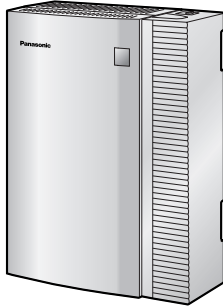


# Panasonic



## Hybrid IP-PBX Getting Started

Model No. **KX-TDA15**

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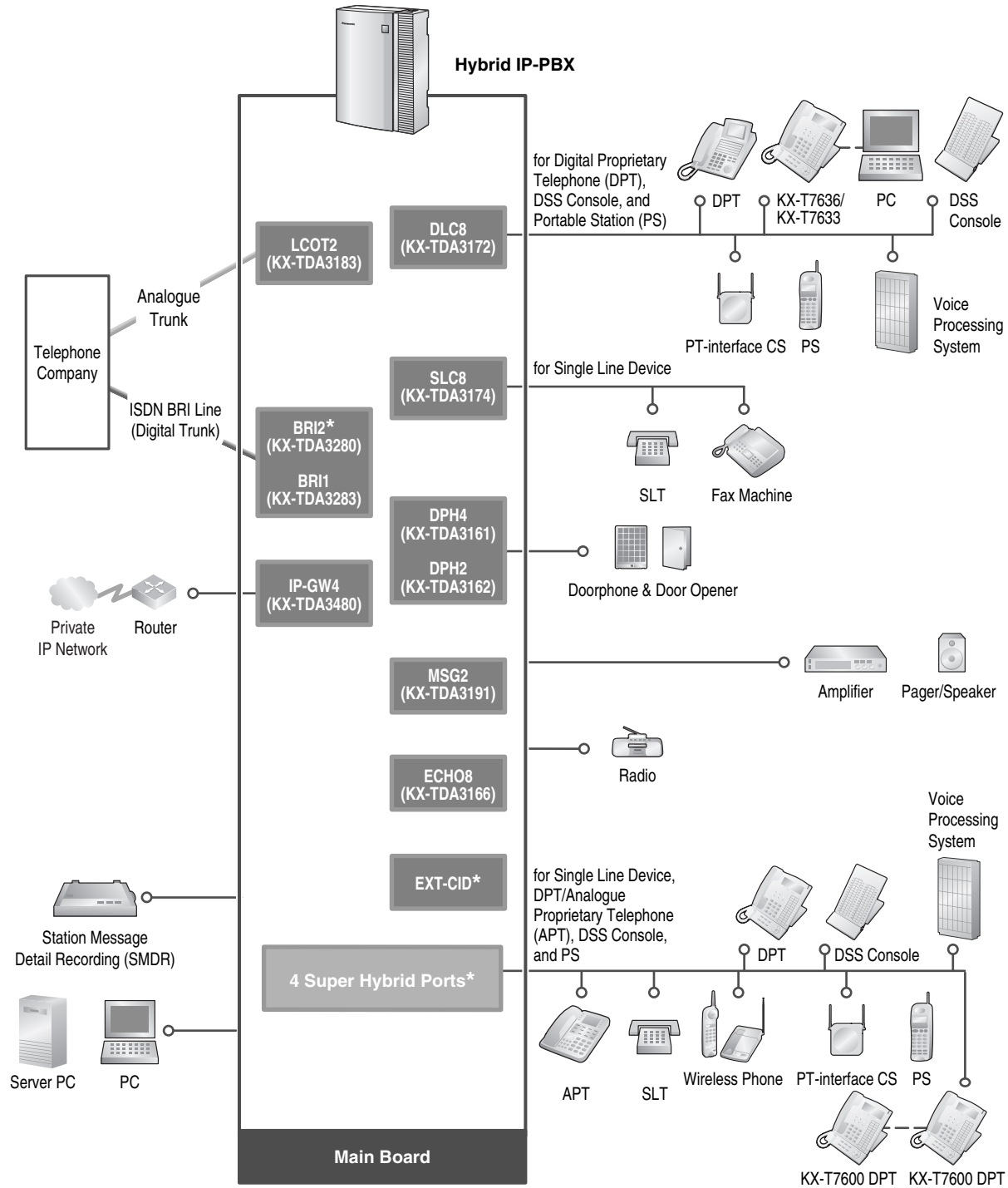


Thank you for purchasing the Panasonic Hybrid IP-PBX, KX-TDA15.  
Please read this manual carefully before using this product and save this manual for future use.

**KX-TDA15: Version 1.1**

# 1 Before Installation

## 1.1 System Connection Diagram



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

## 1.2 Unpacking

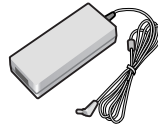
### Check the package contents.

Main Unit × 1

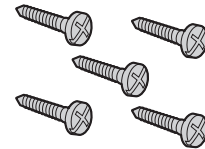
CD-ROM (including manuals, etc.) × 1



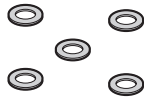
AC Cord\* × 1



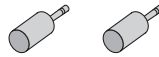
AC Adaptor × 1



Screw × 5



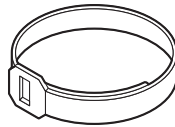
Washer × 5



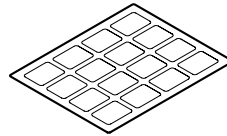
Mini Plug (for pager and music source) × 2



SD Memory Card × 1



Main Strap × 1



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 cable and installation conditions.

- ✓ An RS-232C or USB cable for PC connection
- ✓ Connector (RJ45) for trunk and extension connections

#### Note

- Use a twisted pair cable for the RJ45 connector.

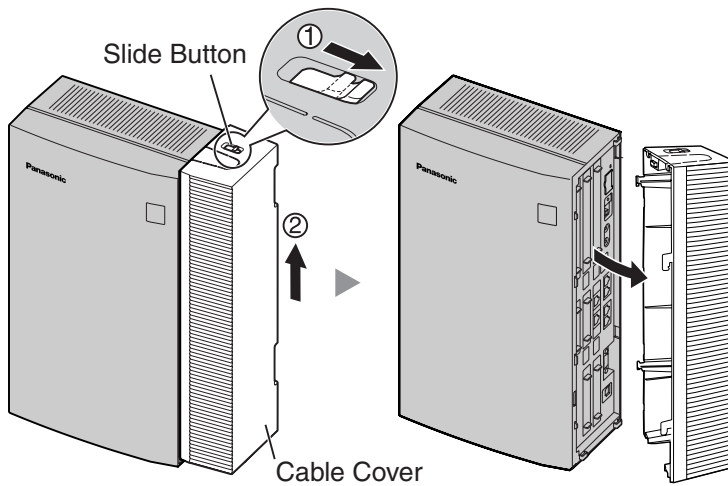
---

## 2 Installation

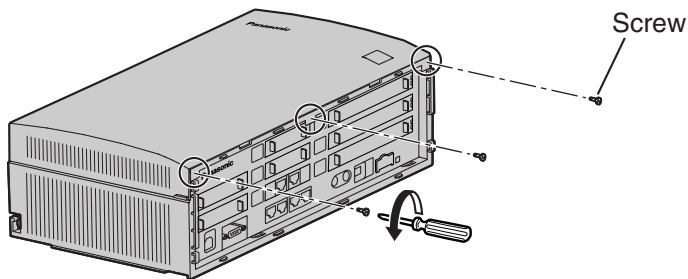
### 2.1 Opening/Closing the Covers

#### Opening the Covers

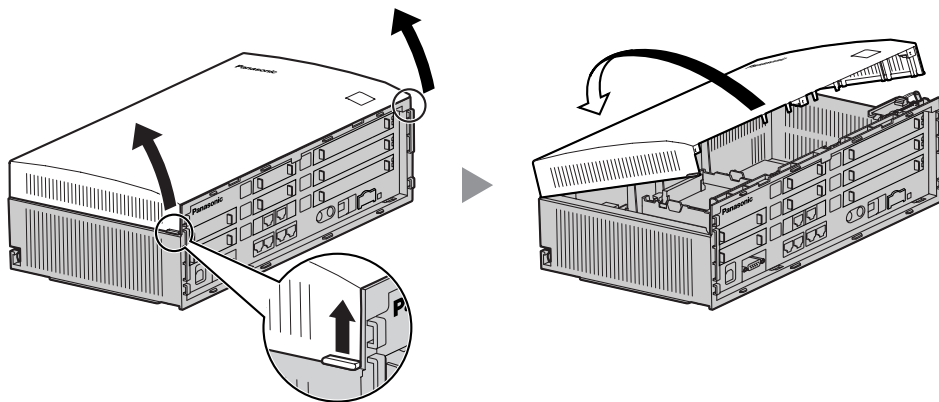
1. Pull the slide button to the right and, holding it, slide the cable cover upwards. Then turn the cable cover slightly to remove it.



2. Remove the three screws.



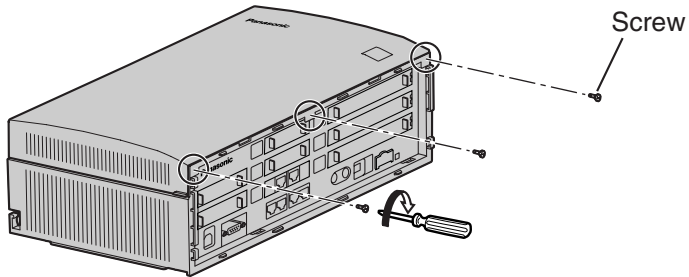
3. Holding the protrusions on both sides of the front cover, swing the cover open.



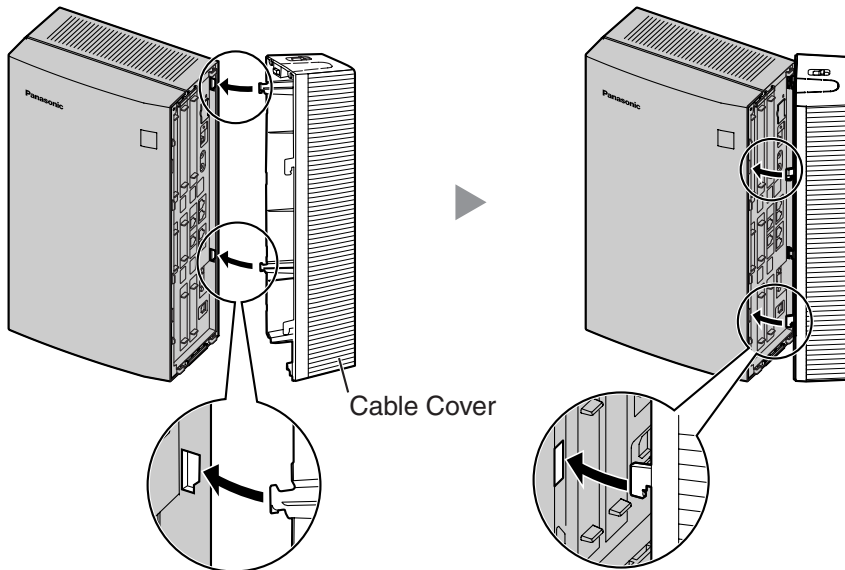
---

## Closing the Covers

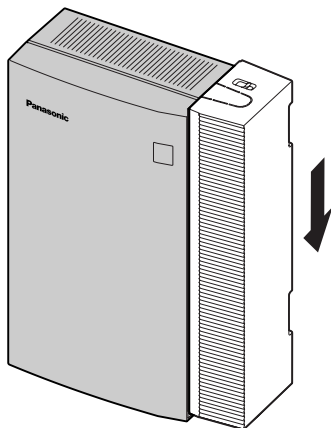
1. Close the front cover, then tighten the three screws.



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.

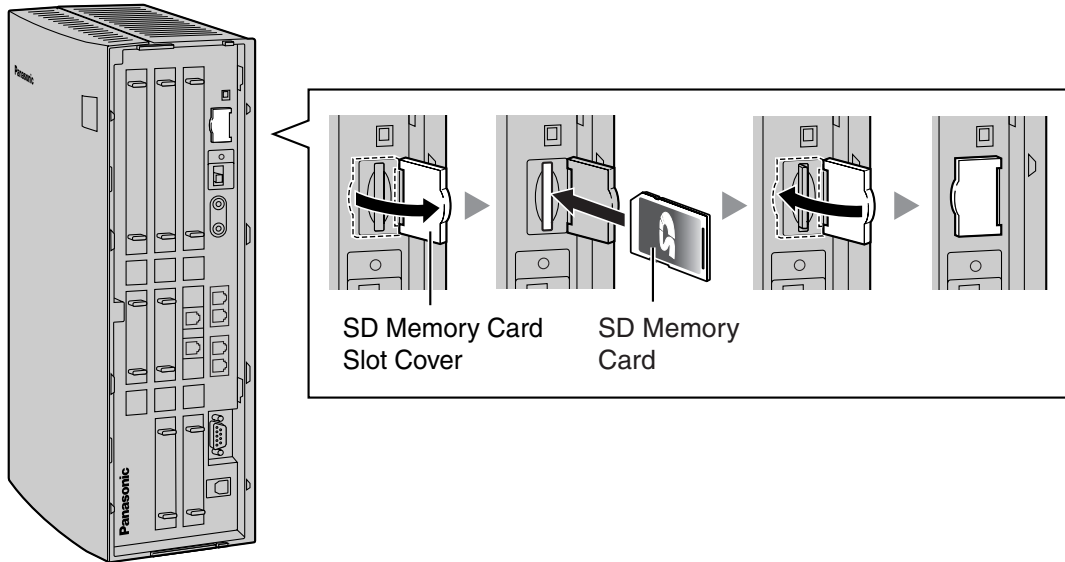


3. Slide the cable cover down until it locks.



## 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 start up.**

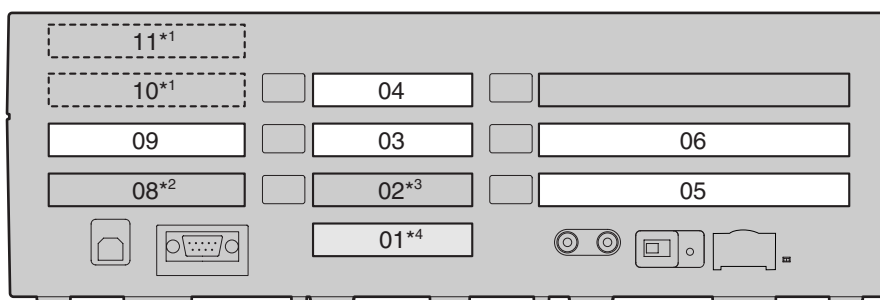


### CAUTION

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	09	10	11
LCOT2	1	✓	✓					
BRI2	1	✓						
BRI1	1	✓	✓					
IP-GW4	1			✓	✓			
DLC8	1 <sup>1</sup>			✓	✓			
SLC8				✓	✓			
DPH4	1 <sup>2</sup>					✓		
DPH2						✓		
ECHO8	1					✓	✓	✓
MSG2	2					✓	✓	✓

<sup>1</sup> Only one of either DLC8 or SLC8 card can be installed.

<sup>2</sup> Only one of either 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:

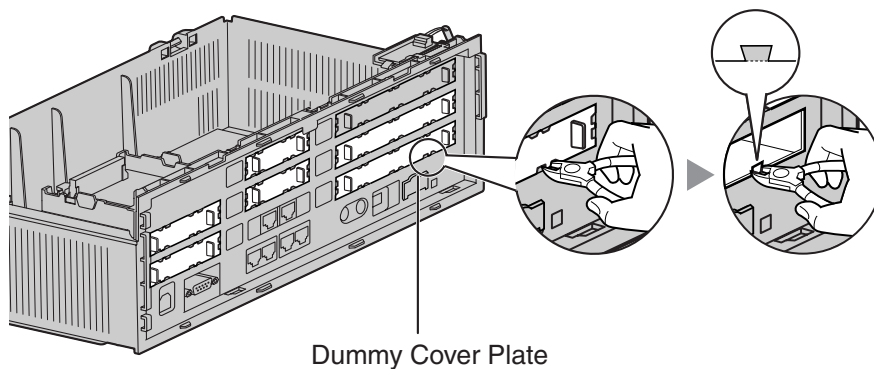
- BRI2 + BRI2
- BRI2 + BRI1
- BRI2 + LCOT2
- BRI2 + BRI1 + LCOT2

### **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

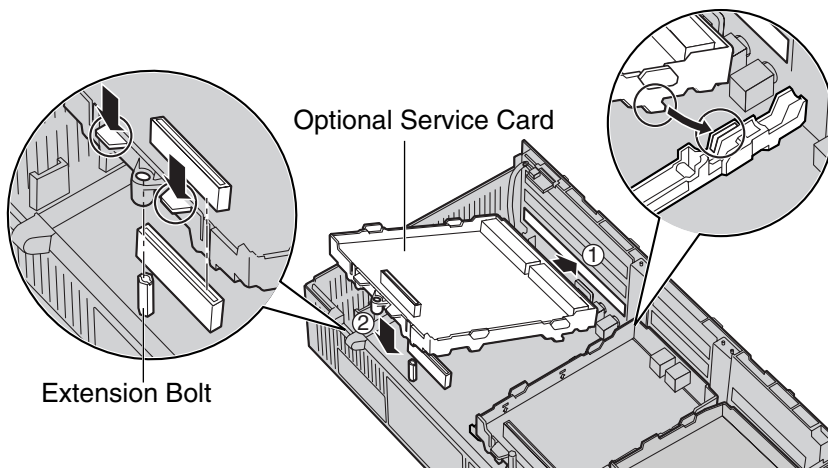
1. Before installing the optional service cards, cut and remove the appropriate dummy cover plates from the main unit.



### **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.

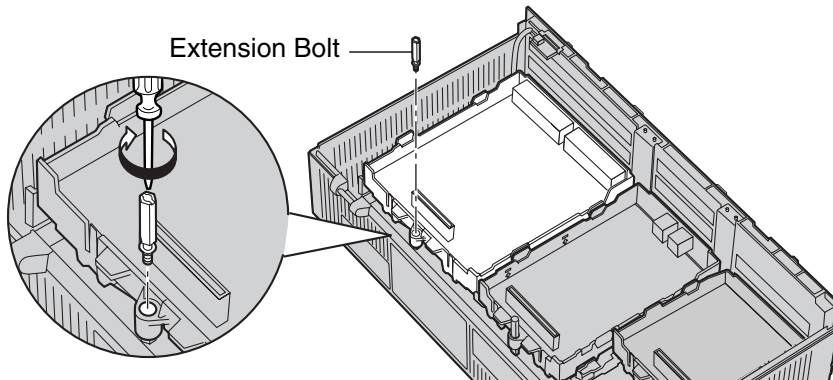


### **CAUTION**

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.

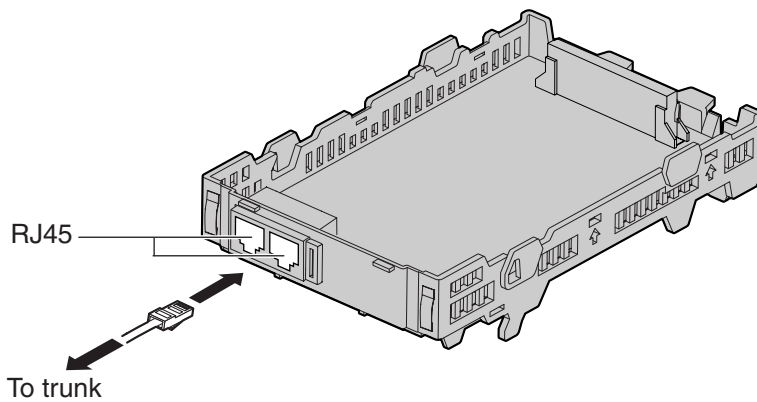
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3. Insert the new extension bolt (included with the card) into the hole on the card, and tighten it to secure the card.



## 2.4 Installing the Trunk Cards

### LCOT2 Card



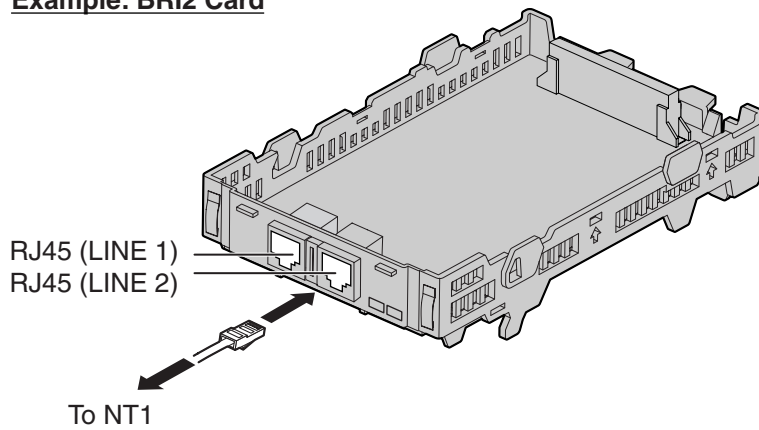
**Accessory (included):** Extension Bolt × 1, Strap × 1, Optional Card Label × 1

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

---

## BRI1/BRI2 Card

### Example: BRI2 Card



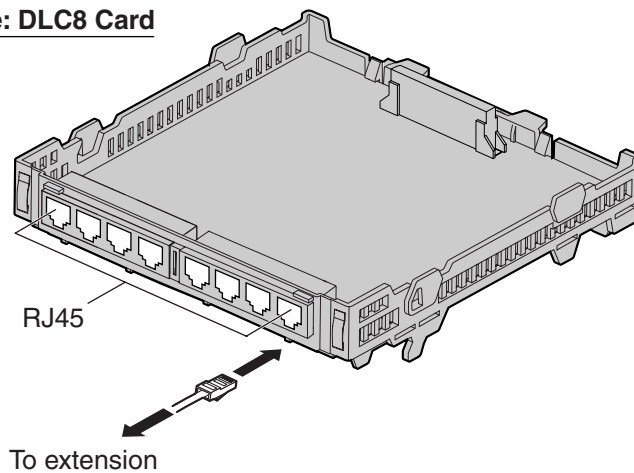
**Accessory (included):** Extension Bolt × 1, Strap × 1, Optional Card Label × 1 (for BRI1 card)  
**User-supplied (not included):** RJ45 connector

### 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 Ω 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)

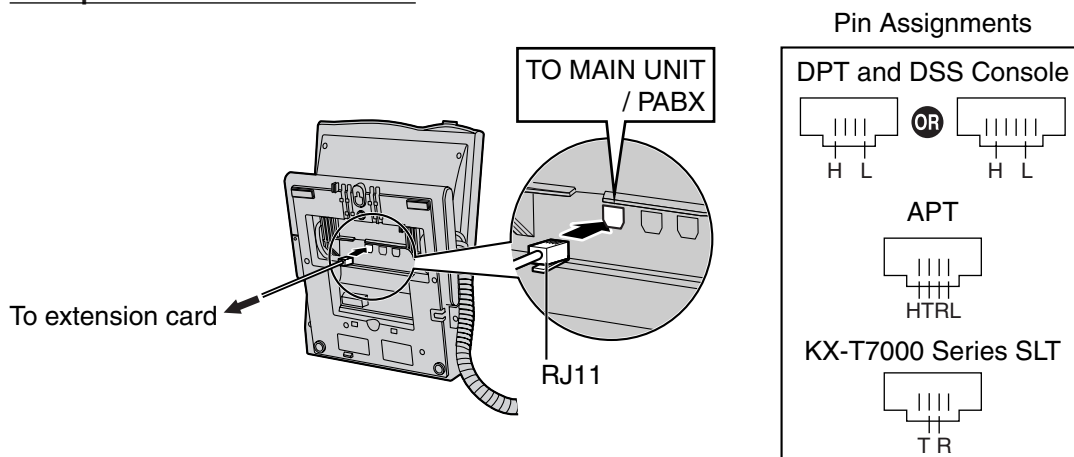
### Example: DLC8 Card



**Accessory (included):** Extension Bolt × 1, Strap × 1  
**User-supplied (not included):** RJ45 connector

## 2.6 Connecting Extensions

Example: KX-T7600 Series DPT



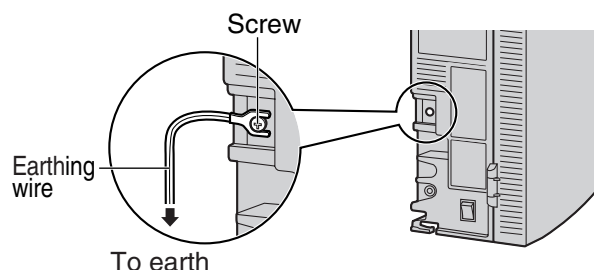
## 2.7 Frame Earth Connection

### **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.

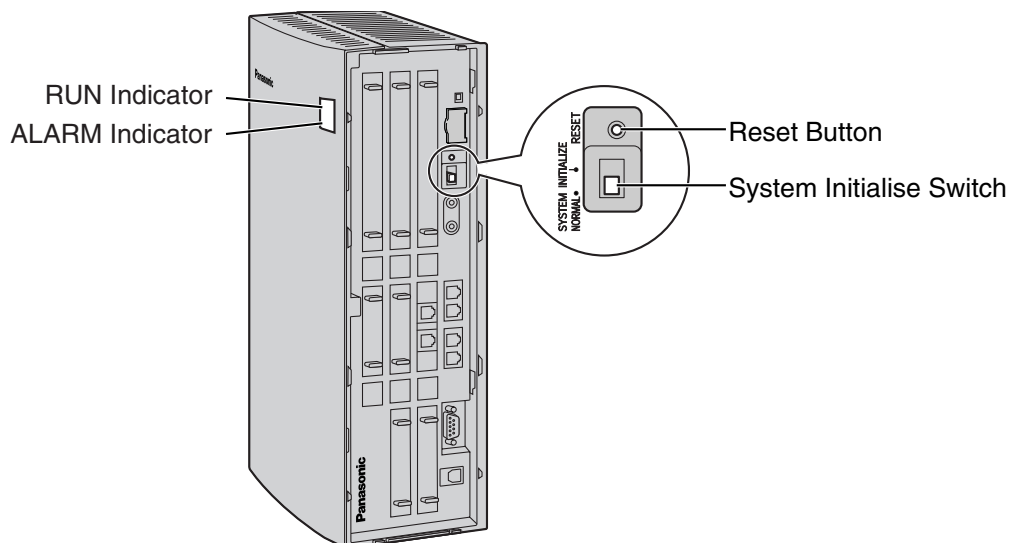


- Proper earthing (connection to earth) is very important to protect the Hybrid IP-PBX from the bad effects of external noise or to reduce the risk to the user of electrocution in the case of lightning strikes.
- The earth wire of the AC cable has an effect against the external noise and lightning strikes, 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.

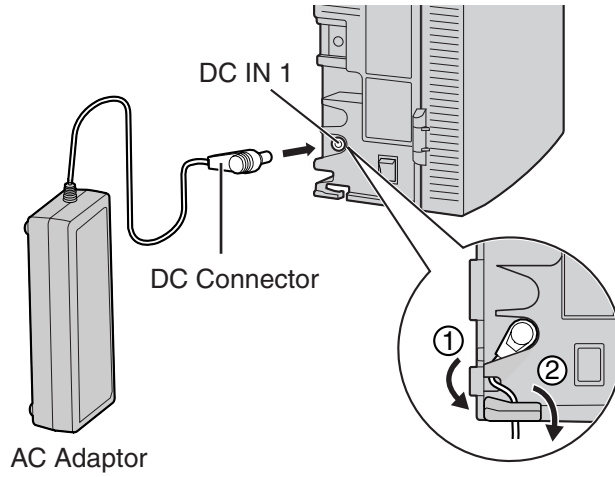
## 3 Starting the Hybrid IP-PBX

### **CAUTION**

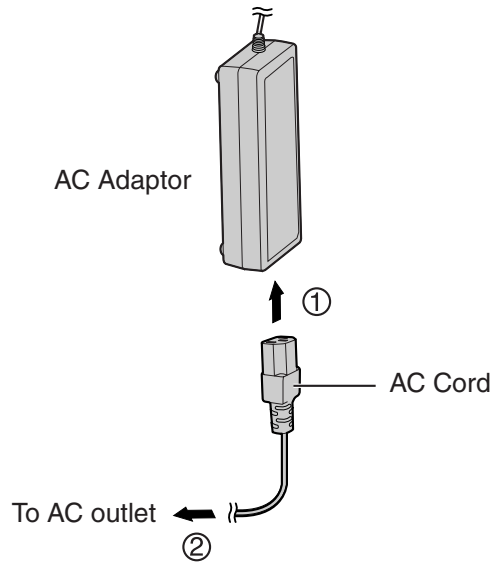
- SD Memory Card must be inserted in the SD Memory Card slot of the main board before start up.
  - Before touching the System Initialise Switch and the Reset Button, discharge static by touching ground or wearing an earthing strap.
  - Once you have started the Hybrid IP-PBX and if you unplug the Hybrid 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 socket-outlet is located/installed near the equipment and is easily accessible.**
1. Set the System Initialise Switch to the "SYSTEM INITIALIZE" position.



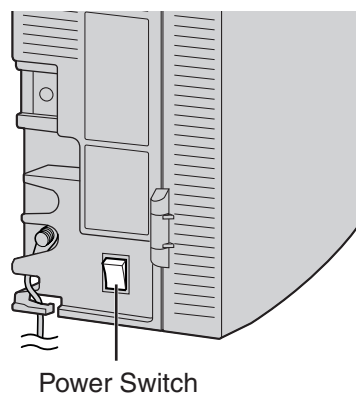
2. Plug the DC connector of the AC adaptor into DC IN 1.



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.



**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. Press the Reset Button with a pointed tool. (The RUN indicator will flash.)
  6. While the RUN indicator is flashing (within about 10 s), return the System Initialise Switch 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 be kept 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.

**Note**

Use the same types of AC adaptor and AC cord that are supplied with the Hybrid IP-PBX only.

## 4 Customising the Hybrid IP-PBX

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 the “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.

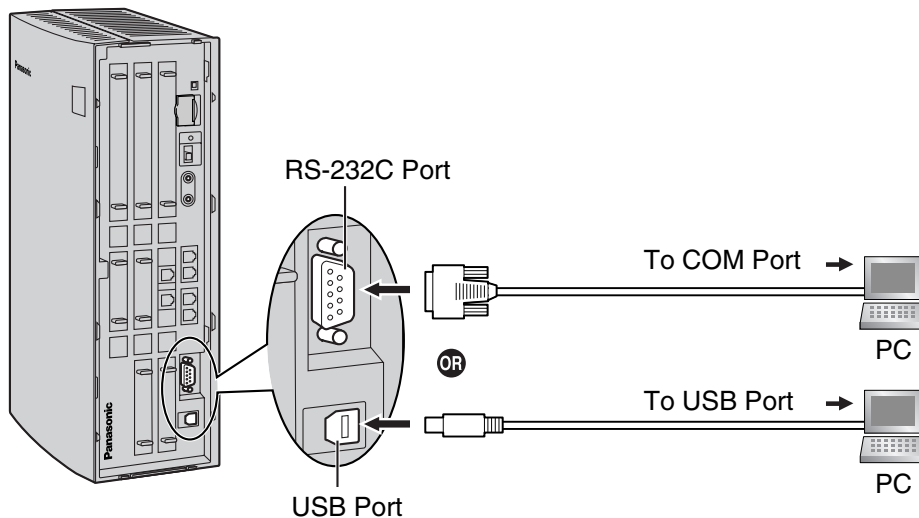
### **Note**

The contents and design of the software are subject to change without notice.

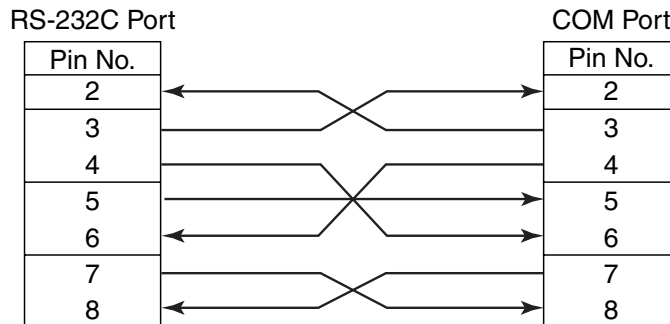
### 4.1 Connecting the PC

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

- Screen shots reprinted with permission from Microsoft Corporation.
- To connect the PC to the Hybrid IP-PBX via USB, the KX-TDA USB driver must have been installed. Follow the instructions of the wizard to install the KX-TDA USB driver.



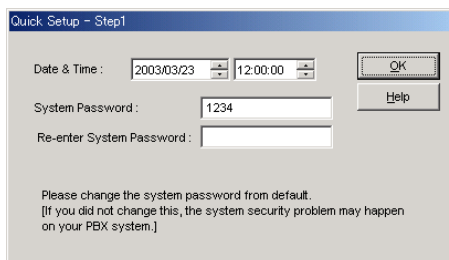
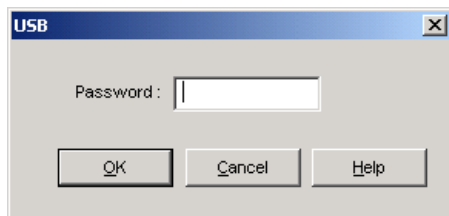
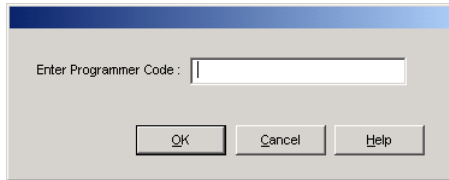
1. Save the setup file of the KX-TDA30 Maintenance Console on your PC.
2. Double-click the icon to execute the setup file.
3. Follow the instructions of the wizard.

## 4.3 Programming the Hybrid IP-PBX

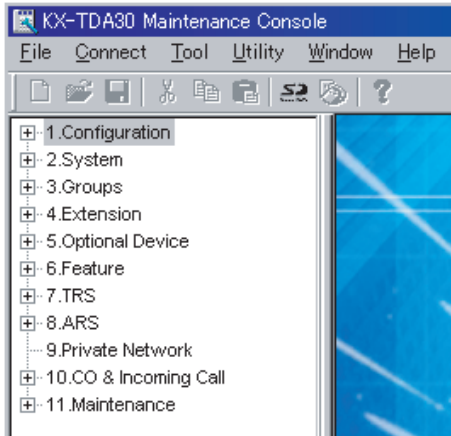
### Starting the KX-TDA30 Maintenance Console and Assigning the Basic Items (Quick Setup)

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 setup the following basic items:

- Date and Time of the Hybrid IP-PBX. The date and time set on the PC will be used.
- System Password for installer for PC programming.
- Operator extension numbers. Operator extensions for all time modes (day/lunch/break/night) can be assigned.
- Flexible Numbering type to pattern 1 or pattern 2. If pattern 1 (with ✖) is selected, "✖" must prefix all feature numbers (except access numbers) when an extension user wants to use a feature.
- Operator call and Idle Line Access/ARS numbers (0 or 9). The feature numbers for operator call and Idle Line Access/ARS can be selected.
- Remote Maintenance Dial Number. Enter the complete telephone number of the PBX (including the country code). When necessary, this number will be used to access the PBX from a remote location for maintenance purposes.

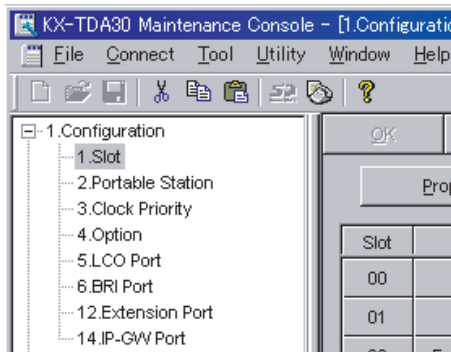


1. Connect the PC to the Hybrid IP-PBX with a USB cable.
2. Start the **KX-TDA30 Maintenance Console** from the start menu.
3.
  - a. Type the Installer Level Programmer Code (default: **1234**).
  - b. Click [OK].
4. Click "**Connect**" → "**USB**" or "**RS-232C**" from the menu bar, depending on the serial interface connection with the Hybrid IP-PBX.
5.
  - a. Type the system password for installer (default: **1234**).
  - b. 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 "3 Starting the Hybrid IP-PBX" and restart the Hybrid IP-PBX.
  - c. Repeat steps 2 to 5 to restart the KX-TDA30 Maintenance Console.
7. Follow the instructions of the wizard and assign the basic items (Quick Setup).

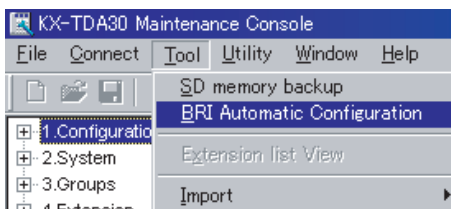


The programme menu appears.

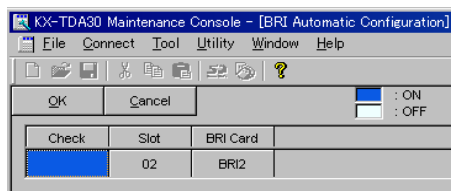
## Assigning the BRI Setting (Automatic Configuration)



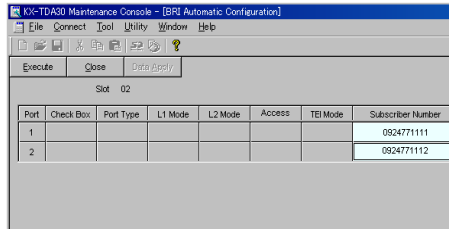
1.
  - a. Double-click "**Configuration**".
  - b. Double-click "**Slot**".
  - c. Change the status of the BRI card to **OUS**.
  - d. Click [Cancel].



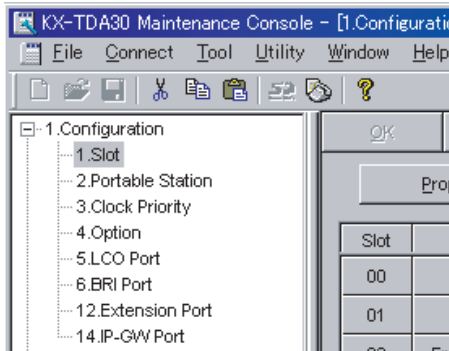
2. Click "**Tool**" → "**BRI Automatic Configuration**" from the menu bar.



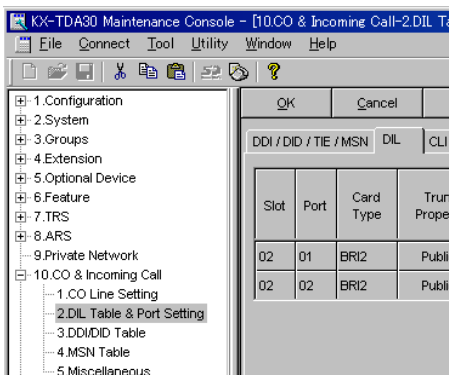
3.
  - a. Click "**Check**" to turn on the BRI card.
  - b. Click [OK].



4.
  - a. Type the **Subscriber Number** for the desired ports.
  - b. Click [Execute].  
ISDN line data such as P-P/P-MP, TEI Mode are automatically set.
  - c. Click "**Check Box**" of the desired ports.
  - d. Click [Data Apply].
  - e. Click [Close].
5.
  - a. Double-click "**Slot**".
  - b. Change the status of the BRI card to **INS**.
  - c. Click [Cancel].

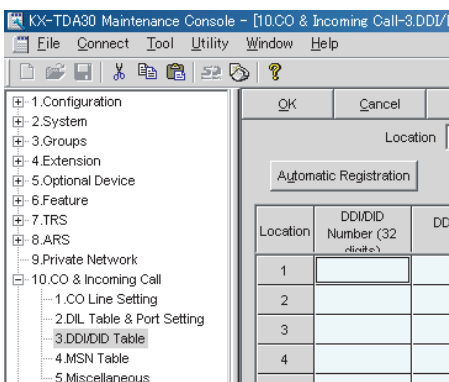


## Assigning the Incoming Trunk Call Destination



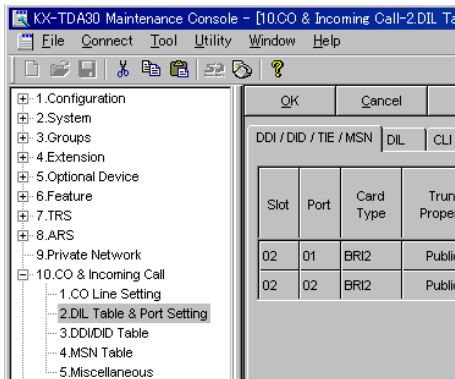
### For analogue trunk user (DIL Setting):

1. Double-click "**CO & Incoming Call**".
2. Double-click "**DIL Table & Port Setting**".
3. Click the "**DIL**" tab.
4. For necessary items, enter the proper numbers and selections.
5. Click [OK].



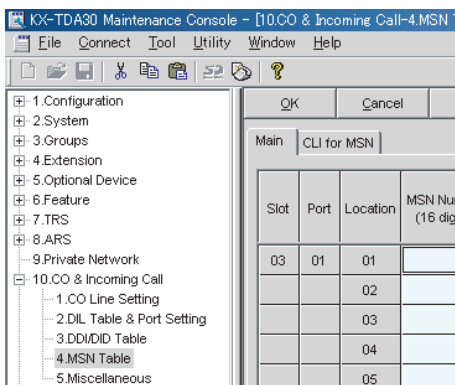
### For ISDN trunk user (DDI Setting):

1. Double-click "**CO & Incoming Call**".
2. Double-click "**DDI/DID Table**".
3. For necessary items, enter the proper numbers and selections.
4. Click [OK].



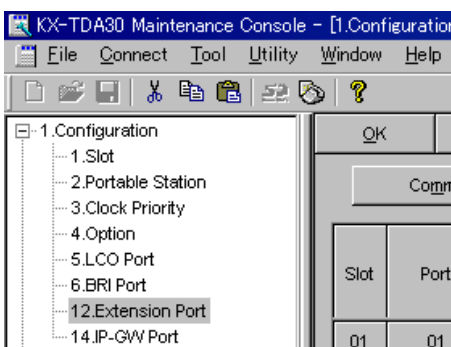
#### For ISDN trunk user (MSN Setting):

1. Double-click "CO & Incoming Call".
2. Double-click "DIL Table & Port Setting".
3. Click the "DDI / DID / TIE / MSN" tab.
4. Set the "Incoming Type" of the desired ports to "MSN".
5. Click [OK].

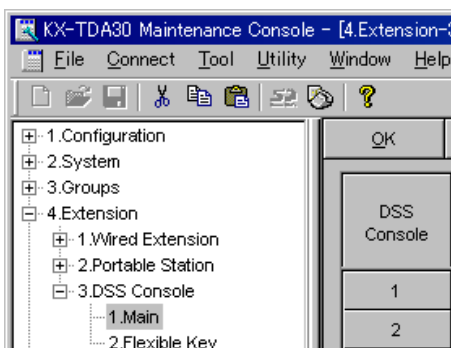


6. Double-click "MSN Table".
7. Click the "Main" tab.
8. For necessary items, enter the proper numbers and selections.
9. Click [OK].

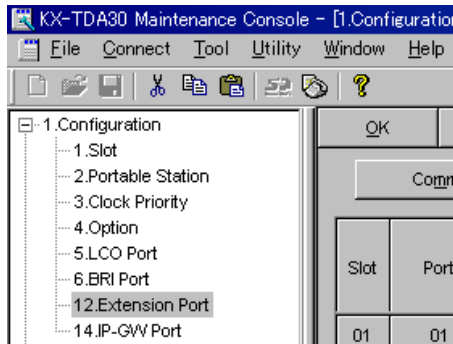
## Setting the Extension Port for Using DSS Console



1. Double-click "Configuration".
2. Double-click "Extension Port".
3. Change the connection of the desired port to **OUS**.
4. For **DPT Property**, set the **Type** to "DSS" and assign the **Location** number.
5. Click [OK].



6. Double-click "Extension".
7. Double-click "DSS Console".
8. Double-click "Main".
9. Type the **Pair Extension Number**.
10. Click [OK].
11. Double-click "Flexible Key".
12. For necessary items, enter the proper numbers and selections.
13. Click [OK].

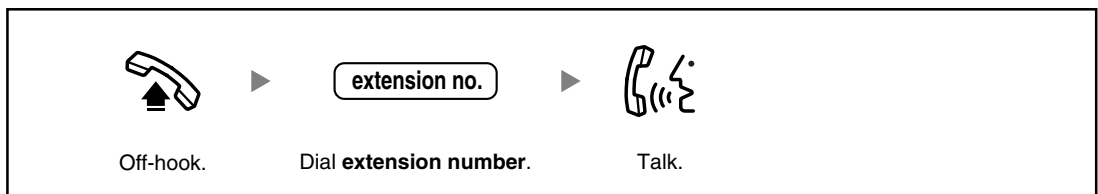


14. Double-click "**Configuration**".
15. Double-click "**Extension Port**".
16. Change the connection of the appropriate port to **INS**.
17. Click [OK].

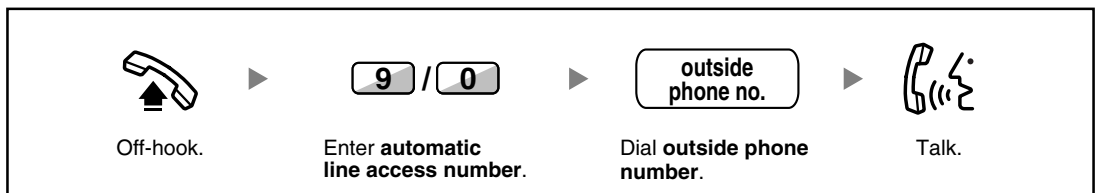
## 5 Confirming the Connection

### 5.1 Making Calls

#### To call another extension



#### To call an outside party





The KX-TDA15E, the KX-TDA15NE, and the KX-TDA15GR are designed to interwork with the:

- Analogue Public Switched Telephone Network (PSTN) of a European country
- Pan-European Integrated Services Digital Network (ISDN) using ISDN basic rate access

We, Panasonic Communications Company (U.K.) Ltd., declare that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

If you would like to receive a copy of the original Declaration of Conformity of our products which relates to the R&TTE, please visit our web address:

<http://doc.panasonic.de>

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