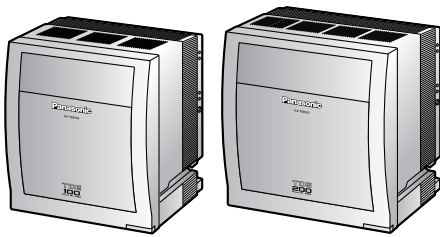


Panasonic

Pure IP-PBX

Getting Started for Physical Cards



Model No. **KX-TDE100**
KX-TDE200



Thank you for purchasing a Panasonic Pure IP-PBX.
Please read this manual carefully before using this product and save this manual for future use.

KX-TDE100/KX-TDE200: PMMPR Software File Version 1.0000 or later

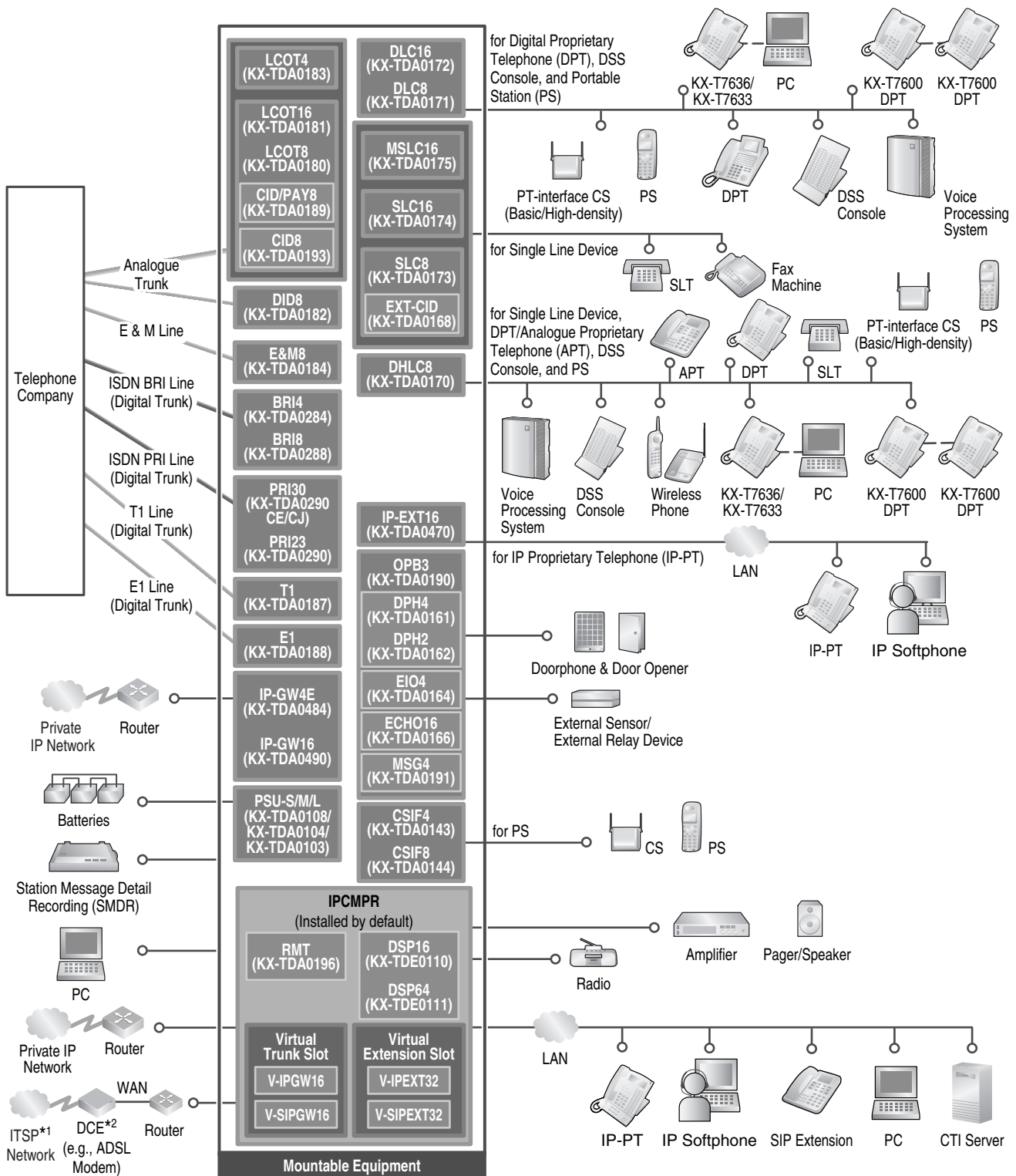
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Section 1

Before Installation

1.1 System Connection Diagram



*1 ITSP: Internet Telephony Service Provider

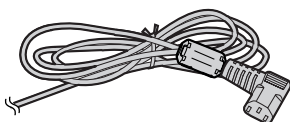
*2 DCE: Data Circuit Terminating Equipment

1.2 Unpacking

Check the package contents.

Main Unit × 1

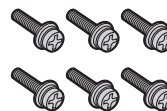
CD-ROM (including manuals, etc.) × 1



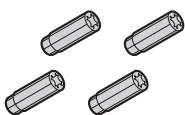
AC Cord* × 1



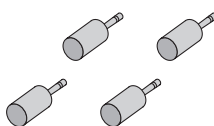
Screw A
× 3 (KX-TDE100)
× 4 (KX-TDE200)



Screw B (Black)
× 2 (KX-TDE100)
× 6 (KX-TDE200)



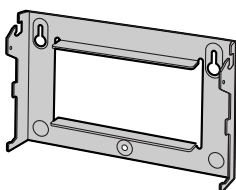
Anchor Plug
× 3 (KX-TDE100)
× 4 (KX-TDE200)



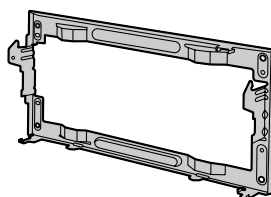
Mini Plug (for pager and
music source) × 4



Ferrite Core (for the IPCMPR
card) × 2



for KX-TDE100



for KX-TDE200

Metal Bracket × 1



SD Memory Card × 1

* The type of the AC cord may vary depending on the country/area of use.

The KX-TDE100BX/KX-TDE200BX is supplied with 2 types of AC cord. Please use whichever is appropriate for the country/area.

In Canada, there is no ferrite core attached to the AC cord.

Note

In this manual, the suffix of each model number (e.g., KX-TDE100**NE**) is omitted unless necessary.

Necessary items (not supplied):

- ✓ Telephone cable for extension connection:

Diameter of cable (ø 0.4 mm to ø 0.6 mm)	Maximum length of cable
ø 0.5 mm	1128 m for SLT
ø 0.5 mm	720 m for KX-T7600 series
ø 0.5 mm	229 m for other DPT, APT and DSS Console

The maximum length of the cable may vary depending on the type of cable and installation conditions.

- ✓ An RS-232C or Ethernet straight cable for PC connection
- ✓ Connectors (Amphenol/RJ45/BNC) for trunk and extension connections

Notes

- The Ethernet straight cable should be a 10BASE-T/100BASE-TX CAT 5 (Category 5) or higher cable.
- Use a shielded twisted pair cable for the Amphenol connector.
- Use a twisted pair cable for the RJ45 connector.

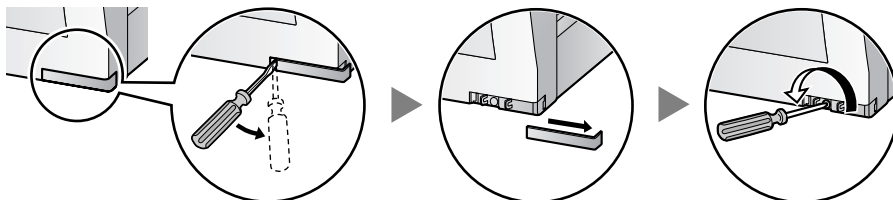
Section 2

Installation

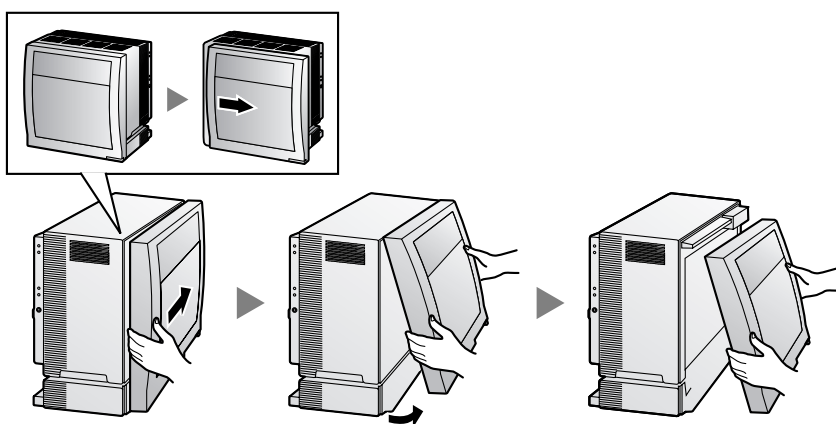
2.1 Opening/Closing the Front Cover

Opening the Front Cover

1. Insert a flathead screwdriver into the opening (on the left of the screw cover) and unlatch the screw cover. Turn the screw anticlockwise to loosen.

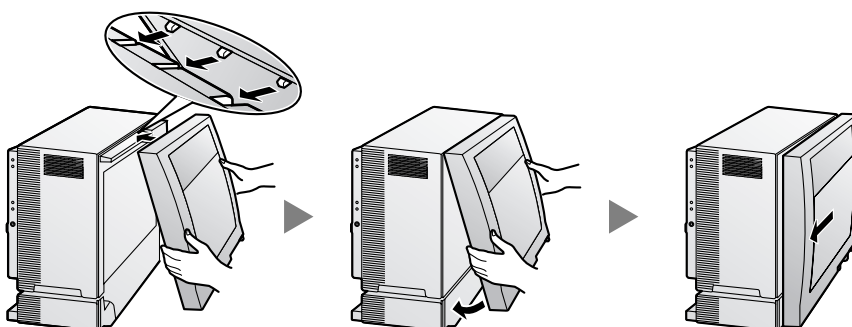


2. Slide the front cover to the right until it stops, then lift the front cover.

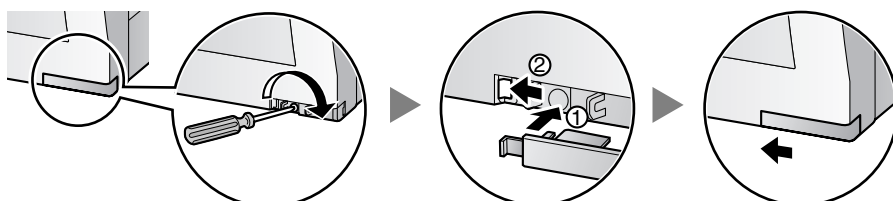


Closing the Front Cover

1. Hook the front cover onto the shelf (line up the protrusions on the cover with the receptacles on the shelf), then slide the front cover to the left until it locks.



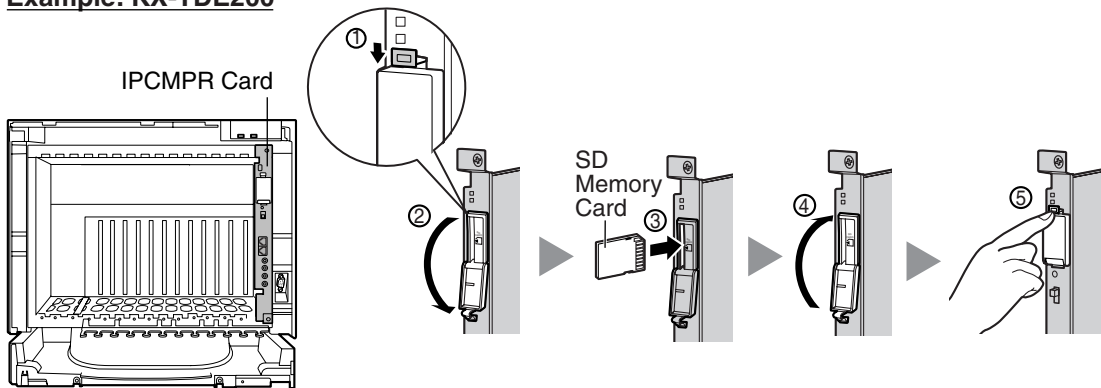
2. Turn the screw clockwise to tighten, then secure the screw cover.



2.2 Inserting the SD Memory Card to the IPCMPR Card

The SD Memory Card contains software for all the processes of the PBX and all the customer data. **The SD Memory Card must be inserted before startup.**

Example: KX-TDE200



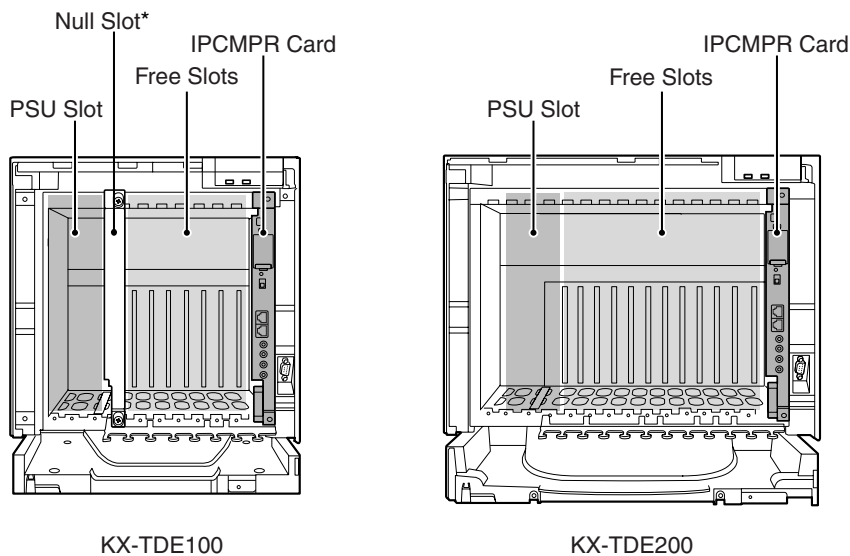
CAUTION

Do not remove the SD Memory Card while power is supplied to the PBX. Doing so may cause the PBX to fail to start when you try to restart the system.

2.3 Installing the Option Units

Slot Position

Install the power supply unit (PSU) into the PSU slot, and optional service cards into free slots.



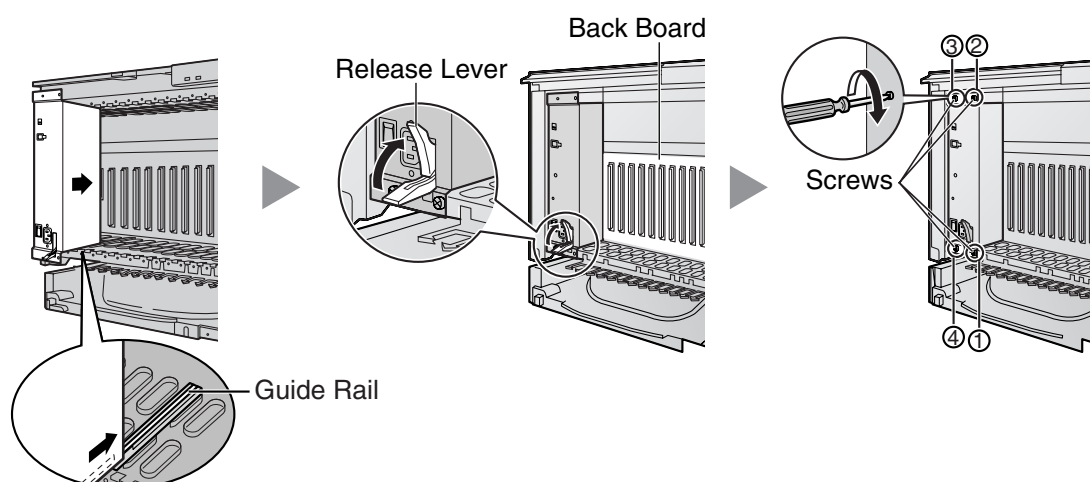
* Null slot is not available for any optional service card.

CAUTION

To protect the back board from static electricity, do not touch parts on the back board in the main unit, PSU, and on the optional service cards. To discharge static electricity, touch ground or wear an earthing strap. Make sure the screws are tightened to earth the card securely.

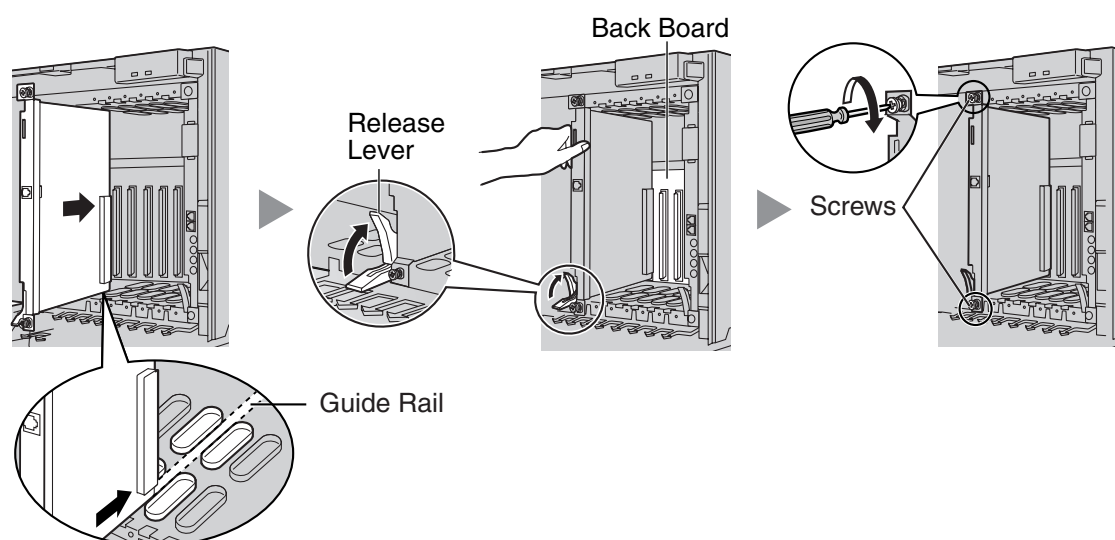
Installing the Power Supply Unit

1. Insert the PSU along the guide rails.
2. Push the release lever in the direction of the arrow, so that the PSU engages securely with the connector on the back board.
3. Turn the 4 screws clockwise, in the order indicated by the numbers 1 to 4, to fix the PSU.



Installing the Trunk/Extension Cards

1. Insert the card along the guide rails.
2. Holding the card as shown below, push the release lever in the direction of the arrow so that the card engages securely with the connector on the back board.
3. Turn the 2 screws clockwise to fix the card in place.



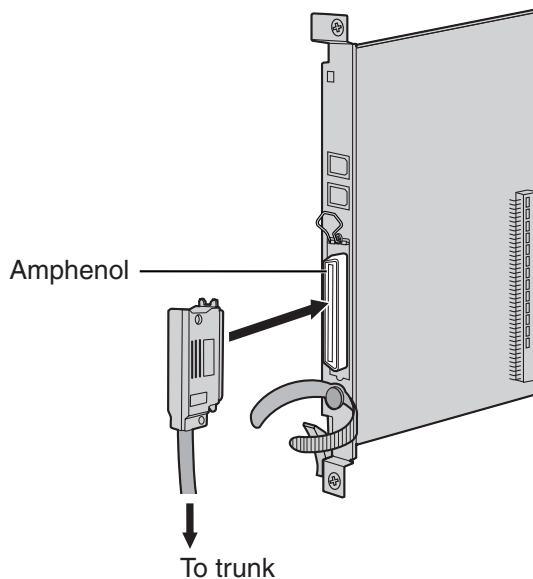
WARNING

Be sure to cover each slot not containing an optional service card with an optional Blank Slot Cover (KX-A258). Failure to do so may cause electromagnetic interference or fire. For details, refer to "Covering the Blank Slots" in "3.2.7 Installing/Removing the Optional Service Cards" of the Installation Manual.

2.4 Installing the Trunk Cards

LCOT4/LCOT8/LCOT16 Card

Example: LCOT16 Card

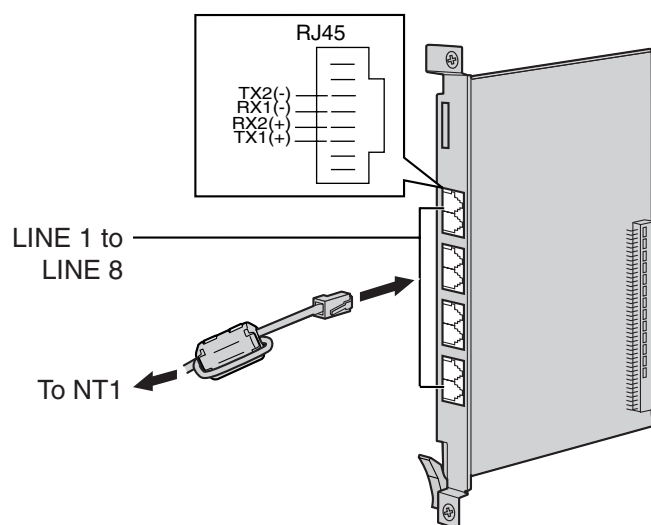


Accessories (included): Screws × 2

User-supplied (not included): Amphenol connector

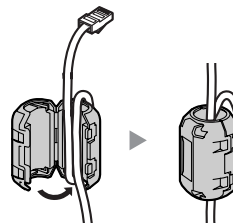
BRI4/BRI8 Card

Example: BRI8 Card

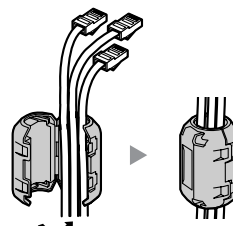


To attach the ferrite core

When using 1 or 2 cables:



When using 3 or 4 cables:



- For every 4 cables, use 1 ferrite core; a ferrite core holds a maximum of 4 cables.
- Attach the ferrite core as close to the card's connector as possible.

Accessories (included): Ferrite core(s) × 1 (BRI4 card) or 2 (BRI8 card)

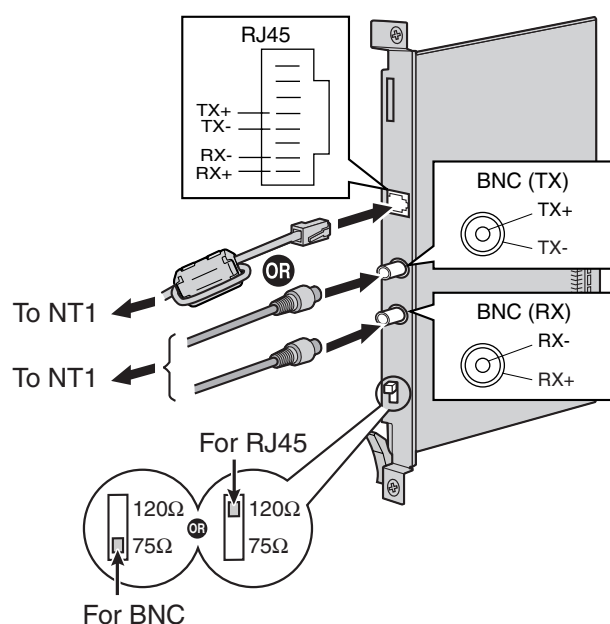
User-supplied (not included): RJ45 connector

Notes

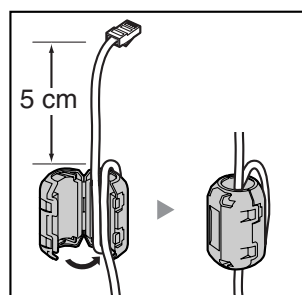
- LINE 5 to LINE 8 are for BRI8 card only.
- Connect these optional service cards to the trunk through an NT1; do not connect to the U interface of the trunk directly.
- These optional service cards have 100 Ω of terminal resistance. For use in point to multi-point connection, the cards must be placed at the end of the bus.
- When connecting the RJ45 connector, attach the included ferrite core.

PRI30/PRI23 Card

Example: PRI30 Card



To attach the ferrite core



Accessories (included): Ferrite core × 1

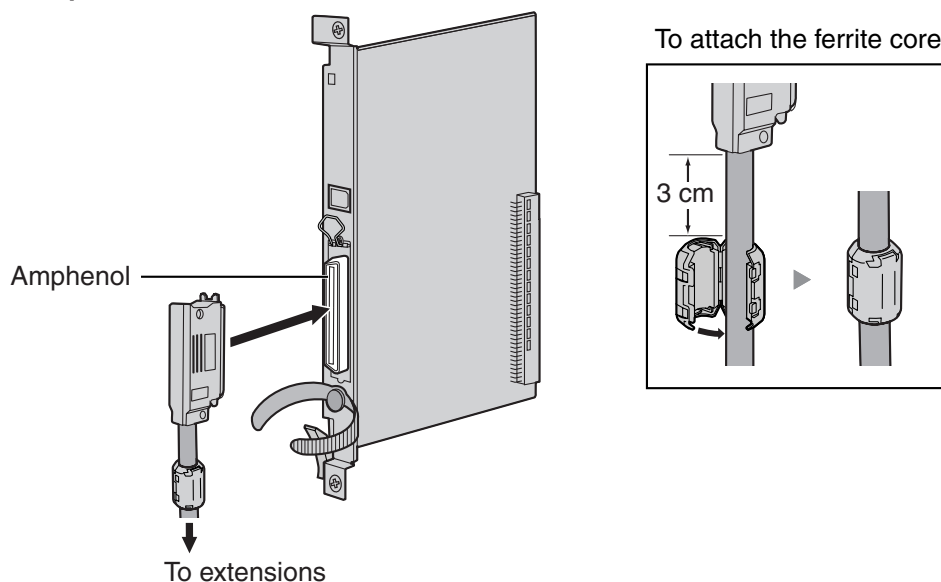
User-supplied (not included): RJ45 or BNC connectors

Notes

- In some countries/areas, the PRI30 card must not be connected to the Public Switched Telephone Network.
- Connect these optional service cards to the trunk through an NT1; do not connect to the U interface of the trunk directly.
- Use only 1 type of connector (RJ45 or BNC) for connection of PRI30 card; RJ45 and BNC cannot be used simultaneously. Set the termination switch to 120 Ω (default) or 75 Ω for connector type to be used.
- When connecting the RJ45 connector, attach the included ferrite core (except in Canada, where the ferrite core is not necessarily required).

2.5 Installing the Extension Cards (DLC8/DLC16/DHLC8/MSLC16/SLC8/SLC16)

Example: DHLC8 Card



Accessories (included): Screws × 2, Ferrite core × 1

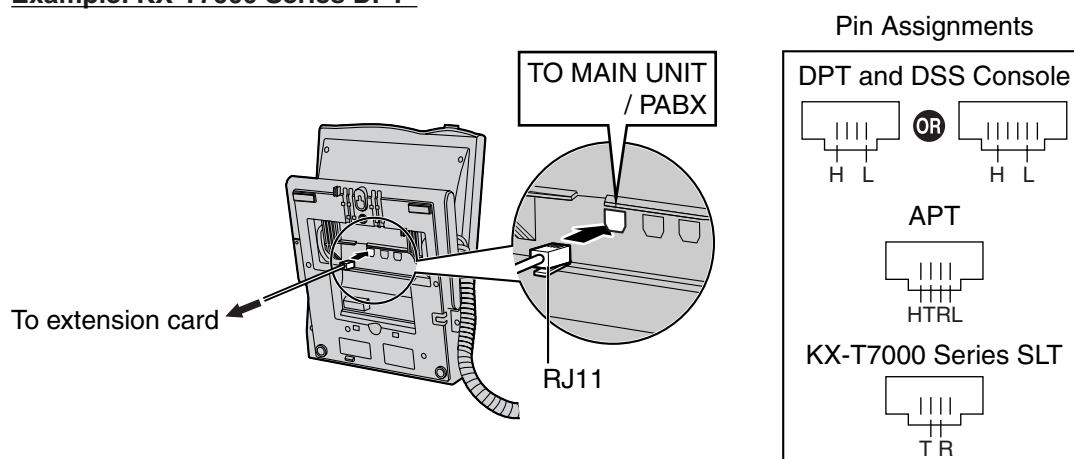
User-supplied (not included): Amphenol connector

Note

Attach the included ferrite core to the cable.

2.6 Connecting Extensions

Example: KX-T7600 Series DPT

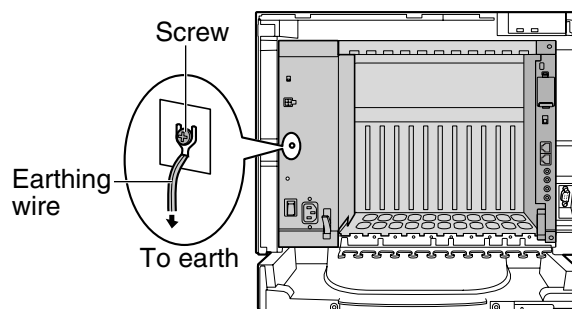


2.7 Frame Earth Connection

IMPORTANT

Connect the frame of the PBX to earth.

1. Loosen the screw.
2. Insert an earthing wire (user-supplied)*.
3. Tighten the screw.
4. Connect the earthing wire to earth.



* For earthing wire, green-and-yellow insulation is required, and the cross-sectional area of the conductor must be more than 0.75 mm² or 18 AWG.

- Proper earthing (connection to earth) is very important to protect the PBX from the bad effects of external noise or to reduce the risk to the user of electrocution in the case of a lightning strike.
- The earthing wire of the AC cable has an effect against external noise and lightning strikes, but it may not be enough to protect the PBX. A permanent connection between earth and the earth terminal of the PBX must be made.

2.7 Frame Earth Connection

Section 3

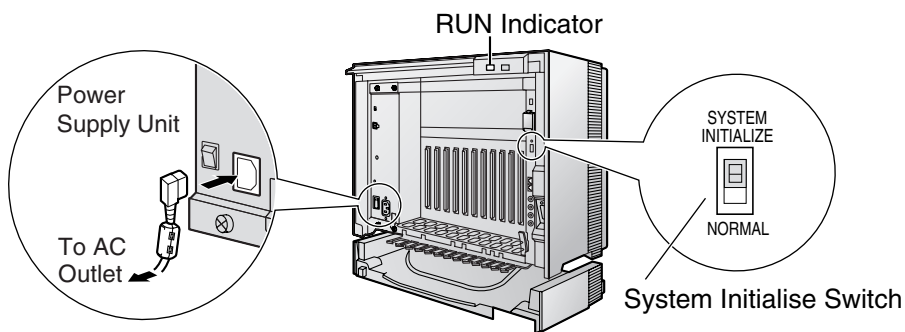
Before Programming

3.1 Starting the PBX

CAUTION

- SD Memory Card must be inserted in the SD Memory Card slot of the IPCMPR card before startup.
- Before touching the System Initialise Switch, discharge static electricity by touching ground or wearing an earthing strap.
- Once you have started the PBX and if you unplug the PBX, do not perform the following procedures to start the PBX again. Otherwise, your programmed data will be cleared.
- The PBX will continue to be powered even if the power switch is turned "OFF".
- **The power supply cord is used as the main disconnect device. Ensure that the AC outlet is located near the equipment and is easily accessible.**

1. Slide the System Initialise Switch to the "SYSTEM INITIALIZE" position.



2. Plug the AC power cord into the PBX and an AC outlet, and turn on the PBX. The RUN indicator will flash.
3. While the RUN indicator is flashing, slide the System Initialise Switch back to the "NORMAL" position. Depending on the configuration, initialisation takes about 1 min to 3 min. If successfully executed, the RUN indicator will stop flashing and stay lit.

All data will be cleared and the PBX will be initialised to the default values. The DPTs should show the time as 01:00.

Note

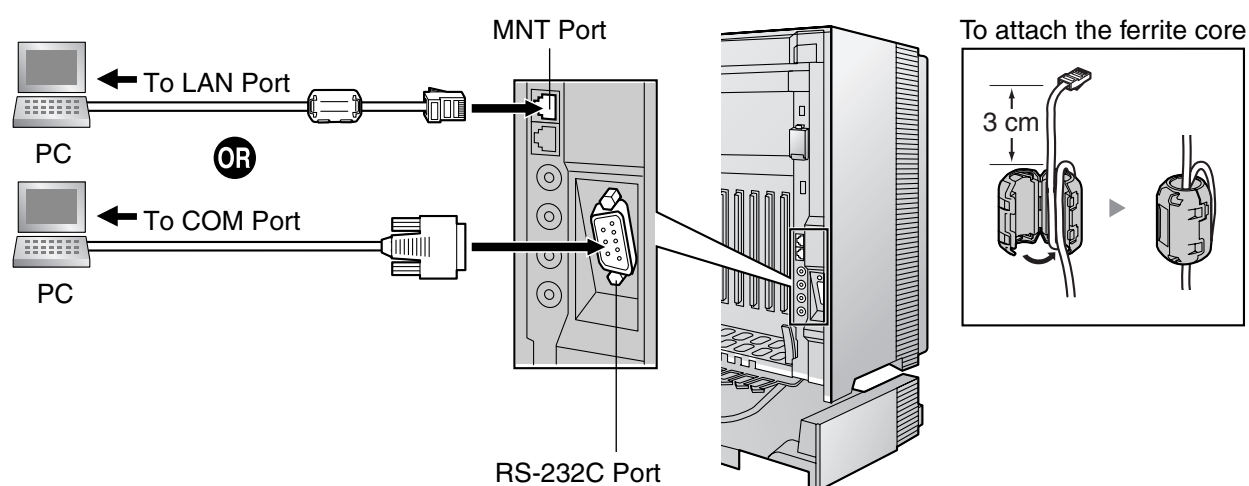
Use only the AC power cord included with the PBX for the PSU.

3.2 Connecting the PC

KX-TDE Maintenance Console serves as an overall system programming tool for the PBX. KX-TDE Maintenance Console's Quick Setup lets you easily configure the PBX to receive intercom and trunk calls, as well as apply basic settings such as time and date.

To programme the PBX, connect it to the PC via the MNT or RS-232C port.

PC Connection



Pin Assignments

LAN (RJ45 Cable)
LAN Port (PC) MNT Port (PBX)

Pin No.		Pin No.
1	→	1
2	←	2
3	←	3
6	→	6

RS-232C (Cross Cable)
COM Port RS-232C Port

Pin No.		Pin No.
2	↔	2
3	↔	3
4	↔	4
5	↔	5
6	↔	6
7	↔	7
8	↔	8

IMPORTANT

When connecting a PC to the PBX, a fixed IP address must be assigned to the PC. For information about fixed IP addresses, ask your network administrator.

3.3 Installing the KX-TDE Maintenance Console

For the system requirements of the PC (e.g., operating system, hardware specifications), refer to "4.3.1 Installing and Starting the KX-TDE Maintenance Console" in the Installation Manual.

Notes

- Make sure to install and use the latest version of the KX-TDE Maintenance Console.
 - The contents and design of the software are subject to change without notice.
 - Screen shots reprinted with permission from Microsoft Corporation.
1. Copy the setup file of the KX-TDE Maintenance Console to your PC.
 2. Double-click the setup file to run the installer.
 3. Follow the on-screen instructions provided by the installation wizard.

Section 4

Programming

4.1 Programming the PBX

Starting the KX-TDE Maintenance Console and Assigning the Basic Items (Quick Setup)

When you start the KX-TDE Maintenance Console with the Installer Level Programmer Code and connect to the PBX for the first time after initialisation (with the factory default setting), Quick Setup will launch automatically. During Quick Setup, you will set up the basic items. For details about the basic items, refer to "2.3.4 Quick Setup" in the Feature Guide.

1. Connect the PC to the PBX with an Ethernet straight cable or RS-232C.
2. Start the **KX-TDE Maintenance Console** from the Start menu.
3. "Information before programming" appears.
 - a. Carefully read this important additional information, which includes updates to this and other manuals.
 - b. Click **OK** to close this window.
4.
 - a. Enter the Installer Level Programmer Code (default: **INSTALLER**).
 - b. Click **OK**.
5.
 - a. Click **Connect** → **LAN** or **RS-232C** from the menu bar, depending on the type of PC connection with the PBX.
 - b. The Login screen appears.
6.
 - a. Enter the system password for installer (default: **1234**).
 - b. Click **Setup**, then the Setup screen appears.
 - c. Specify the settings as required.

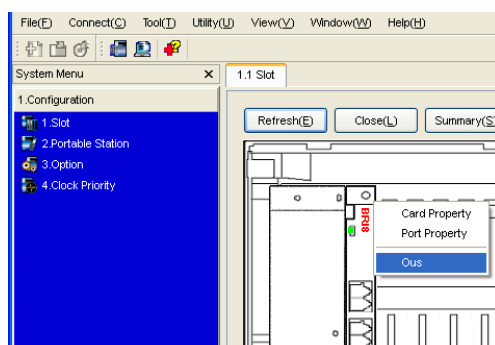
Note

When connecting to the PBX for the first time selecting **LAN**, the **IP Address** and **Port Number** must be set to **192.168.0.101** and **35300** respectively.

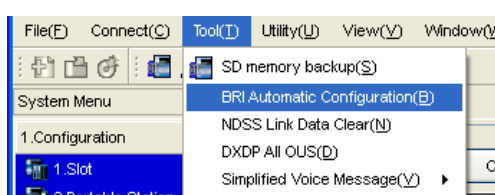
- d. Click **OK** to return to the Login screen.
 - e. Click **OK**.
7. **When country/area data do not match:**
 - a. Click **OK** to replace the country/area data of the PBX. Replacement may take several minutes to complete.
 - b. Follow the procedure described in "Before Programming" and restart the PBX.
 - c. Repeat step 5 to reconnect the KX-TDE Maintenance Console to the PBX.
8. Follow the instructions of the Quick Setup wizard and assign the basic items (Quick Setup).

The system menu appears. You may now begin programming the PBX.

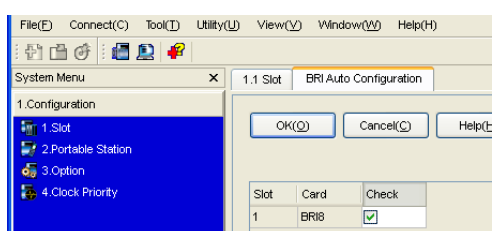
Assigning the BRI Setting (Automatic Configuration)



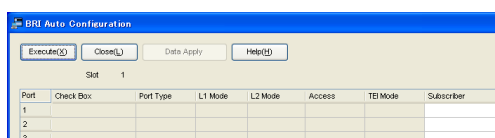
1.
 - a. Under **Configuration**, click **Slot**.
 - b. Move the mouse pointer over the BRI card. A menu will be shown under the mouse pointer.
 - c. Click **Ous** to set the card to out-of-service status.



2. Click **Tool** → **BRI Automatic Configuration** from the menu bar.



3.
 - a. Click **Check** to turn on the BRI card.
 - b. Click **OK**.

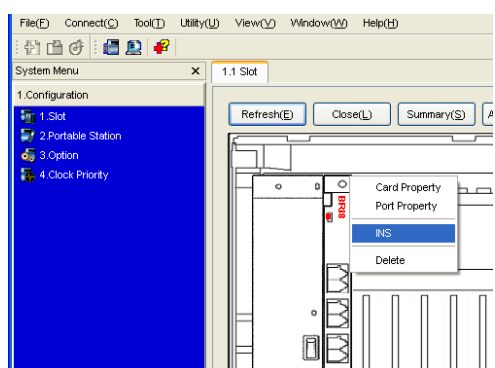


4.
 - a. Enter the subscriber number for the desired ports in **Subscriber**.
 - b. Click **Execute**.

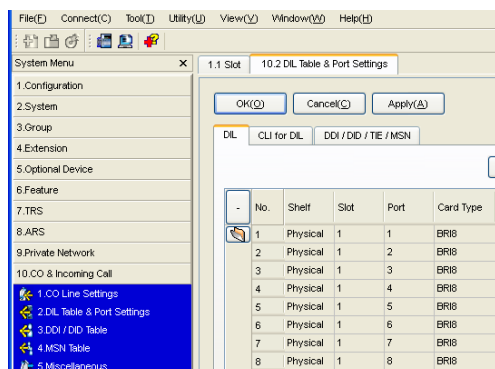
Note

Network settings are automatically set.

- c. Click **Check Box** of the desired ports.
 - d. Click **Data Apply**.
 - e. Click **Close**.
5.
 - a. Under **Configuration**, click **Slot**.
 - b. Move the mouse pointer over the BRI card, then click **INS** to set the card to in-service status.

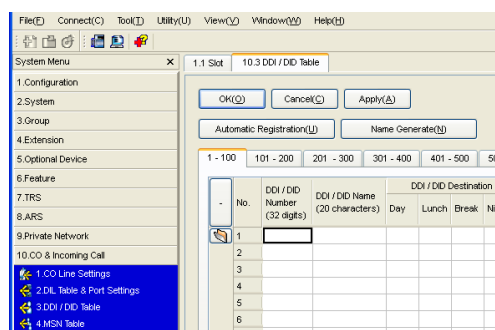


Assigning the Incoming Trunk Call Destination



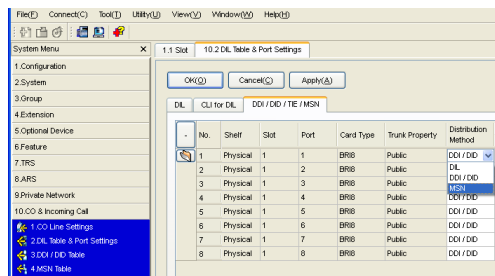
For analogue trunk users (DIL Setting):

1. Under **CO & Incoming Call**, click **DIL Table & Port Settings**.
2. Confirm that the **DIL** tab is selected.
3. Configure the settings as required.
4. Click **OK**.



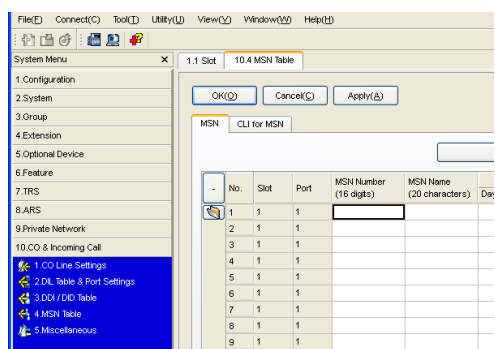
For ISDN trunk users (DDI Setting):

1. Under **CO & Incoming Call**, click **DDI / DID Table**.
2. Configure the settings as required.
3. Click **OK**.

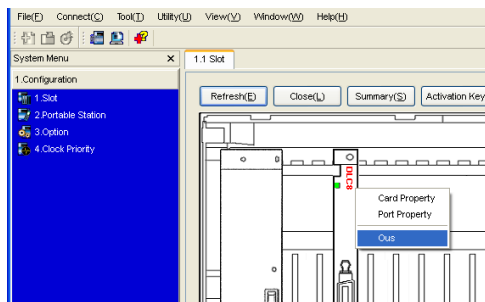


For ISDN trunk users (MSN Setting):

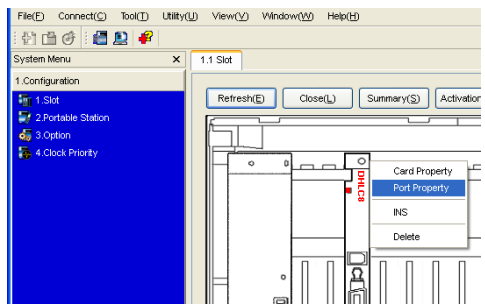
1. Under **CO & Incoming Call**, click **DIL Table & Port Settings**.
2. Click the **DDI / DID / TIE / MSN** tab.
3. Set the **Distribution Method** of the desired ports to **MSN**.
4. Click **OK**.
5. Click **MSN Table**.
6. Click the **MSN** tab.
7. Configure the settings as required.
8. Click **OK**.



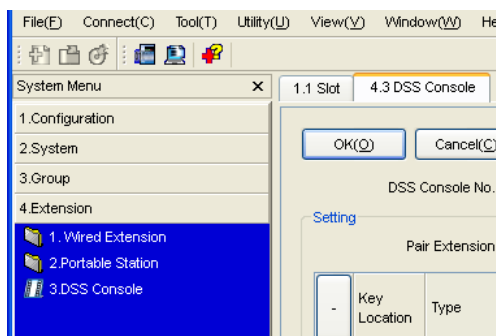
Setting an Extension Port to Use a DSS Console



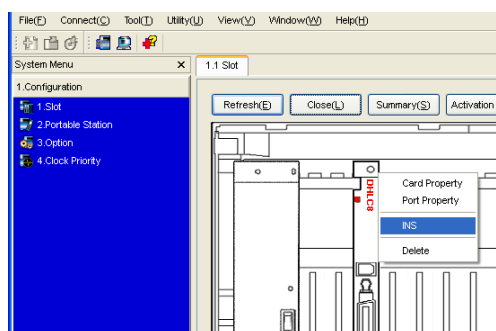
1. Under **Configuration**, click **Slot**.
2. Move the mouse pointer over the desired extension card to display the menu of options.
3. Click **Outs** to set the card to out-of-service status.



4. Move the mouse pointer over the card again, then click **Port Property**.
5. For **DPT Type**, set the **Type** to **DSS** and assign the **Location No.**
6. Click **OK**.



7. Under **Extension**, click **DSS Console**.
8. Select the desired pair extension number from **Pair Extension**.
9. Assign features to flexible buttons as required.
10. Click **OK**.



11. Under **Configuration**, click **Slot**.
12. Move the mouse pointer over the card to display the menu of options.
13. Click **INS** to set the card to in-service status.
14. Click **Close**.

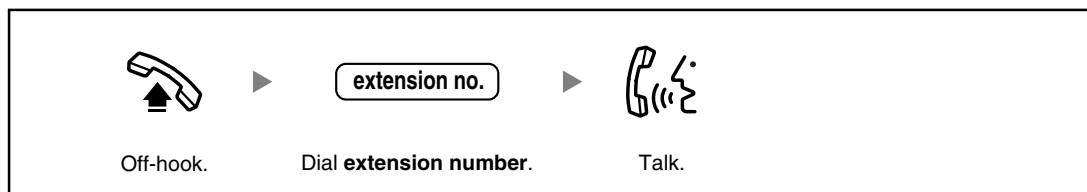
Section 5

Confirming the Connection

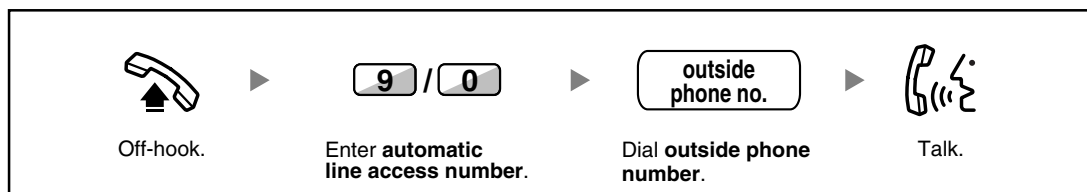
5.1 Making and Receiving Calls

Making Calls

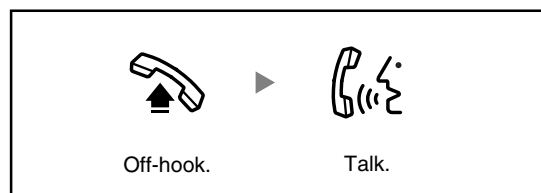
To call another extension



To call an outside party



Receiving Calls





The KX-TDE100UK/KX-TDE200UK, the KX-TDE100NE/KX-TDE200NE, the KX-TDE100GR/KX-TDE200GR, and the KX-TDE100CE/KX-TDE200CE are designed to interwork with the:

- Analogue Public Switched Telephone Network (PSTN) of European countries
- Pan-European Integrated Services Digital Network (ISDN) using ISDN basic rate access
- Pan-European Integrated Services Digital Network (ISDN) using ISDN primary rate access
- ONP 2048 kbit/s digital structured leased lines (D2048S)

Panasonic Communications Co., Ltd./Panasonic Communications Company (U.K.) Ltd. declares that this equipment is in compliance with the essential requirements and other relevant provisions of Radio & Telecommunications Terminal Equipment (R&TTE) Directive 1999/5/EC.

Declarations of Conformity for the relevant Panasonic products described in this manual are available for download by visiting:

<http://www.doc.panasonic.de>

Contact:

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