# *System Highlights*

## *System Capacity*

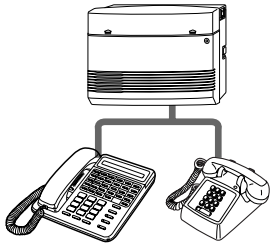
| | | |
|---|---|---|
| **Basic System** | Extensions | 8 |
| | Exchange lines | 3 |
| **Expansion** | Maximum extensions | 24 |
| | Maximum exchange lines | 6 |

## *Special System Points*

### System Expansion

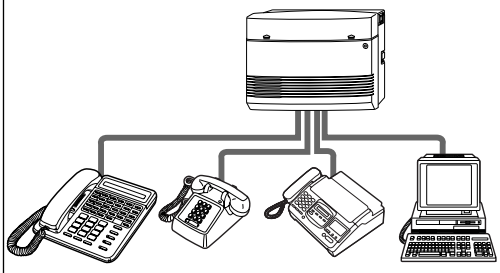
This system can expand the exchange lines and extension capacity by installing an optional card.

☞ 2– 24



### Hybrid

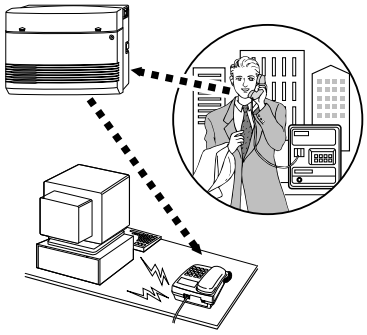
This system can accept Panasonic analogue proprietary telephones. Also, single line devices such as single line telephones, facsimiles and data terminals can be connected.



### Calling from the outside (Direct Inward System Access)

External callers can call extensions in the system. If you install an optional card, an outgoing message will greet the caller and give information about how to access an extension.

☞ 3– 22



# *Precautions*

**FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY.**

This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 5 amp fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

**WARNING : THIS APPLIANCE MUST BE EARTHED.**
**IMPORTANT** : The wires in this mains leads are coloured in accordance with the following code:

| | |
|---|---|
| Green-and-yellow: | Earth |
| Blue: | Neutral |
| Brown: | Live |

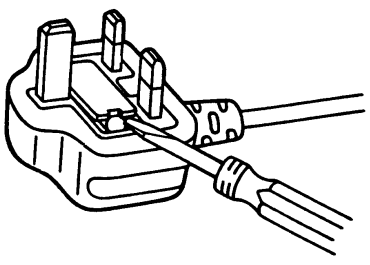
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked with the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

**How to replace the fuse** : Open the-fuse compartment with a screwdriver and replace the fuse and fuse cover.



# *Precautions*

This equipment should be used on PSTN lines requiring 2-wire Loop calling unguarded clearing with Loop Disconnect or DTMF address signalling.
The equipment must be connected to direct extension lines and a payphone should not be connected as an extension.

**Operation in Power Failure**
In the event of a power failure, two single line telephones connected to extension ports 01 and 09 will be directly connected to the following Exchange lines:

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

- Set the Dialling Mode (Tone or Pulse) of your telephone, according to the Exchange line.
- 999 and 112 can be dialled on the apparatus for the purpose of making outgoing calls to the BT emergency (999) and (112) service.

Satisfactory performance can not be guaranteed for every allowed combination of host and subsidiary apparatus.

999 and 112 can be dialled on the apparatus after accessing the Exchange line for the purpose of making outgoing calls to the BT emergency (999) and (112) service.

During dialling, this apparatus may tinkle the bells of other telephones using the same line. this is not a fault and we advise you not to call Fault Repair Service.

'**Prevention of access by user.** This apparatus is intended to be accessible only to authorised personnel. This apparatus must be installed in a locked room or similar environment, such that user access is prevented. Failure to prevent such user access will invalidate any approval given to this apparatus.'

**Caution**:
Do not push the PAUSE button more than twice following the initial access digit (or digits). Failure to comply with this requirement may result in unsatisfactory operation.

**Notice**:
This PBX should only be used on B•T lines on which specific BT services or facilities are provided.

**CAUTION**

**Danger of explosion if battery is incorrectly replaced.**

**Replace only with the same or equivalent type recommended by the manufacturer.**
**Dispose of used batteries according to the manufacturer's instructions.**

# *Precautions*

- The apparatus is designed to be installed and operated under controlled conditions of ambient temperature and a relative humidity not greater than 60 %.
- Avoid installing the apparatus in damp or humid environments, such as bathrooms or swimming pools.
- The apparatus shall not be exposed to dripping or splashing.
- Keep the unit away from heating appliances and electrical noise generating devices such as fluorescent lamps, motors and televisions. These noise sources can interfere with the performance of the Advanced Hybrid System.
- This unit should be kept free of dust, moisture, high temperature (more than 40 ˚C) and vibration, and should not be exposed to direct sunlight.
- Never attempt to insert wires, pins, etc. into the vents or other holes of this unit.
- If there is any trouble, disconnect the unit from the telephone line. Plug a single line telephone into the telephone line. If the telephone operates properly, do not reconnect your system to the line until the system has been repaired. If the telephone does not operate properly, chances are that the problem is in the telephone network, and not in your system.
- Do not use benzine, thinner, or the like, or any abrasive powder to clean the cabinet. Wipe it with a soft cloth.

**WARNING**

THIS UNIT MAY ONLY BE INSTALLED AND SERVED BY QUALIFIED SERVICE PERSONNEL.

WHEN A FAILURE OCCURS WHICH RESULTS IN THE INTERNAL PARTS BECOMING ACCESSIBLE, DISCONNECT THE POWER SUPPLY CORD IMMEDIATELY AND RETURN THIS UNIT TO YOUR DEALER.

DISCONNECT THE TELECOM CONNECTION BEFORE DISCONNECTING THE POWER CONNECTION PRIOR TO RELOCATING THE EQUIPMENT, AND RECONNECT THE POWER FIRST.

THIS UNIT IS EQUIPPED WITH AN EARTHING CONTACT PLUG. FOR SAFETY REASONS THIS PLUG MUST ONLY BE CONNECTED TO AN EARTHING CONTACT SOCKET WHICH HAS BEEN INSTALLED ACCORDING TO REGULATIONS.

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.

TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

# *Precautions*

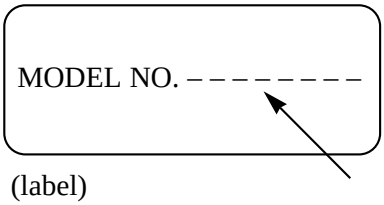
For your future reference

SERIAL NO. _____ DATE OF PURCHASE _____
(found on the bottom of the unit)

NAME OF DEALER _____

DEALER'S ADDRESS _____

**Note** • This Installation Manual does not show the complete model number that indicates the country where your equipment should be used. The model number of your unit is found on the label affixed to the unit.




(label)

**APPROVED** for connection to telecommunication systems specified in the instructions for use subject to the conditions set out in them.

610186

**Warning:**
This is a Class A Product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This unit complies with the EU Directives.

CE

73 / 23 / EEC "Electrical equipment for use within certain voltage limits."
89 / 336 / EEC "Electromagnetic compatibility" (basic standard)
92 / 31 / EEC "Electromagnetic compatibility" (amendment)
93 / 68 / EEC "Marking"

The CE mark on this unit certifies compliance with the above mentioned Directives.

# Structure of the Manual

This manual consists of the following sections:

**Section 1. Basic System Construction**

Provides general information on the system including connection diagrams.

**Section 2. Installation**

Contains the system installation and wiring instructions, as well as how to install the optional cards.

**Section 3. Features**

Describes the optional and programmable features in alphabetical order. It also provides information about the conditions, required System Programming, connection references, related features and operating instructions references for every feature.

**Section 4. System Programming**

Describes the steps required to assign features to extensions or to the system.

**Section 5. Appendix**

Provides specifications and the default values of the System Programming.

**Section 6. Troubleshooting**

Provides information for system and telephone troubleshooting.

**Section 7. Programming Tables**

Provides programming tables for user-programmed data.

# Description of the Symbols Mainly Used in this manual

Additional information and conditions.

The feature or program references.

# *Contents*

# *Contents*

# *Contents*

# *Contents*

# *Contents*

# *Contents*

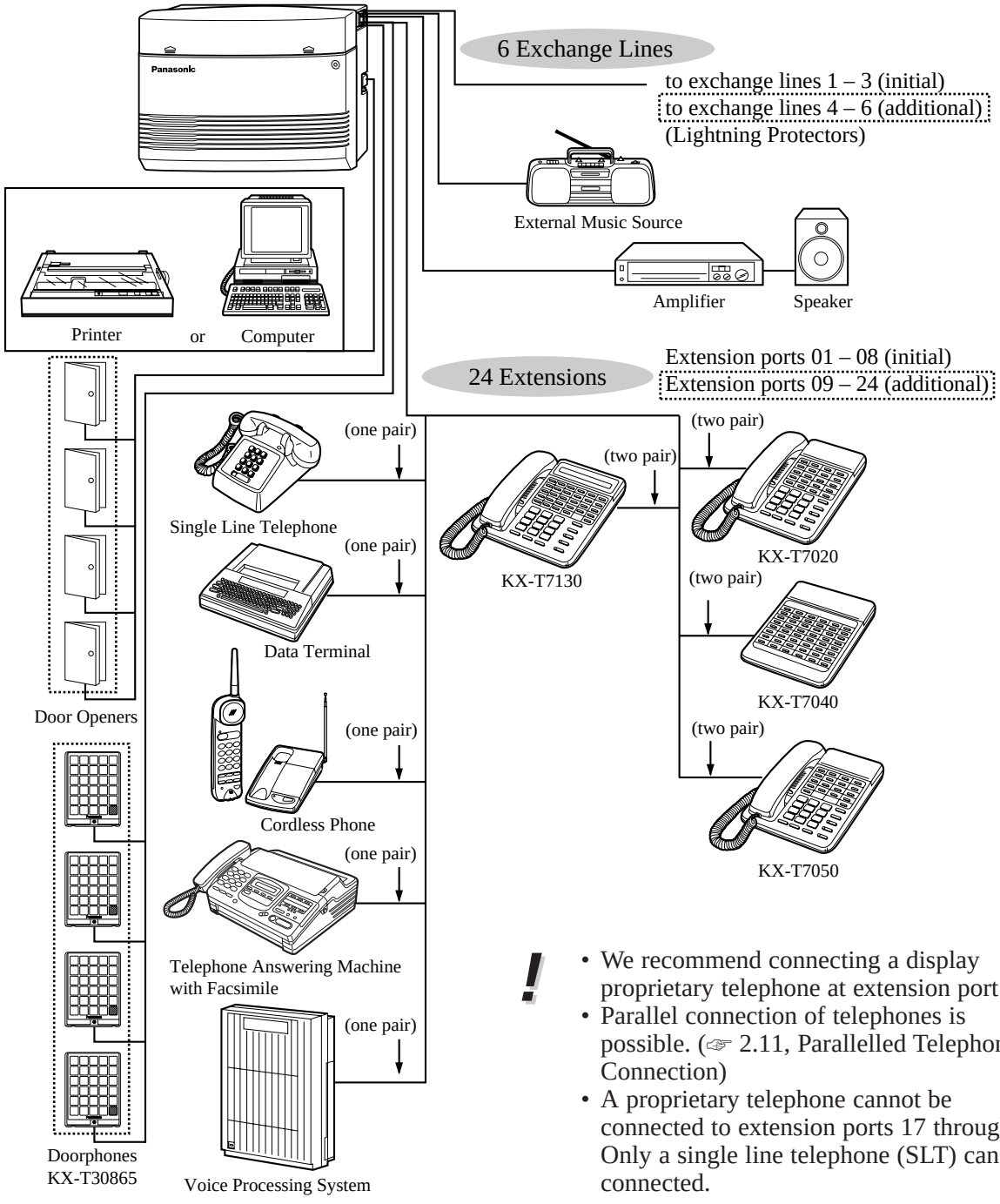
# *Section 1*
# *Basic System Construction*

# 1 Basic System Construction

The KX-TA624 has a basic capacity of 8 extensions and 3 exchange lines. It is capable of supporting Panasonic analogue proprietary telephones, and single line devices such as single line telephones, facsimiles and data terminals.

To expand its capabilities, the system can be equipped with optional components or customer-supplied peripherals such as an external speaker, external music source (e.g. a radio) and door opener.

## *System Connection Diagram*




- We recommend connecting a display proprietary telephone at extension port 01.
- Parallel connection of telephones is possible. (☞ 2.11, Parallelled Telephone Connection)
- A proprietary telephone cannot be connected to extension ports 17 through 24. Only a single line telephone (SLT) can be connected.



: needs optional card.

# *Section 2*
# *Installation*

# 2.1 Before Installation

Please read the following notes concerning installation and connection before installing the system and terminal equipment.

## *Safety Installation Instructions*

When installing telephone wiring, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

**1.** Never install telephone wiring during a lightning storm.

**2.** Never install telephone ports in wet locations unless the port is specifically designed for wet locations.

**3.** Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.

**4.** Use caution when installing or modifying telephone lines.

## *Installation Precautions*

This system is designed for wall mounting only. Avoid installing in the following places. (Doing so may result in malfunction, noise, or discolouration.)

**1.** In direct sunlight and hot, cold, or humid places. (Temperature range: 0 °C – 40 °C)

**2.** Sulphuric gases produced in areas where there are thermal springs, etc. may damage the equipment or contacts.

**3.** Places in which shocks or vibrations are frequent or strong.

**4.** Dusty places, or places where water or oil may come into contact with the system.

**5.** Near high-frequency generating devices such as sewing machines or electric welders.

**6.** On or near computers, telexes, or other office equipment, as well as microwave ovens or air conditioners. (It is preferable not to install the system in the same room with the above equipment.)

**7.** Install at least 1.8 m away from radios and televisions. (Both the system and Panasonic proprietary telephones)

**8.** Do not obstruct area around the system (for reasons of maintenance and inspection — be especially careful to allow space for cooling above and at the sides of the system).

## *Wiring Precautions*

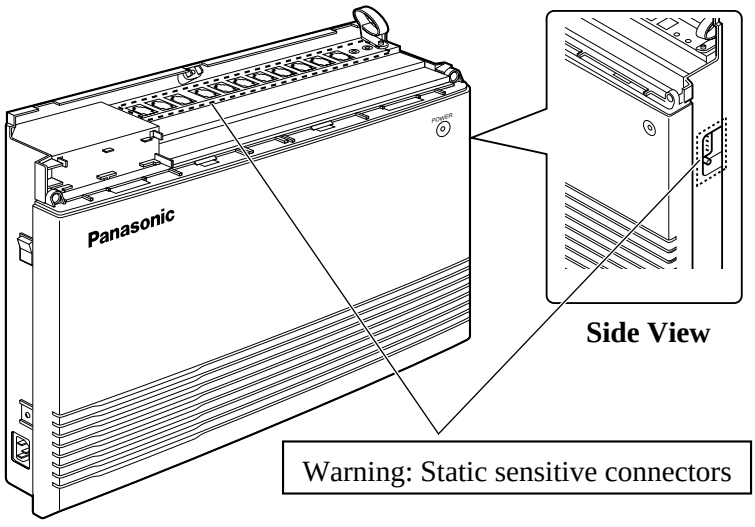
Be sure to follow these instructions when wiring the unit:

**1.** Do not wire the telephone cable in parallel with an AC power source, computer, telex, etc. If the cables are run near those wires, shield the cables with metal tubing or use shielded cables and ground the shields.

**2.** If cables are run on the floor, use protectors to prevent the wires from being stepped on. Avoid wiring under carpets.

**3.** Avoid using the same power supply outlet for computers, telexes, and other office equipment. Otherwise, the system operation may be interrupted by the induction noise from such equipment.

4. Please use one pair telephone wire for extension connection of (telephone) equipment such as single line telephones, data terminals, answering machines, computers, voice processing systems, etc., except Panasonic proprietary telephones (e.g. KX-T7130).
5. Unplug the system during wiring. After all of the wiring is completed, plug in the system.
6. Mis-wiring may cause the system to operate improperly. Refer to Section 6.1 “While Installing” and Section 6.2 “While Connecting”.
7. If an extension does not operate properly, disconnect the telephone from the extension line and then connect again, or turn off the Power Switch of the system and then on again.
8. The system is equipped with a 3-wire grounding type plug. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
9. Exchange lines should be installed with lightning protectors. For details, refer to Section 2.7 “Exchange Line Connection”, Installing Lightning Protectors.




**Warning:**
Static sensitive devices are used. To protect printed circuit boards from static electricity, do not touch connectors indicated to the left. To discharge body static, touch ground or wear a grounding strap.

# 2.2 Unpacking

Unpack the box and check the items below.

| | |
|---|---|
| Main Unit | 1 |
| AC Cord<br>Order No. PSWAT206E | 1 |
| Telephone Line Cords (2-conductor wiring)<br>Order No. PSJA1066Z | 3 |
| Telephone Line Cords (4-conductor wiring)<br>Order No. PQJA151Z | 8 |
| Screws (Wall Mounting)<br>Order No. PQHE5004Z | 3 |
| Washers (Wall Mounting)<br>Order No. XWG35FY | 3 |
| Pager Connector<br>Order No. PQJP1E1Z | 1 |

| | |
|---|---|
| Music Source Connector<br>Order No. PQJP1E1Z | 1 |
| Installation Manual<br>Order No. PSQX1708Y | 1 |
| Operating Instructions<br>Order No. PSQX1709Y | 1 |
| Operating Instructions for the Caller ID Card<br>Order No. PSQX1744Y | 1 |
| SLT User Guide<br>Order No. PSQX1753Z | 2 |
| System Clear Leaflet<br>Order No. PSQW1412Y | 1 |
| Feature Number Leaflet<br>Order No. PSQW1472Y | 1 |

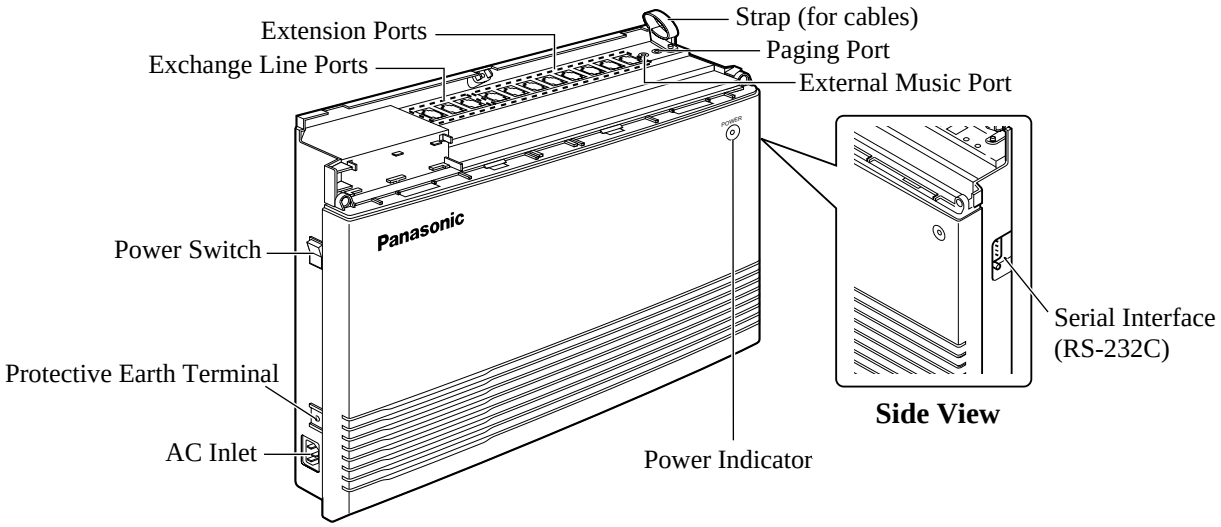
***Optional Cards (For your reference)***

| KX-TA62460 | |
|---|---|
| Screws<br>Order No. XYN3+F12FN | 1 |
| Terminal Boxes<br>Order No. PQJS1T30Z | 2 |
| Telephone Line Cords (4-conductor wiring)<br>Order No. PQJA48W | 2 |

| KX-TA62474 | |
|---|---|
| Screws<br>Order No. XYN3+F8 | 2 |
| Extension Connectors<br>Order No. PSJP36A67Z | 2 |

| KX-TA62477 | |
|---|---|
| Extension Bolts<br>Order No. PSHE1051Z | 2 |
| Extension Connectors<br>Order No. PSJP36A67Z | 2 |
| Spacer<br>Order No. PSHR1172Z | 1 |

# 2.3 Names and Locations

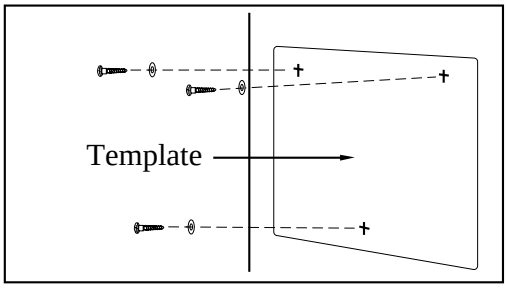


# 2.4 Wall Mounting

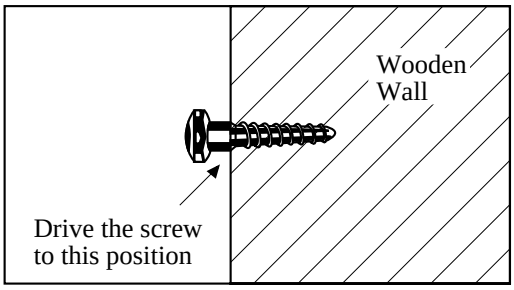
This set is designed for wall mounting only. The wall where the main unit is to be mounted must be able to support the weight of the main unit. If screws other than the ones supplied are used, use screws with the same diameter as the ones enclosed.

## *Mounting on a Wooden Wall*

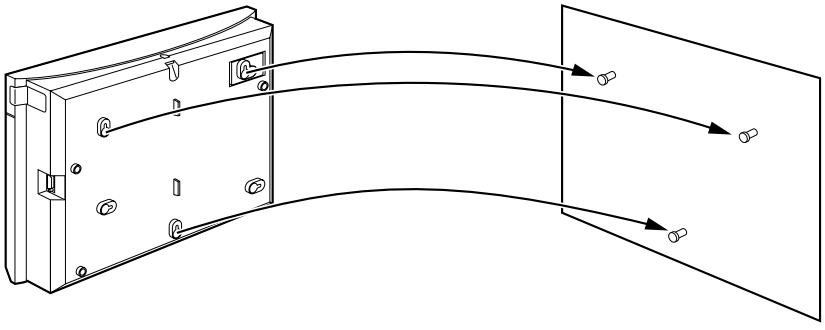
**1.** Place the template (on the last page) on the wall to mark the screw positions.




**2.** Install the screws (included) into the wall.




**3.** Hook the main unit on the screw heads.



# 2.5 Frame Ground Connection

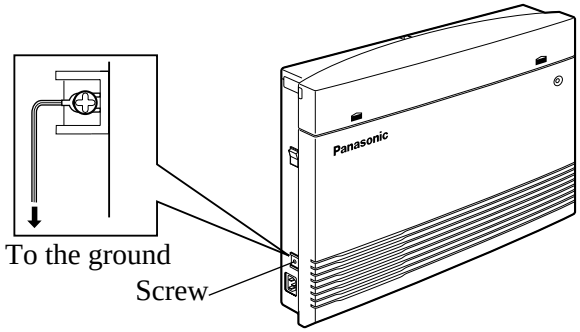
***IMPORTANT!!!***

Connect the frame of the main unit to the ground.

**1.** Loosen the screw.

**2.** Insert the grounding wire (user-supplied).

**3.** Tighten the screw.

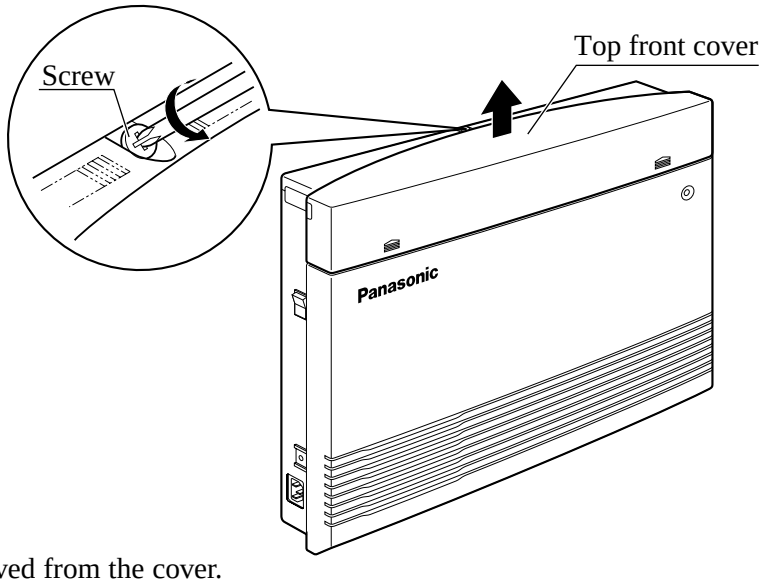



**4.** Connect the grounding wire to the ground.

# 2.6 Opening the Top Front Cover

**1.** Loosen the screw.

**2.** Remove the top front cover.



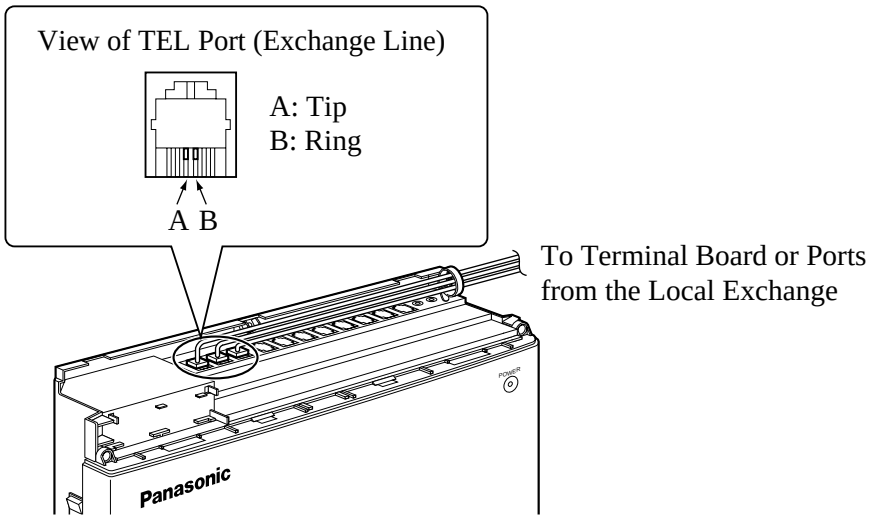

- The screw cannot be removed from the cover.

# 2.7 Exchange Line Connection

## Connection

**1.** Insert the modular plugs of the telephone line cords (2-conductor wiring) into the ports (CO 1 through 3) on the system.

**2.** Connect the line cords to the terminal board or the ports from the Local Exchange.




- Exchange Line ports are at TNV.

## Installing Lightning Protectors

A lightning protector is a device to be installed on an exchange line to prevent a dangerous surge from entering the building and damaging the equipment.

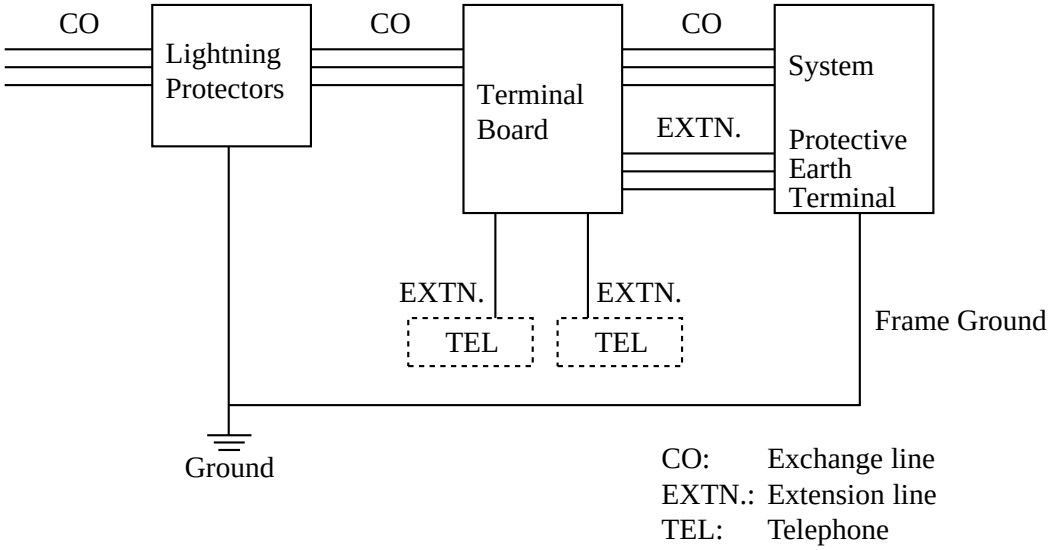
A dangerous surge can occur if a telephone line comes in contact with a power line. Problems due to lightning surges have been steadily increasing with the development of electronic equipment.

In many countries, there are regulations requiring the installation of a lightning protector. A lightning strike to a telephone cable which is 10 m above ground can be as high as 200 000 V.

This system should be installed with lightning protectors. In addition, grounding (connection to earth ground) is very important to protect the system (☞ 2.5, Frame Ground Connection).

# 2.7 Exchange Line Connection

***Installation***

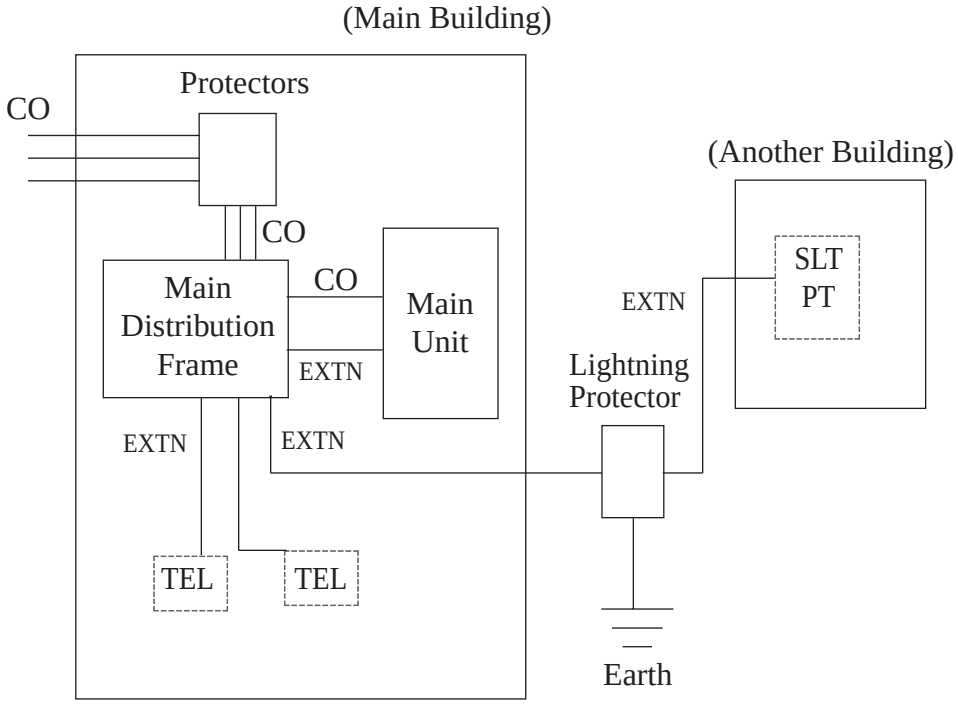



***Outside Installation***

If you install an extension outside of the main building, the following precautions are recommended:

(1) Install the extension wire underground.

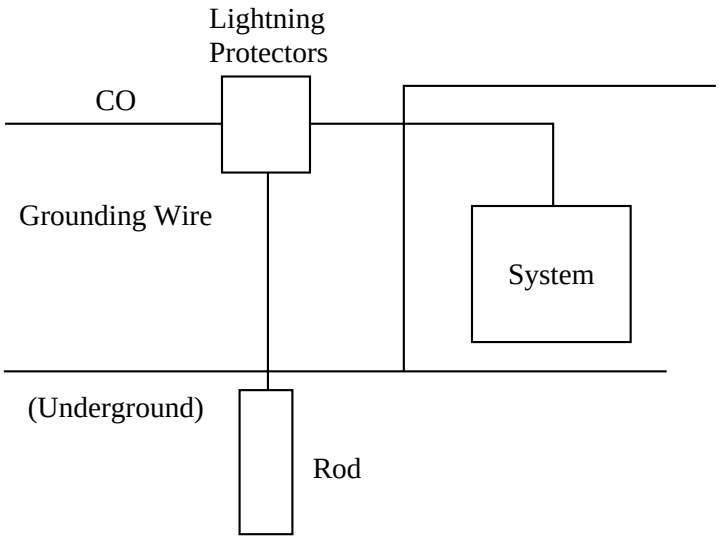
(2) Use a conduit to protect the wire.




**Note** • The lightning protector for an extension is different from that for CO.

# 2.7 Exchange Line Connection

***Installation of an Earth Rod***




1) Installation location of the earth rod . . . . . Near the protector
2) Check obstructions . . . . . None
3) Composition of the earth rod . . . . . Metal
4) Depth of the earth rod . . . . . More than 50 cm
5) Size of the grounding wire . . . . . Thickness more than ø1.6 mm

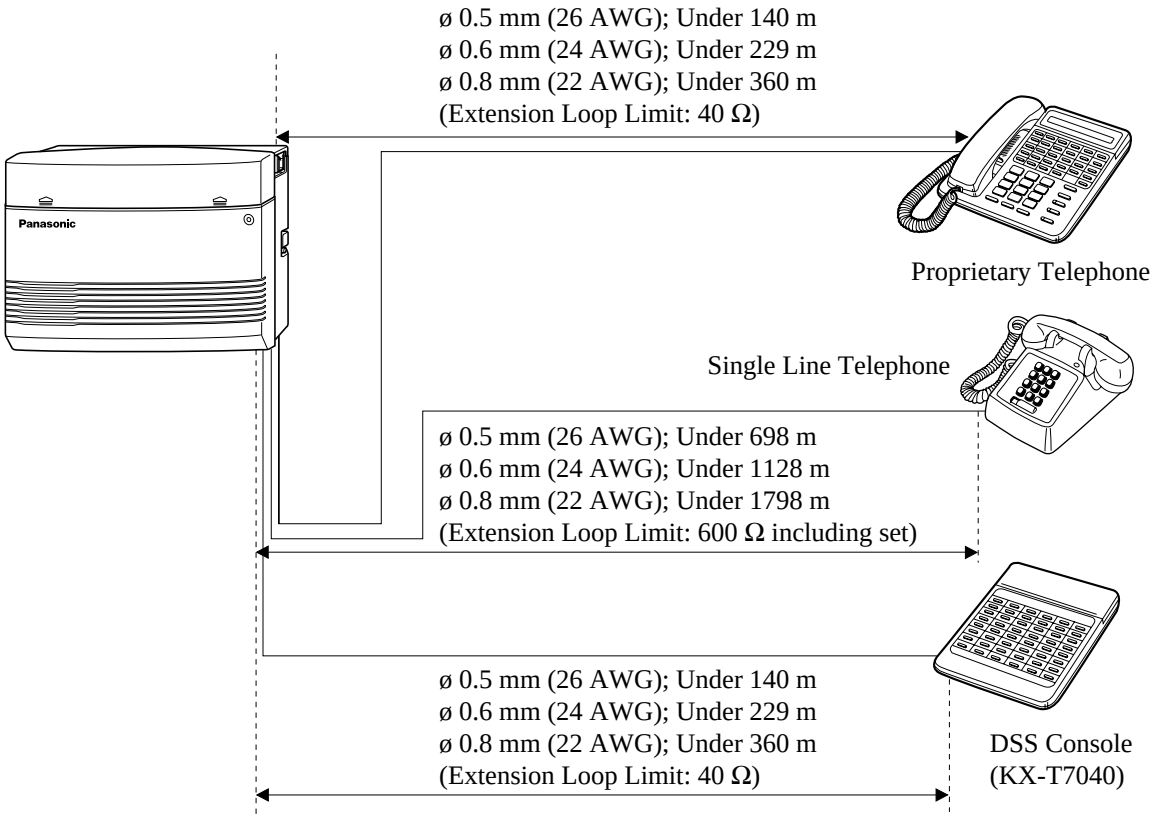
**Note** • The above example is only a recommendation.
• The length of the earth rod and required depth depend on the composition of the soil.

# 2.8 Extension Connection

Extension ports 01 through 08 can be used for all kinds of telephones.

## *Telephone Wiring*

The maximum length of the extension line cord (twisted cable) which connects the system and the extension is as follows.




2 or 4-conductor wiring is required for each extension as listed below. There are 4 pins possible for connection: “T” (Tip), “R” (Ring), “L” (Low) and “H” (High).

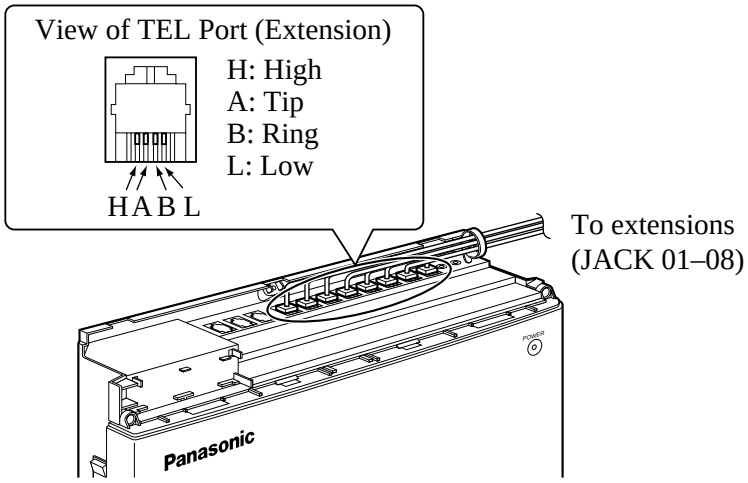
| Telephone | Wiring |
|---|---|
| Single line telephones | 1 pair wire (A,B) |
| Proprietary telephone (e.g., KX-T7130) | 2 pair wire (L, H, A, B) |

- If a telephone or answering machine with an A-A1 relay is connected to the system, set the A-A1 relay switch on the telephone or answering machine to the OFF position.
- Extension ports are at TNV.

# 2.8 Extension Connection

## Connection

Insert the modular plugs of the telephone line cords (2 or 4-conductor wiring) into the ports (JACK 01 through 08) on the system.



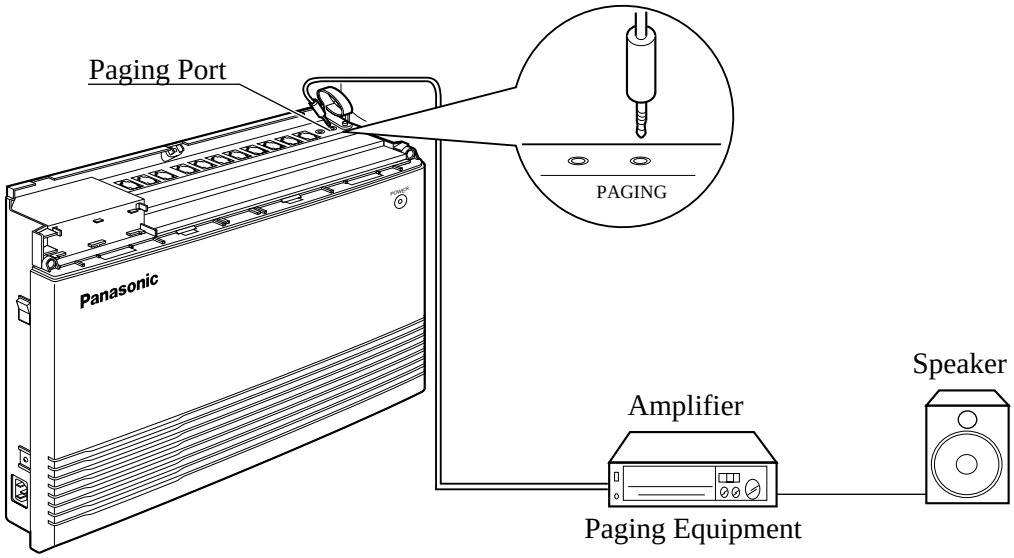

- System extensions must be located within the same building as the KX-TA624.

# 2.9 External Pager (Paging Equipment) Connection

One external pager (user-supplied) can be connected to the system as illustrated below.

Use an EIAJ RC-6701 A plug (2-conductor, ø 3.5 mm in diameter).
• Output impedance: 600 Ω

**Maximum length of the cable**
ø 0.8 mm – ø 1.3 mm: Under 10 m




- To adjust the sound level of the pager, use the volume control on the amplifier.
- Paging port is at SELV.

- **Required System Programming**
  **Section 4.2, System Programming**
  [106] External Paging Access Tone
- **Feature Reference**
  **Section 3, Features**
  Paging

# 2.10 External Music Connection

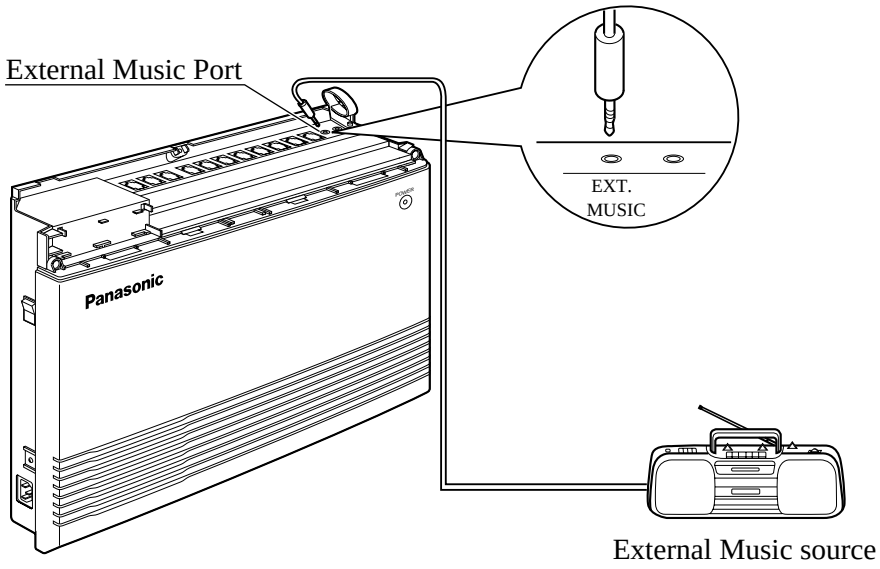
One music source, such as a radio (user-supplied), can be connected to the system as illustrated below.

Insert the plug to the earphone/headphone port on the external music source.
Use an EIAJ RC-6701 A plug (2-conductor, ø 3.5 mm in diameter).

• Input impedance: 8 Ω

**Maximum length of the cable**

ø 0.8 mm – ø 1.3 mm: Under 10 m



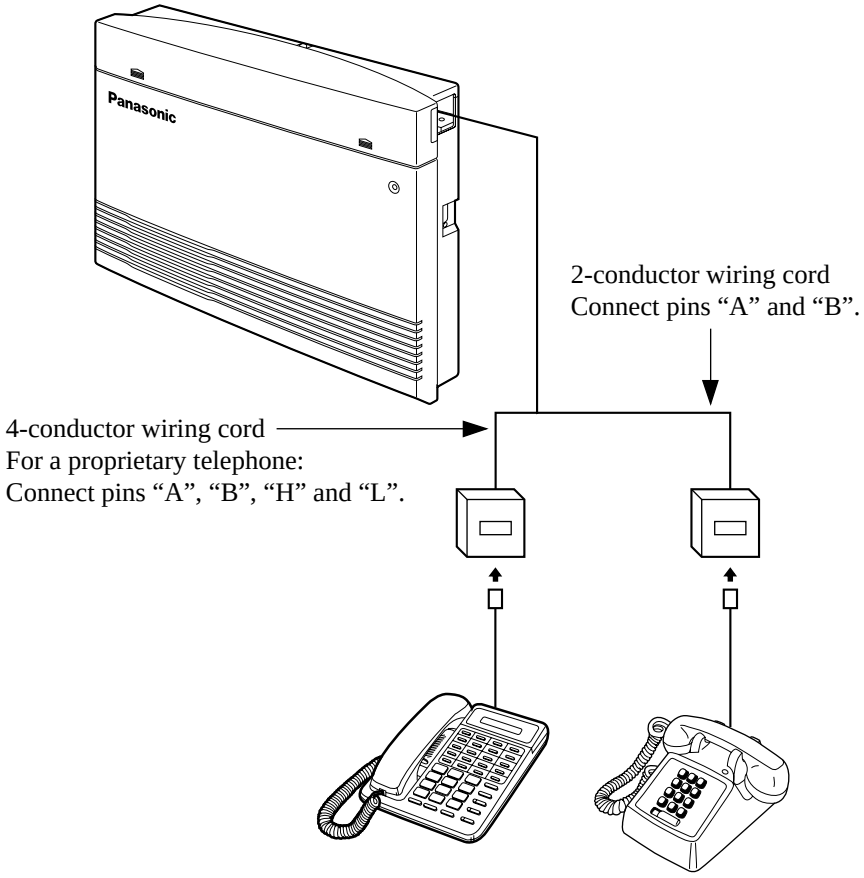

- System programming for the music sources used for Music on Hold and Background Music (BGM) is required.
- To adjust the sound level of the Music on Hold, use the volume control on the external music source.
- External Music port is at SELV.

- **Required System Programming**
  **Section 4.2, System Programming**
  [111] Hold Music Selection
- **Feature Reference**
  **Section 3, Features**
  Music on Hold / Background Music (BGM)

# 2.11 Parallelled Telephone Connection

Any single line telephone can be connected in parallel with a proprietary telephone as follows.

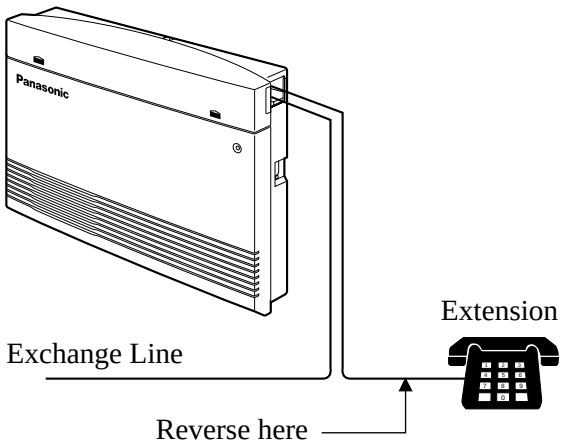
## *Using a Modular T-Adaptor*

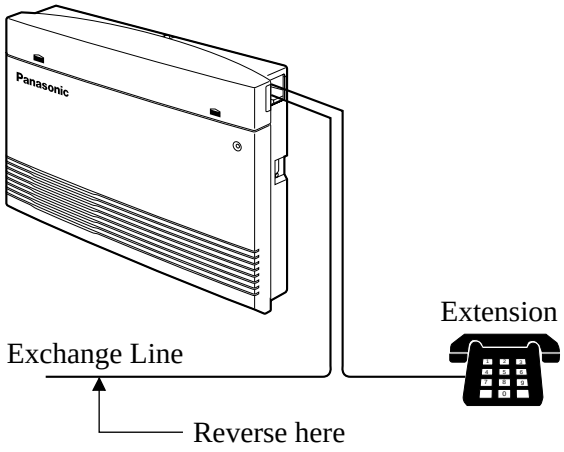



- **Required System Programming**
  **Section 4.2, System Programming**
  [610] Parallelled Telephone Connection
- **Feature Reference**
  **Section 3, Features**
  Parallelled Telephone Connection

# 2.12 Polarity Sensitive Telephone Connection

If your telephone is polarity sensitive, follow the procedure below:




**1.** Complete all the required extension wiring.

**2.** Confirm that dialling can be done from all the extensions using a touch-tone telephone.
If dialling fails, the polarity between the extension and the system must be reversed.

**3.** Reverse as shown.

**4.** Unplug the system.

**5.** Connect all exchange lines.

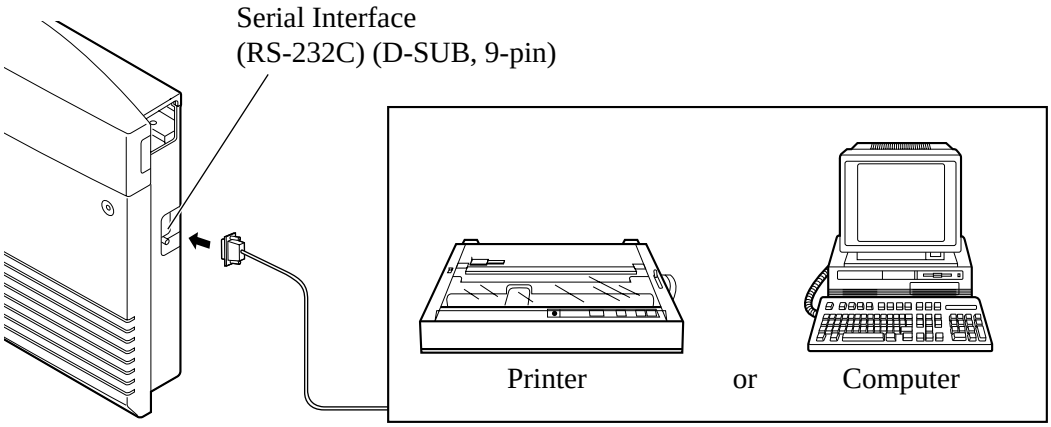
**6.** Confirm that dialling can be done on the following extension using a touch-tone telephone.
Extension (A, B) of port 01: Exchange line 1
If dialling fails, the polarity between the system and the exchange line must be reversed.

**7.** Reverse as shown.

**8.** Every time an extension telephone is replaced, repeat the procedure above.

# 2.13 Printer and PC Connection

A user-supplied printer or personal computer (PC) can be connected to the system. These are used to print out or refer to the SMDR call records and system programming data. Connect the printer cable or the PC cable to the Serial Interface (RS-232C) connector. The cable must be shielded and the maximum length is 2 m.




Arrange the cables so that the printer will be connected to the system as shown in the appropriate chart on the following page.

The pin configuration of the Serial Interface (RS-232C) Connector is as follows.

| Pin No. | Signal Name | | Circuit Type | |
|---|---|---|---|---|
| | | | EIA | CCITT |
| 2 | RXD | Received Data | BB | 104 |
| 3 | TXD | Transmitted Data | BA | 103 |
| 4 | DTR | Data Terminal Ready | CD | 108.2 |
| 5 | SG | Signal Ground | AB | 102 |
| 6 | DSR | Data Set Ready | CC | 107 |
| 7 | RTS | Request To Send | CA | 105 |
| 8 | CTS | Clear To Send | CB | 106 |

# 2.13 Printer and PC Connection

## *Connection Chart for a Printer / Personal Computer with the System*

If you connect a printer or a PC with a 9-pin cable, follow the chart below.

| System | | | | 9-pin Cable Printer/PC | | |
|---|---|---|---|---|---|---|
| **Circuit type (EIA)** | **Signal name** | **Pin no.** | | **Pin no.** | **Signal name** | **Circuit type (EIA)** |
| BB | RXD | 2 | ⟷ | 2 | RXD | BB |
| BA | TXD | 3 | ⟷ | 3 | TXD | BA |
| CD | DTR | 4 | ⟷ | 4 | DTR | CD |
| AB | SG | 5 | ⟷ | 5 | SG | AB |
| CC | DSR | 6 | ⟷ | 6 | DSR | CC |
| CA | RTS | 7 | ⟷ | 7 | RTS | CA |
| CB | CTS | 8 | ⟷ | 8 | CTS | CB |

If you connect a printer or a PC with a 25-pin cable, follow the chart below.

| System | | | | 25-pin Cable Printer/PC | | |
|---|---|---|---|---|---|---|
| **Circuit type (EIA)** | **Signal name** | **Pin no.** | | **Pin no.** | **Signal name** | **Circuit type (EIA)** |
| BB | RXD | 2 | ⟷ | 3 | RXD | BB |
| BA | TXD | 3 | ⟷ | 2 | TXD | BA |
| CD | DTR | 4 | ⟷ | 20 | DTR | CD |
| AB | SG | 5 | ⟷ | 7 | SG | AB |
| CC | DSR | 6 | ⟷ | 6 | DSR | CC |
| CA | RTS | 7 | ⟷ | 5 | CTS | CB |
| CB | CTS | 8 | ⟷ | 8 | DCD | CF |
| | | | | 1 | FG | AA |

# 2.13 Printer and PC Connection

## *Serial Interface (RS-232C) Signals*

**Frame Ground: FG**

Connects the unit frame and the earth ground conductor of the AC power cord.

**Transmitted Data: SD (TXD) . . . . . (output)**

Conveys signals from the unit to the printer. A “Mark” condition is held unless data or BREAK signals are being transmitted.

**Received Data: RD (RXD) . . . . . (input)**

Conveys signals from the printer.

**Request to Send: RS (RTS) . . . . . (output)**

This lead remains ON whenever DR (DSR) is ON.

**Clear To Send: CS (CTS) . . . . . (input)**

When the CS (CTS) circuit is ON, it indicates that the printer is ready to receive data from the unit. The unit does not attempt to transfer data or receive data when the CS (CTS) circuit is OFF.

**Data Set Ready: DR (DSR) . . . . . (input)**

When the DR (DSR) circuit is ON, it indicates the printer is ready. The DR (DSR) circuit being ON does not indicate that communication has been established with the printer.

**Signal Ground: SG**

Connects the DC ground of the unit for all interface signals.

**Data Terminal Ready: ER (DTR) . . . . . (output)**

This signal line is turned ON by the unit to indicate that it is ON

LINE. The ER (DTR) circuit being ON does not indicate that communication has been established with the printer. It is switched OFF when the unit is OFF LINE.

**Data Carrier Detect: CD (DCD) . . . . . (input)**

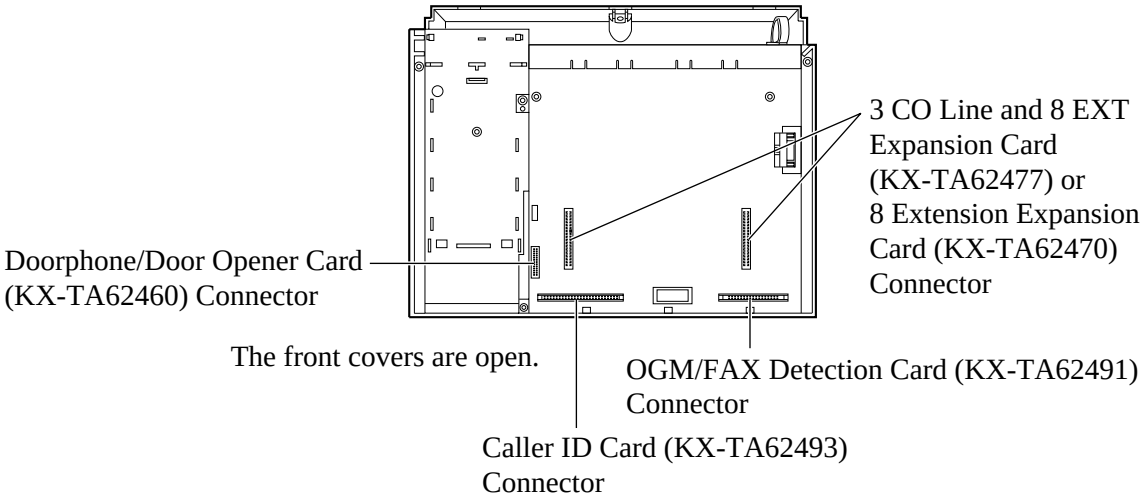
When ON, it indicates the data terminal (DTE) that the carrier signal is being received.

- **Required System Programming**
  **Section 4.2, System Programming**
  [800] SMDR RS-232C Communication Parameters
  [801] SMDR Parameter
- **Feature Reference**
  **Section 3, Features**
  Station Message Detail Recording (SMDR)

# 2.14 Location of Optional Cards

The location of the optional cards is shown below.

**Precaution** To protect the printed circuit boards (P-boards) from static electricity, do not touch parts on the P-boards in the main unit and on the optional cards. If accessing the parts is required, wear a grounding strap.




**NOTE:**

**Power off the system, and unplug the AC cord before installing an optional card.**

# 2.15 OGM/FAX Detection Card Installation

An optional OGM/FAX Detection Card (KX-TA62491) can be installed to the system.

**The OGM/FAX Detection Card** supports the following.

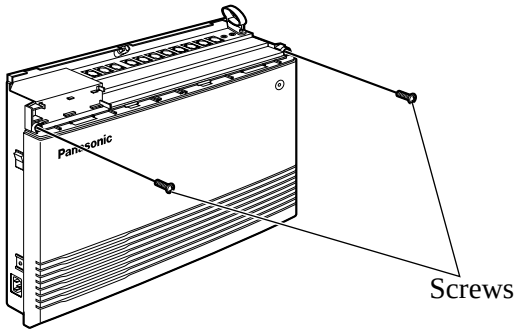
Direct Inward System Access (DISA) with OGM:

One of the system features. An outgoing message greets the external caller and gives information so that the caller can access an extension(s) directly.

Facsimile detection:

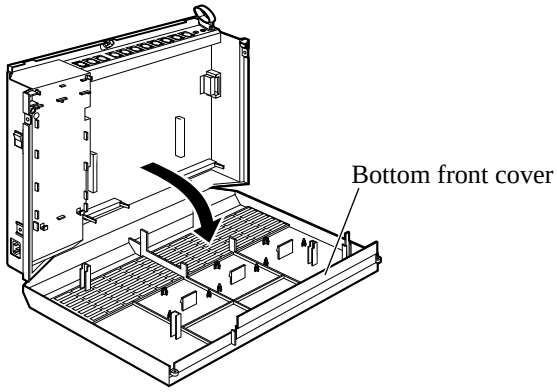
When the system receives a facsimile transmission signal by DISA, it automatically connects the specified facsimile extension.

**1.** Remove the 2 screws.

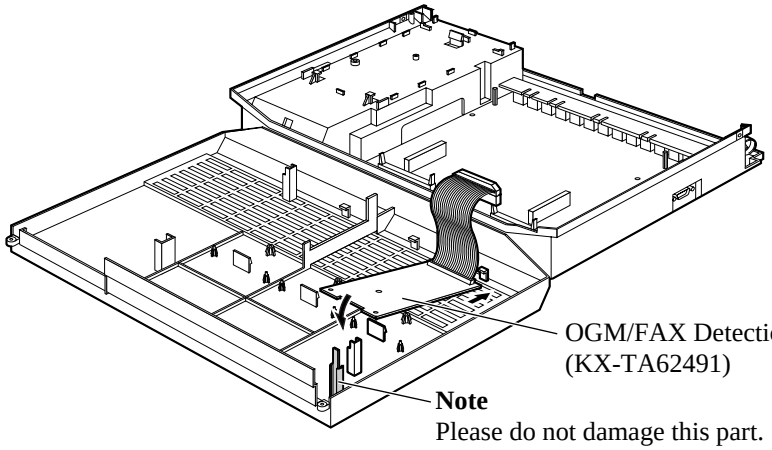


# 2.15 OGM/FAX Detection Card Installation

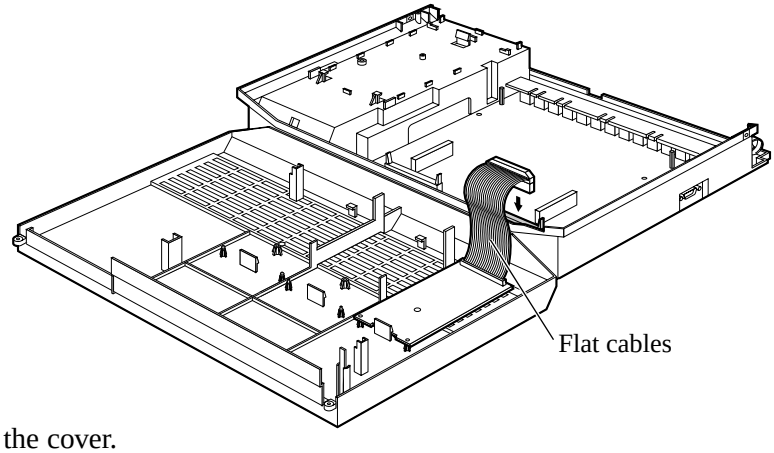
**2.** Open the bottom front cover.




**3.** Attach the OGM/FAX Detection card.




**4.** Insert the flat cables to the card connector.




**5.** Close the cover.

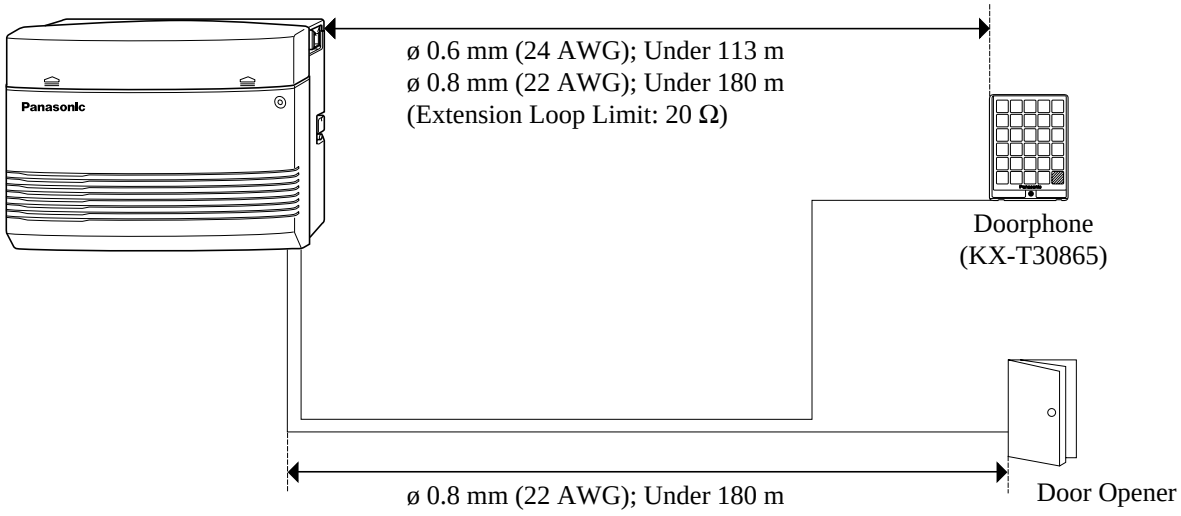
- **Required System Programming**
  See 'Required System Programming' in Section 3, Features "Direct Inward System Access (DISA)"
- **Feature References**
  **Section 3, Features**
  Direct Inward System Access (DISA)
  Outgoing Message (OGM)

# 2.16 Doorphone and Door Opener Connection

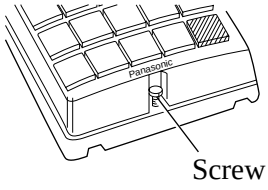
Four doorphones (KX-T30865) and 4 door openers (user-supplied) can be installed.

## *Maximum cable length*

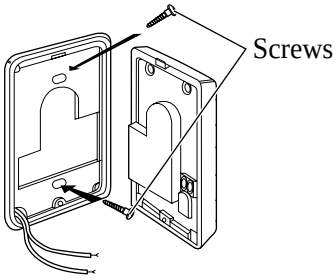
The maximum length of the doorphone and door opener line cord which connects the system is as follows.




## *Installing the Doorphone*



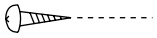

**1.** Loosen the screw to open the doorphone unit.




**2.** Attach the base cover to a wall using 2 screws.

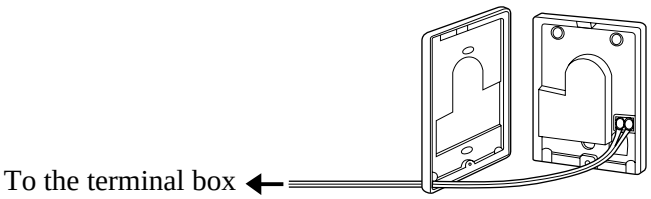
**Note** Two kinds of screws are included. Please choose the appropriate one depending on your type of wall.

Type 1: When a doorphone plate has been fixed to the wall.



Type 2: When you wish to install the doorphone directly to the wall.

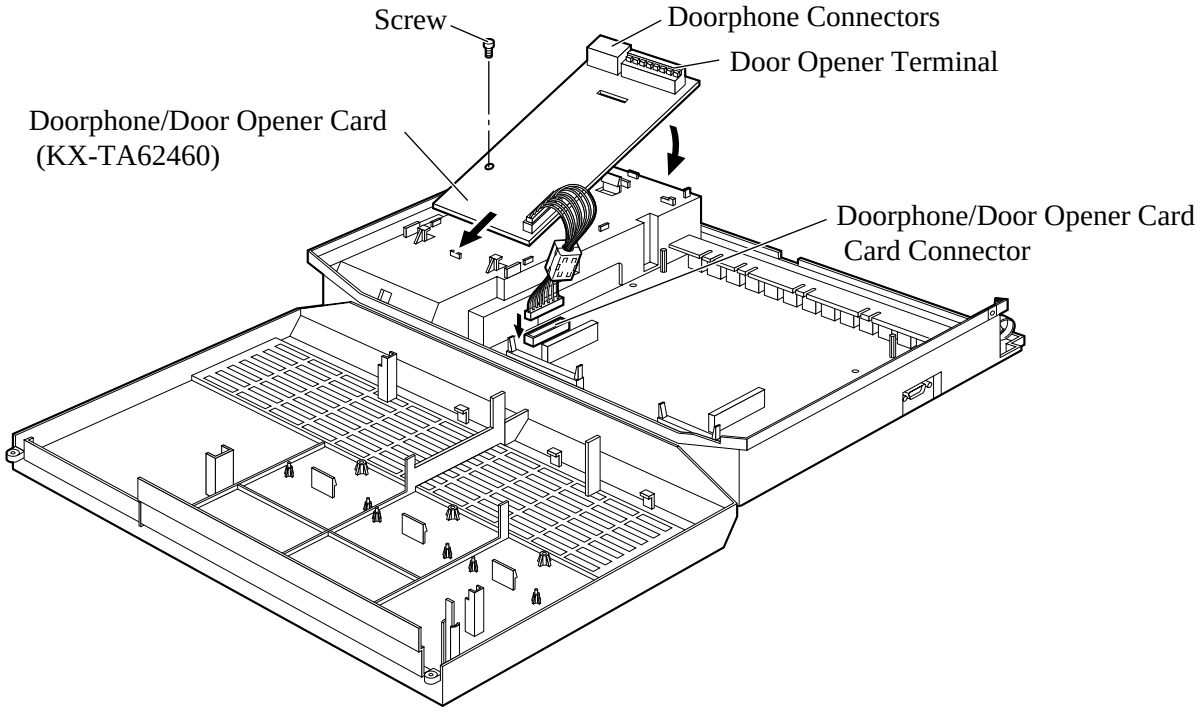
**3.** Connect the wires to the screws located in the front cover.




**4.** Put the doorphone together and re-install the screw.

## *Doorphone/Door Opener Installation*

Attach the optional Doorphone/Door Opener Card to the main unit, connect the cord to the Doorphone/Door Opener Card Connector and secure the screw.



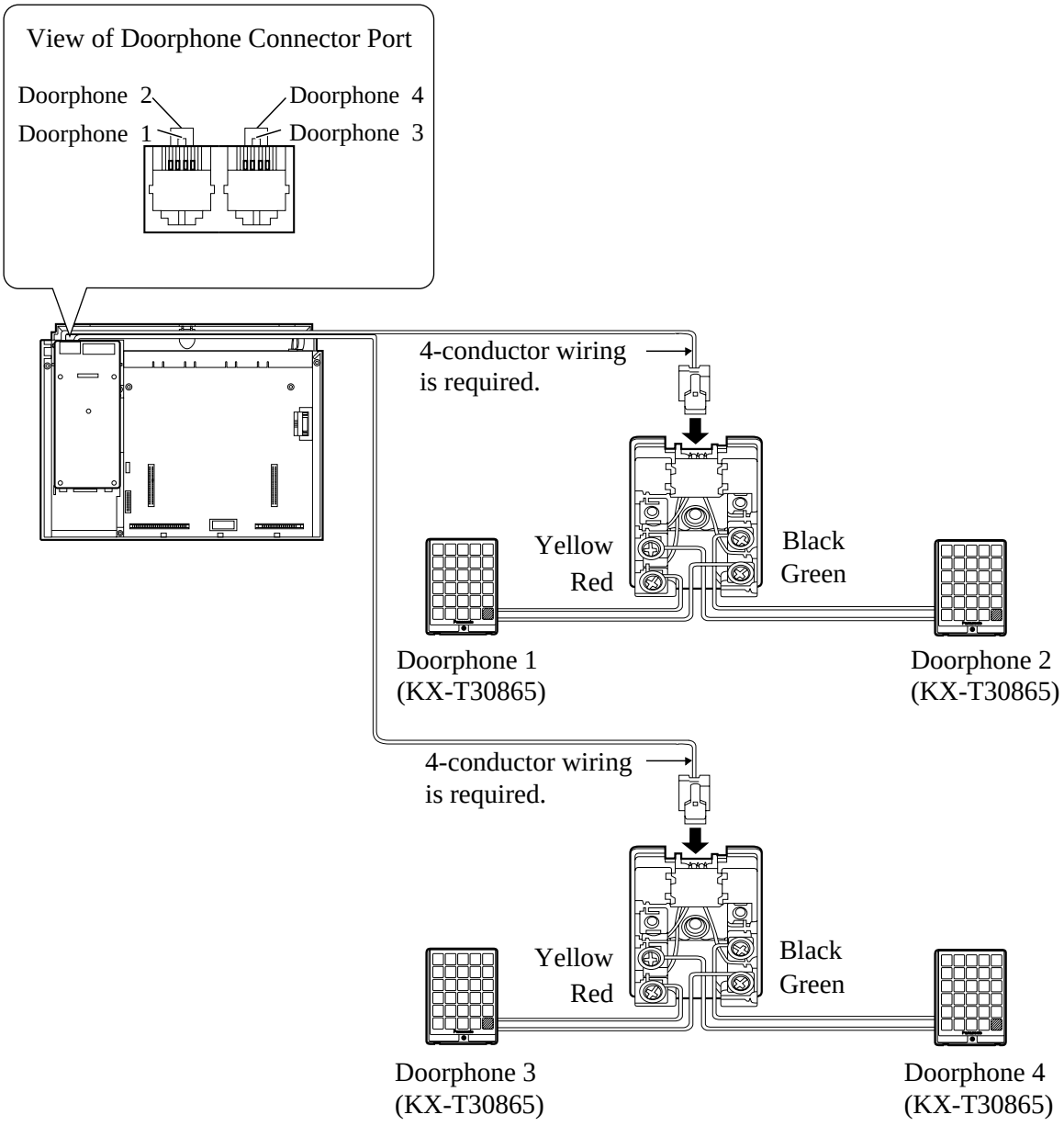
# 2.16 Doorphone and Door Opener Connection

## *Wiring of the Doorphone*

1. Connect the Doorphone/Door Opener Card to the terminal boxes using 4-conductor modular connectors.

2. Connect the wires of doorphones 1 and 3 to the red and green screws on the terminal box.

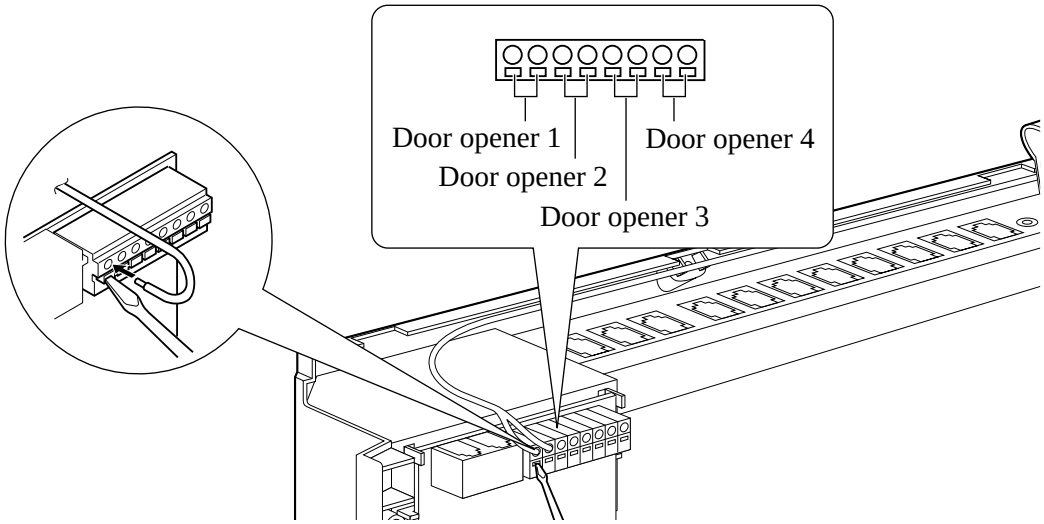
3. Connect the wires of doorphones 2 and 4 to the yellow and black screws on the terminal box.

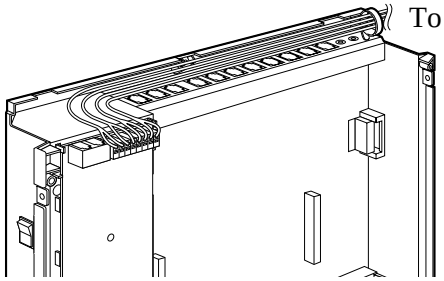


# 2.16 Doorphone and Door Opener Connection

## *Connecting Door Openers*

**1.** While pressing the button below a hole with a screw driver, insert the wire from the door opener into the hole.

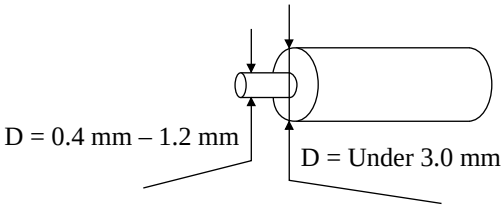



**2.** Wrap the strap around all of the cords. (☞ 2.20, Securing the Cords)

**!**

- We recommend using the wire (ø 0.4 mm – ø 1.2 mm) or the equivalent for wiring.
- The wire should be under 3.0 mm in diameter including the coating.
- Door Opener ports are at SELV.




☞

- **Required System Programming**
  **Section 4 System Programming**
  [700]–[702] Doorphone Ringing Assignment — Day/Night/Lunch
  [703]–[705] Door Opener Assignment — Day/Night/Lunch
- **Feature References**
  **Section 3, Features**
  Door Opener, Doorphone Call

# 2.17 Installing a 3-CO Line & 8 Ext Expansion Card (KX-TA62477) and 8 SLT Extn. Expansion Card (KX-TA62474)

## 3-CO Line and 8 Ext Expansion Card Installation (KX-TA62477)

To add 3 exchange lines (exchange lines 4 through 6) and 8 extensions (extension ports 09 through 16), use an optional 3-CO Line and 8 Ext Expansion Card (KX-TA62477).

## 8 SLT Extension Expansion Card Installation (KX-TA62474)

To add 8 extensions (extension ports 17 through 24), use an optional 8 SLT Extension Expansion Card (KX-TA62474).

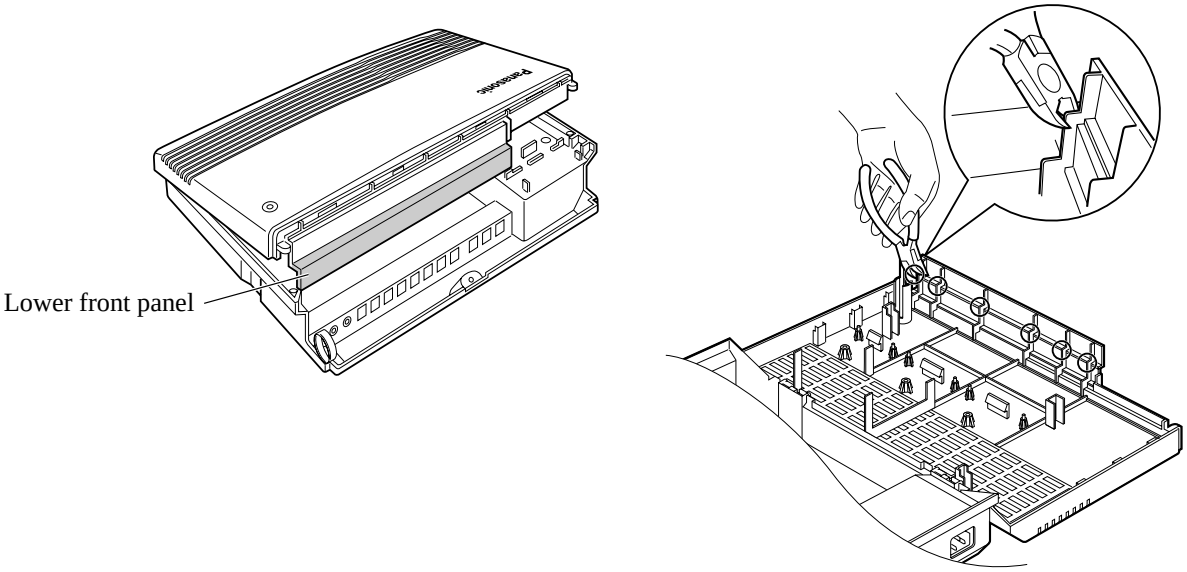
This card can be installed directly to the system or to the KX-TA62477.

- Only a single line telephone (SLT) can be connected to extension ports 17 through 24.

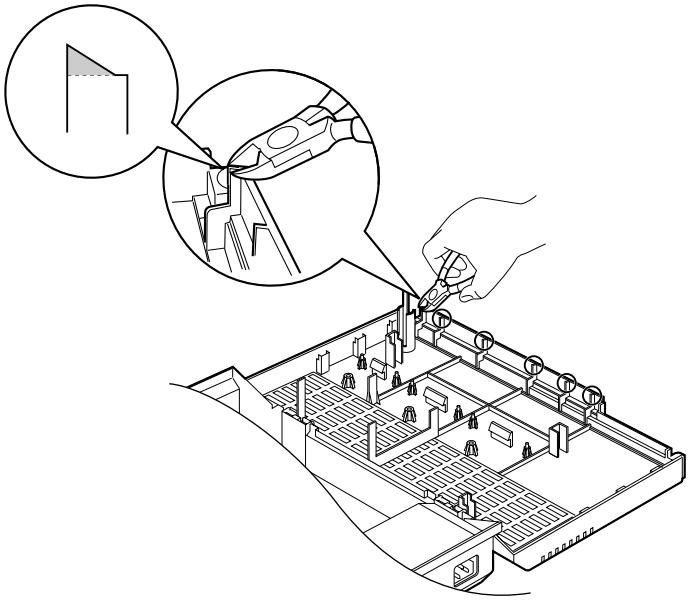
## Installing the KX-TA62477

**1.** Loosen the screws and open the top and bottom front covers.

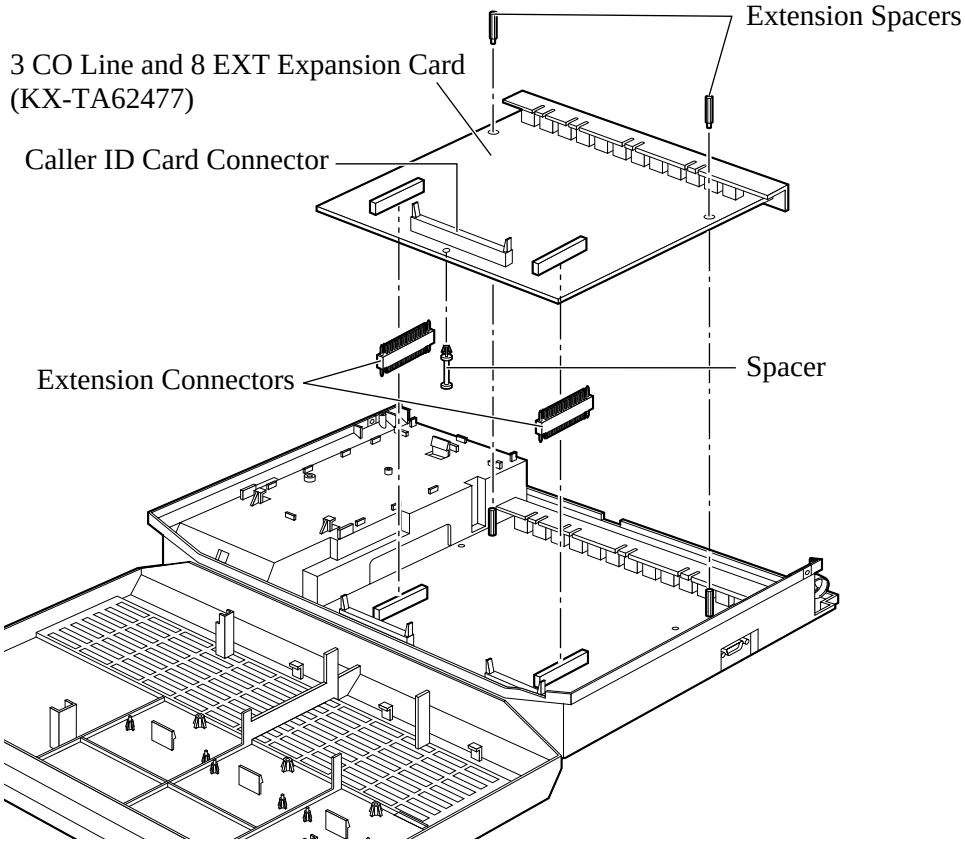
**2.** Remove the lower front panel with a suitable tool as shown below. Cut the 6 areas marked with a circle.



**3.** After cutting the areas, be sure to cut off any excess plastic in order to make the surface smooth.



**4.** First, insert the plastic spacer into the hole on the KX-TA62477. Attach the 2 extension connectors to the system, install the KX-TA62477 and secure the 2 extension spacers.



**5.** Insert the modular plugs of the telephone line cords (2-conductor wiring) into the ports (CO 4 through 6) on the card. (☞ 2.7, Exchange Line Connection)

**6.** Connect the line cords to the terminal board or the ports from the Local Exchange.

**7.** Insert the modular plugs of the telephone line cords (2 or 4-conductor wiring) into the ports (JACK 09 through 16). (☞ 2.8, Extension Connection)

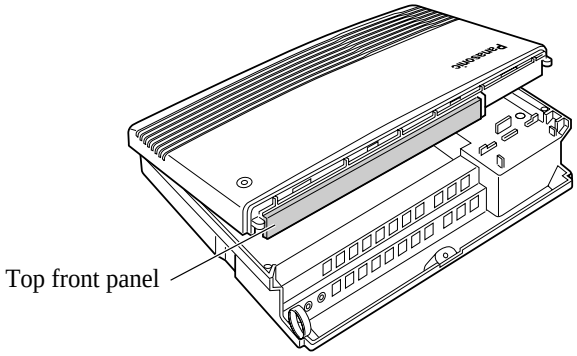
**8.** Wrap the strap around all of the cords. (☞ 2.19, Securing the Cords)

**9.** Close the covers and secure the screws.

## *Installing the KX-TA62474*

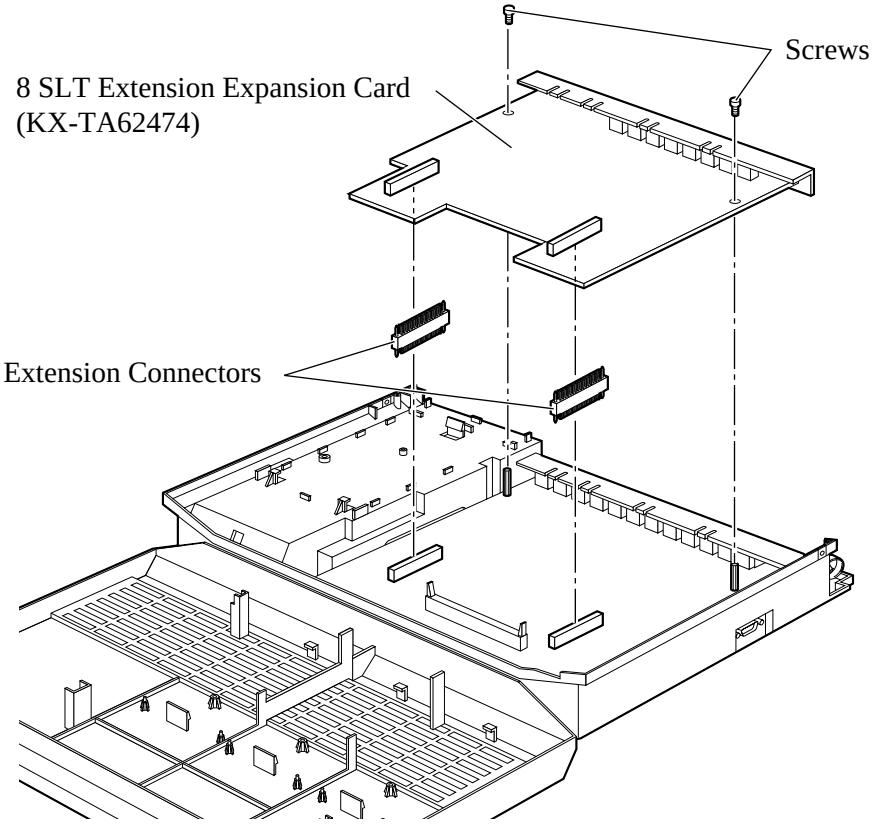
**1.** Loosen the screws and open the front and bottom front covers.

**2.** Remove the lower front panel in the same way as installing a KX-TA62477. If you install the KX-TA62474 to a KX-TA62477, remove the top front panel with pliers.




**3.** After cutting the areas, be sure to cut off any excess plastic in order to make the surface smooth. Please refer to installing the KX-TA62477.

**4.** Attach the 2 extension connectors to the system first, install the KX-TA62474 and secure the 2 screws.




**5.** Insert the modular plugs of the telephone line cords (2-conductor wiring) into the ports (JACK 17 through 24). (☞ 2.8, Extension Connection)

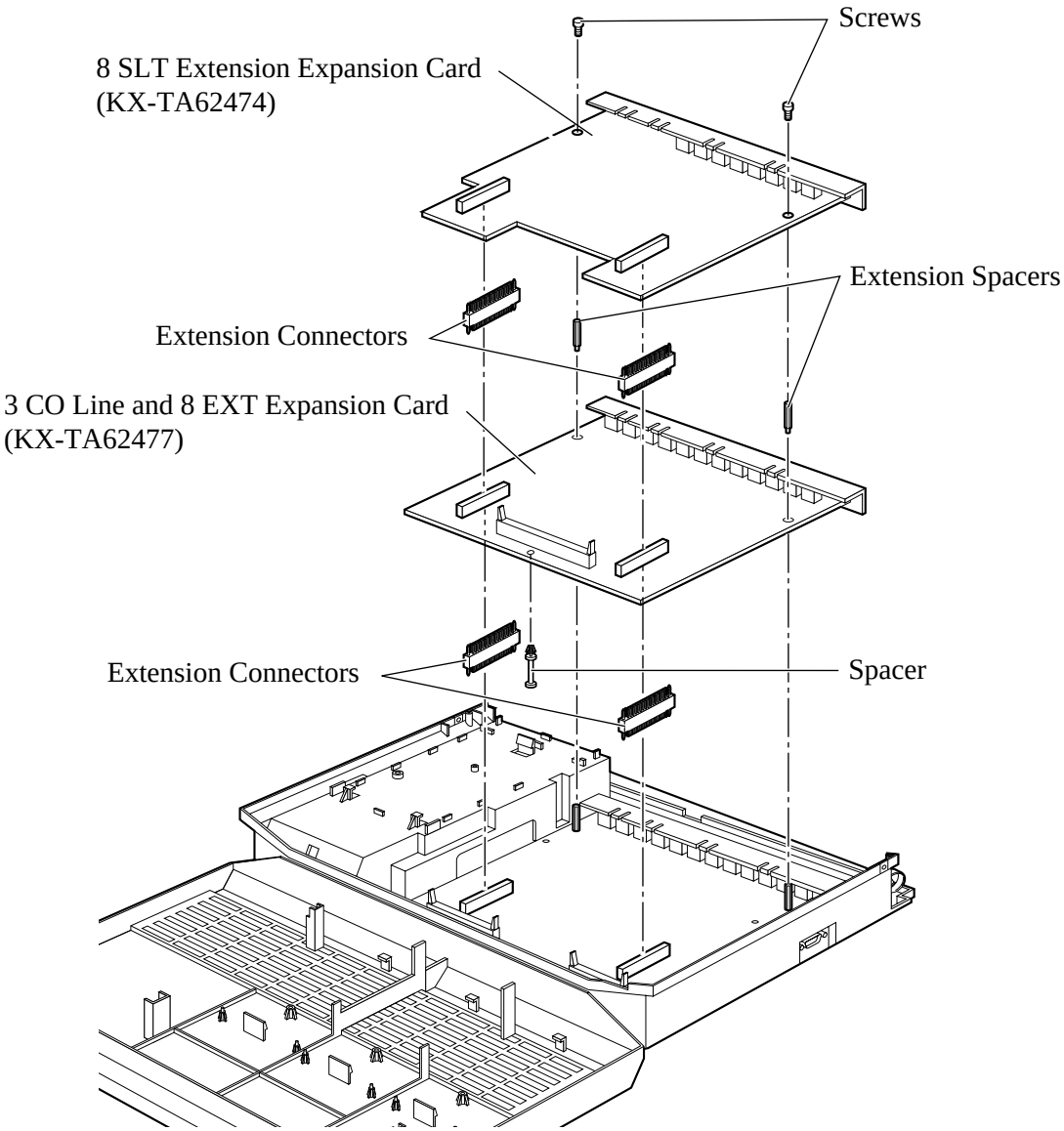
**6.** Wrap the strap around all of the cords. (☞ 2.19, Securing the Cords)

**7.** Close the covers and secure the screws.

# 2.17 Installing a 3-CO Line & 8 Ext Expansion Card (KX-TA62477) and 8 SLT Extn. Expansion Card (KX-TA62474)

## Installing the KX-TA62477 and KX-TA62474

**1.** Install the KX-TA62477 first and then the KX-TA62474.



# 2.18 Auxiliary Connection for Power Failure Transfer

Power failure transfer connects a specific single line telephone (SLT) to selected exchange lines in the event of system power failure, as follows.

Exchange line 1 – extension (T, R) port 01

Exchange line 4 – extension (T, R) port 09

Connection of exchange lines 1 and 4, and the respective extensions require no auxiliary connection.

- In the event of a power failure, system memory is protected by a factory-provided lithium battery. There is no memory loss except the Camp-on, Saved Number Redial, Last Number Redial, Call Park and Message Waiting memories.
- The system automatically changes the current connection to the above connection when the power supply stops.
- Proprietary telephones cannot be used during a power failure. Therefore, we recommend connecting SLTs in parallel with proprietary telephones connected to extension ports 01 and 09.

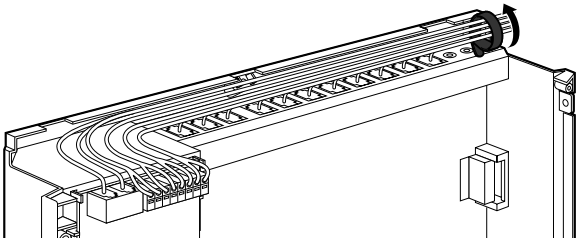
- **Feature References**

  **Section 3, Features**

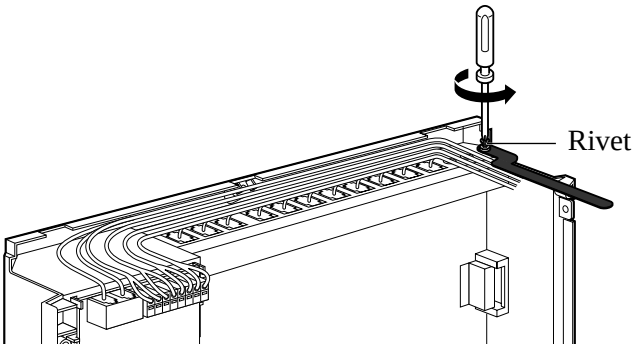
  Power Failure Transfer, Parallelled Telephone Connection

## 2.19 Securing the Cords

**1.** Wrap the strap around all of the cords.



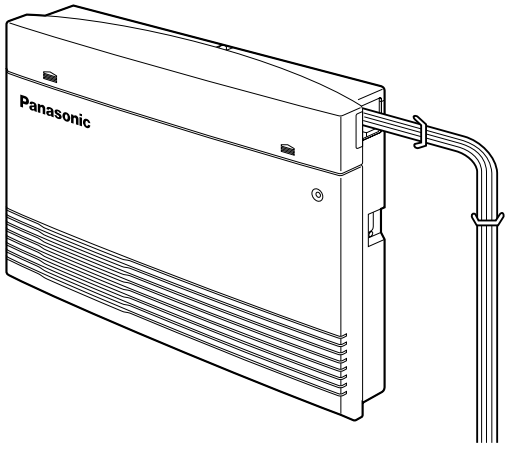
- To remove the rivet, use a screw driver as shown below.




## 2.20 Closing the Front Cover

**1.** Replace the covers and tighten the screws.

**2.** Tie together all of the connected cords and attach them to the wall so that the cords cannot be pulled out of the system.



# 2.21 Starting the System for the First Time

**1.** Set the Power Switch to the “OFF” position.

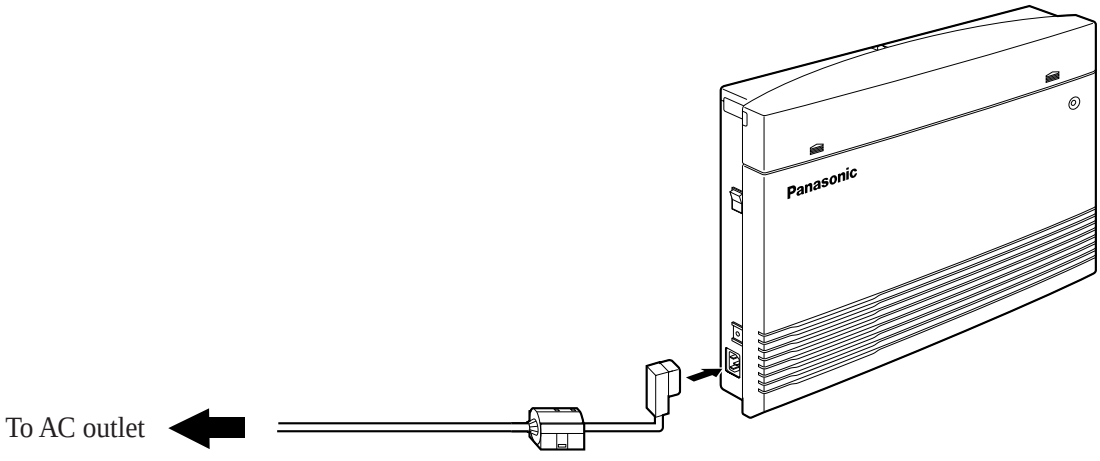
**2.** Plug the AC power cord into the system and an AC outlet.

**3.** Turn the Power Switch on.
(The power indicator will light.)

**4.** Perform the following operation with a proprietary telephone connected to JACK 01.
a) Set the MEMORY switch to “PROGRAM” on the back of the telephone.
b) Press ✳ #.
c) Enter 1234.
d) Enter 999.
e) Press the NEXT (SP-PHONE) button.
f) Press the SELECT (AUTO ANSWER/MUTE) button until “All Para” is displayed.
g) Press the STORE (AUTO DIAL/STORE) button.
h) Press the END (HOLD) button.
i) Set the MEMORY switch to “SET” on the back of the telephone.

The system will be initialised with the default values. If the system does not work properly, please see 2.23, “System Data Clear”.

**CAUTION** • The system 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 outlet is located/installed near the equipment and is easily accessible.



# 2.22 System Restart

After starting the system, if the system does not operate properly, restart the system.

Before restarting the system, try the system feature again to confirm whether there definitely is a problem or not.

System Restart causes the following.

- Camp-on is cleared.
- Calls on Hold are terminated.
- Calls on Exclusive Hold are terminated.
- Calls in progress are terminated.
- Call Park is cleared.
- Message Waiting is cleared.
- Last Number Redial is cleared.
- Saved Number Redial is cleared.

Other data is not cleared by System Restart.

**1.** Turn the Power Switch “OFF” and then “ON”.

- If the system still does not operate properly, please see 2.23, “System Data Clear”.

# 2.23 System Data Clear

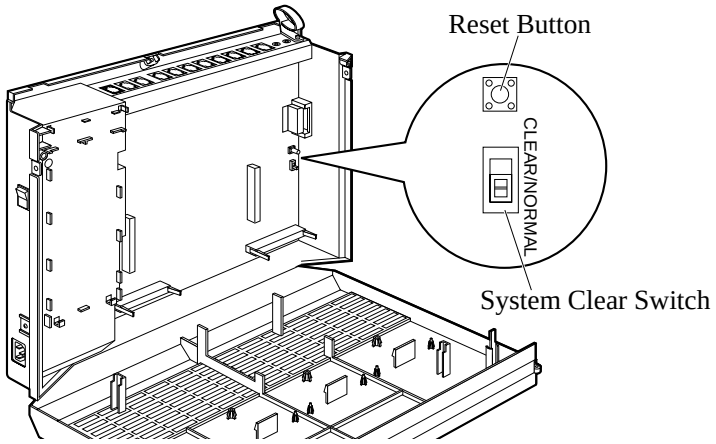
When the system does not operate properly after restarting, you can clear the programming data stored in the system. The system will restart with the default settings.

First, try system program [999] "System Data Clear" by following step 4 in 2.21, "Starting the System for the First Time". If the system still does not operate properly, please follow the procedure below.

**1.** Slide the System Clear Switch to the "CLEAR" position.

**2.** Press the Reset Button.

**3.** Return the System Clear Switch to the "NORMAL" position before the power indicator stops flashing.
(The power indicator will flash for about 10 seconds.)




**CAUTION** • Before touching the System Clear Switch and Reset Button, put on a grounding strap.

! • After pressing the Reset Button, return the System Clear Switch to the "NORMAL" position in step 3 before the power indicator stops flashing. Otherwise, the system will not clear.

☞ • **Feature Reference**
**Section 3, Features**
System Data Default Set

# *Section 3*
# *Features*