevent unauthorized access to the PBX. In Trunk (CO Line) or All Security mode, the caller is required to override security by Walking COS or Verified Code Entry in order to enable the restricted feature temporarily.

Default Trunk
Value Range None: Intercom calls and CO line calls can be made.
Trunk: Intercom calls can be made.
All: All calls are restricted.

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- None

Mode when the Destination through DISA is Busy

Selects how DISA calls are handled if the destination is busy, and disables Call Waiting, FWD, or Idle Extension Hunting.

Default Busy Tone
Value Range Busy Tone, Intercept, OGM

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- None

Mode when the Destination through DISA sets DND

Selects how DISA calls are handled if the destination sets DND, and disables Idle Extension Hunting.

Default Busy Tone
Value Range Busy Tone, Intercept, OGM

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- None

Mode when DISA receives DTMF "*"

Selects what to do when the caller dials "✳" during a DISA CO-to-CO line conversation.

Default DISA Top Menu
Value Range DISA Top Menu, Send DTMF "*"

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- None

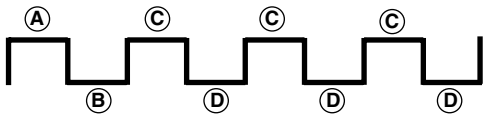
Cyclic Tone Detection

Selects the cyclic tone detection mode. Cyclic tone detection is used to determine the end of a call for a DISA CO-to-CO line conversation established through an analog CO line.

To change **Cyclic Tone Detection**, follow the steps below:

1. Change **Cyclic Tone Detection**.
2. Set the status of the MSG2 card to "**OUS**", then "**INS**".

Default	Fixed
Value Range	Fixed: The number of times of a tone pattern (a set of tone-on and tone-off) that the PBX receives is fixed to 4 times in the ranges of:



Ⓐ,Ⓑ = 100–1300 ms, Ⓒ = Ⓐ±90 ms, Ⓓ = Ⓑ±90 ms

Option: The tone pattern that the PBX receives is optional as specified in **Cyclic Tone Option** on this screen.

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.1.1 Slot [1-1]

Cyclic Tone Option—Tone On Maximum Time

Specifies the maximum duration of the cyclic tone that will be recognized by the PBX. When the tone sent from the telephone company is shorter than the value set here, the PBX recognizes it as a tone-on.

To change **Cyclic Tone Option**, follow the steps below:

1. Change **Cyclic Tone Option**.
2. Set the status of the MSG2 card to "**OUS**", then "**INS**".

Default	600 ms
Value Range	100 + 10 × n (n=1–390) ms

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.1.1 Slot [1-1]

Cyclic Tone Option—Tone Off Maximum Time

Specifies the maximum time the PBX waits for a cyclic tone to be sent from the telephone company before recognizing it as a tone-off. When no tone is detected within the time set here, the PBX recognizes it as a tone-off.

To change **Cyclic Tone Option**, follow the steps below:

1. Change **Cyclic Tone Option**.
2. Set the status of the MSG2 card to "**OUS**", then "**INS**".

Default	600 ms
Value Range	100 + 10 x n (n=1–390) ms

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.1.1 Slot [1-1]

Repeating Times of On / Off for Detection

Specifies the number of times the tone pattern (a set of tone-on and tone-off) must be received to establish reception of the cyclic tone. This determines the end of call.

Default	3
Value Range	3–16

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- None

4.5.4 DISA—Message Setting [5-3-2]

Outgoing messages (OGM) for DISA calls can be specified. A maximum of 32 OGMs can be programmed.

Floating Extension Number

Specifies the floating extension number of the OGM.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.15.5 Outgoing Message (OGM)
- 1.15.6 Direct Inward System Access (DISA)

Programming References

- None

Name

Specifies the name of the OGM. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.15.5 Outgoing Message (OGM)
- 1.15.6 Direct Inward System Access (DISA)

Programming References

- None

1 Digit AA Destination (Extension Number)—Dial 0–9

Specifies the destination for each DISA Automated Attendant (AA) number. After listening to an OGM, the caller can be directed to the destination by dialing a 1-digit DISA AA number.

Default Not stored.
Value Range Max. 5 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.15.5 Outgoing Message (OGM)
- 1.15.6 Direct Inward System Access (DISA)

Programming References

- None

Busy/DND Message No.

Selects the OGM to be played for the caller when the destination party is busy or sets DND.

Default None
Value Range None, 1–32

Feature Guide References

Feature References

- 1.15.6 Direct Inward System Access (DISA)

Programming References

- 4.5.3 DISA—System Setting [5-3-1]

4.6 Feature [6]

4.6.1 Speed Dialing & Caller ID—Main Table [6-1-1]

The System Speed Dial Table is used to store frequently dialed numbers as well as callers that should be automatically routed to certain extensions when they call (Calling Line Identification [CLI] distribution). The System Speed Dialing Table is available for all extension users when making or receiving a call.
A maximum of 1000 System Speed Dialing numbers (e.g., telephone numbers, feature numbers) can be programmed with other related parameters. Select the desired System Speed Dialing numbers from the **System Speed Dialing No.** list.

Name

Specifies a name for the System Speed Dialing number. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	Not stored.
Value Range	Max. 20 characters

Feature Guide References

Feature References

- 1.6.1.4 Speed Dialing—Personal/System
- 1.16.1 Caller ID

Programming References

- None

CO Line Access Number + Telephone Number

Specifies the telephone number (including the CO Line Access number) or feature number assigned to the System Speed Dialing number.

Default	Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.6.1.4 Speed Dialing—Personal/System
- 1.16.1 Caller ID

Programming References

- None

CLI Destination

Specifies the CLI destination (extension) to which incoming calls from the programmed telephone number are routed. If a Caller ID Modification Table is being used, the modified number must match the telephone number above (**CO Line Access Number + Telephone Number**) in order for the call to be routed correctly.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.1.1.3 Calling Line Identification (CLI) Distribution
- 1.16.1 Caller ID

Programming References

- 4.9.2 DIL Table & Port Setting [9-2]—CLI for DIL—CLI Ring for DIL—Day, Lunch, Break, Night

4.6.2 Speed Dialing & Caller ID—Caller ID Modification [6-1-2]

The telephone numbers of incoming callers can be modified automatically by a Caller ID Modification Table, and then recorded for calling back.
The PBX looks for incoming telephone numbers that begin with an area code programmed in the Caller ID Modification Table assigned to that CO line group. If it finds such a code, it removes digits and adds a number to the telephone number. If this modified telephone number is stored as a System Speed Dialing number, the caller's name can be shown on a PT display and the call can be routed to a certain extension (CLI destination). A maximum of 4 Caller ID Modification Tables, each containing 10 local/international call data and 1 long distance code, can be programmed. Each CO line group can select a table for use. Select the desired table from the **Modification Table** list.
If the telephone number does not contain an area code programmed here, it is modified based on the Long Distance Code settings.

Area Code (for Local / International Call Data 1–10)

Specifies the leading number (area code) to look for in the incoming caller's number.

Default Not stored.
Value Range Max. 6 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Removed Number of Digits

Specifies the number of digits to be removed from the beginning of the incoming caller's number.

Default Local / International Call Data 1–10: 3
Long Distance Code: 0
Value Range 0–9

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

Added Number

Specifies the number to be added to the incoming caller's number in the place of the removed digits.

Default	Local / International Call Data 1–10: Not stored. Long Distance Code: 1 (fixed)
Value Range	Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.16.1 Caller ID

Programming References

- None

4.6.3 Emergency Dial [6-2]

Any extension user can dial the programmed emergency numbers at any time after seizing a CO line. The restrictions imposed on the extension, such as Toll Restriction (TRS), Account Code—Forced mode, and Extension Lock are disregarded.
A maximum of 10 emergency numbers can be programmed.

Emergency Number

Specifies the numbers used for making emergency calls. It is not necessary to start the emergency number with a CO Line Access number.

Default	1: 911, 2–10: Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, T [Transfer], [,] [Secret], P [Pause], and F [Flash])

Feature Guide References

Feature References

- 1.5.4.2 Emergency Call

Programming References

- None

4.6.4 Verified Code [6-3]

A verified code is used to override the Toll Restriction (TRS) of the extension in use to make a certain CO line call, or to identify the call for accounting and billing purposes.
A maximum of 1000 verified codes can be programmed with other related parameters.

Verified Code

Specifies the verified code.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.8.5 Verified Code Entry

Programming References

- None

User Name

Specifies the user name assigned to the verified code. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.8.5 Verified Code Entry

Programming References

- None

Verified Code PIN

Specifies the PIN to be entered when making a CO line call with the verified code.

Default Not stored.
Value Range Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.8.5 Verified Code Entry

Programming References

- None

COS Number

Specifies the COS that applies when making a CO line call with the verified code.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 1.8.5 Verified Code Entry

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]

Itemized Billing Code for ARS

Specifies the itemized billing code used by the ARS feature for identifying calls made with a verified code for accounting and billing purposes.

Default Not stored.
Value Range Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- 4.8.5 Carrier [8-5]

4.6.5 Second Dial Tone [6-4]

A programmed Pause time can be inserted automatically between the Second Dial Tone Waiting code and the following digits. When a programmed Second Dial Tone Waiting code is dialed after seizing a CO line, a preprogrammed number of pauses are inserted after the code. A maximum of 100 Second Dial Tone Waiting codes can be programmed.

Second Dial Tone Waiting Code

Specifies the Second Dial Tone Waiting code.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.5.4.5 Pause Insertion

Programming References

- None

Pause Repeating Counter

Specifies the number of pauses to be inserted.

Default 1
Value Range 0–4

Feature Guide References

Feature References

- 1.5.4.5 Pause Insertion

Programming References

- None

4.6.6 Absent Message [6-5]

When a display PT user calls an extension, a message is shown on the caller's telephone display describing the reason for absence. A maximum of 8 Absent Messages can be programmed, and any extension user can select one of them.

Absent Message

Specifies the message according to need. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default	1: Will Return Soon 2: Gone Home 3: At Ext %%%% (Extension Number) 4: Back at %%:%% (Hour:Minute) 5: Out until %%/%% (Month/Day) 6: In a Meeting 7 and 8: Not stored.
Value Range	Max. 16 characters

Feature Guide References

Feature References

- 1.17.2 Absent Message

Programming References

- None

4.6.7 Tenant [6-6]

A maximum of 8 tenants can share the PBX. The tenant members consist of extension groups. The PBX offers each tenants its own Time Table and system resource for each tenant.

Music on Hold

Specifies the audio source to be used for Music on Hold.

Default	Same as System Setting
Value Range	Same as System Setting, BGM, Tone

Feature Guide References

Feature References

- 1.12.4 Music on Hold
- 2.2.3 Tenant Service

Programming References

- 4.2.4 BGM / Music on Hold [2-3]

Operator (Extension Number)

Specifies the extension number or floating extension number of an incoming call distribution group to be designated as the tenant operator. When this parameter is left unspecified, a PBX operator serves as the tenant operator.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.2.3 Tenant Service
- 2.2.5 Operator Features

Programming References

- 4.2.3 PBX Operator [2-2]

ARS Mode

Specifies the ARS mode used when making a CO line call.

Default	Same as System Setting
Value Range	Off: ARS is disabled. On for Local Access Operation: ARS operates when an extension user makes a call using any Idle Line Access method. On for Any CO Access Operation: ARS operates when an extension user makes a call using any CO Line Access method. Same as System Setting: The setting specified in **ARS Mode** in **System Setting [8-1]** is applied.

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)
- 2.2.3 Tenant Service

Programming References

- 4.8.1 System Setting [8-1]

4.7 TRS [7]

4.7.1 Denied Code [7-1]

Toll Restriction (TRS) prohibits an extension from making certain CO line calls. Each time mode of every COS is assigned one of the seven TRS levels. TRS level 7 provides the maximum restriction (all CO line calls are prohibited) and level 1 provides the minimum (all CO line calls are allowed). TRS levels 2–6 are used to restrict calls according to the combination of **Denied Code Tables** and **Exception Code Tables** in **Exception Code [7-2]**.
If the leading digits of the dialed number are not found in the applicable Denied Code Tables, the call is made. A maximum of 100 denied codes can be programmed for each level.

Denied Code Tables—Level 2–Level 6

Specifies the leading digits of toll restricted numbers for each level.

Default Not stored.
Value Range Max. 16 digits (consisting of 0–9, *, #, and X)

Note

"X" can be used as a wild card character which substitutes any digit in its position.

Feature Guide References

Feature References

- 1.8.1 Toll Restriction (TRS)

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—TRS / CO—TRS Level—Day, Lunch, Break, Night
- 4.7.2 Exception Code [7-2]

4.7.2 Exception Code [7-2]

Toll Restriction (TRS) prohibits an extension from making certain CO line calls. Each time mode of every COS is assigned one of the seven TRS levels. TRS level 7 provides the maximum restriction (all CO line calls are prohibited) and level 1 provides the minimum (all CO line calls are allowed). TRS levels 2–6 are used to restrict calls according to the combination of **Denied Code Tables** in **Denied Code [7-1]** and **Exception Code Tables**.
A call denied by the applicable Denied Code Tables is checked against the applicable Exception Code Tables, and if a match is found, the call is made. A maximum of 100 exception codes can be programmed for each level.

Exception Code Tables—Level 2–Level 6

Specifies the leading digits of the numbers to be exempted from toll restriction for each level.

Default Not stored.
Value Range Max. 16 digits (consisting of 0–9, *, #, and X)

Note

"X" can be used as a wild card character which substitutes any digit in its position.

Feature Guide References

Feature References

- 1.8.1 Toll Restriction (TRS)

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—TRS / CO—TRS Level—Day, Lunch, Break, Night
- 4.7.1 Denied Code [7-1]

4.7.3 Special Carrier [7-3]

If the PBX has access to multiple telephone companies, a Special Carrier Access Code is required each time a CO line call is made. By programming these Special Carrier Access Codes here, Toll Restriction (TRS) can restrict or allow calls to be made by ignoring the codes and looking at the telephone number only.
If a Special Carrier Access Code is found in the dialed number, TRS will look only at the following digits. A maximum of 20 Special Carrier Access Codes can be programmed.

Special Carrier Access Code

Specifies a Special Carrier Access Code. Special Carrier Access Codes and Host PBX Access codes should be unique.

Default	Not stored.
Value Range	Max. 16 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.5.4.7 Special Carrier Access Code
- 1.8.1 Toll Restriction (TRS)

Programming References

- None

4.7.4 Miscellaneous [7-4]

Toll Restriction (TRS) prohibits an extension from making certain CO line calls. Five optional settings can be programmed to activate a TRS check or to override TRS.

TRS Override by System Speed Dialing

Enables an outgoing CO line call to override TRS when the call is made using System Speed Dialing.

Default	Enable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.8.1 Toll Restriction (TRS)

Programming References

- 4.6.1 Speed Dialing & Caller ID—Main Table [6-1-1]

TRS Check for dial "* #"

Enables a TRS check for the user-dialed "⋇" and "#". This is useful in preventing unauthorized calls which could possibly be made through certain telephone company exchanges.

Default	No Check
Value Range	No Check, Check

Feature Guide References

Feature References

- 1.8.1 Toll Restriction (TRS)

Programming References

- None

Dial Digits Limitation after Answering

Specifies a limit to be placed on the number of digits which can be dialed after an extension user receives a CO line call. If the number of dialed digits exceeds the programmed limit, the line will be disconnected.

Default	None
Value Range	None, 1–7

Feature Guide References

Feature References

- 1.8.1 Toll Restriction (TRS)

Programming References

- None

TRS Check after EFA

Enables TRS to check the digits dialed after External Feature Access (EFA) during a CO line call.

Default	Enable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.8.1 Toll Restriction (TRS)
- 1.10.6 External Feature Access (EFA)

Programming References

- None

4.8 ARS [8]

4.8.1 System Setting [8-1]

Automatic Route Selection (ARS) automatically selects the appropriate carrier at the time a CO line call is made, according to the programmed settings. The user-dialed number will be checked and modified in order to connect it to the appropriate carrier.

ARS Mode

Selects the condition to determine when to operate ARS.

Default Off

Value Range Off: ARS is disabled.

On for Local Access Operation: ARS operates when an extension user makes a call using Idle Line Access method.

On for Any CO Access Operation: ARS operates when an extension user makes a call using Idle Line Access, CO Line Access, or S-CO Line Access method.

Feature Guide References

Feature References

- 1.5.5.3 CO Line Access
- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Mode When Any Carrier is not Programmed for the Dial

Selects what happens when the dialed number is not found in **Leading Number** in **Leading Number [8-2]**.

Default Local Access

Value Range Disconnect: the line will be disconnected.

Local Access: the dialed number will be handled by Idle Line Access method.

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

4.8.2 Leading Number [8-2]

Specifies the area codes and/or telephone numbers as leading numbers that will be routed by the ARS feature. A maximum of 1000 different leading numbers can be programmed, and each leading number can select a Routing Plan Table number, which determines the ARS

procedure.
Each leading number can also specify the additional (remaining) number of digits. The additional (remaining) number of digits must be specified only when "#", for example, is needed after the dialed number. The "#" will be added after the programmed number of digits of the user-dialed number (excluding the leading number).

Leading Number

Specifies the leading number.

Default Not stored.
Value Range Max. 16 digits (consisting of 0–9, *, #, and X)

Note

"X" can be used as a wild card character which substitutes any digit in its position.

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Additional Number of Digits

Specifies the additional (remaining) number of digits following each leading number.

Default 0
Value Range 0–15

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Routing Plan Number

Specifies the Routing Plan Table number used for each leading number.

Default 1
Value Range 1–16

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

4.8.3 Routing Plan Time [8-3]

The start times of a maximum of 4 different time blocks (Time-A through D) can be programmed for each day of the week. There are 16 Routing Plan Tables, and each Routing

Plan Table can have its own time blocks. Select the desired Routing Plan Table number from the **Routing Plan** list.

Time-A–Time-D—Setting

Enables the setting of the start time for each time block.

Default	Time-A–Time-C: Enable Time-D: Disable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Time-A–Time-D—Hour, Minute

Specifies the start time for each time block.

Default	Time-A: 8:00, Time-B: 17:00, Time-C: 21:00, Time-D: Not applicable.
Value Range	00:00–23:59

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

4.8.4 Routing Plan Priority [8-4]

The carrier priority (1 through 6) in a Routing Plan Table can be programmed for each time zone of each day of the week. Select the desired Routing Plan Table number and the desired day of the week from the **Routing Plan** and **Week** lists.

Time-A–Time-D

Specifies the carrier priority for each time zone.

Default	None
Value Range	None, 01–10

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

4.8.5 Carrier [8-5]

Carrier

The way to modify user-dialed numbers for connecting the appropriate carrier can be determined. A maximum of 10 different carriers can be programmed to be used for the ARS feature.

Carrier Name

Specifies the carrier name. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Removed Number of Digits

Specifies the number of leading digits to remove from the user-dialed number.

Default 0
Value Range 0–15

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Modify Command

Specifies the commands to modify the user-dialed number to access the carrier.

Default CH
Value Range C: Adds the Carrier Access code
P: Inserts a pause and changes to tone (DTMF) signal
A: Adds the Authorization code for a tenant
G: Adds the Authorization code for a CO line group
I: Adds the Itemized Billing code
H: Adds the dialed number after the programmed number of digits are removed (Home position)
Number: Adds the number

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Carrier Access Code

Specifies the carrier access code. The carrier access code can be added to the user-dialed number by specifying "C" command in **Modify Command** on this screen.

Default	Not stored.
Value Range	Max. 32 digits (consisting of 0–9, *, #, and P [Pause])

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Trunk Group

Selects the CO line groups that connect to the carrier.

Trunk Group for the Carrier—TRG 01–TRG 64

Enables each CO line group for each carrier.

Default	Enable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Authorization Code for Tenant

Specifies an Authorization code for each tenant. The Authorization codes can be added to the user-dialed number by specifying "A" command in **Modify Command** on the **Carrier** tab.

Authorization Code for Tenant—Tenant 1–Tenant 8

Specifies the Authorization code of each carrier for each tenant.

Default	Not stored.
Value Range	Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

Authorization Code for TRG

Specifies an Authorization code for each CO line group. The Authorization codes can be added to the user-dialed number by specifying "G" command in **Modify Command** on the **Carrier** tab.

Authorization Code for Trunk Group—TRG 01–TRG 64

Specifies the Authorization code of each carrier for each CO line group.

Default Not stored.
Value Range Max. 10 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

4.8.6 Leading Number Exception [8-6]

Specifies telephone numbers that will not be connected using the ARS feature. When the user-dialed number includes a leading number exception, the PBX sends the number to a CO line by the Idle Line Access method if **ARS Mode** in **System Setting [8-1]** is "on". A maximum of 200 different leading number exceptions can be programmed.

Leading Number Exception

Specifies the leading number exception.

Default Not stored.
Value Range Max. 16 digits (consisting of 0–9, *, #, and X)

Note

"X" can be used as a wild card character which substitutes any digit in its position.

Feature Guide References

Feature References

- 1.9.1 Automatic Route Selection (ARS)

Programming References

- None

4.9 CO & Incoming Call [9]

4.9.1 CO Line Setting [9-1]

CO lines can be assigned a name, and grouped into a maximum of 64 CO line groups.

Physical—Slot

Indicates the slot position of each CO line card (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

- None

Physical—Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

- None

CO Name

Specifies the CO line name which is shown on the extension's display when receiving a call from the CO line. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 20 characters

Feature Guide References

Feature References

- 1.18.4 Display Information

Programming References

- None

Trunk Group Number

Specifies the CO line group number to which the CO line belongs.

Default 1
Value Range 1–64

Feature Guide References

Feature References

- 2.2.2 Group

Programming References

- None

4.9.2 DIL Table & Port Setting [9-2]

Direct In Line (DIL) can be selected for each CO line as the method of distributing incoming CO line calls to certain destinations. For each CO line to which the DIL distribution is set, different destinations can be programmed depending on the time mode (day/lunch/break/night). If desired, Calling Line Identification (CLI) distribution can be used in conjunction with the DIL distribution.

DIL

For each CO line to which the DIL distribution is set, different DIL destinations can be programmed depending on the time mode (day/lunch/break/night). Generally, DIL distribution is used for CO line calls from analog CO lines. Tenant number and VPS trunk (CO line) group number can also be programmed for each CO line.

Slot

Indicates the slot position of each CO line card (reference only).

Default	Current slot number
Value Range	Slot number

Feature Guide References

- None

Port

Indicates the port number (reference only).

Default	Current port number
Value Range	Port number

Feature Guide References

- None

Card Type

Indicates the CO line card type (reference only).

Default	Current card type
Value Range	Card type

Feature Guide References

Feature References

- 1.1.1.1 Incoming CO Line Call Features—OVERVIEW

Programming References

- None

DIL Destination—Day, Lunch, Break, Night

Specifies the DIL destination in each time mode.

Default Not stored.
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 1.1.1.2 Direct In Line (DIL)

Programming References

- None

Tenant Number

Specifies the tenant number to determine the Time Table by which calls are distributed depending on the time of the day.

Default 1
Value Range 1–8

Feature Guide References

Feature References

- 1.1.1.2 Direct In Line (DIL)

Programming References

- None

VM Trunk Group No.

Specifies the number of the VPS trunk (CO line) group sent to the VPS when the DIL destination is the floating extension number of a VM (DPT) Group.
The VPS trunk (CO line) group number is used to send the applicable company greeting message of the VPS to the caller.

Default 1
Value Range 1–48

Feature Guide References

Feature References

- 1.1.1.2 Direct In Line (DIL)
- 1.19.2 Voice Mail DPT (Digital) Integration

Programming References

- None

CLI for DIL

When CLI distribution is enabled for a CO line to which the DIL distribution is set, incoming CO line calls will be distributed to the CLI destinations (instead of the DIL destinations) if the caller's identification number is found in the System Speed Dialing Table, which is used as the Caller ID Table.
CLI distribution can be enabled or disabled for each time mode (day/lunch/break/night) on a CO line basis.

Slot

Indicates the slot position of each CO line card (reference only).

Default Current slot number
Value Range Slot number

Feature Guide References

- None

Port

Indicates the port number (reference only).

Default Current port number
Value Range Port number

Feature Guide References

- None

Card Type

Indicates the CO line card type (reference only).

Default Current card type
Value Range Card type

Feature Guide References

Feature References

- 1.1.1.1 Incoming CO Line Call Features—OVERVIEW

Programming References

- None

CLI Ring for DIL—Day, Lunch, Break, Night

Enables CLI distribution in each time mode.

Default Disable
Value Range Disable, Enable

Feature Guide References

Feature References

- 1.1.1.2 Direct In Line (DIL)
- 1.1.1.3 Calling Line Identification (CLI) Distribution

Programming References

- None

4.9.3 Miscellaneous [9-3]

It is possible to activate the Intercept Routing feature when the destination of an incoming CO line call is unavailable, or when there is no destination for the call.

Intercept when the destination is Busy

Enables the Intercept Routing—Busy feature to activate when the original destination is busy.

Default	Disable (Busy Tone)
Value Range	Disable (Busy Tone): Sends busy tone to the caller (However, a call through LCOT card will ring at the original destination while the caller hears a ringback tone.) Enable: Redirects the call to the intercept destination

Feature Guide References

Feature References

- 1.1.1.4 Intercept Routing

Programming References

- None

Intercept when the destination sets DND

Enables the Intercept Routing—DND feature to activate when the original destination is in DND mode.

Default	Enable
Value Range	Disable (Busy Tone): Sends busy tone to the caller (However, a call through LCOT card will ring at the original destination while the caller hears a ringback tone.) Enable: Redirects the call to the intercept destination

Feature Guide References

Feature References

- 1.1.1.4 Intercept Routing

Programming References

- None

Routing to Operator when the destination is not programmed

Enables the Intercept Routing—No Destination feature to activate when there is no destination for the call. (The Intercept Routing—No Destination feature always works for the calls through LCOT card, even when this feature is disabled.)

Default	Enable
Value Range	Disable (Reorder Tone): Sends the reorder tone to the caller Enable: Redirects the call to an operator

Feature Guide References

Feature References

- 1.1.1.5 Intercept Routing—No Destination

Programming References

- None

4.10 Maintenance [10]

4.10.1 SMDR [10-1]

Station Message Detail Recording (SMDR) automatically records detailed information about incoming and outgoing calls.

SMDR Type

Selects the format of SMDR output.

Default Type A
Value Range Type A: 80 digits without call charge information
Type B: 80 digits with call charge information
Type C: 120 digits

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

SMDR Port

Selects the Serial Interface (RS-232C) port that is used to output the SMDR data.

Default RS-232C
Value Range None, RS-232C

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

SMDR Page Length (Number of Line)

Specifies the number of lines in a page of output paper. Used to match the SMDR output to the paper size being used in the printer.

Default 66
Value Range 4–99

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

SMDR Skip Perforation (Number of Line)

Specifies the number of lines to be skipped at the end of every page. The number of lines for the skip perforation should be shorter than the page length.

Default 0
Value Range 0–95

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

Outgoing Call Print

Specifies whether the dialed digits of outgoing CO line calls are printed. Class of Service (COS) programming determines the printable records.

Default Print
Value Range No Print, Print

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- 4.2.14 Class of Service—COS Settings [2-7-1]—Main—Outgoing CO Call Printout (SMDR)

Incoming Call Print

Specifies whether the information relating to incoming CO line calls, such as caller's identification name and number, is printed.

Default No Print
Value Range No Print, Print

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

Intercom Call Print

Specifies whether the dialed digits of outgoing intercom calls are printed.

Default No Print
Value Range No Print, Print

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

Log-in / Log-out Print

Specifies whether the log-in/log-out status is printed.

Default	No Print
Value Range	No Print, Print

Feature Guide References

Feature References

- 1.2.2.6 Log-in/Log-out
- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

ARS Dial

Selects the type of the dialed number to be printed for a call with the ARS feature.

Default	Dial after ARS Modification
Value Range	Dial before ARS Modification: The user-dialed number Dial after ARS Modification: The ARS modified number

Feature Guide References

Feature References

- 1.9 Automatic Route Selection (ARS) Features
- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

Caller ID Print format

Selects the printing format of caller identifications for incoming CO line calls.

Default	Number
Value Range	None, Number, Name, Name + Number

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

Secret Dial

Selects the printing format of calls with a secret dial. The secret dial conceals all or part of dialed number.
Note that selecting **Dial before ARS Modification** in **ARS Dial** on this screen indicates the dialed numbers as dots regardless of this setting.

Default	Print "...."
Value Range	Print "....", Print Dialed Number

Feature Guide References

Feature References

- 1.6.1.1 Memory Dialing Features—OVERVIEW
- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

Date Format

Selects the printed date format.

Default	MM-DD-YY
Value Range	MM-DD-YY, DD-MM-YY, YY-MM-DD, YY-DD-MM

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

4.10.2 PT System Program [10-2]

PROG**

Enables extension users to set a certain system programming by a PT.

Default	000–009, 020–099: Enable 010–019, 100–999: Disable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 2.3.2 PT Programming

Programming References

- None

4.10.3 Miscellaneous [10-3]

Various settings for on-site and remote programming and diagnosis can be specified.

Analog Remote (Modem) Floating Extension Number

Specifies the floating extension number for analog remote maintenance. To enable this setting, an RMT card must be installed, and **Remote Programming** on this screen must be enabled.

Default 299
Value Range Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.3.1 PC Programming

Programming References

- None

Remote Programming

Enables the system programming, diagnosis, and data upload from a remote location.

Default Enable
Value Range Disable, Enable

Feature Guide References

Feature References

- 2.3.1 PC Programming

Programming References

- None

Password Lock Counter for Remote Programming

Specifies the number of successive incorrect password entries before remote access is locked.

Default None
Value Range None, 1–15

Feature Guide References

Feature References

- 2.3.1 PC Programming

Programming References

- None

Remote Maintenance Dial Number (Own telephone number for reference)

Specifies the telephone number of the PBX used for reference.
This number can be specified by Quick Setup, and will be used to access the PBX from a remote location for maintenance purposes.

Default Not stored.
Value Range Max. 32 digits (consisting of 0–9, *, and #)

Feature Guide References

Feature References

- 2.3.3 Quick Setup

Programming References

- None

RS-232C: Baud Rate

Specifies the data transmission speed from the PBX to the printer or personal computer.

Default	19200 bps
Value Range	2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

RS-232C: NL Code

Specifies the NL (New Line) code for the printer or personal computer.
If the printer or personal computer automatically feeds lines with a carriage return, select **CR** (Carriage Return). If not, select **CR+LF** (Line Feed).

Default	CR+LF
Value Range	CR+LF, CR

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

RS-232C: Word Length

Specifies the number of bits in each byte of a character.
When connecting the KX-TAW848 Maintenance Console to the PBX using an RS-232C cable, assign the following values to the Serial Interface (RS-232C) port of the PBX:
Word Length: 8 bit, **Parity Bit**: None, **Stop Bit**: 1 bit

CAUTION

Do not use the following combinations:

- **Word Length**: 8 bit, **Parity Bit**: Space, **Stop Bit**: 1 bit
- **Word Length**: 8 bit, **Parity Bit**: Mark, **Stop Bit**: 2 bit
- **Word Length**: 8 bit, **Parity Bit**: Space, **Stop Bit**: 2 bit

Default	8 bit
Value Range	7 bit, 8 bit

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

RS-232C: Parity Bit

Selects a parity bit code that indicates what type of parity is used to detect an error in the string of bits composing a character.
Make an appropriate selection depending on the requirements of the printer or personal computer.

Default None
Value Range None, Mark, Space, Even, Odd

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

RS-232C: Stop Bit

Selects a stop bit code that indicates the end of a bit string which composes a character. Select an appropriate value depending on the requirements of the printer or personal computer.

Default 1 bit
Value Range 1 bit, 2 bit

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)

Programming References

- None

RS-232C: Flow Control

Enables the hardware flow control.

Default None
Value Range None, Hardware

Feature Guide References

- None

Error Log Information Print

Specifies whether the PBX error log is printed to the SMDR output.

Default Print
Value Range No Print, Print

Feature Guide References

Feature References

- 1.21.1 Station Message Detail Recording (SMDR)
- 2.4.3 Local Alarm Information

Programming References

- None

Local Alarm Display Extension 1, Local Alarm Display Extension 2

Specifies the extension numbers of PTs which respond to a local alarm. When the PBX detects that there are PBX errors, the System Alarm button on the PT turns on red. If pressed, the display will show the error numbers, and the button turns off automatically.

Default	Not stored.
Value Range	Max. 4 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.4.3 Local Alarm Information

Programming References

- None

Daily Test Start Time : Set

Enables the daily self check of the PBX for local alarm and error log.

Default	Disable
Value Range	Disable, Enable

Feature Guide References

Feature References

- 2.4.3 Local Alarm Information

Programming References

- None

Daily Test Start Time : Hour

Specifies the hour of the start time for the daily self check of the PBX.

Default	0
Value Range	0–23

Feature Guide References

Feature References

- 2.4.3 Local Alarm Information

Programming References

- None

Daily Test Start Time : Minute

Specifies the minute of the start time for the daily self check of the PBX.

Default 0
Value Range 0–59

Feature Guide References

Feature References

- 2.4.3 Local Alarm Information

Programming References

- None

External Modem Command - Automatic Initialization

Specifies the command to automatically initialize an external modem every time it is plugged into the Serial Interface (RS-232C) port of the PBX. As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default AT&F0Q0E0V1S0=1X0&D0
Value Range Max. 80 characters

Feature Guide References

Feature References

- 2.3.1 PC Programming

Programming References

- None

External Modem Command - Manual Initialization 1–Manual Initialization 5

Specifies the command to manually initialize an external modem. The command specified here is controlled by PT system programming (External Modem Control [801]). As for the available characters, refer to the character code table described in section 3.2.1 Installing and Starting KX-TAW848 Maintenance Console.

Default Not stored.
Value Range Max. 80 characters

Feature Guide References

Feature References

- 2.3.1 PC Programming

Programming References

- External Modem Control [801]

4.10.4 Password Setting [10-4]

Passwords authorize the user to program the extension and the PBX by a PT or a personal computer.

PT System Programming : [Prog **] User Level

Specifies the user level system password to authorize the PT user to access only the permitted system programming.

Default 1234
Value Range 4–10 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.3.2 PT Programming

Programming References

- None

PT System Programming : [Prog *#] Administrator Level

Specifies the administrator level system password to authorize the PT user to access all system programming.

Default 1234
Value Range 4–10 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.3.2 PT Programming

Programming References

- None

PT Manager Programming : [Prog *1]

Specifies the manager password to authorize the PT user to access manager programming.

Default 1234
Value Range 4–10 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.2.6 Manager Features

Programming References

- None

PC System Programming Password : User Level

Specifies the system password used to access KX-TAW848 Maintenance Console in User Level.

Default 1234
Value Range 4–10 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.3.1 PC Programming

Programming References

- None

PC System Programming Password : Administrator Level

Specifies the system password used to access KX-TAW848 Maintenance Console in Administrator Level.

Default 1234
Value Range 4–10 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.3.1 PC Programming

Programming References

- None

PC System Programming Password : Installer Level

Specifies the system password used to access KX-TAW848 Maintenance Console in Installer Level.

Default 1234
Value Range 4–10 digits (consisting of 0–9)

Feature Guide References

Feature References

- 2.3.1 PC Programming

Programming References

- None

Section 5

Appendix

5.1 Capacity of System Resources

5.1.1 Capacity of System Resources

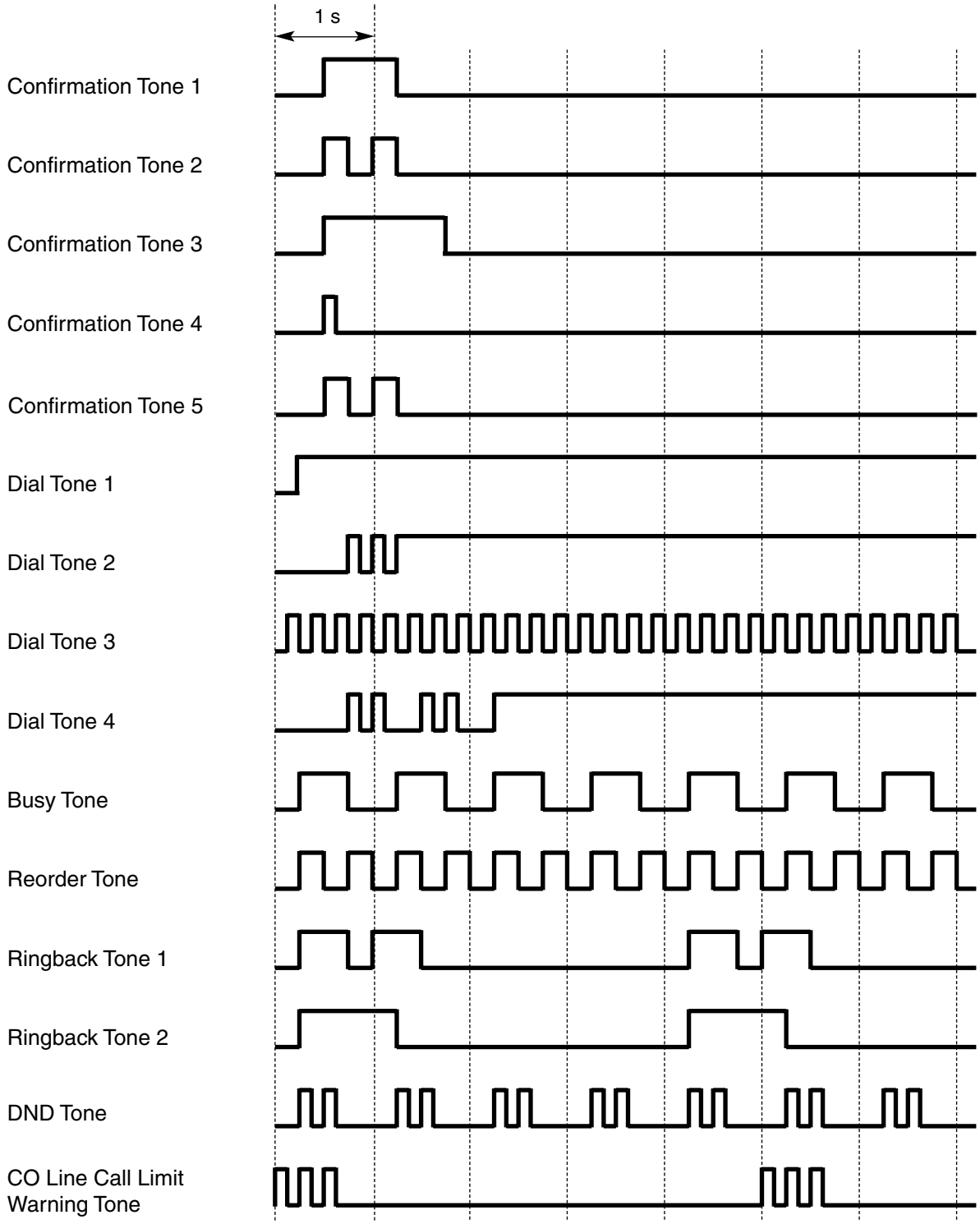
Category	Item	Capacity
System	Tenant	8
	COS	64
	CO Line Group	64
	Extension Group	32
	Paging Group	32
	Call Pickup Group	64
	Incoming Call Distribution Group	64 (32 extensions/group)
	PS Ring Group	32
	VM (DPT) Group	1 VPS × 8 ch
	VM (DTMF) Group	2 groups × 24 ch
	Queuing Time Table	64
	Idle Extension Hunting Group	64 (16 extensions/group)
	Absent Message—System	8 × 16 characters
	Absent Message—Extension	1 × 16 characters/extn.
	Message Waiting	256
	Number of Characters per Name	20
	Extension Number Digits	1 – 4
	Extension Personal Identification Number (PIN)	10 digits/extn.
	Call Park Zone	100
	Conference	3 × 10 – 8 × 4
	Verified Code	4 digits, 1 000 entries
	Verified Code Personal Identification Number (PIN)	10 digits, 1 000 entries
	Special Carrier Code	16 digits, 20 entries
	Host PBX Access Code	10 digits, 10 entries/CO line group
	SMDR	200 calls

Category	Item	Capacity
Dialing	Emergency Call	32 digits, 10 entries
	Quick Dialing	4 digits, 80 entries
	System Speed Dialing	32 digits, 1 000 entries
	Personal Speed Dialing	32 digits, 10 entries/extn.
	One-touch Dialing	32 digits
	Hot Line	32 digits
	Redial	32 digits
ARS	Routing Plan Table	16 entries
	Leading Number Table	16 digits, 1 000 entries
	Leading Number Exception Table	16 digits, 200 entries
	ARS Carrier	10
	Itemized Billing Code	10 digits
	Authorization Code	10 digits
TRS	TRS Level	7
	TRS Denied Code	16 digits, 100 entries/level
	TRS Exception Code	16 digits, 100 entries/level
Call Log	Outgoing Call Log—PS	100 logs/extn. 5 × 28 logs/PBX
	Incoming Call Log—PT	100 logs/extn. 10 × 28 logs/PBX
	Incoming Call Log—PS	100 logs/extn. 10 × 28 logs/PBX
	Incoming Call Log—Incoming Call Distribution Group	100 logs/group 10 × 64 logs/PBX
Password	System Password for Installer	4 – 10 characters
	System Password for Administrator—for PC Programming	4 – 10 characters
	System Password for User—for PC Programming	4 – 10 characters
	System Password for Administrator—for PT Programming	4 – 10 digits
	System Password for User—for PT Programming	4 – 10 digits
	Manager Password	4 – 10 digits

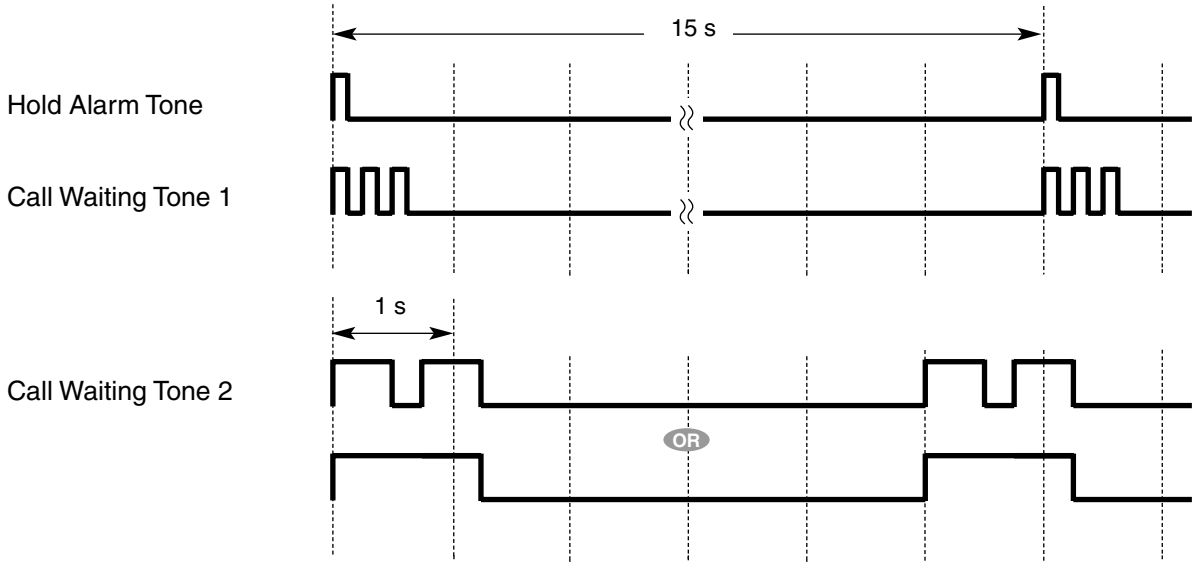
5.2 Tones/Ring Tones

5.2.1 Tones/Ring Tones

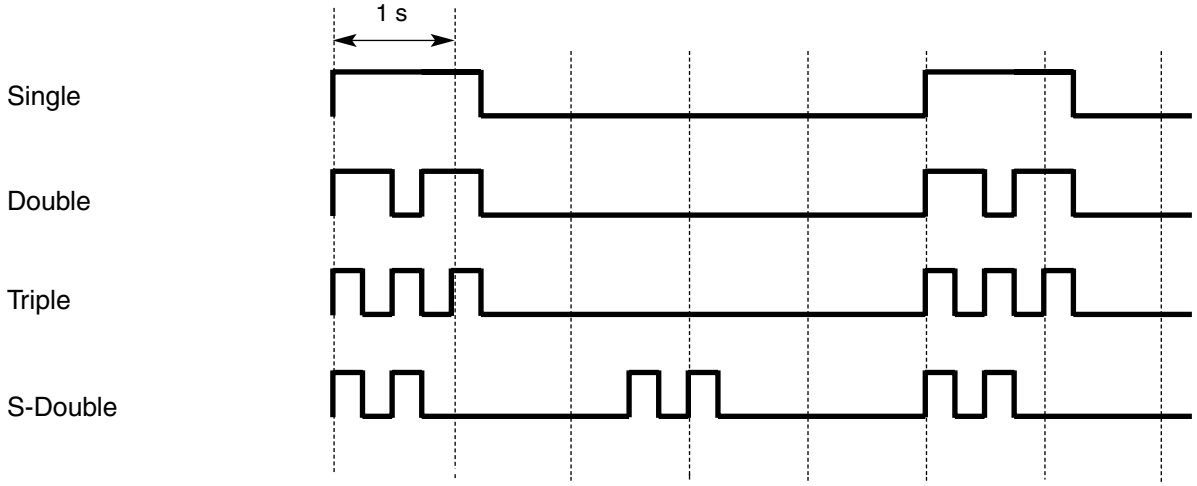
Tone Patterns (Default)



Tone Patterns (Default)



Ring Tone Patterns (Default)



5.3 List of Abbreviations

5.3.1 List of Abbreviations

A	AA	→	Automated Attendant
	APT	→	Analog Proprietary Telephone
	ARS	→	Automatic Route Selection
B	BGM	→	Background Music
C	CLI	→	Calling Line Identification
	COS	→	Class of Service
	CPC	→	Calling Party Control
	CS	→	Cell Station
D	DIL	→	Direct In Line
	DISA	→	Direct Inward System Access
	DND	→	Do Not Disturb
	DPT	→	Digital Proprietary Telephone
	DSS	→	Direct Station Selection
	DTMF	→	Dual Tone Multi-Frequency
E	EFA	→	External Feature Access
F	FWD	→	Call Forwarding
G	G-CO	→	Group-CO
	G-DN	→	Group Directory Number
I	ICD	→	Incoming Call Distribution
	IRNA	→	Intercept Routing—No Answer
L	L-CO	→	Loop-CO
	LCS	→	Live Call Screening
O	OGM	→	Outgoing Message
P	PIN	→	Personal Identification Number
	PS	→	Portable Station
	PT	→	Proprietary Telephone
S	S-CO	→	Single-CO
	SLT	→	Single Line Telephone
	SMDR	→	Station Message Detail Recording

T	TAFAS	→	Trunk Answer from Any Station
	TRG	→	CO Line Group
	TRS	→	Toll Restriction
U	UCD	→	Uniform Call Distribution
V	VM	→	Voice Mail
	VPS	→	Voice Processing System
X	XDP	→	eXtra Device Port

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