Thank you for purchasing a Panasonic Advanced Hybrid System. Please read this manual carefully before using this product and save this manual for future use.
Introduction

About this Programming Manual

The Programming Manual is designed to serve as an overall system programming reference for the Panasonic Advanced Hybrid System. It explains how to program this PBX using Panasonic proprietary telephones (PTs) or the KX-TA Maintenance Console software. The Programming Manual is divided into the following sections:

Section 1, Overview
Provides an overview of methods of programming the PBX, and information about password security.

Section 2, PT Programming
Serves as reference operating instructions when using a display PT to program the PBX.

Section 3, PC Programming—Introduction
Serves as reference operating instructions when using the KX-TA Maintenance Console software to program the PBX.

Section 4, PC Programming—Opening Screen
Describes the options available when starting Maintenance Console.

Section 5, PC Programming—File
Explains the File menu, which lets you work with system data files, and view programming items.

Section 6, PC Programming—Connect
Describes the Connect menu, which offers options for connecting a PC to the PBX.

Section 7, PC Programming—View
Describes the View menu, which allows you to customize the operation of Maintenance Console.

Section 8, PC Programming—Utility
Describes the Utility menu, which contains options for performing system maintenance on the PBX.

Section 9, PC Programming—System Data Setting
Describes the options available on each setting screen of the Maintenance Console.

References Found in the Programming Manual

Installation Manual References
The Installation Manual provides instructions detailing the installation and maintenance of the PBX. Sections from the Installation Manual are listed throughout the Programming Manual for your reference.

Programming Manual References
Related sections of the Programming Manual are listed for your reference.
Feature Manual References
The Feature Manual explains what the PBX can do, as well as how to obtain the most of its many features and facilities. Sections from the Feature Manual are listed throughout the Programming Manual for your reference.

Operating Manual References
The Operating Manual describes how users can access commonly used PBX features and functions with their PTs, single line telephones (SLTs), and Direct Station Selection (DSS) Consoles. Sections from the Operating Manual are listed throughout the Programming Manual for your reference.

Links to Other Pages and Manuals
If you are viewing this Programming Manual with a PC, certain items are linked to different sections of the Programming Manual and other PBX manuals. Click on a link to jump to that section.
Linked items include:
- Installation Manual References
- Programming Manual References
- Feature Manual References
- Operating Manual References

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<th>Automated Attendant</th>
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<td></td>
<td>APT</td>
<td>Analog Proprietary Telephone</td>
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<td>Background Music</td>
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<tr>
<td></td>
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This section provides an overview of methods of programming the PBX, and information about password security.
1.1 Introduction

1.1.1 Introduction

These programming instructions are designed to serve as an overall system programming reference for the Panasonic Advanced Hybrid System. The PBX has default settings that can be changed to meet your needs. These settings control the manner in which the PBX features described in this Programming Manual 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 2 programming methods:

- **PT (Proprietary Telephone) Programming**
  PT programming is described in Section PT Programming. An authorized administrator or the manager can perform system programming by entering 3-digit programming numbers with a PT.

- **PC Programming**
  PC programming is described in Section 3.2 PC Programming.

Password Security

To maintain system security, a password is required to perform system programming. When KX-TA Maintenance Console is started for the first time, the Quick Setup utility will ask you to set the system password. To avoid unauthorized access and possible fraudulent dialing, do not disclose the password.

*Warning to the Administrator or Installer regarding the system password*

1. Please inform the customer of the importance of the password and the possible dangers if it becomes known to others.

2. To avoid unauthorized access and possible fraudulent dialing, maintain the secrecy of the password.

3. We strongly recommend that you change the default password value to something else for reasons of system security. It is best to use a password of 7 digits.

4. Please change the password periodically.

5. If a system password is forgotten, it can be found by loading a backup of the system data into a PC, and checking the password using the KX-TA Maintenance Console software. If you do not have a backup of the system data, you must reset the PBX to its factory defaults and reprogram it. Therefore, we strongly recommend maintaining a backup of the system data. For more information on how to back up the system data, refer to the on-line help that appears by selecting the Help menu during PC programming. However, as system passwords can be extracted from backup copies of the system data file, do not allow unauthorized access to these files.

*Notes*

This PBX has only one system password. It can be changed by either PT programming or PC programming. For this reason, the password can consist of numerals only.
Section 2

PT Programming

This section serves as reference operating instructions when using a display PT to program the PBX.
2.1 PT Programming—Instructions

Required Telephone

PBX settings can be customized through system programming by using a proprietary telephone (PT) with a display, such as the KX-T7731. An authorized administrator or the manager extension connected to extension jack 01 can access system programming.

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Entering System Programming Mode

Using a PT to perform system programming allows an authorized administrator to set a wide range of PBX features and parameters. To enter system programming mode, the system password is required. With the system password, all system programming is accessible.

Notes

◆ means default value throughout these programming instructions.

Entering Manager Programming Mode

Using a PT to perform manager programming allows the manager extension (extension jack 01) to set certain PBX features and parameters. To enter manager programming mode, the extension password for the manager (manager password) is required.

With the manager password, the following 4 system programming settings are accessible:

- [001] System Speed Dialing Number
- [011] System Speed Dialing Name
- [512] DISA Security Code
- [530] DISA Security Code Digits

Notes

- The system password may be entered instead of the manager password.
- With the manager password, the manager can also set a password to each extension. For more information on how to assign a password to each extension including the manager password, refer to the Operating Manual (→ 2.1.7 System Feature Assignment).
2.1 PT Programming—Instructions

Entering Characters

The PT's dialing buttons can be used to enter characters when storing a name or message. The following tables depict the available characters:

Table 1 (Alphabet mode)/Table 2 (Numeral mode)

<table>
<thead>
<tr>
<th>Buttons</th>
<th>Times</th>
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<tr>
<td>1</td>
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[Example of Entering Characters]
To enter “Ann”:

<table>
<thead>
<tr>
<th>A</th>
<th>n</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>6</td>
<td>OR 6</td>
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</tbody>
</table>

Notes

- To toggle between "Alphabet mode" and "Numeral mode", press SELECT.
- To move the cursor right, press ➤.
- To delete all characters, press CLEAR. To delete a character, press ◄.
2.2 PT Programming—Procedures

Notes

- ◆ means default value throughout these programming instructions.
- × means to select "All" throughout these programming instructions.
- The following are displayed when you store a number, such as a telephone number, or feature number:
  P: PAUSE; -: CONF; F: FLASH/RECALL; [: ]: INTERCOM
  x: PAUSE (substitutes for any number [i.e., wild card])
- To return to the previous programming item, press ◄.
- To correct a wrong entry, press CLEAR and then enter the new input.
- To delete a stored parameter, press CLEAR, enter the new input, and then press STORE.
- Press ◄ or ► to scroll the display.
- Some programs cannot have a value left empty.

[000] Date & Time

Selects the date and time of the PBX. The date and time will be shown on the displays of PTs and SMDR.

Conditions

- The clock starts immediately after the STORE button is pressed.
- The PBX supports years from 2000 to 2099.

Feature Manual References

1.1.43 Display Information
1.1.112 Station Message Detail Recording (SMDR)
[001] System Speed Dialing Number

Used to store frequently dialed numbers. These numbers are available for all extension users when making or receiving calls. A maximum of 100 System Speed Dialing numbers (e.g., telephone numbers, feature numbers) can be programmed.

Conditions

- An Outside (CO) Line Access number (9, 81 through 88) should be included before the phone number. When dialing, a pause will automatically be inserted after the Outside (CO) Line Access number.
- When storing an account code assigned in [310] Account Code, enter # and the account code after an Outside (CO) Line Access number.

Programming Manual References

[011] System Speed Dialing Name
[310] Account Code

Feature Manual References

1.1.111 Secret Dialing
1.1.113 System Speed Dialing

[002] System Password

Specifies the system password used to access system programming.

WARNING

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 if it becomes known to others.
2. To avoid unauthorized access and possible fraudulent dialing, maintain the secrecy of the password.

3. We strongly recommend that you change the default password value to something else for reasons of system security. It is best to use a password of 7 digits.

4. Please change the password periodically.

5. If a system password is forgotten, it can be found by loading a backup of the system data into a PC, and checking the password using the KX-TA Maintenance Console software. If you do not have a backup of the system data, you must reset the PBX to its factory defaults and reprogram it. Therefore, we strongly recommend maintaining a backup of the system data. For more information on how to back up the system data, refer to the on-line help that appears by selecting the Help menu during PC programming. However, as system passwords can be extracted from backup copies of the system data file, do not allow unauthorized access to these files.

Notes
This PBX has only one system password. It can be changed by either PT programming or PC programming. For this reason, the password can consist of numerals only.

Programming Manual References
2.1 PT Programming—Instructions
3.2 PC Programming

Feature Manual References
1.1.99 PC Programming
1.1.103 PT Programming

[003] DSS Console Jack Assignment
Selects the number of the extension jack that the DSS Console is connected to.

Conditions
- To delete (disable) an extension jack number, press CLEAR in the extension jack number step.
- The same jack number cannot be assigned to 2 DSS Consoles.
- Do not assign extension jack 01 (manager extension) as the DSS Console jack.
- The extension jack number preassigned as a paired telephone in [004] Console Paired Telephone should not be assigned in this program.

Programming Manual References
[004] Console Paired Telephone

Feature Manual References
1.1.54 Extension Jack Configuration
1.1.59 Fixed Buttons

[004] Console Paired Telephone
Selects the extension jack number of the PT to be used in pair with the DSS Console.

[005] One-touch Transfer Using a DSS Button
Selects how an outside (CO) line call is transferred to an extension using a DSS button.

[006] Time Service Switching Mode
Selects whether the time service mode is switched between day, lunch, and night manually or automatically.
[007] Time Service Start Time

Enables the start times of each time service mode and end time of lunch mode for each day of the week.

Conditions
- This program is available when switching mode is enabled in automatic mode in [006] Time Service Switching Mode.
- * Pressing SELECT shows the previous entry. When the display shows "None", press SELECT to set the start time.

[008] Operator Assignment

Selects the extension jack number to be designated as the operator.

Conditions
- To delete (disable) an extension jack number, press CLEAR in the extension jack number step.
Feature Manual References
1.1.87 Operator/Manager Features

[009] Extension Number
Specifies an extension number for each extension.

Conditions
- The same extension number cannot be entered for 2 different extension jacks.

Programming Manual References
[604] Extension Name

Feature Manual References
1.1.43 Display Information
1.1.57 Feature Numbering
1.1.69 Intercom Call

[010] LCD Time Display
Selects the time format shown on the displays of PTs while on-hook.

Conditions
- The following settings and features use 12-hour format even if 24-hour format is assigned in this program:
  - [000] Date & Time
  - [007] Time Service Start Time
  - 1.1.112 Station Message Detail Recording (SMDR)
  - 1.1.115 Timed Reminder

Programming Manual References
[000] Date & Time
[007] Time Service Start Time

Feature Manual References
1.1.43 Display Information
[011] System Speed Dialing Name

Specifies a name for the System Speed Dialing number. The name will be displayed when making a call by using the System Speed Dialing feature. It will also be displayed when a matching number is received with the Caller ID feature.

Conditions

- * A name can be stored using a PT's dialing buttons. The displayed character varies depending on the number of times that the dialing button is pressed. It is possible to toggle between "Alphabet mode" and "Numeral mode" by pressing SELECT.

Programming Manual References

2.1 PT Programming—Instructions—Entering Characters
[001] System Speed Dialing Number

Feature Manual References

1.1.113 System Speed Dialing

[100] Hunting Group Set

Enables the redirection of calls to an idle member of the same extension group when the called extension is busy.

Programming Manual References

[600] Extension Group

Feature Manual References

1.1.67 Idle Extension Hunting
[101] Hunting Type
Selects the hunting type for each group.

Notes
Circular: Circulates until the call is answered.
Terminate: Terminates at the last extension.

Conditions
• This program is available when the extension group is enabled in [100] Hunting Group Set.

Programming Manual References
[100] Hunting Group Set
[600] Extension Group

Feature Manual References
1.1.67 Idle Extension Hunting

[102] DTMF Integration Port
Enables the extension jack number(s) (07, 08, 15, 16) to be connected to a Panasonic VPS and specified as the voice mail ports.

Feature Manual References
1.1.121 Voice Mail Inband (DTMF) Integration
[103] DTMF Integration
Enables Inband (DTMF) Integration between the VPS and the PBX when a KX-TVS series VPS/KX-TVA series VPS is connected to the PBX. The VPS and PBX communicate with each other by sending DTMF signals.

```
1 0 3 NEXT SELECT STORE END
```

(Enable/◆Disable)

**Conditions**
- In order to select "Enable" in this program, [130] VM 1 APT Port and [131] VM 2 APT Port should first be set to "Disable".
- Please refer to 1.1.121 Voice Mail Inband (DTMF) Integration in the Feature Manual for details about such as DTMF status signals.

**Programming Manual References**
[102] DTMF Integration Port

**Feature Manual References**
1.1.121 Voice Mail Inband (DTMF) Integration

[104] SLT Hold Mode
Selects how calls are held and transferred with an SLT when the Recall/hookswitch is pressed for less than 1000 ms.

```
1 0 4 NEXT SELECT STORE END
```

(◆Hold-1/Hold-2/ Hold-3)

**Feature Manual References**
1.1.15 Call Hold

[105] Conference Tone
Enables the PBX to send a confirmation tone before starting or ending a conference call established by the Conference feature or Executive Busy Override feature.

```
1 0 5 NEXT SELECT STORE END
```

(◆Enable/Disable)

**Feature Manual References**
1.1.33 Conference
1.1.50 Executive Busy Override—Extension
1.1.51 Executive Busy Override—Outside (CO) Line

[106] External Pager Access Tone
Enables the PBX to send a confirmation tone to the external pager before a paging announcement.

```
1 0 6 NEXT SELECT STORE END
```

(◆Enable/Disable)
### [107] DTMF Receiver Check

Enables each DTMF receiver to check whether it is operating normally or not.

**DTMF receiver number:**
- 1–2: checking extension jacks 01–08
- 3–4: checking extension jacks 09–16
- 5–6: checking extension jacks 17–24

### Installation Manual References

4.1.3 Operation

### [108] Flash/Recall Mode for a Locked Extension

Enables a locked extension to send a flash/recall signal during a conversation with an outside party.

### Feature Manual References

1.1.55 Extension Lock
1.1.107 Remote Extension Lock

### [109] CO Indicator

Enables the corresponding PTs to answer incoming outside (CO) line calls. The CO button indicator will flash when an outside (CO) line call is received. If this program is enabled, a PT user can answer the call by pressing the flashing CO button. If this program is disabled, the user cannot answer the call even if he or she presses the CO button.

**Conditions**
- This program is available for the extension(s) assigned not to ring in [408-410] Flexible Ringing—Day/Night/Lunch, to answer incoming outside (CO) line calls.

### Programming Manual References

[408-410] Flexible Ringing—Day/Night/Lunch
[110] Flash/Recall Key Mode
Selects the function of the FLASH/RECALL button on a PT during a conversation with an outside party.

1 1 0 NEXT SELECT STORE END
(MODE1: EFA mode/
◆MODE2: Flash/Recall mode)

Feature Manual References
1.1.56 External Feature Access (EFA)
1.1.60 Flash/Recall

[111] Music on Hold
Selects the audio source for Music on Hold and BGM.

1 1 1 NEXT SELECT STORE END
◆External/Tone

Feature Manual References
1.1.7 Background Music (BGM)
1.1.85 Music on Hold

[112] DSS Lamp Mode
Enables the Busy Lamp Field (BLF) on the DSS button to indicate the status, FWD or DND, of corresponding extensions.

1 1 2 NEXT SELECT STORE END
◆Enable/Disable

Notes
Enable: FWD—Flashing slowly, DND—Flashing at moderate speed
Disable: FWD—Off, DND—Off

Feature Manual References
1.1.70 LED Indication

[115] Extension Ring Tone Pattern
Selects the extension ring tone pattern for incoming intercom calls.

1 1 5 NEXT SELECT STORE END
(Single/◆Double/
Triple)

Feature Manual References
1.1.69 Intercom Call
1.1.108 Ring Tone Pattern Selection
2.2.1 Tones/Ring Tones
[117] Call Pickup Tone
Enables the PBX to send a confirmation tone when the Call Pickup feature is activated.

```
1 1 7 NEXT SELECT STORE END
```
(Enable/Disable)

Feature Manual References
1.1.20 Call Pickup, Directed
1.1.21 Call Pickup, Group

[118] Pulse Restriction
Enables the PBX to send pulse dialing to the telephone company during a conversation with an outside party when "Pulse" or "Call Block" mode is enabled in [401] Dial Mode.

```
1 1 8 NEXT SELECT STORE END
```
(Enable/Disable)

Programming Manual References
[401] Dial Mode

[119] Redialing after Pulse to Tone Conversion
Enables the PBX to send DTMF dialing to the telephone company when an extension user redials after changing from pulse mode to DTMF mode by pressing "*#".

```
1 1 9 NEXT SELECT STORE END
```
(Enable/Disable)

Feature Manual References
1.1.104 Pulse to Tone Conversion

[125] TRS Check for * and #
Enables TRS to check for the user-dialed digits "x" and ". This is useful in preventing some unauthorized calls.

```
1 2 5 NEXT SELECT STORE END
```
(Enable/Disable)

Feature Manual References
1.1.117 Toll Restriction (TRS)

[128] Ringback Tone Pattern
Selects the ringback tone pattern for outgoing intercom calls and for incoming outside (CO) line calls (including a DISA call).

```
1 2 8 NEXT SELECT STORE END
```
(Single 3 s/Single 5 s/
Double 3 s/Double 5 s)
Feature Manual References
1.1.41 Direct Inward System Access (DISA)
1.1.69 Intercom Call
2.2.1 Tones/Ring Tones

[130] VM 1 APT Port
Enables the extension jack number(s) (07, or 07 and 08) to be connected to a Panasonic VPS and specified as the voice mail APT ports.

Conditions
- To change the current setting (other than "Disable"), select "Disable", then select the desired setting.
- This program is not available when "Enable" is selected in [103] DTMF Integration.

Programming Manual References
[103] DTMF Integration

Feature Manual References
1.1.120 Voice Mail APT Integration

[131] VM 2 APT Port
Enables the extension jack number(s) (15, or 15 and 16) to be connected to a Panasonic VPS and specified as the voice mail APT ports.

Conditions
- To change the current setting (other than "Disable"), select "Disable", then select the desired setting.
- This program is not available when "Enable" is selected in [103] DTMF Integration.

Programming Manual References
[103] DTMF Integration

Feature Manual References
1.1.120 Voice Mail APT Integration
[142] SLT Ring/Silence Ratio
Selects the ratio between the bell signals of an SLT (a set of bell-on and bell-off).

```
1 4 2 NEXT SELECT STORE END
```

(1:2/ 1:3/1:4)

[On:Off]

Programming Manual References
[143] SLT Ring Bell-on Time

Feature Manual References
1.1.108 Ring Tone Pattern Selection

[143] SLT Ring Bell-on Time
This program selects the length of the bell-on signal of an SLT. This determines the ring tone pattern for incoming calls to SLTs, combined with the setting in [142] SLT Ring/Silence Ratio.

```
1 4 3 NEXT SELECT STORE END
```

(1000…2000 ms)

[100 ms increments]

◆1300 ms

Conditions
- This program also determines the maximum number of digits of an SLT Caller ID number, when "DTMF1" or "DTMF2" is selected in [150] SLT Caller ID Signaling Type.

Programming Manual References
[142] SLT Ring/Silence Ratio
[150] SLT Caller ID Signaling Type

Feature Manual References
1.1.30 Caller ID
1.1.108 Ring Tone Pattern Selection

[150] SLT Caller ID Signaling Type
Selects the signaling type of SLT Caller ID.

```
1 5 0 NEXT SELECT STORE END
```

◆FSK1 [During ring]/
FSK2 [RP-AS]/
DTMF1 [Immediately]/
DTMF2 [During ring]

Feature Manual References
1.1.30 Caller ID
[151] SLT Caller ID Line Access Number

Enables the PBX to automatically add an Outside (CO) Line Access number to the received telephone
number when sending the Caller ID number of an incoming outside (CO) line call to an SLT.

1 5 1 NEXT SELECT STORE END

(●Enable/Disable)

Feature Manual References
1.1.30 Caller ID

[152] Automatic Time Adjustment

Enables the PBX to adjust its clock every day according to the time information included with the first Caller
ID call after 3:05 A.M.

1 5 2 NEXT SELECT STORE END

(●Enable/Disable)

Feature Manual References
1.1.6 Automatic Time Adjustment

[200] Hold Recall Time

Selects the length of time a call on hold waits to be retrieved. If the call on hold is not retrieved within the
time period programmed here, a ring tone will be heard at the extension that put the call on hold. If the
extension is engaged in a call, an alarm tone will be heard.

2 0 0 NEXT SELECT STORE END

(●30 s/
1/1.5/2/3/4/5/6 min/
Disable)

Feature Manual References
1.1.15 Call Hold
1.1.17 Call Hold Retrieve
1.1.19 Call Park

[201] Transfer Recall Time

Selects the length of time a transferred call waits to be answered. If the transfer destination does not answer
the call within the time period programmed here, the call will return to the extension that transferred the call.

2 0 1 NEXT SELECT STORE END

(15/●30 s/
1/2 min)

Feature Manual References
1.1.25 Call Transfer—To Extension
[202] Call Forwarding Start Time
Selects the length of time before a call is forwarded when the call is not answered.

2 0 2 NEXT SELECT STORE END
(5/10/15/20 s delay)

Feature Manual References
1.1.12 Call Forwarding (FWD)—Busy/No Answer

[203] Hot Line Waiting Time
Selects the length of time until automatic dialing starts after an SLT user goes off-hook.

2 0 3 NEXT SELECT STORE END
(0…4 s)
◆3 s

Feature Manual References
1.1.66 Hot Line

[204] Call Duration Counter Start
Selects when the call timer starts, either immediately after an outside (CO) line is seized, or after the end of dialing. This corresponds to the length of the conversation displayed on the LCD and logged by SMDR.

2 0 4 NEXT SELECT STORE END
(5/10/15/20/25/30/35/40/45/50 s after dialing/Instantly)

Feature Manual References
1.1.43 Display Information
1.1.112 Station Message Detail Recording (SMDR)

[205] CO-to-CO Line Call Duration
Selects the maximum length of time allowed for a conversation between 2 outside parties using the FWD to Outside (CO) Line, Call Transfer to Outside (CO) Line, Unattended Conference, or DISA feature.

2 0 5 NEXT time STORE END
(1…32 min)
◆10 min

Feature Manual References
1.1.91 Outside-to-Outside (CO-to-CO) Line Call Duration
[206] Dialing Start Time
Selects the minimum length of time that the PBX waits after seizing an outside (CO) line before dialing.

```
2 0 6 NEXT SELECT STORE END
```

(0/250/500/750/1000/1250/1500 ms)

Feature Manual References
1.1.71 Line Access, Outside (CO) Line—SUMMARY

[208] Inter-digit Time
Selects the length of time allowed between digits for an outgoing outside (CO) line call.

```
2 0 8 NEXT SELECT STORE END
```

(5/10/15/20 s)

Programming Manual References
[211] No Dial Disconnection

Feature Manual References
1.1.117 Toll Restriction (TRS)

[211] No Dial Disconnection
Selects whether or not to disconnect an outside (CO) line when an extension user does not dial anything within 10 seconds after seizing the outside (CO) line.

```
2 1 1 NEXT SELECT STORE END
```

(Enable/Disable)

Programming Manual References
[208] Inter-digit Time

Feature Manual References
1.1.117 Toll Restriction (TRS)

[214] BV Recording Time
Selects the maximum recording time for each voice message.

```
2 1 4 NEXT time STORE END
```

(1…20 min)

Feature Manual References
1.1.8 Built-in Voice Message (BV)
[215] Common/Personal BV OGM Recording Time
Selects the maximum recording time for each personal/common BV OGM.

[300] Carrier Exception Code
Specifies the Carrier Exception codes. The PBX can recognize a user-dialed carrier code in order to apply TRS. The PBX disregards the assigned code and TRS is applied to the numbers after the code.

[301] TRS—System Speed Dialing Class
Selects the COS of System Speed Dialing numbers. Calls made using System Speed Dialing are restricted depending on the COS programmed here and the COS assigned to each extension.
[302-305] TRS—COS 2-5 Denied Code
Specifies the toll-restricted numbers for classes 2–5.

**Programming Manual References**
- [306] TRS—Exception Code
- [601-603] TRS-COS—Day/Night/Lunch

**Feature Manual References**
- 1.1.117 Toll Restriction (TRS)

[306] TRS—Exception Code
Specifies the numbers to be exempted from TRS in each class range.

**Programming Manual References**
- [302-305] TRS—COS 2-5 Denied Code

**Feature Manual References**
- 1.1.117 Toll Restriction (TRS)
[309] Emergency Number
Specifies the numbers used for making emergency calls. It is not necessary to prefix the emergency number with an Outside (CO) Line Access number.

Feature Manual References
1.1.49 Emergency Call
1.1.117 Toll Restriction (TRS)

[310] Account Code
Specifies the account codes that must be entered when “Verify-All " (an account code is required to make an outside (CO) line call) or "Verify-Toll " (an account code is required to override TRS temporarily) is selected in [605] Account Code Mode.

Programming Manual References
[605] Account Code Mode

Feature Manual References
1.1.2 Account Code Entry
1.1.118 Toll Restriction (TRS) Override by Account Code
**[311] Automatic Pause Insertion Code**

Specifies the Automatic Pause Insertion codes that are checked with the outgoing outside (CO) line call number. A maximum of 40 Automatic Pause Insertion codes can be programmed. When a dialed telephone number matches one of the Automatic Pause Insertion codes specified here, a pause will be automatically inserted after the code. This is particularly convenient if a second dial tone is sent from your telephone company.

`3 1 1 NEXT`  
*code no.*  
(01…40)  
Max. 11 digits  
(0…9)  
◆ All-Not stored  
`SELECT`  
`STORE`  
`END`  
To continue

**Programming Manual References**

[417] Pause Time

**Feature Manual References**

1.1.98 Pause Insertion

**[312] TRS—Extension Lock Class**

Selects the COS of locked extensions.

`3 1 2 NEXT SELECT STORE END`  
(COS-2…5/  
◆ Disable)

**Feature Manual References**

1.1.55 Extension Lock  
1.1.107 Remote Extension Lock  
1.1.117 Toll Restriction (TRS)

**[400] CO Line Connection**

Specifies which outside (CO) lines are connected to the PBX.

`4 0 0 NEXT`  
*CO line no.*  
(1…8/  
◆ Connect/  
Not connect)  
`SELECT`  
`STORE`  
`END`  
To continue

To continue
Conditions
- The numbers of outside (CO) line ports that do not have lines connected should be set to "Not connect". The PBX seizes the highest available outside (CO) line number when selecting an idle outside (CO) line automatically. If an unconnected outside (CO) line number is set to "Connect" and is numbered higher than any connected outside (CO) line number, the PBX will try to seize the unconnected outside (CO) line.

Feature Manual References
1.1.71 Line Access, Outside (CO) Line—SUMMARY
1.1.76 Line Preference—Outgoing

[401] Dial Mode
Selects the type of signal used to dial out using an outside (CO) line.

Programming Manual References
[402] Pulse Speed

Feature Manual References
1.1.39 Dial Type Selection

[402] Pulse Speed
Selects the speed at which pulse signals are sent to the outside (CO) lines for which Dial Mode in [401] Dial Mode is set to "Pulse" or "Call Blocking".

Programming Manual References
[401] Dial Mode

Feature Manual References
1.1.39 Dial Type Selection
[403] Host PBX Access Code
Specifies the Host PBX Access code used to access an outside (CO) line from the host PBX.

Conditions
- Insert ",," (CONF/MESSAGE button) between each access code using the comma button on the overlay. For example, to store access codes 81 and 82 on outside (CO) line 1, program as follows:
  403 NEXT 1 81,82 STORE END

Programming Manual References
[417] Pause Time

Feature Manual References
1.1.65 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)

[404] CO Line Group Number
Selects the outside (CO) line group that each outside (CO) line is assigned to.

Feature Manual References
1.1.73 Line Access, Outside (CO) Line Group
1.1.89 Outside (CO) Line Group
[405-407] Flexible Outward Dialing—Day/Night/Lunch

Specifies which extensions can make outside (CO) line calls in each time service mode.

Conditions
- It is impossible to disable all extensions for all outside (CO) lines in each time service mode. In each mode, at least one extension must be allowed to make an outside (CO) line call.

Feature Manual References
1.1.71 Line Access, Outside (CO) Line—SUMMARY
1.1.76 Line Preference—Outgoing

[408-410] Flexible Ringing—Day/Night/Lunch

Selects whether the extension will ring or not for incoming outside (CO) line calls in each time service mode.
Feature Manual References
1.1.75 Line Preference—Incoming
1.1.90 Outside (CO) Line Ringing Selection
1.1.109 Ringing, Delayed

[411-413] Delayed Ringing—Day/Night/Lunch
Specifies the delay after a call is received before the extension starts to ring if the extension is set to ring in [408-410] Flexible Ringing—Day/Night/Lunch.

Programming Manual References
[408-410] Flexible Ringing—Day/Night/Lunch

Feature Manual References
1.1.42 Direct Inward System Access (DISA) Ring
1.1.75 Line Preference—Incoming
1.1.109 Ringing, Delayed

[414-416] CO Line Mode—Day/Night/Lunch
Selects the distribution method for incoming outside (CO) line calls in each time service mode. Depending on the distribution method selected, it may also be necessary to select a specific destination.

To select Normal and/or MODEM
<To select BV>

Conditions
- After you select “BV”, do not change [008] Operator Assignment.

Programming Manual References
[008] Operator Assignment
[408-410] Flexible Ringing—Day/Night/Lunch

Feature Manual References
1.1.8 Built-in Voice Message (BV)
1.1.40 Direct In Line (DIL)
1.1.41 Direct Inward System Access (DISA)
1.1.99 PC Programming
[417] Pause Time
Selects the length of a pause inserted in dialing.

Programming Manual References
[311] Automatic Pause Insertion Code
[403] Host PBX Access Code

Feature Manual References
1.1.65 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)
1.1.98 Pause Insertion

[418] Flash/Recall Time
Selects the length of a flash/recall signal.

Feature Manual References
1.1.56 External Feature Access (EFA)
1.1.60 Flash/Recall
[419] Automatic Designated Line Access
Specifications which outside (CO) line is seized automatically when an extension user dials the Automatic Line Access number (9).

Feature Manual References
1.1.72 Line Access, Automatic
1.1.76 Line Preference—Outgoing

[420] CPC Signal Detection—Incoming
Selects the length of time required by the PBX to detect a CPC signal from an incoming outside (CO) line call before disconnecting the line.

Notes
CPC signal detect time selection number:
00: Disable; 01–75: 22–614 ms (detect time: 8 ms increments)

Programming Manual References
[421] CPC Signal Detection—Outgoing

Feature Manual References
1.1.31 Calling Party Control (CPC) Signal Detection
[421] CPC Signal Detection—Outgoing
Enables the PBX to detect a CPC signal from outgoing outside (CO) line calls. If disabled, CPC signal detection is only activated during an incoming outside (CO) line call.

Programming Manual References
[420] CPC Signal Detection—Incoming

Feature Manual References
1.1.31 Calling Party Control (CPC) Signal Detection

[422] Disconnect Time
Selects the length of the disconnect signal sent from the PBX to the telephone company or host PBX.

Conditions
- The time you select must be longer than the requirements of your telephone company or host PBX.

Feature Manual References
1.1.60 Flash/Recall
[423] CO Line Ring Tone Pattern

Selects the ring tone pattern for incoming outside (CO) line calls.

Conditions
- It is recommended that you set a different ring tone pattern from the ring tone patterns specified in [115] Extension Ring Tone Pattern and [706] Doorphone Ring Tone Pattern.

Programming Manual References
[115] Extension Ring Tone Pattern
[706] Doorphone Ring Tone Pattern

Feature Manual References
1.1.108 Ring Tone Pattern Selection

[435] Local Carrier-based Voice Mail Signaling

Selects the type of signal that the PBX expects to receive from the telephone company’s voice mail service. This signal indicates the presence or absence of voice mail messages in the mailbox.

Feature Manual References
1.1.78 Local Carrier-based Voice Mail Service
[436] Local Carrier-based Voice Mail Access Dial

Specifies the voice mail service access number. This program allows a PT user to access the telephone company's voice mail service when a message is left in the mailbox.

Feature Manual References
1.1.78 Local Carrier-based Voice Mail Service

[437] Extension Access to Local Carrier-based Voice Mail

Selects which extensions can access the voice mail service offered by the telephone company using each outside (CO) line.

Feature Manual References
1.1.78 Local Carrier-based Voice Mail Service
**[438-440] DISA IRNA to BV—Day/Night/Lunch**

Selects the common BV OGM used as the intercept destination of unanswered DISA calls in each time service mode.

**Feature Manual References**
1.1.8 Built-in Voice Message (BV)

**[500] DISA Incoming Call Dial Mode**

Selects the destination of an incoming outside (CO) line call via the DISA feature.

- **Notes**
  - **Without AA**: Available destinations are extension numbers assigned in [009] Extension Number, Outside (CO) Line Access numbers (9, 81 through 88), and the Operator Call number (0)
  - **With AA**: Available destinations are numbers available in "Without AA" mode and numbers (0 through 9) assigned in [501] DISA Built-in AA

**Programming Manual References**
- [009] Extension Number
- [501] DISA Built-in AA

**Feature Manual References**
1.1.41 Direct Inward System Access (DISA)

**[501] DISA Built-in AA**

Specifies the destinations of the DISA AA numbers.
Conditions

- This program is available only when "With AA" is selected in [500] DISA Incoming Call Dial Mode.
- If you would like to use the Automatic Line Access number and/or Operator Call number in AA mode, do not assign AA number(s) that correspond to Automatic Line Access or Operator Call numbers (9 and/or 0).

Programming Manual References
[500] DISA Incoming Call Dial Mode

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[503] FAX Connection
Selects the extension number of the extension to receive fax data when the PBX receives a fax (CNG) tone via the DISA feature.

5 0 3 NEXT extension jack no. STORE END
(01…24/◆ Disable)

Conditions
- To delete (disable) an extension jack number, press CLEAR in the extension jack number step.
- The assigned extension will automatically have the Data Line Security feature set.

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[504] DISA Delayed Answer Time
Selects the length of time the caller hears a ringback tone before hearing a DISA OGM or a short beep.

5 0 4 NEXT SELECT STORE END
(0/◆3/6/12 s)

Programming Manual References
[900] Caller ID

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[505] DISA Wait Time after OGM
Selects the length of time the PBX keeps detecting DTMF signals or a fax (CNG) tone after completing a DISA OGM.

5 0 5 NEXT SELECT STORE END
(0/◆5/10/15 s)

Programming Manual References
[408-410] Flexible Ringing—Day/Night/Lunch
[438-440] DISA IRNA to BV—Day/Night/Lunch
[510] DISA No Dial Mode

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[506] DISA Busy Mode
Selects how DISA calls are handled when a called extension is busy.

<To select Disconnect or Call Waiting>

5 0 6 NEXT SELECT STORE END

(Disconnect/Call Waiting)

<To select DISA>

5 0 6 NEXT SELECT DISA OGM no. STORE END

(DISIA)

Feature Manual References
1.1.41 Direct Inward System Access (DISA)
1.1.88 Outgoing Message (OGM) for DISA

[507] DISA Intercept Mode
Selects how DISA calls are handled when the destination does not answer the call within a preprogrammed time period.

5 0 7 NEXT SELECT STORE END

(Intercept/Disconnect)

Feature Manual References
1.1.41 Direct Inward System Access (DISA)
1.1.68 Intercept Routing
1.1.120 Voice Mail APT Integration
1.1.121 Voice Mail Inband (DTMF) Integration

[508] DISA Ring Time before Intercept
Selects the length of time until a DISA call is redirected to the intercept destination (Intercept Routing—No Answer feature).

5 0 8 NEXT SELECT STORE END

(10/20/30/40/60/120 s)

Programming Manual References
[408-410] Flexible Ringing—Day/Night/Lunch
[438-440] DISA IRNA to BV—Day/Night/Lunch
[507] DISA Intercept Mode
Feature Manual References
1.1.41 Direct Inward System Access (DISA)
1.1.68 Intercept Routing

[509] DISA Ring Time after Intercept
Selects the length of time to ring the destination extension when a DISA call is redirected to the intercept destination after the time specified in [508] DISA Ring Time before Intercept expires. When the destination extension does not answer the call within the preprogrammed time period, the call is disconnected.

5 0 9 NEXT SELECT STORE END

(10/20/30/40/60/120 s)

Programming Manual References
[507] DISA Intercept Mode
[508] DISA Ring Time before Intercept

Feature Manual References
1.1.41 Direct Inward System Access (DISA)
1.1.68 Intercept Routing

[510] DISA No Dial Mode
Selects how DISA calls are handled when the PBX does not receive either DTMF (Dual Tone Multi-Frequency) signals or a fax (CNG) tone within a preprogrammed time period.

5 1 0 NEXT SELECT STORE END

(Intercept/Disconnect)

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[511] DISA Security Mode
Selects the DISA security mode to prevent unauthorized access to the PBX. In Trunk or All security mode, the caller is required to enter a DISA security code.

5 1 1 NEXT SELECT STORE END

(Trunk/All/None Security)

Notes
Trunk Security: Requires the caller to enter a DISA security code assigned in [512] DISA Security Code before making an outside (CO) line call.
All Security: Requires the caller to enter a DISA security code before making either an outside (CO) line or intercom call.
No Security: Allows the caller to make either an outside (CO) line or intercom call without entering a DISA security code.
Programming Manual References
[512] DISA Security Code

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[512] DISA Security Code

Specifies the DISA security codes that must be entered when "Trunk Security" (a DISA security code is required to make an outside (CO) line call) or "All Security" (a DISA security code is required to make an intercom call or outside (CO) line call) is selected in [511] DISA Security Mode.

WARNING
There is a risk that fraudulent telephone calls will be made using the Outside-to-Outside (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 (Trunk Security or All Security).
b) Maintaining the secrecy of passwords.
c) Selecting passwords that are complex and random, so that they cannot be easily guessed.
d) Changing passwords regularly.

Conditions
- This setting is required if "Trunk Security" or "All Security" is selected in [511] DISA Security Mode.
- Each DISA security code should be unique.
- The number of digits for DISA security codes is selected in [530] DISA Security Code Digits.

Programming Manual References
[511] DISA Security Mode
[530] DISA Security Code Digits

Feature Manual References
1.1.41 Direct Inward System Access (DISA)
[513] Cyclic Tone Detection
Selects the number of times the cyclic tone must be detected while the DISA OGM is sent so that the PBX can recognize the end of the DISA call.

5 1 3 NEXT SELECT STORE END

(Disable/2/3/4 times)

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[514] FAX Tone Detection
Selects the number of times the fax (CNG) tone must be detected while the DISA OGM is sent before the PBX recognizes the incoming signal as fax data.

5 1 4 NEXT SELECT STORE END

(1/2 time(s))

Programming Manual References
[503] FAX Connection

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[515] Intercept Time for Internal DISA
Selects the length of time the PBX keeps detecting DTMF signals after receiving a call using DISA when no DISA OGM is recorded.

5 1 5 NEXT SELECT STORE END

(3/6/9 s)

Programming Manual References
[408-410] Flexible Ringing—Day/Night/Lunch
[438-440] DISA IRNA to BV—Day/Night/Lunch
[510] DISA No Dial Mode

Feature Manual References
1.1.41 Direct Inward System Access (DISA)
[516] DISA Incoming Assignment
Enables receiving calls from DISA for each extension.

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[517] DISA AA Wait Time
Specifies the length of time after entering a first digit in which the caller must dial the second digit before the DISA AA Service activates.

Conditions
- This program is available only when "With AA" is selected in [500] DISA Incoming Call Dial Mode.

Programming Manual References
[500] DISA Incoming Call Dial Mode
[501] DISA Built-in AA

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[518] DISA Tone after Security Code
Enables the PBX to send a short beep to the caller when the entered number is the same as one of the DISA security codes.

Programming Manual References
[512] DISA Security Code

Feature Manual References
1.1.41 Direct Inward System Access (DISA)
[530] DISA Security Code Digits
Selects the number of digits for the DISA security codes.

5 3 0 NEXT SELECT STORE END

(4—10 digits)
◆ 4 digits

Conditions
- When this setting is changed, DISA security codes that have already been assigned in [512] DISA Security Code will be cleared.

Programming Manual References
[512] DISA Security Code

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[531] DISA Ringback Tone
Selects whether to send a ringback tone or Music on Hold to the caller when a DISA call is received.

5 3 1 NEXT SELECT STORE END

(Ringback Tone/Hold Music)

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

[540-549] 3-level AA Assignment
Specifies the destinations of the DISA AA numbers as directed by 3-level DISA OGMs. Depending on the type of destination selected, it may also be necessary to select a specific destination (Extension/Extension Group).

Conditions
- This program is available only when "3-level AA" is selected for each AA number in [501] DISA Built-in AA.
- Only when you select "×" as the third AA number, you can select "3-level AA" in the next step.
[599] Clear All OGMs of DISA
Clears all the prerecorded messages (DISA OGMs).

Feature Manual References
1.1.88 Outgoing Message (OGM) for DISA

[600] Extension Group
Selects the extension group to which the extension belongs.

Feature Manual References
1.1.21 Call Pickup, Group
1.1.42 Direct Inward System Access (DISA) Ring
1.1.53 Extension Group
1.1.67 Idle Extension Hunting
1.1.96 Paging—Group

[601-603] TRS-COS—Day/Night/Lunch
Selects the TRS COS for each extension, applied to outside (CO) line calls in each time service mode.
[604] Extension Name
Specifies the names of extensions, to be shown on the display of PTs during intercom calls.

Conditions
- An extension name can be stored using a PT's dialing buttons. The displayed character varies depending on the number of times that the dialing button is pressed. It is possible to toggle between “Alphabet mode” and “Numeral mode” by pressing SELECT.

Programming Manual References
2.1 PT Programming—Instructions—Entering Characters
[009] Extension Number

Feature Manual References
1.1.43 Display Information
1.1.69 Intercom Call

[605] Account Code Mode
Selects the account code entry mode for each extension.

Programming Manual References
[310] Account Code
[601-603] TRS-COS—Day/Night/Lunch
2.2 PT Programming—Procedures

Feature Manual References
1.1.2 Account Code Entry
1.1.118 Toll Restriction (TRS) Override by Account Code

[606] Call Transfer to CO Line
Enables the user to transfer an incoming call to any outside (CO) line.

[607] Call Forwarding to CO Line
Enables the user to forward an incoming call to any outside (CO) line.

[608] Executive Busy Override
Enables the user to interrupt another extension's existing call to establish a 3-party conference call.
2.2 PT Programming—Procedures

Feature Manual References
1.1.50 Executive Busy Override—Extension
1.1.51 Executive Busy Override—Outside (CO) Line

[609] DND Override
Enables the user to make a call to another extension that is in DND mode, by entering the feature number.

Feature Manual References
1.1.45 Do Not Disturb (DND) Override

[610] Paralleled Telephone
Specifies whether an SLT is connected in parallel with a PT.

Feature Manual References
1.1.97 Paralleled Telephone

[611] TAM Extension
Specifies whether an extension is connected to a TAM to activate the Call Retrieving from a TAM feature.

Feature Manual References
1.1.23 Call Retrieving from a TAM (Telephone Answering Machine)
[612] Room Monitor
Specifies whether an extension can be monitored using the Room Monitor feature.

**Conditions**
- Extensions that are to be monitored must have their jacks set to "Enable" in this program in advance.

**Feature Manual References**
1.1.110 Room Monitor

[615] LCD Language
Selects the language shown on the display of a PT.

**Feature Manual References**
1.1.43 Display Information

[617] Wireless PT Port Assignment
Identifies whether a Panasonic wireless phone (e.g., KX-TD7895 or KX-T7885) is connected to an extension jack or not.
Conditions
- If "Connect" is not assigned for the jack that is connected to the Panasonic wireless phone, the wireless phone may function incorrectly.

[618] Message Waiting for Another Extension
Specifies whether an extension can use the Message Waiting for Another Extension feature. If this program is disabled, an extension user cannot use a button as a Message for another extension button.

![Diagram for Message Waiting for Another Extension]

Feature Manual References
1.1.83 Message Waiting for Another Extension

[619] SLT Message Waiting
Enables the PBX to send dial tone 3 as a message waiting notification to an SLT.

![Diagram for SLT Message Waiting]

Feature Manual References
1.1.82 Message Waiting

[620] LCS Recording Mode Set
Selects whether a message will continue being recorded in an extension's mailbox or stop being recorded, when the extension user answer the call while monitoring.

![Diagram for LCS Recording Mode Set]
Feature Manual References
1.1.77 Live Call Screening (LCS) (Voice Mail APT Integration only)
1.1.120 Voice Mail APT Integration

[621] BV Resource
Selects the BV resource to which the extension belongs.

Feature Manual References
1.1.8 Built-in Voice Message (BV)

[622] BV for Extension
Enables the BV feature for each extension.

Feature Manual References
1.1.8 Built-in Voice Message (BV)
[625] BV Access Code through CO Line

Specifies a voice message access code used to play back and/or erase voice messages through outside (CO) lines.

**Conditions**
- A voice message access code should be different from the corresponding extension number. If the voice message access code is the same as an extension number, dialing that number will access the extension, not the voice message area.
- A code that starts with a number already assigned as another code cannot be used. For example, if you assign the codes “1234” and “12345”, “12345” cannot be selected since “1234” will be recognized first.

**Feature Manual References**
1.1.8 Built-in Voice Message (BV)

[626] BGM Control for APT

Enables the user to turn BGM on and off by dialing “1” while the extension is on-hook and idle.

**Feature Manual References**
1.1.7 Background Music (BGM)
[627] SLT Ring Wait Time for New Call
Selects the length of time the ringing for a call is delayed when the call follows immediately after the previous unanswered call. When receiving 2 calls in quick succession, for example, 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.

Feature Manual References
1.1.30 Caller ID

[628] SLT Caller ID
Enables the PBX to send Caller ID information to an SLT.

Feature Manual References
1.1.30 Caller ID

[629] SLT Fixed Bell Pattern
Selects the fixed ring tone pattern of an SLT for incoming calls (intercom calls and outside (CO) line calls). The same pattern as used by your telephone company may be selected.

Feature Manual References
1.1.30 Caller ID
1.1.108 Ring Tone Pattern Selection
[700-702] Doorphone Ringing—Day/Night/Lunch
Enables doorphone call reception in each time service mode.

Feature Manual References
1.1.48 Doorphone Call

[703-705] Door Opener—Day/Night/Lunch
Enables door opening in each time service mode.

Feature Manual References
1.1.46 Door Open
[706] Doorphone Ring Tone Pattern
Selects the ring tone pattern for incoming doorphone calls.

Conditions
- It is recommended that you set a different ring tone pattern from the ring tone patterns specified in [115] Extension Ring Tone Pattern and [423] CO Line Ring Tone Pattern.

Programming Manual References
[115] Extension Ring Tone Pattern
[423] CO Line Ring Tone Pattern

Feature Manual References
1.1.48 Doorphone Call
1.1.108 Ring Tone Pattern Selection

[707] Doorphone Access Tone
Selects whether the PBX sends a doorphone access tone to a monitored doorphone before monitoring starts.

Feature Manual References
1.1.48 Doorphone Call
1.1.110 Room Monitor
[708] Doorphone Ring Time
Selects the length of time until the ringing stops and the call is canceled when there is no answer.

Feature Manual References
1.1.48 Doorphone Call

[709] Door Open Duration
Specifies the length of time the door stays unlocked.

Feature Manual References
1.1.46 Door Open

[710] Doorphone Ring/Chime
Selects whether doorphone calls ring at extensions or at dedicated door chimes.

Feature Manual References
1.1.47 Doorbell/Door Chime
1.1.48 Doorphone Call
[711] Doorphone Chime Assignment
Selects the relay to which a doorbell or a door chime is connected, for use when "Chime" or "Ring & Chime" is selected in [710] Doorphone Ring/Chime.

Conditions
- A relay not connected to a door opener should be selected.

Programming Manual References
[710] Doorphone Ring/Chime

Feature Manual References
1.1.47 Doorbell/Door Chime
1.1.48 Doorphone Call

[712] Doorphone Chime Pattern
Selects the doorphone chime pattern for incoming doorphone calls. Chime patterns 1–4 are played only one time during the doorphone ringing time.

Feature Manual References
1.1.47 Doorbell/Door Chime
1.1.48 Doorphone Call
2.2.1 Tones/Ring Tones

[800] SMDR RS-232C Parameter
Specifies the following communication parameters for the Serial Interface (RS-232C port):

a. New Line (NL) 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 that composes a character. Select an appropriate value depending on the requirements of the PC or printer.

<table>
<thead>
<tr>
<th>Parity</th>
<th>Word length</th>
<th>Stop bit length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Space</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Space</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

If any of the above invalid combinations are selected, an alarm tone will be heard.

**Feature Manual References**
1.1.112 Station Message Detail Recording (SMDR)

**[801] SMDR Parameter**
Specifies the following SMDR format parameters in order to match the paper size being used by the printer:

a. **Page Length**: determines the number of lines per page.

b. **Skip Perforation**: determines the number of lines to be skipped at the end of every page.
[802] Incoming/Outgoing Call Selection for Printing

Selects whether the dialed digits of incoming and outgoing outside (CO) line calls are printed.

<Select an outgoing call> <Select an incoming call>

```
8 0 2 NEXT SELECT STORE NEXT SELECT STORE END

(On/Off/Toll) (On/Off)
```

Notes
- **Outgoing Call**: On (Print all calls)/Off (No printing)/Toll (Print toll calls only)
- **Incoming Call**: On (Print all calls)/Off (No printing)

Programming Manual References
[302-305] TRS—COS 2-5 Denied Code

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

[803] Secret Number SMDR Print Suppression

Selects whether secret dialing numbers stored in System Speed Dialing or stored in One-touch Dialing buttons are printed with SMDR. Secret dialing numbers are not shown on the displays of PTs, regardless of this setting.

```
8 0 3 NEXT SELECT STORE END

(No Printing/Printing)
```

Programming Manual References
[001] System Speed Dialing Number

Feature Manual References
1.1.111 Secret Dialing
1.1.112 Station Message Detail Recording (SMDR)

[804] System Data Dump

Controls whether system programming items that have already been assigned are shown based on the following parameters:

- **a. All para**: All data
- **b. System para**: All data except for “CO para”, “Extn. para”, “DSS para” and “Speed dial”
- **c. CO para**: The data assigned for each outside (CO) line
- **d. Extn. para**: The data assigned for each extension
- **e. DSS para**: The data assigned on the DSS buttons and PF buttons on the DSS Console
- **f. Speed dial**: The System Speed Dialing numbers and names in [001] System Speed Dialing Number and [011] System Speed Dialing Name
- **g. Stop output**: Not shown
To select All parameters, System parameter, Speed dial, and/or Stop output>

8 0 4 NEXT SELECT STORE END

To continue

<To select the CO (outside line) parameter>

8 0 4 NEXT SELECT STORE CO line no. END

To continue

<To select the Extension parameter>

8 0 4 NEXT SELECT STORE extension jack no. END

To continue

<To select the DSS parameter>

8 0 4 NEXT SELECT STORE DSS console no. END

To continue

Programming Manual References

[001] System Speed Dialing Number
[011] System Speed Dialing Name

Feature Manual References

1.1.112 Station Message Detail Recording (SMDR)

[805] SMDR Account Code

Selects whether to print out the 4-digit account code (CODE) stored in [310] Account Code or just the 2-digit index of the account code (INDEX) on SMDR.

8 0 5 NEXT SELECT STORE END

(CODE/INDEX)
[806] SMDR Language
Selects the display language used for SMDR.

7 ▶ 6 ▶ SELECT ▶ STORE ▶ END

(English/ Spanish)

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

[807] BV Total Recording Time
Selects the total recording time for each BV resource.

7 ▶ SELECT ▶ STORE ▶ END

(20/30/60 min)

Conditions
- The recording quality depends on the setting time.
  20 (min): High; 30: Normal; 60: Low

Feature Manual References
1.1.8 Built-in Voice Message (BV)

[808] BV Card Initialization
Initializes the optional BV card installed in the PBX, clearing all messages stored using the BV feature.

8 ▶ 8 ▶ STORE ▶ END

Feature Manual References
1.1.8 Built-in Voice Message (BV)

[900] Caller ID
Enables the Caller ID feature for each outside (CO) line that has contracted the Caller ID Service from the telephone company.

Next or Prev

Conditions
- The DISA Delayed Answer Time for the outside (CO) lines enabled here will always be 6 seconds even if "0 s" or "3 s" is selected in [504] DISA Delayed Answer Time.
[901] Caller ID Area Code

Specifies the leading number (area code) that will identify an incoming call as a local call.

![Diagram of Caller ID Area Code]

- Code no. (1…5)
- Area code
- Max. 6 digits (0…9)
- All-Not stored

Programming Manual References
[902] Caller ID Modification for Local Calls

Feature Manual References
1.1.18 Call Log, Incoming
1.1.30 Caller ID

[902] Caller ID Modification for Local Calls

Selects the number of digits to be removed from the beginning of the incoming caller's number and the number to be added in place of the removed digits for local calls.

![Diagram of Caller ID Modification for Local Calls]

- Code no. (1…5)
- Removed digits (0…9)
- Added number (0…9, *, #)
- All-Not stored

Programming Manual References
[901] Caller ID Area Code

Feature Manual References
1.1.18 Call Log, Incoming
1.1.30 Caller ID
[903] Caller ID Modification for Long-distance Calls
Selects the number of digits to be removed from the beginning of the incoming caller's number and the number to be added in place of the removed digits for long-distance calls.

<Select the removed digits>

9 0 3 NEXT

removed digits

STORE

END

(0…9)

◆ 0

<Select the added number>

added number

STORE

END

Max. 4 digits

(0…9, *, #)

◆ 1

Feature Manual References
1.1.18 Call Log, Incoming
1.1.30 Caller ID

[904] Caller ID Log Priority
Selects which caller information is shown first on the display of the PT.

9 0 4 NEXT

extension jack no.

SELECT

STORE

END

To continue

(01…24/ *)

◆ Name/

Number

Conditions
• This program is available when the Caller ID service provides both a name and a number. If only the number is provided, this program is not necessary.

Feature Manual References
1.1.18 Call Log, Incoming
1.1.30 Caller ID
1.1.43 Display Information

[906] Caller ID SMDR Format
Selects whether a caller's telephone number is printed out on SMDR or not.

9 0 6 NEXT SELECT STORE END

(Without CID: Not printed/

◆ With CID: Printed)

Conditions
• Even if a name is also sent by the Caller ID service, only the number is printed.
Feature Manual References
1.1.30 Caller ID
1.1.112 Station Message Detail Recording (SMDR)

[907] Caller ID SMDR Printout
Enables the PBX to display a caller's telephone number on SMDR before the call is answered.

9 0 7 NEXT SELECT STORE END
(Enable/Disable)

Feature Manual References
1.1.30 Caller ID
1.1.112 Station Message Detail Recording (SMDR)

[908] Call Waiting Caller ID Time
Selects the length of time that the Call Waiting Caller ID feature sent from the telephone company is shown on the display of a PT.

9 0 8 NEXT SELECT STORE END
(10/20/30/40/60/120 s)

Conditions
• The TRANSFER button, HOLD button, and CONF button do not function during the assigned time.

Feature Manual References
1.1.28 Call Waiting Caller ID

[909] Common Area Call Log Check
Specifies whether an extension can view call logs stored in the common area. If this program is enabled, the Caller ID Indication—Common button and Caller ID Selection—Common button can be assigned.

Feature Manual References
1.1.18 Call Log, Incoming
[913] Call Waiting Caller ID Assignment

Enables the Call Waiting Caller ID feature for each outside (CO) line that has had Caller ID Service contracted from the telephone company.

Conditions

- When the Caller ID feature is disabled in [900] Caller ID, the Call Waiting Caller ID feature does not function even if it is enabled here.

Programming Manual References

[900] Caller ID

Feature Manual References

1.1.28 Call Waiting Caller ID

[914] Call Waiting Caller ID CAS Receive Time

Selects the allowable CAS (CPE [Customer Premise Equipment] Alerting Signal) duration. Normally, it should not be necessary to change the default setting.

If the extension user has a Call Waiting Caller ID during a conversation, the telephone company will send an alert tone (CAS) to the PBX. If the CAS duration is too long or too short, the CAS is ignored by the PBX. If the CAS is accepted, then the PBX will respond and the Call Waiting Caller ID feature will be performed.

Conditions

- This program is available when the Caller ID and Call Waiting Caller ID features are enabled in [900] Caller ID and [913] Call Waiting Caller ID Assignment.

Programming Manual References

[900] Caller ID
[913] Call Waiting Caller ID Assignment

Feature Manual References

1.1.28 Call Waiting Caller ID
[915] Caller ID Checksum
Enables or disables selection of the checksum mode. Normally, it should not be necessary to change the default setting.

9 1 5 NEXT SELECT STORE END
(Enable/Disable)

Feature Manual References
1.1.28 Call Waiting Caller ID
1.1.30 Caller ID

[963] Call Forwarding Selection
Enables the PBX to forward the calls received on outside (CO) lines programmed as "Normal" in [414-416] CO Line Mode—Day/Night/Lunch. If this program is disabled, outside (CO) line calls cannot be forwarded even if the extension user has set the FWD feature.

Conditions
• This program also functions for outside (CO) line calls via the DISA Intercept Routing feature, and when DISA calls are received by a DISA ring group.

Programming Manual References
[414-416] CO Line Mode—Day/Night/Lunch

Feature Manual References
1.1.11 Call Forwarding (FWD)—All Calls
1.1.12 Call Forwarding (FWD)—Busy/No Answer
1.1.13 Call Forwarding (FWD)—Follow Me

[966] TRS Check after Answering
Specifies whether the PBX checks DTMF signals when answering calls or not.

9 6 6 NEXT SELECT STORE END
(Enable/Disable)
[967] TRS Check Time after Answering
Specifies the length of time that the DTMF signal is checked when "Enable" is selected in [966] TRS Check after Answering.

[966] TRS Check after Answering

[968] KX-T7700 Series Incoming Lamp Control
Enables the Message/Ringer Lamp on the KX-T7700 series telephones for the following incoming calls:

a. Incoming call from an outside (CO) line with Caller ID information
b. Incoming call from another extension to a busy extension when the called extension has set Call Waiting (Call Waiting Tone 1)
c. Incoming doorphone call whose ring tone pattern is set to "S-Double" in [706] Doorphone Ring Tone Pattern (except when using the Paralleled Telephone feature) when an optional doorphone or doorbell/door chime is connected to the PBX

[706] Doorphone Ring Tone Pattern

Programming Manual References
[966] TRS Check after Answering

Feature Manual References
1.1.27 Call Waiting
1.1.28 Call Waiting Caller ID
1.1.47 Doorbell/Door Chime
1.1.48 Doorphone Call
1.1.82 Message Waiting
1.1.83 Message Waiting for Another Extension

[998] Firmware Version
Used to confirm the ROM and the firmware version of the PBX alternately by pressing SELECT.

Display Example

<table>
<thead>
<tr>
<th>&lt; ROM &gt;</th>
<th>&lt; Firmware &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y871BA</td>
<td>1.0.0</td>
</tr>
<tr>
<td>050401(M)</td>
<td></td>
</tr>
</tbody>
</table>

Programming Manual References
[804] System Data Dump

Feature Manual References
1.1.58 Firmware Upgrade
**[999] System Data Clear**

Clears preprogrammed system data. The PBX will restart with the default settings.

<To select All parameters, System parameter, and/or Speed dial>

9 9 9 NEXT STORE END

(All para/ System para/ Speed dial) To continue

<To select the CO (outside line) parameter>

9 9 9 NEXT SELECT STORE CO line no. STORE END

(CO para) (1…8/ ×) To continue

<To select the Extension parameter>

9 9 9 NEXT SELECT STORE extension jack no. STORE END

(Extn. para) (01…24/ ×) To continue

<To select the DSS parameter>

9 9 9 NEXT SELECT STORE DSS console no. STORE END

(DSS para) (1…2/ ×) To continue

**Conditions**

- Please refer to [804] System Data Dump for each parameter.

**Programming Manual References**

[804] System Data Dump

**Feature Manual References**

1.1.103 PT Programming
Section 3

PC Programming—Introduction

This section serves as reference operating instructions when using the KX-TA Maintenance Console software to program the PBX.
3.1 Introduction

Maintenance Console allows you to perform system setup and maintenance of the PBX, KX-TA824. The types of operations that can be performed with Maintenance Console are as follows:

- Backing up and restoring system data
- Viewing and modifying system settings
- Upgrading the firmware of the PBX
- Resetting the PBX, and clearing set values
- Initializing the BV message card, and clearing all OGMs stored for DISA

3.2 PC Programming

3.2.1 Installing and Starting KX-TA Maintenance Console

To program and administer the PBX by PC (Personal Computer), you need to install KX-TA Maintenance Console onto the PC. To install and start KX-TA Maintenance Console when the PC and the PBX are connected, refer to the Installation Manual (→ 3.1.1 Installing KX-TA Maintenance Console on a PC). KX-TA Maintenance Console starts the program using the drive where you installed the software automatically.

System Requirements

Operating System
- Microsoft® Windows® 98 SE, Windows Me, Windows 2000, or Windows XP

Hardware
- CPU: 300 MHz Intel® Celeron® or faster
- RAM: At least 128 megabytes (MB) of available RAM
- Hard disk space: At least 100 MB of space for the installation, and approximately 2 MB of additional space for user files.

3.3 Software Modes

Maintenance Console has 3 modes of operation: Initial mode, Batch mode and Interactive mode.

- Initial mode
  This is the state of the software when no system data is open for modification, and the PC is not currently communicating with the PBX. The software enters this mode if launched without connecting to the PBX.

- Batch mode
  Batch mode allows you to create new system data files, and make modifications to system data files stored on your PC, without being connected to the PBX. The edited system data files can be uploaded to the PBX later using Interactive mode. To enter Batch mode, select an option from the File menu.

- Interactive mode
  Interactive mode allows you to directly modify the system data and settings stored in the PBX's memory from a PC that is connected to the PBX. Data can be modified and results displayed in real time. In addition, when no system data setting windows are open, maintenance operations
such as firmware upgrade can be performed. To enter Interactive mode, check the Connect to PBX box on the password entry window when starting up Maintenance Console, or select an option from the Connect menu.

When a new window is opened and the relevant data is downloaded from the PBX, that data is cached temporarily in the PC. To reduce data transfer times, when the same window is reopened within the same programming session (without disconnecting the PC from the PBX), the cached data is used.

The table below shows which options can be accessed from each mode.

Certain options in each mode are only available when one or more system data setting windows are open, or no windows are open.

The letter "A" indicates the state where no windows are open.

The letter "B" indicates the state where one or more windows are open.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Submenu</th>
<th>Initial Mode</th>
<th>Batch Mode</th>
<th>Interactive Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>File</td>
<td>New</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Open</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Close</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Save</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Save As</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>File Transfer PC to PBX</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>File Transfer PBX to PC</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Program List</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Print</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Print ALL</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Recent Files]</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Exit</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Connect</td>
<td>Connect</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disconnect</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Profile Setup</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
### 3.4 Status Bar

The status bar is the bar at the bottom of the Maintenance Console window that displays information on the current state of the Maintenance Console software.

The information displayed is as follows, in order from left to right:

<table>
<thead>
<tr>
<th>Area</th>
<th>Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Mode</td>
<td>Initial Mode</td>
<td>See 3.3 Software Modes. In Batch Mode, the current system data file name is shown in place of “xxxx”.</td>
</tr>
<tr>
<td></td>
<td>Batch Mode xxxx</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interactive Mode</td>
<td></td>
</tr>
</tbody>
</table>

#### Menu

<table>
<thead>
<tr>
<th>Menu</th>
<th>Submenu</th>
<th>Initial Mode</th>
<th>Batch Mode</th>
<th>Interactive Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>Tool Bar</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Programmer Code Change</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Installer Level</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>User Level</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Screen Customize</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>System Data Setting Menu</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Utility</td>
<td>Firmware Upgrade</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quick Setup</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>System Reset</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>System Data Clear</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DISA OGM Clear</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BV Card Initialization</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Window</td>
<td>Cascade</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tile Horizontally</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tile Vertically</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Help</td>
<td>Help</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>About</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>
3.5 Access Levels

There are 2 main levels of access to the Maintenance Console software: Installer and User. Installer-level users can view and edit all settings, in addition to choosing the options and screens available to User-level users, through the 7.3 Screen Customize option in the View menu. It is necessary to enter the Installer-level password to log on to Maintenance Console at Installer level. However, User level access may or may not require a password, depending on whether one has been set in Programmer Code Change. (See 7.2 Programmer Code Change) Access to menu options within Maintenance Console also depends on the current software mode (See 3.3 Software Modes).

The target users for each access level are as follows:

<table>
<thead>
<tr>
<th>Level</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>User</td>
<td>For end users</td>
</tr>
<tr>
<td>Installer</td>
<td>For dealers or system installers</td>
</tr>
</tbody>
</table>

3.6 Standard Buttons

There are several standard buttons that are displayed on most screens within Maintenance Console, and perform the same function on each screen.

The standard buttons are as follows:

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>Implements changes and closes the current screen.</td>
</tr>
<tr>
<td>Cancel</td>
<td>Abandons changes and returns to the previous screen.</td>
</tr>
<tr>
<td>Apply</td>
<td>Implements changes and remains on the same screen.</td>
</tr>
<tr>
<td>Help</td>
<td>Displays the relevant help topic for the current screen.</td>
</tr>
</tbody>
</table>
3.6 Standard Buttons
Section 4

PC Programming—Opening Screen

This section describes the options available when starting Maintenance Console.
4.1 Software Modes

Every time Maintenance Console is started, a dialog box will appear. From here, you can enter any of the 3 available software modes.

To start Maintenance Console in Initial mode
1. Enter the relevant programmer code (User or Installer level).
2. Click OK.
   Maintenance Console will start.

To start Maintenance Console in Batch mode
1. Enter the relevant programmer code (User or Installer level).
2. Click OK.
   Maintenance Console will start.
3. Select an option from the File menu.
   • Select New to create a new system data file.
   • Select Open to open an existing system data file.

To start Maintenance Console in Interactive mode
1. Enter the relevant programmer code (User or Installer level).
2. Select the Connect to PBX check box.
   Connection options will be displayed.
   • To use a previously saved profile, select the Use profile check box. When no profiles have been saved, this check box is not available. Select the desired profile from the list.
3. In Enter System Password, enter the password used to log on to the PBX.
   If the system password for the PBX has been stored with the profile, it will be entered automatically.
4. Select the method of connecting to the PBX.
5. If necessary, click the Setup button to modify connection parameters. See the tables below for more details.
   This option is not available when a profile has been selected.
6. Click OK.
   • The OK button is only available when a valid system password has been entered.
   Maintenance Console will start, and automatically connect to the PBX. If this is the first time that Maintenance Console has connected to the PBX, and the date and time of the PBX have not yet been set, the Quick Setup wizard will run. For more details, see 8.2 Quick Setup.

Connection parameters for RS-232C

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>COMx</td>
<td>Specify the number of the COM port assigned to the PC's RS-232C interface. Only available COM ports will be displayed.</td>
</tr>
<tr>
<td>Baud Rate (bps)</td>
<td>9600</td>
<td>Displays the speed of data transmission. This value cannot be changed.</td>
</tr>
</tbody>
</table>
When connecting the KX-TA Maintenance Console to the PBX using an RS-232C cable, assign the following values to the Serial Interface (RS-232C) port of the PBX:

- **Baud Rate (bps):** 9600
- **Word Length:** 8 bits
- **Parity Bit:** None
- **Stop Bit:** 1 bit

### Connection parameters for Modem

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dial Number</td>
<td>0-9, *, #, &quot;-&quot; (hyphen) and &quot;,&quot; (comma)</td>
<td>Telephone number to be dialed to access the PBX.</td>
</tr>
<tr>
<td>Dial Type</td>
<td>Auto (Tone), Auto (Pulse), Manual</td>
<td>Outgoing dialing method. If &quot;Manual&quot; is selected, a telephone must be connected in parallel to dial.</td>
</tr>
<tr>
<td>Comment</td>
<td>–</td>
<td>Enter a comment to help to identify this profile.</td>
</tr>
<tr>
<td>Port</td>
<td>COMx</td>
<td>Specify the number of the COM port assigned to the PC’s modem interface. Only available COM ports will be displayed.</td>
</tr>
<tr>
<td>Baud Rate (bps)</td>
<td>1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200</td>
<td>Specify the speed of data transmission.</td>
</tr>
<tr>
<td>Flow Control</td>
<td>None, Hardware</td>
<td>Specify whether the rate of data transfer is managed by hardware or not.</td>
</tr>
<tr>
<td>Modem Initialize</td>
<td>Default, Custom</td>
<td>Specifies the command used to initialize the modem. If &quot;Custom&quot; is selected, enter the initialize string in the text box. Refer to your modem's instruction manual for more details.</td>
</tr>
<tr>
<td>Initialize</td>
<td>–</td>
<td>Click to send the specified initialize string to the modem.</td>
</tr>
</tbody>
</table>
Section 5

PC Programming—File

This section explains the File menu, which lets you work with system data files, and view programming items.
5.1 New

Creates a new system data file, used to program the PBX in Batch mode. All settings are in their initial or default state.

To upload the file created here to the PBX, see 5.6 File Transfer PC to PBX.

Notes

Since selecting this option creates an empty system data file, uploading this file to the PBX will overwrite all previous settings. Use with care.

To create a new system data file

• From the File menu, select New.

If a system data file is already open, a window will be displayed to save the current file.

• Click Yes to save the current system data and create a new file.
  If the current system data has not previously been saved, the Save As dialog box will be displayed. See 5.5 Save As for more information.
• Click No to discard the current system data and create a new file.
• Click Cancel to return to the current system data without creating a new file.

5.2 Open

Opens a system data file previously saved on the PC, and enters Batch mode.

To upload a file modified here to the PBX, see 5.6 File Transfer PC to PBX.

To open a system data file

1. From the File menu, select Open.
2. Navigate to the folder containing the system data file you want to open.
3. Select the file.
4. Click Open.

• If the file is not supported by the PBX (e.g., a system data file from an incompatible PBX), it will not be opened, and a warning message will be displayed. The only files that can be opened are files that were created by KX-TA Maintenance Console.
  • Click OK to return to the main screen.

5.3 Close

Closes the system data file that is currently being modified in Batch mode, and returns to Initial mode.

To close a system data file

• From the File menu, select Close.

If the system data file has not been saved, a confirmation message will be displayed, giving you the option to save the file.

• Click Yes to save the file.
• Click No to abandon the changes.
• Click Cancel to return to the previous screen.

5.4 Save

Overwrites the previously saved system data file with the system data currently being modified in Batch mode.
To upload a file saved here to the PBX, see 5.6 File Transfer PC to PBX.

To save a system data file
• From the File menu, select Save.
If the data has never been saved, the Save As dialog box will be displayed. (See 5.5 Save As.)

5.5 Save As

Saves the system data file being modified in Batch mode with the name chosen by the user.
To upload a file saved here to the PBX, see 5.6 File Transfer PC to PBX.

To save a system data file with a new name
1. From the File menu, select Save As.
2. Navigate to the folder in which you want to save the file.
3. Enter a file name, or select a file to overwrite.
4. Click Save.
If choosing to overwrite another file, a warning message will be displayed. Click Yes to overwrite, or No to return to the previous screen.

5.6 File Transfer PC to PBX

Restores or uploads previously saved system data to the PBX.
Files that can be transferred with this option are those that were saved using 5.4 Save, 5.5 Save As, or 5.7 File Transfer PBX to PC.
This option is intended for use when the data stored in the PBX has been lost due to system crash or other reason, or large-scale edits have been made to the data in Batch mode. Choosing this option will overwrite any previous settings in the PBX. Use with care.

To transfer system data to the PBX
1. From the File menu, select File Transfer PC to PBX.
2. Navigate to the folder containing the system data file you want to open.
3. Select the file.
4. Click Open.
• If the data contained within the file is not suitable for the PBX, a message will be displayed and the display will return to the main screen.
The system data file will be transferred to the PBX. A progress indicator displays the current progress. Once started, the operation cannot be canceled. When complete, a message will be displayed.
5. Click OK.

5.7 File Transfer PBX to PC

Creates a backup file containing all PBX system data on the PC. Once saved, this file can be edited in Batch mode using 5.2 Open, if required.

To backup system data to the PC
1. From the File menu, select File Transfer PBX to PC.
2. Navigate to the folder in which you want to save the file.
3. Enter a file name, or select a file to overwrite.
4. Click Save.
   The system data will be transferred to the PC. A progress indicator displays the current progress.
   • To cancel the operation, click Cancel at any time.
When complete, a message will be displayed.
5. Click OK.

5.8 Program List

Displays a searchable list of PT programming numbers [XXX], feature numbers (XX...), and personal programming [PT Personal]. Allows direct access to the relevant screen within Maintenance Console.

To view programming topics
1. From the File menu, select Program List.
A list of all PT programming numbers, feature numbers and personal programming is displayed in numerical order.

- Click the No. or Title cell to reorder the list.
- Enter a text string in the Keyword box and click Search to display all matching programming topics.
- Double-click a specific programming title in either of the lists, or click it and then click Jump, to go directly to the relevant Maintenance Console screen.

2. Click Close to close the window.

5.9 Print

Prints the system data contained in the currently active screen. The system data in each screen is printed according to that screen's preset output format.

To print the active screen data

1. From the File menu, select Print.
2. From the drop-down list, select the desired printer.
3. Click Print.

5.10 Print ALL

Prints all system data, except for that contained in the 9.1.1 Date & Time [1-1] screen. The total number of pages to be printed is displayed at the bottom of the window. The system data in each screen is printed according to that screen's preset output format.

To print system data from multiple screens

1. From the File menu, select Print ALL.
   A list of the system data screens will be displayed in outline view. By default, all system data is selected for printing.
   - Click the plus sign to expand an item.
   - Click the minus sign to collapse a previously expanded item.
   - Clear the check boxes of screens you do not want to print.
2. Click Print.
3. From the drop-down list, select the desired printer.
4. Click Print.

5.11 Exit

Closes Maintenance Console.

To exit Maintenance Console

1. From the File menu, select Exit.
   A confirmation message will be displayed.

2. Click Yes.
   - In Batch mode, if the system data file being modified has not been saved, a message will be displayed, giving you the option to save the file.
     - Click Yes to save the file.
     - Click No to abandon the changes.
     - Click Cancel to return to the previous screen.
   - In Interactive mode, if the system data being modified has not been transmitted to the PBX, a message will be displayed, giving you the option to transmit the data.
     - Click Yes to transmit the data.
     - Click No to abandon the changes.
     - Click Cancel to return to the previous screen.

The software will exit.
Section 6

PC Programming—Connect

This section describes the Connect menu, which offers options for connecting a PC to the PBX.
6.1 Connect

Connects the PC to the PBX. There are 3 ways to connect the PC to the PBX: RS-232C, USB, and modem. This option allows direct entry of connection parameters, for cases where the PC is used to connect to one or just a few PBXs, and an individual profile for each PBX is not necessary. If you connect to multiple PBXs and would prefer to choose from among pre-saved profiles instead, see 6.3 Profile Setup for more details about creating profiles.

When connecting to the PBX for the first time, the Quick Setup utility will run automatically. For more details, see 8.2 Quick Setup.

To connect to the PBX by RS-232C
1. From the Connect menu, select Connect.
   The Connect to PBX window will be displayed.
2. Select a connection option.
   • Select the Use profile check box if you want to use a pre-saved profile. This option is only available when one or more profiles have been previously stored.
     a. Select the profile to use from the drop-down list.
     The Setup button will become unavailable.
     b. If the system password for the PBX has not been stored with the profile, enter it.
     If the system password has been stored with the selected profile, it does not need to be entered.
   • Select the RS-232C radio button if you want to enter the parameters manually.
     a. Enter the system password for the PBX.
     b. Click Setup.
     c. Specify the COM port as required. For more details, see the table below.
     d. Click OK.
3. Click OK.

The parameters are as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>COMx</td>
<td>Specify the number of the COM port assigned to the PC's RS-232C interface.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Only available COM ports will be displayed.</td>
</tr>
<tr>
<td>Baud Rate (bps)</td>
<td>9600</td>
<td>Displays the speed of data transmission. This value cannot be changed.</td>
</tr>
<tr>
<td>Word Length</td>
<td>8 bits</td>
<td>Displays the number of bits in a word. This value cannot be changed.</td>
</tr>
<tr>
<td>Stop Bit</td>
<td>1 bit</td>
<td>Displays the length of the stop, used to identify the end of a transmitted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>group of bits. This value cannot be changed.</td>
</tr>
<tr>
<td>Parity Bit</td>
<td>None</td>
<td>Displays the kind of parity error-checking used. This value cannot be</td>
</tr>
<tr>
<td></td>
<td></td>
<td>changed.</td>
</tr>
</tbody>
</table>

When connecting the KX-TA Maintenance Console to the PBX using an RS-232C cable, assign the following values to the Serial Interface (RS-232C) port of the PBX:

- Baud Rate (bps): 9600
- Word Length: 8 bits
- Parity Bit: None
- Stop Bit: 1 bit

To connect to the PBX by USB

1. From the Connect menu, select Connect.
   The Connect to PBX window will be displayed.
2. Select a connection option.
   - Select the Use profile check box if you want to use a pre-saved profile.
     a. Select the profile to use from the drop-down list.
     b. If the system password for the PBX has not been stored with the profile, enter it.
        If the system password has been stored with the selected profile, it does not need to be entered.
   - Select the USB radio button if you do not want to use a profile.
   - Enter the system password for the PBX.
3. Click OK.
6.1 Connect

To connect to the PBX by Modem

1. From the Connect menu, select Connect.
   The Connect to PBX window will be displayed.

2. Select a connection option.
   - Select the Use profile check box if you want to use a pre-saved profile.
     a. Select the profile to use from the drop-down list.
        The Setup button will become unavailable.
     b. If the system password for the PBX has not been stored with the profile, enter it.
        If the system password has been stored with the selected profile, it does not need to be entered.
   - Select the Modem radio button if you want to enter parameters manually.
     a. Enter the system password for the PBX.
     b. Click Setup.
     c. Modify the connection parameters as required. For more details, see the table below.
     d. Click OK.

3. Click OK.
The parameters are as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dial Number</td>
<td>0-9, *, #, &quot;-&quot; (hyphen) and &quot;,&quot; (comma)</td>
<td>Telephone number to be dialed to access the PBX.</td>
</tr>
<tr>
<td>Dial Type</td>
<td>Auto (Tone), Auto (Pulse), Manual</td>
<td>Outgoing dialing method. If “Manual” is selected, a telephone must be connected in parallel to dial.</td>
</tr>
<tr>
<td>Comment</td>
<td>–</td>
<td>Enter a comment to help to identify this profile.</td>
</tr>
<tr>
<td>Port</td>
<td>COMx</td>
<td>Specify the number of the COM port assigned to the PC’s modem interface. Only available COM ports will be displayed.</td>
</tr>
<tr>
<td>Baud Rate (bps)</td>
<td>1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200</td>
<td>Specify the speed of data transmission.</td>
</tr>
<tr>
<td>Flow Control</td>
<td>None, Hardware</td>
<td>Specify whether the rate of data transfer is managed by hardware or not.</td>
</tr>
<tr>
<td>Modem Initialize</td>
<td>Default, Custom</td>
<td>Specifies the command used to initialize the modem. If “Custom” is selected, enter the initialize string in the text box. Refer to your modem's instruction manual for more details.</td>
</tr>
<tr>
<td>Initialize</td>
<td>–</td>
<td>Click to send the specified initialize string to the modem.</td>
</tr>
</tbody>
</table>

### 6.2 Disconnect

Disconnects the PC from the PBX. Data transmission ends, and Maintenance Console returns to Initial mode.

**To disconnect**

- From the Connect menu, select Disconnect.

If there is data that has been edited but not yet sent to the PBX, a confirmation window will be displayed.

- Click Yes to send the data to the PBX.
- Click No to discard the data.
6.3 Profile Setup

Profiles are useful when one PC is used to connect to multiple PBXs. Rather than manually adjusting the connection parameters each time a different PBX is accessed, it is possible to store the connection parameters for several PBXs. Then, when you wish to connect to a specific PBX, you can simply choose that PBX’s profile from 6.1 Connect.

The functions of the buttons on this screen are as follows:

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>Opens the Profile Editor window to create a new profile. See 6.4 Profile Editor.</td>
</tr>
<tr>
<td>Edit</td>
<td>When an existing profile is selected, opens the Profile Editor window to modify the parameters of that profile. See 6.4 Profile Editor.</td>
</tr>
<tr>
<td>Delete</td>
<td>When an existing profile is selected, deletes that profile. A confirmation message will be displayed.</td>
</tr>
<tr>
<td>Close</td>
<td>Closes the current window.</td>
</tr>
</tbody>
</table>

6.4 Profile Editor

Allows the creation and editing of profiles of parameters required to connect the PC to the PBX by RS-232C, USB or modem.

Notes

When a profile is edited and saved with a new name, the original profile is not deleted.

The parameters are as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile Name</td>
<td>Enter a name used to identify this set of PBX connection parameters. This name must not be the same as another profile name.</td>
</tr>
<tr>
<td>System Password</td>
<td>Enter the password to log on to the target PBX, if required.</td>
</tr>
<tr>
<td>Default</td>
<td>Select the default connection method.</td>
</tr>
</tbody>
</table>
The functions of the buttons on this screen are as follows:

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save</td>
<td>Saves the current profile information.</td>
</tr>
<tr>
<td>Cancel</td>
<td>Closes the current screen without saving the profile information.</td>
</tr>
</tbody>
</table>

**To create or edit a profile**

1. From the **Connect** menu, select **Profile Setup**.
   The **Profile Setup** window (6.3 Profile Setup) will be displayed.
2. Click **New** or **Edit**.
   The **Profile Editor** window will be displayed.
3. Enter a name for this profile.
4. Enter the system password used to connect to the PBX.
5. Select the default connection method.
6. Enter the detailed connection method parameters as required. See the tables below for more information.
   It is possible to select connection methods other than the default method when connecting to the PBX using this profile. For this reason, you can choose to input parameters for both RS-232C and modem connection. Click the tabs to view the parameters for each type of connection.
7. Click **Save**.

**Connection parameters for RS-232C**
The parameters are as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>COMx</td>
<td>Specify the number of the COM port assigned to the PC's RS-232C interface. Only available COM ports will be displayed.</td>
</tr>
<tr>
<td>Baud Rate (bps)</td>
<td>9600</td>
<td>Displays the speed of data transmission. This value cannot be changed.</td>
</tr>
<tr>
<td>Word Length</td>
<td>8 bits</td>
<td>Displays the number of bits in a word. This value cannot be changed.</td>
</tr>
<tr>
<td>Stop Bit</td>
<td>1 bit</td>
<td>Displays the length of the stop, used to identify the end of a transmitted group of bits. This value cannot be changed.</td>
</tr>
<tr>
<td>Parity Bit</td>
<td>None</td>
<td>Displays the kind of parity error-checking used. This value cannot be changed.</td>
</tr>
</tbody>
</table>

When connecting the KX-TA Maintenance Console to the PBX using an RS-232C cable, assign the following values to the Serial Interface (RS-232C) port of the PBX:
- Baud Rate (bps): 9600
- Word Length: 8 bits
- Parity Bit: None
- Stop Bit: 1 bit

connection parameters for modem

![Connection parameters for Modem](image-url)
The parameters are as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dial Number</td>
<td>0-9, *, #, &quot;-&quot; (hyphen) and &quot;,,&quot; (comma)</td>
<td>Telephone number to be dialed to access the PBX.</td>
</tr>
<tr>
<td>Dial Type</td>
<td>Auto (Tone), Auto (Pulse), Manual</td>
<td>Outgoing dialing method. If &quot;Manual&quot; is selected, a telephone must be connected in parallel to dial.</td>
</tr>
<tr>
<td>Comment</td>
<td>–</td>
<td>Enter a comment to help to identify this profile.</td>
</tr>
<tr>
<td>Port</td>
<td>COMx</td>
<td>Specify the number of the COM port assigned to the PC's modem interface. Only available COM ports will be displayed.</td>
</tr>
<tr>
<td>Baud Rate (bps)</td>
<td>1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200</td>
<td>Specify the speed of data transmission.</td>
</tr>
<tr>
<td>Flow Control</td>
<td>None, Hardware</td>
<td>Specify whether the rate of data transfer is managed by hardware or not.</td>
</tr>
<tr>
<td>Modem Initialize</td>
<td>Default, Custom</td>
<td>Specifies the command used to initialize the modem. If “Custom” is selected, enter the initialize string in the text box. Refer to your modem's instruction manual for more details.</td>
</tr>
<tr>
<td>Initialize</td>
<td>–</td>
<td>Click to send the specified initialize string to the modem.</td>
</tr>
</tbody>
</table>
This section describes the View menu, which allows you to customize the operation of Maintenance Console.
7.1 Tool Bar

Selects whether the tool bar, which provides icons allowing easy access to commonly used functions, is displayed or not.

A check mark before this menu option means that the tool bar is set to be displayed.

To change the display status of the tool bar
- From the View menu, select Tool Bar.

7.2 Programmer Code Change

Allows you to change the codes used to log on to Maintenance Console at startup.

Users logged on at Installer level may change both Installer level and User level codes. However, users logged on at User level can only change the User level code.

Programmer codes can contain any characters.

To change the User level code
1. From the View menu, point to Programmer Code Change, and then click User Level.
   The Programmer Code Change screen will be displayed.
   - Enter the desired new code.
   - Re-enter the same code for verification.
     If the entered codes do not match, an error message will be displayed.
     - Click OK to return to step 2 above.
   - Click OK.

To change the Installer level code
1. From the View menu, point to Programmer Code Change, and then click Installer Level.
   The Programmer Code Change screen will be displayed.
   - Enter the desired new code.
3. Re-enter the same code for verification. 
   If the entered codes do not match, an error message will be displayed. 
   • Click OK to return to step 2 above.
4. Click OK.

7.3 Screen Customize

Allows you to specify which system data setting screens and menu options can be accessed when logged in to Maintenance Console at User level. 
This option is only available at Installer level.

To customize the displayed options
1. From the View menu, select Screen Customize. 
   A list of the system data screens will be displayed in outline view. 
   • Click the desired tab to view system data setting screens or menu options. 
   • Click the plus sign to expand an item. 
   • Click the minus sign to collapse a previously expanded item. 
   • Clear the check boxes of screens you do not want to make available in User level. 
2. Click OK.

7.4 System Data Setting Menu

Provides an alternative method of opening system data screens. 
This option is only displayed in Batch and Interactive modes. 
• From the View menu, point to System Data Setting Menu, point to the desired parent item, and then click the desired child item to open the relevant screen.
Section  8

**PC Programming—Utility**

This section describes the Utility menu, which contains options for performing system maintenance on the PBX.
8.1 Firmware Upgrade

Allows installation of upgrades to the system software stored within the PBX. Only install upgrades provided by certified Panasonic dealers.

To upgrade system software
1. From the Utility menu, select Firmware Upgrade. The Firmware Upgrade screen will be displayed.
2. Click Select. The Open dialog box will be displayed.
3. Navigate to the folder containing the system software file you want to install.
4. Select the file.
5. Click Open.
   - If the selected file is not a recognized ROM file, an error message will be displayed. Click OK to return to step 2.
   - If the selected file is an older ROM version than the one currently installed to the PBX, a warning message will be displayed. To accept the older ROM version, click Yes. Installing an older ROM is not recommended, as it may cause problems during system data conversion. To not use the older ROM version, click No.
   - If the selected file is a ROM version newer than that of the current Maintenance Console software, a warning message will be displayed, as it cannot be supported by Maintenance Console. Information about the version of both the current system software and the selected file will be displayed.
6. Confirm that the selected file is the version that you intend to install to the PBX.
7. Click Start. A confirmation message will be displayed.
8. Click Yes. The system software will be upgraded in 3 steps. The progress bar shows how much of each process has been completed.

When the upgrade is complete, a message will be displayed.
   - If there was a communication error during the upgrade, a message will be displayed.
     1. Check the listed items.
     2. Click Retry to try the upgrade process again.
   - If the PC freezes or loses power during one of the upgrade steps listed below, restart Maintenance Console, reconnect to the PBX, and follow the instructions below.
8.2 Quick Setup

Allows basic settings of the PBX to be modified easily.

This option can be accessed in either of 2 ways:
- Automatically when connecting to the PBX for the first time or after the PBX data has been cleared.
- Manually, by selecting Quick Setup from the Utility menu.

This option only runs automatically when the following conditions are met:
- The user is logged on to Maintenance Console using the Installer level programmer code.
- The date and time of the PBX have not yet been set.
- The model code of Maintenance Console and PBX match.
- The user has selected to connect Maintenance Console to the PBX in Interactive mode.

It can be run manually when the following condition is met:
- Maintenance Console is connected to the PBX in Interactive mode.

When the Quick Setup wizard is started manually, it is possible to cancel the wizard at any point by clicking the Cancel button. No changes will be made to the PBX. However, the Cancel button is not available when Quick Setup runs automatically upon connection to the PBX. In addition, when Quick Setup runs, it shows only default data for all programmable parameters. Any existing settings are not shown, and will be overwritten, so run Quick Setup manually only when necessary.

Using Quick Setup, the following basic parameters can be programmed as desired:
- The date and time. The PBX uses the date and time set to the PC. (→9.1.1 Date & Time [1-1])
- The system password. (→9.1.2 Main [1-2])
- The operator extension number. (→1.1.87 Operator/Manager Features in the Feature Manual)
- Automatic Configuration for CO Line Type (DTMF/Pulse). (→1.1.5 Automatic Configuration for Outside (CO) Line Type in the Feature Manual)
- Extension numbers and names. (→1.1.69 Intercom Call in the Feature Manual)
- Ringing assignment for each outside line (either all extensions, or a specific extension). (→1.1.90 Outside (CO) Line Ringing Selection in the Feature Manual)
To set up basic items for the PBX

1. From the **Utility** menu, click **Quick Setup**. The **Automatic Configuration for CO Line Type** screen will be displayed.

2. Click **Next**. The Step 2 screen will be displayed.

3. Select the jack number you wish to register as the operator extension, or "Disable".
   - If you do not want to configure the operator extension, deselect the check box.
4. Click **Next**.
The Step 3 screen will be displayed.

![Quick Setup - Step 3](image)

5. Enter the desired extension number and name (if required) for each jack to configure in the table.
   - If you do not want to configure extension numbers and names, deselect the check box.

6. Click **Next**.
The Step 4 screen will be displayed.

![Quick Setup - Step 4](image)

7. For each outside (CO) line, select the ringing assignment.
   - Select “All extensions” to have all extensions ring for calls from that outside (CO) line.
   - Select a jack number to have only that extension ring for calls from that outside (CO) line.
   - If you do not want to configure a particular outside (CO) line, deselect the check box beside the name of that line.
8. Click **Next**.
The Step 5 screen will be displayed.

![Quick Setup - Step 5](image)

9. Enter the date and time.
   - By default, the date and time of the PC are shown in these boxes.

10. Enter the desired system password, to be used to log on to the PBX.
    - The password must be from 4 to 7 digits long.
    - You must enter the same password 2 times, for confirmation.
    - Be sure to make a note of the password entered here, as it will be required to log on to the PBX.

11. Click **Finish**.
    - The data items set in steps 1 to 5 will be transmitted to the PBX.
    - A completion message will be displayed.

12. Click **OK**.

---

### 8.3 System Reset

 Resets the PBX.

There are 2 levels of reset:
- Normal: The PBX will be reset.
- Default: The PBX will be reset, and programming settings returned to their default values.

#### 8.3.1 Normal

 Resets the PBX.

**To reset the PBX**

1. From the **Utility** menu, point to **System Reset**, and then select **Normal**.
   - A confirmation message will be displayed.
2. Click Yes.
The PBX will be disconnected from Maintenance Console, and will reset.

### 8.3.2 Default

Resets the PBX, and returns programming settings to their default values. This option clears all settings within the PBX. Use this feature only when necessary, as all setting data within the PBX will be lost. If required, take a backup of system data in advance, using 5.7 File Transfer PBX to PC.

**To clear all settings and reset the PBX**

1. From the **Utility** menu, point to **System Reset**, and then select **Default**. A confirmation message will be displayed.
2. Click **Yes**.
The PBX will be disconnected from Maintenance Console, and will reset.

### 8.4 System Data Clear

Initializes PBX system data and programming settings. Use this feature only when necessary, as all system and setting data within the PBX will be lost. If required, take a backup of system data in advance, using 5.7 File Transfer PBX to PC.

**To initialize PBX system data**

1. From the **Utility** menu, select **System Data Clear**. The **System Data Clear** window will be displayed.
2. Select the system data to delete.
   - Click **ALL** to delete all system data.
   - Click **Custom** to select specific data to delete.
     - Select the appropriate check boxes.
3. Click **OK**.
   A completion message will be displayed.
4. Click **OK**.
8.5 DISA OGM Clear

Initializes the outgoing messages (OGMs) for the DISA feature. DISA OGMs on both the preinstalled OGM card and the optional OGM card (if present) will be deleted.

To clear all DISA OGMs
1. From the Utility menu, select DISA OGM Clear. A confirmation message will be displayed.
2. Click Yes. A completion message will be displayed.
3. Click OK.

8.6 BV Card Initialization

Initializes the optional BV card installed in the PBX, clearing all messages stored using the BV feature. This option requires that a BV card be installed in the PBX.

To initialize the BV card
1. From the Utility menu, select BV Card Initialization. A confirmation message will be displayed.
2. Click Yes. A completion message will be displayed.
3. Click OK.
This section describes the options available on each setting screen of the Maintenance Console.
9.1 System [1]

9.1.1 Date & Time [1-1]

The date and time of the PBX can be programmed. The date and time will be shown on the displays of proprietary telephones (PTs) and Station Message Detail Recording (SMDR).

**Date**

Indicates the current date of the PBX. A calendar program window appears when you type or select the part of the date you want to change in the **Date** box. The day of the week is changed automatically to reflect the assigned date.

**Default**

05.Jan.1 Sat

**Value Range**

Year: 2000–2099
Month: 01–12
Day: 01–31
Week: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

**Programming Manual References**

[000] Date & Time

**Feature Manual References**

1.1.112 Station Message Detail Recording (SMDR)

**Time**

Indicates the current time of the PBX. Type or select the part of the time you want to change in the **Time** box if necessary.

**Default**

AM12:00

**Value Range**

AM12:00–PM11:59
9.1 System [1]

Programming Manual References
[000] Date & Time

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

9.1.2 Main [1-2]

Various system settings can be programmed.

System Password
Specifies the system password used to access system programming in interactive mode.

Default
1234

Value Range
4–7 digits (consisting of 0–9)

Programming Manual References
[002] System Password

Feature Manual References
1.1.99 PC Programming
1.1.103 PT Programming
**Operator**
Selects the extension jack number to be designated as the operator.

**Default**
Jack 01

**Value Range**
Disable, Jack 01–24

**Programming Manual References**
[008] Operator Assignment

**Feature Manual References**
1.1.87 Operator/Manager Features

**Time—Time Display**
Selects the time format shown on the displays of proprietary telephones (PTs) while on-hook. The Date & Time, Time Service, Station Message Detail Recording (SMDR) and Timed Reminder features use 12-hour format even if 24-hour format is assigned in this program.

**Default**
12 h

**Value Range**
12 h, 24 h

**Programming Manual References**
[010] LCD Time Display

**Time—Automatic Time Adjustment**
Enables the PBX to adjust its clock every day according to the time information included with the first Caller ID call after 3:05 A.M.

**Default**
On

**Value Range**
On (checked), Off (unchecked)

**Programming Manual References**
[152] Automatic Time Adjustment

**Feature Manual References**
1.1.6 Automatic Time Adjustment
Music on Hold
Selects the audio source for Music on Hold and Background Music (BGM).

Default
External

Value Range
External, Tone

Programming Manual References
[111] Music on Hold

Feature Manual References
1.1.7 Background Music (BGM)
1.1.85 Music on Hold

Voice Mail
Selects the method of Voice Mail Integration.

Default
Disable

• DTMF Integration (VM Port): Off
• APT Integration (VM1 APT Port/VM2 APT Port): Disable

Value Range
Disable, DTMF Integration, APT Integration
Disable: Disables both Inband (DTMF) and APT Integration.
DTMF Integration: Enables Inband (DTMF) Integration.
The following extension jack number(s) connected to a Panasonic VPS can be specified as the voice mail ports:
• VM Port: Jack 07, Jack 08, Jack 15, Jack 16
APT Integration: Enables APT Integration.
The following extension jack number(s) connected to a Panasonic VPS can be specified as the voice mail ports:
• VM1 APT Port: Disable, Jack 07, Jack 07 & 08
• VM2 APT Port: Disable, Jack 15, Jack 15 & 16

Programming Manual References
[102] DTMF Integration Port
[103] DTMF Integration
[130] VM 1 APT Port
[131] VM 2 APT Port

Feature Manual References
1.1.120 Voice Mail APT Integration
1.1.121 Voice Mail Inband (DTMF) Integration
9.1.3 Numbering Plan [1-3]

Extension numbers and extension names can be programmed for each extension.

### Jack
Indicates the jack number (reference only). Sort in either ascending or descending order by clicking the **Jack** header.

**Value Range**
01–24

### Ext. no.
Selects an extension number for each extension. Each extension must have a unique extension number. Sort in either ascending or descending order by clicking the **Ext. no.** header.

**Default**
Jack 01–24 = Ext. no. 101–124 (e.g., Jack 01: Ext. no. 101, Jack 02: Ext. no. 102)

**Value Range**
100–199

**Programming Manual References**
[009] Extension Number

**Feature Manual References**
1.1.57 Feature Numbering
1.1.69 Intercom Call

**Name**
Specifies the names of extensions, to be shown on the display of proprietary telephones (PTs) during intercom calls. Sort in either ascending or descending order by clicking the **Name** header.

**Default**
All jacks: — (Not stored)

**Value Range**
Max. 10 characters

**Programming Manual References**
[604] Extension Name

**Feature Manual References**
1.1.69 Intercom Call

### 9.1.4 Time Service [1-4]

A specific time service mode (day, night, or lunch) can be selected for operation depending on the time of the day. The time service mode can be switched either automatically or manually. When **Manual** is selected in the **Time Service Switching Mode** list, the current time service mode can be selected from the **Current Mode** list. Manual switching is possible only from an extension assigned as the operator or manager extension. When **Automatic** is selected, the current time service mode will switch to another time service mode at the time preprogrammed on the 9.1.5 Time Service [1-4] Time Setting screen. In addition, the time service modes are distinguished in the table with different colors. To change the time in the Time Table, click **Time Setting**. To change the color settings of each time service mode, click **Day**, **Night**, or **Lunch**.

![Time Service Switching Mode](image)

**Time Service Switching Mode**
Selects whether the time service mode is switched between day, lunch, and night manually or automatically.

**Default**
Manual
Value Range
Manual, Automatic

Programming Manual References
[006] Time Service Switching Mode
9.1.5 Time Service [1-4] Time Setting

Feature Manual References
1.1.114 Time Service

Current Mode
This program is available only when Manual is selected in Time Service Switching Mode on this screen.
Selects the current time service mode manually.

Default
Day

Value Range
Day, Night, Lunch

Feature Manual References
1.1.87 Operator/Manager Features
1.1.114 Time Service

Operating Manual References
2.1.9 Time Service

9.1.5 Time Service [1-4] Time Setting

These settings are only available when Automatic is selected in Time Service Switching Mode on the 9.1.4 Time Service [1-4] screen.
Time Tables (containing day, lunch, and night start times and lunch end time) can be programmed for each day of the week.

Day
Enables the setting of the Day start time. If enabled (checked), the start time can be specified.
Default
Every day of the week: On (AM09:00)

Value Range
On (AM12:00–PM11:59), Off

Programming Manual References
[007] Time Service Start Time
9.1.4 Time Service [1-4]—Time Service Switching Mode

Feature Manual References
1.1.114 Time Service

Night
Enables the setting of the Night start time. If enabled (checked), the start time can be specified.

Default
Every day of the week: On (PM05:00)

Value Range
On (AM12:00–PM11:59), Off

Programming Manual References
[007] Time Service Start Time
9.1.4 Time Service [1-4]—Time Service Switching Mode

Feature Manual References
1.1.114 Time Service

Lunch—Start
Enables the setting of the Lunch start time. If enabled (checked), the start time can be specified. Lunch mode overrides Day or Night mode.

Default
Every day of the week: Off

Value Range
On (AM12:00–PM11:59), Off

Programming Manual References
[007] Time Service Start Time
9.1.4 Time Service [1-4]—Time Service Switching Mode

Feature Manual References
1.1.114 Time Service
9.1 System [1]

Lunch—End
Enables the setting of the Lunch end time. If enabled (checked), the end time can be specified.

Default
Every day of the week: Off

Value Range
On (AM12:00–PM11:59), Off

Programming Manual References
[007] Time Service Start Time
9.1.4 Time Service [1-4]—Time Service Switching Mode

Feature Manual References
1.1.114 Time Service

9.1.6 Account Codes [1-5]
A maximum of 50 account codes can be programmed and used to identify outgoing outside (CO) line calls for accounting and billing purposes.

Account Code
Specifies the account codes that must be entered when Verify-All (an account code is required to make an outside (CO) line call) or Verify-Toll (an account code is required to override Toll Restriction [TRS] temporarily) is selected in Account Code Mode on the 9.2.1 Main [2-1] screen.

Default
All codes: — (Not stored)

Value Range
4 digits (consisting of 0–9)

Programming Manual References
[310] Account Code
9.2.1 Main [2-1]—Account Code Mode

**Feature Manual References**
1.1.2 Account Code Entry
1.1.118 Toll Restriction (TRS) Override by Account Code

### 9.1.7 Timers [1-6]

Various system timers and counters can be programmed.

#### Recall Time—Call Hold

Selects the length of time a call on hold waits to be retrieved. If the call on hold is not retrieved within the time period programmed here, a ring tone will be heard at the extension that put the call on hold. If the extension is engaged in a call, an alarm tone will be heard.

**Default**

30 s

**Value Range**

Disable, 30 s, 1 min, 1.5 min, 2–6 min

**Programming Manual References**

[200] Hold Recall Time

**Feature Manual References**

1.1.15 Call Hold
1.1.16 Call Hold, Exclusive
1.1.19 Call Park

#### Recall Time—Call Transfer

Selects the length of time a transferred call waits to be answered. If the transfer destination does not answer the call within the time period programmed here, the call will return to the extension that transferred the call.
9.1 System [1]

Start Time—Call Forwarding
Selects the length of time before a call is forwarded when the call is not answered.

Default
30 s

Value Range
15 s, 30 s, 1 min, 2 min

Programming Manual References
[201] Transfer Recall Time

Feature Manual References
1.1.25 Call Transfer—To Extension

Start Time—Hot Line
Selects the length of time until automatic dialing starts after a single line telephone (SLT) user goes off-hook.

Default
3 s

Value Range
0–4 s

Programming Manual References
[203] Hot Line Waiting Time

Feature Manual References
1.1.66 Hot Line

Call Duration—Call Duration Counter Start Time
Selects when the call timer starts, either immediately after an outside (CO) line is seized, or after the end of dialing. This corresponds to the length of the conversation displayed on the LCD and logged by SMDR.
Default
10 s

Value Range
Immediate, 5 x n (n=1–10) s
Immediate: The call timer starts immediately after an outside (CO) line is seized.
5 x n (n=1–10) s: The call timer starts after the end of dialing.

Programming Manual References
[204] Call Duration Counter Start

Feature Manual References
1.1.43 Display Information
1.1.112 Station Message Detail Recording (SMDR)

Call Duration—CO-to-CO Duration Limit
Selects the maximum length of time allowed for a conversation between 2 outside parties using the Call Forwarding (FWD) to Outside (CO) Line, Call Transfer to Outside (CO) Line, Unattended Conference, or DISA feature.

Default
10 min

Value Range
1–32 min

Programming Manual References
[205] CO-to-CO Line Call Duration

Feature Manual References
1.1.91 Outside-to-Outside (CO-to-CO) Line Call Duration

CO Dialing—Dialing Start Time
Selects the minimum length of time that the PBX waits after seizing an outside (CO) line before dialing.

Default
0 ms

Value Range
0 ms, 250 ms, 500 ms, 750 ms, 1000 ms, 1250 ms, 1500 ms

Programming Manual References
[206] Dialing Start Time

Feature Manual References
1.1.71 Line Access, Outside (CO) Line—SUMMARY
**CO Dialing—No Dial Disconnection**
Selects whether or not to disconnect an outside (CO) line when an extension user does not dial anything within 10 seconds after seizing the outside (CO) line.

**Default**
Disable

**Value Range**
Disable (Do not disconnect), Enable (Disconnect)

**Programming Manual References**
[211] No Dial Disconnection

**Feature Manual References**
1.1.117 Toll Restriction (TRS)

**CO Dialing—Inter-digit Time**
Selects the length of time allowed between digits for an outgoing outside (CO) line call.

**Default**
10 s

**Value Range**
5 s, 10 s, 15 s, 20 s

**Programming Manual References**
[208] Inter-digit Time

**Feature Manual References**
1.1.117 Toll Restriction (TRS)
9.1.8 SMDR [1-7]

Station Message Detail Recording (SMDR) automatically records detailed information about incoming and outgoing calls.

RS-232C Parameters—NL Code
Selects the code appropriate for the PC or printer. If the PC or printer automatically feeds lines with carriage return, this selection must be set to CR. If not, CR+LF.

Default
CR+LF

Value Range
CR+LF, CR
CR: Carriage Return
LF: Line Feed

Programming Manual References
[800] SMDR RS-232C Parameter

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

RS-232C Parameters—Baud Rate
Selects the transmission speed of data from the PBX to the PC or printer.

Default
9600 bps

Value Range
1200 bps, 2400 bps, 4800 bps, 9600 bps
Programming Manual References
[800] SMDR RS-232C Parameter

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

RS-232C Parameters—Word Length
Selects how many bits compose each character.

Default
8 bits

Value Range
7 bits, 8 bits

Programming Manual References
[800] SMDR RS-232C Parameter

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

RS-232C Parameters—Parity Bit
Selects what type of parity is used to detect errors in the string of bits composing a character. When the error checking function is not required from the printer, None must be selected in this program.

Default
None

Value Range
None, Mark, Space, Even, Odd

Programming Manual References
[800] SMDR RS-232C Parameter

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

RS-232C Parameters—Stop Bit
Selects the end of a bit string that composes a character.

CAUTION
Do not use the following combinations:
- Parity Bit: Mark, Word Length: 8 bits, Stop Bit: 2 bits
- Parity Bit: Space, Word Length: 8 bits, Stop Bit: 1 bit
- **Parity Bit**: Space, **Word Length**: 8 bits, **Stop Bit**: 2 bits

If any of the above invalid combinations are selected, an error message will be displayed.

**Default**
1 bit

**Value Range**
1 bit, 2 bits

**Programming Manual References**
[800] SMDR RS-232C Parameter

**Feature Manual References**
1.1.112 Station Message Detail Recording (SMDR)

**SMDR Format—Page Length**
Selects the number of lines per page in order to match the paper size being used by the printer.

**Notes**
To enable the changes, you must turn the power switch of the PBX off and back on again or reset the PBX (→8.3.1 Normal) after changing this setting.

**Default**
66 lines

**Value Range**
4–99 lines

**Programming Manual References**
[801] SMDR Parameter

**Feature Manual References**
1.1.112 Station Message Detail Recording (SMDR)

**SMDR Format—Skip Perforation**
Selects the number of lines to be skipped at the end of every page in order to match the paper size being used by the printer.

**Notes**
To enable the changes, you must turn the power switch of the PBX off and back on again or reset the PBX (→8.3.1 Normal) after changing this setting.

**Default**
0 line

**Value Range**
0–95 lines
Programming Manual References
[801] SMDR Parameter

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

Selection for Printing—Outgoing Call
Selects whether the dialed digits of outgoing outside (CO) line calls are printed.

Default
On

Value Range
On (Print all calls), Off (No printing), Toll (Print toll calls only)

Programming Manual References
[802] Incoming/Outgoing Call Selection for Printing

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

Selection for Printing—Incoming Call
Selects whether the dialed digits of incoming outside (CO) line calls are printed.

Default
On

Value Range
On (Print all calls), Off (No printing)

Programming Manual References
[802] Incoming/Outgoing Call Selection for Printing

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

Selection for Printing—Account Code
Selects whether to print out the account code stored in Account Code on the 9.1.6 Account Codes [1-5] screen, or just the index of the account code on SMDR. The index of the account code is shown when Verify-All or Verify-Toll is selected in Account Code Mode on the 9.2.1 Main [2-1] screen.

Default
CODE
Value Range
CODE, INDEX

Programming Manual References
[805] SMDR Account Code
9.1.6 Account Codes [1-5]—Account Code
9.2.1 Main [2-1]—Account Code Mode

Feature Manual References
1.1.2 Account Code Entry
1.1.112 Station Message Detail Recording (SMDR)
1.1.118 Toll Restriction (TRS) Override by Account Code

Selection for Printing—Secret Number
Selects whether secret dialing numbers stored in Line Access Number + Telephone Number on the 9.4.1 System Speed Dialing [4-1] screen or stored in One-touch Dialing buttons are printed with SMDR. Secret dialing numbers are not shown on the displays of proprietary telephones (PTs), regardless of this setting.

Default
Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[803] Secret Number SMDR Print Suppression
9.4.1 System Speed Dialing [4-1]—Line Access Number + Telephone Number

Feature Manual References
1.1.111 Secret Dialing
1.1.112 Station Message Detail Recording (SMDR)

Selection for Printing—Language
Selects the display language used for SMDR.

Default
English

Value Range
English, Spanish

Programming Manual References
[806] SMDR Language
9.1 System [1]

Feature Manual References
1.1.112 Station Message Detail Recording (SMDR)

9.1.9 Carrier Exception Codes [1-8]

A maximum of 20 Carrier Exception codes can be programmed. The PBX can recognize a user-dialed carrier code in order to apply Toll Restriction (TRS). The PBX disregards the assigned code and TRS is applied to the numbers after the code.

Carrier Exception Code
Specifies the Carrier Exception codes.

Default
All codes: — (Not stored)

Value Range
Max. 10 digits (consisting of 0–9, x, #, and x [wild card])

Programming Manual References
[300] Carrier Exception Code

Feature Manual References
1.1.117 Toll Restriction (TRS)
9.1.10 Automatic Pause Insertion Codes [1-9]

A maximum of 40 Automatic Pause Insertion codes can be programmed. When a dialed telephone number matches one of the Automatic Pause Insertion codes specified here, a pause will be automatically inserted after the code. This is particularly convenient if a second dial tone is sent from your telephone company.

Automatic Pause Insertion Code

Specifies the Automatic Pause Insertion codes that are checked with the outgoing outside (CO) line call number.

Default
All codes: — (Not stored)

Value Range
Max. 11 digits (consisting of 0–9)

Programming Manual References
[311] Automatic Pause Insertion Code

Feature Manual References
1.1.98 Pause Insertion
9.1 System [1]

9.1.11 Detail [1-10]

Detailed information about the PBX can be programmed.

Extension—Ring Tone Pattern
Selects the extension ring tone pattern for incoming intercom calls.

Default
Double

Value Range
Single, Double, Triple

Programming Manual References
[115] Extension Ring Tone Pattern

Feature Manual References
1.1.69 Intercom Call
1.1.108 Ring Tone Pattern Selection
2.2.1 Tones/Ring Tones

Extension—Ringback Tone Pattern
Selects the ringback tone pattern for outgoing intercom calls and for incoming outside (CO) line calls (including a Direct Inward System Access [DISA] call).

Default
Single (5 s)
**Value Range**
Single (3 s), Single (5 s), Double (3 s), Double (5 s)

**Programming Manual References**
[128] Ringback Tone Pattern

**Feature Manual References**
1.1.41 Direct Inward System Access (DISA)
1.1.69 Intercom Call
2.2.1 Tones/Ring Tones

**Extension—External Pager Access Tone**
Enables the PBX to send a confirmation tone to the external pager before a paging announcement.

**Default**
On

**Value Range**
On (checked), Off (unchecked)

**Programming Manual References**
[106] External Pager Access Tone

**Feature Manual References**
1.1.94 Paging—All Extensions & External
1.1.95 Paging—External

**Extension—Call Pickup Tone**
Enables the PBX to send a confirmation tone when the Call Pickup feature is activated.

**Default**
On

**Value Range**
On (checked), Off (unchecked)

**Programming Manual References**
[117] Call Pickup Tone

**Feature Manual References**
1.1.20 Call Pickup, Directed
1.1.21 Call Pickup, Group
Extension—Flash/Recall Mode for a Locked Extension

Enables a locked extension to send a flash/recall signal during a conversation with an outside party.

Default
Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[108] Flash/Recall Mode for a Locked Extension

Feature Manual References
1.1.55 Extension Lock
1.1.107 Remote Extension Lock

Proprietary Telephone—Flash/Recall Key Mode

Selects the function of the FLASH/RECALL button on a proprietary telephone (PT) during a conversation with an outside party.

Default
Mode 2

Value Range
Mode 1 (EFA mode), Mode 2 (Flash/Recall mode)

Programming Manual References
[110] Flash/Recall Key Mode

Feature Manual References
1.1.56 External Feature Access (EFA)
1.1.60 Flash/Recall

Proprietary Telephone—CO Indicator

This program is available only for the extensions set to not ring in Ringing for incoming CO calls—Day, Night, Lunch on the 9.3.2 Incoming / Outgoing [3-2] screen.

Enables the corresponding PTs to answer incoming outside (CO) line calls. The CO button indicator will flash when an outside (CO) line call is received. If this program is enabled, a PT user can answer the call by pressing the flashing CO button. If this program is disabled, the user cannot answer the call even if he or she presses the CO button.

Default
On

Value Range
On (checked), Off (unchecked)
Proprietary Telephone—KX-T7700 Series Incoming Lamp Control

Enables the Message/Ringer Lamp on the KX-T7700 series telephones for the following incoming calls:
- Incoming call from an outside (CO) line with Caller ID information
- Incoming call from another extension to a busy extension when the called extension has set Call Waiting (Call Waiting Tone 1)
- Incoming call from a doorphone when an optional doorphone or doorbell/door chime is connected to the PBX

Default
Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[968] KX-T7700 Series Incoming Lamp Control

Feature Manual References
1.1.82 Message Waiting
1.1.83 Message Waiting for Another Extension

Single Line Telephone—Hold Mode

Selects how calls are held and transferred with a single line telephone (SLT) when the Recall/hookswitch is pressed for less than 1000 ms.

Default
Hold-1

Value Range
Hold-1, Hold-2, Hold-3

Programming Manual References
[104] SLT Hold Mode

Feature Manual References
1.1.15 Call Hold

Conference—Conference Tone

Enables the PBX to send a confirmation tone before starting or ending a conference call established by the Conference feature or Executive Busy Override feature.
9.1 System

DSS—One-touch Transfer Using a DSS Button
Selects how an outside (CO) line call is transferred to an extension using a Direct Station Selection (DSS) button.

Default
With Transfer

Value Range
With Transfer, Without Transfer
With Transfer: Press the DSS button to transfer the outside (CO) line call.
Without Transfer: Press the TRANSFER button, then the DSS button to transfer the outside (CO) line call.

Programming Manual References
[005] One-touch Transfer Using a DSS Button

Feature Manual References
1.1.25 Call Transfer—To Extension
1.1.59 Fixed Buttons

DSS—DSS Lamp Mode
Enables the Busy Lamp Field (BLF) on the DSS button to indicate the status, Call Forwarding (FWD) or Do Not Disturb (DND), of corresponding extensions.

Default
On

Value Range
On (checked), Off (unchecked)
On: FWD – Flashing slowly, DND – Flashing at moderate speed
Off: FWD – Off, DND – Off
CO—Pulse dialing during a conversation
Enables the PBX to send pulse dialing to the telephone company during a conversation with an outside party when Pulse or Call Blocking is selected in Dial Mode on the 9.3.3 Detail [3-3] screen.

Default
On

Value Range
On (checked), Off (unchecked)

Feature Manual References
1.1.70 LED Indication

CO—Redialing after Pulse to Tone Conversion
Enables the PBX to send DTMF (Dual Tone Multi-Frequency) dialing to the telephone company when an extension user redials after changing from pulse mode to DTMF mode by pressing "×#".

Default
Off

Value Range
On (checked), Off (unchecked)

Feature Manual References
1.1.104 Pulse to Tone Conversion

DTMF Receiver Test—DTMF Receiver 1–6
Enables each DTMF receiver to check whether it is operating normally or not.

Default
All DTMF receivers: On

Value Range
On (checked), Off (unchecked)

DTMF receiver number:
1–2: checking extension jacks 01–08
3–4: checking extension jacks 09–16
5–6: checking extension jacks 17–24

Installation Manual References
4.1.3 Operation

Programming Manual References
[107] DTMF Receiver Check

9.2 Extension [2]

9.2.1 Main [2-1]

Various parameters can be programmed for each extension. This screen is divided into 3 pages, each containing different settings. To show all parameters for a certain jack or extension, double-click the relevant Jack or Extension Number cell.

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<td>Option</td>
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</tr>
</tbody>
</table>

Jack
Indicates the jack number (reference only).

Value Range
01–24
Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Account Code Mode
Selects the account code entry mode for each extension.

Default
All jacks: Option

Value Range
Option, Forced, Verify-All, Verify-Toll

Programming Manual References
[605] Account Code Mode

Feature Manual References
1.1.2 Account Code Entry
1.1.118 Toll Restriction (TRS) Override by Account Code

Transfer to CO
Enables the user to transfer an incoming call to any outside (CO) line.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[606] Call Transfer to CO Line

Feature Manual References
1.1.26 Call Transfer—To Outside (CO) Line
1.1.34 Conference, Unattended

Call Forward to CO
Enables the user to forward an incoming call to any outside (CO) line.
Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[607] Call Forwarding to CO Line

Feature Manual References
1.1.14 Call Forwarding (FWD)—To Outside (CO) Line

Busy Override
Enables the user to interrupt another extension’s existing call to establish a 3-party conference call.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[608] Executive Busy Override

Feature Manual References
1.1.50 Executive Busy Override—Extension
1.1.51 Executive Busy Override—Outside (CO) Line

DND Override
Enables the user to make a call to another extension that is in Do Not Disturb (DND) mode, by entering the feature number.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[609] DND Override

Feature Manual References
1.1.45 Do Not Disturb (DND) Override
Paralleled Telephone

Specifies whether a single line telephone (SLT) is connected in parallel with a proprietary telephone (PT).

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[610] Paralleled Telephone

Feature Manual References
1.1.97 Paralleled Telephone

Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).
Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

TAM Connection
Specifies whether an extension is connected to a Telephone Answering Machine (TAM) to activate the Call Retrieving from a TAM feature.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[611] TAM Extension

Feature Manual References
1.1.23 Call Retrieving from a TAM (Telephone Answering Machine)

Room Monitor
Specifies whether an extension can be monitored using the Room Monitor feature.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[612] Room Monitor

Feature Manual References
1.1.110 Room Monitor

Display Language
Selects the language shown on the display of a PT.

Default
All jacks: English

Value Range
English, Spanish
**Programming Manual References**

[615] LCD Language

**Feature Manual References**

1.1.43 Display Information

---

**Wireless PT Port**

Identifies whether a Panasonic wireless phone (e.g., KX-TD7895 or KX-T7885) is connected to an extension jack or not. If **Not connected** is selected for the jack that is connected to the Panasonic wireless phone, the wireless phone may function incorrectly.

**Default**

All jacks: Not connected

**Value Range**

Connected, Not connected

---

**Programming Manual References**

[617] Wireless PT Port Assignment

---

**Jack**

Indicates the jack number (reference only).
**Value Range**
01–24

**Extension**
Indicates the extension number and name (reference only).

**Value Range**
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**
9.1.3 Numbering Plan [1-3]—Ext. no., Name

**MW for Another Extension**
Specifies whether an extension can use the Message Waiting for Another Extension feature. If this program is disabled (unchecked), an extension user cannot use a button as a Message for another extension button.

**Default**
All jacks: On

**Value Range**
On (checked), Off (unchecked)

**Programming Manual References**
[618] Message Waiting for Another Extension

**Feature Manual References**
1.1.83 Message Waiting for Another Extension

**SLT MW**
Enables the PBX to send dial tone 3 as a message waiting notification to an SLT.

**Default**
All jacks: Off

**Value Range**
On (checked), Off (unchecked)

**Programming Manual References**
[619] SLT Message Waiting

**Feature Manual References**
1.1.82 Message Waiting
LCS Recording Mode

Selects whether a message will continue being recorded in an extension’s mailbox or stop being recorded, when the extension user answer the call while monitoring.

Default
All jacks: Stop Recording

Value Range
Stop Recording, Keep Recording

Programming Manual References
[620] LCS Recording Mode Set

Feature Manual References
1.1.77 Live Call Screening (LCS) (Voice Mail APT Integration only)
1.1.120 Voice Mail APT Integration

FWD Selection

Enables the PBX to forward the calls received on outside (CO) lines programmed as Normal in Mode of incoming CO calls—Day, Night, Lunch on the 9.3.1 Line Mode [3-1] screen. If this program is disabled (unchecked), outside (CO) line calls cannot be forwarded even if the extension user has set the Call Forwarding (FWD) feature.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[963] Call Forwarding Selection
9.3.1 Line Mode [3-1]—Mode of incoming CO calls—Day, Night, Lunch

Feature Manual References
1.1.11 Call Forwarding (FWD)—All Calls
1.1.12 Call Forwarding (FWD)—Busy/No Answer
1.1.13 Call Forwarding (FWD)—Follow Me

BGM Control for APT

Enables the user to turn background music (BGM) on and off by dialing "1" while the extension is on-hook and idle.

Default
All jacks: Off
9.2 Extension [2]

Value Range
On (checked), Off (unchecked)

Programming Manual References
[626] BGM Control for APT

Feature Manual References
1.1.7 Background Music (BGM)

9.2.2 Feature settings [2-2]

Features related to extension operations can be programmed for each extension. This screen is divided into 3 pages, each containing different settings. To show all parameters for a certain jack or extension, double-click the relevant Jack or Extension Number cell.

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<th>Call Waiting Intercom</th>
<th>Call Waiting Outside Pass</th>
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<td>Cancel</td>
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<td>124</td>
<td>Cancel</td>
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</tr>
</tbody>
</table>

**Jack**
Indicates the jack number (reference only).

**Value Range**
01–24

**Extension**
Indicates the extension number and name (reference only).
Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

FWD/DND
Specifies whether an extension forwards or refuses calls directed to that extension when the user cannot answer calls. The forwarding destination can be specified depending on the forwarding type selected here.

Default
All jacks: Cancel

Value Range
Cancel, FWD ALL (ext no., BV), FWD Busy N/A (ext no., BV), FWD to CO (Max. 32 digits: line access no. + telephone no. [consisting of 0–9 and ∗]), DND

Feature Manual References
1.1.10 Call Forwarding (FWD)—SUMMARY
1.1.44 Do Not Disturb (DND)

Operating Manual References
1.3.9 Call Forwarding (FWD)—SUMMARY
1.3.35 Do Not Disturb (DND)

Call Pickup Deny
Enables the prevention of calls being picked up by other extensions.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Feature Manual References
1.1.22 Call Pickup Deny

Operating Manual References
1.3.23 Call Pickup Deny

Call Waiting—intercom calls
Specifies whether an extension can receive a call waiting tone for calls from other extensions or doorphones.
Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Feature Manual References
1.1.9 Busy Station Signaling (BSS)
1.1.27 Call Waiting

Operating Manual References
1.3.8 Busy Station Signaling (BSS)
1.3.28 Call Waiting

Call Waiting—outside calls
Specifies whether an extension can receive a call waiting tone for calls from outside (CO) lines.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Feature Manual References
1.1.27 Call Waiting

Operating Manual References
1.3.28 Call Waiting
9.2 Extension [2]

**Jack**
Indicates the jack number (reference only).

**Value Range**
01–24

**Extension**
Indicates the extension number and name (reference only).

**Value Range**
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**
9.1.3 Numbering Plan [1-3]—Ext. no., Name

**Data Line Security**
Enables the prevention of signals from other extensions during data transmission.

**Default**
All jacks: Off

**Value Range**
On (checked), Off (unchecked)
Remote Extension Lock
Specifies whether an extension can be remotely locked or unlocked by the manager.

**Default**
All jacks: Off

**Value Range**
On (checked), Off (unchecked)

*Feature Manual References*
1.1.107 Remote Extension Lock

*Operating Manual References*
2.1.6 Remote Extension Lock

Busy Override Deny
Enables the authorization to prevent other extensions from interrupting calls.

**Default**
All jacks: Off

**Value Range**
On (checked), Off (unchecked)

*Feature Manual References*
1.1.50 Executive Busy Override—Extension
1.1.51 Executive Busy Override—Outside (CO) Line

*Operating Manual References*
1.3.42 Executive Busy Override Deny

Log-in / Log-out
Selects whether to join (Log-in) or leave (Log-out) an idle extension hunting group or Direct Inward System Access (DISA) ring group.

**Default**
All jacks: Log-in
Value Range
Log-in, Log-out

Feature Manual References
1.1.80 Log-in/Log-out

Operating Manual References
1.3.59 Log-in/Log-out

MW for Another Ext. Lock
Enables the authorization to lock message waiting indications to prevent others from viewing, calling back or clearing message waiting indications left at a user's extension. If this setting is enabled, the code to lock and unlock message waiting indications can be specified.

Default
All jacks: Off

Value Range
lock, code
lock: On (checked), Off (unchecked)
code: 4 digits (4000–9999)

Feature Manual References
1.1.83 Message Waiting for Another Extension

Operating Manual References
1.3.62 Message Waiting for Another Extension Lock

Paging Deny
Enables the prevention of being paged by other extensions.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Feature Manual References
1.1.92 Paging—SUMMARY

Operating Manual References
1.3.73 Paging Deny
Monitored PT set

This program is available only for the extensions enabled in Room Monitor on the 9.2.1 Main [2-1] screen. To set the Room Monitor feature at the monitored extension, select the check box for the extension in this program, and then press the AUTOANS button of the extension to be monitored.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
9.2.1 Main [2-1]—Room Monitor

Feature Manual References
1.1.110 Room Monitor

Operating Manual References
1.3.80 Room Monitor

LCS Password

Specifies the Live Call Screening (LCS) password to prevent the unauthorized screening of calls.

Default
All jacks: — (Not stored)

Value Range
3 digits (consisting of 0–9)

Feature Manual References
1.1.77 Live Call Screening (LCS) (Voice Mail APT Integration only)

Operating Manual References
1.3.56 Live Call Screening (LCS) (Voice Mail APT Integration only)
9.2 Extension

Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Hot Line for SLT
Enables the Hot Line feature.

Default
All jacks: Off [set], — (Not stored) [phone no.]

Value Range
set, phone no.
set: On (checked), Off (unchecked)
phone no: Max. 32 digits (consisting of 0–9, *, and P [pause])
Timed Reminder
Enables the Timed Reminder feature. When One Time or Daily is selected, the setting time can be specified.

Default
All jacks: Cancel

Value Range
Cancel, One Time (AM12:00–PM11:59), Daily (AM12:00–PM11:59)

Voice Mail Integration
Selects the Follow-on ID format required by your Voice Processing System (VPS).

Default
All jacks: B: send #6+ext no.

Value Range
Cancel, A: send ext no., B: send #6+ext no.

9.2.3 PT personal settings [2-3]
Various personal programming settings on a proprietary telephone (PT) can be programmed for each extension. This screen is divided into 2 pages, each containing different settings. To show all parameters for a certain jack or extension, double-click the relevant Jack or Extension Number cell.
Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Line Preference—Outgoing
Selects the line to be seized after going off-hook to make a call.

Default
All jacks: No Line

Value Range
No Line, Idle Line, CO 1–8
Feature Manual References
1.1.76 Line Preference—Outgoing

Operating Manual References
3.1.2 Personal Feature Assignment—Line Preference—Outgoing

Line Preference—Incoming
Selects the line on which an incoming call is answered after going off-hook.

Default
All jacks: Ringing Line

Value Range
No Line, Ringing Line, CO 1–8

Feature Manual References
1.1.75 Line Preference—Incoming

Operating Manual References
3.1.2 Personal Feature Assignment—Line Preference—Incoming

CO Line Ringing Selection—CO1–8
Specifies whether an extension will ring when receiving a call from an outside (CO) line.

Default
All jacks: On

Value Range
On (checked), Off (unchecked)

Feature Manual References
1.1.90 Outside (CO) Line Ringing Selection

Operating Manual References
3.1.2 Personal Feature Assignment—Outside (CO) Line Ringing Selection
9.2 Extension

Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Extension Password
Specifies the extension password used for the Walking COS feature and the Remote Extension Lock feature. The extension password should be unique to that extension.

Default
All jacks: — (Not stored)
Value Range
4 digits (consisting of 0–9)

Feature Manual References
1.1.87 Operator/Manager Features

Operating Manual References
2.1.7 System Feature Assignment—Extension Password Set (Manager only)

Alternate Receiving
Selects the method of receiving intercom calls.

Default
All jacks: Tone Call

Value Range
Tone Call, Voice Call

Feature Manual References
1.1.69 Intercom Call

Operating Manual References
3.1.2 Personal Feature Assignment—Alternate Receiving—Ring/Voice

Call Waiting Tone Type
Selects the type of Call Waiting tone to receive when an extension is busy and a new call arrives.

Default
All jacks: Tone 1

Value Range
Tone 1, Tone 2

Feature Manual References
1.1.27 Call Waiting

Operating Manual References
3.1.2 Personal Feature Assignment—Call Waiting Tone Type Selection

LCS Mode
Selects whether the extension's mailbox is monitored in Hands-free or Private mode.

Default
All jacks: Hands-free
9.2 Extension [2]

Value Range
Hands-free, Private
Hands-free: The extension user can screen calls automatically through the built-in speaker.
Private: The extension user will hear an alert tone when a message is being recorded in his or her mailbox.
To screen calls, the extension user must press the MONITOR, SP-PHONE, or LCS button.

Feature Manual References
1.1.77 Live Call Screening (LCS) (Voice Mail APT Integration only)

Operating Manual References
3.1.2 Personal Feature Assignment—Live Call Screening (LCS) Mode Set

9.2.4 Flexible Buttons [2-4]

Each flexible CO, Programmable Feature (PF), or MESSAGE button can be customized to allow one-touch access to a certain feature. The button settings of an extension can be copied to other extensions. Select the extension whose buttons you want to copy from the Extension jack list, then click Copy.
Clicking a CO button opens the 9.2.5 Flexible Buttons [2-4] CO buttons screen, which allows you to specify the feature to be assigned to a flexible CO button on the selected extension.
Clicking a PF button opens the 9.2.6 Flexible Buttons [2-4] PF buttons screen, which allows you to specify the feature to be assigned to a PF button on the selected extension.
Clicking the Message button opens the 9.2.7 Flexible Buttons [2-4] Message button screen, which allows you to specify the feature to be assigned to the MESSAGE button on the selected extension.

Extension jack
Selects the jack number of the extension to edit. The extension number and name are shown with the jack number.

Value Range
Jack 01–24 (Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen)
9.2 Extension [2]

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

**CO buttons**
Each CO button can be customized to access a certain feature with a one-touch operation.

**Default**
Button 1–8: Single CO (CO Line Number 1–8), Button 9–12: Not Stored

**Value Range**
Not Stored, Single CO, Group CO, Direct Station Selection (DSS), One-touch Dialing, Other CO, Conference, FWD/DND, Saved Number Redial, Caller ID Indication—Personal, Caller ID Selection—Personal, Log-in/Log-out, 2-way Record, 2-way Transfer, Live Call Screening (LCS), LCS Cancel, Voice Mail Transfer, Another Extension Message Waiting, Caller ID Indication—Common, Caller ID Selection—Common

Programming Manual References
9.2.5 Flexible Buttons [2-4] CO buttons

Feature Manual References
1.1.61 Flexible Buttons

Operating Manual References
3.1.3 Flexible Button Assignment

**PF buttons**
Each PF button can be customized to access a certain feature with a one-touch operation.

**Default**
All buttons: Not Stored

**Value Range**
Not Stored, One-touch Dialing

Programming Manual References
9.2.6 Flexible Buttons [2-4] PF buttons

Feature Manual References
1.1.61 Flexible Buttons

Operating Manual References
3.1.3 Flexible Button Assignment

**Message button**
The Message button can be customized to access a certain feature with a one-touch operation.
9.2 Extension [2]

Default
Message Waiting

Value Range
Not Stored, Direct Station Selection (DSS), One-touch Dialing, Message Waiting

Programming Manual References
9.2.7 Flexible Buttons [2-4] Message button

Feature Manual References
1.1.61 Flexible Buttons

Operating Manual References
3.1.3 Flexible Button Assignment

9.2.5 Flexible Buttons [2-4] CO buttons

Each CO button can be customized to access a certain feature with a one-touch operation. A maximum of 12 CO buttons can be customized for each extension. Select the desired extension from the Extension jack list on the 9.2.4 Flexible Buttons [2-4] screen. Depending on the button type, additional parameters are required as follows:

![CO button screen](image)

**CO Line Number (for Single CO)**
Selects the outside (CO) line to be accessed.

Value Range
1–8

Programming Manual References
9.2.4 Flexible Buttons [2-4]—Extension jack

**CO Group Number (for Group CO)**
Selects the outside (CO) line group to be accessed.
Value Range
1–8

Programming Manual References
9.2.4 Flexible Buttons [2-4]—Extension jack

Extension Number (for DSS)
Selects the number of the extension to be accessed.

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.4 Flexible Buttons [2-4]—Extension jack

Dial (for One-touch Dialing)
Specifies the number to be dialed.

Value Range
Max. 24 digits (consisting of 0–9, *, #, P [pause], F [flash/recall], and [ ] [secret])

Programming Manual References
9.2.4 Flexible Buttons [2-4]—Extension jack

VM Extension Number (for 2-way Record)
Selects the voice mail extension number.

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.4 Flexible Buttons [2-4]—Extension jack

VM Extension Number (for 2-way Transfer)
Selects the voice mail extension number.

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.4 Flexible Buttons [2-4]—Extension jack
VM Extension Number (for Voice Mail Transfer)
Selects the voice mail extension number.

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.4 Flexible Buttons [2-4]—Extension jack

Extension Number (for Another Extension Message Waiting)
Selects the extension number of another extension for which messages are checked.

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.4 Flexible Buttons [2-4]—Extension jack

9.2.6 Flexible Buttons [2-4] PF buttons
Each Programmable Feature (PF) button can be customized to access a certain feature with a one-touch operation. A maximum of 12 PF buttons can be customized for each extension. Select the desired extension from the Extension jack list on the 9.2.4 Flexible Buttons [2-4] screen. Personal Speed Dialing numbers (0–9) correspond to the numbers (F1–F10) of PF buttons as One-touch Dialing numbers.

One-touch Dialing
Specifies the number to be dialed.

Value Range
Max. 24 digits (consisting of 0–9, *, #, P [pause], F [flash/recall], and [ ] [secret])

Programming Manual References
9.2.4 Flexible Buttons [2-4]—Extension jack

Operating Manual References
1.3.64 One-touch Dialing
9.2 Extension [2]

9.2.7 Flexible Buttons [2-4] Message button

The MESSAGE button can be customized to access a certain feature with a one-touch operation. Select the desired extension from the Extension jack list on the 9.2.4 Flexible Buttons [2-4] screen. Depending on the button type, additional parameters are required as follows:

![Message Button Screen]

**Extension Number (for DSS)**

Selects the number of an extension to be accessed.

**Value Range**

Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**

9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.4 Flexible Buttons [2-4]—Extension jack

**Dial (for One-touch Dialing)**

Specifies the number to be dialed.

**Value Range**

Max. 24 digits (consisting of 0–9, *, #, P [pause], F [flash/recall], and [ ] [secret])

**Programming Manual References**

9.2.4 Flexible Buttons [2-4]—Extension jack
9.2.8 DSS Console [2-5]

A Direct Station Selection (DSS) Console can be used in conjunction with a proprietary telephone (PT). A maximum of 2 DSS Consoles can be connected to the PBX. Each flexible DSS/Programmable Feature (PF) button can be customized to allow one-touch access to a certain feature. The desired button settings of one DSS Console can be copied to the other DSS Console. Select the DSS Console that has the settings to copy to the other DSS Console from the DSS Console No. list, then click Copy to DSS X (X=1 or 2). It is not possible to select the same extension jack number 2 times in either Console Port or Pair Extension. In addition, an extension jack number already assigned as a DSS Console cannot be selected in Pair Extension.

Clicking a DSS button opens the DSS buttons screen, which allows you to specify the feature to be assigned to a flexible DSS button on the selected DSS Console.

Clicking a PF button opens the PF buttons screen, which allows you to specify the feature to be assigned to a PF button on the selected DSS Console.

### DSS Console No.

Selects the DSS Console number.

#### Value Range

DSS 1, DSS 2

#### Feature Manual References

1.1.54 Extension Jack Configuration
1.1.59 Fixed Buttons

### Console Port

Selects the number of the extension jack that the DSS Console is connected to. It is not possible to select jack 01 as jack 01 is the manager extension.

#### Default

Disable
Value Range
Disable, Jack 02–24

Programming Manual References
[003] DSS Console Jack Assignment

Feature Manual References
1.1.54 Extension Jack Configuration
1.1.59 Fixed Buttons

Pair Extension
Selects the extension number of the PT to be used in pair with the DSS Console. The extension number and name are shown with the jack number.

Default
Disable

Value Range
Disable, Jack 01–24 (Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen)

Programming Manual References
[004] Console Paired Telephone
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Feature Manual References
1.1.54 Extension Jack Configuration
1.1.59 Fixed Buttons

DSS buttons
Specifies the feature to be assigned to the flexible DSS button.

Default
Button 1–24: DSS (Extension Number 101–124), Button 25–32: Not Stored

Value Range
Not Stored, Direct Station Selection (DSS), One-touch Dialing, Extension Lock, Day, Night, Lunch, 2-way Record, 2-way Transfer, Live Call Screening (LCS), LCS Cancel, Voice Mail Transfer, Another Extension Message Waiting

Programming Manual References
9.2.9 DSS Console [2-5] DSS buttons

Feature Manual References
1.1.61 Flexible Buttons
Operating Manual References
3.1.3 Flexible Button Assignment

PF buttons
Specifies the feature to be assigned to the flexible PF button.

Default
All buttons: Not Stored

Value Range
Not Stored, One-touch Dialing

Programming Manual References
9.2.10 DSS Console [2-5] PF buttons

Feature Manual References
1.1.61 Flexible Buttons

Operating Manual References
3.1.3 Flexible Button Assignment
9.2.9 DSS Console [2-5] DSS buttons

Each Direct Station Selection (DSS) button can be customized to access a certain feature with a one-touch operation. A maximum of 32 DSS buttons can be customized for each DSS Console. Select the desired DSS Console from the DSS Console No. list on the 9.2.8 DSS Console [2-5] screen. Depending on the button type, additional parameters are required as follows:

**Extension Number (for Extension Lock)**
Selects the extension number of the extension that is locked.

**Value Range**
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.8 DSS Console [2-5]—DSS Console No.

**Extension Number (for Another Extension Message Waiting)**
Selects the extension number of another extension for which messages are checked.

**Value Range**
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.8 DSS Console [2-5]—DSS Console No.

**VM Extension Number (for 2-way Record)**
Selects the voice mail extension number.

**Value Range**
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.8 DSS Console [2-5]—DSS Console No.

**VM Extension Number (for 2-way Transfer)**
Selects the voice mail extension number.

**Value Range**
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.8 DSS Console [2-5]—DSS Console No.

**VM Extension Number (for Voice Mail Transfer)**
Selects the voice mail extension number.

**Value Range**
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.8 DSS Console [2-5]—DSS Console No.

**Extension Number (for DSS)**
Selects the number of an extension to be accessed.

**Value Range**
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

**Programming Manual References**
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.2.8 DSS Console [2-5]—DSS Console No.

**Dial (for One-touch Dialing)**
Specifies the number to be dialed.

**Value Range**
Max. 24 digits (consisting of 0–9, *, #, P [pause], -, F [flash/recall], and [ ] [secret])

**Programming Manual References**
9.2.8 DSS Console [2-5]—DSS Console No.
9.2.10 DSS Console [2-5] PF buttons

Each Programmable Feature (PF) button can be customized to access a certain feature with a one-touch operation. A maximum of 16 PF buttons can be customized for each Direct Station Selection (DSS) Console. Select the desired DSS Console from the DSS Console No. list on the 9.2.8 DSS Console [2-5] screen.

One-touch Dialing

Specifies the number to be dialed.

Value Range

Max. 24 digits (consisting of 0–9, *, #, P [pause], F [flash/recall], and [ ] [secret])

Programming Manual References

9.2.8 DSS Console [2-5]—DSS Console No.

Operating Manual References

1.3.64 One-touch Dialing

9.2.11 Extension Group [2-6]

Extensions can be grouped into 8 extension groups.
Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Group No.
Selects the extension group to which the extension belongs.

Default
All jacks: Group No. 1

Value Range
1–8

Programming Manual References
[600] Extension Group

Feature Manual References
1.1.21 Call Pickup, Group
1.1.42 Direct Inward System Access (DISA) Ring
1.1.53 Extension Group
1.1.67 Idle Extension Hunting
1.1.96 Paging—Group

Extension Hunting—Group No.
Indicates the extension group number (reference only).

Value Range
1–8

Extension Hunting—Extension Hunting
Enables the redirection of calls to an idle member of the same extension group when the called extension is busy. If enabled, the hunting type for the group can be selected.
9.3 CO [3]

Value Range

set, type
set: On (checked), Off (unchecked)
type: Circular (Circulates until the call is answered), Terminated (Terminates at the last extension)

Programming Manual References
[100] Hunting Group Set
[101] Hunting Type

Feature Manual References
1.1.67 Idle Extension Hunting

9.3 CO [3]

9.3.1 Line Mode [3-1]

The distribution method of incoming outside (CO) line calls can be programmed for each outside (CO) line depending on the time service mode (day/night/lunch).

<table>
<thead>
<tr>
<th>CO</th>
<th>Day</th>
<th>Night</th>
<th>Lunch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>2</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>3</td>
<td>Normal</td>
<td>Normal</td>
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</tr>
<tr>
<td>4</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>5</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>6</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>7</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
</tr>
<tr>
<td>8</td>
<td>Normal</td>
<td>Normal</td>
<td>Normal</td>
</tr>
</tbody>
</table>

CO
Indicates the outside (CO) line port number (reference only).

Value Range
1–8

Mode of incoming CO calls—Day, Night, Lunch
Selects the distribution method for incoming outside (CO) line calls in each time service mode. Depending on the distribution method selected, it may also be necessary to select a specific destination.

Default
All outside (CO) lines: Normal
9.3 CO [3]

Value Range
Normal, DIL (Jack 01–24), DISA (OGM 1–8), Modem, BV (BV 01–24)

Programming Manual References
[414-416] CO Line Mode—Day/Night/Lunch

Feature Manual References
1.1.8 Built-in Voice Message (BV)
1.1.40 Direct In Line (DIL)
1.1.41 Direct Inward System Access (DISA)
1.1.99 PC Programming

9.3.2 Incoming / Outgoing [3-2]

The authorization to make or receive outside (CO) line calls can be programmed for each extension. The extension settings of an outside (CO) line can be copied to other outside (CO) lines. Select the outside (CO) line whose settings you want to copy to other outside (CO) lines from the **CO Line Number** list, then click **Copy**.

**CO Line Number**
Specifies the outside (CO) line port number.

**Value Range**
1–8

**Jack**
Indicates the jack number (reference only).
Value Range
01–24

Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Ringing for incoming CO calls—Day, Night, Lunch
Selects whether the extension will ring or not for incoming outside (CO) line calls in each time service mode. If the extension is set to ring, the ring delay can be specified.

Default
All outside (CO) lines—all jacks: On (Immediate)

Value Range
Ring, Start Time
Ring: On (checked), Off (unchecked)
Start Time: Immediate, 5 s, 10 s, 15 s

Programming Manual References
[408-410] Flexible Ringing—Day/Night/Lunch
[411-413] Delayed Ringing—Day/Night/Lunch

Feature Manual References
1.1.42 Direct Inward System Access (DISA) Ring
1.1.75 Line Preference—Incoming
1.1.90 Outside (CO) Line Ringing Selection
1.1.109 Ringing, Delayed

Outgoing Call—Day, Night, Lunch
Specifies which extensions can make outside (CO) line calls in each time service mode. It is impossible to disable (Off) all extensions for all outside (CO) lines in each time service mode. In each mode, at least one extension must be allowed to make an outside (CO) line call.

Default
All outside (CO) lines—all jacks: On

Value Range
On (checked), Off (unchecked)
9.3 CO [3]

Programming Manual References
[405-407] Flexible Outward Dialing—Day/Night/Lunch

Feature Manual References
1.1.71 Line Access, Outside (CO) Line—SUMMARY
1.1.76 Line Preference—Outgoing

9.3.3 Detail [3-3]

Various settings can be programmed for each outside (CO) line.

CO
Indicates the outside (CO) line port number (reference only).

Value Range
1–8

Connection
Specifies which outside (CO) lines are connected to the PBX. Note that the numbers of unconnected outside (CO) lines should be unchecked (Off). The PBX seizes an outside (CO) line from the highest outside (CO) line number when selecting an idle outside (CO) line automatically. If an unconnected outside (CO) line number is checked (On) and is higher than any connected outside (CO) line number, the PBX will try to seize the unconnected outside (CO) line.

Default
All outside (CO) lines: On

Value Range
On (checked), Off (unchecked)
Dial Mode
Selects the type of signal used to dial out using an outside (CO) line.

**Default**
All outside (CO) lines: DTMF

**Value Range**
DTMF, Pulse, Call Blocking

Programming Manual References
[401] Dial Mode

Feature Manual References
1.1.39 Dial Type Selection

Pulse Speed
Selects the speed at which pulse signals are sent to the outside (CO) lines for which **Dial Mode** on this screen is set to **Pulse** or **Call Blocking**.

**Default**
All outside (CO) lines: 10 pps

**Value Range**
10 pps, 20 pps

Programming Manual References
[402] Pulse Speed

Feature Manual References
1.1.39 Dial Type Selection

Host PBX Access Codes
Specifies the Host PBX Access code used to access an outside (CO) line from the host PBX.

**Default**
All outside (CO) lines: — (Not stored)
Value Range
Max. 8 codes (1 or 2 digits consisting of 0–9, x, and #)

Programming Manual References
[403] Host PBX Access Code

Feature Manual References
1.1.65 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)

CO Line Group
Selects the outside (CO) line group that each outside (CO) line is assigned to.

Default
CO 1–8 = CO Line Group 1–8 (e.g., CO 1: CO Line Group 1, CO 2: CO Line Group 2)

Value Range
1–8

Programming Manual References
[404] CO Line Group Number

Feature Manual References
1.1.73 Line Access, Outside (CO) Line Group
1.1.89 Outside (CO) Line Group

Pause Time
Selects the length of a pause inserted in dialing.

Default
All outside (CO) lines: 1.5 s

Value Range
1.5 s, 2.5 s, 3.5 s, 4.5 s

Programming Manual References
[417] Pause Time

Feature Manual References
1.1.65 Host PBX Access Code (Access Code to the Telephone Company from a Host PBX)
1.1.98 Pause Insertion

Flash/Recall Time
Selects the length of a flash/recall signal.
Default
All outside (CO) lines: 600 ms

Value Range
80 ms, 100 ms, 160 ms, 300 ms, 600 ms, 900 ms, 1200 ms

Programming Manual References
[418] Flash/Recall Time

Feature Manual References
1.1.56 External Feature Access (EFA)
1.1.60 Flash/Recall

Automatic Line Access
Specifies which outside (CO) line is seized automatically when an extension user dials the Automatic Line Access number (9).

Default
All outside (CO) lines: On

Value Range
On (checked), Off (unchecked)

Programming Manual References
[419] Automatic Designated Line Access

Feature Manual References
1.1.72 Line Access, Automatic
1.1.76 Line Preference—Outgoing

CPC Signal Detection—Incoming
Selects the length of time required by the PBX to detect a calling party control (CPC) signal from an incoming outside (CO) line call before disconnecting the line.

Default
All outside (CO) lines: 350 ms

Value Range
Disable, 22–614 ms in 8 ms increments

Programming Manual References
[420] CPC Signal Detection—Incoming

Feature Manual References
1.1.31 Calling Party Control (CPC) Signal Detection
**CPC Signal Detection—Outgoing**

Enables the PBX to detect a CPC signal from outgoing outside (CO) line calls. If disabled, CPC signal detection is only activated during an incoming outside (CO) line call.

**Default**
All outside (CO) lines: Off

**Value Range**
On (checked), Off (unchecked)

**Programming Manual References**
[421] CPC Signal Detection—Outgoing

**Feature Manual References**
1.1.31 Calling Party Control (CPC) Signal Detection

**Disconnect Time**

Selects the length of the disconnect signal sent from the PBX to the telephone company or host PBX. The time you select must be longer than the requirements of your telephone company or host PBX.

**Default**
All outside (CO) lines: 1.5 s

**Value Range**
0.5 s, 1.5 s, 4.0 s

**Programming Manual References**
[422] Disconnect Time

**Feature Manual References**
1.1.60 Flash/Recall

**Ring Tone Pattern**

Selects the ring tone pattern for incoming outside (CO) line calls. It is recommended that you set a different ring tone pattern from the ring tone patterns specified in Extension—Ring Tone Pattern on the 9.1.11 Detail [1-10] screen and Doorphone Ring Tone Pattern—Door 1–4 on the 9.7.2 Others [7-2] screen.

**Default**
All outside (CO) lines: Single

**Value Range**
Single, Double, Triple

**Programming Manual References**
[423] CO Line Ring Tone Pattern
9.1.11 Detail [1-10]—Extension—Ring Tone Pattern
9.7.2 Others [7-2]—Doorphone Ring Tone Pattern—Door 1–4

Feature Manual References
1.1.108 Ring Tone Pattern Selection

9.3.4 Local Carrier-based VM [3-4]

The PBX supports voice mail service, which is an answering system offered by the telephone company, that can notify the called party of a message waiting. The settings of an outside (CO) line can be copied to other outside (CO) lines. Select the outside (CO) line whose settings you want to copy to other outside (CO) lines from the CO Line Number list, then click Copy.

This feature is available only for proprietary telephones (PTs).

CO Line Number
Specifies the outside (CO) line port number.

Value Range
1–8

Local Carrier-based VM Signaling
Selects the type of signal that the PBX expects to receive from the telephone company’s voice mail service. This signal indicates the presence or absence of voice mail messages in the mailbox.

Default
All outside (CO) lines: Disable

Value Range
Disable, Stutter dial tone method, FSK method
Local Carrier-based VM Access Dial

Specifies the voice mail service access number. This program allows a PT user to access the telephone company’s voice mail service when a message is left in the mailbox.

Default
All outside (CO) lines: — (Not stored)

Value Range
Max. 32 digits (consisting of 0–9, *, #, P [pause], -, F [flash/recall], and [ ] [secret])

Extension Access to Local Carrier-based VM

Selects which extensions can access the voice mail service offered by the telephone company using each outside (CO) line. The extension number and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen are shown with the jack number.

Default
All outside (CO) lines—all jacks: On

Value Range
On (checked), Off (unchecked)
9.4 System Speed Dialing [4]

9.4.1 System Speed Dialing [4-1]

The System Speed Dialing table is used to store frequently dialed numbers. It is available for all extension users when making or receiving calls. A maximum of 100 System Speed Dialing numbers (e.g., telephone numbers, feature numbers) can be programmed. Select the set of System Speed Dialing numbers to view and edit from the numeric tabs. You can import or export the files of System Speed Dialing data by clicking Import or Export.

Import
Allows the files of System Speed Dialing data to be imported. The files from which data can be imported are files that were previously saved at this or another compatible PBX with the Export operation, or comma-separated value (CSV) files that follow the same format. Unsupported file types cannot be imported.

Follow the steps below to import data.

1. Click Import.
   The Open dialog box appears.
2. Navigate to the folder containing the system speed dialing data file you want to open.
3. Select a file to import.
4. Click Open to import the file.

Export
Allows the files of System Speed Dialing data to be exported as comma-separated value (CSV) files. These files can be used with the import operation to update another PBX.

An example of the format of the exported data file is as follows:
Notes

- The separator used in CSV files created using the Export operation is decided by the unit specified in List Separator, in the Windows Regional Options Control Panel.
- Even if the string "Dial=" is not included in a CSV file, the import operation can be performed.

Follow the steps below to export data.

1. Click Export.
   The Save As dialog box appears.
2. Navigate to the folder in which you want to save the file.
3. Enter a file name.
4. Click Save to export the file.

No.
Indicates the System Speed Dialing number (reference only).
Each tab contains 20 System Speed Dialing numbers.

Value Range
00–99 (00–19, 20–39, 40–59, 60–79, 80–99)

Name
Specifies a name for the System Speed Dialing number.

Default
All System Speed Dialing names: — (Not stored)

Value Range
Max. 16 characters

Programming Manual References
[011] System Speed Dialing Name

Feature Manual References
1.1.113 System Speed Dialing

Line Access Number + Telephone Number
Specifies the telephone number (including the Outside (CO) Line Access number) or feature number assigned to the System Speed Dialing number.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>00, Tom Smith, Dial=0022334455</td>
<td></td>
</tr>
<tr>
<td>01, Panasonic, Dial=022334455677</td>
<td></td>
</tr>
</tbody>
</table>
Default
All System Speed Dialing numbers: — (Not stored)

Value Range
Max. 32 digits (consisting of 0–9, *, #, P [pause], -, F [flash/recall], and [ ] [secret])

Programming Manual References
[001] System Speed Dialing Number

Feature Manual References
1.1.113 System Speed Dialing

9.5 TRS

9.5.1 Class of Service (COS) [5-1]

Each extension has a certain class of service (COS) assigned to it. The Toll Restriction (TRS) feature can be programmed to behave differently depending on each COS. A maximum of 5 COSs can be programmed.

Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).
Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Day, Night, Lunch
Selects the TRS COS for each extension, applied to outside (CO) line calls in each time service mode.

Default
All jacks: COS 1

Value Range
COS 1–5

Programming Manual References
[601-603] TRS-COS—Day/Night/Lunch

Feature Manual References
1.1.32 Class of Service (COS)
1.1.117 Toll Restriction (TRS)

9.5.2 Denied Codes [5-2]

Toll Restriction (TRS) can prohibit certain extension users from making unauthorized outside (CO) line calls. Every extension is assigned to one of 5 classes of service (COSs) for each time service mode. COS 1 does not restrict calls (all outside (CO) line calls are allowed). COSs 2–5 are used to restrict calls according to the combination of Denied Code tables here and Exception Code tables in 9.5.3 Exception Codes [5-3]. If a dialed number is not found in the applicable Denied Code tables, the call is made. A total maximum of 80 denied codes can be programmed.
### 9.5 TRS

#### No.
Indicates the denied code number (reference only).

#### Value Range
01–20

#### Class 2–5
Specifies the toll-restricted numbers for classes 2–5.

#### Default
All codes: — (Not stored)

#### Value Range
Max. 11 digits (consisting of 0-9, *, #, and x [wild card])

#### Programming Manual References
- [302-305] TRS—COS 2-5 Denied Code
- 9.5.3 Exception Codes [5-3]

#### Feature Manual References
- 1.1.117 Toll Restriction (TRS)

### 9.5.3 Exception Codes [5-3]

Toll Restriction (TRS) can prohibit certain extension users from making unauthorized outside (CO) line calls. Every extension is assigned to one of 5 classes of Service (COSs) for each time service mode. COS 1 does not restrict calls (all outside (CO) line calls are allowed). COSs 2–5 are used to restrict calls according to the combination of Denied Code tables in 9.5.2 Denied Codes [5-2] and Exception Code tables here. 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 80 exception codes can be programmed. The available number of codes depends on the COS assigned to each extension.
No.
Indicates the exception code number (reference only).

Value Range
01–80
01–20: Classes 2–5
21–40: Classes 2–4
41–60: Classes 2–3
61–80: Class 2

Classes 2–5, Classes 2–4, Classes 2–3, Class 2
Specifies the numbers to be exempted from TRS in each class range.

Default
All codes: — (Not stored)

Value Range
Max. 11 digits (consisting of 0–9, *, #, and x [wild card])

Programming Manual References
[306] TRS—Exception Code
9.5.2 Denied Codes [5-2]

Feature Manual References
1.1.117 Toll Restriction (TRS)

9.5.4 Emergency Number & Others [5-4]

Any extension user can dial the programmed emergency numbers at any time after seizing an outside (CO) line. Any restrictions imposed on the extension, such as Toll Restriction (TRS), Account Code—Forced/Verify-All/Verify-Toll mode, and Extension Lock/Remote Extension Lock, are disregarded. A maximum of 5 emergency numbers can be programmed. Other optional TRS settings can be programmed.
Emergency Number
Specifies the numbers used for making emergency calls. It is not necessary to prefix the emergency number with an Outside (CO) Line Access number.

Default
1: 911, 2–5: — (Not stored)

Value Range
Max. 24 digits (consisting of 0–9)

Programming Manual References
[309] Emergency Number

Feature Manual References
1.1.49 Emergency Call
1.1.117 Toll Restriction (TRS)

System Speed Dialing Class
Selects the class of service (COS) of System Speed Dialing numbers. Calls made using System Speed Dialing are restricted depending on the COS programmed here and the COS assigned to each extension.

Default
COS 1

Value Range
COS 1–5

Programming Manual References
[301] TRS—System Speed Dialing Class

Feature Manual References
1.1.113 System Speed Dialing
1.1.117 Toll Restriction (TRS)

Extension Lock Class
Selects the COS of locked extensions.

Default
Disable

Value Range
Disable, COS 2–5

Programming Manual References
[312] TRS—Extension Lock Class
Feature Manual References
1.1.55 Extension Lock
1.1.107 Remote Extension Lock
1.1.117 Toll Restriction (TRS)

TRS Check for dial "*#"
Enables TRS to check for the user-dialed digits "x" and ".#". This is useful in preventing some unauthorized calls.

Default
On

Value Range
On (checked), Off (unchecked)

Programming Manual References
[125] TRS Check for * and #

Feature Manual References
1.1.117 Toll Restriction (TRS)

TRS Check after Answering
Specifies whether the PBX checks DTMF (Dual Tone Multi-Frequency) signals when answering calls or not. If enabled, the length of time that the DTMF signal is checked can be specified.

Default
Off (15 s [when checked])

Value Range
On (checked), Off (unchecked)
check time: 5 s, 10 s, 15 s, 20 s, 30 s, 60 s

Programming Manual References
[966] TRS Check after Answering
[967] TRS Check Time after Answering
9.6 DISA [6]

9.6.1 Automated Attendant [6-1]

Direct Inward System Access (DISA) Automated Attendant (AA) service allows a caller to dial a single-digit number (DISA AA number) and be connected to the desired party automatically. A maximum of 10 destinations that can be called by dialing a DISA AA number (0–9) can be programmed. The DISA AA Service supports up to 3 levels of DISA outgoing messages (OGMs).

**DISA Incoming Call Dial Mode**

Selects the destination of an incoming outside (CO) line call via the DISA feature. If DISA is not selected in *Mode of incoming CO calls—Day, Night, Lunch* on the 9.3.1 Line Mode [3-1] screen when you click OK or Apply after selecting With AA in this program, a warning message is displayed. Clicking OK displays, the corresponding screen.

**Default**

Without AA

**Value Range**

Without AA, With AA

Without AA: Available destinations are extension numbers, Outside (CO) Line Access numbers, and the Operator Call number

With AA: Available destinations are numbers available in "Without AA" mode and numbers specified in AA table on this screen.

**Programming Manual References**

[500] DISA Incoming Call Dial Mode

9.3.1 Line Mode [3-1]—Mode of incoming CO calls—Day, Night, Lunch
Feature Manual References
1.1.41 Direct Inward System Access (DISA)

**DISA AA Wait Time**

*This program is available only when With AA is selected in DISA Incoming Call Dial Mode on this screen.*

Specifies the length of time after entering a first digit in which the caller must dial the second digit before the DISA AA Service activates.

**Default**
2 s

**Value Range**
1–5 s

Programming Manual References
[517] DISA AA Wait Time

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

**AA table**

*This program is available only when With AA is selected in DISA Incoming Call Dial Mode on this screen.*

Specifies the destinations of the DISA AA numbers. To specify a destination for a DISA AA number, click **Edit** or double-click the AA number. To clear a setting, click it one time and click **Clear**. You can also right-click to see the shortcut menu.

If you want to use an Outside (CO) Line Access number and/or Operator Call number in AA mode, do not assign AA number(s) that correspond to Outside (CO) Line Access or Operator Call numbers (9 and/or 0).

**Default**
All AA numbers: — (Not stored)

**Value Range**
0–9

Programming Manual References
[501] DISA Built-in AA

Feature Manual References
1.1.41 Direct Inward System Access (DISA)
9.6.2 Automated Attendant [6-1] AA dial

AA dial

The Direct Inward System Access (DISA) Automated Attendant (AA) Service supports up to 3 levels of DISA outgoing messages (OGMs). These settings are available only when With AA is selected in DISA Incoming Call Dial Mode on the 9.6.1 Automated Attendant [6-1] screen.

In the AA dial dialog box, the title is displayed as follows:
First level: AA dial "X"
Second level: AA dial "X-Y"
Third level: AA dial "X-Y-Z"
(X, Y, Z: 0–9)

Depending on the type of destination selected, it may also be necessary to select a specific destination (Extension/Extension Group). When you select 2-level AA or 3-level AA as the destination, the display shows how to record and playback through personal programming from the telephone. After you click OK, a minus sign (-) is displayed before the AA icon, and the possible sub-destinations 0 [ ]–9 [ ] of the following level are displayed. When you click the minus sign (-), the sign changes back to the plus sign (+), and the list of sub-destinations is closed. In Interactive mode, when the selected DISA OGM has already been recorded, a horn graphic is displayed after the name of the menu option.
When you change the type of a destination from 2–level AA or 3–level AA to another setting, any associated DISA OGM will also be cleared. In addition, any items within the AA menu being removed will also be removed.

Default

All AA numbers: — (Not stored)

Value Range

Extension (Jack 01–24 [Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen]), Extension Group (Extension Group 1–8), 2- or 3-level AA [not available to select from 3–level AA], Not Stored

Programming Manual References

[501] DISA Built-in AA
[540-549] 3-level AA Assignment
9.1.3 Numbering Plan [1-3]—Ext. no., Name
9.6.1 Automated Attendant [6-1]—DISA Incoming Call Dial Mode
9.6.3 Settings [6-2]

Direct Inward System Access (DISA) enables outside callers to access specific PBX features as if the caller were an extension user calling from within the PBX.

Security—DISA Security Mode
Selects the DISA security mode to prevent unauthorized access to the PBX. In Trunk or All security mode, the caller is required to enter a DISA security code.

Default
Trunk

Value Range
None, Trunk, All
None: Intercom calls and outside (CO) line calls can be made.
Trunk: Intercom calls can be made. Outside (CO) line calls are restricted unless the DISA security code is entered.
All: All calls are restricted unless the DISA security code is entered.

Programming Manual References
[511] DISA Security Mode

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

Security—DISA Security Codes
Specifies the DISA security codes that must be entered when Trunk (a DISA security code is required to make an outside (CO) line call) or All (a DISA security code is required to make an intercom call or outside (CO) line call) is selected in Security—DISA Security Mode on this screen. The number of digits for DISA security codes is selected in Security—DISA Security Code Length on this screen.
9.6 DISA [6]

**Security—DISA Security Code Length**
Selects the number of digits for the DISA security codes. When this setting is changed, DISA security codes that have already been assigned will be cleared.

*Default*
4 digits

*Value Range*
4–10 digits

**Programming Manual References**
[530] DISA Security Code Digits

**Feature Manual References**
1.1.41 Direct Inward System Access (DISA)

**Security—DISA Tone after Security Code**
Enables the PBX to send a short beep to the caller when the entered number is the same as one of the DISA security codes.

*Default*
On

*Value Range*
On (checked), Off (unchecked)

**Programming Manual References**
[518] DISA Tone after Security Code

**Feature Manual References**
1.1.41 Direct Inward System Access (DISA)
Mode—DISA Busy Mode
Selects how DISA calls are handled when a called extension or all called extensions in an extension group enabled in Extension Hunting—Extension Hunting on the 9.2.11 Extension Group [2-6] screen are busy. When DISA is selected in this program, a DISA outgoing message (OGM) number can be specified.

**Default**
Disconnect

**Value Range**
Disconnect, Call Waiting, DISA (OGM 1–8)

**Programming Manual References**
[506] DISA Busy Mode
9.2.11 Extension Group [2-6]—Extension Hunting—Extension Hunting

**Feature Manual References**
1.1.41 Direct Inward System Access (DISA)
1.1.88 Outgoing Message (OGM) for DISA

Mode—DISA Intercept Mode
Selects how DISA calls are handled when the destination does not answer the call within a preprogrammed time period.

**Default**
Intercept

**Value Range**
Disconnect, Intercept

**Programming Manual References**
[507] DISA Intercept Mode

**Feature Manual References**
1.1.41 Direct Inward System Access (DISA)
1.1.68 Intercept Routing
1.1.120 Voice Mail APT Integration
1.1.121 Voice Mail Inband (DTMF) Integration

Mode—DISA No Dial Mode
Selects how DISA calls are handled when the PBX does not receive either DTMF (Dual Tone Multi-Frequency) signals or a fax (CNG) tone within a preprogrammed time period.

**Default**
Intercept
9.6 DISA

Value Range
Disconnected, Intercept

Programming Manual References
[510] DISA No Dial Mode

Feature Manual References
1.1.41 Direct Inward System Access (DISA)
1.1.68 Intercept Routing

Timers—DISA Delayed Answer Time
Selects the length of time the caller hears a ringback tone before hearing a DISA OGM or a short beep.

Default
3 s

Value Range
0 s, 3 s, 6 s, 12 s

Programming Manual References
[504] DISA Delayed Answer Time

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

Timers—DISA Wait Time after OGM
Selects the length of time the PBX keeps detecting DTMF signals or a fax (CNG) tone after completing a DISA OGM.

Default
5 s

Value Range
0 s, 5 s, 10 s, 15 s

Programming Manual References
[505] DISA Wait Time after OGM

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

Timers—DISA Ring Time before Intercept
Selects the length of time until a DISA call is redirected to the intercept destination (Intercept Routing—No Answer feature).
9.6 DISA [6]

**Timers—DISA Ring Time before Intercept**
Selects the length of time to ring the destination extension when a DISA call is redirected to the intercept destination after the time specified in Timers—DISA Ring Time before Intercept on this screen expires. When the destination extension does not answer the call within the preprogrammed time period, the call is disconnected.

**Default**
20 s

**Value Range**
10 s, 20 s, 30 s, 40 s, 60 s, 120 s

**Programming Manual References**
[508] DISA Ring Time before Intercept

**Feature Manual References**
1.1.41 Direct Inward System Access (DISA)
1.1.68 Intercept Routing

---

**Timers—DISA Ring Time after Intercept**
Selects the length of time to ring the destination extension when a DISA call is redirected to the intercept destination after the time specified in Timers—DISA Ring Time before Intercept on this screen expires. When the destination extension does not answer the call within the preprogrammed time period, the call is disconnected.

**Default**
20 s

**Value Range**
10 s, 20 s, 30 s, 40 s, 60 s, 120 s

**Programming Manual References**
[509] DISA Ring Time after Intercept

**Feature Manual References**
1.1.41 Direct Inward System Access (DISA)
1.1.68 Intercept Routing

---

**Timers—Intercept Time for Internal DISA**
Selects the length of time the PBX keeps detecting DTMF signals after receiving a call using DISA when no DISA OGM is recorded.

**Default**
3 s

**Value Range**
3 s, 6 s, 9 s

**Programming Manual References**
[515] Intercept Time for Internal DISA
Feature Manual References
1.1.41 Direct Inward System Access (DISA)

FAX & Tone—FAX Connection
Selects the extension number of the extension to receive fax data when the PBX receives a fax (CNG) tone via the DISA feature. The assigned extension will automatically have the Data Line Security feature set. The extension number and name are shown with the jack number.

Default
Disable

Value Range
Disable, Jack 01–24 (Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen)

Programming Manual References
[503] FAX Connection
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

FAX & Tone—FAX Tone Detection
Selects the number of times the fax (CNG) tone must be detected while the DISA OGM is sent before the PBX recognizes the incoming signal as fax data.

Default
1 time

Value Range
1 time, 2 times

Programming Manual References
[514] FAX Tone Detection

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

FAX & Tone—Cyclic Tone Detection
Selects the number of times the cyclic tone must be detected while the DISA OGM is sent so that the PBX can recognize the end of the DISA call.

Default
4 times
Value Range
Disable, 2–4 times

Programming Manual References
[513] Cyclic Tone Detection

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

FAX & Tone—DISA Ringback Tone
Selects whether to send a ringback tone or Music on Hold to the caller when a DISA call is received.

Default
Ringback Tone

Value Range
Ringback Tone, Music on Hold

Programming Manual References
[531] DISA Ringback Tone

Feature Manual References
1.1.41 Direct Inward System Access (DISA)

9.6.4 Incoming Permission [6-3]
The settings to receive Direct Inward System Access (DISA) calls can be programmed for each extension.

Jack 01–24
Enables receiving calls from DISA for each extension. The extension number and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen are shown with the jack number.

Default
All jacks: On
9.7 Doorphone [7]

9.7.1 Ringing & Door Opener [7-1]

Settings for receiving doorphone calls and accessing door openers can be programmed. A maximum of 4 doorphones/door openers can be connected to the PBX.

**Doorphone**

The settings for receiving doorphone calls can be programmed for each extension.

<table>
<thead>
<tr>
<th>Jack</th>
<th>Extension</th>
<th>Day</th>
<th>Night</th>
<th>Lunch</th>
<th>Day</th>
<th>Night</th>
<th>Lunch</th>
<th>Day</th>
<th>Night</th>
<th>Lunch</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>101</td>
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**Jack**

Indicates the jack number (reference only).

**Value Range**

01–24
Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Doorphone 1–4—Day, Night, Lunch
Enables doorphone call reception in each time service mode.

Default
All doorphones—all jacks: On

Value Range
On (checked), Off (unchecked)

Programming Manual References
[700-702] Doorphone Ringing—Day/Night/Lunch

Feature Manual References
1.1.48 Doorphone Call

Door Opener
The settings for unlocking the door can be programmed for each extension.
Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Door Opener 1–4—Day, Night, Lunch
Enables door opening in each time service mode.

Default
All door openers—all jacks: On

Value Range
On (checked), Off (unchecked)

Programming Manual References
[703-705] Door Opener—Day/Night/Lunch

Feature Manual References
1.1.46 Door Open

9.7.2 Others [7-2]

Other settings can be programmed for each doorphone. A maximum of 4 doorbell/door chimes can be connected to the PBX. Each doorphone can have one doorbell/door chime assigned to it.
Doorphone Ring Tone Pattern—Door 1–4

Selects the ring tone pattern for incoming doorphone calls.

**Default**
All doors: Triple

**Value Range**
Single, Double, Triple, S-Double

**Programming Manual References**
[706] Doorphone Ring Tone Pattern

**Feature Manual References**
1.1.48 Doorphone Call
1.1.108 Ring Tone Pattern Selection

Doorphone Access Tone—Door 1–4

Selects whether the PBX sends a doorphone access tone to a monitored doorphone before monitoring starts.

**Default**
All doors: On

**Value Range**
On (checked), Off (unchecked)

**Programming Manual References**
[707] Doorphone Access Tone

**Feature Manual References**
1.1.48 Doorphone Call
1.1.110 Room Monitor

Doorphone Ring Time—Door 1–4

Selects the length of time until the ringing stops and the call is canceled when there is no answer.

**Default**
All doors: 15 s

**Value Range**
15 s, 30 s

**Programming Manual References**
[708] Doorphone Ring Time
Feature Manual References
1.1.48 Doorphone Call

Door Open Duration—Door 1–4
Specifies the length of time the door stays unlocked.

Default
All doors: 5 s

Value Range
1–8 s

Programming Manual References
[709] Door Open Duration

Feature Manual References
1.1.46 Door Open

Doorphone Ring / Chime—Door 1–4
Selects whether doorphone calls ring at extensions or at dedicated door chimes.

Default
All doors: Ring

Value Range
Ring, Chime, Ring & Chime

Programming Manual References
[710] Doorphone Ring/Chime

Feature Manual References
1.1.47 Doorbell/Door Chime
1.1.48 Doorphone Call

Doorphone Chime Assignment—Door 1–4
Selects the relay to which a doorbell or a door chime is connected.
A relay not connected to a door opener should be selected. This setting is active only when Chime or Ring & Chime is selected in Doorphone Ring / Chime—Door 1–4 on this screen.

Default
All doors: Relay 4

Value Range
Relay 1–4
Doorphone Chime Pattern—Door 1–4

Selects the doorphone chime pattern for incoming doorphone calls. Chime patterns 1–4 are played only one time during the doorphone ringing time.

Default
All doors: Pattern 1

Value Range
Pattern 1–8

Programming Manual References
[712] Doorphone Chime Pattern

Feature Manual References
1.1.47 Doorbell/Door Chime
1.1.48 Doorphone Call
2.2.1 Tones/Ring Tones
9.8 BV [8]

9.8.1 Main [8-1]

Built-in Voice Message (BV) allows a caller to leave a voice message in one of the voice message areas, and information on the recorded message is automatically logged in the Incoming Call Log of the extension, where it can be viewed later or used to play back the original message.

Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name
**BV for Extension**

Enables the BV feature for each extension.

**Default**

All jacks: On

**Value Range**

On (checked), Off (unchecked)

**Programming Manual References**

[622] BV for Extension

**Feature Manual References**

1.1.8 Built-in Voice Message (BV)

**BV Resource**

Selects the BV resource to which the extension belongs.

**Default**

Jack 01–02: BV 1, Jack 03–24: BV 2

**Value Range**

BV 1, BV 2

**Programming Manual References**

[621] BV Resource

**Feature Manual References**

1.1.8 Built-in Voice Message (BV)

**BV Access Code**

Specifies a voice message access code used to play back and/or erase voice messages through outside (CO) lines. The voice message access code should be different from the corresponding extension number. If the voice message access code is the same as an extension number, dialing that number will access the extension, not the voice message area. A code that starts with a number already assigned as another code cannot be used. For example, if you assign the codes “1234” and “12345”, “12345” cannot be selected since “1234” will be recognized first.

**Default**

Jack 01–24 = #101–#124 (e.g., Jack 01: #101, Jack 02: #102)

**Value Range**

4–10 digits (consisting of 0–9 and #)

**Programming Manual References**

[625] BV Access Code through CO Line
9.8.2 Others [8-2]

Various settings for Built-in Voice Message (BV) can be programmed.

**BV Total Recording Time (quality)**
Selects the total recording time for each BV resource.

**Default**
30 min (normal quality)

**Value Range**
20 min (high quality), 30 min (normal quality), 60 min (low quality)

**Programming Manual References**
[807] BV Total Recording Time

**Feature Manual References**
1.1.8 Built-in Voice Message (BV)

**Maximum recording time per message—Voice message**
Selects the maximum recording time for each voice message.

**Default**
5 min

**Value Range**
1–20 min

**Programming Manual References**
[214] BV Recording Time
Feature Manual References
1.1.8 Built-in Voice Message (BV)

Maximum recording time per message—OGM
Selects the maximum recording time for each personal/common BV outgoing message (OGM).

Default
3 min

Value Range
1–15 min

Programming Manual References
[215] Common/Personal BV OGM Recording Time

Feature Manual References
1.1.8 Built-in Voice Message (BV)

CO
Indicates the outside (CO) line port number (reference only).

Value Range
1–8

DISA IRNA to BV—Day, Night, Lunch
Selects the common BV OGM used as the intercept destination of unanswered Direct Inward System Access (DISA) calls in each time service mode.

Default
All outside (CO) lines: Not Stored

Value Range
Not Stored, BV 01–24

Programming Manual References
[438-440] DISA IRNA to BV—Day/Night/Lunch

Feature Manual References
1.1.8 Built-in Voice Message (BV)
9.9 Caller ID [9]

9.9.1 Main [9-1]

The settings of the Caller ID feature can be programmed.

**CO Line Settings—CO**

Indicates the outside (CO) line port number (reference only).

**Value Range**

1–8

**CO Line Settings—Caller ID**

Enables the Caller ID feature for each outside (CO) line that has contracted the Caller ID Service from the telephone company. The Delayed Answer Time for the outside (CO) lines enabled here will always be 6 seconds even if 0 s or 3 s is selected in Timers—DISA Delayed Answer Time on the 9.6.3 Settings [6-2] screen.

**Default**

All outside (CO) lines: On

**Value Range**

On (checked), Off (unchecked)

**Programming Manual References**

[900] Caller ID
9.6.3 Settings [6-2]—Timers—DISA Delayed Answer Time
Feature Manual References
1.1.30 Caller ID

CO Line Settings—Call Waiting Caller ID
Enables the Call Waiting Caller ID feature for each outside (CO) line that has had Caller ID Service contracted from the telephone company. When the Caller ID feature is disabled in CO Line Settings—Caller ID on this screen, the Call Waiting Caller ID feature does not function even if it is enabled here.

Default
All outside (CO) lines: On

Value Range
On (checked), Off (unchecked)

Programming Manual References
[913] Call Waiting Caller ID Assignment

Feature Manual References
1.1.28 Call Waiting Caller ID

Caller ID Modification—Local Area Code (for Local Call 1–5)
Specifies the leading number (area code) that will identify an incoming call as a local call.

Default
All local calls: — (Not stored)

Value Range
Max. 6 digits (consisting of 0–9)

Programming Manual References
[901] Caller ID Area Code

Feature Manual References
1.1.18 Call Log, Incoming
1.1.30 Caller ID

Caller ID Modification—Removed Digits
Selects the number of digits to be removed from the beginning of the incoming caller's number.

Default
All local calls: 3 digits, Long distance calls: 0 digit

Value Range
0–9 digits
Caller ID Modification—Added Number
Specifies the number to be added to the incoming caller's number in the place of the removed digits.

**Default**
All local calls: — (Not stored), Long distance calls: 1

**Value Range**
Max. 4 digits (consisting of 0–9, , and #)

**Caller ID SMDR Format**
Selects whether a caller's telephone number is printed out on SMDR or not. Even if a name is also sent by the Caller ID service, only the number is printed.

**Default**
With CID

**Value Range**
Without CID (CID: Caller ID), With CID (CID: Caller ID)

**Caller ID SMDR Printout**
Enables the PBX to display a caller's telephone number on SMDR before the call is answered.
9.9 Caller ID

Default
Off

Value Range
On (checked), Off (unchecked)

Programming Manual References
[907] Caller ID SMDR Printout

Feature Manual References
1.1.30 Caller ID
1.1.112 Station Message Detail Recording (SMDR)

Call Waiting Caller ID Time
Selects the length of time that the Call Waiting Caller ID feature sent from the telephone company is shown on the display of the proprietary telephone (PT). The TRANSFER button, HOLD button, and CONF button do not function during the assigned time.

Default
30 s

Value Range
10 s, 20 s, 30 s, 40 s, 60 s, 120 s

Programming Manual References
[908] Call Waiting Caller ID Time

Feature Manual References
1.1.28 Call Waiting Caller ID

Call Waiting Caller ID CAS Receive Time
This program is available when the Caller ID and Call Waiting Caller ID features are enabled in CO Line Settings—Caller ID and CO Line Settings—Call Waiting Caller ID respectively on this screen.
If the extension user has a Call Waiting Caller ID during a conversation, the telephone company will send an alert tone (CAS) to the PBX. If the CAS duration is too long or too short, the CAS is ignored by the PBX. If the CAS is accepted, then the PBX will respond and the Call Waiting Caller ID feature will be performed. This program assigns the allowable CAS duration. Normally, it should not be necessary to change the default setting.

Default
72–96 ms

Value Range
40–120 ms, 64–96 ms, 72–96 ms
9.9 Caller ID

Programming Manual References
[914] Call Waiting Caller ID CAS Receive Time

Feature Manual References
1.1.28 Call Waiting Caller ID

Caller ID Checksum
Enables or disables the selection of the checksum mode. Normally, it should not be necessary to change the default setting.

Default
On

Value Range
On (checked), Off (unchecked)

Programming Manual References
[915] Caller ID Checksum

Feature Manual References
1.1.28 Call Waiting Caller ID
1.1.30 Caller ID

9.9.2 SLT Caller ID [9-2]

Various settings for single line telephone (SLT) Caller ID can be programmed.
SLT Ring—Ring / Silence Ratio
Selects the ratio between the bell signals of an SLT (a set of bell-on and bell-off).

Default
1:3

Value Range
1:2, 1:3, 1:4

Programming Manual References
[142] SLT Ring/Silence Ratio

Feature Manual References
1.1.108 Ring Tone Pattern Selection

SLT Ring—Bell-on Time
Selects the length of the bell-on signal of an SLT. When combined with the ratio selected in the SLT Ring—Ring / Silence Ratio list, this determines the ring tone pattern for incoming calls to SLTs. When DTMF is selected in the SLT Caller ID—Type list, this also determines the maximum number of digits of an SLT Caller ID number.

Default
1300 ms

Value Range
1000–2000 ms in 100 ms increments

Programming Manual References
[143] SLT Ring Bell-on Time

Feature Manual References
1.1.30 Caller ID
1.1.108 Ring Tone Pattern Selection

SLT Caller ID—Type
Selects the signaling type of SLT Caller ID.

Default
FSK (During Ring)

Value Range
FSK (During Ring), FSK (RP-AS), DTMF (Immediate), DTMF (During Ring)

Programming Manual References
[150] SLT Caller ID Signaling Type
Feature Manual References
1.1.30 Caller ID

SLT Caller ID—Line Access Number
Enables the PBX to automatically add an Outside (CO) Line Access number to the received telephone number when sending the Caller ID number of an incoming outside (CO) line call to an SLT.

Default
On

Value Range
On (checked), Off (unchecked)

Programming Manual References
[151] SLT Caller ID Line Access Number

Feature Manual References
1.1.30 Caller ID

Jack
Indicates the jack number (reference only).

Value Range
01–24

Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

SLT Caller ID
Enables the PBX to send Caller ID information to an SLT.

Default
All jacks: Off

Value Range
On (checked), Off (unchecked)
**Ring Wait Time for New Call**

Selects the length of time the ringing for a call is delayed when the call follows immediately after the previous unanswered call. When receiving 2 calls in quick succession, for example, 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.

**Default**

All jacks: 0 s

**Value Range**

0–15 s

**Fixed Bell Pattern**

Selects the fixed ring tone pattern of the SLT for incoming calls (intercom calls and outside (CO) line calls). The same pattern as used by your telephone company may be selected.

**Default**

All jacks: Disable

**Value Range**

Disable, Single, Double

**Programming Manual References**

[628] SLT Caller ID

**Feature Manual References**

1.1.30 Caller ID

[627] SLT Ring Wait Time for New Call

[629] SLT Fixed Bell Pattern

1.1.30 Caller ID

1.1.108 Ring Tone Pattern Selection
9.9.3 Call Log [9-3]

When a call containing Caller ID information is received by an extension, the information is shown on the telephone display and also automatically logged in the Incoming Call Log of the extension.

### 301st Call Log in Common Area

Selects whether the oldest call information in the common area will be replaced each time a call is received, or whether the new call information will be discarded when the call log is full (300 calls are stored) and a new call arrives.

**Default**

Overwrite

**Value Range**

Disregard, Overwrite

**Feature Manual References**

1.1.18 Call Log, Incoming

**Operating Manual References**

2.1.8 The 301st Call Log, Incoming in the Common Area Treatment

**Jack**

Indicates the jack number (reference only).

**Value Range**

01–24
Extension
Indicates the extension number and name (reference only).

Value Range
Extension no. and name specified in Ext. no. and Name on the 9.1.3 Numbering Plan [1-3] screen

Programming Manual References
9.1.3 Numbering Plan [1-3]—Ext. no., Name

Caller ID Log Priority
Selects which caller information is shown first on the display of the proprietary telephone (PT). This is available when the Caller ID service provides both a name and a number.

Default
All jacks: Name

Value Range
Number, Name

Programming Manual References
[904] Caller ID Log Priority

Feature Manual References
1.1.18 Call Log, Incoming
1.1.30 Caller ID
1.1.43 Display Information

Common Area Call Log Check
Specifies whether an extension can view call logs stored in the common area. If this program is enabled, the Caller ID Indication—Common button and Caller ID Selection—Common button can be assigned.

Default
All jacks: On

Value Range
On (checked), Off (unchecked)

Programming Manual References
[909] Common Area Call Log Check

Feature Manual References
1.1.18 Call Log, Incoming
21st Call Log in Personal Area
Selects whether the oldest call information in the personal area will be replaced each time a call is received, or whether the new call information will be discarded when a call log is full (20 calls are stored) and a new call arrives.

Default
All jacks: Overwrite

Value Range
Disregard, Overwrite

Feature Manual References
1.1.18 Call Log, Incoming

Operating Manual References
1.3.18 Call Log, Incoming

Call Log Answered Call
Selects how Caller ID information is logged when answering calls.

Default
All jacks: No logging

Value Range
No logging, Personal Area, Common Area, Both

Feature Manual References
1.1.18 Call Log, Incoming

Operating Manual References
1.3.18 Call Log, Incoming
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