3 Features

Flexible Buttons

A proprietary telephone (PT) user can change the flexible buttons on the telephone and DSS console to certain function buttons. For example, if the telephone has more line keys than available exchange lines, the unused line keys may be changed to One-Touch Dialling buttons, etc.

The 4 types of flexible buttons are as follows:

- Flexible line keys (located on a PT only)
- Flexible DSS Buttons (located on a DSS Console only)
- Programmable Feature (PF) Buttons (located on a PT and DSS Console)
- Flexible MESSAGE Buttons

Check the required operation first. If the telephone is not provided with the button, assigning the button can be performed in the Proprietary Telephone Settings.

Function	Programmable Button					
runction	LINE	DSS	PF	MESSAGE		
DSS (Direct Station Selection)		~				
One-Touch Dialling	~	~	~	~		
CONF (Conference)	~					
FWD/DND (Forward/Do Not Disturb)	~					
SAVE	~					
Log-In/Log-Out	~					
Single Exchange Line (S-CO)	~					
Other Exchange Line (O-CO)	~					
Trunk Group (G-CO)	~					
MESSAGE (Message Waiting)				~		
Day		~				
Night		~				
Lunch		~				
Extension Lock		~				

[&]quot;\" indicates that the feature is available.



• Operating Instructions Reference

1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone"

Handsfree Answerback

Allows a proprietary telephone with a speakerphone to answer an intercom call without lifting the handset. This feature performed by pressing the AUTO ANSWER/MUTE button.



• This feature does not work for incoming outside calls or doorphone calls.



• Operating Instructions Reference

1.4 Receiving Calls, "Handsfree Answerback"

Handsfree Operation

Allows a proprietary telephone user to dial and talk to the other party without lifting the handset. Pressing one of the following buttons activates the handsfree mode when the SP-PHONE/MONITOR button indicator is off:

SP-PHONE button, MONITOR button, INTERCOM button, or line key.



• The KX-T7050 can perform handsfree dialling operations, etc., but cannot have a handsfree conversation.



• Operating Instructions Reference

1.3 Making Calls, "Handsfree Operation"

Hold

<Call Hold>

Allows an extension user to place an intercom and/or outside call on hold. The held call can be retrieved by the user who held it, or by any other extension (Call Hold Retrieve). With a single line telephone (SLT), either one outside or intercom call can be held at one time. If an SLT user wants to hold both calls, use the Call Park feature. An SLT user can select how to operate the Call Hold feature by program [104].

<Exclusive Hold>

Allows a proprietary telephone user to prevent other extension users from retrieving their held call. Only the user who held the call can retrieve it. This feature is not available for an SLT.

3 Features





- Only one intercom call can be placed on hold. For a proprietary telephone, outside calls and one intercom call can be placed on hold at the same time.
- If a held call is not retrieved within the assigned time in program [200], the extension user who held it will hear a ring tone or an alarm tone. If the user is on-hook and their SP-PHONE/MONITOR button indicator is off, the phone will ring (Hold Recall). If the user is off-hook or in the handsfree mode, an alarm tone will be sent to the built-in speaker of a proprietary telephone or the handset receiver of a single line telephone at 15-second intervals (Hold Alarm). If "Disable" is selected in program [200], nothing will be heard.
- If a held outside call is not answered within thirty minutes, it will be automatically disconnected.
- For outside calls, music is sent to the external party on hold, if available (Music on Hold).
- During a 5-party conference, the Hold feature cannot be activated.



• Required System Programming

[104] Hold Mode Selection [200] Hold Recall Time

• Related Feature References

Call Park, Music on Hold/Background Music (BGM), Recall Button on a Single Line Telephone

• Operating Instructions References

- 1.5 During a Conversation, "Placing a Call on Hold (Call Hold)"
- 1.5 During a Conversation, "Placing a Call on Hold Exclusively (Exclusive Hold)"
- 1.5 During a Conversation, "Retrieving a Call on Hold (Call Hold Retrieve)"

Host PBX Access

The system may be installed behind an existing host PBX. This is performed by connecting a line from the host to an exchange line in the system.



- A Host PBX Access code assigned in program [403] is required to access an exchange line of the host PBX.
- Access to the host PBX during a conversation is also possible (External Feature Access).

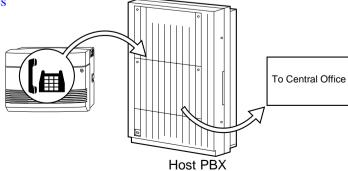


Required System Programming

[403] Host PBX Access Codes [417] Pause Time

• Related Feature Reference

External Feature Access



Intercept Routing

Provides automatic redirection of incoming outside calls via the DISA or UCD feature. The Intercept Routing feature works in the following 2 cases.

- 1) When nothing is dialled after a dial tone or OGM is sent to the caller. (The DISA feature only)
- 2) When the call is not answered within a programmed time. This is called Intercept Routing No Answer (IRNA).



• Required System Programming

[408]–[410] Flexible Ringing Assignment — Day/Night/Lunch

[507] DISA Intercept Mode

[508] DISA Ringing Time before Intercept

[509] DISA Ringing Time after Intercept

[510] DISA No Dial Mode

[523] UCD Busy Mode

[524] UCD Intercept Mode

[525] UCD Ringing Time before Intercept

[526] UCD Ringing Time after Intercept



• Related Feature References

Direct Inward System Access (DISA), Uniform Call Distribution (UCD)

Intercom Calling

Allows an extension user to make a call to another extension.



- An extension number and a name can be assigned in programs [009] and [604]. If assigned, they will be shown on the display proprietary telephone during an intercom call.
- The DSS buttons permit a proprietary telephone user one-touch access to an extension. The DSS function can be assigned to a flexible line key in the Proprietary Telephone Settings.

The DSS buttons on the DSS console can also be used.

• An extension user can press the DSS buttons directly to make an intercom call without going off-hook. This can be enabled by program [126].



Required System Programming

[009] Extension Number Assignment

[126] DSS Off-Hook Mode

[604] Extension Name Setting

• Operating Instructions References

- 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", DSS (Direct Station Selection) Button
- 1.3 Making Calls, "Intercom Calling"
- 1.9 DSS Console Features, "Initial Settings", Extension Number Assignment

3 Features L

Language Selection

The selected language in program [615] is shown on the LCD display of a proprietary telephone during operation and Proprietary Telephone Settings, but not used during System Programming. The selected language in program [806] is used for an SMDR printout.



• Required System Programming

[615] LCD Language Assignment [806] SMDR Language Assignment

Limited Call Duration

The system disconnects outside outgoing calls when a specific timer expires. The timer is in effect when making an outside call, transferring an intercom call to an exchange line or forwarding an intercom call to an exchange line. Limiting the time of the call can be assigned through System Programming.



• An alarm tone will be sent to both parties 15 seconds before the assigned time limit.



• Required System Programming

[212] Exchange line Duration Time Limit

[613] Exchange line Duration Time Limit Selection

• Related Feature References

Call Forwarding, Call Transfer - to Exchange line

Line Access Keys

A proprietary telephone (PT) user must assign one of the following 3 types of line keys to flexible line keys in the Proprietary Telephone Settings. This permits making or receiving outside calls. The default setting for the flexible line keys (CO 1 – CO 6) are Single Exchange Line (S-CO) keys. CO 1 corresponds to exchange line 1, CO 2 corresponds to exchange line 2, etc.

<Trunk Group (G-CO) Key>

Receiving or making outside calls is on an trunk group basis. The trunk group is assigned in program [404]. Any incoming call from any exchange line in the trunk group arrives at the G-CO key. To make an outside call, the user can access an idle exchange line in the group by simply pressing the assigned G-CO key.

<Single Exchange Line (S-CO) Key>

Receiving or making outside calls is done using a specific exchange line. An incoming call from the specific exchange line arrives at the S-CO key. To make an outside call, the user can access the specific exchange line by simply pressing the assigned S-CO key.

<Other Exchange Line (O-CO) Key>

Exchange lines, which are not assigned to an S-CO or G-CO key, can be assigned to a flexible line key as the O-CO key. An incoming call on an exchange lines arrives at the O-CO. To make an outside call, the user simply presses the assigned O-CO key.

3 **Features**



- The same trunk group can be assigned to more than one G-CO key on the same PT.
- The same line can be assigned to an S-CO key and G-CO key. The S-CO key has priority.
- Immediate, delayed, no ringing or no incoming calls (disable) can be selected by programs [408] through [413] on an extension-exchange line basis.
- A ringing pattern can be selected for each exchange line by program [423].



Required System Programming

[400] Exchange Line Connection Assignment

[404] Trunk Group Assignment

[405]–[407] Flexible Outward Dialling Assignment — Day/Night/Lunch

[408]–[410] Flexible Ringing Assignment — Day/Night/Lunch

[411]–[413] Delayed Ringing Assignment — Day/Night/Lunch

[423] Exchange Line Ringing Pattern Selection

• Related Feature References

Outside Calling, Receiving Calls, Ringing Pattern Selection

• Operating Instructions Reference

1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", Line Access Keys

Log-In/Log-Out

Allows an extension user to Log-In (join) or Log-Out (leave) a hunting, DISA ring or UCD group temporarily. Extensions in the log-out mode will not receive calls by Extension Hunting, DISA or UCD but will receive other calls, not like the Do Not Disturb (DND) feature. The Log-In/Log-Out button can be assigned to a flexible button in the Proprietary Telephone Settings. The lighting patterns of the Log-In/Log-Out button on a proprietary telephone and status are as follows.

Off: Log-In mode Red: Log-Out mode



• There should be at least one extension that is in the Log-In mode in a group.



• Related Feature References

Direct Inward System Access (DISA), Extension Group, Extension Hunting, Uniform Call Distribution (UCD)

UCD Group **Hunting Group DISA Ring Group** Log-In

Log-Out

• Operating Instructions References

- 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", Log-In/Log-Out Button
- 1.7 Useful Features, "Joining or Leaving a Call Distribution Group (Log-In/Log-Out)"





Message Waiting

Allows an extension user to notify the called extension of a message waiting when the called extension is busy or does not answer the call. Only a proprietary telephone user with a MESSAGE button can know there is a message waiting if the LED on the MESSAGE button lights red. Pressing the lit MESSAGE button will reply to the message by calling the extension which left the message. The messages which are stored in the mailbox of the Voice Processing System can also be heard by following the Voice Mail prompts after pressing the lit MESSAGE button (Voice Mail Integration).



- Cancelling the message can be performed from the extension sending it or from the extension receiving it.
- Each extension can have a maximum of 8 simultaneous messages.
- Messages are always left at the original extension. They cannot be sent to a Call Forwarding or Extension Hunting destination.



• Operating Instructions References

- 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", Restoring the MESSAGE button
- 1.7 Useful Features, "Leaving a Message Notification (Message Waiting)"
- 1.7 Useful Features, "Voice Mail Integration for KX-TVP100"

Microphone Mute

Allows a proprietary telephone user to turn off the microphone for privacy.



• The user's voice will only be muted during a handsfree conversation. The user can hear the other party's voice during Microphone Mute.



• Operating Instructions Reference

1.5 During a Conversation, "Turning off the Microphone (Microphone Mute)"

Music on Hold / Background Music (BGM)

While an external party is on hold, music is automatically generated.



- Operations such as Call Hold and Call Transfer activate Music on Hold.
- A user-supplied external music source, such as a radio, must be connected to the system when "External" is selected in program [111]. One external music source can be connected to the system. The music source is used for Music on Hold and/or BGM.
- When "Tone" is selected in program [111], the cyclic tone is used only for Music on Hold and the external music source is used for BGM.



- Connection Reference
 - 2.10 External Music Connection
- Required System Programming

[111] Hold Music Selection

• Related Feature References

Hold, Call Transfer – to Exchange line, Call Transfer – to Extension, Uniform Call Distribution (UCD)

• Operating Instructions Reference

1.7 Useful Features, "Turning on the Background Music (BGM)"

One-Touch Dialling

Allows a proprietary telephone user one-touch access to a desired party or system feature. This is done by storing an extension number, telephone number or a feature number (up to 24 digits) in a One-Touch Dialling button. One-Touch Dialling buttons can be assigned to flexible buttons in the Proprietary Telephone Settings.



- An account code can be stored into a One-Touch Dialling button.
- A number consisting of 25 digits or more can be stored by dividing it and storing it in 2 One-Touch Dialling buttons.



- Operating Instructions References
 - 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone" One-Touch Dialling button
 - 1.3 Making Calls, "Dialling by Simply Pressing a Button (One-Touch Dialling)"
 - 1.9 DSS Console Features, "Initial Settings"
 - 1.9 DSS Console Features, "One-Touch Dialling"
 - 1.9 DSS Console Features, "One-Touch Access for System Features"

3 Features O

Operator / Manager Extension

The system supports one operator. Any extension can be designated as an operator in program [008]. Extension port 01 is the system manager extension. The extension assigned as an operator or manager has the ability to perform the following operations.

- Setting the Date and Time
- Cancelling the Electronic Extension Lockout
- Setting/Cancelling the Remote Extension Lock
- Setting/Cancelling/Confirming the Timed Reminder (Wake-up Call) Remotely
- Recording and Playing the Outgoing Message
- Changing the Day/Night/Lunch Mode

The manager extension can also perform System Programming and the following operation.

• Setting the Extension Password



• Required System Programming

[008] Operator Assignment

• Operating Instructions Reference

1.8 Operator / Manager Service Features

Operator Call

Allows an extension user to call an operator within the system by dialling the feature number assigned in program [121]. One extension can be assigned as the operator in program [008].



- If an operator is not assigned, this feature is not available and a reorder tone will be heard
- Every extension user can reach the operator just by dialling the operator call number (0 or 9) assigned in program [121] "Automatic Exchange Line Access Number Selection".



Required System Programming

[008] Operator Assignment

[121] Automatic Exchange Line Access Number Selection

• Related Feature Reference

Automatic Exchange Line Access Number

• Operating Instructions Reference

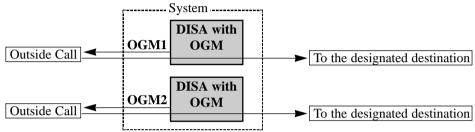
1.3 Making Calls, "Calling an Operator (Operator Call)"

Outgoing Message (OGM)

Allows the extension assigned as an operator or manager to record up to 2 outgoing voice messages (maximum 30 seconds each). This message is played when a caller accesses the DISA or UCD feature. An optional OGM/FAX Detection Card is required to program the OGM.

The following are some examples of OGM and flow chart.

Case 1: Receives 2 calls at a time – OGM for DISA. (Do not want customers to be kept waiting.)



"This is A company. For the sales division, press 1. For the service OGM1:

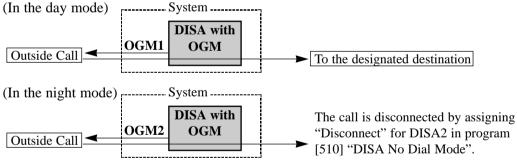
division, press 2. To call the operator, press 0."

OGM2: Same as OGM 1

Required Settings: [502] "MODE1"

[414]-[416] "DISA1"

Case 2: Uses the OGM in the day, night and lunch modes – OGM for DISA.



OGM1: "This is A company. For the sales division, press 1. For the service

division, press 2. To call the operator, press 0."

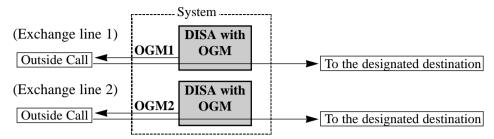
OGM2: "We are sorry but our office is closed for the day."

Required Settings: [502] "MODE2"

[414]-[416] "DISA1" for OGM1, "DISA2" for OGM2

3 Features O

Case 3: Uses a different OGM for exchange lines – OGM for DISA.



OGM1: "This is A company. For the sales division, press 1. For the service

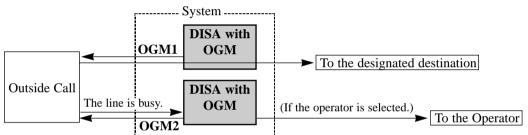
division, press 2. To call the operator, press 0."

OGM2: "This is B company. To contact Mr. A, press 101. To contact Mr. B, press 102."

Required Settings: [502] "MODE2"

[414]-[416] "DISA1" for the A company exchange line(s). "DISA2" for the B company exchange line(s).

Case 4: Uses a different OGM when the line is busy – OGM for DISA.



OGM1: "This is A company. For the sales division, press 1. For the service

division, press 2. To call the operator, press 0."

OGM2: "We are sorry. The line is currently busy. If you want to call the operator,

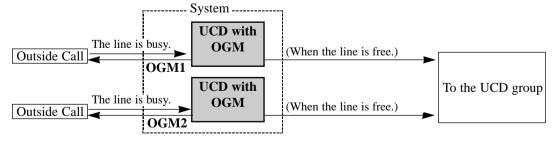
press 0."

Required Settings: [502] "MODE2"

[414]-[416] "DISA1"

[506] "DISA2"

Case 5: Distributes calls to the UCD group – OGM for UCD.

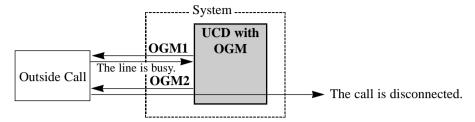


OGM1: "We are sorry. The line is currently busy. Please hold."

OGM2: Same as OGM1

Required Settings: [502] "MODE3" [414]-[416] "UCD"

Case 6: Disconnects a call after the OGM - OGM for UCD.

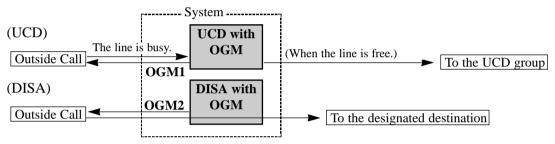


OGM1: "We are sorry. The line is currently busy. Please hold."

OGM2: "We are sorry. The line is currently busy. Please call back later."

Required Settings: [502] "MODE4" [414]-[416] "UCD"

Case 7: Uses the DISA or UCD feature for exchange lines – OGM for DISA and UCD.



OGM1: "We are sorry. The line is currently busy Please hold." (UCD message)

OGM2: "This is A company. For the sales division, press 1. For the service

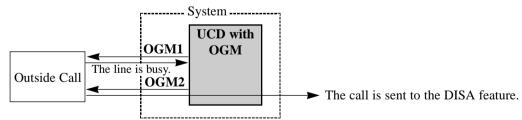
division, press 2. To call the operator, press 0." (DISA message)

Required Settings: [502] "MODE5"

[414]-[416] "DISA1" for exchange line(s) which use the DISA feature

"UCD" for exchange line(s) which use the UCD feature

Case 8: Uses the DISA feature when none of the extension in the UCD group can answer a call – OGM for UCD.



OGM1: "We are sorry. The line is currently busy Please hold."

OGM2: "This is A company. For the sales division, press 1. For the service

division, press 2. To call the operator, press 0."

Required Settings: [502] "MODE6" [414]-[416] "UCD" [523] "Intercept"

3 Features O

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• An optional OGM/FAX Detection Card is required to program the OGM.



• Connection Reference

2.15 OGM/FAX Detection Card Installation

• Required System Programming

[414]–[416] Exchange Line Mode — Day/Night/Lunch

[502] OGM Mode Selection

[506] DISA Busy Mode

[523] UCD Busy Mode

• Related Feature References

Direct Inward System Access (DISA), Uniform Call Distribution (UCD)

• Operating Instructions Reference

1.8 Operator / Manager Service Features, "Outgoing Message (OGM)"

Outside Calling

Allows an extension user to make a call to an external party by using one of the following line access methods.

< Automatic Line Access>

Allows an extension user to select an available exchange line automatically from the assigned lines in program [419] by pressing the Automatic Line Access number (0 or 9). For a proprietary telephone, a Line Access Key assignment (S-CO, G-CO, O-CO) in the Proprietary Telephone Settings is required. If Idle Line Preference is set on the telephone in the Proprietary Telephone Settings, the user can access an idle line only by going off-hook.

<Individual Line Access>

Allows a proprietary telephone user to select the desired exchange line by pressing the line key assigned as the S-CO key. A Line Access Key assignment (S-CO) is required before use.

<Trunk Group Access>

Allows an extension user to select an idle line within a designated trunk group. A trunk group is assigned in program [404]. To specify a trunk group, dial the feature number "8" and the desired trunk group number (1 through 6). A proprietary telephone user can also specify a trunk group by pressing a G-CO key. A Line Access Key assignment (G-CO) is required before use. If Idle Line Preference is set on the telephone in the Proprietary Telephone Settings, the user can access an idle line only by going off-hook.



- Each extension requires System Programming to access exchange lines.
- After an exchange line is seized, the system waits for the assigned time in program [206] before dialling.



Required System Programming

[206] Dialling Start Time

[400] Exchange Line Connection Assignment

[404] Trunk Group Assignment

[405]–[407] Flexible Outward Dialling Assignment — Day/Night/Lunch

[419] Automatic Designated Exchange Line Access

• Related Feature References

Automatic Exchange Line Access Number Preferred Line Assignment — Outgoing, Line Access Keys

• Operating Instructions References

- 1.2 Proprietary Telephone Settings, "Customising Your Telephone Functions", Preferred Line Assignment Outgoing
- 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", Line Access Keys
- 1.3 Making Calls, "Outside Calling"

3 **Features**

Paging

Allows an extension user to make a voice announcement to several people at the same time. The message is announced over the built-in speakers of proprietary telephones and/or the external pager. The paged person can answer the page (Answering a Page) from any extension within the system. The following types are available.

All Extensions: Makes a voice announcement to all extensions over the built-in

speakers of proprietary telephones.

Group: Makes a voice announcement to the designated extension group over

the built-in speakers of proprietary telephones. An extension group is

assigned in program [600] "Extension Group Assignment".

Makes a voice announcement over the external pager. External:

All Extensions & : Makes a voice announcement to all extensions over the built-in **External**

speakers of proprietary telephones and the external pager.



- An extension user can also transfer a call after paging (Paging and Transfer). Also, pages can be denied (Paging Deny).
- An external pager (user-supplied) must be connected beforehand. One external pager can be connected to the system.
- A confirmation tone is sent to the extensions before the voice announcement or answering.
- A confirmation tone is sent to the external pager before the voice announcement. The tone to the external pager can be disabled in program [106].
- An extension which has set the Do Not Disturb (DND) or Paging Deny feature, or is in use cannot be paged.



- Connection Reference
 - 2.9 External Pager (Paging Equipment) Connection
- Required System Programming

[106] External Paging Access Tone

• Related Feature References

Extension Group, Do Not Disturb (DND)

• Operating Instructions Reference

1.5 During a Conversation, "Paging"

Parallelled Telephone Connection

Any analogue proprietary telephone can be connected in parallel with a single line device, such as a single line telephone, facsimile and data terminal.



• System Programming is required.



- Connection Reference
 - 2.11 Parallelled Telephone Connection
- Required System Programming

[610] Parallelled Telephone Connection

• Related Feature Reference

Power Failure Transfer

- Operating Instructions Reference
 - 1.7 Useful Features, "Parallel Connection of a Proprietary Telephone and Single Line Telephone (Parallelled Telephone Connection)"

Personal Speed Dialling

Allows an extension user to store up to 10 speed dialling numbers (0 through 9) with a maximum of 24 digits per number. An extension number, telephone number or feature number can be stored. For example, storing extension numbers for each room in a house can be useful. (1 = Living Room, 2 = Kitchen, etc.) To make a call, dial # and the number.



• Proprietary telephone users cannot use this feature if One-Touch Dialling buttons are assigned to PF buttons. If the user assign a personal speed dialling number, the number stored in the One-Touch Dialling button will be overwritten and vice versa. PF Buttons F1 through F10 correspond to the speed dialling numbers as follows.

• A rotary telephone user cannot use this feature.



- Operating Instructions References
 - 1.3 Making Call, "Dialling with Personal Speed Dialling (Personal Speed Dialling)"

3 Features P

Pickup Dialling

Allows a single line telephone user to make an outgoing call by going off-hook, if the user has stored the telephone number (up to 32 digits) beforehand. This feature is also known as Hot Line.



- A rotary telephone cannot program this feature.
- The user can set and cancel this feature.
- If the feature is activated and the user goes off-hook, a dial tone will be generated for the delay time assigned in program [203] and then dialling will start. During the delay time, the user can dial another party overriding the Pickup Dialling function.



• Required System Programming

[203] Pickup Dial Delay Time

• Operating Instructions Reference

1.3 Making Call, "Dialling by Simply Going Off-Hook (Pickup Dialling)"

Polarity Reverse Detection

The circuit in the system can detect an exchange line polarity reverse signal from the Local Exchange when trying to make an outside call. This detects the start (a called party goes off-hook) and end (the called party goes on-hook) of an outgoing outside call. The conversation time can be verified on the SMDR printout using this feature.

When an outside call is received, the circuit can also detect the polarity reverse signal before ringing.



- Required System Programming
 - [424] Reverse (Polarity) Circuit Assignment
- Related Feature Reference

Station Message Detail Recording (SMDR)

P 3 Features

Power Failure Transfer

During a power failure, specific extension telephones are automatically connected to specific exchange lines. This provides exchange line conversations between the following extensions and exchange lines.

Exchange line 1 : extension port 01 Exchange line 4 : extension port 09

A single line telephone (SLT) can work in case of a power failure. Connect an SLT to the above extension port. For more information, refer to the Operating Instructions.



- All other conversations, except the above combinations, are disconnected during a power failure.
- Only an exchange line can have a conversation. All other features do not work.
- We recommend connecting a single line telephone (SLT) in parallel at extension ports 01 and 09, so that an SLT can be used during a power failure.



- Connection Reference
 - 2.18 Auxiliary Connection for Power Failure Transfer
- Related Feature Reference

Parallelled Telephone Connection

- Operating Instructions Reference
 - 1.7 Useful Features, "Power Failure Transfer"

Preferred Line Assignment — Incoming

A proprietary telephone user can select the method to answer incoming outside calls from the following 3 line preferences. System Programming and Proprietary Telephone Settings are required.

No Line Preference: When an incoming call is received, the extension user must go

off-hook and then press the flashing line key.

Prime Line Preference: When incoming calls are received at the same time, the user

can receive the call on the preferred exchange line by only

going off-hook.

Ringing Line Preference: When an incoming call is received, the user can receive the

call ringing at their telephone by going off-hook.



- A single line telephone can only set "Ringing Line Preference".
- Line access key(s) (Single Exchange Line, Other Exchange Line or Trunk Group) should be assigned to line key(s) beforehand.



Required System Programming

[408]–[410] Flexible Ringing Assignment — Day/Night/Lunch [411]–[413] Delayed Ringing Assignment — Day/Night/Lunch

• Related Feature Reference

Line Access Keys

- Operating Instructions References
 - 1.2 Proprietary Telephone Settings, "Customising Your Telephone Functions", Preferred Line Assignment Incoming
 - 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", Line Access Keys

3 Features P

Preferred Line Assignment — Outgoing

A proprietary telephone user can select a desired outgoing line preference to make outside calls from the following 3 line preferences. System Programming and Proprietary Telephone Settings are required.

Idle Line Preference: When the user goes off-hook, they are connected to an idle line.

An idle line is automatically selected from the pre-assigned

lines in program [419].

Prime Line Preference: When the user goes off-hook, they are connected to the

pre-assigned line. Assign one prime line beforehand.

No Line Preference: No line is selected when the user goes off-hook. They must

select a line to make a call.



• Line Access Key(s) (Single Exchange Line, Other Exchange Line or Trunk Group) should be assigned to the line key(s) beforehand.



• Required System Programming

[400] Exchange Line Connection Assignment

[405]–[407] Flexible Outward Dialling Assignment — Day/Night/Lunch

[419] Automatic Designated Exchange Line Access

• Related Feature Reference

Line Access Keys

• Operating Instructions References

- 1.2 Proprietary Telephone Settings, "Customising Your Telephone Functions", Preferred Line Assignment Outgoing
- 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", Line Access Keys

Proprietary Telephone Setting Data Default Set

Allows a proprietary telephone user to reset the following Proprietary Telephone Settings to the default settings.

- Preferred Line Assignment Outgoing
- Preferred Line Assignment Incoming
- Exchange Line Ringing Selection
- Intercom Alert Assignment
- Call Waiting Tone Selection



• Operating Instructions Reference

1.2 Proprietary Telephone Settings, "Customising Your Telephone Functions", Proprietary Telephone Setting Data Default Set

Pulse to Tone Conversion

Allows an extension user to change the dialling mode from Pulse to Tone after entering a telephone number to access services, such as computer telephone services or Voice Mail, which require tones.



- This feature only works for exchange lines which have set "Pulse Mode" or "Call Blocking Mode" in program [401].
- Changing from Tone to Pulse is not possible.



• Required System Programming

[401] Dial Mode

• Operating Instructions Reference

1.7 Useful Features, "Pulse to Tone Conversion"

Recall

The RECALL button is used to allow a proprietary telephone user to disconnect the current call and originate another call without hanging up. This is activated when "MODE2" is selected in program [110] and the RECALL button is pressed for longer than the time programmed in [418]. When "MODE1" is selected in program [110], the RECALL button can be used to access features of the Local Exchange or host PBX (External Feature Access). It is performed by putting the current party on hold and sending a recall signal while having an outside call.



• Assigning the External Feature Access feature to any flexible button is useful when "MODE 2" was selected in program [110]. This can be done from any extension by assigning the RECALL button to a One-Touch Dialling button (Operating Instructions, 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", One-Touch Access for System Features). When the assigned button is pressed, a recall signal is sent during the programmed time in [418].



Required System Program Address

[110] Recall Key Mode [418] Recall Time

• Operating Instructions Reference

1.7 Useful Features, "External Feature Access"

3 **Features**

Recall Button on a Single Line Telephone

Pressing the Recall button is used to allow a single line telephone user to hold a call for transferring or holding, if the recall time is within the assigned time in program [207]. The procedure to transfer a call or hold is determined in program [104] "Hold Mode Selection". Pressing the Recall button can be also used to disconnect a call, if the recall time is more than the assigned time in program [207].



• If "MODE 1" was selected in program [207], the system will recognise pressing the Recall button as hooking, while a busy tone or reorder tone is sent or during a conversation. The system will recognise as 1 being dialled in the pulse mode, while a dial tone is sent. The system can refuse receiving a pulse signal by selecting "Disable" in program [614]. Therefore, even if the Recall button is pressed during a dial tone, the system will regard it as hooking.



Required System Programming

[207] Recall Timing Range Selection [614] Internal Pulse Detection

Receiving Calls

Allows an extension user to receive an intercom or outside call by going off-hook. A proprietary telephone user can also receive a call by pressing the rapid flashing CO or INTERCOM button, and talk (handsfree mode) if the telephone has the SP-PHONE button.



• A proprietary telephone user can select the Line Preference for incoming outside calls. See "Preferred Line Assignment — Incoming" in this section.



Required System Programming

[408]–[410] "Flexible Ringing Assignment — Day/Night/Lunch" [411]–[413] "Delayed Ringing Assignment — Day/Night/Lunch"

• Related Feature Reference

Preferred Line Assignment — Incoming

Operating Instructions Reference

1.4 Receiving Calls, "Receiving Calls"

Redial

<Last Number Redial>

Every extension automatically saves the last telephone number dialled so that the extension user can make a call to the same party later using a simple operation.

<Saved Number Redial>

Allows a proprietary telephone user to save the current external telephone number in the SAVE button during a conversation, so that the extension user can redial the same party later using a simple operation. The saved number can be redialled until another number is stored. A flexible button can be assigned as the SAVE button in the Proprietary Telephone Settings.

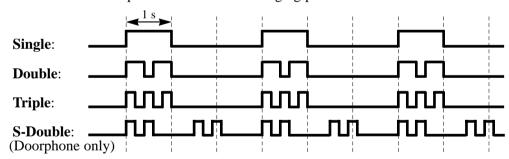


• Operating Instructions References

- 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", SAVE button
- 1.3 Making Calls, "Redialling the Last Number Dialled (Last Number Redial)"
- 1.3 Making Calls, "Redialling the Saved Number (Saved Number Redial)"

Ringing Pattern Selection

A ringing pattern can be selected depending on the type of call such as an outside call, intercom call and doorphone call. Available ringing patterns are as follows:





• Private calls can be distinguished from business calls by assigning different ringing per exchange line. Moreover, by assigning different ringing, intercom calls and doorphone calls can be distinguished from other calls. Therefore, careful attention should be applied to all ringing assignments.



• Required System Programming

[115] Extension Ringing Pattern Selection

[423] Exchange Line Ringing Pattern Selection

[706] Doorphone Ringing/Tone Pattern Selection

• Related Feature Reference

Exchange Line Ringing Selection

3 Features R

Room Monitor

Allows a proprietary telephone or single line telephone with a MUTE button to monitor a room or the front door through another proprietary telephone or doorphone without them knowing. The access tone will not be sent to the monitored proprietary telephone when monitoring starts.



- The extensions that can be monitored must be programmed in [612] before operation is possible.
- If a doorphone is used as a room monitor, the access tone will be heard when monitoring starts as the default setting. The tone can be disabled in program [707].
- This feature is not available for KX-T7050.
- A single line telephone with a MUTE button can be used for monitoring, but cannot be monitored.



• Required System Programming

[612] Room Monitor Assignment[707] Doorphone Access Tone Selection

• Related Feature Reference

Doorphone Call

• Operating Instructions Reference

1.7 Useful Features, "Room Monitor"

Secret Dialling

Allows a proprietary telephone user to conceal all or part(s) of a System Speed Dialling number assigned in program [001] or One-Touch Dialling number assigned to a flexible button in the Proprietary Telephone Settings which would normally appear on the display.



- When storing a number, press the INTERCOM button at the beginning and the end of the numbers to be concealed.
- One or more parts of a telephone number can be concealed.
- Printing out the concealed number on a SMDR can be assigned in program [803].



• Required System Programming

[001] System Speed Dialling Entry [803] Secret Speed Dialling/One-Touch Dialling Printing

• Related Feature References

One-Touch Dialling, System Speed Dialling

• Operating Instructions References

- 1.2 Proprietary Telephone Settings, "Customising the Buttons on Your Telephone", One-Touch Dialling Button
- 1.7 Useful Features, "Secret Dialling"

Self-Extension Number Confirmation (KX-T7130 only)

Allows a display proprietary telephone user to confirm their port and extension number using a simple operation.



• Operating Instructions Reference

1.7 Useful Features, "Self-Extension Number Confirmation (KX-T7130 only)"

S

Station Message Detail Recording (SMDR)

Station Message Detail Recording (SMDR) automatically prints out detailed call information of outside calls. A printer connected to the Serial Interface (RS-232C) port can be used to print incoming and outgoing outside calls, as well as print a hard copy of System Programming. To print out the record of System Programming items that have been assigned, use program [804] "System Data Dump". To print the call records, use program [802] "Incoming/ Outgoing Call Selection for Printing", which prints out the following records.

- A record of all outgoing outside calls or outgoing toll calls
- A record of all incoming outside calls

An example of a printed call record:

Date	Time	Ext.	CO	Dial number	Duration	Code
31/12/98	12:52PM	203	05	12345678901234567890123456789012	00:00'16	
31/12/98	12:53PM	203	02	< incoming >	00:01'43	
31/12/98	*12:54PM	201	02	< incoming >	00:07'48	
31/12/98	1:04PM	203	06	0921438	00:00'06	4536
31/12/98	1:04PM	202	05	< DISA incoming >	00:00'09	
31/12/98	1:05PM	203	01	< DISA incoming >	80'00:00	
31/12/98	1:06PM	203	01	092123456789	80'00:00	
31/12/98	1:06PM	202	02	0921234567	00:00'17	
31/12/98	1:07PM	203	01	0921234567	00:11'00	13
31/12/98	2:15PM	203	01	0921234567	00:11'00	. 201
31/12/98	2:26PM	203	01	F/0927654321	00:03'00	
31/12/98	2:27PM	216	05	9=0924567123	00:13'55	
31/12/98	3:25PM		02	< UCD Waiting >	00:11'48	

Example of the SMDR printout format:

Explanation

- (1) Date: shows the date of the call as Day/Month/Year.
- (2) Time: shows the time the call was started as Hour: Minute/AM or PM. "*" indicates a transferred call.
- (3) Ext. : shows the extension number, etc. that engaged in the call.
- (4) CO: shows the exchange line number used for the call.
- (5) Dial number

Outgoing call: Shows the called party's telephone number (maximum 32 digits).

Valid digits are 0 through 9, #, \times and P (if the PAUSE button

was pressed).

Received call: Shows <incoming>. An incoming call via the DISA feature is

shown as <DISA incoming>, via the DIL feature is shown as

<DIL incoming>.

UCD waiting call: Shows <UCD waiting> for an incoming call via the UCD feature.

When the "UCD waiting call" is answered, it becomes a

"Received call" and a new record is started.

- (6) Duration : shows the duration of the call or the UCD call waiting time in Hours/Minutes/Seconds.
- (7) Code: shows the account code appended to the call, account code index number (e.g.: 13) or the extension number which uses the Walking COS feature (e.g.: 201).



- This system can store information of up to 64 calls.
- This data is not deleted even when the system is reset.
- If RECALL is manually sent out during a conversation to make another call without hanging up, etc., a call record will be printed and a new record started. "F/" will be printed at the beginning of the dial number on the new record.
- When a host PBX code is entered, "=" will be printed between the code and dialled number.
- The language used for an SMDR printout can be selected in program [806].



- Connection Reference
 - 2.13 Printer and PC Connection
- Required System Programming
 - [000] Date and Time Setting
 - [204] Call Duration Count Start Time
 - [800] SMDR RS-232C Communication Parameters
 - [801] SMDR Parameter
 - [802] Incoming/Outgoing Call Selection for Printing
 - [803] Secret Speed Dialling/One-Touch Dialling Printing
 - [804] System Data Dump
 - [805] SMDR Account Code Selection
 - [806] SMDR Language Assignment
- Related Feature Reference

Language Selection

System Data Default Set

This system can re-initialise the system-programmed data. If all the programmed data is cleared, the system will reset using the default settings by program [999].



• The default setting for each programming item is listed in Section 5.1, Default Values.



- Required System Programming
 - [999] System Data Clear
- Installation Reference
 - 2.23 System Data Clear

System Speed Dialling

The system supports 100 System Speed Dial numbers (up to 32 digits) assigned in program [001] that are available to all extension users. A System Speed Dial number is dialled out using a simple operation.

Each System Speed Dial number can be assigned a name in program [011]. The assigned name will be displayed when making a call by using the System Speed Dialling feature. It will also be displayed when an external caller's telephone number matches one of System Speed Dialling numbers and the Telephone Company does not provide the caller's name.



- Call Barring for System Speed Dialling can be assigned by program [301].
- A rotary telephone user cannot use this feature.



Required System Programming

[001] System Speed Dialling Entry

[011] System Speed Dialling Name Setting

[301] Call Barring – System Speed Dialling Boundary Class

Related Feature

Call Barring for System Speed Dialling

• Operating Instructions for the Caller ID Card References

Section 1.2, System Features

Caller ID

• Operating Instructions Reference

1.3 Making Calls, "Dialling with System Speed Dialling (System Speed Dialling)"

Timed Reminder

<Timed Reminder>

Allows an extension user to generate an alarm tone at a preset time as a wake-up alarm or a reminder. The user can set this to be activated once or everyday.

<Timed Reminder, Remote (Wake-Up Call)>

The operator or manager can remotely set, cancel and confirm the Timed Reminder of the desired extension. For example, this is useful for a small hotel or motel to set an extension in a guest room as a wake-up call, or set an extension in a child's room by a mother.





• Operating Instructions References

- 1.7 Useful Features, "Alarm Setting (Timed Reminder)"
- 1.8 Operator / Manager Service Features, "Timed Reminder, Remote (Wake-Up Call)"

Time (Day/Night/Lunch) Service

The system supports the day, night and lunch operation modes. The system operation for making and receiving calls can be different for the day, night and lunch modes. The system operation for call barring can be arranged to prevent unauthorised toll calls for each mode. Time service can be set automatically or manually by program [006].

Changing the Day/Night/Lunch Modes

The day, night and lunch modes can be changed either automatically at an assigned time in program [007] or manually by the operator or manager at any desired time.



- The lunch mode interrupts the day or night mode. After the lunch mode is finished, the day or night mode starts again.
- If the lunch mode is set using feature number "783#" in the automatic mode, the mode can only be cancelled by using feature number "780#". This can be useful during holidays. The day and night modes are automatically changed at the programmed time in [007] even if feature number "780#" is not entered. These operations can only be done by an operator or manager.
- The operator and manager can see the status of the mode (day, night or lunch) by the preassigned DSS buttons' LED on the DSS console. Time service can be changed easily by pressing the pre-assigned DSS buttons.
- The following programming items will be affected by the time service.

[405]-[407] Flexible Outward Dialling Assignment

— Day/Night/Lunch

[408]-[410] Flexible Ringing Assignment

— Day/Night/Lunch

[411]-[413] Delayed Ringing Assignment

— Day/Night/Lunch

[414]-[416] Exchange Line Mode — Day/Night/Lunch

[601]-[603] Call Barring – Class of Service Assignment

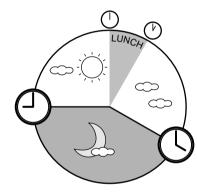
- Day/Night/Lunch

[700]-[702] Doorphone Ringing Assignment

- Day/Night/Lunch

[703]-[705] Door Opener Assignment

— Day/Night/Lunch





Required System Programming

[006] Time (Day/Night/Lunch) Service Changing Mode [007] Time (Day/Night/Lunch) Service Start Time

• Operating Instructions References

1.8 Operator / Manager Service Features, "Time (Day/Night/Lunch) Service Setting"

1.9 DSS Console Features, "Initial Settings", Day, Night and Lunch Buttons Assignment

3 Features

Uniform Call Distribution (UCD)

Distributes incoming calls to one specific extension group called a UCD group assigned in program [520]. Calls to the UCD group hunt for an idle extension in numerical order. The UCD feature is particularly helpful when a certain extension receives a high volume of calls compared with other extensions.



- An optional OGM/FAX Detection Card is required to perform the UCD feature.
- The Log-In or Log-Out status can be set on an extension basis. There should be at least one extension that is in Log -In status in the UCD group.
- An extension which sets the Call Forwarding–All, –Busy or No Answer, or the Do Not Disturb (DND) feature is skipped during circular calling.
- When all extensions in the UCD group are busy, a busy message is heard and then Music on Hold is activated. If any extension in the UCD group is not available within the programmed time period, then (1) an OGM will be heard and the call is disconnected, or (2) the call will be sent to pre-programmed extension(s) in [408]-[410]. System Programming is required for this operation. Refer to the "Flow chart of possible cases and results for UCD calls".



• Connection Reference

2.15 OGM/FAX Detection Card Installation

• Required System Programming

[111] Hold Music Selection

[408]-[410] Flexible Ringing Assignment – Day/Night/Lunch

[414]–[416] Exchange Line Mode — Day/Night/Lunch

[502] OGM Mode Selection

[513] Cyclic Tone Detection

[520] UCD Group

[521] UCD Busy Waiting Time

[522] UCD OGM Message Interval Time

[523] UCD Busy Mode

[524] UCD Intercept Mode

[525] UCD Ringing Time before Intercept

[526] UCD Ringing Time after Intercept

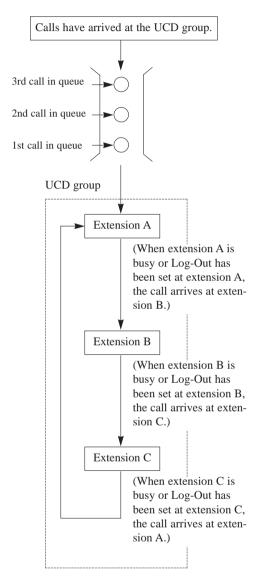
[600] Extension Group Assignment

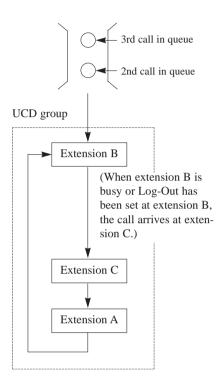
• Related Feature References

Call Forwarding, Do Not Disturb (DND), Extension Group, Log-In/Log-Out

Outline of a UCD

- (1) When a number of calls have arrived at the UCD group, the first call arrives at extension A first.
- (2) When the first call arrives at extension A, the second call arrives at extension B.

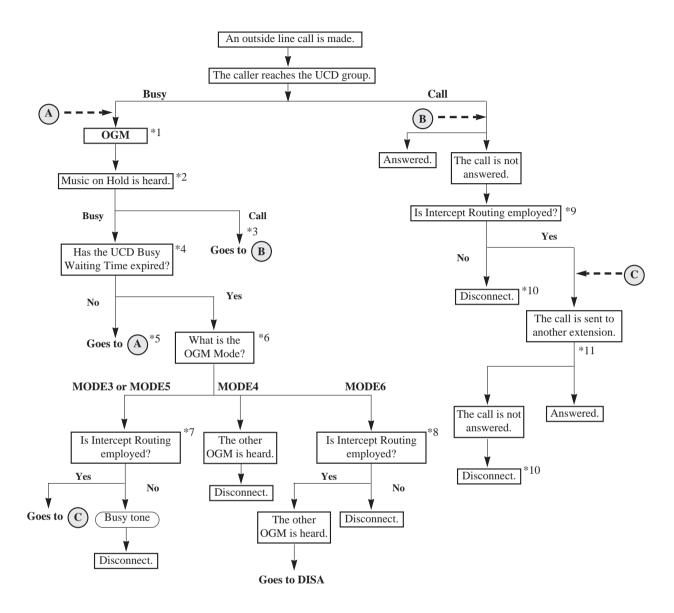




(3) When the second call arrives at extension B, the third call will arrive at extension C.

U

Flow chart of possible cases and results for UCD calls



Note: The explanation for *1 through *11 is on the next page.

- *1: An OGM is sent to the caller.
 - When the system detects a cyclic tone or CPC signal while the OGM is being sent, the call is disconnected.
- *2: Music on hold is selected in program [111] as follows.
 - External Uses an external music source, such as a radio.
 - **Tone** Uses the cyclic tone equipped with the system.
- *3: When an extension in the UCD group is available.
- *4: The system holds the call until the assigned time in program [521] expires.
- *5: OGM repeats the assigned time intervals in program [522] within the assigned time in program [521].
- *6: The OGM Mode is selected in program [502].
- *7: The system treats the call according to program [523] as follows when the assigned time in [521] expires.
 - **Disconnect** The call is disconnected.
 - **Intercept** The call is sent to the extensions programmed in [408]-[410].
- *8: The system treats the call according to program [523] as follows when the assigned time in [521] expires.
 - **Disconnect** The call is disconnected.
 - Intercept The other OGM leads the caller to the DISA feature ("Direct Inward System Access (DISA)" in this section).
- *9: The system treats the call according to program [524] as follows when the assigned time in [525] expires.
 - **Disconnect** The call is disconnected.
 - **Intercept** The call is sent to the extensions programmed in [408]-[410].
- *10: If the caller did not hear an OGM, the call will not be disconnected until the caller goes on-hook.
- *11: The UCD Ring Timer after Intercept starts. The destination telephone(s) will ring for the time programmed in program [526]. If the call is not answered during the programmed time, the call will be disconnected.



Voice Mail Integration for KX-TVP100

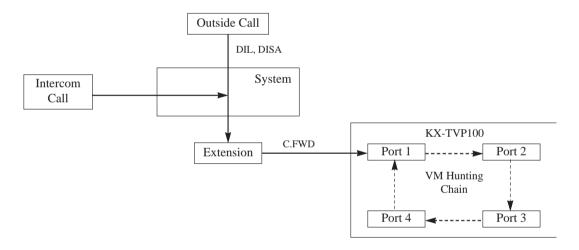
This system supports Panasonic Voice Processing System (VPS) equipment (KX-TVP100) by sending DTMF tones described in program [103]. The DTMF tones sent to a VPS indicate the state of a call (busy, answered, ringing, disconnected, etc.). The DTMF tones also inform a VPS of the destination of a call transferred to the VPS by the Call Forwarding or DISA Intercept Routing – No Answer feature. Up to 4 VPSs can be connected to the extension ports as extensions in the system.

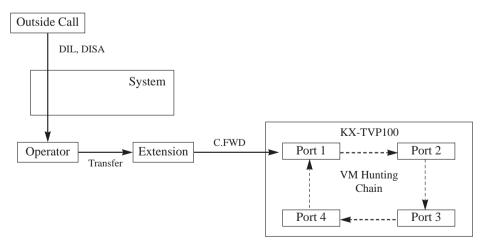
System Explanation

1. Voice Mail Service

1.1 Call Forwarding to VM

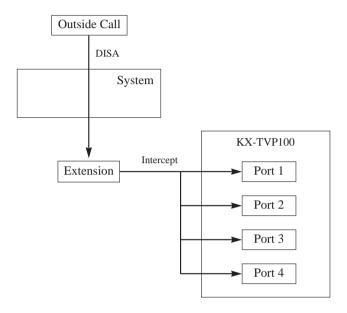
If an extension user sets Call Forwarding (C. FWD) whose destination is the VPS, an incoming call is forwarded to the VPS. The system sends the VPS the extension mailbox number at that time. Therefore, the calling party can leave their message in the mailbox of the desired extension without having to know the mailbox number.





1.2 DISA Intercept to VM

If the VPS is set as the Intercept destination of an exchange line, an outside call is forwarded to the VPS. The system sends the VPS the extension mailbox number at that time. Therefore, the calling party can leave their message in the mailbox of the desired extension without having to know the mailbox number. If a DISA call is transferred to the VPS by Intercept Routing from a DISA ring group, your system will transmit the mailbox number of the lowest port number of the DISA ring group. Delayed Ringing must be assigned to VPS extensions in programs [411]-[413].



1.3 Listening to a Recorded Message

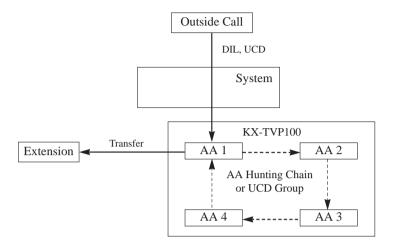
If the VPS receives a message, the VPS can turn on the MESSAGE button indicator on the corresponding proprietary telephone to notify to the user. The VPS notifies the extension user that there is a message waiting in their mailbox. When the MESSAGE button indicator is lit, pressing the button allows the extension user to play back the stored message. A single line telephone user hears dial tone 3 (* "Distinctive Dial Tones" in this section) when going off-hook if there are messages in their mailbox. They can call the voice mail extension to listen to their messages. In this case, they must listen to all of the messages. Once they access voice mail, dial tone 3 will be eliminated and not be heard next time they go off-hook. Therefore, they will not know even if there are messages left.



2. Automated Attendant (AA) Service

2.1 AA to Extension

AA receives and answers outside calls and offers services such as transferring to an extension or mailbox using DTMF signalling, which is sent from the calling party.



1

• A VPS can be assigned as the destination for the following features.

Call Forwarding – All Calls

Call Forwarding - Busy/No Answer

DISA Intercept Routing - No Answer

In these functions, the caller does not need to know the mailbox number of the called extension because the code is automatically transmitted to the VPS.

- The mailbox number is the same as its extension number.
- The Voice Mail extension should set Data Line Security to prevent interference from system signals.
- If KX-TA624 cannot be selected with the PBX type setup menu of the KX-TVP100, select "KX-T1232". Follow the steps for a KX-T1232.



• Connection Reference

2.8 Extension Connection

• Required System Programming

[009] Extension Number Assignment

[102] Voice Mail Port for KX-TVP100

[103] DTMF Integration for KX-TVP100

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

[411]-[413] Delayed Ringing Assignment — Day/Night/Lunch

[414]–[416] Exchange Line Mode — Day/Night/Lunch

[507] DISA Intercept Mode

• Related Feature References

Call Forwarding, Data Line Security, Direct Inward System Access (DISA), Distinctive Dial Tones, Extension Hunting, Intercept Routing

• Operating Instructions Reference

1.7 Useful Features, "Voice Mail Integration for KX-TVP100"



Volume Control

Allows a proprietary telephone user to adjust the following volumes, as necessary, by adjusting the corresponding levers or pressing the corresponding buttons.

- Handset receiver volume
- Ringer volume
- Speaker volume



• Operating Instructions Reference

1.2 Proprietary Telephone Settings, "Volume Control — Handset Receiver/Ringer/Speaker"

Walking COS

Allows an extension user who is not at their own telephone to override the call barring COS number of another extension by dialling their extension password. For the duration of the call, the COS of the extension is changed to the COS of their own extension.



- If the extension overriding call barring is assigned to "Forced" or "Verify–All", the user must enter the account code before the line access code.
- When a user makes a call using this feature, the user's extension number will be displayed on the SMDR, not the extension where the user made the call.



• Operating Instructions References

- 1.7 Useful Features, "Calling Using Your Privileges at Another Extension (Walking COS)"
- 1.8 Operator / Manager Service Features, "Extension Password Set (Manager only)"