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INTRODUCTION

PURPOSE

OfficeServ 7030 is the most suitable system for small offices with 3 to 8 station users. This manual describes the prerequisite for the installation of the OfficeServ 7030 system as well as how to install, inspect and operate the system.

DOCUMENT CONTENT ORGANIZATION

This document consists of 9 sections as follows:

PART 1. Before Installing

This section describes the checklists (installation site, grounding & power conditions etc.) which should be inspected before installing the OfficeServ 7030 system. This chapter also describes the items included in the OfficeServ 7030 package and the installation procedure.

PART 2. Mounting and Replacing the Boards

This section describes how to mount/replace various boards to/from the OfficeServ 7030 system.

PART 3. Installing the System

This section describes how to install an OfficeServ 7030 on the wall, if necessary, depending on the installation environment.

PART 4. Connecting the Power

This section describes how to connect the power to the OfficeServ 7030 system.

PART 5. Connecting the C.O. Line

This section describes how to connect the C.O. lines to the OfficeServ 7030 system.

PART 6. Connecting the Stations and Additional Equipment

This section describes how to connect various stations and additional equipment (analog/digital phones, door phones, door locks etc.) to the OfficeServ 7030 system.

PART 7. Power Up Procedures

This section describes items to check before starting the OfficeServ 7030 system and the procedure for starting the system.

PART 8. Software and Database Management

PART 9. Adding Card to the System

CONVENTIONS

The following types of paragraphs contain special information that must be carefully read and thoroughly understood. Such information may or may not be enclosed in a rectangular box, separating it from the main text, but is always preceded by an icon and/or a bold title.

WARNING

Provides information or instructions that the reader should follow in order to avoid personal injury or fatality.

CAUTION

Provides information or instructions that the reader should follow in order to avoid a service failure or damage to the system.

CHECKPOINT

Provides the operator with checkpoints for stable system operation.

NOTE

Indicates additional information as a reference.

SAFETY CONCERNS

For product safety and correct operation, the following information must be given to the operator/user and shall be read before the installation and operation.

SYMBOLS

Caution

Indication of a general caution

Restriction

Indication for prohibiting an action for a product

Instruction

Indication for commanding a specifically required action

WARNING

Warning

Caution for grounding

- Do not connect the OfficeServ 7030 system's grounding wire to the building's power conduit.
- The power and grounding installation should comply with the local standard; all related works should be conducted according to the local standard.
- External grounding is required to prevent bodily injuries or system damages from lightning, static electricity or voltage surge.
- Unplug the AC power cord before connecting the grounding wire. Failure to do so may cause bodily injury.
- The OfficeServ 7030 system should be connected to a protective-ground outlet.
- The GND in the back panel of the OfficeServ 7030 system should be grounded.

Using double-pole/neutral fusing

Do not attempt to repair the system after only removing the fuse from the neutral line, doing so may cause electric shock. If the repair is required, unplug the system's power cord before proceeding.

AC power connection restriction

Connect the system's AC power to a separated AC outlet. If the AC power is used together with other equipments, a system failure or fire may occur due to static electricity and/or voltage drop.

Caution for power supply when mounting the board

Check if the cabinet power is turned off when mounting the board. Inserting or removing a board while the power is turned on may damage the board.

Caution for the connection of the ground cable

Unplug the AC power cord before connecting the ground cable. Any attempt to connect the ground cable while the power cord is connected may cause severe bodily injury.

CAUTION

Caution for installation

Only a trained service staff may install the OfficeServ 7030 system.

The equipment is intended to be installed only in a RESTRICTED ACCESS LOCATION.

Leakage currents caused by ringing voltage–grounding installation instructions

A supplementary equipment grounding conductor should be installed between the system and the earth in addition to the default equipment grounding conductor provided in the power supply cord.

The size of the supplementary equipment grounding conductor should not be smaller than the ungrounded branch-circuit supply conductors.
The supplementary equipment grounding conductor should be connected to the product from the provided terminal, and connected to the earth in order to maintain the earth connection when the power supply cord is unplugged.
The connection of the supplementary grounding conductor to the earth should comply with the appropriate rules for terminating bonding jumpers, including the National Electrical Code (Article 250, Part K), the ANSI/NFPA 70 and the Canadian Electrical Code, C22.1 (Part 1, Article 10). The termination of the supplementary grounding conductor may consist of building steel, of a metal electrical raceway system or of any grounded item permanently and reliably connected to the grounded electrical service equipment.

Bare, covered or insulated grounding conductors are acceptable. A covered or insulated conductor must have a uniform outer finish, either green or green with yellow stripes.

Separation of TNV and SELV-Pluggable A

The separate protective grounding terminal provided with this product should be permanently connected to the earth. (Instruction)

Telephone line cord

To reduce the risk of fire, use only No. 26 AWG or larger (e.g., 24 AWG), UL Listed or CSA Certified Telecommunication Line Cord.

Prohibition of metal accessories

Do not wear metal accessories such as rings and watches to prevent electric damages to the system.

AC power connection restriction

Do not share the AC power of the OfficeServ 7030 system or the AC power of the external UPS with other devices.

Checking MEM LED before power off

Don't turn off the power during blinking MEM LED. It may cause malfunction of system. If you want to turn off power, turn off power switch after dismounting MEM with 'Key MMC 817 STOP MEMORY'.

Checking power-off

Check if the cabinet power is turned off when mounting the board. Inserting or removing a board while the power is turned on may damage the board.

Board reset

New settings are applied only after the board is reset. The system may malfunction if the board is not properly initialized.

Caution for Installation

Only a trained service staff may install the OfficeServ 7030 system.

Turning off power switch after dismounting MEM

You should dismount MEM before turning off power switch. Use 'Key MMC 817 MEM UMOUNT' when dismounting MEM.

PART1. Before Installing

This part describes the checklists (installation site, grounding & power conditions etc.) which should be inspected before installing the OfficeServ 7030 system. This chapter also describes the items included in the OfficeServ 7030 package and the installation procedure.

1.1 Site Information

Select a site that satisfies the following safety, temperature and humidity conditions.

1.1.1 Safety Conditions

- OfficeServ 7030 system should not be installed near materials that can cause fire, such as explosive gas and inflammable objects.
- OfficeServ 7030 system should not be installed near equipments that generate electromagnetic waves, such as monitors or copying machines.
- The installation location should be easily accessible for trunk line and extension line deployment, for power and grounding wire connection, and for maintenance and repair.
- OfficeServ 7030 system should not be installed in populated aisles/passageways or in areas used for moving equipment.
- Keep the area clean. Prevent the dust from damaging the cabinet's board-connecting part.
- Before installing the OfficeServ 7030 system, check items such as the electric wiring status, grounding status, voltage and frequency.

1.1.2 Temperature and Humidity Conditions

- The temperature and humidity conditions are as follows:
  – Operation Temperature: 0~40°C (32 ~ 104°F)
  – Storage temperature: -10~50°C (50 ~ 122°F)
  – Humidity: 10~90%
- Cool area protected from direct sunlight.
- Ventilators should be installed to remove dust.

1.2 Grounding Conditions

The following measures should be taken when grounding the OfficeServ 7030 system:

- The grounding wire of the OfficeServ 7030 system should be grounded to the earth using a proper material.
- The flow electric current between the power outlet's grounding wire and the system's metal surface should be satisfactory.
- Any additional equipment's grounding should be connected to the system's grounding through a single connection point.

Cautions for grounding

- Do not connect the OfficeServ 7030 system's grounding wire to the building's power conduit.
- The power and grounding installation should comply with the local standard; all related works should be conducted according to the local standard.
- External grounding is required to prevent bodily injuries or system damages from lightning, static electricity or voltage surge.
- Unplug the AC power cord before connecting the ground cable. Failure to do so may cause bodily injury.
- The OfficeServ 7030 system should be connected to a protective-ground outlet.
- The GND in the back panel of the OfficeServ 7030 system should be grounded.

1.3 Power Conditions

The Power Supply Unit (PSU) of the OfficeServ 7030 system receives an AC input power and supplies an output power of -54 V, +5 V, and +12 V to the system cabinet.

The power condition is as follows:

Table 1.1 Power Condition

Power Supply		Standards
PSU	Input Power	AC 110~120V, 50/60Hz or DC -48V
	Output Power	- DC -54 V, 0.5 A - DC +5 V, 3 A - DC +12 V, 1.8 A

1.4 Checking the Package

The list of the items included in the OfficeServ 7030 package is as follows:

Table 1.2 Package Items

Item	Name	Quantity	Remark
Cabinet	Basic Cabinet	1	-
Cable	Power Cable	1	-
Template	Wall Mount Template	1	-
Guide	Open/closing Instructions	1	-
Screw	Wall mount Screw	4	-
Terminal	Lug for connecting FGND	1	
Manual	Installation Manual	-	Optional

1.5 Cabinet Configuration

The cabinet of the OfficeServ 7030 system has four slots to install the boards.

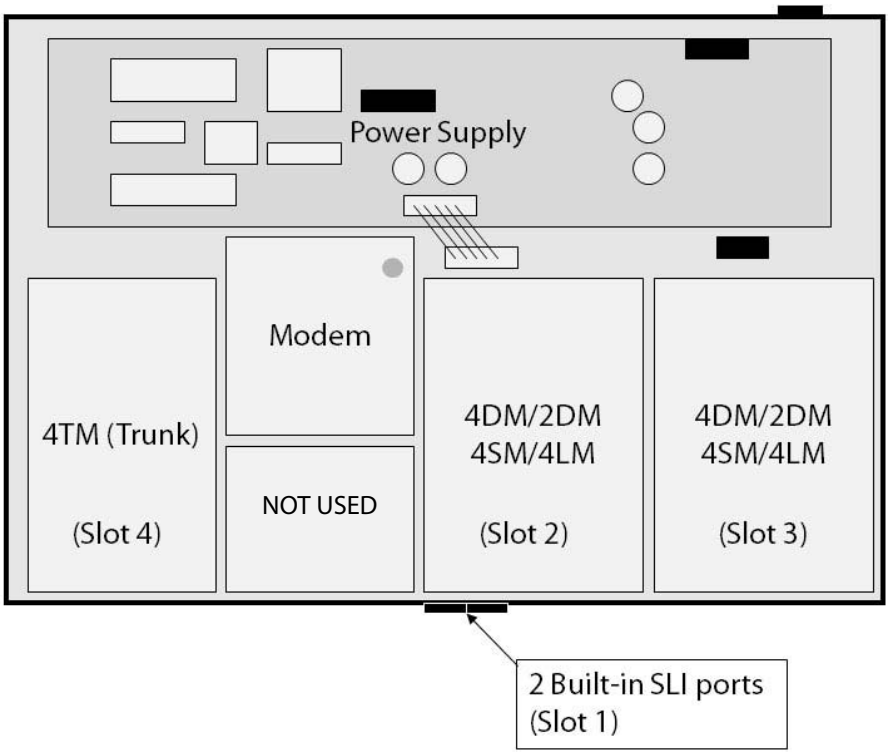


Figure 1.1 OfficeServ 7030 Cabinet Configuration

The descriptions of each part located on the left of the cabinet are listed in the table below.

Table 1.3 Parts on the back side of the cabinet

Part	Function
① Power Switch	Turns the power of the OfficeServ 7030 system on/off.
② Power I/O Connector	Connector for the power cable connection

CAUTION

Turning off power switch after dismounting MEM

You should dismount MEM before turning off power switch. Use 'Key MMC 817 MEM UMOUNT' when dismounting MEM.

Figure 1.2 Top Side View of the OfficeServ 7030 Cabinet

Figure 1.3 Top Side View of the OfficeServ 7030 Cabinet

The descriptions of each part located on the top of the cabinet are listed in the table below.

Table 1.4 Parts on the top side of the cabinet

Part	Function
① RUN LED	Main CPU operation status - Off: Idle - On (Green): Booting - Blink (Green): Normal Operation of the Program - ON (Red): Clearing the Flash Memory (Database)

Part	Function
② LAN LED	LAN operation status - Off: LAN is not connected - On (Green) - LAN is connected - EPM is connected - Blink (Green): Tx/Rx of data through LAN port
③ MEM LED	MEM operation status - Off: Before recognizing Flash memory - On(Green): After recognizing Flash memory and normal state of the Flash memory - Blink (Green): Accessed by application and Read/Write/Erase
④ BRI LED	The port status - Off: Not used - On (Green) : In use - Blink (Green) : BRI line is activated (NOT USED IN THE US)

CAUTION

Checking MEM LED before power off

Don't turn off the power during blinking MEM LED. It may cause malfunction of system. If you want to turn off power, turn off power switch after dismounting MEM with 'Key MMC 817 MEM UMOUNT'.

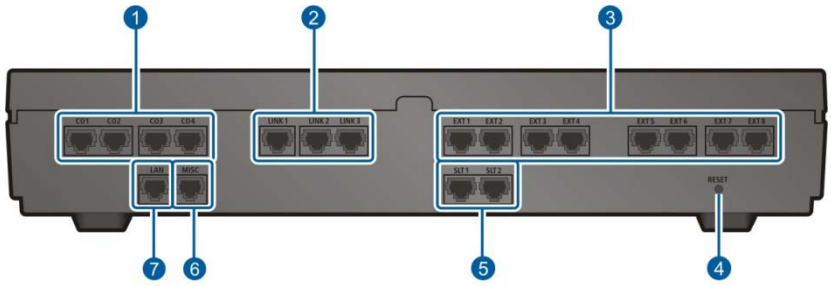


Figure 1.4 Front Side View of the OfficeServ 7030 Cabinet

See descriptions on the next page.

The descriptions of each part (see Figure 1.4) are listed in the table below.

Table 1.5 Parts on the right panel of the cabinet

Part	Function
① C.O 1-4	Trunk ports
② LINK1-3	Ports that connect the base cabinet with the expansion cabinet (NOT USED IN USA)
③ EXT1-8	Station ports for subscribers (i.e analog phone, digital phone, LAN)
④ Reset	Button for resetting the system
⑤ SLT1, 2	Station ports for analog phones
⑥ MISC	Ports that connect external audio devices, paging device, loud bell, common bell, or external relays
⑦ LAN	LAN port

1.6 System Installation Procedure

The system installation procedure is as follows:

1) Open the cabinet.
2) Ground the ground lug in the basic cabinet (or use third prong AC around)
3) Insert the daughter boards.
4) Insert the daughter boards into the universal slots (slot 2, 3 and/or 4).
5) Install the cabinet on a wall, if necessary, depending on the installation environment
6) Connect and tie the cables with the cable ties.
7) Connect the AC 110~120 V input power. If necessary, connect Uninterruptible Power Supply (UPS).
8) Turn on the system. Wait 3.5 to 4 minutes to complete boot up.

PART 2. Mounting and Replacing the Boards

This part describes how to mount/replace various boards to/from the OfficeServ 7030 system.

2.1 Connecting the Grounding Wire

This section describes how to open the cabinet and connect an external grounding wire to the OfficeServ 7030 system

2.1.1 Opening

1) Hold the cable duct cover and push upward as shown in the following picture.

Figure 2.1 Removing the cable duct cover (1)

2) Separate the cable duct cover.

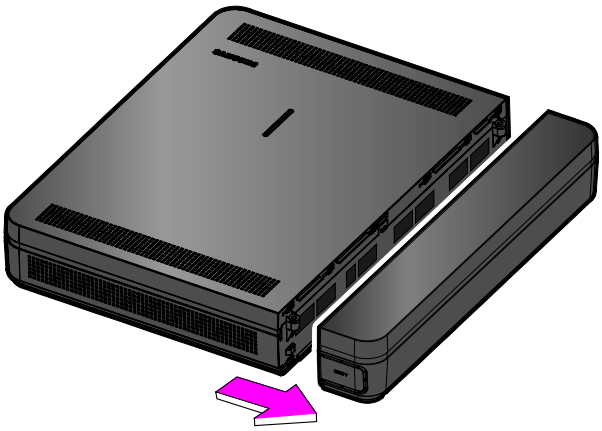


Figure 2.2 Removing the cable duct cover (2)

3) Remove the two screws.

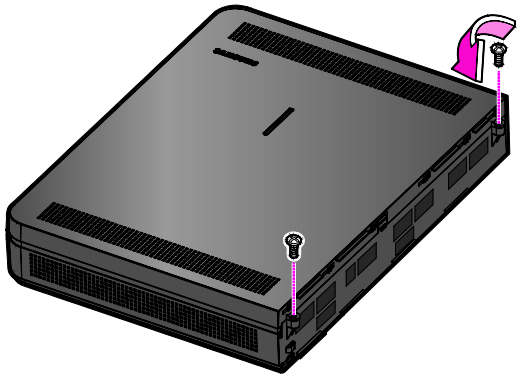


Figure 2.3 Removing the screws

4) Push and lift the top cover to open the case.

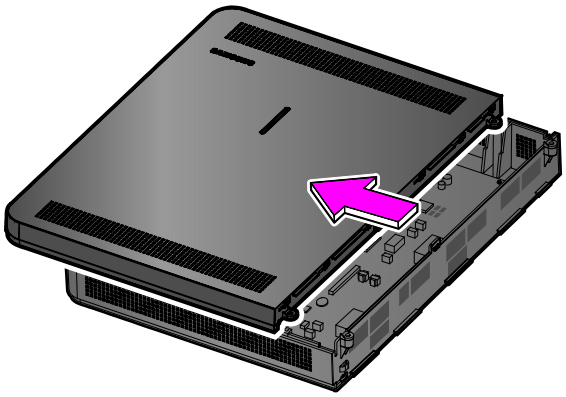


Figure 2.4 Removing the top cover

2.1.2 Grounding

WARNING

External Grounding

External grounding is required to prevent bodily injuries or system damages from lightning, static electricity or voltage surge. The OfficeServ 7030 system should be grounded with an 18AWG or higher electric wire, or an electric wire with a cross-sectional area of 0.8mm^2. The nominal thread diameter of the screw should be at least 3.5 mm; a UL Listed Lug Terminal should be used for the ring terminal.

Connect the grounding to the base board as shown in the figure below, Tighten the ground cable to the base board with a screw.

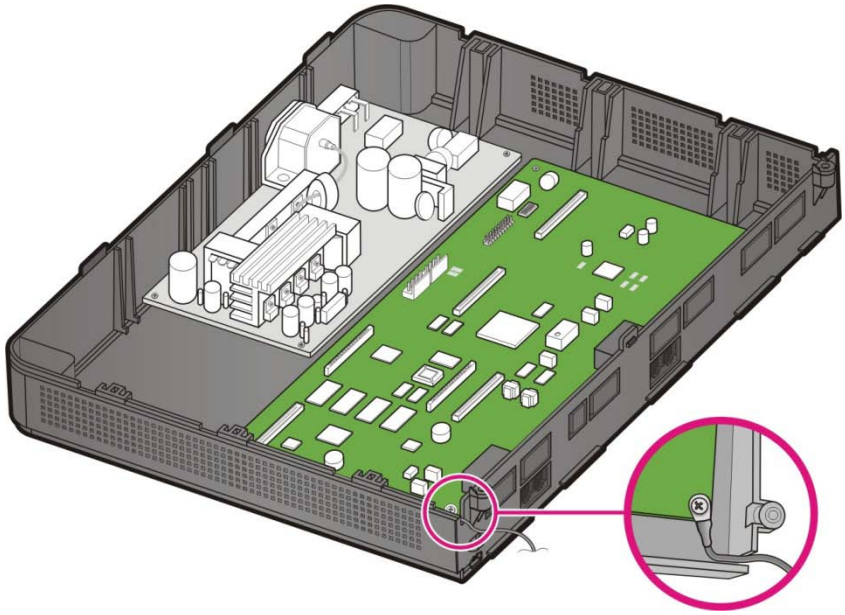


Figure 2.5 Grounding

CHECK

Checking external grounding

After installing the OfficeServ 7030 system, ensure that the GND in the inner side of the system cabinet is connected to the external grounding for communication before operating the system.

2.2 Mounting the Boards

This section describes how to set the base board switches and mount the optional boards.

2.2.1 Removing Dummy Parts

Depending on daughter boards, remove the cabinet's dummy parts with pliers.

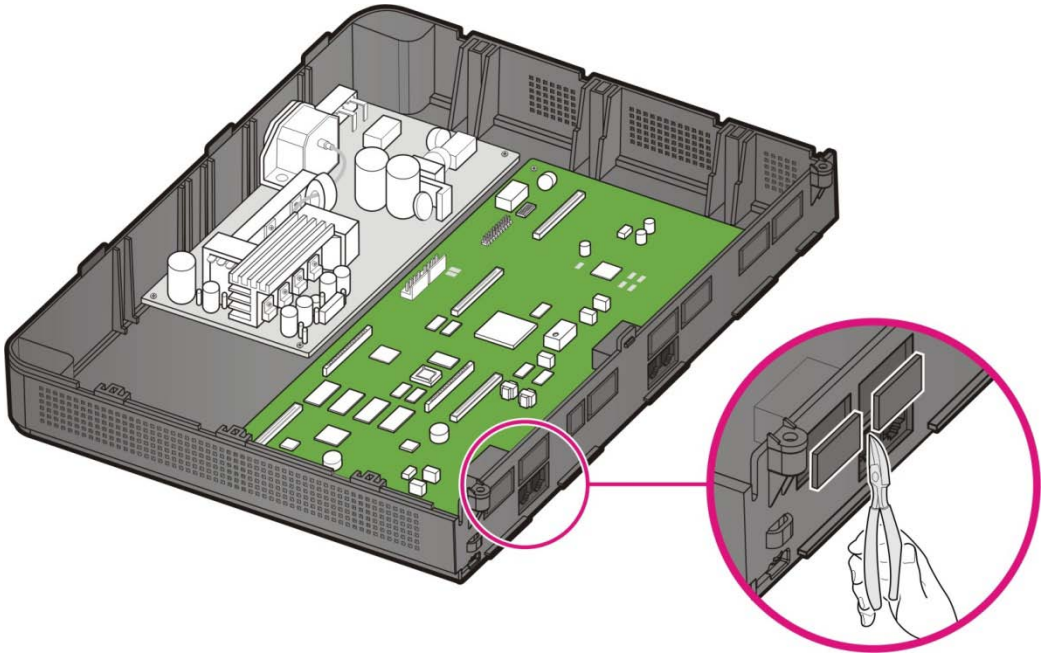


Figure 2.6 Removing the dummy parts

2.2.2 Setting Switches

The base board is equipped with switches relative to the user requirements, system configuration and/or daughter boards are as follows:

Table 2.1 Jumpers/Switches of the Base

Board	Switch	Description
Base	S1 (1~8)	Sets the country code and future use (leave at default)

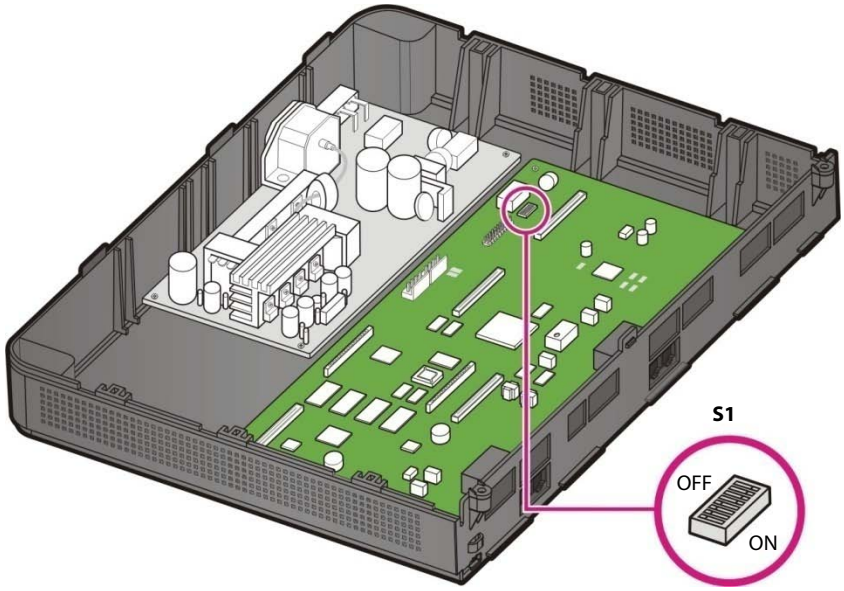


Figure 2.7 Setting the Base Board Switches

Table 2.2 Base Board Switches

Switch	Description	
S1	SW1~SW4	The pins set the system's country code.
	SW5	Reserved for future use
	SW6	IP address Setting - On : Default factory setting address - Off : User setting address
	SW7~SW8	Reserved for future use (Leave at default)

2.2.3 Mounting Optional Boards

When mounting the optional board, align the base board connectors to the optional board (e.g. MODEM) connectors, and press the optional board firmly downward with two hands

1) Mount the MODEM board to the base board's P7 and P8 connectors.

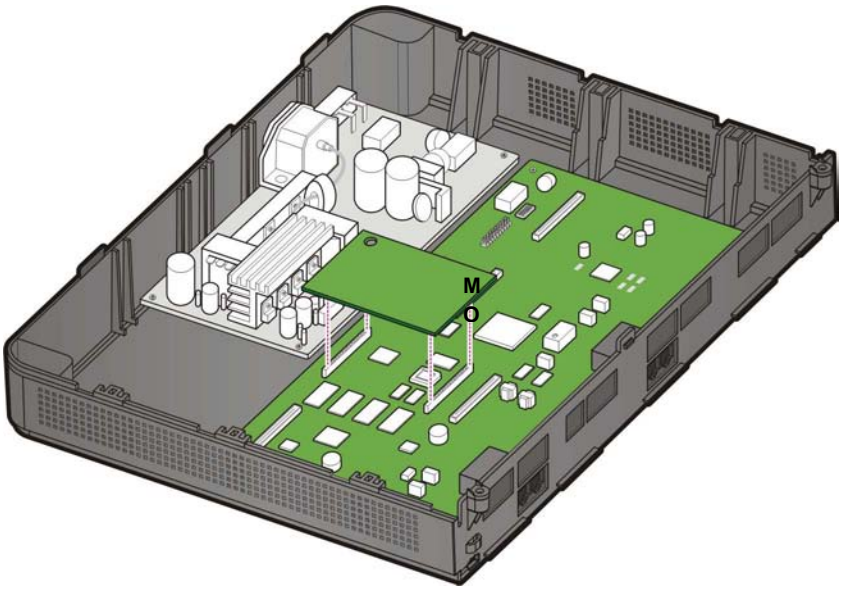


Figure 2.8 Mounting a MODEM Board on the Base Board

2.2.4 Mounting Daughter Boards

The following daughter boards can be mounted on the slots according to the OfficeServ 7030 configuration.

Table 2.3 Mountable Boards

Part	Slot	Mountable Board
Trunk Part	Slot 4	4TM only
Subscriber Part	Slot 2 and Slot 3	4DM, 2DM, 4SM, 4LM

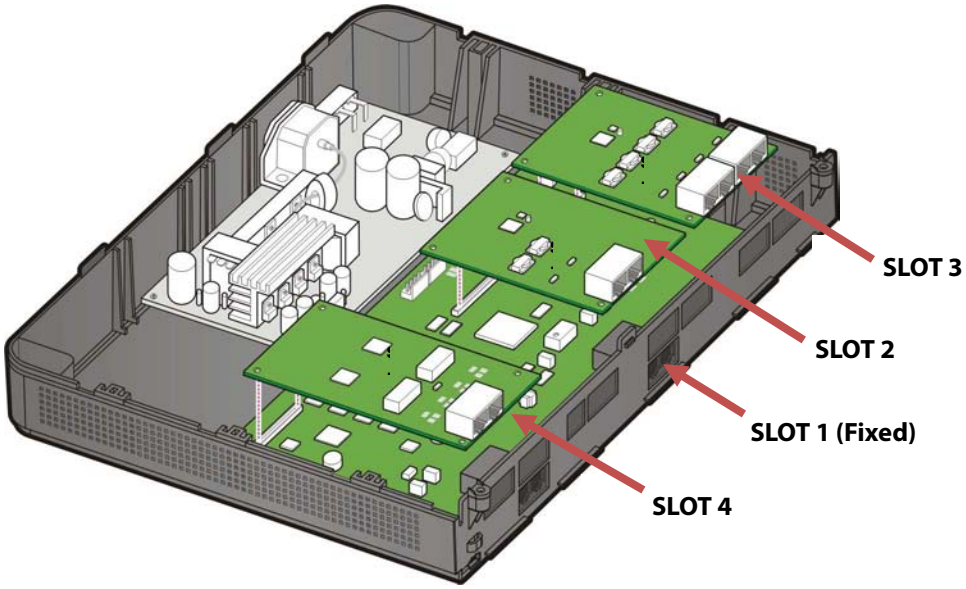


Figure 2.9 Location of the Base Board Slots

NOTE

The 4TM Module board does not support the Dial Pulse dialing, but it supports the DTMF dialing.

CAUTION

Caution for the power supply when mounting the boards

Check if the cabinet power is turned off when mounting the board. Inserting or removing a board while the power is turned on may damage the board or cause fire.

1) 4TM can be mounted to the base board's P3 connector.

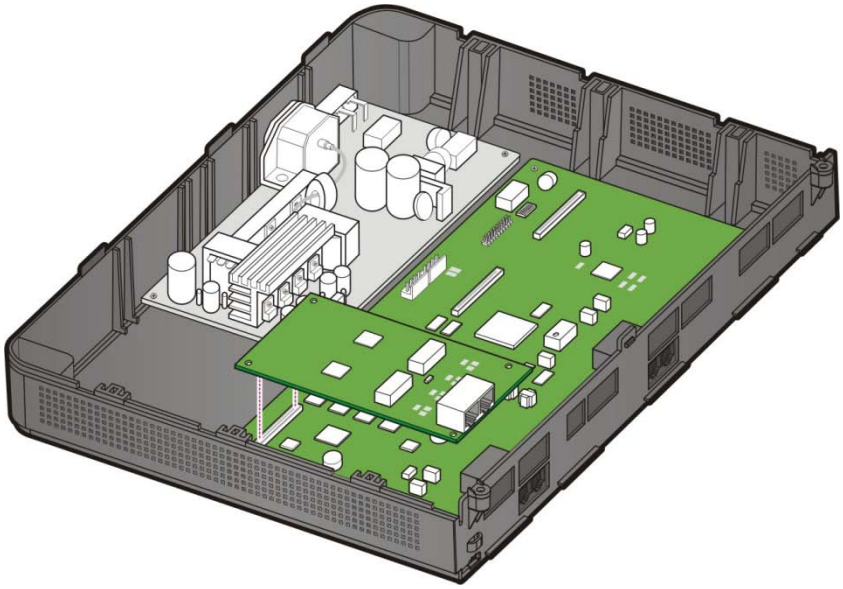


Figure 2.10 Mounting 4TM on the Base Board

2) 2DM, 4DM, 4SM or 4LM can be mounted to the base board's P1 and/or P4 connector.

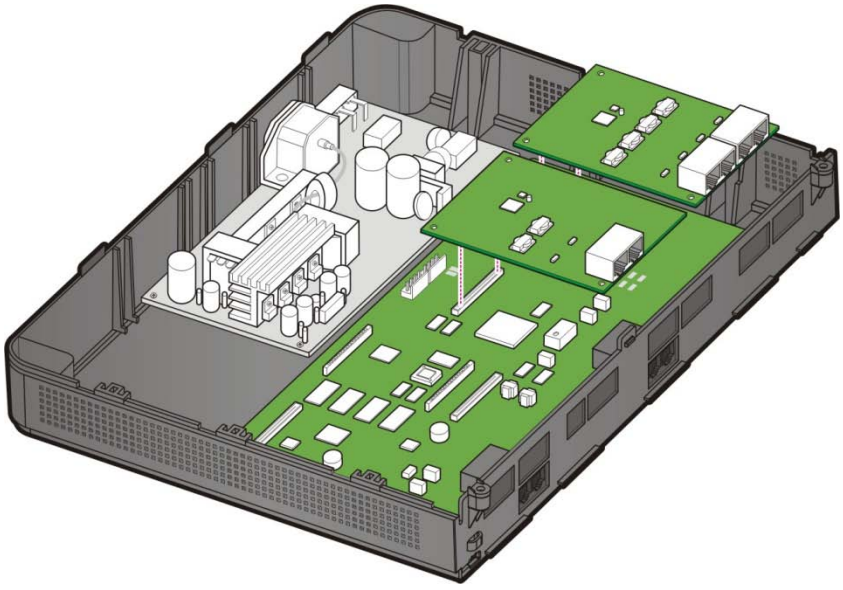


Figure 2.11 Mounting 2DM/4DM/4SM/4LM on the Base Board

3) Tighten the screws which fit within the grooves of the daughter boards.

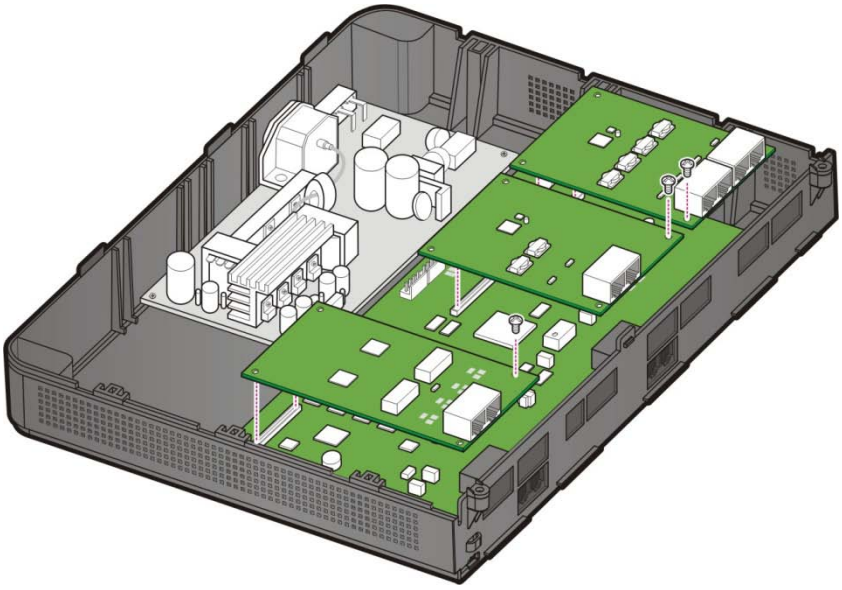


Figure 2.12 Tightening screws to install the daughter boards

2.2.5 Closing/Cabling

1) Push and align the top cover to close the case.

Figure 2.13 Installing the top cover (1)

2) Tighten two screws to install the top cover.

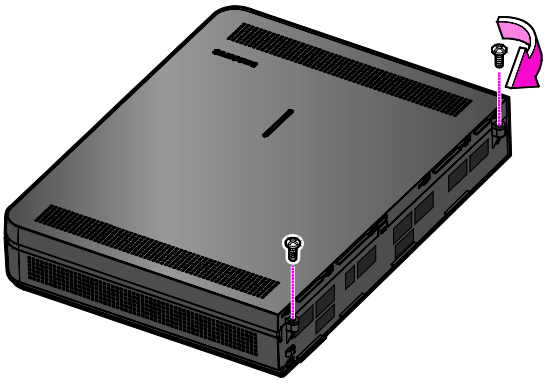


Figure 2.14 Installing the top cover (2)

3) Fasten the cables to the cabinet with a cable tie.

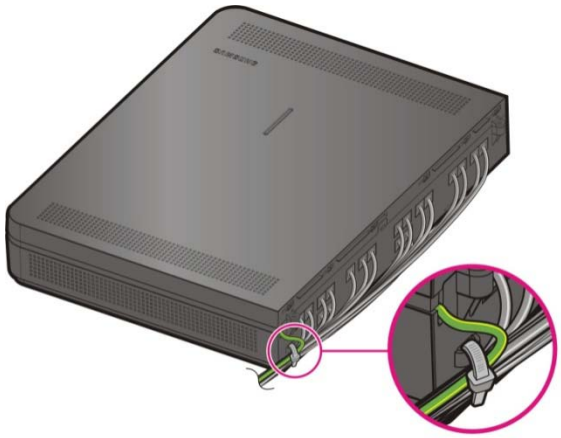


Figure 2.15 Cabling

4) Align and install the cable duct cover as follows.

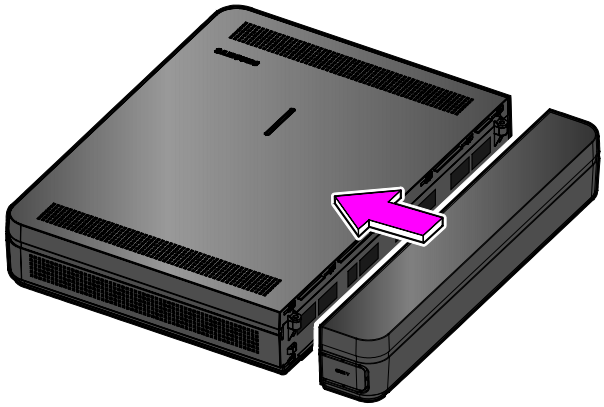


Figure 2.16 Installing the duct cover (1)

5) Hold the cable duct cover and push downward as shown in the following picture.

Figure 2.17 Installing the duct cover (2)

2.3 Replacing the Boards

If the OfficeServ 7030 system fails to operate normally due to an error on the power supply board, or daughter board, replace the board with a new one.

> **CAUTION**
>
> Removing the Cables
>
> Before replacing a daughter board, remove all cables connected to the board.

To replace a board mounted in the slot of a cabinet, proceed as follows:

1) Turn off the power of the cabinet in which the board is mounted.

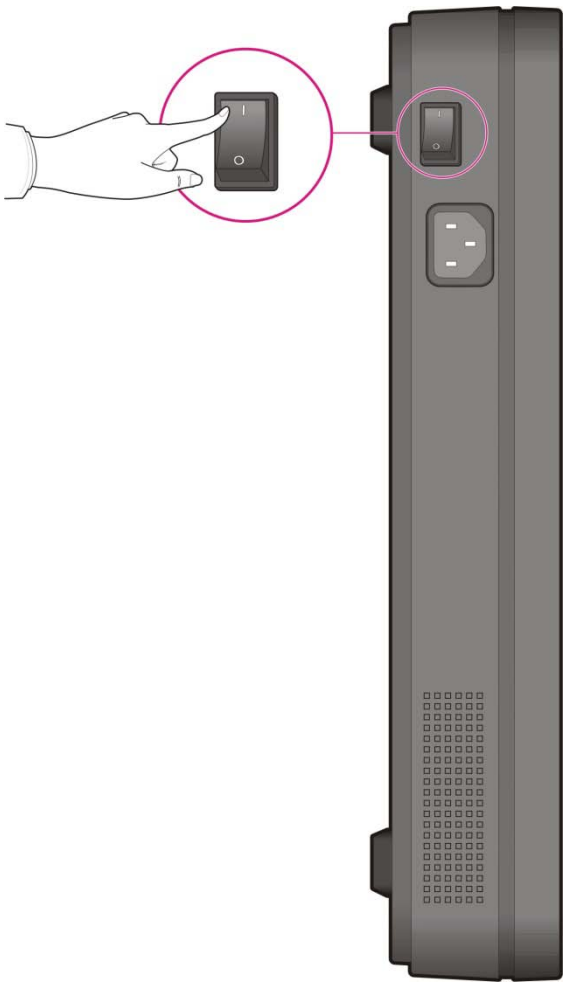


Figure 2.18 Turning Off the Cabinet Power

2) Remove the cable duct cover and open the upper case. Refer to section '2.1.1 Opening'.

3) Remove the screw and extract the board carefully.

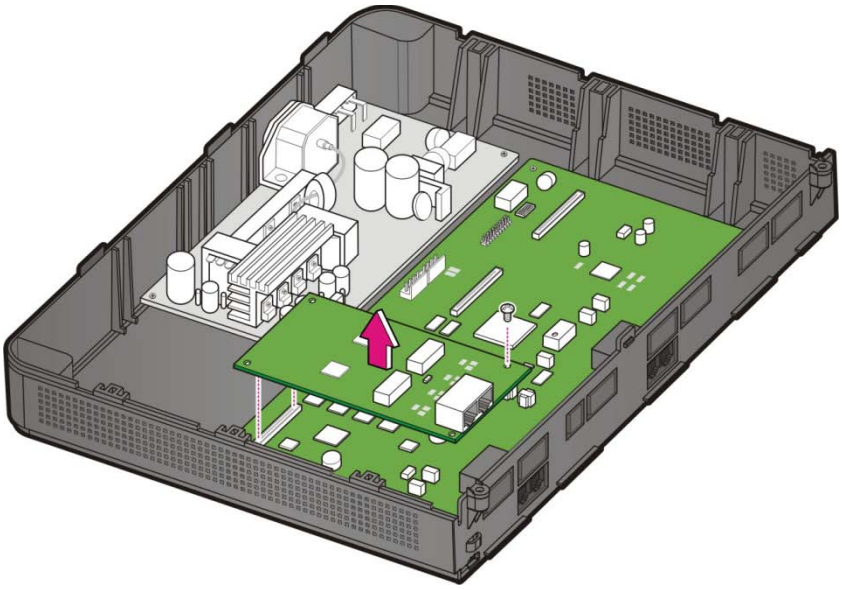


Figure 2.19 Removing the boards

4) Align the new board to the connector of the slot, and press the daughter boards firmly downward with two hands. Tighten the screw.

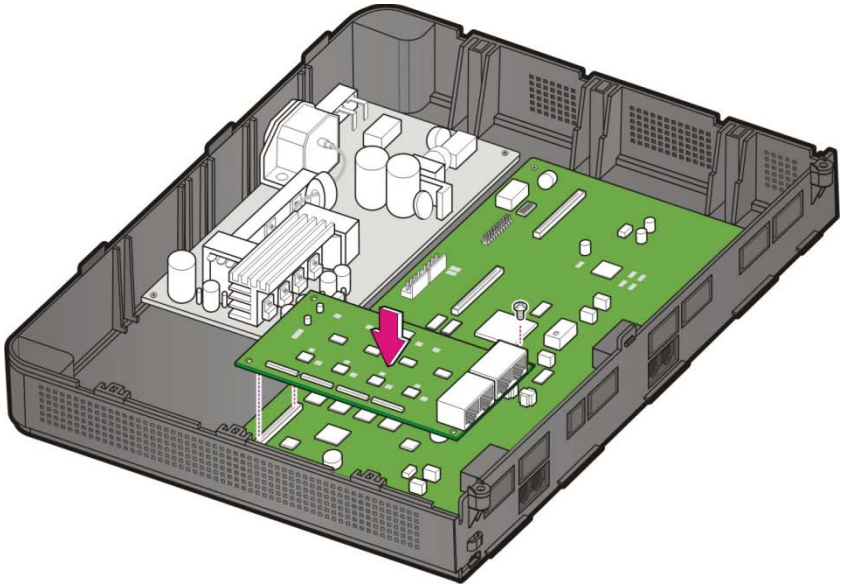


Figure 2.20 Replacing the daughter boards

5) Close the cabinet. Refer to section '2.2.5 Closing/Cabling'.

PART 3. Installing the System

This part describes how to install an OfficeServ 7030 on the wall, if necessary, depending on the installation environment.

3.1 Installing on a Wall

This section describes how to install the OfficeServ 7030 cabinet on a wall.

3.1.1 Required Tools

- Mid-sized Phillips screw driver
- Electric drill
- Hammer
- Wall Mount Template
- Four plastic Bushings
- Four cross-type screws

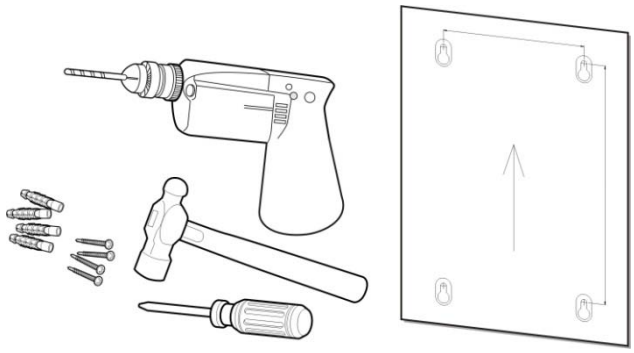


Figure 3.1 Required Tools for the Installation on a Wall

3.1.2 Installing on a Wall

To install the OfficeServ 7030 cabinet with a wall mount template, proceed as follows:

1) Drill holes on the marked position of the Wall Mount Template. Drill holes with a minimum of 33 mm depth and approx. 6 mm width to ease the insertion of the plastic bushings.

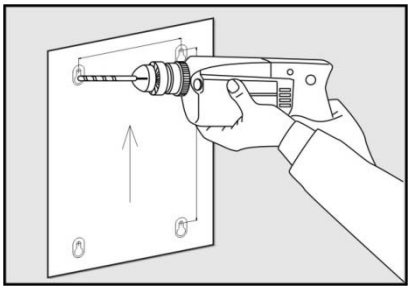


Figure 3.2 Installation on a Wall (1)

2) Fix plastic anchors into the drilled holes with a hammer.

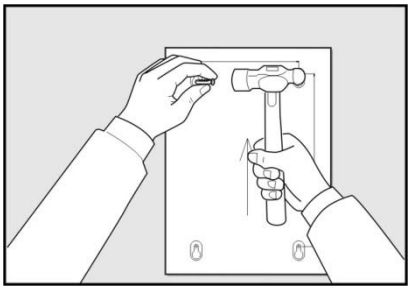


Figure 3.3 Installation on a Wall (2)

3) Align the screw holes of the wall-type bracket to the fixed plastic anchors' positions. Insert the screws to each hole and tighten the screws with a Philips screw driver.

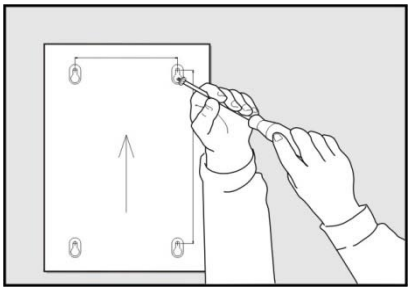


Figure 3.4 Installation on a Wall (3)

4) Align the holes of the OfficeServ 7030 cabinet to the bracket screws, then pull down the cabinet to completely fix on the wall.

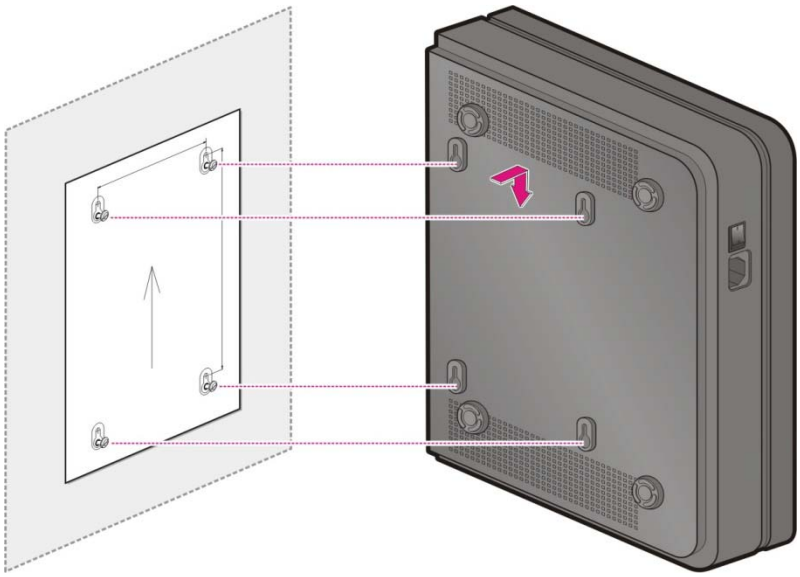


Figure 3.5 Installation on a Wall (4)

PART 4. Connecting the Power

This part describes how to connect the power to the OfficeServ 7030 system and how to connect the external UPS.

4.1 Connecting the Power

4.1.1 Cautions when Connecting the Power

When the input power is normally supplied, the AC current is supplied to the Power Supply Unit (PSU). If the input power is interrupted, the system can be operated using the external UPS.

When connecting the power to the OfficeServ 7030 system, pay attention to the following criteria:

- The system supports 110~120 V AC power.
- A single AC outlet should be used solely for the system's AC power. Sharing the AC power with other devices can cause static and/or voltage drop, resulting in system malfunction or fire.
- Use a stable power source that can supply continuous AC power; instantaneous power failures may cause malfunctions.

4.1.2 Connecting the Power

Use the power cable provided with the OfficeServ 7030 system to connect the input power terminal located on the right panel of the basic cabinet to a grounded outlet.

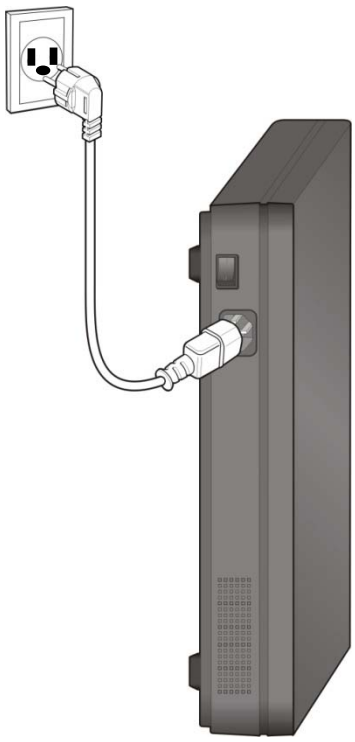


Figure 4.1 Connecting the Power

4.2 Connecting the External UPS

An external Uninterruptible Power Supply (UPS) is required to ensure stable operation of the OfficeServ 7030 system in case of a power failure. The rated capacity of an external UPS is AC 110~120 V. The UPS should be connected to guarantee safety.

To connect an external UPS to the OfficeServ 7030 system, proceed as follows:

1) Prepare the UPS provided with the product.

2) Connect cabinet.

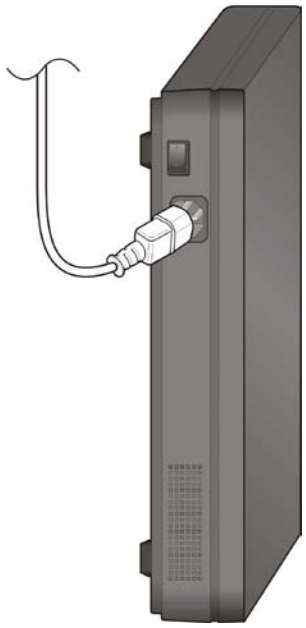


Figure 4.2 Connecting an External UPS

4.3 Connecting External Batteries

4.3.1 Cautions for Connecting External Batteries

External batteries are required to maintain stable operation of the OfficeServ 7030 system in case of a power failure occurs. The capacity for this battery should be rated at DC 48V. A fuse (125VAC, 3Amp) should be positioned between the output terminal of the battery and the cabinet.

Cautions for connecting external batteries

Do not connect external AC power to the system before completing the connection between batteries and the system. If so, it may cause electric shock.

Check the specified polarity (+ or -) to connect external batteries.

To reduce risk of fire and injury, use only a sealed nickel cadmium or lead-acid battery supply capable of handling a charge current of .5A, a charge voltage of -54V DC, and a discharge rate of 26Ah.

Observe the following precautions when installing batteries:

- Make sure the batteries you install conform to local building, fire and safety codes. Some battery types emit hydrogen gas during the charging state and may require venting to fresh air.
- Do not place batteries directly on a concrete floor. This causes them to discharge very quickly.
- Follow the battery manufacturer's recommended installation and maintenance procedures.

4.3.2 Procedure for Connecting External Battery

The procedure for using a battery cable to connect an external battery to the OfficeServ 7030 system is as follows:

1) Use the battery cable that was provided with the OfficeServ 7030 system. The battery cable consists of a red wire and a black wire.
2) Connect the red wire of the locally provided battery cable to the (+) terminal, and the black wire the (-) terminal of the battery. Connect the other end of the battery cable to the external battery socket on the two prong connector on the supply of the OfficeServ 7030 cabinet. (See figure 4-5).

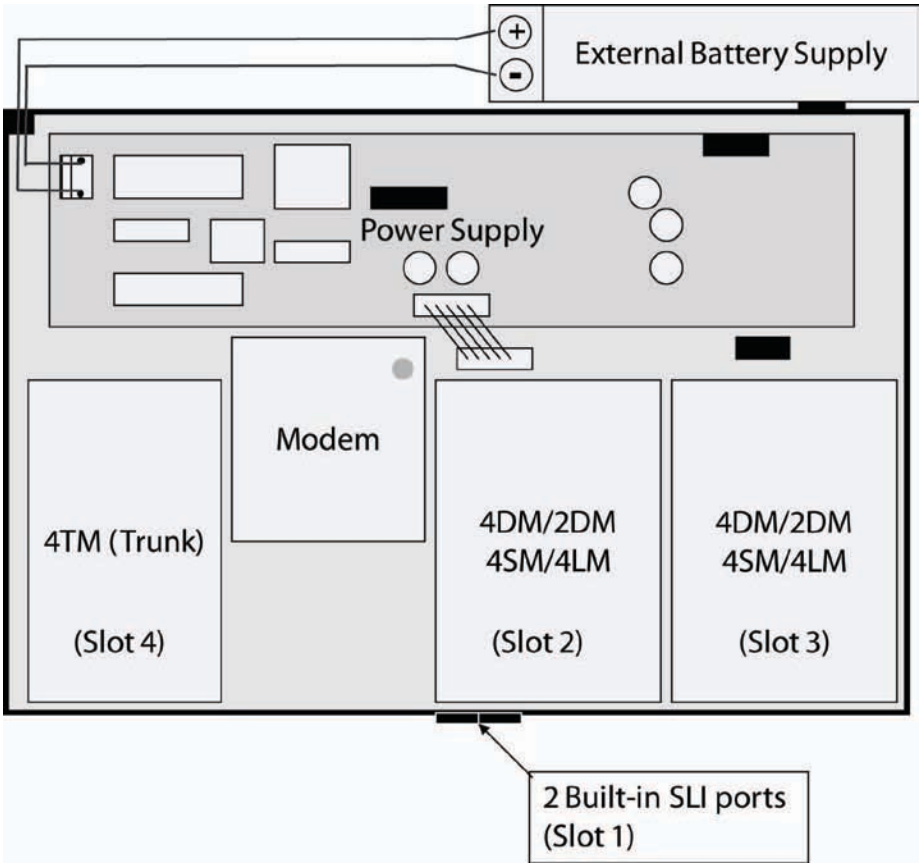


Figure 4.3 Connecting an External Battery

4.4 Connecting the Power Fail Transfer

The 4TM and the Baseboards support the Power Fail Transfer function.

If the AC power fails while the UPS is not connected, connect a power fail transfer circuit by connecting the C.O. lines to the extensions. If a pair of trunk lines (4TM) is connected to Pin1 and Pin2 of the first port in the base board's SLI, the lines will be connected to a phone through Pin 4 and 5 of the 4TM. During the power failure, emergency calls can be available since the C.O. line is directly connected to the phone by the internal relay operation.

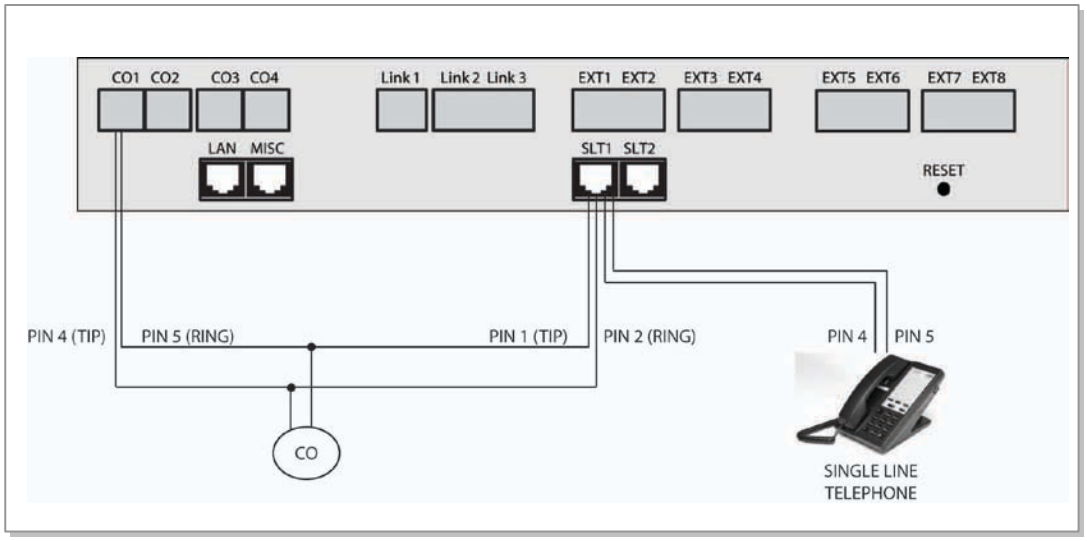


Figure 4.4 Connecting the Power Fail Transfer

PART 5. Connecting the C.O. Line

This part describes how to connect the C.O. line to the OfficeServ 7030 system after the installation.

5.1 Line Conditions

When connecting the C.O. lines, pay attention to the following criteria:

- Use an AWG #24 or AWG #26 cables.
- When wiring the cables in humid areas, remove the moisture before wiring.
- The cables should be handled carefully to prevent any distortions or damages.
- The subscriber lines should be kept indoors if at all possible.
- Do not cable the subscriber lines around any high-voltage power line.

The leak resistance of the C.O. line connected to the OfficeServ 7030 system is as follows:

Table 5.1 Line condition of the OfficeServ 7030

Line Condition	Leak Resistance
Leak Resistance between Lines	20 kΩ or higher
Leak Resistance Between Grounds	20 kΩ or higher

5.2 Connecting the C.O. Line

This section describes how to connect a common C.O. line (4TM).

5.2.1 Cautions When Connecting the C.O. Line

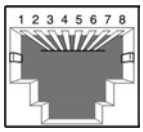
When connecting the C.O. line, pay attention to the following criteria to prevent bodily injuries and system damages:

- Do not connect the C.O. line in extreme weather conditions such as storm and lightning.
- Do not connect the C.O. line in humid areas.

5.2.2 Connecting Common C.O. Line

Use a pair of AWG #24 (or AWG #26) cable to connect a common C.O. line to the terminal pin of a terminal box connected to the OfficeServ 7030 system equipped with a 4TM board.

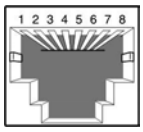
Connecting to the 4TM Board



P1 Port
(RJ-45)

Pin No.	1	2	3	4	5	6	7	8
Function	PFT TIP	PFT RING	-	C.O TIP	C.O RING	-	-	-

Figure 5.1 P1 (RJ-45) Port of the 4TM Board



P2 ~P4-Port
(RJ-45)

Pin No.	1	2	3	4	5	6	7	8
Function	-	-	-	C.O TIP	C.O RING	-	-	-

Figure 5.2 P2~P4 (RJ-45) Port of the 4TM Board

PART 6. Connecting the Stations and Additional Equipment

This part describes how to connect various stations and additional equipment (analog/digital phones, door phones, door locks etc.) to the OfficeServ 7030 system.

6.1 Connecting the Stations

6.1.1 Cautions when Connecting the Stations

When connecting the stations, pay attention to the following criteria:

- Do not connect the stations in extreme weather conditions such as storm and lightning.
- Do not connect the stations in humid areas.
- Comply with the manual of the station as well as with this document when reconnecting the stations or changing the connections.
- Connect the stations with a pair of #24 AWG or #26 AWG cables.

The distances between the stations and the OfficeServ 7030 system are as follows:

Table 6.1 Distance Between Stations and the System

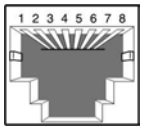
Installation Distance	Standards
Digital Phone	Maximum 1312 ft (400 m) (AWG #24)
Analog Phone	Maximum 3280 ft (1 km) (AWG #24)
Door Phone	Maximum 1312 ft (400 m) (AWG #24)
SMT-R2000	Maximum 328 ft (100 m) (Ethernet cable)

6.1.2 Connecting Analog Phones

Connect an analog phone to the base board's SLT ports, or to the 4SM board mounted on the OfficeServ 7030 system.

Connecting to the Base Board's SLT

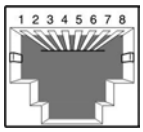
Connect an analog phone to the ports of the base board's SLT with a pair of AWG #24 or AWG #26 cables.



SLT1 Port
(RJ-45)

Pin No.	1	2	3	4	5	6	7	8
Function	PFT TIP	PFT RING	-	SLI TIP	SLI RING	-	-	-

Figure 6.1 SLT1 (RJ-45) Port of the Base Board



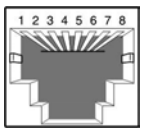
SLT2 Port
(RJ-45)

Pin No.	1	2	3	4	5	6	7	8
Function			-	SLI TIP	SLI RING	-	-	-

Figure 6.2 SLT2 (RJ-45) Port of the Base Board

Connecting to the 4SM Board

Connect an analog phone to the port of the 4SM board with a pair of AWG #24 or AWG #26 cables.



P1~ P4 Port
(RJ-45)

Pin No.	1	2	3	4	5	6	7	8
Function	-	-	-	SLI TIP	SLI RING	-		

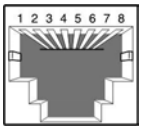
Figure 6.3 P1~P4(RJ-45) Port of the 4SM Board

6.1.3 Connecting Digital Phones

Connect a digital phone to the base board's 4DM or 2DM.

Connecting to the 4DM Board

Connect a digital phone to the ports of the base board's 4DM or 2DM with a pair of AWG #24 or AWG #26 cables.



P1~ P4 Port
(RJ-45)

Pin No.	1	2	3	4	5	6	7	8
Function			-	DLI TIP	DLI RING	-	-	-

Figure 6.4 P1~P4(RJ-45) Port of the 4DM Board

6.1.4 Connecting IP Phones (ITP, SMT-i Series and SIP)

An IP phone is a phone that provides calls through the Ethernet LAN. The interface between a digital phone connected to the OfficeServ 7030 system and an IP phone connected to the LAN is as follows. By default, the base board supports four MGI channels which enables the use of the IP phones.

1) The connection between a digital phone and an IP phone is established using the IP address of the LAN connected to the OfficeServ 7030 system.
2) The digital phone connected to the OfficeServ 7030 system converts the analog voice/data to PCM voice data and transmits the data to the base board through the 4DM board.
3) The PCM voice data is converted to packet data by the base board and transferred to the IP phone.
4) The IP phone converts the packet voice data to analog voice signals and displays the signals through a handset or speaker.
5) The Voice signals coming from the IP phone are converted to packet data and transmitted to the base board in the same way. The base board converts the packet voice data to PCM voice data and transmits the data to the digital phone through the 4DM board. The digital phone converts and sends the PCM voice data to analog data.

Configure the MMC setting to suit the system before use.

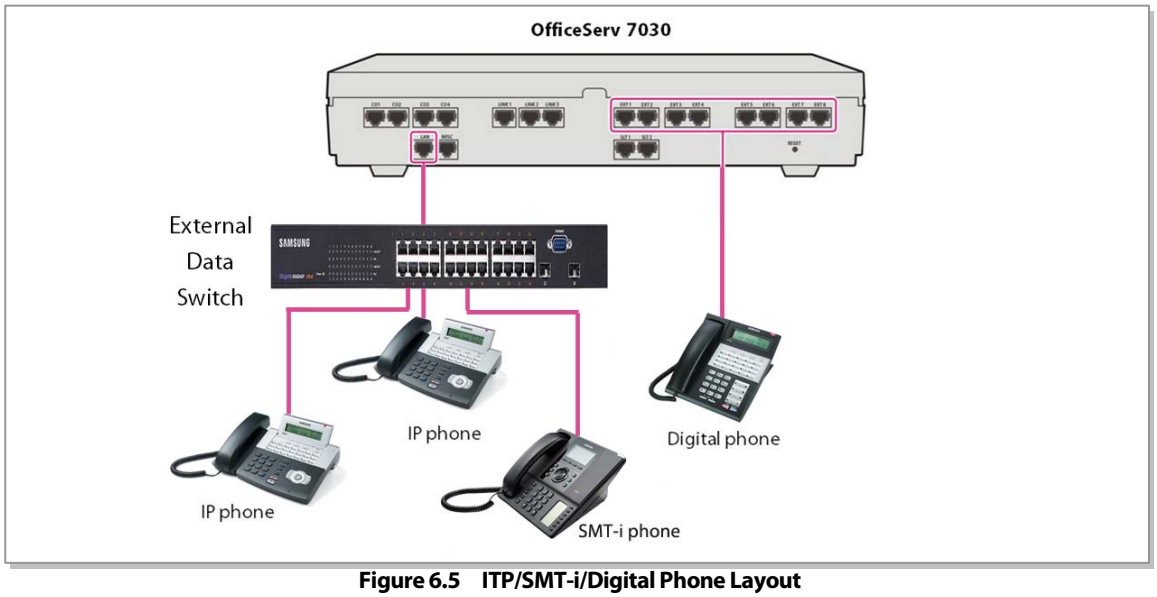
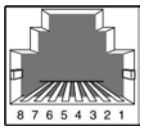


Figure 6.5 ITP/SMT-i/Digital Phone Layout

CAUTION: The input power of the SMT-i Series phones needs 5.0vDC and 3000mA. The SMT-i5210, SMT-i5220, SMT-i5230, and SMT-i5243 need to be powered by using Samsung's SMT-A53PW power adapter. The SMT-i3105 requires the SMT-A53PA power adapter. Failure to use the appropriate power supply will cause permanent damage to the phone and will void Samsung's warranty.

6.1.4.1 Connecting Cards to LAN (4LM)

4LM (P1~P4), and OfficeServ 7030 main unit (LAN port) can be connected to a LAN by using an Ethernet cable.



RJ-45 Port

Pin No.	1	2	3	4	5	6	7	8
Function	Tx+	Tx-	Rx+	-	-	Rx-	-	-

Figure 6.6 LAN Connections

- 4LM Ports (P1~P4)
- Base Board-LAN Port

6.1.5 Connecting a Door Phone and a Door Lock

Connect a door phone and a door lock to the OfficeServ 7030 system using a Door Phone Interface Module (DPIM).

Connect the Door Phone Interface Module (DPIM) line jack to any DM port in the OfficeServ 7030 system using twisted pair (24AWG/26AWG). Use MMC 724 to assign a station ringing to the doorphone.

Connect the Door Phone to the DPIM-door box jack using 4 conductor twisted pair cable. See Figure 6.7 for power and voice pair pin assignments.

If required connect a custom provided door lock to the lock contact pair on the DPIM using twisted pair wire (24/26AWG) as indicated in figure 6.7.

The door lock contact pair is designed to control a low-voltage relay rated at 24VDC and 100mA. Do not attempt to connect commercial AC power to these contacts.

NOTE

MMC 724 is used to assign station ringing to door phones. Use MMC 501 to program duration of door lock release contact closure. For detailed instruction on the MMC program, refer to the OfficeServ 7030 Programming Manual.

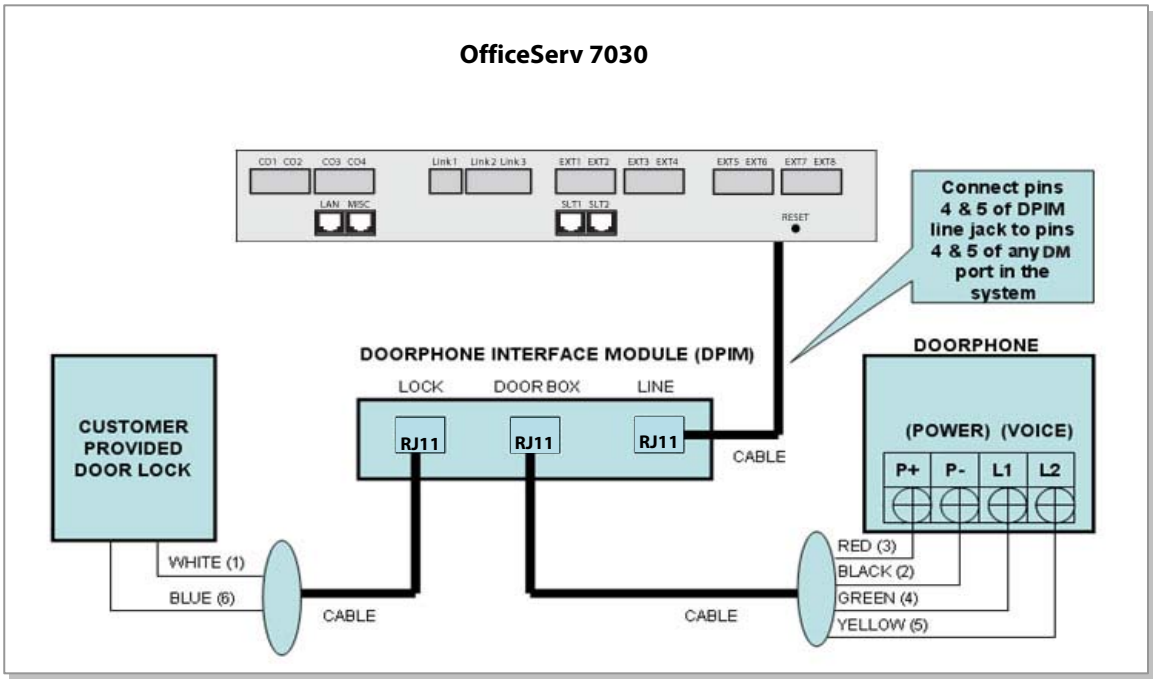


Figure 6.7 Door Phone Connections

6.1.6 Connecting a Wireless LAN Access Point

The wireless LAN service offered by the OfficeServ 7030 system requires the following equipment:

- SMT-R2000: Wireless LAN Access Point (AP)
- SMT-W5100E/SMT-W5120D: Wireless LAN IP phone

Table 6.2 Specification for the Wireless LAN Connection

Item	OfficeServ 7030 System (Basic Cabinet)
Maximum number of users	16
Number of simultaneous users	MMC845 setting

NOTE

For information on how to install and use the SMT-R2000 and SMT-W5100/SMT-W5120D, refer to the OfficeServ Wireless Technical Manual.

Connect the 4LM board and the SMT-R2000 WAN port with a RJ-45 Ethernet cable (100m maximum distance). The SMT-R2000 does need to connect to additional power because it cannot get power from the 4LM card. Use one port of the 4LM card and connect to LAN port or base unit to uplink main processor to 4LM LAN ports.

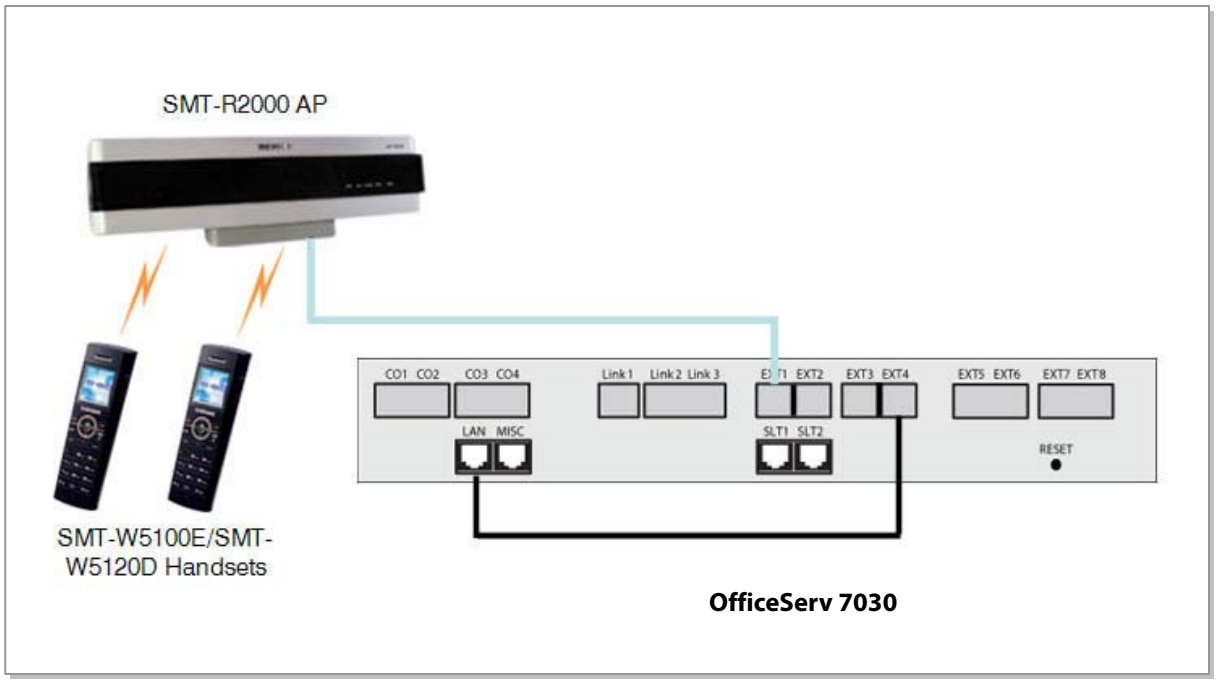


Figure 6.8 Wireless Connections

6.2 Connecting Additional Equipment

This section describes how to connect optional equipment, such as Music on Hold (MOH)/Background Music (BGM) sources, external page devices, common bells, and PCs for OIT/SMDR/CTI, to the OfficeServ 7030 system.

The following table lists the default MISC Numbering Plan defined in MMC 724.

MISC FUNCTION # IN MMC 724	DEFAULT DN	HARDWARE ITEM
01	371	MOH/BGM
02 (Voice)	361	Page Tip and Ring
03 (Relay 1)	362	Dry Contact (MMC 218)
04 (Relay 2)	363	Dry Contact (MMC 218)
05	399	Internal Modem

6.2.1 Connecting the MOH/BGM Equipment

The OfficeServ 7030 system offers Music on Hold. The system provides internal tone/music and external music sources per C.O. or extension lines as the music source.

One external MOH source connection is provided on the 7030 base unit's MISC port. Connect the music source to this MISC port.

NOTE

IMPORTANT NOTICE: In accordance with US copyright law, a license may be required from the American Society of Composers, Authors and Publishers (ASCAP) or another similar organization if copyrighted music is transmitted through the Music on Hold feature. Samsung Telecommunications America hereby disclaims any liability arising out of failure to obtain such a license.

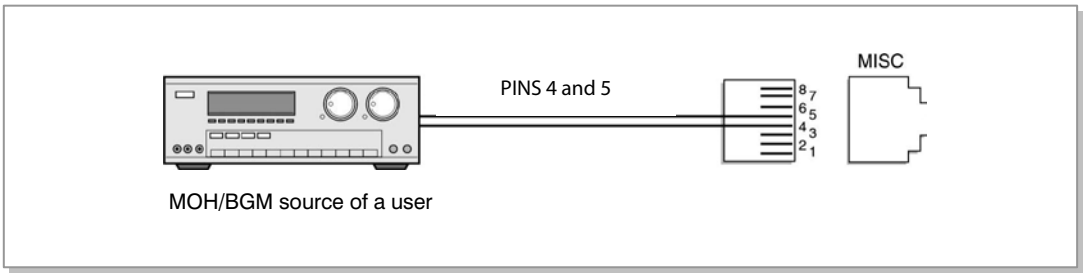


Figure 6.9 Connecting MOH/BGM Sources

- The MISC port located on the front panel of the main unit.

NOTE

MMC

Select music sources for C.O. lines in MMC 408 and music sources for extensions in MMC 308.
For detailed instructions on the MMC programs, refer to OfficeServ 7100 Programming Manual.

The following ports are assigned to the external MOH inputs on the MIS daughtercard:

HARDWARE ITEM	MISC FUNCTION # in MMC 724	DEFAULT DN (Ports)
MOH/BGM Ext. Source	01	371

6.2.2 Connecting External/Additional Page Equipment

Instead of an internal speaker, external broadcasting equipment, such as amps or speakers, and additional equipment that can broadcast page ring signals outside a building can be connected to the OfficeServ 7030 system.

Connect external/additional paging equipment to the OfficeServ 7030 MISC port. The power of the external/additional paging equipment should be connected separately.

The OfficeServ 7030 MISC port provides a voice pair and one dry contact to be used with customer-provided paging equipment. Connect the customer-provided paging equipment to the page output pins of the MISC port (see Figure 6.10).

The Page Zone Relay ports assigned to the dry contact pair are listed in the following table. Assign the DN number to the selected page zone using Default DN (Ports).

HARDWARE ITEM	MISC FUNCTION # in MMC 724	DEFAULT DN (Ports)
Page Tip & Ring (600 ohms)	02	361
Contact Pair #1	03	362
Contact Pair #2	04	363

- MISC port is located on the front panel of the OfficeServ 7030 main unit.

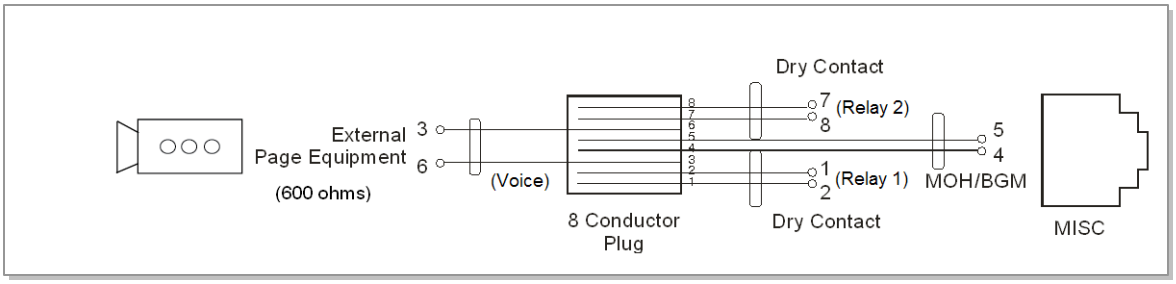


Figure 6.10 Connecting External/Additional Page Equipment

NOTE

Dry Contact

Dry Contact is a switch that can connect or cut the power or line to external equipment.

6.2.3 Connecting Loud Bell Interface

When a station requires loud ringing, assign or pair that station to an audible ring tone output on the MISC port using MMC 205. Relay type can be assigned to Loud Bell in MMC 218.

MISC FUNCTION # in MMC 724	DEFAULT DN
03~04	362 or 363

Next, connect the output MISC port to a customer provided paging system or other suitable customer provided speaker (see Figure 6.10).

6.2.4 Connecting Common Bell

A customer-provided loud ringing device can be controlled using a dry contact pair on the OfficeServ 7030 MISC port.

Common bell connections should be wired to the OfficeServ 7030 MISC port.

By using MMC 204, programming allows for interrupted or continuous operation of the contacts. The interrupted selection follows the CO ring cadence, 1 sec ON/3 sec OFF. Relay type can be assigned to Common Bell in MMC 218.

MISC FUNCTION # in MMC 724	DEFAULT DN
03 or 04	362 or 363

The OfficeServ 7030 system supports only one dry contact for the common bell. The MISC port is located on the front panel of the OfficeServ 7030.

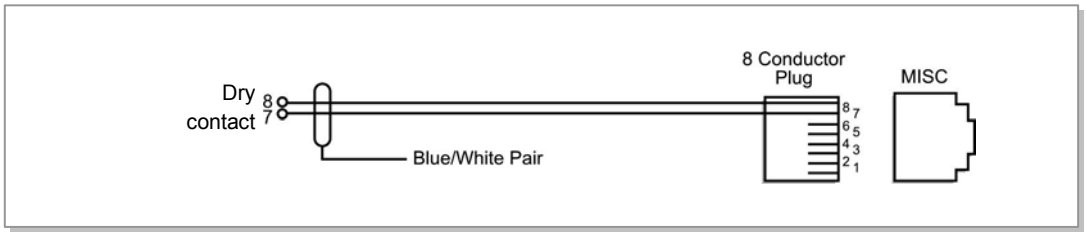


Figure 6.11 Connecting Common Bell

WARNING: Do not attempt to connect commercial AC power to these contacts.

1) After connecting a common bell, you must assign it in MMC 601 to a group as a ring destination by using the code for common bell.
2) After wiring to the contact pair, set contacts for continuous or interrupted operation.
3) Next, program hunt group to include the common bell.
4) Assign the trunk to ring the hunt group containing the common bell. Common bell control can be used with station hunt groups, individual stations and universal answer.

6.2.5 Ring Over Page

When a customer-provided paging system is installed, incoming calls can be assigned to ring over page. Program the C.O. line or C.O. lines to ring a hunt group. Using MMC 601, assign the DN number of the Page Output (voice) for the MISC port being used as a member of the group or as the NEXT PORT for the overflow destination. Other stations may be assigned to the same group to provide ringing to phones and the paging system at the same time.

MISC FUNCTION # in MMC 724	DEFAULT DN
02	361

6.2.6 Wall-Mounting Keysets

6.2.6.1 Wall-Mounting iDCS Keysets

iDCS keysets come equipped with a reversible base wedge. To wall-mount a keyset, remove the wedge from the keyset and mount the wedge to the wall using one of the methods below (see Figure 6.11).

Use screw holes 1 and 2 to attach the base wedge to a standard electrical outlet box.

OR

Use screw holes 1 and 3 to attach to a standard telephone wall-mount plate with locking pins. This method can cause the keyset to wobble as the keyset feet do not fit securely to the mounting surface.

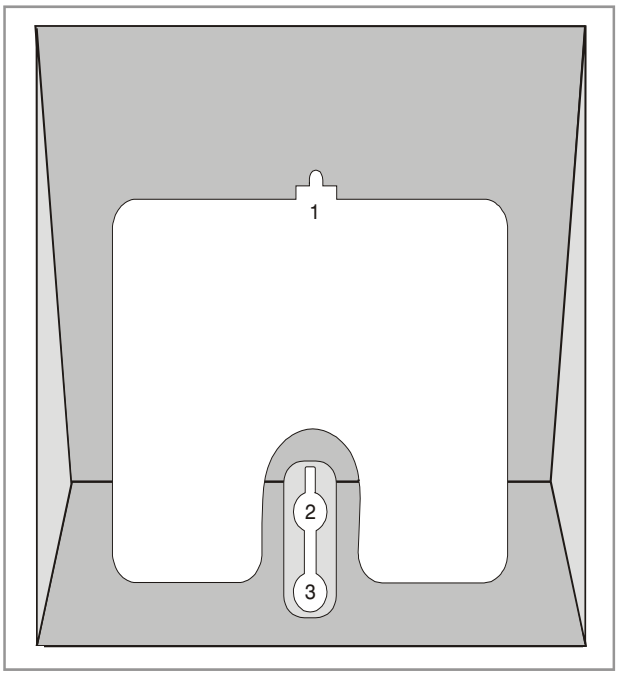


Figure 6.12 Wall-Mounting an iDCS Keyset

6.2.6.2 Wall-Mounting DS, ITP-5121D and ITP-5107S Keysets

DS, ITP 5121D and ITP 5107S keysets come equipped with a reversible base stand. To wall-mount a keyset, remove the base stand, reverse it, and attach stand in the bottom slots of the keyset. Use screw holes 1 and 2 to attach the keysets to the wall (see Figure 6.13).

To secure the handset once you have wall-mounted your keyset, you must remove the handset retaining clip and reverse it such that the extended clip is facing the top of the phone (see Figure 6.13).

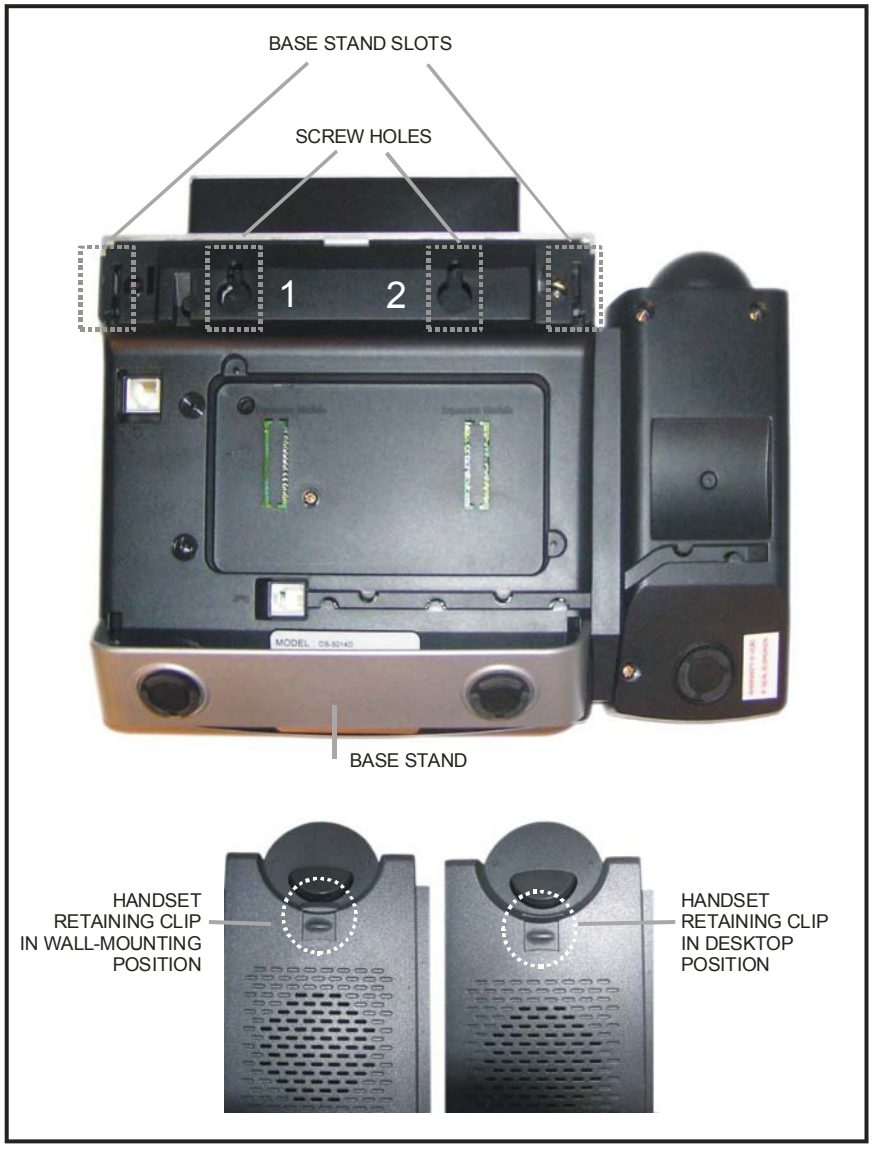


Figure 6.13 Wall-Mounting DS 5000, ITP-5121D and ITP-5107S Keysets

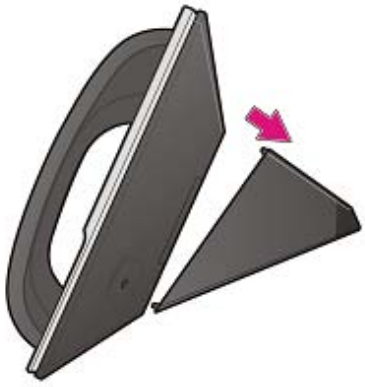
6.2.6.3 Wall-Mounting SMT-i5200 Series Keysets

Assemble the wall-mount bracket where you want to use the phone. The wall-mount bracket is an optional item.

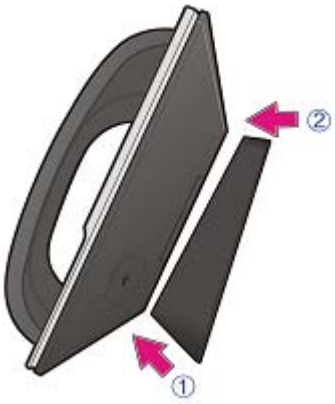
To <u>install</u> the wall-mounting bracket follow the steps below:

1. First, choose the location where you want to install the phone, and then determine the positions of the screws by placing the phone at the target location on the wall.

2. Remove the desk cradle of the phone.
   a. Fix one latch of the cradle to the top or bottom groove of the phone.
   b. Push the remaining latch into the remaining groove on the opposite side.



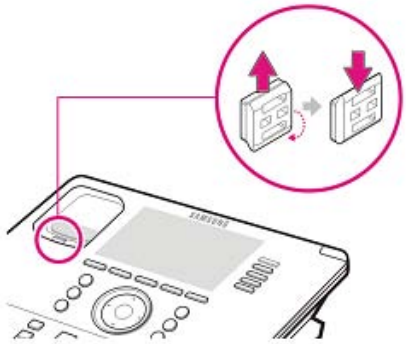
3. Insert the wall-mount bracket as shown in the figure.



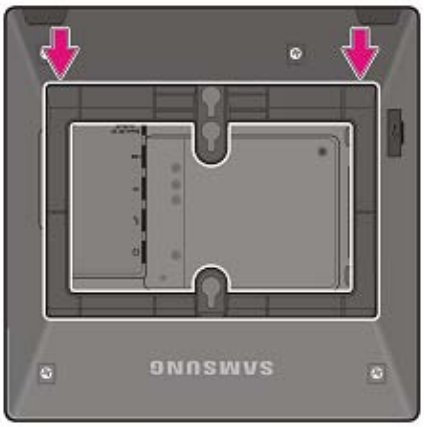
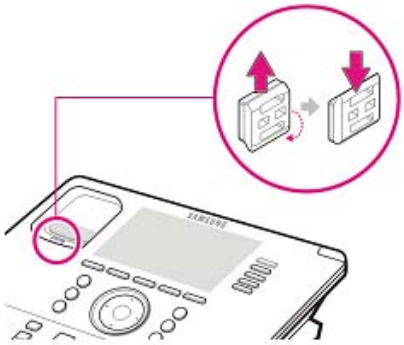
4. Pull out the handset rack, and then insert it in the opposite direction, as shown in the figure.

   Only the up-down direction changes. The front-back remains unchanged.

5. Install the phone on the wall.



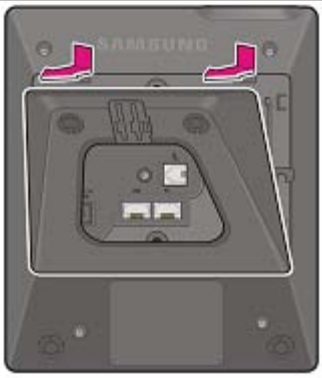
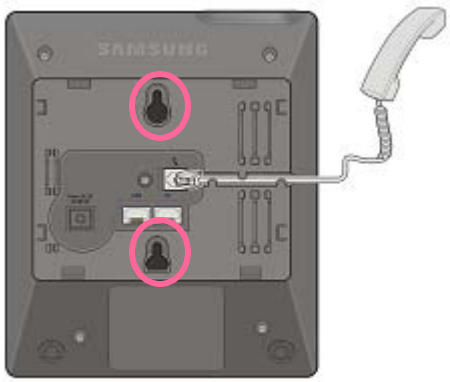
To <u>detach</u> the wall-mounting bracket follow the steps below:

1. You can detach the phone from the bracket by pressing the **[Push]** section at the bottom of the bracket. Detach the phone more easily by pulling the entire bottom of the bracket instead of only the **[Push]** section.	
2. Pull out the handset rack, change the direction and then insert it again.	

6.2.6.4 Wall-Mounting SMT-i3105 Keysets

The SMT-i3105 keysets do not require an optional wall-mounting bracket.

To wall-mount the SMT-i3105 follow the steps below:

1. First, choose the location where you want to install the phone, and then determine the positions of the screws by placing the phone at the target location on the wall.	
2. Remove the cradle of the phone by pressing the **[Push]** mark on the top of the cradle to push it out	
3. Use screw holes 1 and 2 to attach the base wedge to a standard electrical outlet box.	

6.2.7 Attaching Add-On Modules (AOMs) to Keysets

6.2.7.1 Attaching iDCS 64 Button Modules to an iDCS Keyset

First, remove the base wedge from the iDCS 64 button module and attach the bracket to it with two of the screws provided (see Figure 6.14).

Remove the base wedge of the keyset and place it to the right of the 64 button module and attach the bracket/64 button module to the keyset with the remaining two screws.

The base wedge can now be replaced. **NOTE: If you wish to attach two 64 button modules to a keyset, connect the 64 button module together first and then attach them to the keyset.**

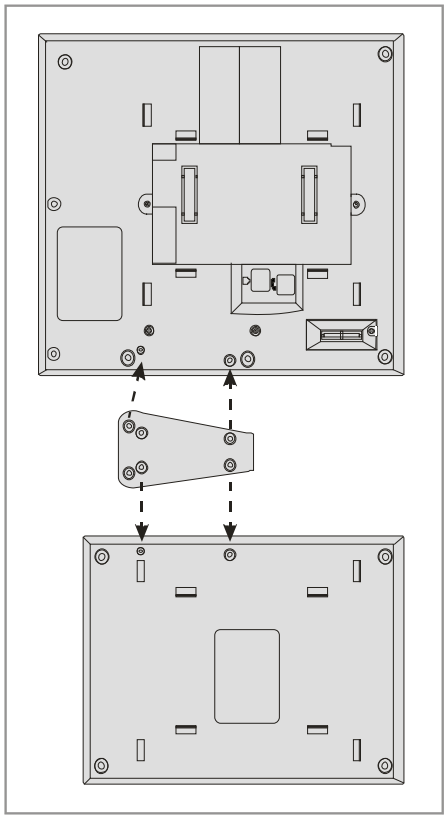


Figure 6.14 Attaching iDCS 64 Button Module to an iDCS Keyset

NOTE: The maximum number of 64 Button AOMs per station is 2. The maximum number of AOMs per system is limited by the available DLI ports.

6.2.7.2 Attaching iDCS 14 Button AOM to an iDCS Keyset

To add an iDCS 14 Button Key Strip to your iDCS keyset, follow these steps: (see Figure 6.15)

1) Place the keyset face down on a flat surface.
2) Remove the base pedestal by placing your thumbs over the attachment clips and press outward while simultaneously pressing down on the keyset body with your fingertips.
3) Remove the ribbon cable knockout from the bottom of the keyset.
4) Clip the 14 button strip to the side of the keyset.
5) Plug one end of the ribbon cable into the keyset and the other end into the 14 button strip.
6) Place the support bracket over the ribbon cable and secure with the six screws provided.
7) Reattach the base pedestal.

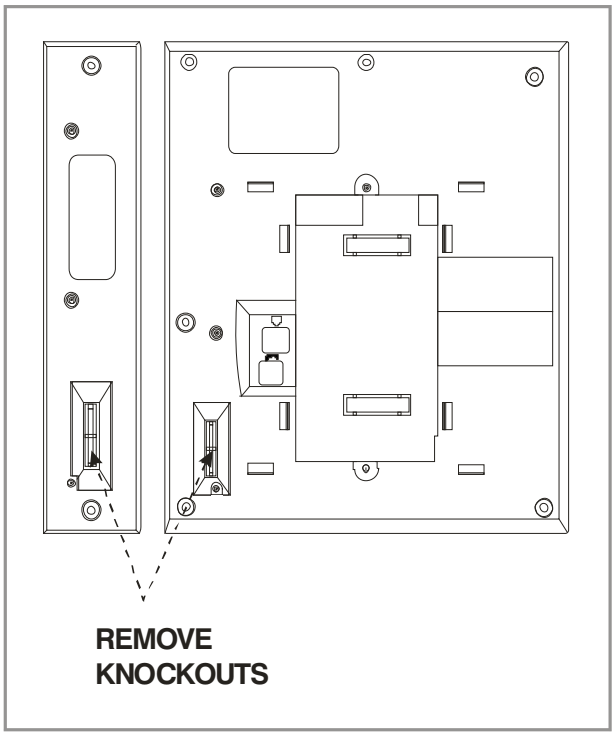


Figure 6.15 Attaching iDCS 14 Button AOM to an iDCS Keyset

6.2.7.3 Attaching DS 64 Button Module to a DS 5021D or DS 5014D

First, attach the bracket to the keyset with two of the screws provided. Then attach the 64 button module to the bracket with the remaining two screws. (See Figure 6.16).

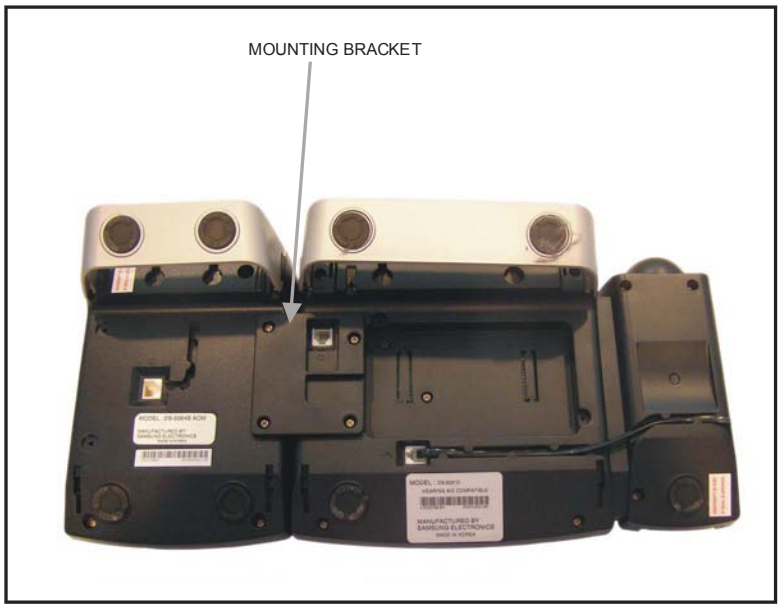


Figure 6.16 Attaching DS 64 Button Module to a DS 5021D or DS 5014D Keyset

6.2.7.4 SMT-i5264 Add On Module

The SMT-i5264 module can be used beside any ITP 5100 keysets, SMT-i Series, and TDM phones . The cosmetic design matches the SMT-i 5000 Series phones. The SMT-i5264 Add On Module only attaches to SMT-i5200 Series.

To attach the SMT-i5264 AOM to any SMT-I 5000 Series phones follow the steps below:

1) Remove the SMT-i5264 AOM stand and the cradle of the phone by pressing the [Push] mark on the top of the cradle to push it out.
2) Attach the bracket to the keyset with two of the screws provided.
3) Attach the SMT-i5264 AOM module to the bracket with the remaining two screws.
4) To connect to the phone, connect the UTP cable between the port and the LAN port of the IP phone. (See Figure 6.17).
5) To connect to the switch, connect the UTP cable between the LAN port and a port of the switch.
6) Add the stands back to the phone and AOM unit.

NOTE: SMT-i5264 AOM requires either PoE or a Power Adaptor (sold separately).

If PoE is used, PoE connection should be connected to the LAN port of the SMT-i5264 (AOM) first then transfer over to the phone. As shown in Figure 6.17 the SMT-i5264 (AOM) can transfer the power from the LAN port to the phone port, but the phone can't transfer power to the AOM.

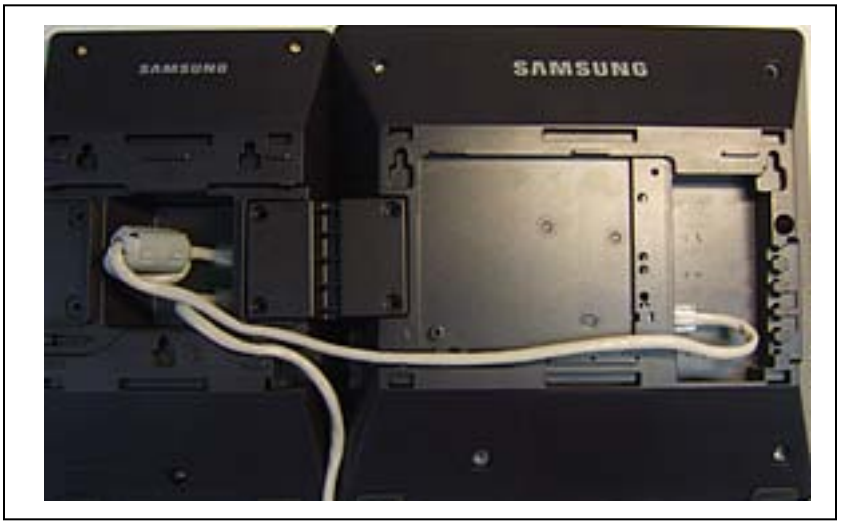


Figure 6.17 Attaching SMT-i5264 AOM to phone

SETTING-UP SMT-i5264 AOM

SMT-i5264 AOM will register to the OfficeServ system as an IP phone device. It need the IP phone ID and password during the registration. The SMT-i5264 will receive an IP phone extension. It can be paired to any IP phone or digital phone as the add-on module. MMC 209 is used to pair the AOM extension to a master phone.

Figure 6.18 Setting-Up SMT-i5264 AOM

- Prepare AOM to the set up mode
  - Press and hold 2nd key from the 1st column (left most columns) to enter the set up mode.
  - Press the 3rd key from the 4th column (right most columns) after this key is flashing.
  - (Press the 2rd key from the 4th column (right most columns) after this key is flashing will default the AOM to the factory settings.)
- Two methods to set up the AOM
  - Use SMT-i5243 phone to set up the AOM.
    - Enter SMT-i5243 phone to the engineering mode
      - Menu -> phone -> phone information -> *153#
      - Select Network -> AOM to enter into the set up mode
      - Enter the following data
        - If IP setting is DHCP skip this step
          - IP address: (assign an AOM IP address)
          - Gateway: (from MMC 830)
          - Subnet Mask: (from MMC 830)
        - Server IP Address: (OfficeServ IP address from MMC 830)
        - (use navigation key to move to the following fields)
        - Server ID: (ITP ID from MMC 840)
        - Server Password: (ITP password from MMC 840)
        - Server Port: **6000 (press * key twice to switch input mode to numeric mode)**
  - Use Web UI
    - Type IP address with port 8080 in the address bar of IE browser. Default AOM IP address is 10.0.0.3.
    - Ex.
      - http://10.0.0.3:**8080**
      - ID: admin
      - Password: samsung
    - Fill in the required data. Must enter the following information.
      - Server IP address is the OfficeServ MP IP address
        - Ex. 192.168.1.10

- Enter an ITP ID and password

  Ex:

  - id: 3210
  - pw: 1234

- default port is **6000**

  - Press [Save] then [ReStart]

- Use **MMC 209** to pair AOM to any IP/TDM phone.
- Use MMC 722 to assign buttons.

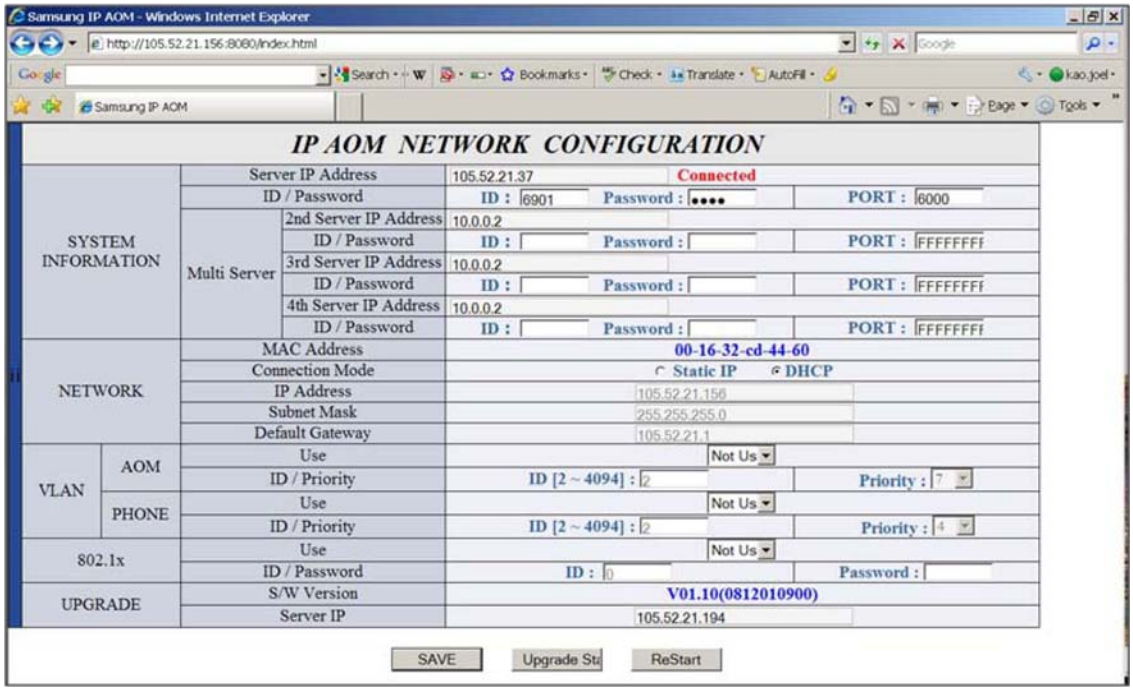


Figure 6.19 IP AOM Network Configuration

6.2.8 Connecting the SMT-A52GE Gigabit Adaptor

The Gigabit Adaptor processes the Gigabit data for a Gigabit LAN connection on the PC connected to the SMT-i5200 series IP phone.

COMPONENTS

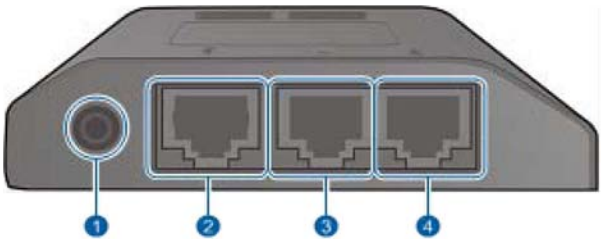
The SMT-A52GE comes with the following components:

Gigabit Adaptor

2 Fixing Screws

LAN Cable

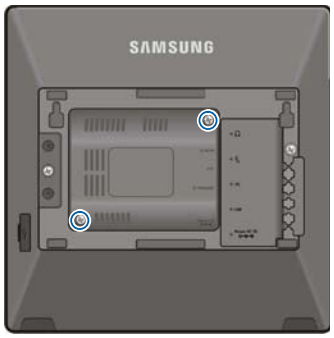
CONFIGURATION AND FUNCTIONS



Port	Function
❶ **Power (DC 5 V)**	DC power adaptor connection port
❷ **IP Phone PSE**	• A port connected to the IP phone's LAN port via the LAN cable. This is shipped together with the Gigabit Adaptor (10/100BASE-TX) • If PoE (Power over Ethernet) is provided via the G-LAN PD port, it supplies PoE to the IP phone.
❸ **G-PC**	• LAN cable port connected to the PC (10/100/1000BASE-T)
❹ **G-LAN PD**	• LAN cable port connected to the network (10/100/1000BASE-T) • If PoE is supplied via the LAN, a power supply is not required for the IP phone or adaptor.

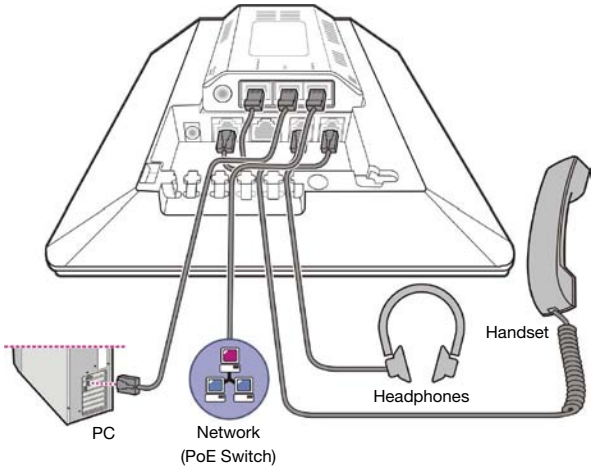
NOTE: DC power adaptor is not included.

HOW TO CONNECT TO A PHONE

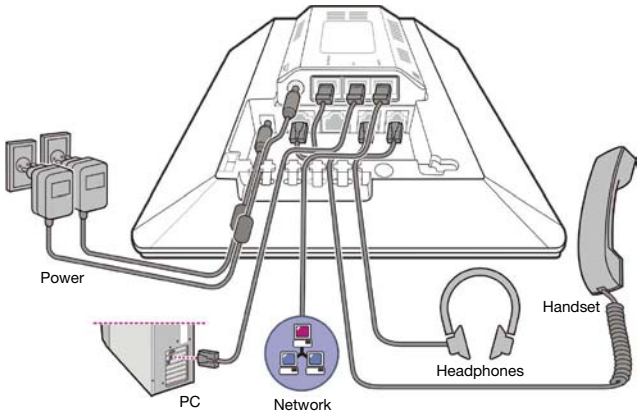
1. Separate the cradle at the back of the phone.	
2. Mount the Gigabit Adaptor onto the back of the body. NOTE: The back of the Gigabit Adaptor is sharp, so take care to avoid injury. When you connect the Gigabit Adaptor to the IP phone which is currently in use, disconnect the PC cable connected to the IP phone, and connect it to the G-PC port of the Gigabit Adaptor. This will leave the PC connection port, usually used for the IP phone, vacant.	

3. Connect the cable.

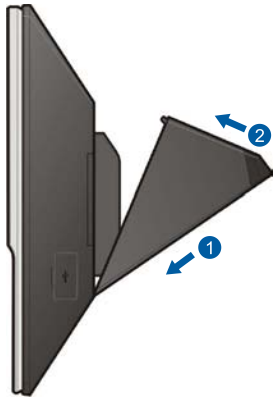
When PoE is supplied via the LAN:



When PoE is not supplied via the LAN:



4. Attach the cradle to the back of the phone.



6.2.9 Connecting Installation Tool

Installation Tool is a computer application that provides various maintenance and management functions for the OfficeServ 7030. The minimum requirements for a PC running Installation Tool are as follows:

Table 6.3 Installation Tool Specification

Category	Specification
Platform	IBM PC
CPU	Pentium III or higher
OS	Windows 2000 or higher
Main Memory	256Mb or higher
Hard Disk	1Gb or higher

6.2.9.1 Connecting Installation Tool to LAN Port

The OIT application can communicate to the OfficeServ 7030 system via the LAN or MODEM connection.

- Set up the OfficeServ 7030 LAN parameters in MMC 830.
- If an OfficeServ 7030 is behind a firewall and the OIT is outside the firewall, ports 5090 and 5003 must be open to the private IP address of the 7030.

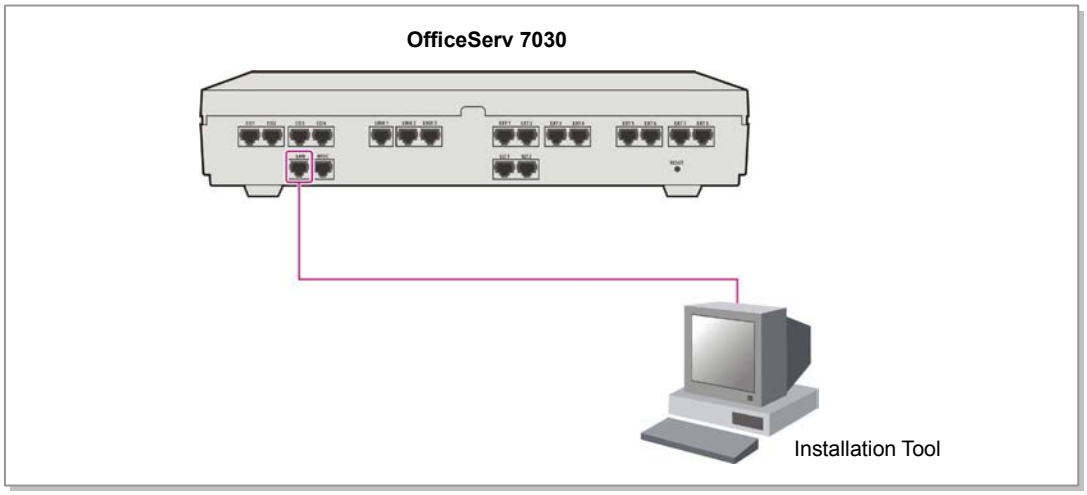


Figure 6.20 OIT Connection to LAN Port

Detail procedures for each of the steps above are as follows.

6.2.9.2 Setting Network Parameters Through MMC 830

Set the network parameters of the system. Contact the network manager when setting values for the network parameters.

1) Set the (Private) IP address of the system.
2) Set the subnet.
3) Set the gateway address.
4) Reset the system.

Note: In some applications the Public IP address and system IP Type (Public) may have to be set also in MMC 830.

OfficeServ 7030 Reset

New settings are applied only after the card is reset. The system may malfunction if the card is not properly initialized.

6.2.9.3 Installation Tool and LAN Connection

1. Execute OIT.
2. Click [System] -> [Link Control] menu to set the communications link.

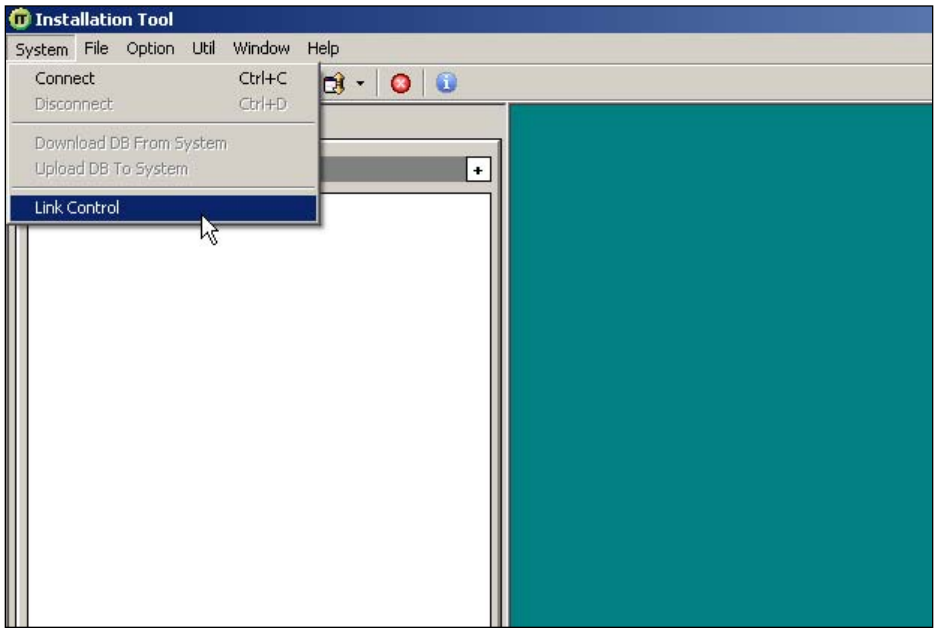


Figure 6.21 OIT and LAN Connection

3. Enter System name (e.g. ABC Company).
4. Select the <link type> (e.g. LAN).
5. Input the IP address (e.g. 192.169.9.209).
6. Click [Apply].
7. Dialog box shows: "Do you want to apply new setting value?"
8. Click [Yes].
9. Dialog box shows: "The new setting value is applied."
10. Click [OK]. Click [Close].
11. Click [System]. Click [Connect].
12. Enter User ID [admin].
13. Enter Password [samsung], then [OK].

6.2.9.4 Installation Tool and Modem Connection via TELCO Line

This example is based on a PC using an internal modem card. Connect Telephone line cord from internal modem connection of PC directly to loop start telco line.

1. Execute OIT.
2. Click [System] -> [Link Control] menu to set the communications link.
3. Enter System Name (e.g. ABC Company).

4. Select the <link type> (e.g. MODEM).

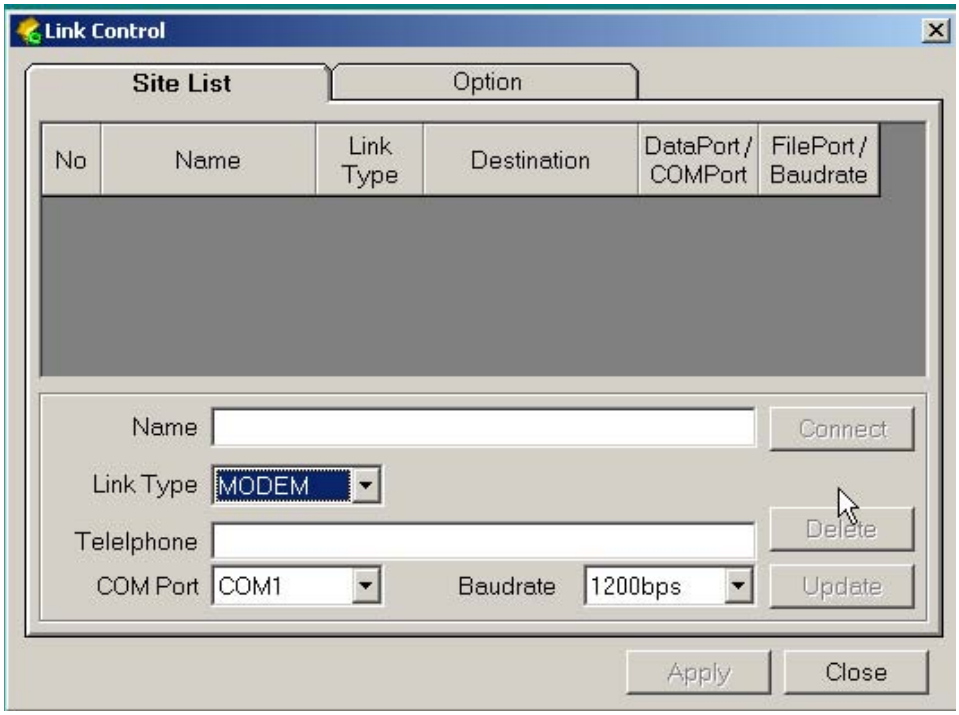


Figure 6.22 OIT and Modem Connection

5. Input the Telephone number (e.g. 972-372-4812).
6. Input the Com Port (e.g. COM1).
7. Input the Baud Rate (e.g. 38400bps).
8. Click [Apply].
9. Dialog box shows: "Do you want to apply new setting value?"
10. Click [Yes].
11. Dialog box shows: "The new setting value is applied."
12. Click [OK]. Click [Close].
13. Click [System]. Click [Connect].
14. Enter User ID [admin]
15. Enter Password [samsung], then [OK].

NOTE: Internal modem card must be installed for the connection to work. The incoming telco line may need to be programmed to ring directly to modem port of OfficeServ 7030 system in MMC 406 (e.g. Trunk 701 ring to port 3999).

6.2.10 Connecting Web Management

The OfficeServ 7030 system is equipped with the Web Management web server, and supports the remote access through the network. The system administrator can change the system setting by accessing the Web Management with a browser.
This section describes how to access the OfficeServ 7030 system.

To use within an in-house network, connect LAN to the LAN port of the base board and try accessing from a client PC.

Setting the Network parameter through the MMC830 program

Set the network parameter of the OfficeServ 7030 system. For the setting value of the network parameter, contact the network administrator.

1) Set the IP address of the OfficeServ 7030 system.
2) Set the subnet mask of the OfficeServ 7030 system.
3) Set the gateway address of the OfficeServ 7030 system.
4) Reset the board.

Resetting the Board

To apply the new setting, the board must be reset.

Getting access to the Web Management from a client PC

1) Execute your browser. (Internet Explorer 5.5 or higher)
2) Access the Web Management through the LAN IP address.
   Access address: https://[System LAN IP Address]

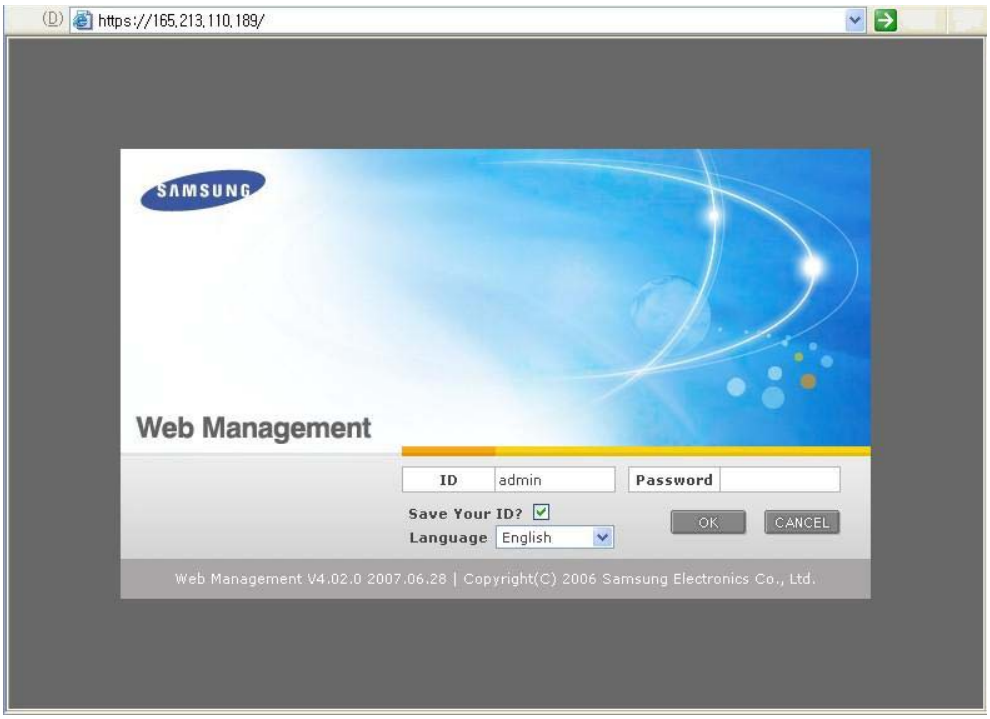


Figure 6.23 Web Management Initial Screen

3) Enter your ID and password on the Web Management initial screen, and click the **[OK]** button to log in. ID = admin, Password = samsung.

6.2.11 System Data/Activity Reports

The following type of reports can be output to a PC or LAN printer that is connected to the same network as the OfficeServ 7030: SMDR (Station Message Detail Records), UCD Reports, Traffic Reports, Alarm Reports and much more. Refer to MMC 829 to configure the report type and data output network configuration (See OfficeServ 7030 Programming Manual). This MMC can also configure the reports to be sent to PCs running 3rd party applications (i.e. SMDR Reporting Packages, etc.).

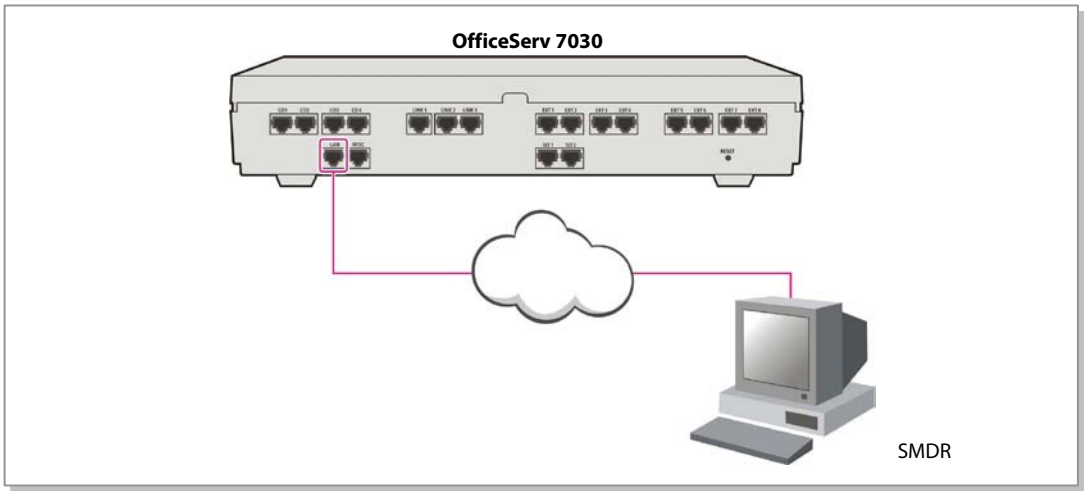


Figure 6.24 Connecting SMDR

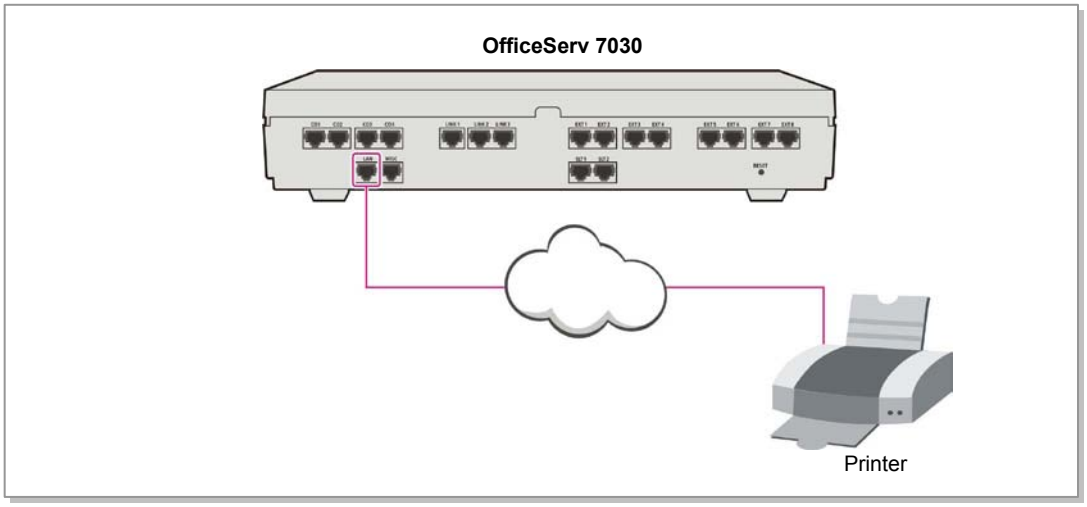


Figure 6.25 Connecting to Printer

6.2.12 OfficeServ 7030 Analog Terminal Adapters

The OfficeServ 7030 can be SIP enabled (SIP licenses required) to interface with other 3rd party analog terminal adapters (ATA) devices, to provide voice connectivity to a VoIP network. The SIP enabled adapters can be used to support specialized voice applications such as:

- VoIP connectivity to remote analog stations.
- VoIP connectivity to remote fax machines.
- 911 routing to remote SIP-PSTN Gateway.

These 3rd party analog terminal adapters (ATA) are not available through Samsung and must be purchased separately. For more details please refer to the Special Applications section of this manual.

PART 7. Power Up Procedures

This section describes items to check before starting the OfficeServ 7030 system and the procedure for starting the system.

7.1 Pre-Check

This section describes items to check before starting the OfficeServ 7030 system.

7.1.1 Safety Precautions

- **Temperature:** Check the temperature of the room where the system is installed is between 32°F and 113°F. If the room temperature is higher or lower than the normal operation temperature, install a heating/cooling device to maintain normal temperature.
- **Humidity:** Check if the room humidity where the system is installed is between 10% and 90%. Take special caution since the humidity affects the electric components and the connectors of the system.
- **Direct Sunlight and Dust**: The room where the OfficeServ 7030 system is installed should be protected from direct sunlight and should have ventilation systems to prevent the system from malfunctioning due to dusts.

7.1.2 Safety Conditions

The building where the OfficeServ 7030 system is installed should have lightning rods and groundings to protect the system from lightning and electric leakage.

- Check if the OfficeServ 7030 system is not inclined and is in level position.
- Do not place devices that may cause electromagnetic interference near the system.
- Place a fire extinguisher near the system.
- Check if the AC voltage switch of the PSU is properly set to 110VAC power.
- Check if the grounding terminal on the rear panel of the system is properly connected to the external grounding.

7.2 Starting the System

It is required to clear memory and start with a default database when using the OfficeServ 7030 system. The system does not have a battery switch to clear memory. The system memory is cleared to default by the performing the following procedure:

1) Check if the cards and cables are properly mounted and connected to the OfficeServ 7030.
2) To start system from default (Clear memory): Power up the system and let the system begin to boot.
3) About 10 seconds into the bootup sequence, press in the RST (reset) switch on the front of the 7030 main unit.
4) Hold in the RST switch for approximately 7 to 10 seconds (this will default the database).
5) Release the RST switch and wait for system to complete the boot up process. Check the LEDs of the OfficeServ 7030.
6) The RUN LED of the OfficeServ 7030 main unit lights green and the MC LED flashes when the system normally starts the booting process.
7) Once the booting is completed, the RUN LED of the 7030 flashes green, and the MC LED stops flashing and remains lit (approximately 3 minutes).
8) When the system completes the bootup, the system memory is cleared and the database is at default.
9) Enable voice mail and/or MGI channels by entering the appropriate license key in system programming (if voice mail or MGI services are required).
10) Test system for normal operation.

7.3 Pre-Configured Numbering of Extension and CO Lines and Stations

The OfficeServ 7030 has been designed as plug-n-play to operate right out of the box with minimum programming and little installation time required. The OfficeServ 7030 supports 4 CO lines and 8 digital stations, and 2 ports of embedded automated attendant. Other types of iDCS, DS, SMT-i and ITP series phones can be connected if necessary.

When the system is powered up, it will read the hardware components and self-configure a default database to support the following: (Example)

- DS 5014D button phones (pre-labeled) in a squared 4 lines X 8 stations configuration
  - CO lines 701 through 704
  - Stations 203 through 210
  - Speed dial keys 01 through 05
  - Feature keys (Directory, Call Log, Group Listen, Intercom, DND)
  - 50 CID review blocks per station
  - 50 Call Log blocks per station
  - 50 Station speed dial buffers per station
  - Automated Attendant (Voice Mail requires License Key)
  - Intercom

- 500 System speed dial buffers
- Operator group 500 (normal) with members 203 through 210
- Voicemail group (BI-VMS) 509 with member 301 through 302 (License Key Required)

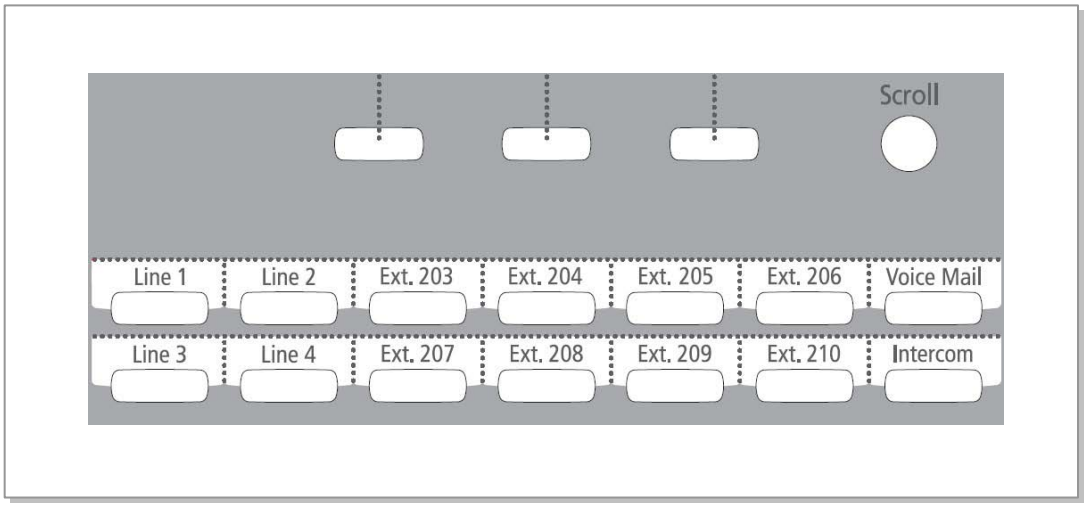


Figure 7.1 DS-5014D Line Key Default

NOTE: Other types of iDCS, DS and ITP phones can be connected however the line keys will have a different default button configuration.

Once the OfficeServ 7030 system is booted, the system verifies the cards mounted on each slot and saves this information as the default configuration of the system. At default, the OfficeServ 7030 system assigns 3 digits to CO lines, extensions, and extension groups.

CO line numbers from 701 through 704 are sequentially assigned (by default) to the first CO line card installed in the system from left to right.

Extension numbers are assigned as follows at default. Embedded SLT Ports 1 and 2, 201 and 202 respectively. Extension numbers 203 through 2xx are sequentially assigned to ports. Station ports in the system are numbered from left to right.

PART 8. Software and Database Management

8.1 Software Management

The OfficeServ 7030 operating software, Voicemail/Auto Attendant software, and all saved messages and greetings are stored on the OfficeServ 7030 main unit. The OfficeServ 7030 has 1GB of flash memory. The 7030 memory also has the capability to store a backup copy of the system database in addition to the operating software files. The OfficeServ 7030 also has the capability to store a backup copy of the system database in addition to the operating software files.

Software can be downloaded using the IS Tool File Control only and will be stored in flash memory. The cards will automatically reboot, load and run the new software when the download process is complete. Files can be deleted using IS Tool, File Control.

Using Installation Tool over a LAN connection to the system, the software files can be uploaded to the OfficeServ 7030 main unit. Once the files are loaded onto the OfficeServ 7030 system they can be manipulated with MMC 818.

8.2 Database Management

The customer database can be saved to the NAND Flash Memory using MMC 815 where it is stored as a single file. This save can be performed manually or the system can be programmed to save the database automatically at a designated time every day. Using Installation Tool, the database can be downloaded from the system and stored on the PC or it can be uploaded from the PC to the system. The database uploaded from Installation Tool is not stored on the media card but is loaded directly into active memory.

PART 9. Adding Cards to the System

9.1 Adding Stations

1) Power the OfficeServ 7030 OFF before adding a new card. Locate a suitable empty card slot. Having located a suitable slot, insert the new card into the slot and push firmly in the middle of the card to ensure that it is fully inserted into the back plane connector.
2) After the new cards are inserted, power the system on and let it boot up. Now the system must be told to recognize the new cards. This is done through the use of MMC 806 Card Pre-Install. Use this MMC for each new card that is installed.
3) The new cards must be assigned directory numbers according to the system numbering plan in MMC 724. The technician must know the software port assignments of the new cards so the ports can be assigned correct numbers.