



iPGARD SA-KMN-8S-P 8 Port Secure KM with CAC Port User Manual

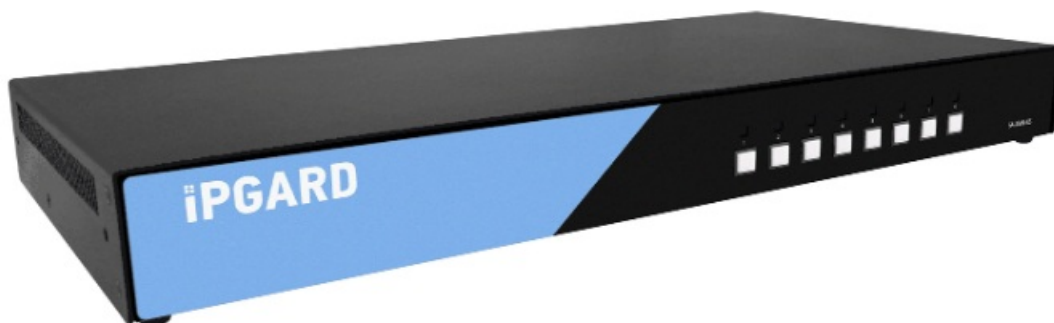
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iPGARD SA-KMN-8S-P 8 Port Secure KM with CAC Port



Product Information

The product is a multifunctional device that offers various features and capabilities. It is designed to provide convenience and efficiency in different tasks.

Key Features

- Multiple functionalities
- Compact and portable design
- User-friendly interface
- High-quality performance
- Durable construction

Specifications

- **Model Number:** 08 09
- **Weight:** 89 grams
- **Dimensions:** 6 cm x 12 cm x 5 cm
- **Power Input:** 5V DC
- **Operating Temperature:** 0°C to 45°C

Product Usage Instructions

To use the product effectively, please follow the instructions below

1. Connect the device to a power source using the included power cable.
2. Ensure that the device is turned off before connecting any external devices or accessories.
3. Refer to the user manual for specific instructions on each function or feature.
4. Use the user-friendly interface to navigate through different options.
5. For basic operations, use the numbered buttons on the device.
6. To access additional features or settings, refer to the corresponding buttons or icons on the interface.
7. Make sure to handle the device with care and avoid exposing it to extreme temperatures or moisture.
8. If you encounter any issues or need further assistance, refer to the troubleshooting section in the user manual or contact our customer support.

By following these instructions, you can maximize the functionality and longevity of the product.

TECHNICAL SPECIFICATIONS

| USB | | |
|------------------------|---|------|
| Signal Type | USB 1.1 and 1.0 Keyboard and Mouse only. USB 2.0 for CAC connection (P models only) | |
| Type A to B | SA-KMN-4S-P | (8) |
| | SA-KMN-8S-P | (16) |
| User Console Interface | (2) USB Type-A for keyboard and mouse connection only | |
| | (1) USB Type-A for CAC connection (P models only) | |
| AUDIO | | |
| Input Interface | (4)/(8) Connector Stereo 3.5mm Female | |
| Output Interface | (1) Connector Stereo 3.5mm Female | |
| POWER | | |
| Power Requirements | 12VDC 2A (minimum) power adapter with center-pin positive polarity. 8 port models require a 12VDC 3A (minimum) power adapter with center-pin positive polarity. | |
| ENVIRONMENT | | |
| Operating Temp | 32° to 104° F (0° to 40° C) | |
| Storage Temp | -4° to 140° F (-20° to 60° C) | |
| Humidity | 0-80% RH, non-condensing | |
| CERTIFICATIONS | | |
| Security Accreditation | Common Criteria Validated To NIAP, Protection Profile PSS Ver. 4.0 | |
| OTHER | | |
| Emulation | USB 1.1 and USB 2.0 Compatible | |
| Control | Front Panel Buttons | |

WHAT'S IN THE BOX?

| | |
|------------------------|---|
| SA-KMN Unit | 4/8-port Secure KM Switch |
| PS12VDC2A or PS12VDC3A | 12VDC 2A (minimum) power adapter with center-pin positive polarity. 8 port models require a 12VDC 3A (minimum) power adapter with center-pin positive polarity. |
| User Manual | |

SECURITY FEATURES

Anti-Tamper Switches

Each model is equipped with internal Anti-Tamper switches, which sense attempts to open the device enclosure. Once the system identifies such an attempt, all the front panel LED's will flash rapidly and the unit will become useless by shutting off connection with all attached PCs and peripherals disabling any functionality.

Tamper-Evident Seal

The enclosure of the unit is protected with a tamper-evident seal to provide a visual evidence if the unit has been opened.

Protected Firmware

The controller of the unit has a special protection feature that prevents reprogramming or reading the firmware.

High Isolation on

USB Channels Opto-isolators are used in the unit to keep USB data paths electrically isolated from each other, providing high isolation and preventing data leakage between ports.

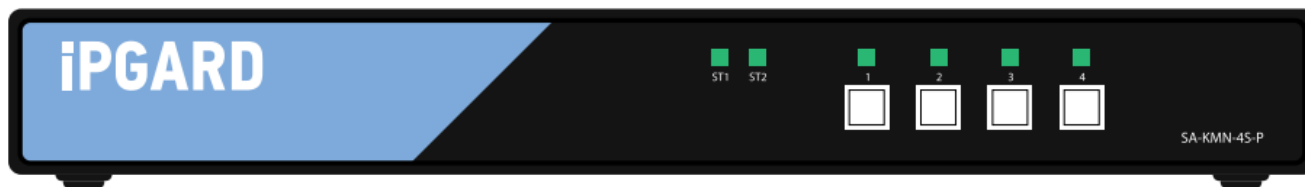


Figure 4-1: SA-KMN-4S-P Front panel

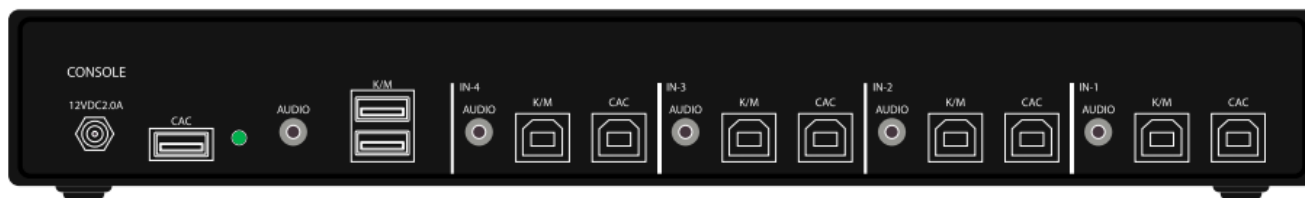


Figure 4-2: SA-KMN-4S-P Rear panel

INSTALLATION SYSTEM REQUIREMENTS

1. iPGARD Secure PSS is compatible with standard personal/portable computers, servers or thin-clients, running operating systems such as Windows or Linux.

The peripheral devices that are supported by the KM are listed in the following table.

| Console Port | Authorized Devices |
|----------------------------|--|
| Keyboard | Wired keyboard and keypad without internal USB hub or composite device functions, unless the connected device has at least one endpoint which is a keyboard or mouse HID class, KVM/KM extender; |
| Audio out | Analog amplified speakers, Analog headphones, Digital audio appliance. |
| Mouse/Pointing Device | Any wired mouse or trackball without internal USB hub or composite de-vice functions, Touch-screen, Multi-touch or digitizer, KVM/KM extender. |
| User Authentication Device | Smart-card reader, PIV/CAC reader, Token or Biometric reader* |

CONNECTING THE SA-KMN

1. Ensure that power is turned off or disconnected from the unit and the computers.
2. Use a USB cable (Type-A to Type-B) to connect a USB port on each computer to the respective USB ports of the unit.
3. Optionally connect a stereo audio cable (3.5mm to 3.5mm) to connect the audio output of the computers to the AUDIO IN ports of the unit.
4. Connect a USB keyboard and mouse in the two USB console ports.
5. Optionally connect stereo speakers to the AUDIO OUT port of the unit.
6. Optionally connect CAC (COMMON ACCESS CARD, SMART CARD READER) to the CAC port in the user console interface. For -P Models.
7. Power on the KM by connecting a 12VDC power supply to the power connector, and then turn on all the computers.

Note: The computer connected to port 1 will always be selected by default after power up.

Note: You can connect up to 4 computers to the 4 port KM and up to 8 computers to the 8 port KM.

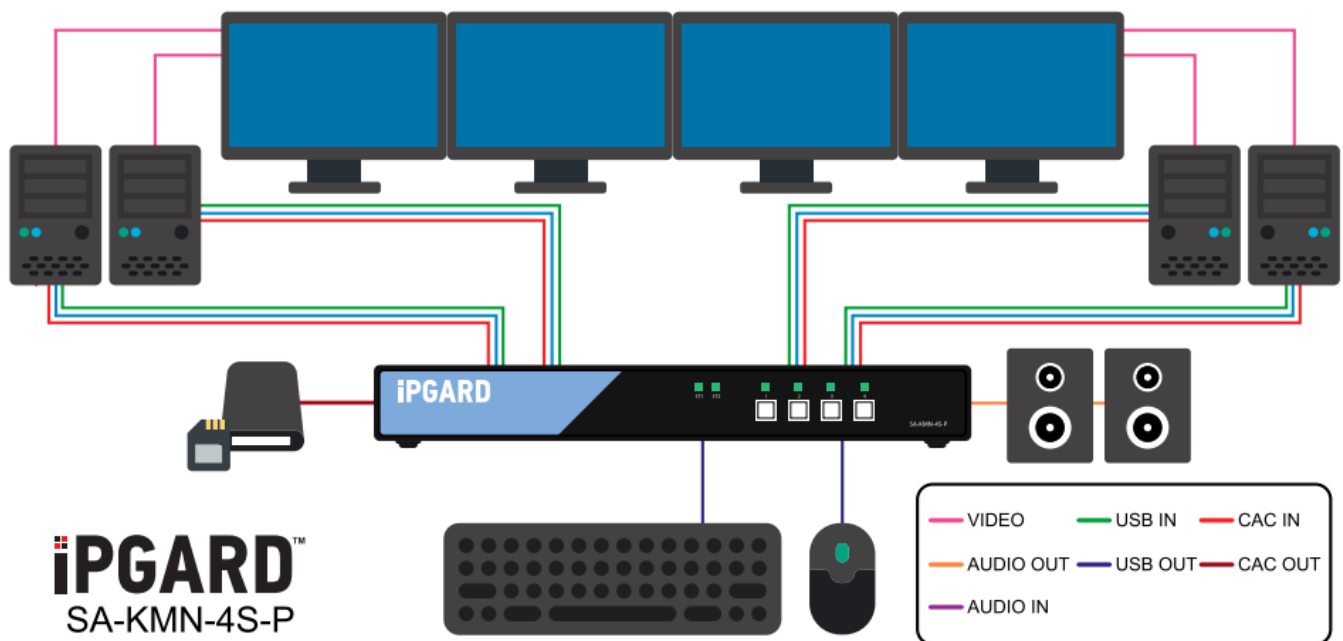


Figure 5-1: SA-KMN-4S-P

IMPORTANT WARNINGS – For security reasons

- This product does not support wireless devices. Do not attempt to use a wireless keyboard or a wireless mouse with this product.
- This product does not support keyboards with integrated USB hubs or USB ports. Only use standard (HID) USB keyboards with this device.
- This product does not support microphone audio input or line input. Do not connect any microphones or headsets with microphones to this device.
- Connection of authentication devices (CAC) with external power sources is prohibited.

INITIAL SETUP

After connecting all devices to the SA-KMN, a display topology configuration and display mode must be chosen. By default, SA-KMN is configured to a topology with 4 screens arranged horizontally starting with port 1 on the most left-hand side. The installation setup must match one of SA-KMN's predefined display topology configuration. This can be selected through keyboard hotkey commands. Please refer to the "Display Topology Configuration" for the available display topologies.

SCROLL WHEEL KM SWITCHING

Cursor control of selected channels allows switching between computers through the use of simple mouse clicks and gestures. No device driver is required. Simply press the scroll wheel twice and then move the mouse in the direction of the channel you desire to switch to.

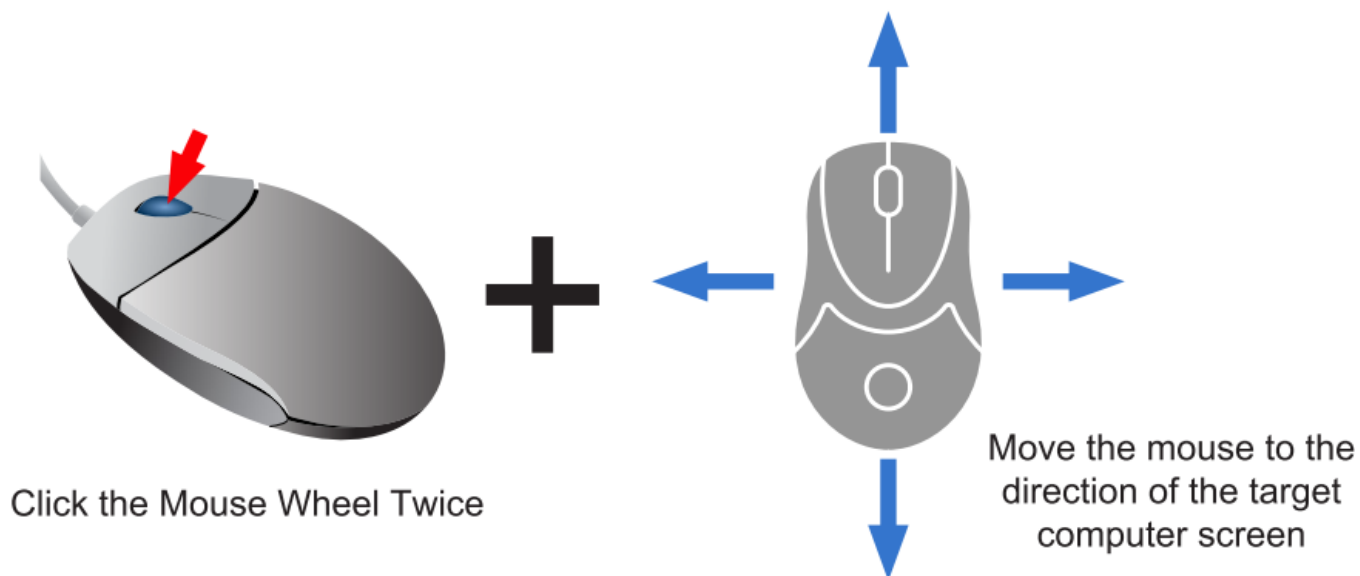


Figure 7-1

HOTKEY COMMANDS

The Hotkey command is a keyboard sequence used to trigger an action on the SA-KMN through the use of the keyboard connected on the USB port of the SA-KMN. To activate the hotkey sequence, press the CTRL key twice and then enter the desired hotkey commands.

Note: All commands can use upper and/or lower case characters

| COMMANDS | HOTKEYS |
|--|---|
| Display Topology (multiple rows) | CTRL + CTRL + H(1–4), (1-8) for SA-KMN-8P |
| Limit Input Ports (one row only) | CTRL + CTRL + W(1–4), (1-8) for SA-KMN-8P |
| Cursor Rolling (roll past display borders up, down, left, and right) | CTRL + CTRL + O (0–OFF) or (1–ON) |

Note: Display Topology specifies the number of horizontal columns. The number of vertical rows is calculated in the software by 4/n columns.

DISPLAY TOPOLOGY CONFIGURATION

The SA-KMN has a configurable display topology configuration that can be easily activated through keyboard hotkeys. No software or drivers are required to configure the display topology.

Note: Hotkey CTRL+CTRL command allows for multiple rows.

- Hotkey Command. "CTRL + CTRL + H + 4 + ENTER"

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

- Hotkey Command:** "CTRL + CTRL + H + 2 + ENTER"

| | |
|---|---|
| 1 | 2 |
| 3 | 4 |

- Hotkey Command:** "CTRL + CTRL + H + 3 + ENTER"

| | | |
|---|---|---|
| 1 | 2 | 3 |
|---|---|---|

4. **Hotkey Command:** “CTRL + CTRL + H + 1 + ENTER”

| |
|---|
| 1 |
| 2 |
| 3 |
| 4 |

Each of the cells shown represents a display or multiple displays from a computer.

LIMIT INPUT PORTS CONFIGURATION

Hotkey Commands: CTRL, CTRL W(X) commands (allows one row only)

CTRL + CTRL + W + 4 + ENTER

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

CTRL + CTRL + W + 3 + ENTER

| | | |
|---|---|---|
| 1 | 2 | 3 |
|---|---|---|

Note: Port 4 N/A

CTRL + CTRL + W + 2 + ENTER

| | |
|---|---|
| 1 | 2 |
|---|---|

Note: Ports 3, 4 N/A

CTRL + CTRL + W + 1 + ENTER

| |
|---|
| 1 |
|---|

Note: Port 2-4 N/A

Note: Limit Input Ports commands reset Display Topology configuration

CAC (COMMON ACCESS CARD, SMART CARD READER) INSTALLATION

The following steps are intended for the system administrator or IT manager only. If you have the optional CAC ports there will be 4 ports on a 4 host ports KM and 8 ports on a 8 host ports KM. CAC connection to the computer requires a USB cable connection separate from the keyboard and mouse. This allows the CAC to be connected independently from the keyboard and mouse. It also allows the user to select whether CAC for a certain computer is supported or not.

1. Ensure that power is turned off or disconnected from the unit and the computer.
2. Use a USB cable (Type-A to Type-B) to connect a USB port on a computer to its respective CAC USB ports on the KM. Do not connect the USB cable if CAC functionality is not needed for that computer.
3. Connect a CAC (smart card reader) to the CAC port in the user console interface.
4. Power on the KM by connecting a 12VDC power supply to the power connector, and then turn on all the computers.
5. To disable CAC for any channel (all CAC ports are enabled as default), use the front panel buttons to switch the KM to the channel whose CAC mode you wish to change. Once the channel is selected, the button LED for this specific channel should be on (CAC port enabled). Press and hold the button for 3 seconds until the button LED turns off. The CAC port is now disabled for this channel.
6. To enable CAC for any channel, use the front panel buttons to switch the KM to the channel whose CAC mode

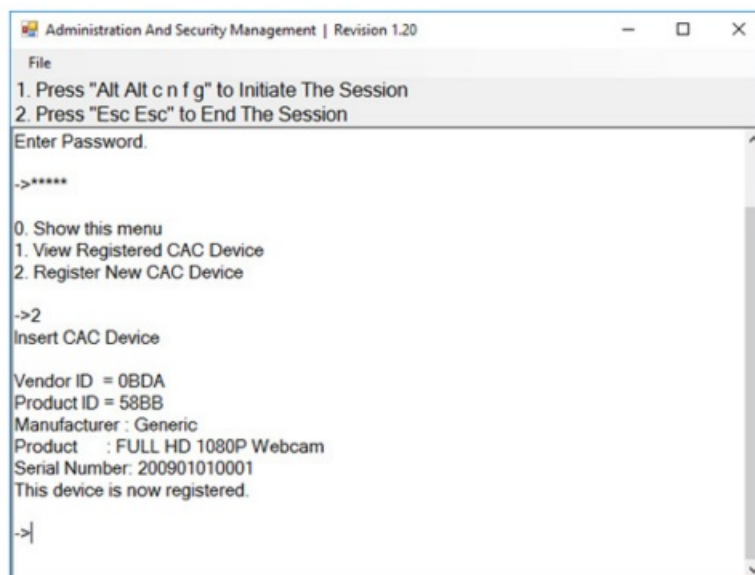
you wish to change. Once the channel is selected, the button LED for this specific channel should be off (CAC port disabled). Press and hold the button for 3 seconds until the button LED turns on. The CAC port is now enabled for this channel.

CAC PORT CONFIGURATION

The following steps are intended for the system administrator and operators (users).

Note: Only one computer connected to port 1 is required for this operation CAC port Configuration is an optional feature, allowing registration of any USB peripheral to operate with the KM. Only one peripheral can be registered and only the registered peripheral will operate with the KM. By default, when no peripheral is registered, the KM will operate with any Smart Card Reader. Configure the CAC Port via User Menu Options

1. Open the Administration and Security Management Program. Island the Kev hoard nares the Alt key twice and tune “onto”
2. Using the keyboard, press the Alt key twice and type “Ong”.
3. At this stage the mouse connected to the KM will stop functioning.
4. Enter the default username “user” and press Enter
5. Enter the default password “12345” and press Enter.
6. Select option 2 from the menu on your screen and press Enter.
7. Connect the peripheral device to be registered to the CAC USB port in the console side of the KM an wait until the KM is reading the new peripheral information.
8. The KM will list the information of the connected peripheral on the screen and buzz 3 times when registration is completed.



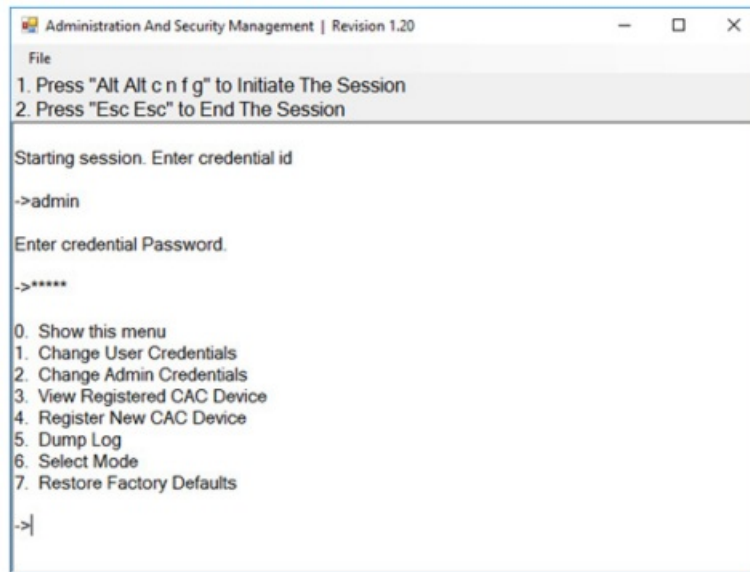
AUDITING

Dumping the Event Log via User Menu Options Toe: In one computer conterter to of 1s requires rotches operation The Event Log is a detailed report of critical activities stored in the KM memory. A comprehensive feature list and guidance for Administration and Security Management Tools can be found in the Administrator's Guide available for download from: <http://ipgard.com/documentation/>

To view or dump the Event Log

1. Open the Administration and Security Management Program

2. Using the keyboard, press the Alt key twice and type “cnfg”.
3. Enter the default admin name “admin” and press Enter.
4. Enter the default password “12345” and press Enter.
5. Request a Log Dump by selecting option 5 in the menu. (Shown in Figure 10-1)



- * See Administration and Security Management Tool Guidance for detailed information.

RESET: Restore Factory Defaults

The following steps are intended for the system administrator.

Note: Only one computer connected to port 1 is required for this operation. Restore Factory Defaults will reset all settings on the KM to their original state. CAC port registration will be removed. KM settings will be reset to factory defaults. To Restore Factory Defaults via User Menu Options:

1. Open the Administration and Security Management Program
2. Using the keyboard, press the Alt key twice and type “cnfg”
3. Enter the default admin name “admin” and press Enter.
4. Enter the default password “12345” and press Enter.
5. Select option 7 from the menu on your screen and press enter. (Menu shown in Figure 10-1)

- * See Administration and Security Management Tool Guidance for detailed information.

LED's BEHAVIOR

User Console Interface – CAC LED

| # | Status | Description |
|---|----------|--|
| 1 | Off | CAC is not connected |
| 2 | On | Authorized and functional CAC is connected |
| 3 | Flashing | Non-CAC peripheral is connected |

Front Panel – Port Selection LED's

| # | Status | Description |
|---|--------|-------------------|
| 1 | Off | Non-selected port |
| 2 | On | Selected port |

Front Panel – CAC Selection LED's

| # | Status | Description |
|---|--------|---|
| 1 | Off | CAC port is disabled or non-selected port |
| 2 | On | CAC port is enabled |

Front Panel – Port and CAC Selection LED's

| # | Status | Description |
|---|--------------|--|
| 1 | All Flashing | Connected peripheral to keyboard or mouse consol ports is rejected |

IMPORTANT! If all the Front Panel LED's are flashing and the buzzer is beeping, the KM has been TAMPERED with and all functions are permanently disabled. Please contact iPGARD technical support at support@iPGARD.com. If all Front Panel LED's are on and not flashing, the POWER UP SELF TEST has failed and all functions are disabled. Check if any of the front panel port selection buttons are jammed. In this case, release the jammed button and recycle the power. If power up self test is still failing, please contact iPGARD technical support at support@iPGARD.com.

SYSTEM OPERATION

Front Panel Control To switch to an input port, simply push the desired input button on the front-panel of the KM. If an input port is selected, the LED of that port will turn on.

TROUBLESHOOTING No Power

- Make sure that the power adapter is securely connected to the power connector of the unit.
- Check the output voltage of the power supply and make sure that the voltage value is around 12VDC.
- **Replace the power supply. Keyboard is not working** : Check if the u's cards property cone ted to the no
Check if the USB cables connecting the unit and the computers are properly connected.
- Try connecting the USB on the computer to a different port. Make sure that the keyboard works when directly connected to the computer.
- Replace the keyboard. **Note:** The NUM, CAPS, and SCROLL Lock LED indicators on the keyboard are not supposed to light up if connected to the KM. Mouse is not working
- Check if the mouse is properly connected to the unit.
- Try connecting the USB on the computer to a different port.
- Make sure that the mouse works when directly connected to the computer.
- Replace the mouse.

No Audio

- Check if all the audio cables are connected properly.
- Connect the speakers directly to the computer to verify that the speakers and the computer audio are functioning properly.
- Check the audio settings of the computer and verify that the audio output is through the speakers.
- **No CAC (COMMON ACCESS CARD, SMART CARD READER)** : Mattes is A bet seating the unit and the computers are properly connected.

TECHNICAL SUPPORT

For product inquiries, warranty questions, or technical questions, please contact info@iPGARD.com.

LIMITED WARRANTY STATEMENT

Extent of limited warranty

iPGARD, Inc. warrants to the end-user customers that the iPGARD product specified above will be free from defects in materials and workmanship for the duration of 1 year, which duration begins on the date of purchase by the customer. Customer is responsible for maintaining proof of date of purchase. iPGARD limited warranty covers only those defects which arise as a result of normal use of the product, and do not apply to any

- Improper or inadequate maintenance or modifications
- Operations outside product specifications
- Mechanical abuse and exposure to severe conditions

If iPGARD receives, during applicable warranty period, a notice of defect, iPGARD will at its discretion replace or repair defective product. If iPGARD is unable to replace or repair defective product covered by the iPGARD warranty within reasonable period of time, iPGARD shall refund the cost of the product. iPGARD shall have no obligation to repair, replace or refund unit until customer returns defective product to iPGARD. Any replacement product could be new or like new, provided that it has functionality at least equal to that of the product being replaced. iPGARD limited warranty is valid in any country where the covered product is distributed by iPGARD. Limitations of warranty To the extent allowed by local law, neither iPGARD nor its third party suppliers make any other warranty or condition of any kind whether expressed or implied with respect to the iPGARD product, and specifically disclaim implied warranties or conditions of merchantability, satisfactory quality, and fitness for a particular purpose.

Limitations of liability

To the extent allowed by local law the remedies provided in this warranty statement are the customers sole and exclusive remedies. To the extent that this warranty statement is inconsistent with local law, this warranty statement shall be considered modified to be consistent with such law

Local

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NOTICE

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|  | <p>iPGARD SA-KMN-8S-P 8 Port Secure KM with CAC Port [pdf] User Manual SA-KMN-8S-P, SA-KMN-8S-P 8 Port Secure KM with CAC Port, 8 Port Secure KM with CAC Port, Secure KM with CAC Port, KM with CAC Port, CAC Port, Port</p> |
|---|---|

References

- [User Manual](#)