

# **Solvision**

## **SVPMA-25A**

### **Rack Automation**



# **User Manual**

**VER 1.10**

# Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

## Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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# Introduction

SVPMA-25A Rack Automation, the height of expert efficiency for controlling digital/smart podiums and audio/video equipment. The opening and closing of both new and old equipment are automated by this cutting-edge technology thanks to its seamless integration and Near Field Communication (NFC) technology.

With no need for manual actions, the SVPMA-25A seamlessly communicates with computer system and power distribution units to provide unparalleled ease. Making workflow streamlined by its user-friendly interface and sophisticated automation features.

## 1. Features

- **Automated Opening and Closing:** With a simple touch of a NFC card, automates the process of opening and closing computer systems and other equipment.
- **Shutdown Functionality:** In addition to equipment automation, also shuts down the computer system with a touch of a card. This comprehensive functionality ensures a streamlined shutdown process for the entire setup.
- **Log File Generation:** Generates log files in a secure and tamper-proof manner, safeguarding against unauthorized modifications. The log files are stored in the protected xlsx format, ensuring data integrity and providing a reliable record of equipment openings and closures for monitoring and auditing purposes.
- **Centralized Control:** By automating the shutdown process, effectively transforms the entire rack into a computer-enabled control system. No more manually turning off individual equipment such as switchers, amplifier, networking devices, displays, wireless/wired microphones etc. Enjoy the convenience of a unified shutdown with a single card touch.
- **User-Specific Card Issuance:** Different NFC cards can be issued to different individuals, each with a unique identification number printed on it. This feature enables personalized access and control, ensuring security and accountability within the organization.
- **Versatile Compatibility:** The same NFC cards can be used on different machines, making it organization-friendly. This allows for a standardized approach, where a single card becomes the key to accessing and controlling various equipment and computer systems.
- **Versatile Mounting Options:** The SVPMA-25A is designed to provide flexibility in installation. It comes with rack, podium, and wall mounting brackets, allowing you to seamlessly integrate it into your preferred

setup. Choose the mounting option that best suits your environment.

- **Optimum Load Capacity:** Supports a continuous load of up to 16A. This ensures reliable and efficient power distribution to your equipment, even during demanding operations.
- **Enclosure:** Features a fan-less enclosure for silent operation and an IP65 rating for robust protection against dust and water and fire resistance.
- **24/7 Running Capability:** Designed for continuous operation, built to handle the demands of round-the-clock use. Enjoy uninterrupted automation 24/7 and control without concerns about system overheating or performance degradation.
- **System Support:** Seamless compatibility with Windows-based operating systems, ensuring smooth integration and optimal performance.
- **Compatibility with Third-Party Systems:** Designed to seamlessly integrate with third-party systems and protocols. Enjoy interoperability with a wide range of AV equipment and control systems, enhancing the versatility and adaptability of your automation setup.
- **Intelligent Power Management:** Incorporates intelligent power management capabilities, optimizing power distribution to maximize energy efficiency. This feature reduces power consumption and minimizes operating costs.
- **Maintenance free:** Designed without electromechanical devices, ensuring a long lifespan with minimal wear and tear. Experience reliability and longevity, reducing the need for frequent replacements and maintenance.
- **Plug and Play Operations:** The SVPMA-25A is a user-friendly, plug and play device that requires no prior installations or specialized training. Simply connect it to existing setup, and it is ready to automate equipment with ease. Enjoy a seamless and hassle-free integration process, saving time and effort.

## 2. Package Contents

- ① 1 x SVPMA-25A Rack Automation
- ② 2 x 100-230 Vac 3 Pin Power Cable
- ③ 1 x Micro to USB-A Cable
- ④ 5 x NFC Cards (1 Master, 1Key Maker, 3 Keys)
- ⑤ 1 x Wall/Rack/Podium Hanging Mount
- ⑥ 1 x Required Accessories (bolts and screws)
- ⑦ 1 x User Manual & Mount Stencil

## 3. Specifications

Processor	Atmel AT 1127E Mega
Rated Input Voltage	90-245 Vac
Long-term reliability	MTBF≥100,000 h
Insulation resistance	I/P-O/P>100M Ohms/500Vdc 25°C70%RH
Surge voltage protection	2700 Vrms
PIV	800, I2T: 450A2S for 9.6 mS
Flash Memory	32 KB
SRAM	2.5 KB
EEPROM	1 KB
Clock Speed	16 MHz
Transfer Speeds	up to 424 kbit/s.
FIFO buffer	64 bytes
Power Indicators	Intensity: 2,000mcd avg, Red & Green
Sound Signal O/p	≥ 85 dB
Communication Protocol	UART
Control Interface	MIFARE Classic EV1 1K
Communication Frequency	13.56 MHz
Communication range	≥ 2 cm
Supporting Operating Systems	Window Xp, 7/8, 10, 11
Power Rating	100 Vac - 240 Vac, 50-60Hz, 16A
Baud Rate	9600bps
Working Temperature	-25°C - 60°C
Storage Temperature	-40°C - +60°C
Power Consumption	<10W
Dimensions	175 mm (L) x 120 mm (W) x 35 mm (D)
Safety	CE, FCC, RoHS

# 4. Product Layout

## Front Panel



Fig.-1

NO.	Name	Function Description
1	Power LED	Red LED: A glowing LED confirms that the device is receiving power. And is in standby state
2	Status LED	Green LED: A glowing LED indicates device is in power on state
3	NFC Card Reader	Reader sensor placement
4	OLED Screen	Display of various status messages and count down timer

## Rear Panel

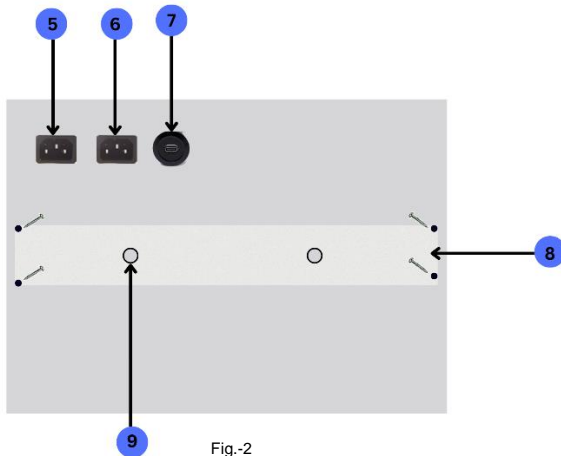
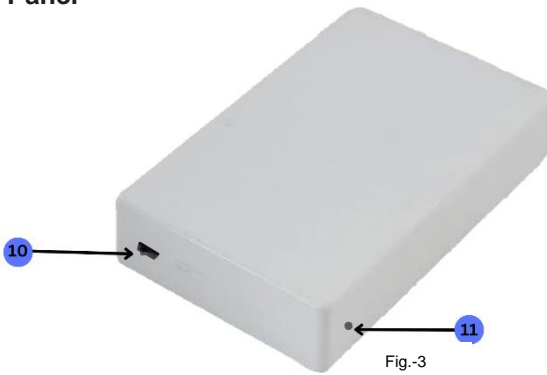


Fig.-2

NO.	Name	Function Description
5	Power Output	100-230 Vac 50-60Hz power input
6	Power Input	100-230 Vac 50-60Hz power output
7	Micro USB Out	Micro USB for command transfer & Firmware updates
8	Mounting Bracket	To be installed on wall/rack/podium
9	Mounting holes	Bolts will be provided in the box for anchoring to the required surface

### Side Panel



NO.	Name	Function Description
10	Power On/Off switch	Device can be turned off by toggling the switch
11	Reset button	Double pressing the button will hard reset the device (May cause loss of registered cards)

## 5. Connection Diagram

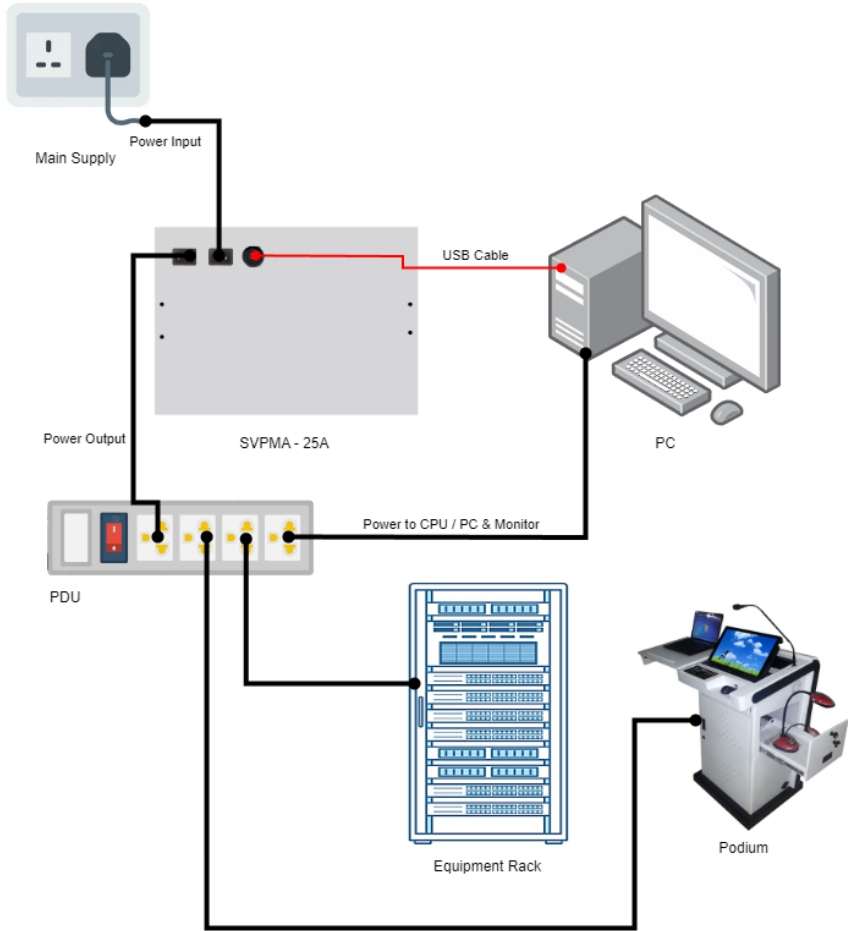


Fig.-4



## 6. PC Setup

1. Turn on PC
2. Access the BIOS, press the specific key or key combination (e.g., Del, F2, F10, Esc) to access the BIOS setup utility.
3. Navigate Advance>ACPI Power Management>Restore on AC/Power Loss set to "Power On" or "Enable"

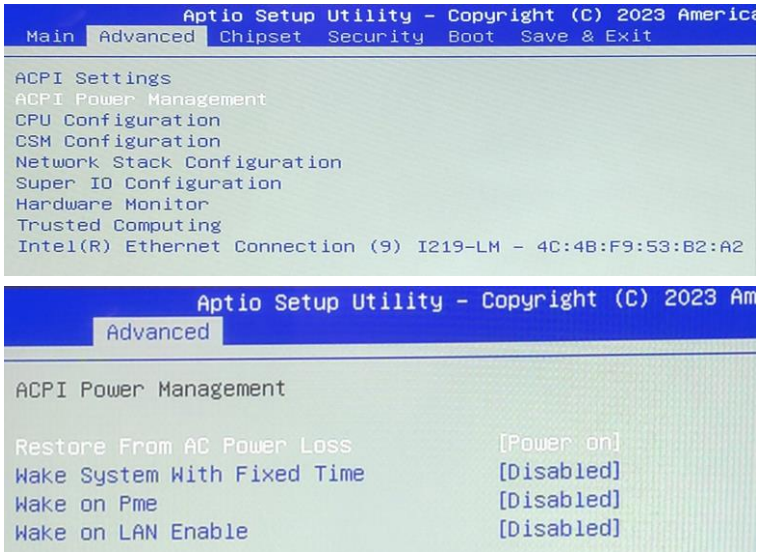


Fig-5

4. Save and exit after enabling the power on feature, navigate to the Exit menu within the BIOS setup utility.
5. Power on your PC as normal.
6. [Click here](https://bit.ly/44roxCY) to access required software files or type [bit.ly/44roxCY](https://bit.ly/44roxCY) into the address bar of your preferred web browser.
7. Click on the download option on top right to start downloading the zip file.
8. Once the download finishes, navigate to the folder where the zip file is saved.
9. Right-click on the downloaded zip file. Choose the "Extract" or "Extract All" option to extract the contents of the zip file.
10. Locate and run the "Run.exe" file within the extracted files.
11. PC setup and software installation is complete.
12. Open Windows Settings>System>Power and Battery>Screen and sleep, set all option to Never

\*SVPMA – 25A can be operated without connecting PC as well, to turn on and off other equipment's.

## 7. Setup – Rack/Podium/Wall

1. Paste the provided stencil on the Rack/Podium/Wall
2. Fix the mounting bracket (Fig.-2)
3. Cut down & Drill the Rack/Podium/Wall as marked area of the stencil.

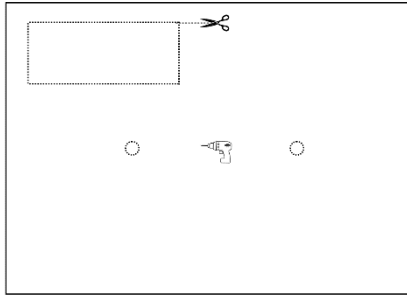


Fig.-6

## 8. Initiating Setup

1. Configure PC as demonstrated in point no.7
2. Check all power and USB cables connections properly as in (Fig.4)
3. Power ON from main AC supply.
4. ON position the button No.8 (Fig.-3)  
(Power LED a glowing red LED confirms that the device is receiving power and is in standby state)
5. Check OLED screen (Fig.-1) Display appears “SOLVISION”
6. SVPMA – 25A is ready to use

## 9. Operating Procedure

1. OLED Messages:
  - a. SOLVISION - Default screen text
  - b. Invalid Card - Illegitimate card detected
  - c. Unregistered - Genuine card not registered
  - d. Authenticated - Genuine card successfully authenticated
  - e. Master Card - Master Card operation in progress
  - f. Key Maker - Key Maker card detected
  - g. Countdown – Timer to show log off of system
2. Using the Key Maker card for registration enables the machine to operate with new NFC cards. This process associates the registered NFC card with the machine, allowing it to function, and logs the card number in the log file.
3. Alternatively, the Master Card can be utilized to authenticate each issued machine. This means that the Master Card serves as a means of verification for every machine in operation.
4. If the system is turned on using a proper NFC card, the status LED will glow green. This is accompanied by a short beep sound, serving as a confirmation of the card's genuineness.
5. Once the system is authenticated using either a registered card or Master Card, the system is temporarily disabled from reading any cards for a duration of 60 seconds. This measure is implemented to prevent rapid shutdowns of the PC and other equipment.
6. When the system is turned off using either method, it enters a countdown timer. If the PC is connected, the countdown duration is set to 3 minutes. If the PC is not connected, the countdown duration is set to 30 seconds. This timer allows for a proper shutdown of all equipment. After the countdown, all operations are disabled for 1 minute to prevent sudden boot-ups.

\* By default, the system comes with 3 registered NFC cards. If additional NFC cards are required, please contact below mails

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