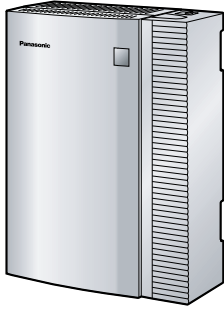


# Panasonic



## Hybrid IP-PBX Getting Started

---

Model No. **KX-TDA15**



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

**PSMPR Software File Version 4.0000 or later**

---

# Table of Contents

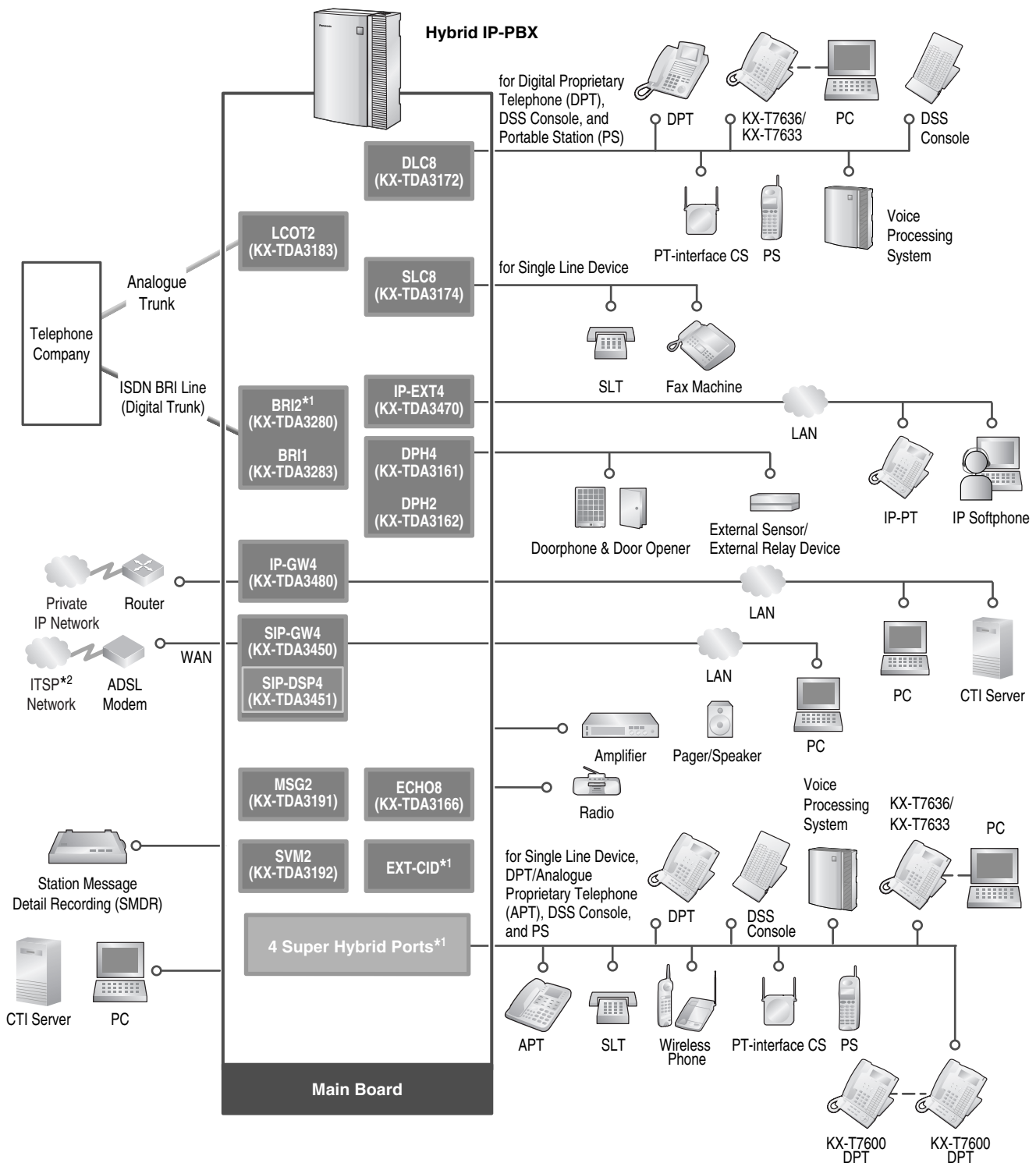
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---

# ***Section 1***

## ***Before Installation***

# 1.1 System Connection Diagram



\*1 The Hybrid IP-PBX has 4 Super Hybrid Ports, one BRI2 card, and one EXT-CID card pre-installed.

\*2 ITSP: Internet Telephony Service Provider

**Note**

In this manual, the suffix of each model number (e.g., KX-TDA15**NE**) is omitted unless necessary.

## 1.2 Unpacking

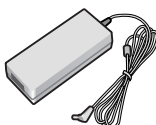
**Check the package contents.**

Main Unit × 1

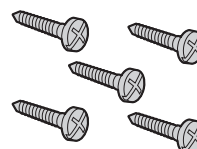
CD-ROM (including manuals, etc.) × 1



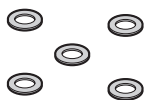
AC Cord\* × 1



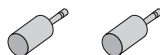
AC Adaptor × 1



Screw × 5



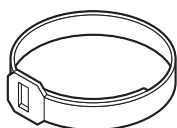
Washer × 5



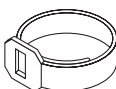
Mini Plug (for pager and music source) × 2



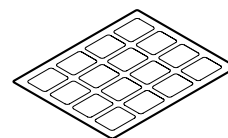
SD Memory Card × 1



Main Strap × 1



Strap (for the pre-installed BRI2 card) × 1



Optional Card Label Sheet × 1

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

### Necessary tools (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 the cables and installation conditions.

- ✓ An RS-232C or USB cable for PC connection
- ✓ Connectors (RJ45/RJ11)\* for trunk and extension connections

\* The connector type may be RJ45 or RJ11 depending on the country/area.

#### **Note**

Use a twisted pair cable for the RJ45 or RJ11 connector.

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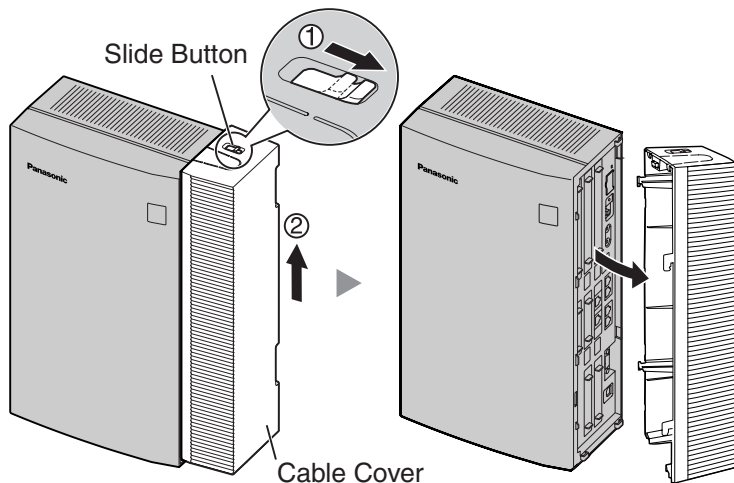
## ***Section 2***

### ***Installation***

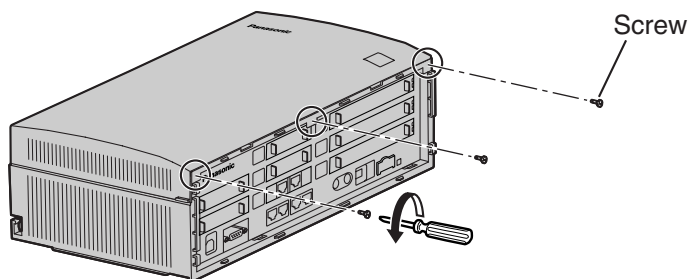
## 2.1 Opening/Closing the Covers

### Opening the Covers

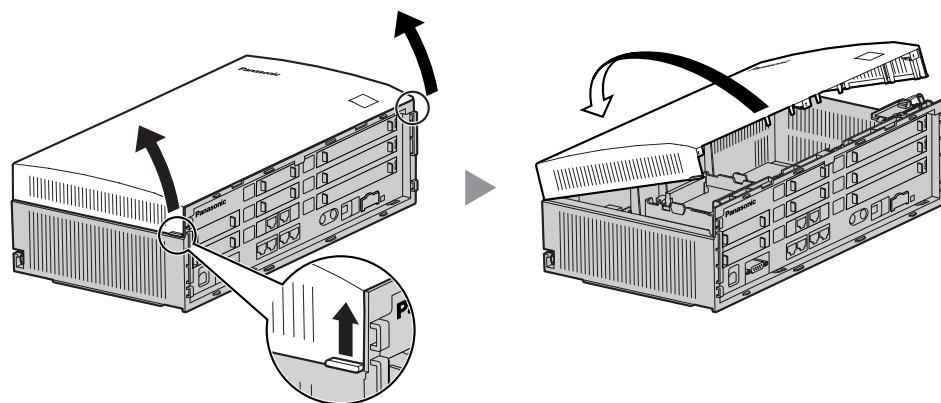
1. Pull the slide button to the right and, holding it, slide the cable cover upwards. Then turn the cable cover slightly to remove it.



2. Remove the three screws.



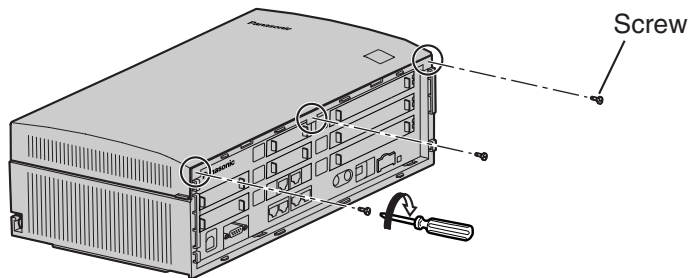
3. Holding the protrusions on both sides of the front cover, swing the cover open.



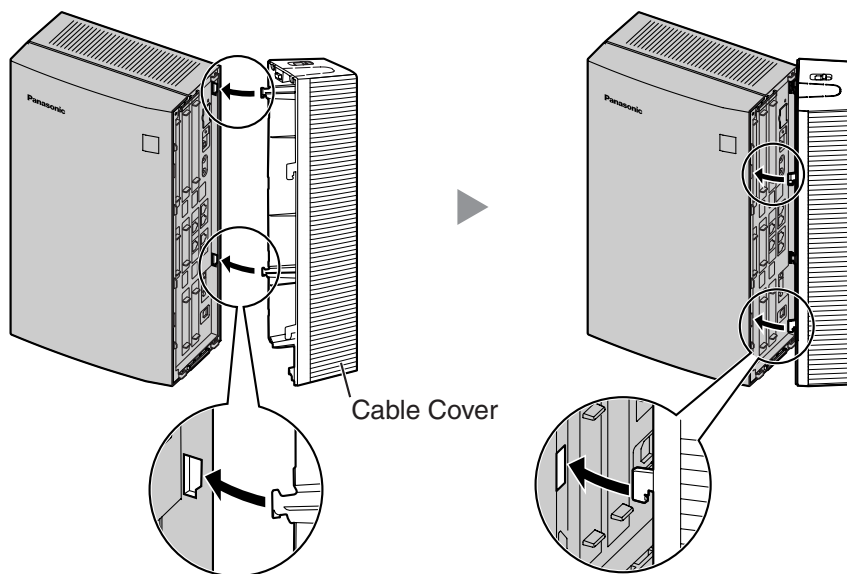


## Closing the Covers

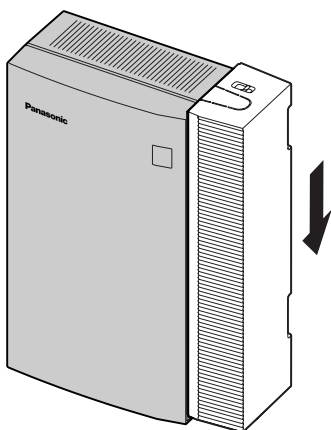
1. Close the front cover, then tighten the three screws.



2. Attach the rear hooks on the cable cover to the main unit, then swing the cable cover closed so that the front hooks fit in place.

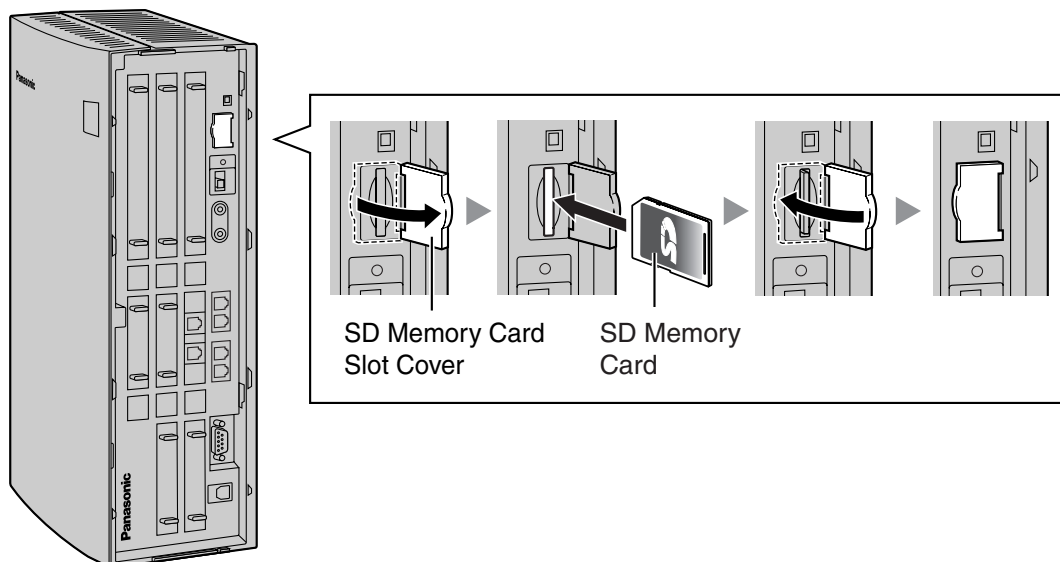


3. Slide the cable cover down until it locks.



## 2.2 Installing the SD Memory Card

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

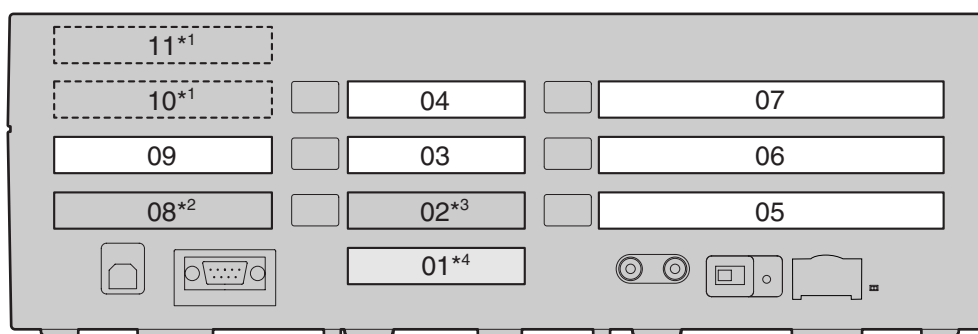


### CAUTION

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

## 2.3 Installing the Optional Service Cards

### Slot Position



- \*1 Slots 10 and 11 accept only cards which do not have external ports. Therefore, these slots do not have removable cover plates.
- \*2 Slot 08 contains the pre-installed EXT-CID card.
- \*3 Slot 02 contains the pre-installed BRI2 card.
- \*4 Slot 01 contains the pre-installed Super Hybrid Ports. No optional service card can be installed.

## Slot Restrictions

The following table shows the slot restrictions. " ✓" indicates that the slot supports the optional service card.

Card			Slot Number							
Type	Max		03	04	05	06	07	09	10	11
LCOT2	1		✓	✓						
BRI2	1		✓	✓						
BRI1	1		✓	✓						
SIP-GW4	1	2			✓	✓	✓			
IP-GW4	1				✓	✓	✓			
IP-EXT4	1				✓	✓	✓			
DLC8	1*1				✓	✓	✓			
SLC8					✓	✓	✓			
DPH4	1*2							✓		
DPH2								✓		
ECHO8	1							✓	✓	✓
MSG2	2							✓	✓	✓
SVM2	2							✓	✓	✓

\*1 Only one of either the DLC8 or SLC8 card can be installed.

\*2 Only one of either the DPH4 or DPH2 card can be installed.

## Trunk Card Combinations

Trunk cards can be installed along with the pre-installed BRI2 card in any one of the following combinations:

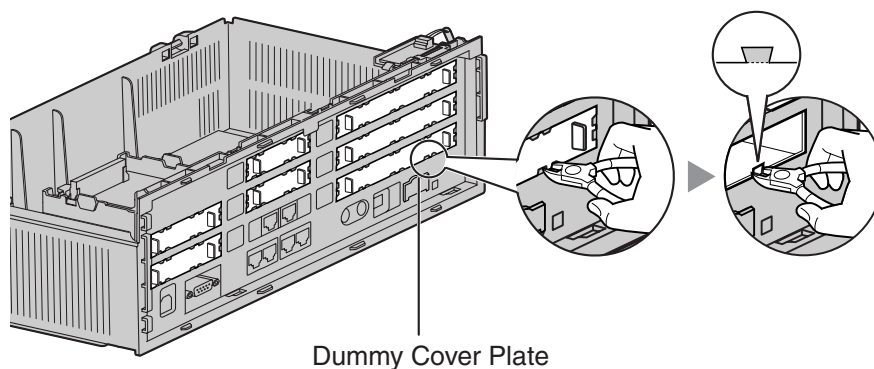
- BRI2 + BRI2
- BRI2 + BRI1
- BRI2 + LCOT2
- BRI2 + BRI1 + LCOT2

## CAUTION

To protect the main board from static electricity, do not touch parts on the main board or on the optional service cards. To discharge static electricity, touch ground or wear an earthing strap.

### Installing the Trunk/Extension Cards

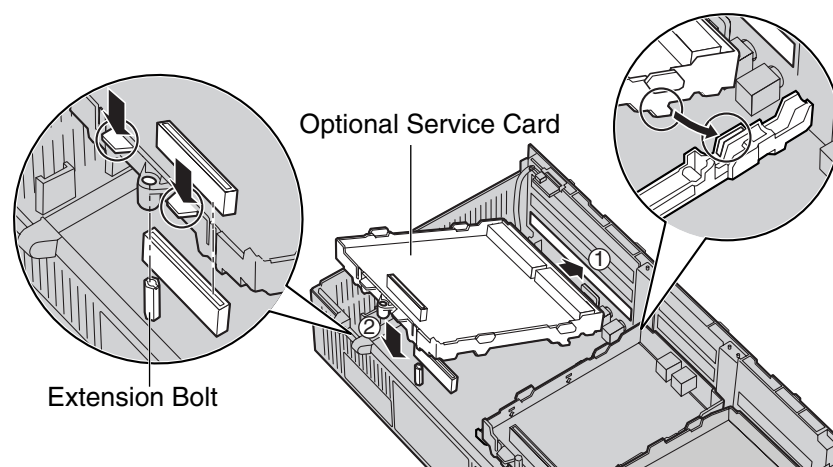
1. Before installing the optional service cards, cut and remove the appropriate dummy cover plates from the main unit.



#### **CAUTION**

For safety reasons, smooth the cut edges after removing the dummy cover plates.

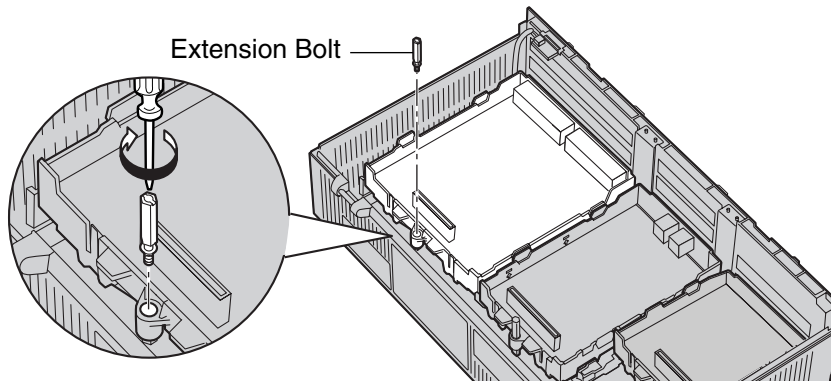
2. Position the card in the open slot, making sure that the tabs on the both sides of the card fit into place. Then, holding the card firmly in place, lower the rear end so that the hole of the card fits over the extension bolt.



#### **CAUTION**

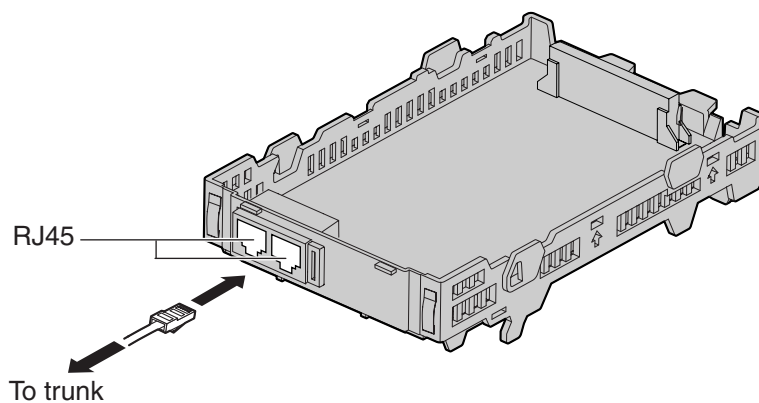
When installing the optional service cards, do not put pressure on any parts of the main board. Doing so may result in damage to the Hybrid IP-PBX.

3. Insert the new extension bolt (included with the card) into the hole on the card, and tighten it to secure the card.



## 2.4 Installing the Trunk Cards

### LCOT2 Card

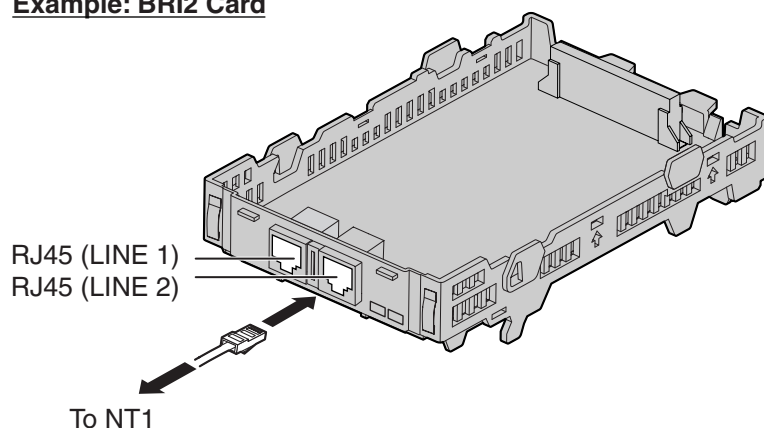


**Accessories (included):** Extension Bolt × 1, Strap × 1, Optional Card Label × 1

**User-supplied (not included):** RJ45 connector

### BRI1/BRI2 Card

#### Example: BRI2 Card



**Accessories (included):** Extension Bolt × 1, Strap × 1, Optional Card Label × 1 (for BRI1 card)

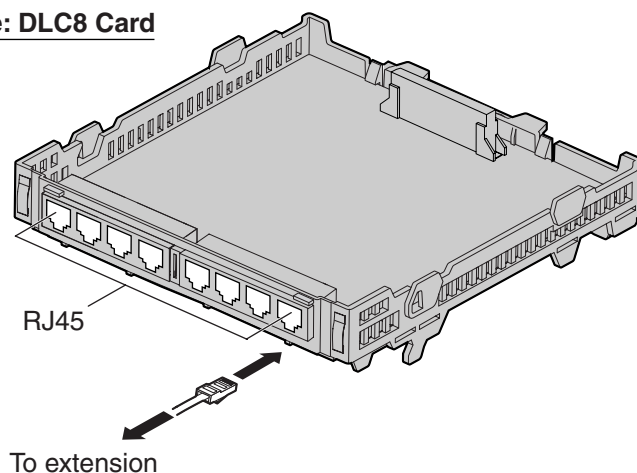
**User-supplied (not included):** RJ45 connector

#### Notes

- 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  $\Omega$  of terminal resistance. For use in point to multi-point connection, the cards must be placed at the end of the bus.

## 2.5 Installing the Extension Cards (DLC8/SLC8)

#### Example: DLC8 Card



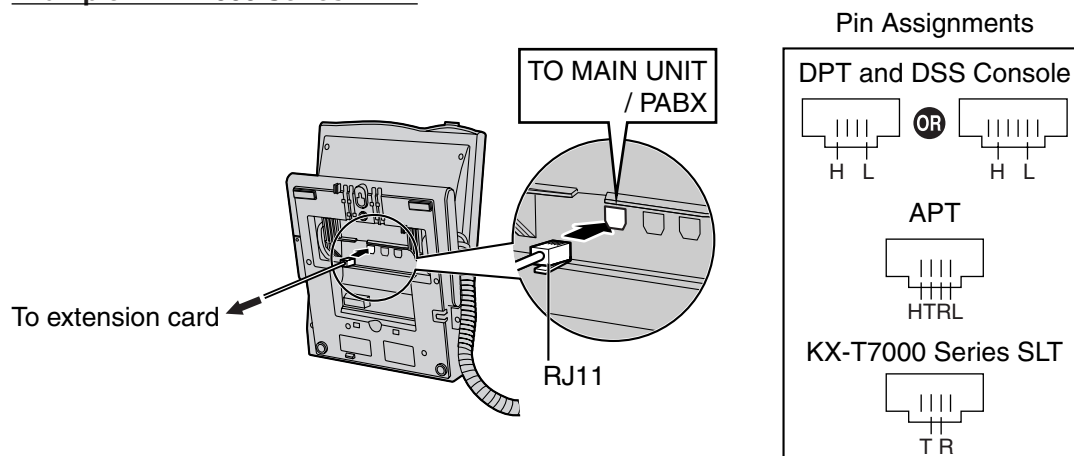
**Accessories (included):** Extension Bolt × 1, Strap × 1

**User-supplied (not included):** RJ45 connector or RJ11 connector\*

\* The connector type may be RJ45 or RJ11 depending on the country/area.

## 2.6 Connecting Extensions

Example: KX-T7600 Series DPT

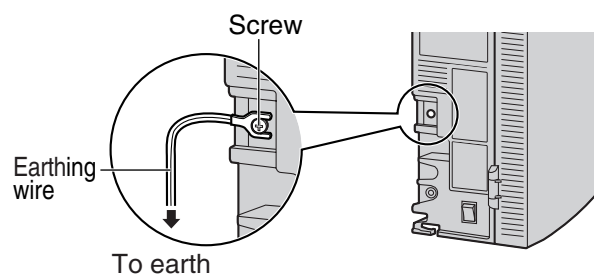


## 2.7 Frame Earth Connection

### **IMPORTANT**

**Connect the frame of the Hybrid IP-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 mm<sup>2</sup> or 18 AWG.

- Proper earthing (connection to earth) is very important to protect the Hybrid IP-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 Hybrid IP-PBX. A permanent connection between earth and the earth terminal of the Hybrid IP-PBX must be made.

## 2.7 Frame Earth Connection

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## ***Section 3***

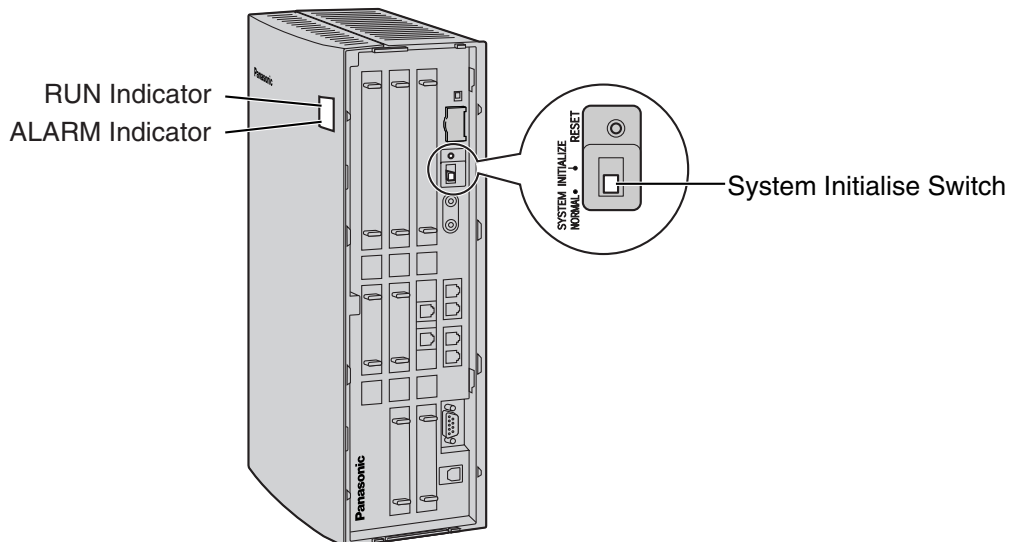
# ***Starting the Hybrid IP-PBX***

## 3.1 Starting the Hybrid IP-PBX

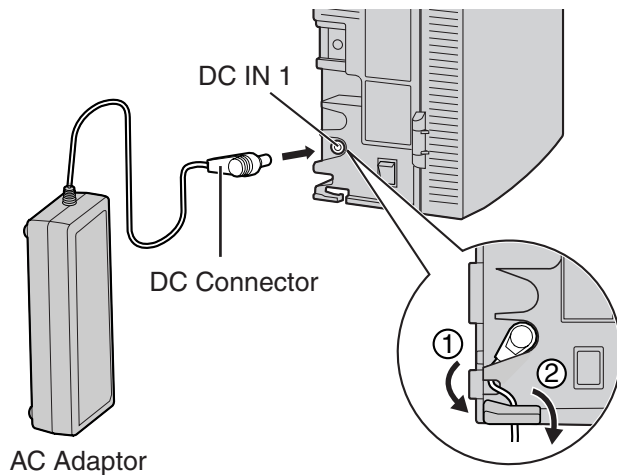
### CAUTION

- The SD Memory Card must be inserted in the SD Memory Card slot of the main board before startup.
- Before touching the System Initialise Switch, discharge static by touching ground or wearing an earthing strap.
- Once you have started the Hybrid IP-PBX and if you unplug the Hybrid IP-PBX, do not perform the following procedures to start the Hybrid IP-PBX again. Otherwise, your programmed data will be cleared.
- The Hybrid IP-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.**

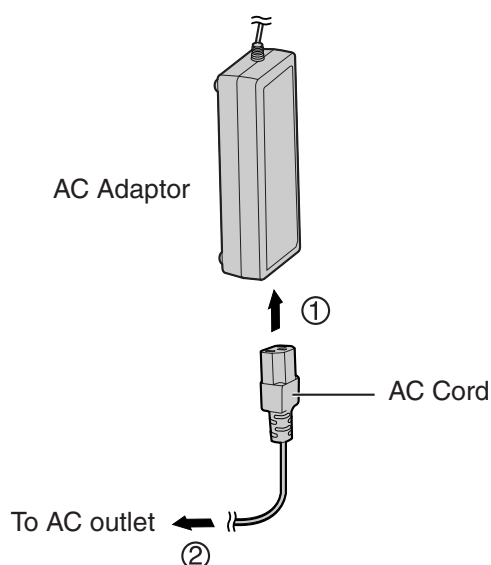
1. Slide the System Initialise Switch to the "SYSTEM INITIALIZE" position.



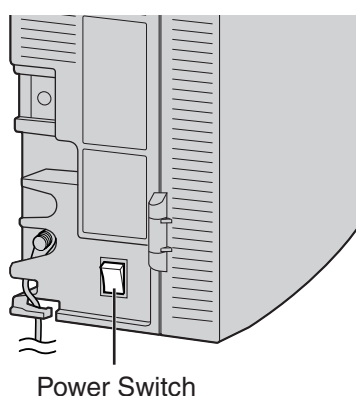
2. Plug the DC connector of the AC adaptor into DC IN 1.



3. Plug the AC cord into the AC adaptor, and then plug the other end into an AC outlet.



4. Turn on the power switch. The RUN indicator will flash.



#### Notes

- For safety reasons, follow the procedures as indicated when turning on the Hybrid IP-PBX.
  - For safety reasons, do not stretch, bend, or pinch the AC cord and the DC cable of the AC adaptor.
5. 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 Hybrid IP-PBX will be initialised to the default values. The DPTs should show the time as 01:00.

#### IMPORTANT

**Use only the AC adaptor (Panasonic PSLP1244/Panasonic PSLP1434) and AC cord supplied with the Hybrid IP-PBX.**

### 3.1 Starting the Hybrid IP-PBX

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## **Section 4**

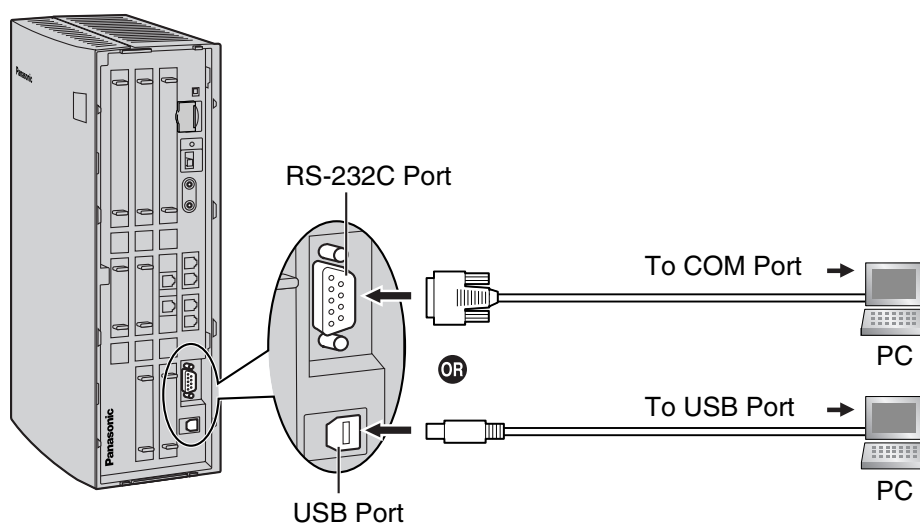
# ***Customising the Hybrid IP-PBX***

## 4.1 Connecting the PC

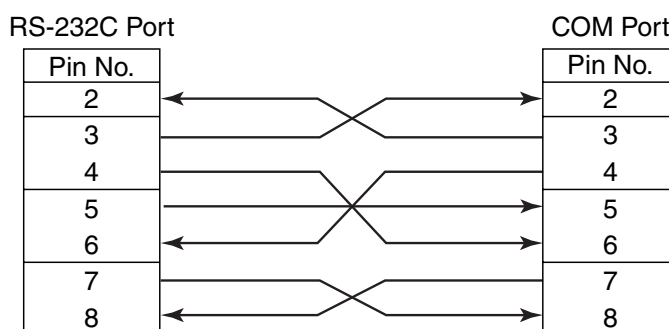
System programming of the Hybrid IP-PBX can be performed using PC software. The software for the KX-TDA15 is shared by both the KX-TDA15 and KX-TDA30, and is referred to as "KX-TDA30 Maintenance Console". KX-TDA30 Maintenance Console's Quick Setup lets you easily configure the Hybrid IP-PBX to receive intercom and trunk calls, as well as apply basic settings such as time and date.

To programme the Hybrid IP-PBX, connect it to the PC with serial interface.

### Serial Interface Connection



RS-232C (Cross Cable)  
Pin Assignments



## 4.2 Installing the KX-TDA30 Maintenance Console

For the system requirements of the PC (e.g., operating system, hardware specifications), refer to "3.3.1 Installing and Starting the KX-TDA30 Maintenance Console" in the Installation Manual.

### Notes

- Make sure to install and use the latest version of the KX-TDA30 Maintenance Console.
- To connect the PC to the Hybrid IP-PBX via USB, the KX-TDA USB driver must be installed. Follow the instructions of the wizard to install the KX-TDA USB driver. When the Hybrid IP-PBX is first connected to the PC via USB, you may be asked to select the appropriate USB driver. Browse for and select the KX-TDA USB driver that was installed previously.
- The contents and design of the software are subject to change without notice.
- Screen shots reprinted with permission from Microsoft Corporation.



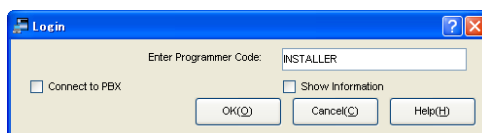
1. Copy the setup file of the KX-TDA30 Maintenance Console to your PC. (Its icon is shown here, on the left.)
2. Double-click the setup file to run the installer.
3. Follow the on-screen instructions provided by the installation wizard.

## 4.3 Programming the Hybrid IP-PBX

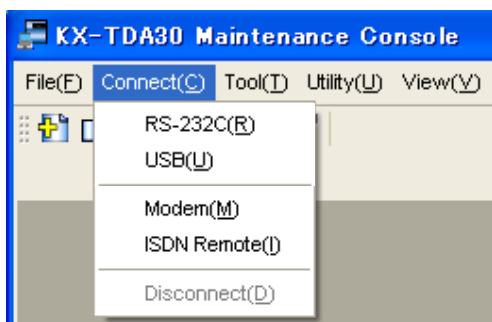
### Starting the KX-TDA30 Maintenance Console and Assigning the Basic Items (Quick Setup)

When you start the KX-TDA30 Maintenance Console with the Installer Level Programmer Code and connect to the Hybrid IP-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 Hybrid IP-PBX with a USB cable or RS-232C.
2. Start the **KX-TDA30 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**.



### 4.3 Programming the Hybrid IP-PBX

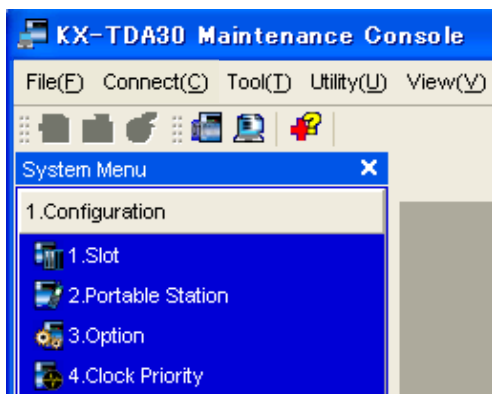
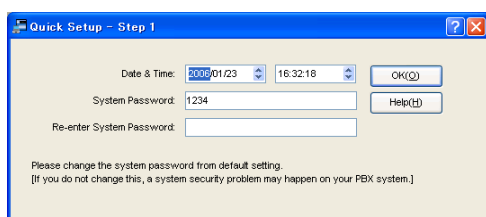


5.
  - a. Click **Connect** → **USB** or **RS-232C** from the menu bar, depending on the serial interface connection with the Hybrid IP-PBX.
  - b. In the next screen, enter the system password for installer (default: **1234**).
  - c. Click **OK**.

6. **When country/area data do not match:**

- a. Click **OK** to replace the country/area data of the Hybrid IP-PBX. Replacement may take several minutes to complete.
- b. Follow the procedure described in "Starting the Hybrid IP-PBX" and restart the Hybrid IP-PBX.
- c. Repeat step 5 to reconnect the KX-TDA30 Maintenance Console to the Hybrid IP-PBX.

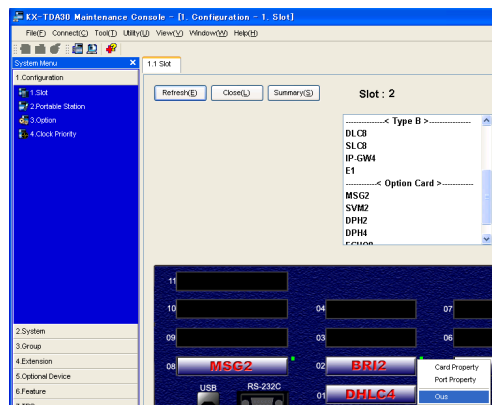
7. Follow the instructions of the Quick Setup wizard and assign the basic items (Quick Setup).



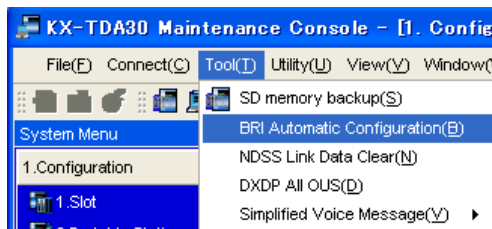
The system menu appears. You may now begin programming the Hybrid IP-PBX.



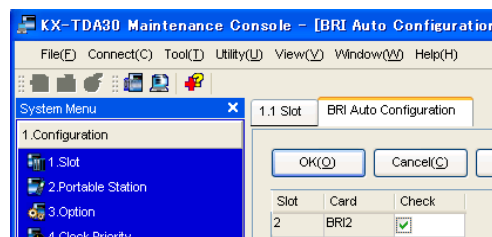
## Assigning the BRI Setting (Automatic Configuration)



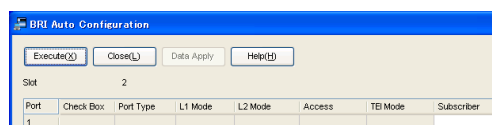
1.
  - a. Under **Configuration**, click **Slot**.
  - b. Move the mouse pointer over the BRI card. A menu will be shown under the mouse pointer.
  - c. Click **Out** to set the card to out-of-service status.



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



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



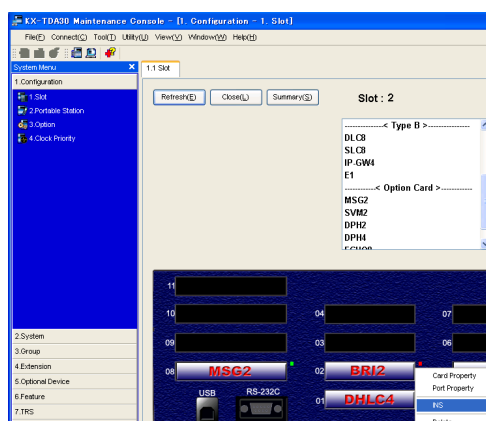
4.
  - a. Enter the subscriber number for the desired ports in **Subscriber**.
  - b. Click **Execute**.

### Note

Network settings are automatically set.

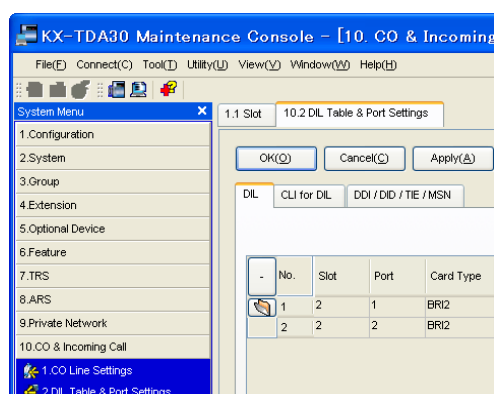
- c. Click **Check Box** of the desired ports.
- d. Click **Data Apply**.
- e. Click **Close**.

## 4.3 Programming the Hybrid IP-PBX



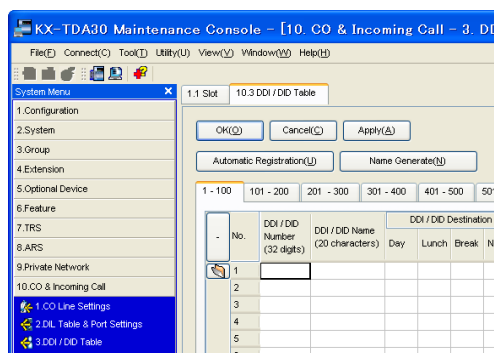
5. a. Under **Configuration**, click **Slot**.
- b. Move the mouse pointer over the BRI card, then click **INS** to set the card to in-service status.

## Assigning the Incoming Trunk Call Destination



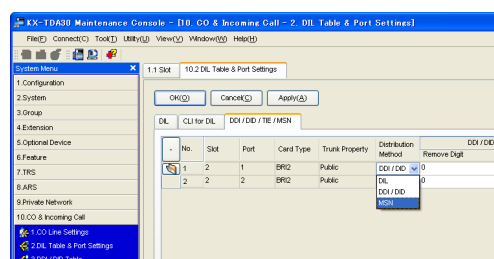
### For analogue trunk users (DIL Setting):

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**.



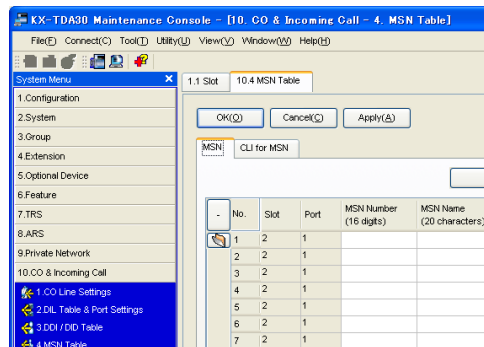
### For ISDN trunk users (DDI Setting):

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



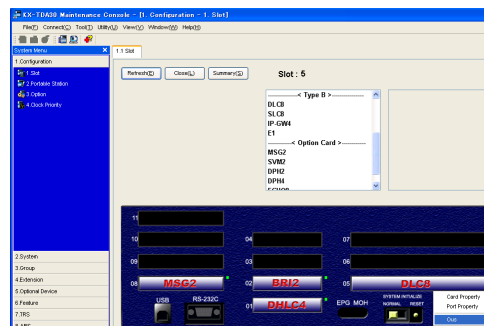
### For ISDN trunk users (MSN Setting):

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**.

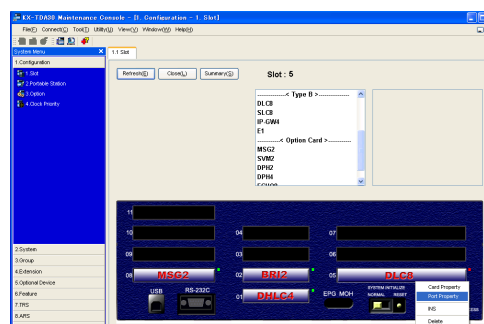


5. Click **MSN Table**.
6. Click the **MSN** tab.
7. Configure the settings as required.
8. Click **OK**.

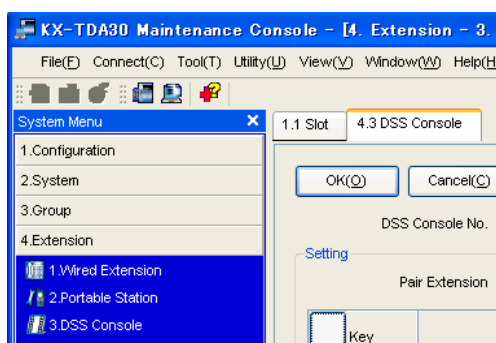
## Setting an Extension Port to Use a DSS Console



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

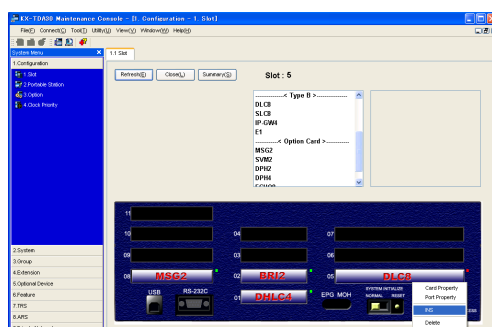


4. Move the mouse pointer over the card again, then click **Port Property**.
5. For **DPT Type**, set the **Type** to **DSS** and assign the **Location No.**
6. Click **OK**.



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**.

## 4.3 Programming the Hybrid IP-PBX



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**.

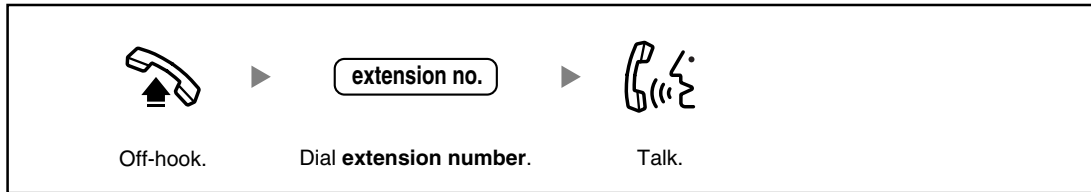
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## ***Section 5***

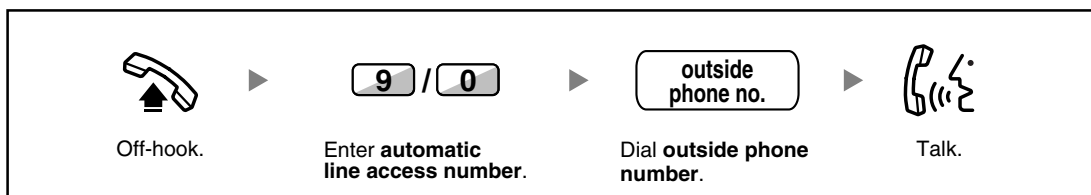
### ***Confirming the Connection***

## 5.1 Making Calls

### To call another extension



### To call an outside party





The KX-TDA15E, KX-TDA15NE, KX-TDA15GR, and KX-TDA15CE 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

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>**

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