Please read this manual carefully before installing this product and save this manual for future use.

This guide explains the installation, configuration and operation of the SL1000 Telephone System including the Outside (CO) line and telephone connections.
This Getting Started Guide will cover the most frequently used configuration options. Only the SL1000 Main KSU is included, it does not cover optional items.
For more advanced configuration, refer to Hardware Manual (separate issue) for the details.

SL1000

(IP4WW-1632M-A KSU)
Getting Started Guide

Issue 1.0 (January. 2011)
A50-031579-001

Table of Contents

Important Information

Please read following instructions carefully and save these instructions.

When using your Telephone System, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following.

【DANGER】 - ***Incorrect use of the equipment may cause personal injury or death.***

- ☛ IF DAMAGE TO THE UNIT EXPOSES ANY INTERNAL PARTS, DISCONNECT THE POWER SUPPLY CORD IMMEDIATELY AND RETURN THE UNIT TO YOUR SUPPLIER.
- ☛ THIS UNIT IS EQUIPPED WITH AN EARTHED TERMINAL. FOR SAFETY REASONS THIS PLUG MUST ONLY BE CONNECTED TO AN EARTHED OUTLET THAT HAS BEEN INSTALLED ACCORDING TO APPLICABLE REGULATIONS.
- ☛ TO PREVENT POSSIBLE FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE.
- ☛ THE POWER SUPPLY CORD ON THIS EQUIPMENT MUST BE USED TO DISCONNECT THE MAIN POWER. ENSURE THAT THE AC OUTLET IS LOCATED NEAR THE EQUIPMENT AND IS EASILY ACCESSIBLE.
- ☛ DISCONNECT ALL POWER TO THE EQUIPMENT BEFORE COVER(S) ARE REMOVED.
- ☛ DO NOT TOUCH THE INTERNAL PARTS OF THE MAIN EQUIPMENT TO DISASSEMBLY OR CONFIGURE IT. THIS ACTION MAY CAUSE A FIRE, AN ELECTRICAL SHOCK OR A SYSTEM FAILURE.
  NEC CORPORATION DOES NOT TAKE ANY RESPONSIBILITY FOR DISASSEMBLED OR RECONFIGURED EQUIPMENT.

【WARNING】 - ***Incorrect use of the equipment may cause personal injury or a serious system fault.***

- ☛ TO AVOID SHOCK OR DAMAGE, DO NOT PLUG IN OR TURN THE SYSTEM POWER ON BEFORE COMPLETING THE INSTALLATION PROCESS.
- ☛ AVOID USING A TELEPHONE SYSTEM DURING ELECTRICAL STORM.
- ☛ USE ONLY COMMERCIAL AC POWER TO PREVENT SHOCK OR FIRE.
- ☛ DO NOT USE THIS PRODUCT IN PLACE WHERE WATER OR OTHER FLUIDS COMES IN CONTACT WITH THE EQUIPMENT.
- ☛ TO PROTECT THIS UNIT FROM STATIC ELECTRICITY, DO NOT TOUCH ANY EXTERNAL CONNECTORS OF THE UNIT.
- ☛ IF LIGHTNING CAUSES A FAULT, CONTACT THE DEALER.
- ☛ WHEN RELOCATING THE EQUIPMENT, FIRST DISCONNECT THE TELECOM

CONNECTION BEFORE DISCONNECTING THE POWER CONNECTION. WHEN THE UNIT IS INSTALLED IN THE NEW LOCATION, RECONNECT THE POWER FIRST, AND THEN RECONNECT THE TELECOM CONNECTION.

【ATTENTION】 - ***Incorrect use of the equipment may limit the system performance or cause the system to fail.***

- ☛ THE TELEPHONE SYSTEM CAN ONLY BE USED IN NEC-DESIGNATED COUNTRIES.
- ☛ IF THE SYSTEM REQUIRES INSTALLATION OR REPAIR, CONTACT THE DEALER OR ITS SERVICE TECHNICIAN.
- ☛ FOR THE PERIODIC-REPLACEMENT PARTS OR OPTION PRODUCTS, PLEASE ASK YOUR SUPPLIER.
- ☛ BE SURE TO CHECK WITH YOUR SUPPLIER BEFORE YOU TRANSPORT OR MOVE THIS SYSTEM. IF THE SYSTEM IS MOVED WITHOUT CHECKING WITH SUPPLIER THE SYSTEM MAYBE DAMAGE OR SYSTEM MAY NOT WORK PROPERLY.
- ☛ THE GOAL IS TO PRODUCE A COMPREHENSIVE AND ACCURATE MANUAL. HOWEVER, IF ERRORS OR OMISSIONS ARE FOUND IN THIS MANUAL, PLEASE NOTIFY NEC AUTHORIZED SUPPLIER.

Regulatory

Battery Disposal
The SL1000 system includes the batteries listed below. When disposing of these batteries, KSU, and/or Unit, you must comply with applicable federal and state regulations regarding proper disposal procedures.

Unit Name	Type of Battery	Quantity
IP4( )-CPU-A1	Lithium	1
External Battery (IP4WW-Battery Box)	Sealed Lead	2 per IP4WW-Battery Box

The SL1000 IP4( )-CPU-A1 provides memory backup for approximately three years. The Lithium battery should be replaced every two years.

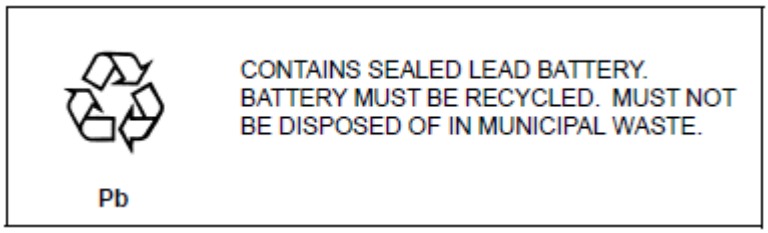
IMPORTANT SAFEGUARDS FOR BATTERY DISPOSAL

DO NOT PLACE USED BATTERIES IN YOUR REGULAR TRASH! THE PRODUCT YOU PURCHASED CONTAINS LITHIUM, SEALED LEAD BATTERIES. LITHIUM, SEALED LEAD BATTERIES MUST BE COLLECTED, RECYCLED, OR DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER.

The incineration, landfilling or mixing of sealed lead batteries with the municipal solid waste stream is PROHIBITED BY LAW in most areas. Contact your local solid waste management officials for other information regarding the environmentally sound collection, recycling, and disposal of the battery.

Sealed lead batteries must be returned to a federal or state approved sealed lead battery recycler. This may be where the batteries were originally sold or a local seller of automotive batteries. Contact your local waste management officials for other information regarding the environmentally sound collection, recycling and disposal of the battery contained in this product.

The packaging for the SL1000 system contains the following labels regarding proper disposal.



EUROPEAN UNION INFORMATION

Notice to the user

The system described in this manual is intended to be connected to analog and digital networks and supports a wide range of peripheral equipment. The following interfaces are available for connection to public analog and digital telecommunication networks:

- TBR3 ISDN basic rate interface
- TBR4 ISDN primary rate interface
- ES203-021 Analogue interface

To take advantage of all features of this system and the connected equipment, the country or network specific features should match the supported features of the system. For an overview of the supported features, refer to the detailed documentation that comes with this system, contact your local NEC Unified Solutions representative or the support desk of NEC Unified Solutions.

Declaration of conformity

Hereby, NEC Unified Solutions, declares that the SL1000 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
For the Declaration of Conformity, visit:
http://www.nec-unified.com/doc

CE

Electromagnetic Compatibility

For the SL1000 system the following warning is applicable:

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.

PRODUCT DISPOSAL INFORMATION

For Countries in the European Union

The symbol depicted here has been affixed to your product to inform you that electrical and electronic products should not be disposed of as municipal waste.

Electrical and electronic products including the cables, plugs and accessories should be disposed of separately to allow proper treatment, recovery and recycling. These products should be taken to a designated facility where the best available treatment, recovery and recycling techniques are available. Separate disposal has significant advantages: valuable materials can be re-used and it prevents the dispersion of unwanted substances into the municipal waste stream. This contributes to the protection of human health and the environment.

Please be informed that a fine may be imposed for illegal disposal of electrical and electronic products via the general municipal waste stream.

To facilitate separate disposal and environmentally sound recycling arrangements have been made for local collection and recycling. If your electrical and electronic products must be disposed of please refer to your supplier or the contractual agreements that your company has made upon acquisition of these products.

At www.nec-unified.com/weee you can find information about separate disposal and environmentally sound recycling.

Battery information

Defective or exhausted batteries should never be disposed of as municipal waste. Return old batteries to the battery supplier, a licensed battery dealer or a designated collection facility. Do not incinerate batteries. This product uses Lithium batteries. Do not use any other type.

For an overview of the location of batteries used in these systems, the battery replacement or removal instructions, please refer to the SL1000 System Hardware Manual.

What is the SL1000?

The SL1000 system consists of a main KSU with a base board pre-installed.
The SL1000 telephone system will allow the connection of up to four exchange lines plus eight telephones. The eight telephones can be either SL1000 system telephones or Analog telephones.
Also Built-in Answering Machine (1ch) is initially equipped.

It can accommodate optional parts to expand the system or connect ISDN BRI /PRI lines and IP trunk lines.
Further more, there are optional expansion KSU/units available to increase the number of exchange lines and telephones that can be connected.
All equipment will operate when the SL1000 is installed as shown in this guide, it is not necessary to make any changes to the system configuration.

Calls received on the exchange lines will ring at telephone number 200 (Extension Port No.1).
With the default settings:

- Each telephone will function and is assigned an extension number.
- Each telephone can make outside calls by dialing 9 (Trunk Access Code).
- Each exchange line is presented at a Function Key with busy lamp indication.

Outside lines

You can connect up to four analog trunk lines to the SL1000 KSU (IP4WW-1632M-A1).

- The trunk lines must be loop start type.
- The SL1000 system will also detect Caller ID sent by the Network Provider.
- Each line is connected via a RJ11 4-way socket. The exchange lines are supplied by your Network Provider.

SL1000 System Multi-line Telephones

There are two types of SL1000 System Multi-lineTelephones available.

	IP4WW-12TXH-A TEL	IP4WW-24TXH-A TEL
		
Terminal Type	**Hybrid (4Wire) Multi-Line Terminal**	**Hybrid (4Wire) Multi-Line Terminal**
Connected to	**Hybrid Extension Port**	**Hybrid Extension Port**
Color Line-Up	**Black/White**	**Black/White**
LCD	**16 digits x 2 lines w/o Backlit**	**16 digits x 2 lines w/o Backlit**
Programmable Keys	**12 (BLF : Red/Green)**	**24 (BLF : Red/Green)**
Soft Keys	**No**	**No**
Menu Cursor Key	**Yes**	**Yes**
Incoming LED	**2 colors (Red/Green)**	**2 colors (Red/Green)**
Handsfree	**Half-duplex**	**Half-duplex**
Backlit Dial Pad	**No**	**No**
Headset Port	**No (use Handset Port)**	**No (use Handset Port)**
Angle Adjustment	**2-steps**	**2-steps**
Wall Mounting Kit	**Built-In**	**Built-In**

You can connect up to 8 SL1000 system Multi-line telephones to any of the station connections. (If you need more telephones you will need to install optional cards). The SL1000 system Multi-line telephones have illuminated function keys that can be tailored to your own requirements.

The SL1000 system Multi-line telephones have a LCD display will show information about who is calling you, the call you are on or the feature you are using.

- Each Multi-line telephone is connected to the SL1000 system via a RJ11 4-way socket. The cables are supplied with the telephone.

There is also a SL1000 DSS Consoles available; this gives busy lamp indication and can be installed alongside a System Multi-line telephone for use by system operator (DSS console takes one hybrid station port).

	IP4WW-60D-A DSS
	
Terminal Type	**Hybrid (4Wire) DSS Console**
Connected to	**Ext. Port No.8 at each card**
Color Line-Up	**Black/White**
Programmable Keys	**60 (BLF : Red/Green)**
Angle Adjustment	**2-steps (Base)**
Wall Mounting Kit	**Built-In**

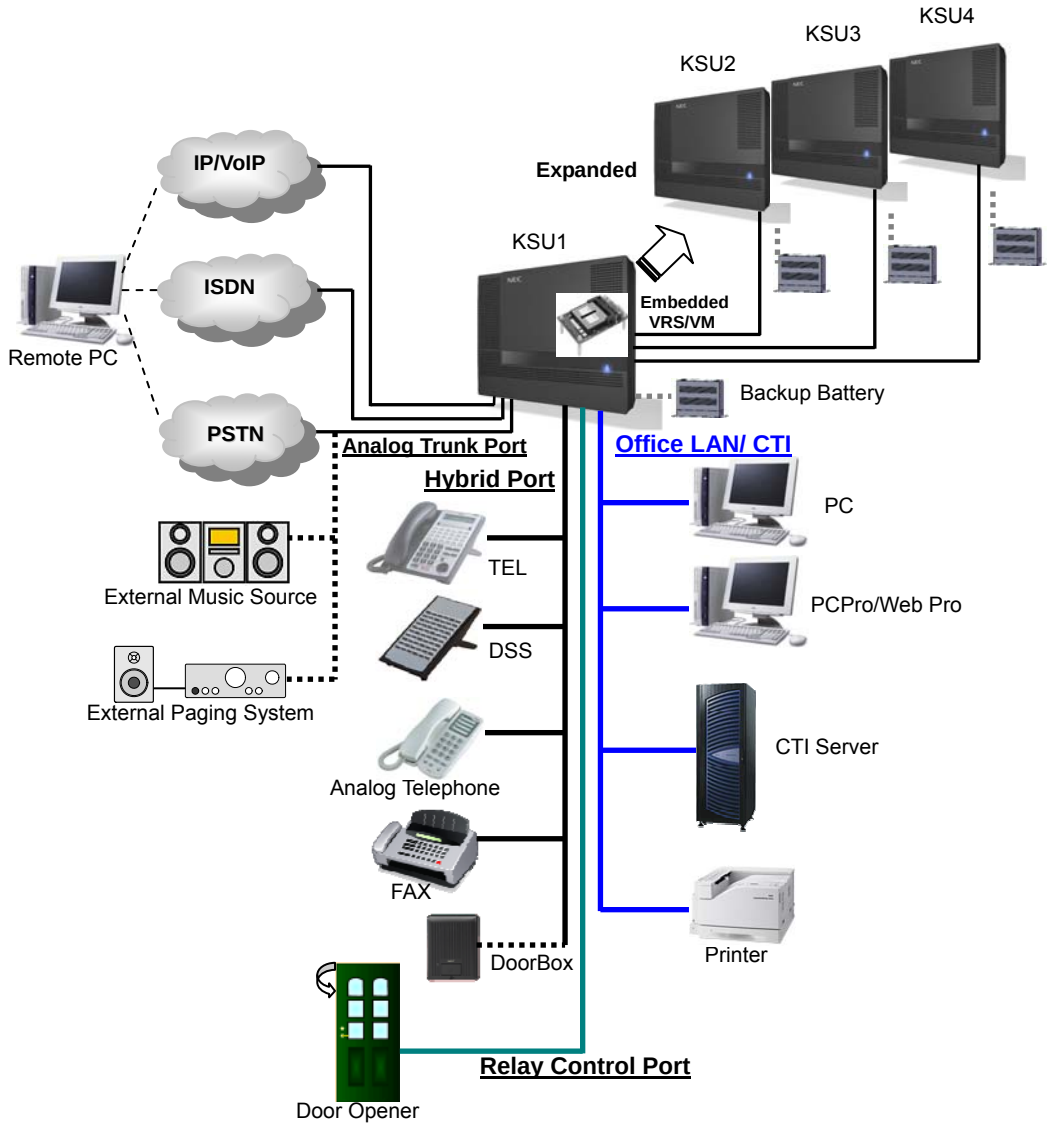
Analog Telephones

You can connect up to 8 analog telephones or Analog cordless phones to any of the station connections.

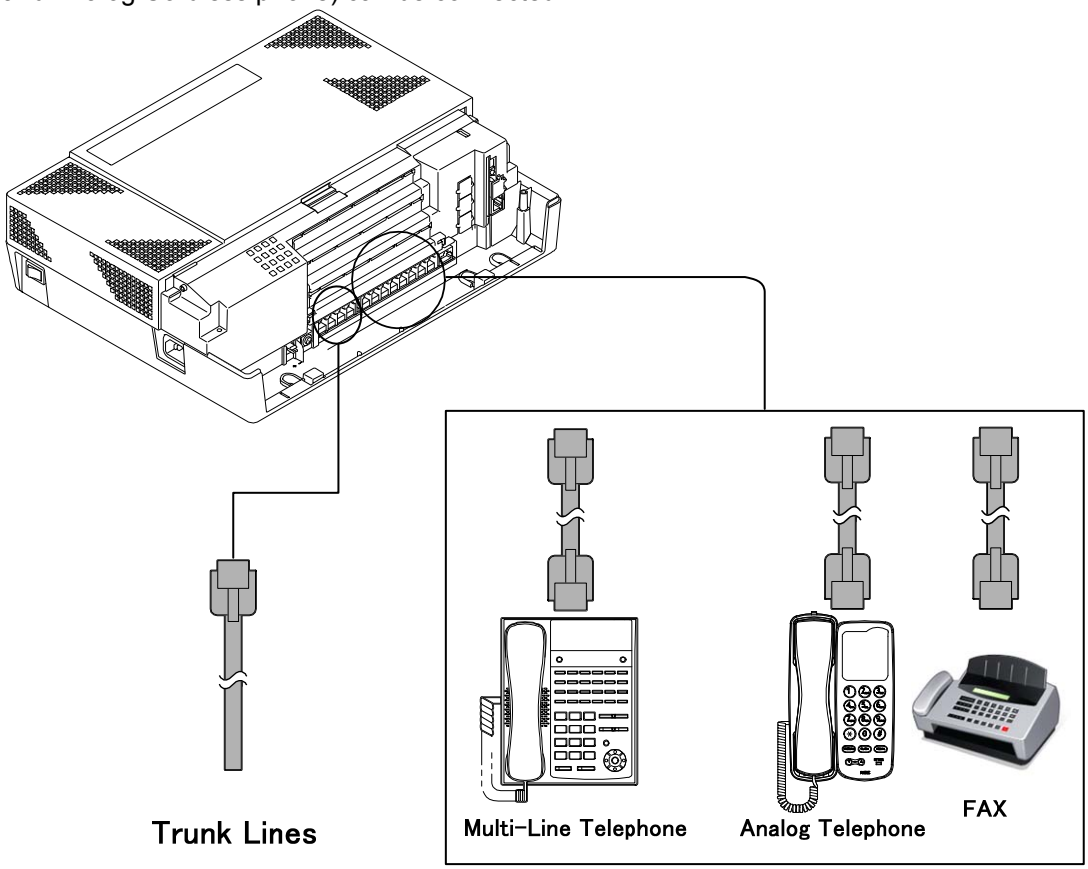
- The telephones can be dial pulse or DTMF dialing.
- They can have Hook Flash or Timed Break Recall.
- The SL1000 can send Caller ID to the analog telephone.

System Connection Diagram

The diagram shows system connection diagram.



Up to 4 Trunk lines and 8 extensions (SL1000 system Multi-line Telephone, Analog Telephone including FAX and Analog Cordless phone) can be connected.



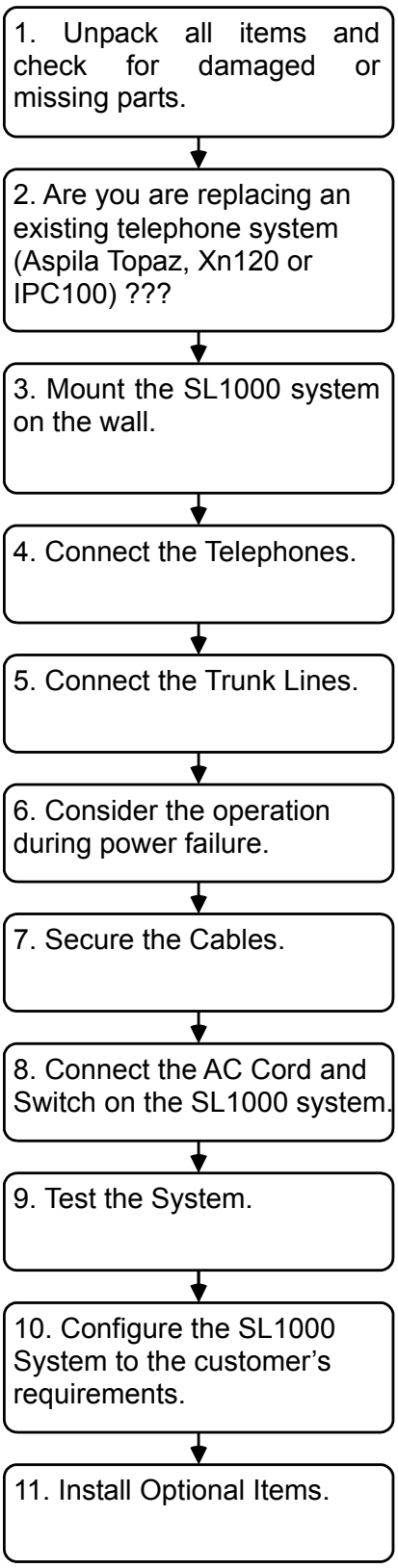
Optional Items

Items	Description	Outline
1632ME-A EXP	SL1000 Expansion cabinet to increase the system capacity. Up to three SL1000 Expansion KSU's can be connected to the SL1000 Main KSU.	
IP4WW-Battery Box	This is the external backup battery box to supply the DC power to the system when the AC power is failed. It is connected to the power supply for each KSU. The battery itself must be prepared by local supplier.	
IP4WW-MEMDB-C1	This card provides additional expansion memory Interface. Install onto the CPU card (MEMDB slot) at main KSU. Following features need this card: • Expansion KSU(s) • VoIP • CTI • Remote Upgrade (main software) • VRS/InMail Channel Control	
IP4WW-VOIPDB-C1 <*Feature Available*>	This card provides Voice over IP operation for IP trunks and extensions. • Install this card onto the CPU card (VoIPDB slot) at main KSU.	
PZ-VM21	This card provides additional Voice Recording Service and Voice Mail Service. • Install onto the CPU card (VMDB slot) within the SL1000 Main KSU. • Compact flash card determines the features available.	

IP4WW-408E-A1	• Trunk & Station expansion interface card • Installed into SL1000 Main KSU. • Provides 4 analog trunks and 8 hybrid extension ports (1 port can be used for Power Failure, Refer to Power Failure feature within this guide)	
IP4WW-008E-A1	• Station expansion interface card. • Installed into SL1000 Main KSU. • Provides 8 hybrid extension ports • The 2BRIDB card can also be mounted onto this card.	
IP4WW-000E-A1	• Does not provide any Trunk or Station ports. • Used only when the 2BRIDB card is required without the need to add additional trunk or station ports.	
IP4WW-1PRIU-C1	• ISDN Primary Rate Interface, T1 interface or E1 Interface. • Installed into SL1000 Main KSU. • Provides 1 ISDN PRI circuit.	
IP4WW-2BRIDB-C1	• ISDN Basic Rate interface. • Mounted onto the IP4WW-008E-A1 or IP4WW-408E-A1 card. • Provides 2 ISDN BRI circuits.	
IP4WW-EXIFB-C1	• Allows connection of up to 3 Expansion KSUs to the Main KSU. • Installed into the SL1000 Main KSU. • CAT5 connection cable is supplied with the SL1000 Expansion KSU.	
IP4WW-CFVRS-C1	Compact Flash card for VRS. • 512MB, Compact Flash card mounted onto the PZ-VM21 card within the SL1000 Main KSU. • Provides 4 channels and 15 hour recording capacity.	
IP4WW-CFVMS-C1	Compact Flash card for VRS plus voice mail • 512MB, Compact Flash card mounted onto the PZ-VM21 card within the SL1000 Main KSU. • Provides 2 channels and 15 hour recording capacity.	
IP4WW-CFVML-C1	Compact Flash card for VRS plus voice mail • 1GB, Compact Flash card mounted onto the PZ-VM21 card within the SL1000 Main KSU. • Provides 4 channels and 40 hour recording capacity.	
DP-D-1( ) Or equivalent	Doorphone unit with call button, microphone and loudspeaker. • Provides customer calling feature at an entry door. • Connects to one of the analog station ports on the SL1000 Main KSU.	
IP4WW-24TIXH-C TEL <*Feature Available*>	This is Multi-line IP Telephone. • Connects to the VOIPDB.	
System Feature License	Certain features can be enabled by adding a license key. • Increase VoIP channels and features. • Increase Voice Mail channels. • Enable Mobile Extension. • Enable Hotel/Motel feature	-

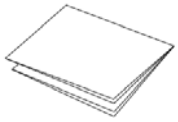
Before Installation

Installation Procedure



Unpacking

Unpacking the 1632M-A KSU and check against the following list. Inspect physical damage.

Items	Q'ty		Remarks
1632M-A KSU	1		IP4WW-CPU-A1, IP4WW-408M-A1 and Power Supply is initially equipped into the 1632M-A KSU.
AC Power Cord	1		IP4WW-1632M-A w/o C is not including the AC Power cord.
Screw(M4.1x25)	4		These four screws are for Wall Mount.
Template for Wall Mounting	1		This is the template for Wall Mount screwing.
CD-ROM	1		User Manual data are inside.

Necessary Tools (Not Supplied)

Make sure the necessary tools are prepared.

Required Items	Specification
Telephone Cables	Recommended cable type:**Twisted Pair** Conductor diameter: **0.4 to 0.6 mm** Maximum cable length (with 0.5mm diameter cable): SL1000 system Telephone/DSS Console --- **300 meters** Analog Telephone --- **1125 meters**
RJ11 Plugs	
Fixing Tools for RJ11 Plug and cable	
2-conductor connectors for outside(CO) line	
4-conductor connectors for extension	
Cross head screwdriver	
4 Wall Fixing plugs suitable for the type of wall	

Replacing an Existing Telephone System

If you are replacing your existing telephone system with the SL1000, we recommend that you check the following.

- Do not disconnect all of the lines or extensions from your existing telephone system. If for any reason you have problems installing the SL1000 you will need your old system in working order to continue your business.
- If you plan to use existing telephone cabling within your building check :
    - o The cable is twisted pair cable.
    - o There are 4 wires (2 pairs) available to each SL1000 system phone location.
    - o You will need an RJ11 socket for each SL1000 system phone and DSS console.
- Move the exchange lines/ analog telephones one at time and test each one before moving over the next.

Installation

1. General Precautions

- To avoid shock or damage, do not plug in or turn the system power on before completing the installation process.
- Avoid working with the KSU during electrical storms.
- Use only commercial AC power to prevent shock or fire.
- Use the power cord supplied for the KSU.
- Do not bundle AC Power cords together, the cords may overheat.
- Make sure the KSU has proper Earth ground connection.

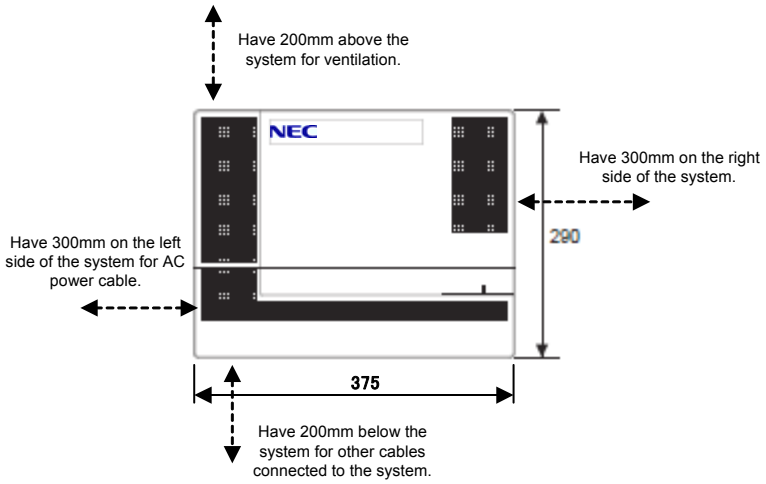
2. Site Requirements

• The system should be wall-mounted only. Ensure that enough space is available to allow the installation of KSU(s) and/or battery box.

3. Environmental Requirements

Meeting established environmental standards maximizes the life of the system. Make sure that the site is not:

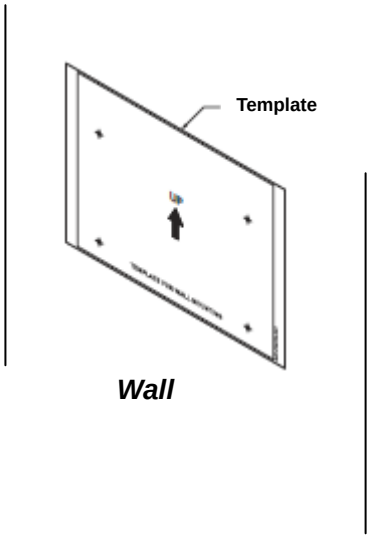
- In direct sunlight or in hot, cold or humid places.
- In dusty areas or in areas where sulfuric gases are produced.
- In places where shocks or vibrations are frequent or strong.
- In places where water or other fluids comes in contact with the equipment.
- In areas near high-frequency machines or electric welders.
- Near computers, telexes, microwaves, air conditioners, etc.
- Near radio antennas (including shortwave)
- If you are installing the expansion KSU ensure there is sufficient wall space and ventilation. Refer to the wall mounting diagrams below;



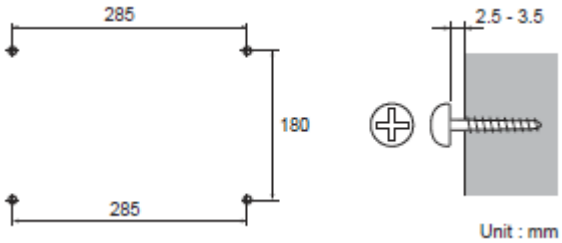
Wall Mount the SL1000 system

The KSU is designed for wall mounting only. The wall where the KSU is to be mounted must be able to support the weight of the KSU.

1. Place the attached template on the wall to mark the four screw positions.

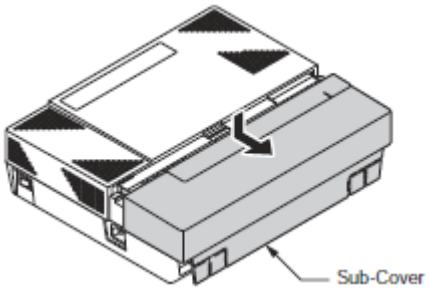


2. Install four screws into the wall. The screw heads must protrude about 2.5 to 3.5 mm.

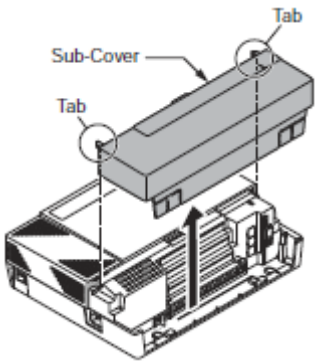


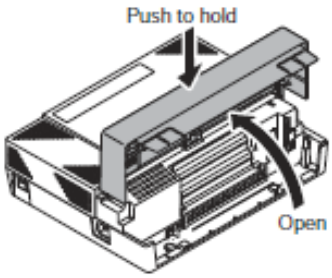
• Wall-Mounting Screws (M4.1x 25: 4 pcs) are attached to the KSU.

3. Push the center of the Sub-Cover and slide it.

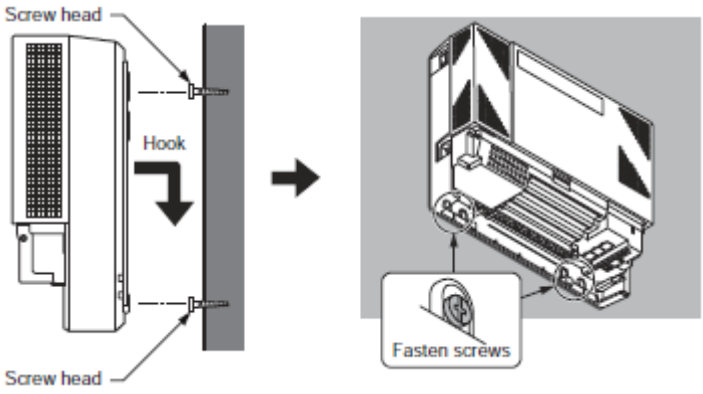


4. Pull out the Sub-Cover by opening up the tabs.
   • The Sub-Cover can be opened and hold as following figure.





5. Hook the KSU on the screw heads, and fasten two screws.



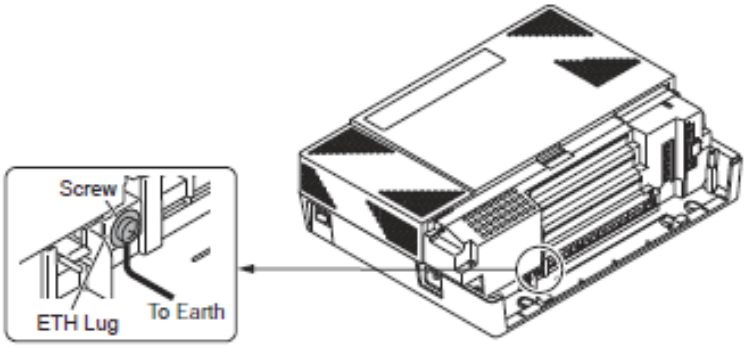
Connecting Earth Ground

Important!! In each KSU, connect "ETH" (Earth Ground) lug to the verified Earth Ground point using 14AWG (Φ2.0mm) wire.

Ensure all Main and Expansion KSU are powered off and unplugged AC cord.

• The grounding cable is supplier-provided.(not supplied with the SL1000 Main KSU.)

1. Loosen the screw
2. Insert a grounding wire (user-supplied).
3. Tighten the screw.
4. Connect the grounding wire to earth.



Proper grounding is very important to protect the System from external noise and to reduce the risk of electrocution in the event of a lightning strike.

Connecting Extensions

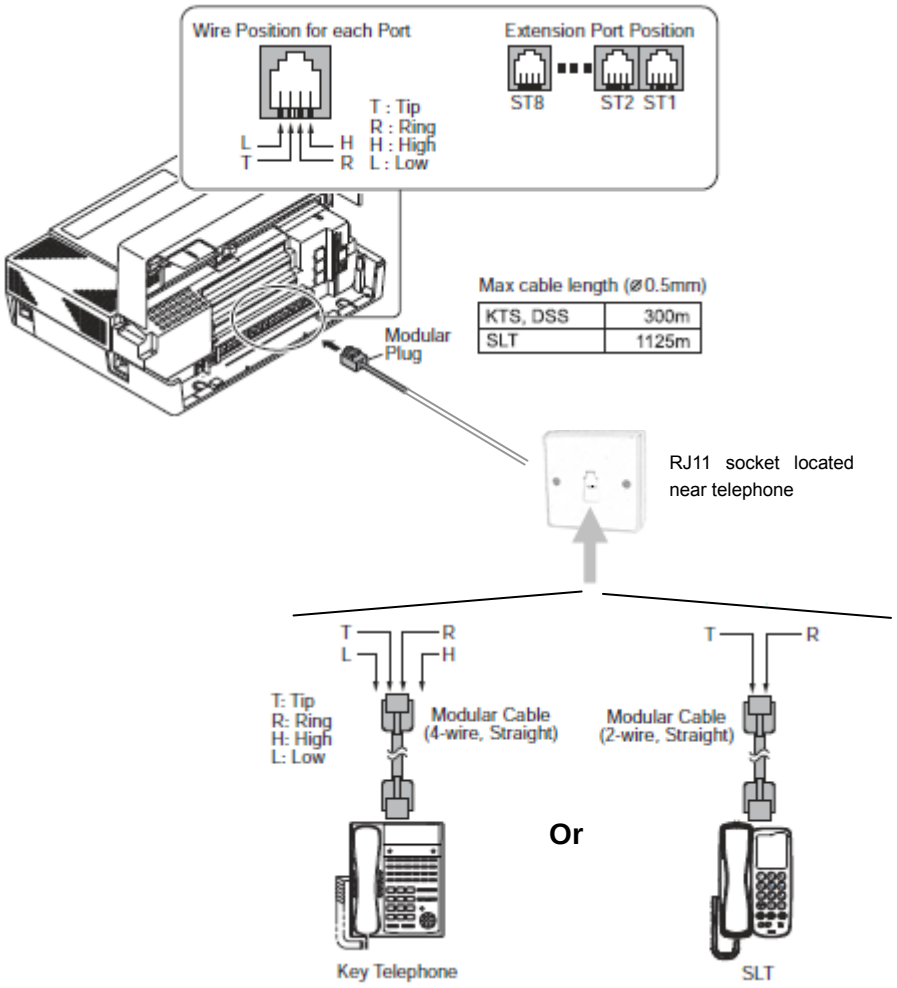
Precautions for Cabling:

- Do not run the cable with a power cable, computer cable etc.
- Do not run the cable near any high frequency generating equipment.
- Use cable protectors if the cables are run on the floor.
- Aerial distribution wiring is not allowed.

The SL1000 system phones, Analog phones can be connected to any of the eight RJ11 telephone sockets labeled ST1 to ST8 in the SL1000 unit.

! Check Power Fail Operation later in this guide, ST8 can be used to provide a working telephone should the power be disconnected from theSL1000.

1. Insert the modular plugs of the extension line cords (2-wire/4-wire) into the extension modular jacks on the KSU.



2. If you need to extend the telephone cables:
   Fit a RJ11 socket at the location the telephone is required, run a telephone cable back to the distribution frame. Connect to one of the sockets labeled ST1 to ST8.

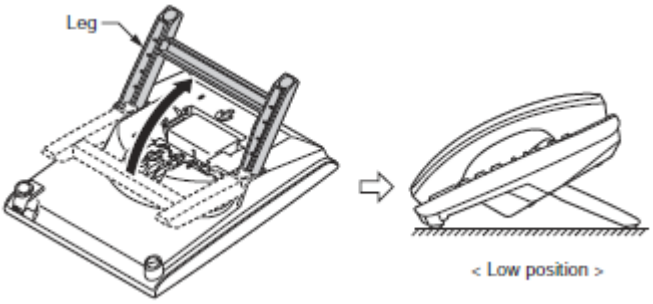
- Ensure that you connect the 4/2 wires as shown otherwise the telephone will not operate correctly.
- Use twisted pair telephone cable.
- Maximum cable length is **300m: System Telephone/1125m: Analog telephone** (with 0.5 mm diameter conductor).

Multi-Line Telephone Leg Adjustment

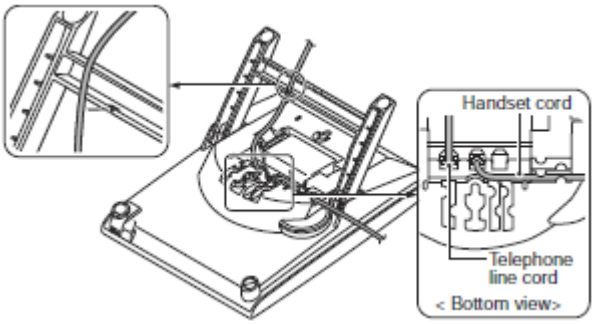
The Multi-Line Telephone provides the leg for angling the phone to best suit each user. The leg can be set for two different heights (Low/High).

1. Low Position Setting

1) Turn telephone over (button side down).
2) Adjust the Legs to desired height.



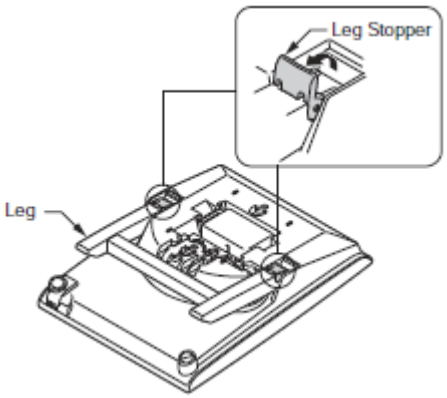
3) Lead the Line and Handset cords through the applicable grooves.



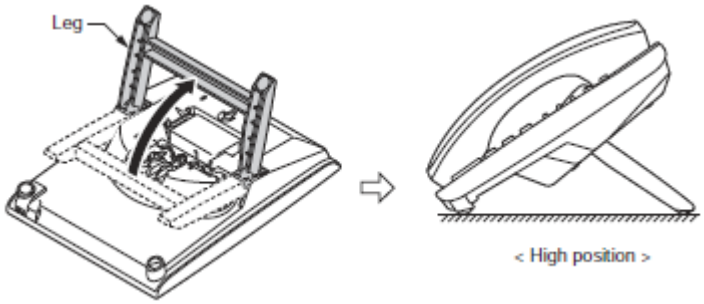
4) Turn telephone over (button side up).

2. High Position Setting

1) Turn telephone over (button side down).
2) Pull-up the Leg Stoppers.



3) Adjust the Legs to desired height.

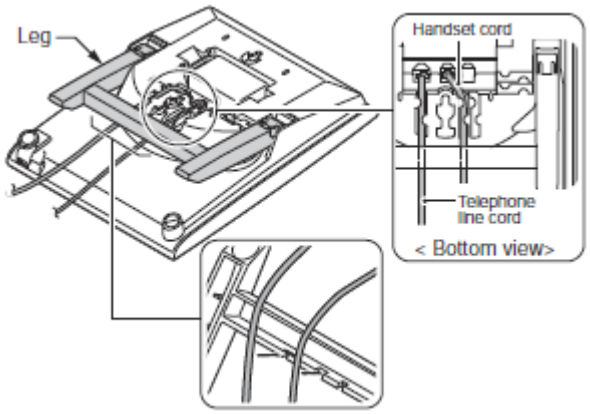


4) Lead the Line and Handset cords through the applicable grooves.

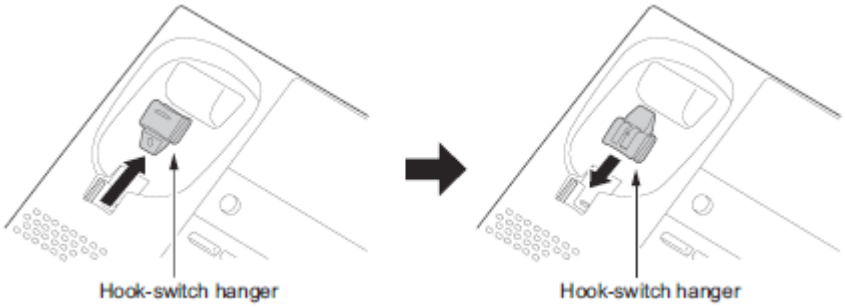
5) Turn telephone over (button side up).

Wall Mounting the Multi-Line Telephone

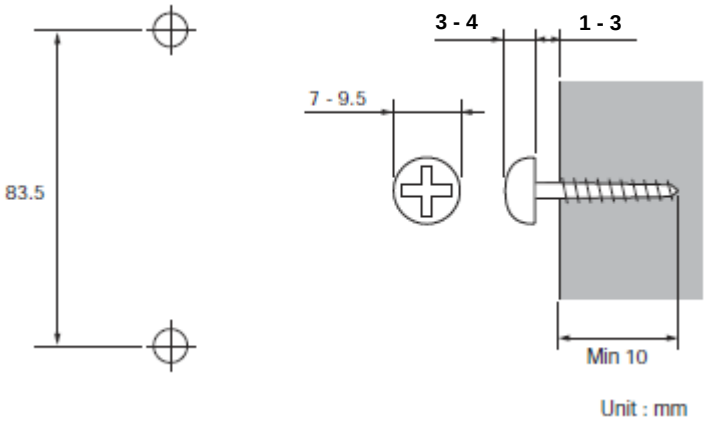
1. Arrange the cables and put down the leg as shown below.

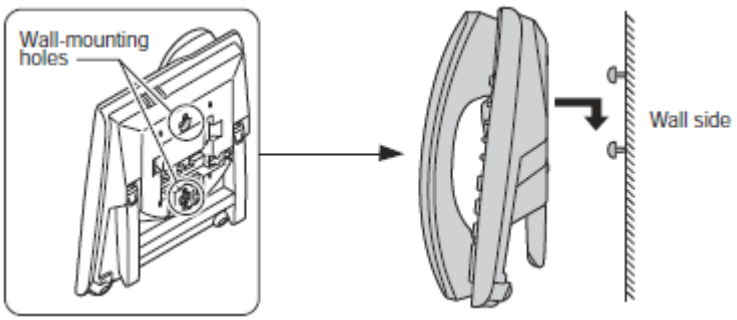


2. Remove the hook-switch hanger and Insert the hook-switch hanger in the slot below the hook switch.



3. Install 2 screws into a wall. The screw heads must protrude about 3 mm.
4. Affix the phone to the wall.





Connecting Outside (CO) Lines

The Outside(CO) lines can be connected to any of the four RJ11 sockets labeled CO1 to CO4.
Precautions for Cabling;

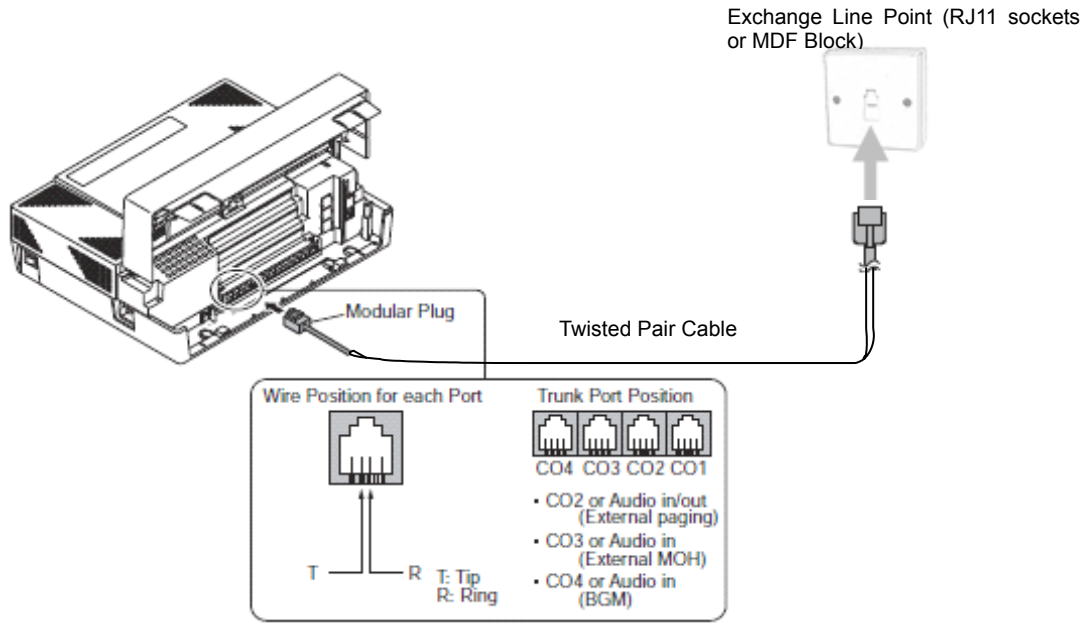
- Do not run the cable with an AC cable, computer, etc.
- Do not run the cable near the high frequency generating device.
- Use cable protectors in case the cables are run on the floor.
- Aerial distribution wiring is not allowed.
- Trunks must be installed with lightning protectors.

Make a note of each Outside(CO) line number (i.e. the number dialed to ring the line) and its CO connection to the SL1000 system. You will need this when you configure the SL1000 System.

SL1000 system CO number	Outside(CO) line dialing number (e.g. 03 5217 9493)
CO1	
CO2	
CO3	
CO4	

! Check Power Fail Operation later in this guide, CO1 can be used to provide a working telephone should the power be disconnected from the SL1000 system.

1. Insert the modular plugs of the trunk line cords into the analog trunk modular jacks on the system.

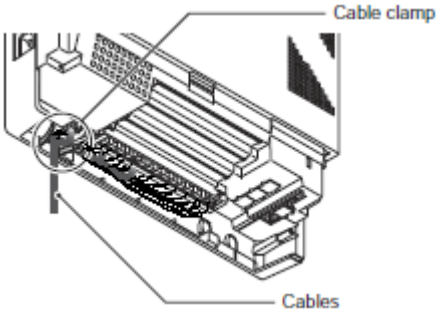


2. If the exchange lines are terminated with a RJ11 socket you can use a separate pre-formed cable to connect each line to a CO socket of the SL1000 unit.

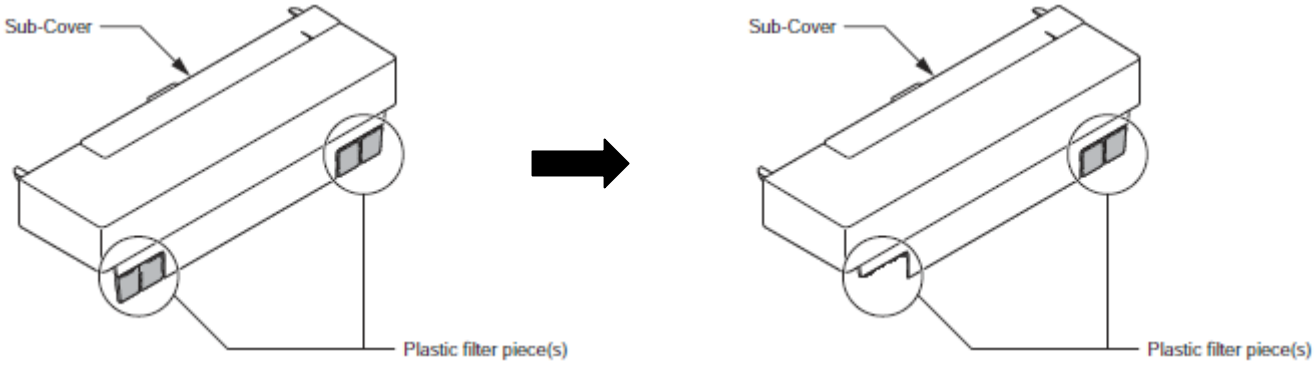
- Ensure that you connect the 2 wires as shown otherwise the line will not operate correctly.
- Use twisted pair telephone cable.
- Fit lightning protectors to each line.

Securing Cables

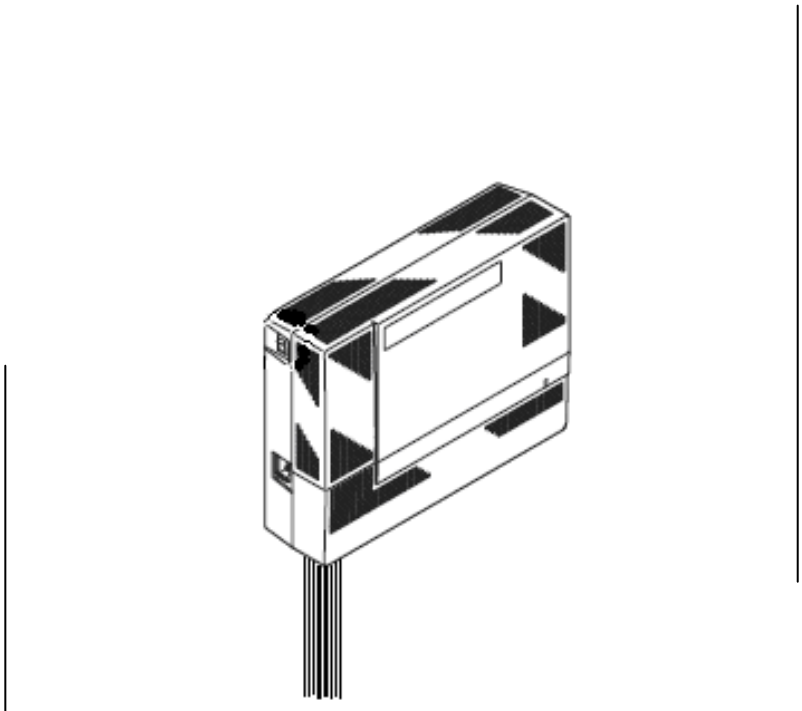
1. Depending on the cabling, select either Right route or Left route for the cabling. Clamp and route the cable to outside.



2. Cut and remove desired plastic filter piece(s) at the Sub-Cover for cables.



3. Replace the Sub-Cover.

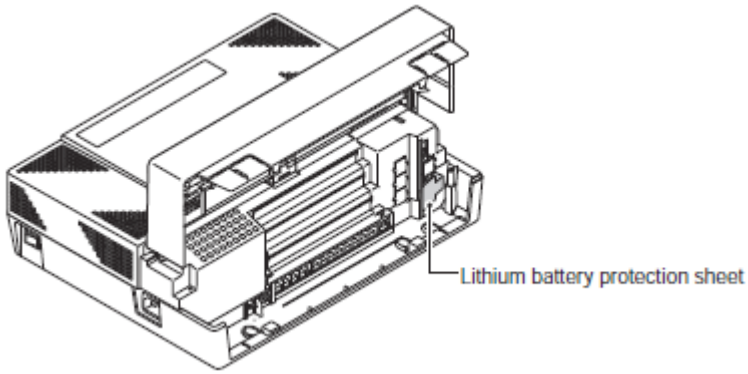


Connecting Power & Starting Up the SL1000 System

1. Before Starting Up the System

Before starting up the system, make sure:

- KSU(s) is/are installed correctly.
- All extensions are cabled correctly.
- All earth ground and PSTN Trunks are cabled correctly.
- All PCBs are configured, equipped, and strapped correctly.
- AC power cord is cabled correctly.
- At least one Display type Multi-Line Telephone is connected to the system. (for Programming)
- Pull out the Lithium Battery protection sheet, before start up the system.



Plug the AC Power Cord

The AC power switch and AC power inlet are located at the left side of each KSU. The AC power cord is attached to each KSU, and is connected to the AC inlet and the commercial AC power socket.

Before connecting the AC power cord, make sure:

- *The power switch at the left side of each KSU is turned OFF.*
- *The power switch at the commercial AC power socket is turned OFF.*
- *The AC plug fits the commercial AC power socket. The plug adapter is necessary if it does not fit.*

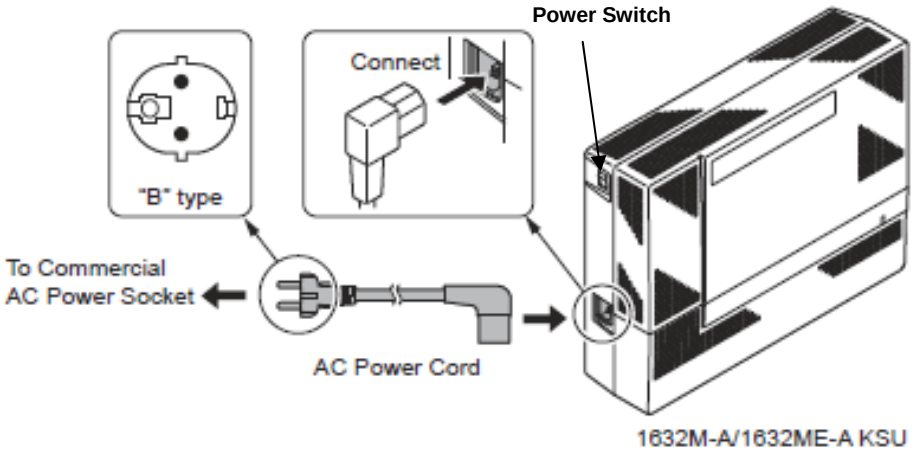


Figure 2-18 AC Power Cord

- *Each KSU must have an own commercial AC power socket.*
- *DO NOT POWER ON until all installations have been completed.*

2. Start Up the System

There are 2 types of start up method as below.

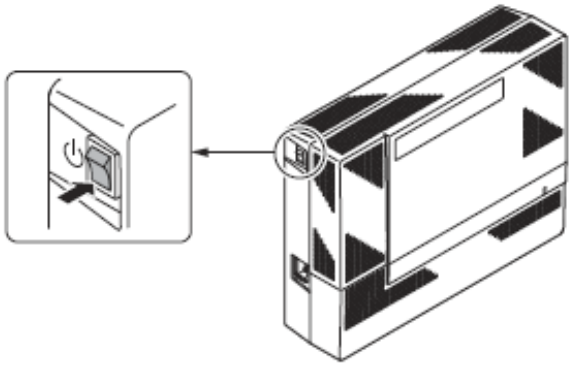
Start Up Method	Description	Purpose
Cold Start	The factory setting data is loaded.	• First time start up • System Initialization
Hot Start	The customer setting data is loaded.	• System Reboot

2-1. Perform a Cold Start

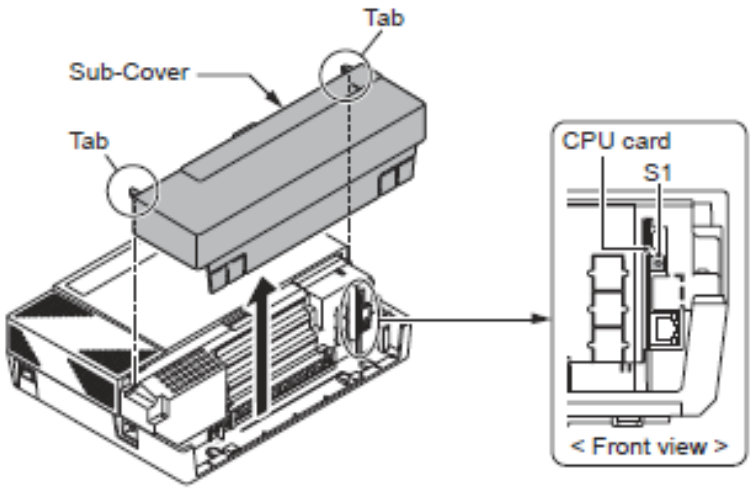
This section describes the process for starting the system for the **First Time** or starting a system that you want to erase the customer setting.

This will erase any customer configuration in the memory.

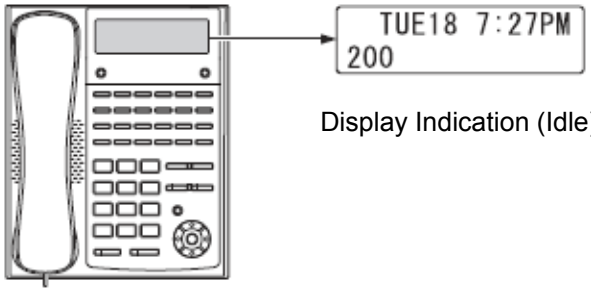
1. Set the power switch is OFF position.



2. Open the Sub-Cover of the SL1000 main KSU and make sure the Load button (S1) location on the CPU card.



3. Connect the AC power cord to the KSU, then plug the AC power cord Into an AC Outlet.
4. Once the system has powered off, push in and hold the Load button(S1).
5. Turn the power switch to ON. Continue holding the Load button (S1) for approximately three second or until Status LED (D5) starts flashing red.
6. Release the Load button.
7. When the system has completed reloading the software (about two minutes), the RUN LED is flashing blue on the CPU card and the connected Multi-Line Telephone's display will show the Time & Date and Extension Number.



Display Indication (Idle)

2-2. Perform a Hot Start

This section describes how to load system software from flash memory, and the customer data from RAM memory.

Be sure that no calls are in progress otherwise they will be cut off.

1. Turn the system power off.
2. After it has powered off, turn the power switch back to ON and power on the system again. Wait approximately two minutes.
3. When the system has completed reloading the software, the RUN LED is flashing blue on the CPU card, and the connected Multi-Line Telephone's display will show the Time & Date and Extension Number as Display Indication (Idle) on page 21.

Test the System

1. Test the SL1000 Multi-Line Telephones (Test each phone in turn.)

Procedure	Action
1) Press the **Speaker**.	If you hear system dialing tone the phone has initialized correctly, press Speaker to clear. If you do not hear dialing tone move to step 2).
2) Check the connections	Check the connections from the phone to the SL1000, ensure all 4 wires are connected as shown in on page 15.
3) Plug phone into the ST connection at the SL1000 unit.	If you have used telephone cable and RJ11 sockets to extend the connections. Plug the phone directly into the ST connection at the SL1000 unit using the line cord supplied with the system phone. If the phone does not initialize correctly then move to step 4.
4) Swap the phone	Try another SL1000 Multi-Line Telephone plugged directly into the ST connection using the line cord supplied with the phone.

2. Test the Analog Telephones (Test each phone in turn.)

Procedure	Action
1) Lift the handset.	If you hear system dialing tone the phone has working correctly. If you do not hear dialing tone move to step 2).
2) Check the connections	Check the connections from the phone to the SL1000, ensure both wires are connected as shown in on page 15.
3) Plug phone into the ST connection at the SL1000 unit.	If you have used telephone cable and RJ11 sockets to extend the connections. Plug the phone directly into the ST connection at the SL1000 unit using the RJ11 line cord (Ensure the line cord connections are correct). If you do not hear dial tone when you lift the handset then move to step 4.
4) Swap the phone	Try another Analog Telephone plugged directly into the ST connection using the RJ11 line cord.

3. Test the Outside (CO) Lines (Test each line in turn.)

Only Test the lines that you have connected!

Procedure	Action
1) To test CO1. At a SL1000 Multi-Line Telephone lift the handset and dial #**9**(Trunk Access Code) **+ 001**(Trunk Number).	If you hear CO dialing tone the phone has working correctly. If you do not hear dialing tone move to step 2).
2) Check the connections	Check the connections from the Outside(CO) Line to the SL1000, ensure both wires are connected to CO1 as shown in Connecting Outside(CO) Lines on page 18.
3) To test CO2. At a SL1000 Multi-Line Telephone lift the handset and dial #**9**(Trunk Access Code) **+ 002**(Trunk Number).	If you hear exchange dialing tone the line is working correctly. If you do not hear exchange dialing tone check the connections from the Outside(CO) line to the SL1000, ensure both wires are connected to CO2 as shown in on page 18.
4) To test CO3. At a SL1000 Multi-Line Telephone lift the handset and dial #**9**(Trunk Access Code) **+ 003**(Trunk Number).	If you hear exchange dialing tone the line is working correctly. If you do not hear exchange dialing tone check the connections from the Outside(CO) line to the SL1000, ensure both wires are connected to CO3 as shown in on page 18.
5) To test CO4. At a SL1000 Multi-Line Telephone lift the handset and dial #**9**(Trunk Access Code) **+ 004**(Trunk Number).	If you hear exchange dialing tone the line is working correctly. If you do not hear exchange dialing tone check the connections from the Outside(CO) line to the SL1000, ensure both wires are connected to CO4 as shown in on page 18.

Install Optional Units and Equipments

For Optional Units and equipments, refer to Hardware Manual (separate issue) for the details.

Power Failure Options

There are various options available for Power Failure Operation.

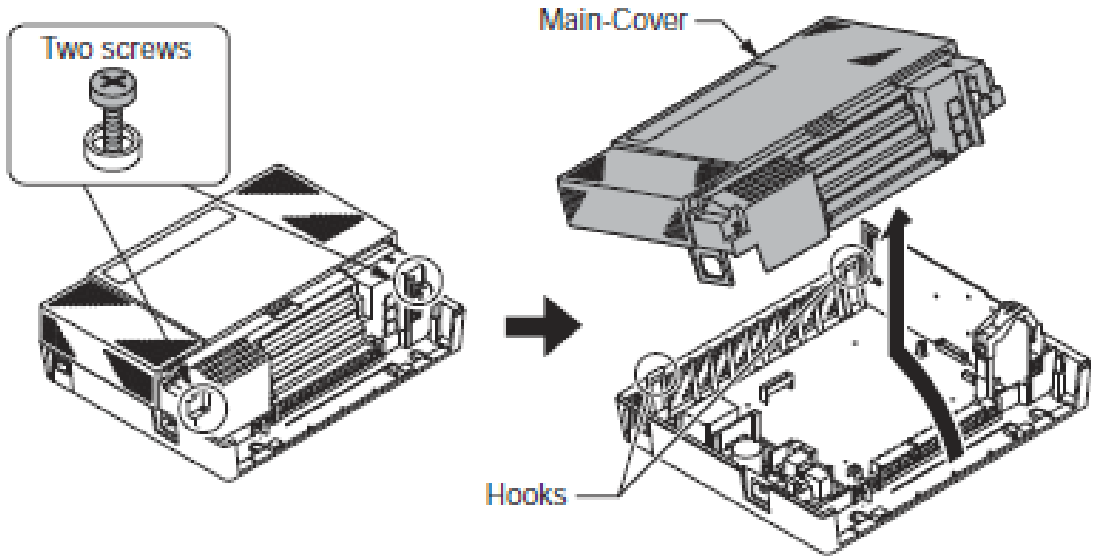
1. Power Failure Setting use SL1000 system

In the event of AC power failure, the specified trunks are directly connected to the specified extension ports as below. And SLT must be connected to the specified extension. The multi-line telephone (4W) does not work when connected to the specified extension port.

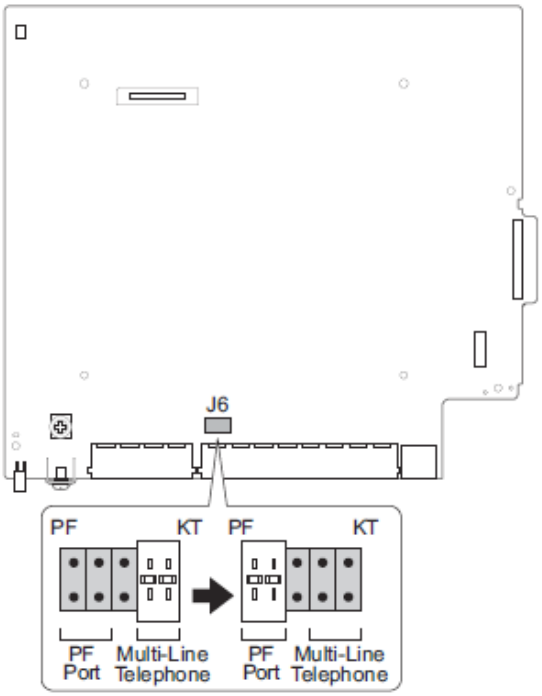
Trunk Port No.1 -> Extension Port No.8

- ***The connected extension must be SLT (Single Line Telephone).***
- ***Hardware switch (J6) must be set from "KT" to "PF" side (default: KT) when use the Power failure transfer circuit.***

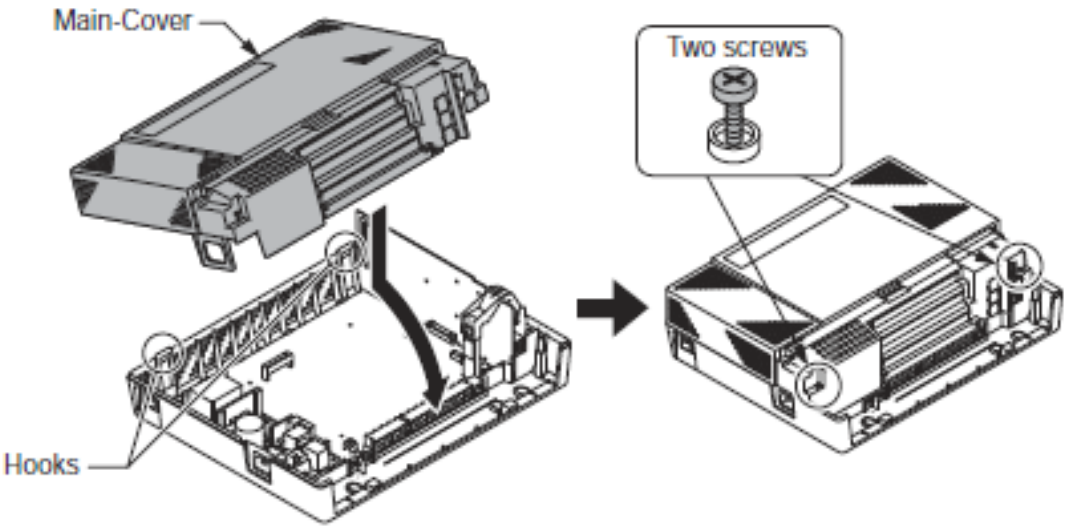
1. Turn the system power off.
2. Loosen two screws and open the Main-Cover by opening up the 2-hooks.



3. Make sure the **Hardware Switch (J6)** location on the KSU.
4. Use Needle-nose pliers to change the switch position of "J6" from **"KT" to "PF"** as below. (Default: KT)



5. Connect a SLT to the extension port No. 8.
6. Replace the Main-cover and fasten two screws.



2. Plug a Analog Telephone directory connect to the Outside(CO) Line socket

If your Outside(CO) lines are provided with a Analog telephone socket you can unplug the SL1000 connection and plug a Analog telephone into the socket to make/receive calls.
You can plug a phone in each Outside(CO) line socket if you wish.

3. Use the External Backup Battery Box(Option) to connect each KSU

The external backup battery box (IP4WW-Battery Box) with batteries provides the power to the system when the AC power is failed. The external backup battery box is connected to each KSU.
For More details, refer to Hardware Manual (Separate Issue).

Configure the SL1000

The getting started guide will cover the most frequently used configuration options. For advanced configuration, refer to Hardware Manual (separate issue) for the details.

Before you configure your system it is important that you:

- Have a diagram of your exchange lines and telephones.
- Plan your requirements before you start.

While you configure your system it is important that you:

- Exit configuration mode periodically, this will save your changes into battery backed memory. They will not be lost if the power is removed.
- Fill out the configuration sheets as you go so that you have a record of your configuration.
- Make small changes, exit configuration mode and test the changes. Do not make all your changes at once as this can make testing very difficult.
- Record your changes as you can only 'undo' them by re-entering the previous values.
- Do not unplug the phone. If it is unplugged by mistake then plug it back in, your changes will not be lost.

The SL1000 consists of exchange lines and telephones connected to the 008/408 cards you have installed.
Within the SL1000 configuration the Outside(CO) lines are referred to as trunks and the telephones as extensions.
When the SL1000 is started up as shown in this guide all the equipment will operate, it is not necessary to make any changes to the system configuration.
With the default settings:

- Each telephone will function and is assigned an extension number.
- Calls received on the exchange lines will ring at telephone number 200.
- Each telephone can make exchange line calls by dialing 9(Trunk Access Code).
- Each exchange line is presented at a Function Key with busy lamp indication.

How to change the SL1000's Configuration

The configuration is stored into memory within the SL1000. You can change the configuration via any SL1000 system phone.
When you have made your changes the SL1000 will automatically save the configuration into memory.

Check the Telephone User Guide for other options

There are some options that are set via normal service codes, for example:
Time setting – with service code 828.
System Phone Book – with service code 853.
Telephone Names – with service code 800.
Key Touch Tone – with service code 824.

Entering the Telephone Programming Mode

The installer/system administrator can enter to the system programming mode from the Display Type Key Telephone. (Up to **2 users** can enter to the mode at the same time)

--Program Mode

System data is identified by a Number.
Enter the number via the keypad to select the Program Number.

In a newly installed system, use extension port No.1.

1. How to entering the Programming Mode

Operation	Display shows;
1. Press **Speaker** key. **(Do not lift the handset)**	FRI 28 1:49PM 200
2. Dial **# *# ***.	Password
3. Dial the system password (default password = 12345678). Press **Hold** key.	Password@@@@@@@@
4. Display shows Program Mode and Enter Programming number directory to set the system data.	Program Mode

2. Selecting the Programming Number

Each configuration setting within the SL1000 is identified by a Program Number (eg 22-05-01).

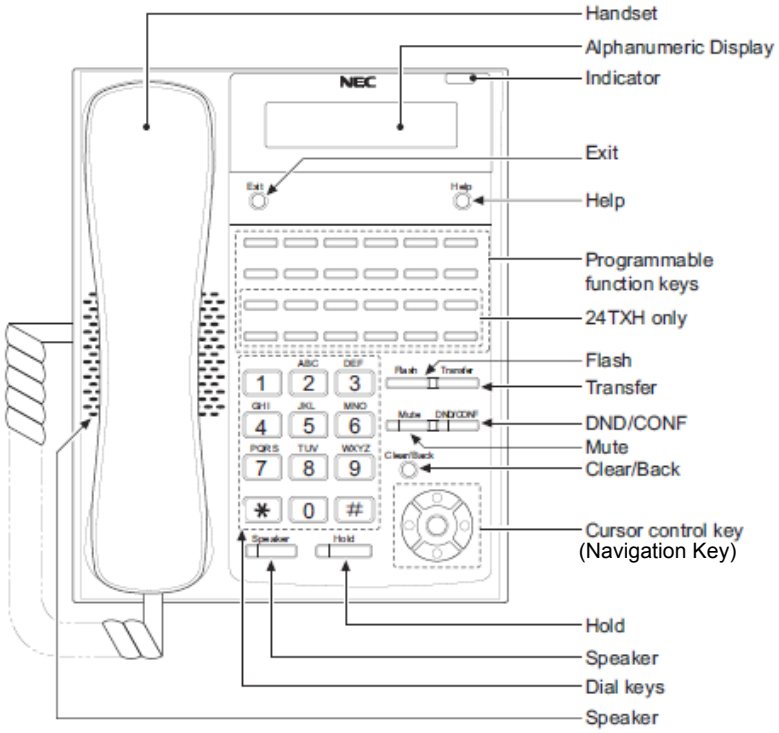
Operation	Display shows;
1. Ensure the LCD Display shows; If it is not displayed press the **Mute** key several times to step back.	Program Mode
2. Enter the Program Number e.g 22 05 01.	22-05-01Trunk Mode1 IRG=1

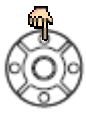
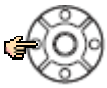
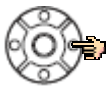
3. Exiting the Programming Mode

Operation	Display shows;
1. Press **Hold** key to Complete the programming.	22-05-0 Trunk1 Mode1 IRG=1
2. Press **Mute** key several times to return to the Program Number Entering Screen.	Program Mode
3. Press **Speaker** key or **Exit** key to exit the Programming mode.	SavingSystemData
When the data save is complete, the phone returns to normal operation.	CompleteDataSave
	FRI 28 1:49PM 200

Note) If you dial an incorrect Program Number, you can step back by pressing the **Mute** key.
If you enter incorrect data, you can step back without saving the setting by pressing the **Mute** key.

4. Using the System Phone Keys to make changes from Programming Mode



Keys for Entering Data	
Use this key...	**When you want to...**
0-9 and *	Enter data into a program.
Hold	Complete the programming step you just made (e.g., pressing **Enter** on a PC keyboard). When a program entry displays, press **Hold** to bypass the entry without changing it.
Clear/Back	Delete the entry to the left (e.g., pressing **Backspace** on a PC keyboard).
Flash	Delete or clear all characters to the right of the cursor.
Mute	Exit one step at a time from the program window currently being viewed. For example, if programming item 5 in 15-03, pressing **Mute** allows you to enter a new option in program 15-03. Pressing **Mute** again allows you to select a new program in the 15-XX series. Pressing Answer a third time allows you to enter a new program beginning with **1**. Pressing **Mute** one last time brings you to the beginning program display, allowing you to enter any program number.
DND/CONF	Switch between the different input data fields by pressing **DND/CONF**. The cursor moves up to the top row of the display. Pressing **DND/CONF** again moves the cursor back to the middle row.
Enter 	**Enter key:** Complete the programming step you just made (e.g., pressing **Enter** on a PC keyboard). When a program entry displays, press **Enter** to bypass the entry without changing it. Same function as **Hold** key.
↑ 	Scroll forward through a list of entry numbers (e.g., from extension etc.) or through entries in a table (e.g., Common Permit Table). If you enter data and then press this key, the system accepts the data before scrolling forward.
↓ 	Scroll backward through a list of entry numbers (e.g., from extension etc.) or through entries in a table (e.g., Common Permit Table). If you enter data and then press this key, the system accepts the data before scrolling backward.
← 	Scroll Cursor to the left…….
→ 	Scroll Cursor to the right…….

☞ *Default value specified by country;*
Before start of Programming, select your country if you require to change the default.
For the details of default value, check Programming Manual (separate issue).

Time & Date Setting

You may want to change this setting when the time and date on the Multi-Line Telephone is not correct.

Program10-01-xx

Operation	Display shows;
1. After Log-In to the Programming Mode.	Program Mode
2. Dial 10 01 01. Edit the last two digits of the year (e.g 11) you can overwrite the current entry. Press **Hold** key to confirm the entry and step to the next option.	10-01-01 Year 0
3. Enter the two digits of the month (01-12). Press **Hold** key to confirm the entry and step to the next option.	10-01-02 Month
4. Enter the two digits of the day (01-31). Press **Hold** key to confirm the entry and step to the next option.	10-01-03 Day 0
5. Enter the one digits of the week (1-7). 1= Sunday, 2= Monday, 3= Tuesday….etc. Press **Hold** key to confirm the entry and step to the next option.	10-01-04 Week(1:Sun)
6. Enter the two digits of the hour (24hour format). Press **Hold** key to confirm the entry and step to the next option.	10-01-05 Hour 0
7. Enter the two digits of the minutes (00-59). Press **Hold** key to confirm the entry and step to the next option.	10-01-06 Minute 0
8. Enter the two digits of the seconds (00-59). Press **Hold** key to confirm the entry and step to the next option.	10-01-07 Second 0
9. Press **Mute** key several times when you are done to return to the Program Mode.	Program Mode
10. Press **Speaker** key to save changes and exit from the Programming Mode.	FRI 28 1:49PM 200

Telephone Ringing Assignment

You may want to change this setting if:

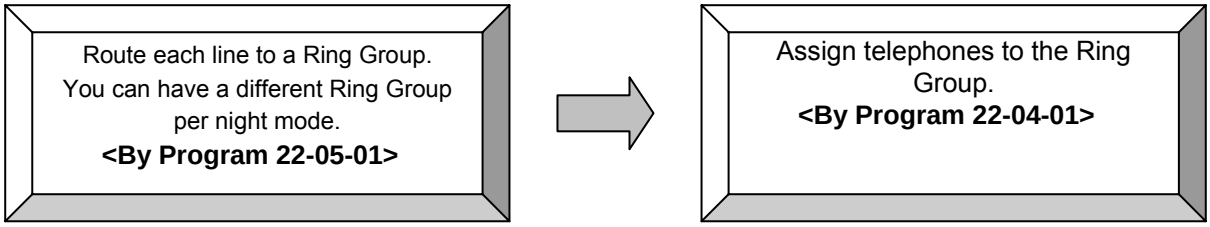
- You want one, or more, Outside(CO) lines to ring at one or more telephones.
- You want a dedicated Outside(CO) line to ring at a specific telephone.
- You want Outside(CO) lines to ring at a different locations throughout the day or at the weekend.

System Operation:

The ringing assignment is achieved by pointing the Outside(CO) line to Incoming Ring Groups. The ring group then contains the telephones that will ring.

- Route each Outside(CO) line to an Incoming Ring Group (IRG) in Program 22-05-01. A line can route to a different IRG in each night mode.

You then place telephones into IRG's in program 22-04-01, a phone can be a member of more than one IRG. Up to 32 telephones can be entered per IRG.



Program22-05-01

The Incoming Ring Group (IRG) number is assigned to the Outside(CO) lines.
Different IRG's can be assigned to each exchange line to give different ring assignment throughout the day.

Default Setting:

- Each Line (CO1-CO4) is assigned to incoming Ring Group (IRG) number 1.
- There are up to 8 settings available.
- IRG number 1 is used for all 8 settings.
- Therefore, each exchange line will ring at IRG 1 and therefore telephone number 200, regardless of the time of day.

Operation	Display shows;
1. After Log-In to the Programming Mode.	Program Mode
2. Dial **22 05 01**. Change the Trunk Number(1-4) if require.	22-05-01Trunk Model1 IRG=1
3. Press **DND/CONF** key to move the cursor to Mode Number. Change the Mode Number(1-8) if requre,	22-05-01Trunk1 Mode IRG=1
4. Press **DND/CONF** key to move the cursor to IRG Number. Change the IRG Number(1-25) if you require.	22-05-01Trunk1 Mode1 IRG=
5. Press **Hold** key to confirm the entry and step to the next option.	
6. Press **Mute** key several times when you are done to return to the Program Mode.	
7. Press **Speaker** key to save changes and exit from the Programming Mode.	

Program22-04-01

The telephones are placed into Ring Group(IRG's).

Default Setting:

- Telephone Number 200 is a member of IRG number 1.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial **22 04 01**. Change the Incoming Ring Number(1-25) if require.	22-04-01INC Gr Memb.01= 200
3. Press **DND/CONF** key to move the cursor to Member Number. Change the Member Number(01-32) if requre.	22-04-01INC Gr1 Memb. 1= 200
4. Press **DND/CONF** key to move the cursor to Extension Number. Change the Extension Number(200-) if you require.	22-04-01INC Gr1 Memb.01= 00
5. Press **Hold** key to confirm the entry and step to the next IRG member.	
6. Press **Mute** key several times when you are done to return to the Program Mode.	
7. Press **Speaker** key to save changes and exit from the Programming Mode.	

Program20-07-01
Turn on the Day/Night mode Option.
Default Setting:
• Day/Night modes can not be changed by any telephones.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 20 07 01. Change the Feature Class(1-15) if require. (Default: all telephones are assigned to Class 1.)	20-07-01 F-Cls SW Man NTserv1
3. Press Mute key to move the cursor to Switch Manual Night Service. Change the Switch Manual Night Service(0:disable/1:enable) if requre.	20-07-01 F-Cls1 SW Man NTserv
4. Press **Hold** key to confirm the entry and step to the next option.	
5. Press **Mute** key several times when you are done to return to the Program Mode.	
6. Press **Speaker** key to save changes and exit from the Programming Mode.	

Assign a key to each mode
Choose a telephone that will be able to change the Day/Night mode.
☞Exit Programming Mode. The keys are set at the telephone itself, not within SL1000 Programming Mode.
Default Setting:
There are no keys set to day/night modes on any of the telephones.

Operation	Display shows;
1. At the telephone that you want to be able to change the day/night mode press **Speaker** key.	FRI 28 1:49PM 200
2. Dial service code **851**.	KEY PROGRAM
3. Press the Programmable Function Key you want to set (its current setting is shown in LCD display). If the Key is not defined the function, go to step 5.	KEY PROG KEY xx xxxxxxxxxxxxxxxx
4. If the Function Key is already assigned the function but not used, Press **Speaker Key** + **852** + Key **7** + **000** + **Speaker key** to clear the current setting and go back to step 1 again to set the Function key.	
5. Dial **09** followed by the mode number 1 to 8. 1 = Day 2 = Night 1 3 = Mid-Night 1 4 = Rest 1 5 = Day 2 6 = Night 2 7 = Mid-Night 2 8 = Rest 2 ☞ If you want to clear the Day/Night mode key, press 00 after Step3 to clear the function.	KEY PROG KEY xx NIGHT SERVICE 0
6. Repeat Step 3 and 4 for further keys/modes.	

Configuration sheet: Telephone Ring Assignment
With defaults shown.
Place the telephones into Ring Groups.

IRG Number	List of telephones that will ring PRG 22-04-01
IRG 1	*Default=200*
IRG 2	
IRG 3	
IRG 4	
IRG 5	
IRG 6	
IRG 7	
IRG 8	
IRG 9	
IRG 10	

Up to 25 IRG's are available, only 10 are listed as this is normally sufficient.
Up to 32 telephones can be entered per IRG. Try to keep the number of ringing telephones to a minimum.

Assign the Ring Groups to the Exchange Lines.

Day/Night Mode Number	Trunk 1 PRG 22-05-01 default=IRG1	Trunk 2 PRG 22-05-01 default=IRG1	Trunk 3 PRG 22-05-01 default=IRG1	Trunk 4 PRG 22-05-01 default=IRG1
1				
2				
3				
4				
5				
6				
7				
8				

Turn on the ability to change the mode.

Mode Change	Setting Default=0 (off)
PRG20-07-01	

Assign Keys at the telephone(s) that will change the mode. A phone with an LCD is preferable.

- This is not done within the SL1000 Configuration mode, Keys are changed by dialing a Service Code at the telephone itself.
- You will need a separate key for each mode you are using.
- The key for the current mode will light red, to change the mode just press the appropriate key.

Telephone	Mode 1	Mode 2	Mode 3	Mode 4	Mode 5	Mode 6	Mode 7	Mode 8
	Key	Key	Key	Key	Key	Key	Key	Key
	Key	Key	Key	Key	Key	Key	Key	Key

Note:

- Plan your requirements as the ring assignment is the most important operation of your telephone system. It's your customers that will be ringing you!

- Try to keep the number of ring modes to a minimum, 3 per day is sufficient (normal day working, lunch times and evenings for example). You may want an additional mode to cover the weekend.
    - Do not have too many phones in a ring group, remember that calls can be answered by pressing the Function Keys at the SL1000 phones, see also Call Pickup in the Features & Specifications Manual.

Example Configuration

- You have 3 Outside (CO) lines (trunks) connected.
- Trunks 1 & 2 (CO1/2) needs to ring at extensions 200 and 202 during the day time working.
- At lunch times they should ring at extension 205.
- In the evenings and at weekends they should go to an answer phone, the answer phone is connected to ST8 so is extension number 207.
- Trunk 3 (CO3) is a dedicated line and should go to telephone 206 at all times.
- Telephone 200 will have Function keys to change the mode for day, lunch etc.

Step 1

Place the telephones into an IRG for each of the modes (day time, lunch time, evenings and weekends).

IRG Number	List of telephones that will ring PRG 22-04-01
IRG 1	200, 202 (day time)
IRG 2	205 (lunch time)
IRG 3	207 (evenings and weekends)
IRG 4	206 (at all times)

Step 2

Assign the IRG number to each trunk for the modes you will use.

Mode	Trunk 1 PRG 22-05-01	Trunk 2 PRG 22-05-01	Trunk 3 PRG 22-05-01
1 Day	IRG 1	IRG 1	IRG 4
2 Lunch	IRG 2	IRG 2	IRG 4
3 Evening & Weekend	IRG 3	IRG 3	IRG 4

Step 3

Turn on the ability to change the ring mode for day time, lunch time, evenings etc.

Mode Change	Setting
PRG20-07-01	1 (on)

Step 4

Assign modes 1 (Day), 2 (Lunch) and 3 (Evenings/Weekends) to keys at telephone 200.

1. At telephone 200 press **Speaker key**.
2. Dial service code **851.**
3. Press Key 7 (Its current setting is shown in the display). If the Key 7 is not defined the function, go to step 5.
4. If the Key 7 is already assigned the function but not used, Press **Speaker Key** + **852** + .Key **7** + **000** + **Speaker key** to clear the current setting and go back to step 1.
5. Dial **09** followed by **1** for the mode number.
6. Repeat steps 3. and 4. for Key 8 = mode 2 and Key 9 = mode 3.

Telephone	Mode 1	Mode 2	Mode 3
200	Key 7	Key 8	Key 9

Telephone Ring Style

You may want to change this setting if:

- You want to change the ringing style of outside and internal calls to telephones.

System Operation:

The ringing patterns are set for the system by Program 20-15-01

The default setting is:

Outside calls have a single ring pattern of 1 second on / 2 seconds off.

Internal calls have a double ring pattern of 0.4 seconds on / 0.2 seconds off / 0.4 seconds on / 2 seconds off.

<table>
<tr><th>Operation</th><th>Display shows;</th></tr>
<tr><td>■ Program20-15-01
Sets the ring pattern for outside calls
<u>Outside Call Ring Pattern</u>
1. After Log-In to the Programming Mode.
If you already Log-In the programming mode, skip this operation.</td><td>Program Mode</td></tr>
<tr><td>2. Dial 20 15 01. Change the ring pattern(1-13) for outside calls, if require.
<table>
<tr><th>No.</th><th>Ring Cycle</th></tr>
<tr><td>1</td><td>On</td></tr>
<tr><td>2</td><td>On:2.0 / Off:4.0</td></tr>
<tr><td>3</td><td>On:1.0 / Off:2.0</td></tr>
<tr><td>4</td><td>On:0.5 / Off:0.5</td></tr>
<tr><td>5</td><td>On:0.25 / Off:0.25</td></tr>
<tr><td>6</td><td>On:0.5 / Off:0.5 / On:0.5 / Off:1.5</td></tr>
<tr><td>7</td><td>On:0.25 / Off:0.25 / On:0.25 / Off:5.25</td></tr>
<tr><td>8</td><td>On:0.375 / Off:0.25 / On:0.375 / Off:2.0</td></tr>
<tr><td>9</td><td>On:0.25 / Off:0.125 / On:0.25 / Off:0.125 / On:0.25 / Off:2.0</td></tr>
<tr><td>10</td><td>On:1.0 / Off:4.0</td></tr>
<tr><td>11</td><td>On:0.25 / Off:0.25 / On:0.25 / Off:4.25</td></tr>
<tr><td>12</td><td>On:1.0 / Off:3.0</td></tr>
<tr><td>13</td><td>On:0.25 / Off:0.25 / On:0.25 / Off:2.25</td></tr>
</table></td><td>20-15-01
TRK Normal INC</td></tr>
<tr><td>3. Press Hold key to confirm the entry and step to the next option.</td><td></td></tr>
<tr><td>■ Program20-15-03
Sets the ring pattern for internal calls
<u>Internal Call Ring Pattern</u>
1. After Log-In to the Programming Mode.
If you already Log-In the programming mode, skip this operation.</td><td>Program Mode</td></tr>
<tr><td>2. Dial 20 15 03. Change the ring pattern(1-13) for outside calls, if require.
<table>
<tr><th>No.</th><th>Ring Cycle</th></tr>
<tr><td>1</td><td>On</td></tr>
<tr><td>2</td><td>On:2.0 / Off:4.0</td></tr>
<tr><td>3</td><td>On:1.0 / Off:2.0</td></tr>
<tr><td>4</td><td>On:0.5 / Off:0.5</td></tr>
<tr><td>5</td><td>On:0.25 / Off:0.25</td></tr>
<tr><td>6</td><td>On:0.5 / Off:0.5 / On:0.5 / Off:1.5</td></tr>
<tr><td>7</td><td>On:0.25 / Off:0.25 / On:0.25 / Off:5.25</td></tr>
<tr><td>8</td><td>On:0.375 / Off:0.25 / On:0.375 / Off:2.0</td></tr>
<tr><td>9</td><td>On:0.25 / Off:0.125 / On:0.25 / Off:0.125 / On:0.25 / Off:2.0</td></tr>
<tr><td>10</td><td>On:1.0 / Off:4.0</td></tr>
</table></td><td>20-15-03
Internal INC</td></tr>
</table>

11	On:0.25 / Off:0.25 / On:0.25 / Off:4.25
12	On:1.0 / Off:3.0
13	On:0.25 / Off:0.25 / On:0.25 / Off:2.25

4. Press **Hold** key to confirm the entry and step to the next option.	
5. Press **Mute** key several times when you are done to return to the Program Mode.	
6. Press **Speaker** key to save changes and exit from the Programming Mode.	

Internal Call Ringing Mode

You may want to change this setting if:

- You want to change the way internal calls to telephones are presented. Internal calls can either ring the phone or voice announce where the caller can speak directly to the loudspeaker of the phone they are calling.

System Operation:
The mode is set for the system by Program 20-02-12.
The default setting is Voice Announce mode.

Program20-02-12
Select the mode for Internal calls.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 20 02 12. Change the Internal Call Ringing Mode (0: Ring Mode/1: Voice Announce Mode) if require.	20-02-12 ICM Call Type
3. Press **Hold** key to confirm the entry and step to the next option.	
4. Press **Mute** key several times when you are done to return to the Program Mode.	
5. Press **Speaker** key to save changes and exit from the Programming Mode.	

Extension Name

You may want to change this setting if:

- You want to add or edit the extensions name which is shown in the Multi-Line telephone display.

System Operation:
The mode is set for the system by Program 15-01-01
The default setting is not assigned to the Extension Name for all extensions.

Program15-01-01
Enter the Extension Name.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode

2. Dial 15 01 01, Enter the Extension Number and press **DND/CONF** key to Next step. (e.g. Extension Number: 200)	15-01-01 TEL200 ExtName-
3. Enter Extension Name, (e.g. Extension Name: David) using the keypad.	15-01-01 TEL200 ExtName-David
4. Press **Hold** key to confirm the entry and step to the next option.	
5. Press **Mute** key several times when you are done to return to the Program Mode.	
6. Press **Speaker** key to save changes and exit from the Programming Mode.	

Outgoing Exchange Line Access

You may want to change this setting if:

- You want a dedicated exchange line for one of the telephones (eg FAX,....)

System Operation:

Each telephone is assigned a Trunk Access Map (TAM) number.
The TAM number is then given the access properties for each of the exchange lines.
The default operation is that all telephones have access to any exchange line.

Program15-06-01

Give the telephones to a Trunk Access Map (TAM) number. You can specify a different TAM number for each day/night mode. See Changing the Telephone Ringing Assignment for the modes you may be using.

Default Setting:

All telephones have TAM number 1.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 15 06 01, Enter the Extension Number and press **DND/CONF** key to Next step. (e.g. Extension Number: 200)	15-06-01 TEL200 Mode1 Acc-Map
3. Enter the TAM Number(1-126) for each mode(1-8), you can overwrite the current entry.	
4. Press **Hold** key to confirm the entry and step to the next option.	
5. Press **Mute** key several times when you are done to return to the Program Mode.	
6. Press **Speaker** key to save changes and exit if you are finished.	

Program14-07-01

Give each exchange line the access properties for the TAM number.

Default Setting:

Each exchange line (CO1, CO2, CO3 & CO4) has full access (Property type 7) for TAM number 1. Therefore every telephone can access any of the trunks.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode

2. Dial 14 07 01, Enter the TAM Number and press **DND/CONF** key to Select Trunk number (001-126) and Next step. (e.g. Extension Number: 200)	14-07-01Acs.M TRK 001 = 7
3. Enter the Access Property Number (0-7) for each trunk, you can overwrite the current entry. 0 – No access 1 – Outgoing only 2 – Incoming only 3 – Retrieve held call only 4 – Outgoing and retrieve held call 5 – Incoming and retrieve held call 6 – Incoming and outgoing 7 – Incoming, outgoing and retrieve held call	14-07-01Acs.M1 TRK 001 =
4. Press **Hold** key to confirm the entry and step to the next option.	
5. Press **Mute** key several times when you are done to return to the Program Mode.	
6. Press **Speaker** key to save changes and exit if you are finished.	

See Also:
Changing the Telephone Ringing Assignment.

Configuration Sheet: Outgoing Exchange Line Access
With defaults shown.

Give each telephone a TAM number.

PRG 15-06-01	**TAM Number for each day/night mode** Default=TAM1 for all modes							
Telephone	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
200								
201								
202								
203								
204								
205								
206								
207								

There are 126 TAM numbers available.

Give each exchange line the access properties for the TAM number.

PRG 14-07-01					**Values available:**
TAM Number	**Trunk 1**	**Trunk 2**	**Trunk 3**	**Trunk 4**	0 – No access 1 – Outgoing only 2 – Incoming only 3 – Retrieve held call only 4 – Outgoing and retrieve held call 5 – Incoming and retrieve held call 6 – Incoming and outgoing 7 – Incoming, outgoing and retrieve held call
1	7	7	7	7	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	

Although there are 126 TAM numbers available only 5 are listed as this is normally sufficient.

Caller ID

You will need to enable this setting if:

- You have Caller ID service supplied on your outside lines.
- You have Analog telephones that are Caller ID compatible.

The SL1000 can detect the Caller ID and display it on the LCD display of the SL1000 system phones.
It can also be available at a Analog phone that is Caller ID compatible.

System Operation:
You will need turn on the Caller ID detection for each trunk that it will be received on.
You will also need to turn on Caller ID for each of the Analog telephones that are Caller ID compatible.

Program14-02-10

Turn on Caller ID for each trunk.
Default Setting:
Set 0 to Caller ID is turned off for each trunk.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 14 02 10, For each trunk enter 1 to turn on Caller ID, you can overwrite the current entry and Press **Hold** key to confirm the entry and step to the next option.	14-02-10Trunk Caller ID 0
3. Press **Mute** key several times when you are done to return to the Program Mode.	
3. Dial 15 03 09. For each telephone enter 1 to turn on Caller ID, you can overwrite the current entry and Press **Hold** key to confirm the entry and step to the next telephone.	15-03-09TEL20 Ext No Display 0
4. Press **Mute** key several times when you are done to return to the Program Mode.	
5. Press **Speaker** key to save changes and exit if you are finished.	

See Also:
There are no other related settings.

Configuration Sheet: Caller ID
With defaults shown.

Turn on the Caller ID for each trunk.

Prg 14-02-10	
Trunk number	**Setting** Default= 0 Off
Trunk 1	
Trunk 2	
Trunk 3	
Trunk 4	

Turn on the Caller ID for each Analog telephone.

Prg 15-03-09	
Telephone	**Setting** Default=0 Off

200	
201	
202	
203	
204	
205	
206	
207	

Recall for Analog Telephones

You may want to change this setting if:

- You have Analog telephones connected and the RECALL key does not work correctly. This is highlighted when you press the RECALL key but the call is not placed on hold.
- The RECALL is also referred to as Timed Break Recall (TBR).

System Operation:

The SL1000 must be configured with the correct RECALL timing that matches the Analog telephones that you have connected.

Program82-04-0x

Set the system to detect a RECALL duration of 105ms to 1000ms. You will need to change three options within this program.

Default Setting:

The SL1000 will accept a RECALL duration of 540mS to 660mS(600ms±10%).

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 82 04 04, Enter the Maximum Break Time (default: 100ms (20)) and Press **Hold** key 3 times to confirm the entry and step to the next option.	82-04-04 Max.Break TM 0
3. Change the setting to 21 (this is equivalent to 105mS) and Press **Hold** key to confirm the entry and step to the next option.	82-04-07 Min.Flash TM 2
4. Change the setting to 200 (this is equivalent to 1000mS) and Press **Hold** key to confirm the entry and step to the next option.	82-04-08 Max.Flash TM 20
5. Press **Mute** key several times when you are done to return to the Program Mode.	
6. Press **Speaker** key to save changes and exit if you are finished.	

Configuration Sheet: RECALL Timing

With defaults shown.

	82-04-04 default=20 (100mS)	**82-04-07** default=108 (540mS)	**82-04-08** default=132 (660mS)
Setting			
Equivalent duration (mS)			

Department (Extension) Groups

You may want to change this setting if:

- You have people that work within a group and you want to be able to call anyone within the group. The call will ring at anyone that is available within the group. If they do not answer, the call will step to the next member.

System Operation:

The telephones are placed into Department groups. There are 32 groups available.

The group is given a number (pilot number) that you dial to reach the group.

You can choose the following options for each group.

- How the calls will ring around the group – either in a set order of priority or randomly at any telephone.
- Try each telephone once or keep hunting – your call can ring at each available telephone in the group and if not answered stay at the last member or keep trying each member.
- How long each member rings before the call will step on to the next one available.

Program16-02-0x

Place the telephones into a department group.

Default Setting:

All telephones are in department group 1.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 16 02 01, For each telephone enter the Group number(1-32) that is a member of, you can overwrite the current entry and Press **Hold** key to confirm the entry and step to the priority option.	16-02-01 TEL 00 Extension Grp 1
3. For each telephone enter the priority number(1-999), you can overwrite the current entry and Press **Hold** key to confirm the entry and step to the next telephone.	16-02-02 TEL200 Priority
4. Press **Mute** key several times when you are done to return to the Program Mode.	
5. Press **Speaker** key to save changes and exit if you are finished.	

Program16-01-02

Select how calls ring around the department group.

Default Setting:

Calls ring in priority order within the department group.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 16 01 02, For each group select the ring mode, you can overwrite the current entry (0: Priority Order/1: Random Order) and Press **Hold** key to confirm the entry and step to the next option.	16-01-02TEL Gr Pilot Call 0
3. For each telephone enter the priority number(1-999), you can overwrite the current entry and Press **Hold** key to confirm the entry and step to the next telephone.	16-02-02 TEL200 Priority

4. Press **Mute** key several times when you are done to return to the Program Mode.	
5. Press **Speaker** key to save changes and exit if you are finished.	

Program16-01-04

Select how many times the calls try each member of the department group.

Default Setting:

Calls try each telephone once.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 16 01 04, For each group select the hunting mode, you can overwrite the current entry (0: Calls try each telephone once/1: Calls continue trying the telephones) and Press **Hold** key to confirm the entry and step to the next option.	16-01-04TEL Gr Hunting Mode 0
3. For each telephone enter the priority number(1-999), you can overwrite the current entry and Press **Hold** key to confirm the entry and step to the next telephone.	
4. Press **Mute** key several times when you are done to return to the Program Mode.	
5. Press **Speaker** key to save changes and exit if you are finished.	

Program16-01-09

Select how long calls ring at each member of the department group. You can use this option to turn off the step on operation by setting the time to 0 seconds.

Default Setting:

Calls ring each member for 15 seconds.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 16 01 09, For each group select the ring duration (0-64800 seconds), you can overwrite the current entry. (0 second will stop the call stepping on.) and Press **Hold** key to confirm the entry and step to the next option.	16-01-09TEL Gr Call N/A TM15
3. Press **Mute** key several times when you are done to return to the Program Mode.	
4. Press **Speaker** key to save changes and exit if you are finished.	

Program11-07-01

Give the department group a pilot number. Try to use a number that is easy to remember.

For example use:

Pilot number 401 for group 1

Pilot number 402 for group 2….etc..

Default Setting:

There are no pilot number assigned..

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 11 07 01, For each group enter the pilot number (3 digits required), you will dial to reach the group and Press **Hold** key to confirm the entry and step to the next group. If you duplicate a number you will see Duplicate Data, the entry will be removed and you can enter a new number.	11-07-01TEL Gr ExtGrNo.
3. Press **Mute** key several times when you are done to return to the Program Mode.	
4. Press **Speaker** key to save changes and exit if you are finished.	

See Also:
There are no related settings.

Configuration Sheet: Department Groups
With defaults shown.

Telephone number	Department Group number 16-02-01 default=1	Priority number 16-02-02
200		1
201		2
202		3
203		4
204		5
205		6
206		7
207		8

Department Group number 1-32	Pilot Number 11-07-01	Ring in priority/random 16-01-02 default=0 Priority	Try once or continually 16-01-04 default=0 Once	Ring time before step on 16-01-09 default=15 seconds
1				
2				
3				
4				

There are 32 groups available, only 4 are listed as this is usually sufficient.

Create an Internal Paging Group

You may want to change this setting if:

- You want to make a paging call. The paging will be broadcast out of the loudspeakers of the SL1000 system phones.
  Paging is useful if you have staff that leave their desk and you need to contact them.

System Operation:

You add the SL1000 system phones into a paging group. There are 32 paging groups available.

Program31-02-01

Place the telephones into paging groups. You can only broadcast the paging call out of the loudspeakers of SL1000 system phones, not Analog telephones.

Default Setting:

None of the telephones are in a paging group.

Operation	Display shows;
1. After Log-In to the Programming Mode. If you already Log-In the programming mode, skip this operation.	Program Mode
2. Dial 31 02 01, For each telephone enter the paging group number (0-32, enter 0 to remove the phone from a group), you can overwrite the current entry and Press **Hold** key to confirm the entry and step to the next option.	31-02-01 TEL 00 INT PG GP No 0
3. Enter 1 to place the telephone in the Internal All Call Page option.	31-02-02 TEL 00 INT All Call PG0
4. Press **Mute** key several times when you are done to return to the Program Mode.	
5. Press **Speaker** key to save changes and exit if you are finished.	

See Also:

There are no related settings.

Configuration Sheet:

With defaults shown.

Telephone	Page Group Number 31-02-01 default=0 None	All call page 31-02-02 default=0 No
200		
201		
202		
203		
204		
205		
206		
207		

For the other features, refer the Features & Specifications Manual (Separate Issue).

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SL1000

Getting Started Guide

NEC Corporation