

SVM-400E INSTALLATION

The SVM-400E Voice Processing System is an external Voice Processing system proprietary to the iDCS 16 Release 1 and Release 2 KSUs.

Installation Environment

- Temperature: 0°C ~ 40°C (32°F ~ 104°F)
- Humidity: Maximum 90%
- Power Specifications: Power supply of 60 or more watts, 110VAC, 1.6A
- Regular Frequency: 60Hz

Keep this unit far away from static electricity and electrical noise

If there is a possibility of static electricity occurring in a place where the SVM-400E Voice Processing System is installed (due to a carpet, electronic machines, etc), a system for preventing occurrence of static electricity should be prepared.

Install the unit in a place which is not exposed to influential factors

Be careful not to expose the SVM-400E Voice Processing System to direct sunlight, corrosive vapor, dust, regular vibration or high levels of magnetic field generated by a motor or a copy machine.

Installation Precautions

Selecting Place

Select a place having sufficient space and proper levels of brightness to facilitate installation of the SVM-400E Voice Processing System.

Preventing Static Electricity

This SVM-400E Voice Processing System should not be installed in a carpeted place. An installer or a repairman should discharge the static electricity from the body (by contacting part of the body with the metal portion of a grounded object or with the ground connection of the system) before installing or repairing the system, to ensure safety.

In addition, for protection and stable operation of the SVM-400E Voice Processing System, standard grounding construction should be used.

Correct Cable Requirements

Select a place minimizing the length of the system cable, and properly wire so that all the lines or cables output from/input into the SVM-400E Voice Processing System is not damaged. In addition, be careful not to neglect electromagnetic waves or not to arrange the electromagnetic waves to be parallel to an AC power cable. Refer to the cable requirements shown in the following table.

Cables	AWG	MAX FEET (ft)	MAX METER (m)
1PR. Twisted	24	162	50

Conditions of Line

When using AWG 24, the maximum length of a line for a SVM-400E is about 50m (162 ft). Be careful not to fold cables or make contact with other utensils during installation of lines and not to transform or damage cables. Do not expose the lines to the outside of the building.

Checking Power

When the system shares AC power with other machines, noise, malfunction of the SVM-400E Voice Processing System due to voltage drop, and a fire may be caused. Moreover, interruption of power at night may cause malfunction in the SVM-400E Voice Processing System. Therefore, use a stable AC power, preferably the same outlet as the DS 616 system.

CAUTION: Connect the SVM-400E Voice Processing System to an AC receptacle independently. When the SVM-400E Voice Processing System shares AC power with other machines, it can cause noise, malfunction of the system due to voltage drop.

Installing System

Prior to Installation

When unpacking the SVM-400E Voice Processing System, check to be sure the system and other parts are not physically damaged. If you discover any damage, contact your retailer prior to installation of this unit to take proper steps.

Check the following items contained in the package of the product:

- SVM-400E Voice Processing System
- 3 Screws and 3 Bushings for hanging up the system on the wall
- 2 AC power Fuses (F1 Fuses) - 125V, 2A
- An AC power cable
- 4 Cable Ties

Installing System

1. Inside view of the System

Before installing the SVM-400E Voice Processing System, let's look around inside of the system.

Opening System Cover

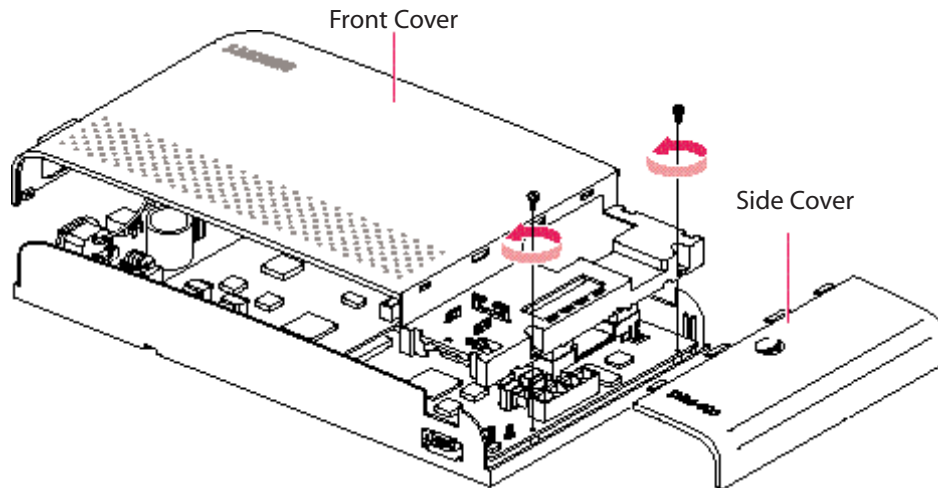
The SVM-400E Voice Processing System cover is divided into the front cover and the side cover.

1. Opening the Side Cover

Viewed from the top, the small cover on the right side is the side cover. A round groove is provided at the center of the side cover. Pull the side cover to the right with softly pushing the groove to take off the cover.

2. Opening the Front Cover

After removing the side cover, loosen the screws at the upper and lower right portions of the front cover. After removing these screws, hold the upper and lower sides of the front cover and gently pull it off.



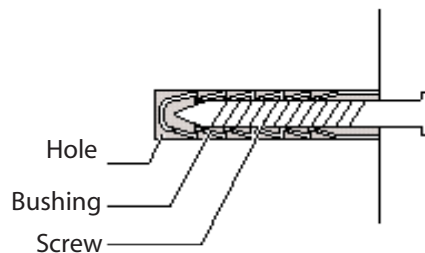
2. Fixing the SVM-400E Voice Processing System on the wall

The SVM-400E Voice Processing System is housed in a plastic cabinet. This unit can be installed on a wall or a floor. The following description shows how to install the system on the wall.

1. [Print the Template page found as Appendix A of this document. This Template is use to locate the position of the mounting screws.](#)
2. Adhere the template page to the wall and make holes on the wall for the screws using an electric drill.

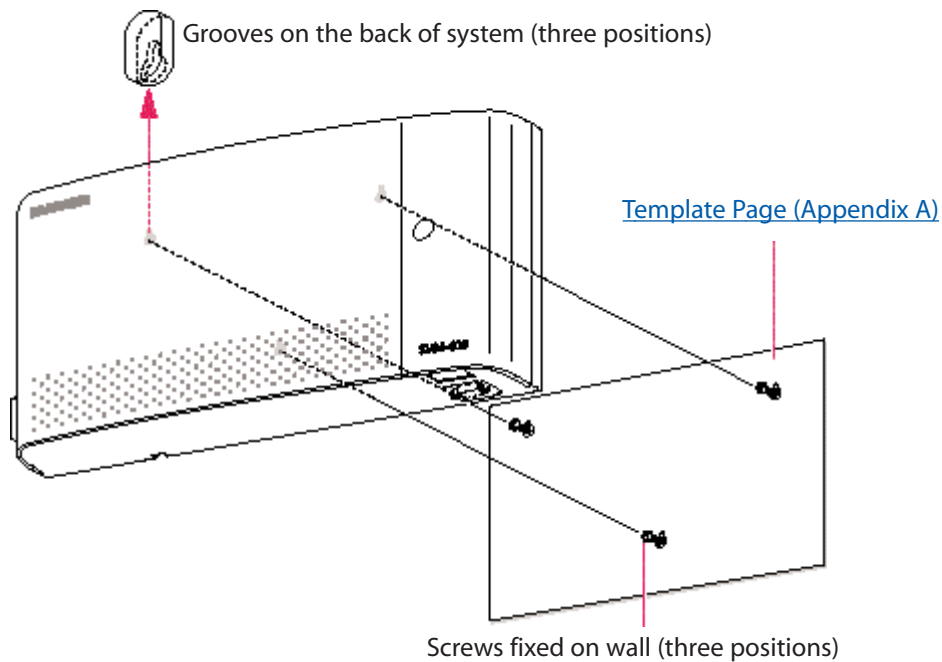
CAUTION:

1. If the wall is built of plaster or brick, or if the building is a prefabricated one, you should mount a wood backboard on the wall having a thickness of about 1/2 - 3/4 of an inch.
2. If the wall is built of concrete you should make a hole using an electric drill and insert the bushings into the holes first, and then insert the screw into the bushings. Driving the screw directly into the concrete wall without using an electric drill or not using the bushing may make the unit unstable and cause the it to fall.



3. Hang the SVM-400E Voice Processing System on the screws and check whether the system is securely fixed. If the system seems unstable, secure the mounting screws or 1st mount Plywood to the wall and then mount the SVM-400E to the plywood.

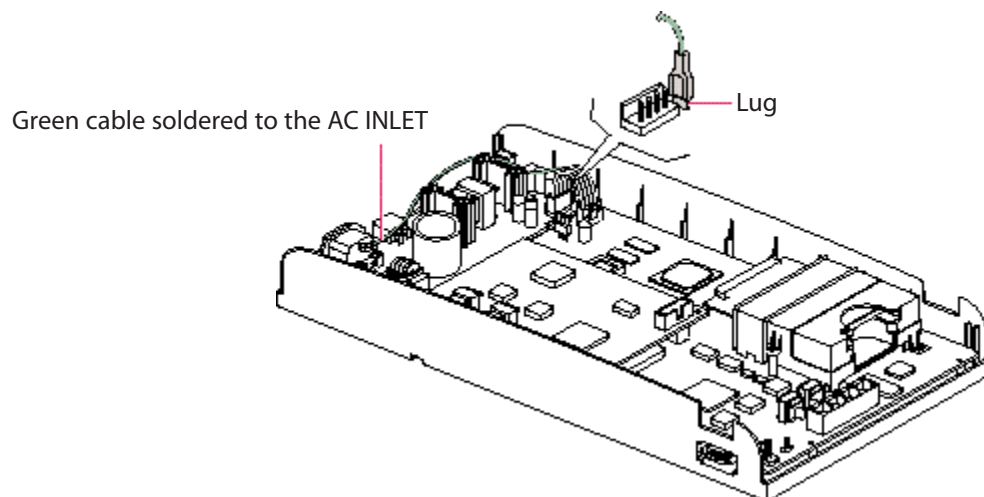
The diagram of installation is as below.



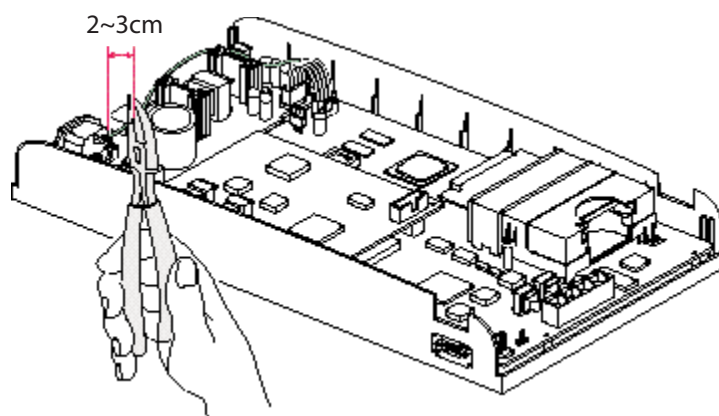
3. Grounding

CAUTION: Un-Plug the AC power cord before installing the grounding connection. When the grounding operation is done with the AC power cord plugged in, voltage causing fatal injury may be generated.

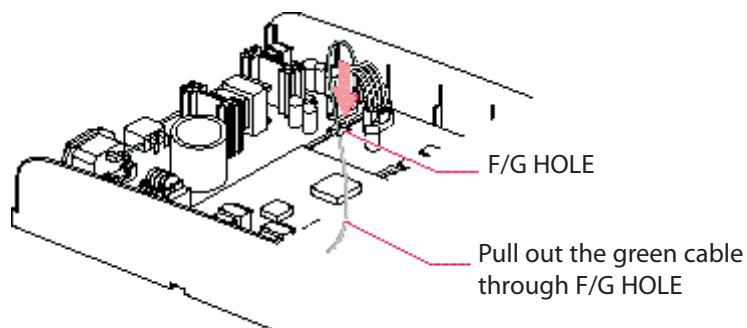
- Grounding must be done to protect users and the SVM-400E Voice Processing System from strikes of lightning, static electricity and other instant high voltage.
- When the AC power receptacle does not provide an adequate ground, separate grounding (external grounding) should be done.
- Improper grounding may cause malfunction in the SVM-400E Voice Processing System.
- External grounding is performed according to the following steps (to be followed only if AC Ground is inadequate).
 1. There is a green cable soldered to the grounding end of the AC power cable connection end (AC INLET) within the SVM-400E Voice Processing System. The other end of the green cable is attached to the FRG lug within the power supply unit. [Refer to the picture on the next page.](#)



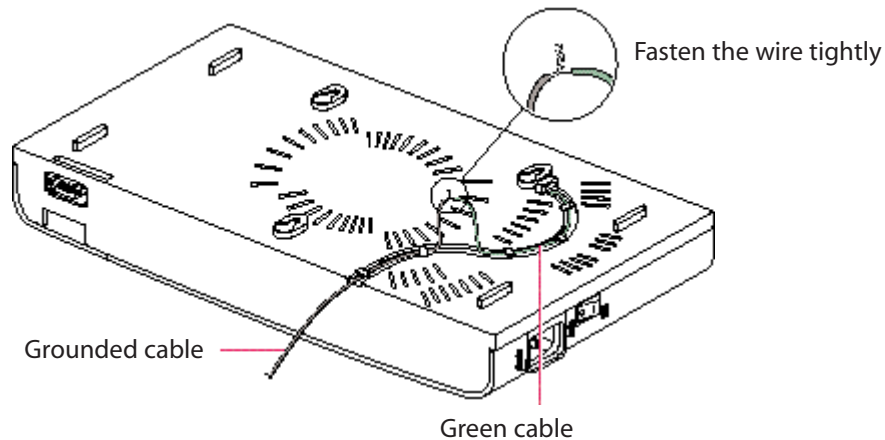
2. Cut the end of the green cable soldered to the grounding end of the AC power cable connection end (AC INLET). The right position is 2~3cm (1 inch) apart from the grounding end of the AC INLET. An optional configuration of the Daughter card does not have the circuitry and instead the Upgrade Key socket would be populated with an Upgrade Key.



3. Next, pull out the cut end of the green cable through the F/G HOLE. F/G HOLE is located near to the FRG lug within the power supply unit, to which the other end of the green cable is attached. Pull out the cut end of the green cable along the groove on the bottom of the SVM-400E Voice Processing System.



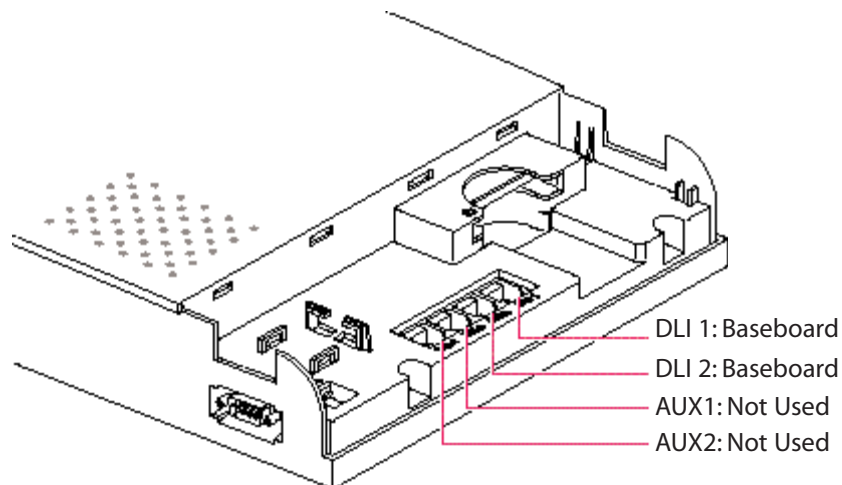
4. Prepare an AWG 10 cable for external grounding and ground it to the outside. Lead the cable along the groove on the bottom of the SVM-400E Voice Processing System and affix the cable to the green cable, which was pulled out in step 3. There are 2 ways of affixing the 2 cables:
 - Solder the end of the 2 cables to each other
 - Strip the insulation of the 2 cables at the end and fasten the two wires tightly



NOTE: The cable for external grounding is not provided by default so that the installer has to prepare it for himself.

4. Connecting to the DS 616 System

All the lines are connected through the modular jacks of the SVM-400E Voice Processing System after removing the side cover. The locations of each modular jack are shown below. The necessary cables for DLI ports are RJ-11 cables.

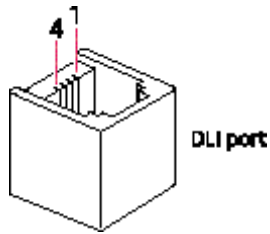


Connecting

Connect to a desired DLI port using a pair of cables such as #24 AWG or #26AWG. The SVM-400E Voice Processing System provides 2 ports, DL1 through DL2, for the iDCS 16 digital telephone system.

Modular Jack Arrangement Layout

Connect lines according to the following modular jack pin arrangement layout.



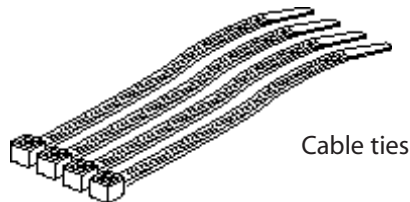
Modular Jack Printing	Pin Number	Description
DLI1	1,4	Not Use
	2,3	Digital Port 1
DLI2	1,4	Not Use
	2,3	Digital Port 2
AUX1	1,4	Not Use
	2,3	Not Use
AUX2	1,4	Not Use
	2,3	Not Use

NOTE:

1. The DLI ports are normally connected to the last two DLI ports of the iDCS 16. The last two DLI ports are typically extension 211 & 212. Connect DLI1 to extension 211 on the iDCS 16 and connect DLI2 to extension 212.
2. The cables used for connecting to the DLI ports are not provided in the package of the SVM-400E Voice Processing System.
3. The DLI1 port should be connected to the DLI port of the DS 616 digital keyphone system prior to DLI2.

Tie The Cables

You can neatly secure and dress out the cables using the cable ties contained in the package of the SVM-400E Voice Processing System.



SVM-400E & iDCS 16 Set Up

After installing the SVM-400E system and turning the power on there are some key system options that should be set in order for the SVM-400E to function correctly. These steps are performed in the iDCS 16. It is necessary to perform these at this time so that the SVM-400E will initialize properly and synchronize its mailbox database with that of the key system. For more information on this see INITIAL SET UP.

ASSIGNING GROUPS All SVM-400E ports installed must be assigned to group 509 in MMC 601.

RING MODE Select either SEQUENTIAL or DISTRIBUTED ring mode in MMC 601 Sequential is preferred.

VMAA PORTS Confirm that all SVM-400E ports are set for VMAA use in MMC 207. This will be done automatically. You are just confirming at this point.

AUTO ATTENDANT If you are using SVM-400E for Auto Attendant use MMC 406 to set the desired trunk(s) to ring group 509.

CALL FORWARDING If you are using SVM-400E for Voice Mail make sure that all desired stations are forwarded to group 509 using either MMC 102 or the feature code(s) for the desired forward call condition.

MAILBOX SET UP Select "NO" for each station that you DO NOT want to create a mailbox for in MMC 741.

NOTE: [See MMC references in the SVM/SVMi E-Series Programming Overview documentation for other MMCs that interact with the SVM-400E.](#)

Testing the Hardware

1. Call each SVM-400E port individually and confirm that it answers.
2. Call group 509 and confirm that the SVM-400E answers.

If steps 1 and 2 above proved to be successful you have completed the installation and setup of the SVM-400E hardware.

You are now ready to begin programming the SVM-400E Voice Processing System.

System Shutdown

Whenever possible the following procedure should be followed when shutting down the SVM-400E system. Starting from the SVM-400E Status Screen (main system screen showing port status):

1. Press 'Escape' and enter password (default is: 0000).
2. Select 'Operating Utilities' [G].
3. Select 'Shutdown System' [D].
4. Enter administrator's password.

The SVM-400E will now shutdown. When the system shows a DOS command line you may power off the system and unplug the SVM-400E.

Appendix A

Wall Mounting Template

SVM-400E

Voice Processing System