

# SM-KMN-08

8-PORT KM SWITCH WITH AUDIO AND USB 2.0



## USER MANUAL



Designed and Manufactured in the USA

**Smart-AVI**

1-888-994-7427  
[www.smartavi.com](http://www.smartavi.com)

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# TECHNICAL SPECIFICATIONS

USB	
Signal Type	USB 2.0, 1.1, and 1.0 w/ internal hub
Input Interface	(8) USB Type B
Output Interface	(2) USB 1.1 Type A for KM Devices; (2) USB 2.0 Type A Transparent
AUDIO	
Input Interface	(8) 3.5 mm Stereo Audio
Output Interface	(1) 3.5 mm Stereo Audio
CONTROL	
Front Panel	Push Buttons with LED Indicators
RS-232	DB9 Female - 115200 N,8,1, No flow control
Hot Keys	Via Keyboard
OSD	Via KM arrow keys
OTHER	
Power Adapter	External 100-240 VAC/ 12VDC2A @ 24W
Dimensions	17" W x 1.76" H x 8.69" D
Weight	6.3 lbs
Approvals	UL, CE, ROHS Compliant
Operating Temperature	+32 to +104°F (0 to +40°C)
Storage Temperature	-4 to 140°F (-20 to +60°C)
Humidity	5 to 90% (No Condensation)
Emulation	Keyboard and Mouse

# WHAT'S IN THE BOX?

PART NO.	Q-TY	DESCRIPTION
SM-KMN-08	1	8-Port KM Switch with Audio and USB 2.0
PS12VDC2A	1	12VDC 2A (minimum) power adapter with center-pin positive polarity.
	1	User Manual

# FRONT AND BACK



SM-KMN-08 Back

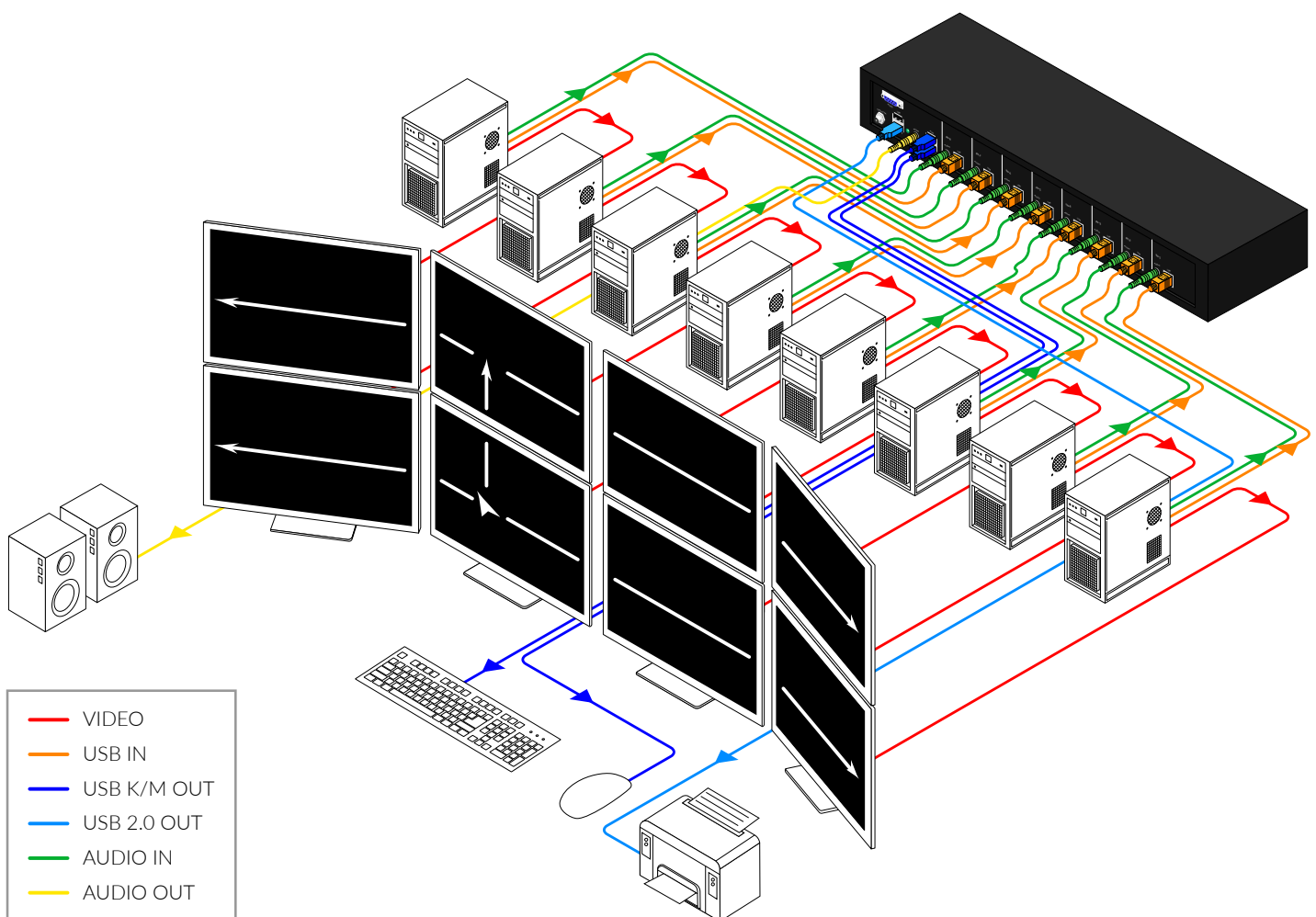


SM-KMN-08 Front

# INSTALLATION

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. Finally, power on the KM by connecting a 12VDC power supply to the power connector, and then turn on all the computers.

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



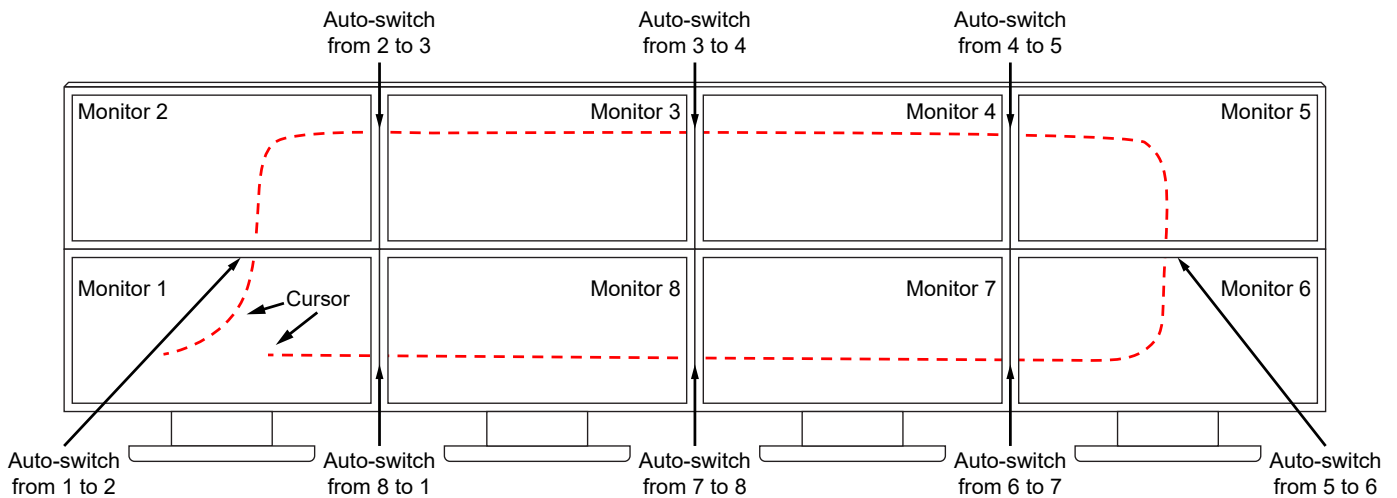
# INITIAL SETUP

After connecting all devices to the SM-KMN-08, a display topology configuration and display mode must be chosen. By default, SM-KMN-08 is configured to a topology with 8 screens arranged horizontally starting with port 1 on the most left-hand side.

The installation setup must match one of SM-KMN-08'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.

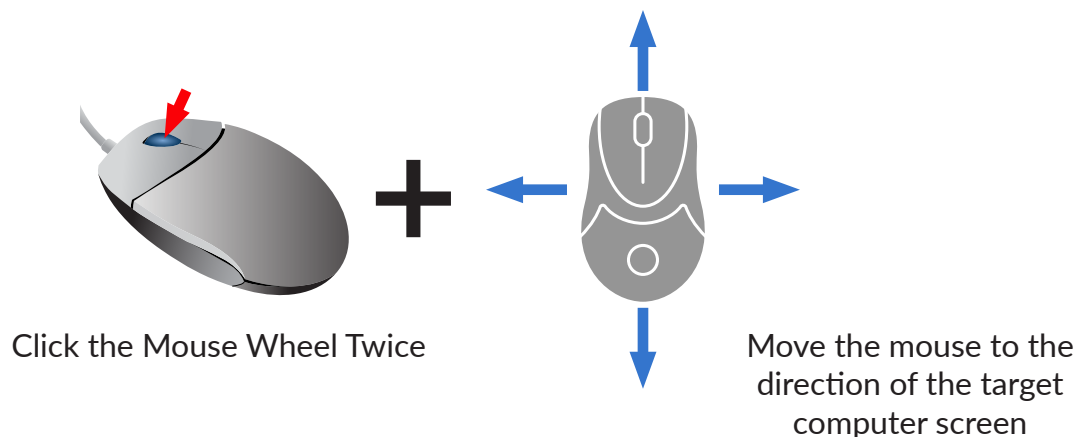
# SINGLE-HEAD MODE KM SWITCHING

SmartAVI's new PASS (Progressive Automatic Screen Switching) technology allows seamless switching between computers by moving the mouse cursor from one display to another. With PASS, users can effortlessly switch computers for faster productivity. **PASS only works in Single-Head mode.**



# MULTI-HEAD MODE KM SWITCHING

When using computers with multiple displays, SmartAVI developed a new feature called Mouse Gesture Switching technology that 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. This feature only works in Multi-Head display mode.



# HOTKEY COMMANDS

The Hotkey command is a keyboard sequence used to trigger an action on the SM-KMN-08 through the use of the keyboard connected on the USB port of the SM-KMN-08. 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	HOTKEY
Display Topology (multiple rows)	[CTRL][CTRL] H [1-8]
Limit Input Ports (one row only)	[CTRL][CTRL] W [1-8]
Cursor Rolling (roll past display borders up, down, left, and right)	[CTRL][CTRL] O [0(OFF), 1(ON)]

**Note:** Display Topology specifies the number of horizontal columns. The number of vertical rows is calculated in the software by  $8/n$  columns.

# DISPLAY TOPOLOGY CONFIGURATION

The SM-KMN-08 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.

(1) Hotkey Command: "CTRL + CTRL + H + 4 + ENTER"

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>

(2) Hotkey Command: "CTRL + CTRL + H + 3 + ENTER"

<b>1</b>	<b>2</b>	<b>3</b>
<b>4</b>	<b>5</b>	<b>6</b>

(3) Hotkey Command: "CTRL + CTRL + H + 2 + ENTER"

<b>1</b>	<b>2</b>
<b>3</b>	<b>4</b>
<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b>

(4) Hotkey Command: "CTRL + CTRL + H + 1 + ENTER"

<b>1</b>
<b>2</b>
<b>3</b>
<b>4</b>
<b>5</b>
<b>6</b>
<b>7</b>
<b>8</b>



# LIMIT INPUT PORTS CONFIGURATION

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

CTRL + CTRL + W + 8 + ENTER

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
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CTRL + CTRL + W + 7 + ENTER

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
----------	----------	----------	----------	----------	----------	----------

**Note:** Port 8 N/A

CTRL + CTRL + W + 6 + ENTER

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
----------	----------	----------	----------	----------	----------

**Note:** Port 7, 8 N/A

CTRL + CTRL + W + 5 + ENTER

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------	----------	----------	----------	----------

**Note:** Port 6-8 N/A

CTRL + CTRL + W + 4 + ENTER

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
----------	----------	----------	----------

**Note:** Port 5-8 N/A

CTRL + CTRL + W + 3 + ENTER

<b>1</b>	<b>2</b>	<b>3</b>
----------	----------	----------

**Note:** Port 4-8 N/A

CTRL + CTRL + W + 2 + ENTER

<b>1</b>	<b>2</b>
----------	----------

**Note:** Port 3-8 N/A

CTRL + CTRL + W + 1 + ENTER

<b>1</b>
----------

**Note:** Port 2-8 N/A

**Note:** Limit Input Ports commands reset Display Topology configuration

# SYSTEM OPERATION

There are three ways to control the SM-KMN-08: Keyboard Hotkeys, RS-232 Serial Commands, and Front Panel Buttons. All modes of control will allow the user to set their desired configurations.

## FRONT PANEL CONTROL

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

## HOTKEY AND RS232 SERIAL CONTROL

The SM-KMN-08 may also be controlled via RS-232 commands. To use these commands, you must use HyperTerminal or an alternate terminal application. The settings for the connection are as follows: Baudrate **115200**; Data Bits **8**; Parity **None**; Stop Bits **1**; Flow Control **None**.

Once you have connected to the SM-KMN-08 via Serial, you will see the SM-KMN-08 information when the device starts up.

The following commands can be used for RS-232 with available keyboard hotkeys:

COMMAND DESCRIPTION	HOTKEY	RS-232 COMMAND
Switch All USB	[CTRL][CTRL] [port #] [ENTER]	//m [port #] [ENTER]
Switch KM Only	[CTRL][CTRL] <b>c</b> [port #] [ENTER]	//c [port #] [ENTER]
Switch USB Only	[CTRL][CTRL] <b>u</b> [port #] [ENTER]	//u [port #] [ENTER]
Reset Software	[CTRL][CTRL] <b>r</b> [ENTER]	//r [ENTER]
Factory Defaults	[CTRL][CTRL] <b>f</b> [ENTER]	//f [ENTER]
Get Port Status	N/A	//?? [ENTER]

# CUSTOM HOTKEY TRIGGERS

Users are able to customize the keys that trigger Hotkeys. The default trigger for hot key function on the keyboard is **Ctrl + Ctrl**. The trigger function can be used to change to the following keys:

**Ctrl (Left / Right), Alt, Shift (Left / Right), Caps Lock, Scroll Lock, F1-F12**

## TO VIEW HOTKEY TRIGGER SETTING

Use the RS-232 command: / + / + ? + ? + **Enter** to view the current HotKey Trigger To reset the Hotkey Trigger use the “Factory Defaults” command.

## TO CHANGE THE HOTKEY TRIGGER SETTING

**HotKey + HotKey + x + [desired hotkey]**

## RESET HOTKEY TRIGGER

Run “Factory Defaults” command.

Example: If users current Hotkey trigger is **Shift** and want to change to **Scroll Lock**, user would type **Shift + Shift + x + Scroll Lock**

# LED'S BEHAVIOR

Front Panel - Port Selection LED's:

#	STATUS	DESCRIPTION
1	OFF	Non-selected port
2	ON	Selected port

# 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.

## No Video

- Check if all the video cables are connected properly.
- Connect the computer directly to the monitor to verify that your monitor and computer are functioning properly.
- Restart the computers.

## Keyboard is not working

- Check if the keyboard is properly connected to the unit.
- 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.

## 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.

# TECHNICAL SUPPORT

For product inquiries, warranty questions, or technical questions, please contact [info@smartavi.com](mailto:info@smartavi.com).

# LIMITED WARRANTY STATEMENT

## A. Extent of limited warranty

SmartAVI, Inc. warrants to the end-user customers that the SmartAVI 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.

SmartAVI limited warranty covers only those defects which arise as a result of normal use of the product, and do not apply to any:

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

If SmartAVI receives, during applicable warranty period, a notice of defect, SmartAVI will at its discretion replace or repair defective product. If SmartAVI is unable to replace or repair defective product covered by the SmartAVI warranty within reasonable period of time, SmartAVI shall refund the cost of the product.

SmartAVI shall have no obligation to repair, replace or refund unit until customer returns defective product to SmartAVI.

Any replacement product could be new or like new, provided that it has functionality at least equal to that of the product being replaced.

SmartAVI limited warranty is valid in any country where the covered product is distributed by SmartAVI.

## B. Limitations of warranty

To the extent allowed by local law, neither SmartAVI nor its third party suppliers make any other warranty or condition of any kind whether expressed or implied with respect to the SmartAVI product, and specifically disclaim implied warranties or conditions of merchantability, satisfactory quality, and fitness for a particular purpose.

## C. 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 allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event will SmartAVI or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages whether based on contract, tort or any other legal theory and whether advised of the possibility of such damages.

## D. Local law

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.

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SMART AUDIO VIDEO INNOVATION

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**Designed and Manufactured in the USA**

Tel: (888) 994-7427 • (702) 800-0005  
2455 W Cheyenne Ave, Suite 112  
North Las Vegas, NV 89032

**[www.smartavi.com](http://www.smartavi.com)**