

HDMV-8X V2

8 PORT UHD MULTIVIEWER KVM SWITCH



USER MANUAL



Designed and Manufactured in the USA

Smart-AVI

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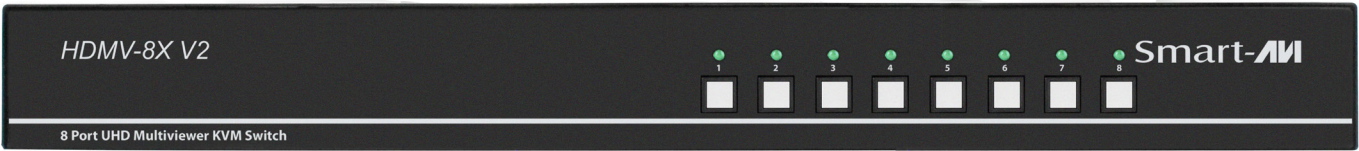
TECHNICAL SPECIFICATIONS

| VIDEO | |
|-----------------------|--------------------------------|
| Video Bandwidth | Single-link 340MHz [10.2Gbps] |
| Resolution | Up to 4K (3840 x 2160) @ 30 Hz |
| Input Video Signal | 1.2 volts |
| Input DDC Signal | 5 volts |
| Format | HDMI 1.4 |
| DVI Compliance | Single-link DVI-D 2.0 |
| HDCP Compliance | 1.0/2.0 |
| Input Interface | (4) HDMI |
| Output Interface | HDMI |
| Connector | Type A [19-pin female] |
| USB | |
| Input | USB 2.0, 1.1, and 1.0 |
| Input Interface | (4) USB Type B |
| Keyboard & Mouse | USB 1.0 (Type A) |
| CONTROL | |
| Front Panel | USB 2.0, 1.1, and 1.0 |
| RS-232 | DB9 (female) |
| Max. Baud Rate | 115200 bps |
| OTHER | |
| Power | 12VDC3A |
| Dimensions | 17" W x 1.7" H x 10.2" D |
| Weight | 4.05 lbs |
| Approvals | UL, CE, ROHS Compliant |
| Operating Temperature | +23 to +95°F (-5 to +35°C) |
| Storage Temperature | -4 to 185°F (-20 to 85°C) |
| Relative Humidity | Up to 90% (No Condensation) |

WHAT'S IN THE BOX?

| PART NO. | Q-TY | DESCRIPTION |
|------------|------|---|
| SM-HDMV-8X | 1 | 8-Port HDMI, USB Real-Time Multiviewer and KVM Switch |
| PS12VDC3A | 1 | 12V 3A power supply |
| | 1 | User Manual |

FRONT AND BACK



Front Panel

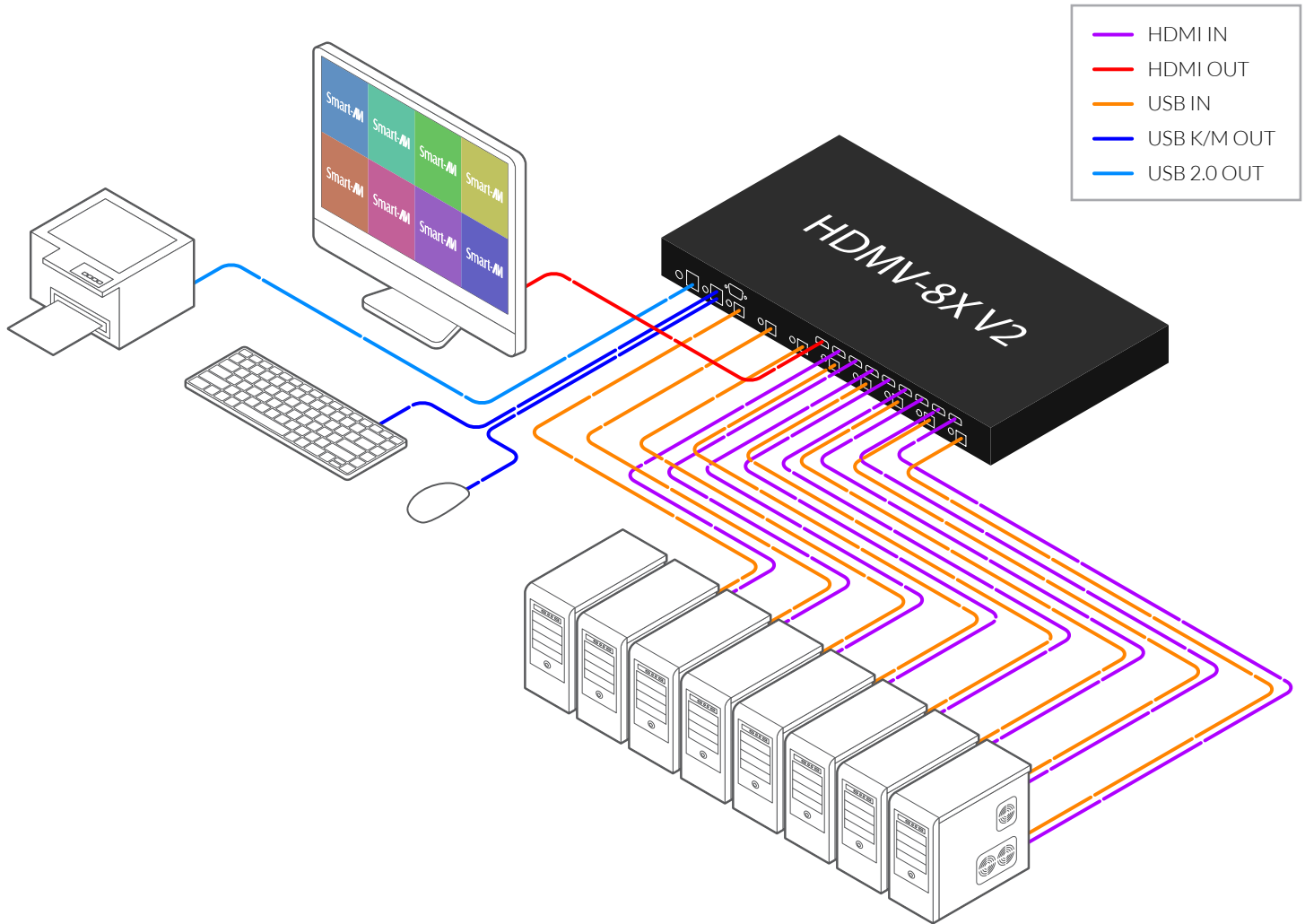


Back Panel

CONNECTING THE BOX

The power connection and switch are located at the back of the unit as well as the RS-232 connection and all HDMI inputs and output. Connect all peripheral devices first and turn them on before powering on the HDMV-8X.

APPLICATION DIAGRAM



Note: For best results in terms of video latency, particularly when operating in multiview mode, it is recommended that the video input resolution on each connected PC be set to 1080p. The SM-HDMV-8X-V2 can still be configured to output at 4K resolution, but setting the input devices to 1080p ensures smoother performance and minimizes latency during multiview operations. In some cases, PCs may experience minor video issues after extended periods of operation. If this occurs, a simple software reset can resolve the issue. Use the hotkey command Ctrl + Ctrl + R + Enter to quickly perform the reset and restore normal functionality.

SYSTEM OPERATION

There are three ways to control the HDMV-8X V2: 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

The **front panel buttons (1-8)** provide direct channel selection. Pressing one of these buttons will switch the system to **Full Screen mode** for the corresponding channel, with USB and KM control automatically assigned to that channel.

When operating in **Multiview modes**, the panel also provides clear indicators for USB and KM positioning:

- The **Green LED** above each channel number shows which channel currently has **KM control**.
- The **Blue backlight** of the button indicates which channel is assigned to the **USB 2.0 port**.

HOTKEY AND RS232 SERIAL CONTROL

The HDMV-8X V2 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 HDMV-8X V2 via Serial, you will see the HDMV-8X V2 information when the device starts up.

COMMAND SET

RESOLUTION COMMANDS

| DESCRIPTION | HOTKEY | SERIAL |
|---------------------------------------|----------------------------------|--------------------|
| Set resolution for 1920x1080p monitor | [CTRL] [CTRL] s 1 [ENTER] | // s 1 <CR> |
| Set resolution for 3840x2160 monitor | [CTRL] [CTRL] s 2 [ENTER] | // s 2 <CR> |

USB/KM/AUDIO SWITCHING (no video change) COMMANDS

| DESCRIPTION | HOTKEY |
|--------------------------------------|-------------------------------|
| Switch USB/KM/Audio to selected port | [CTRL] [CTRL] [port#] [ENTER] |

FULL SCREEN MODE



| DESCRIPTION | HOTKEY | SERIAL |
|---|--------------------------------------|------------------------|
| Full screen selection with KM, USB, and sound | [CTRL] [CTRL] m [1-8] [ENTER] | // m [1-8] <CR> |
| Full screen selection with KM and sound | [CTRL] [CTRL] c [1-8] [ENTER] | // c [1-8] <CR> |
| Multiscreen selection with KM and USB | [CTRL] [CTRL] u [1-8] [ENTER] | // u [1-8] <CR> |
| Multiscreen and full screen selection for sound | [CTRL] [CTRL] a [1-8] [ENTER] | // a [1-8] <CR> |

COMMAND SET (CONTINUED)

QUAD MODE

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

| DESCRIPTION | HOTKEY | SERIAL |
|--|-------------------------------------|-----------------------|
| IN1, IN2, IN3, IN4 divided into 4 displays with all functions on IN1 | [CTRL] [CTRL] q 1 [ENTER] | // q 1 <CR> |
| IN5, IN6, IN7, IN8 divided into 4 displays with all functions on IN5 | [CTRL] [CTRL] q 2 [ENTER] | // q 2 <CR> |

DUAL MODE

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

| DESCRIPTION | HOTKEY | SERIAL |
|--|-------------------------------------|-----------------------|
| IN1, IN2 divided with all functions on IN1 | [CTRL] [CTRL] d 1 [ENTER] | // d 1 <CR> |
| IN3, IN4 divided with all functions on IN3 | [CTRL] [CTRL] d 2 [ENTER] | // d 2 <CR> |
| IN5, IN6 divided with all functions on IN5 | [CTRL] [CTRL] d 3 [ENTER] | // d 3 <CR> |
| IN7, IN8 divided with all functions on IN7 | [CTRL] [CTRL] d 4 [ENTER] | // d 4 <CR> |

2X4 MODE

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

| DESCRIPTION | HOTKEY | SERIAL |
|---|-----------------------------------|------------------|
| IN1 through IN8 divided into 8 displays with all functions on IN1 | [CTRL] [CTRL] o [ENTER] | // o <CR> |

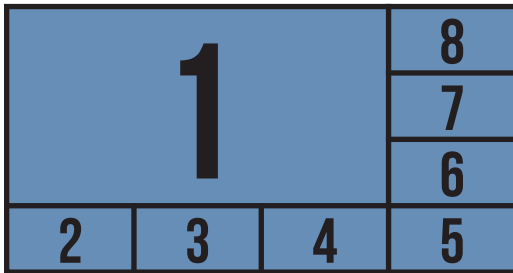
2X4 MODE - STRETCH

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

| DESCRIPTION | HOTKEY | SERIAL |
|---|-----------------------------------|------------------|
| IN1 through IN8 divided into 8 displays with all functions on IN1 - Stretched | [CTRL] [CTRL] n [ENTER] | // n <CR> |

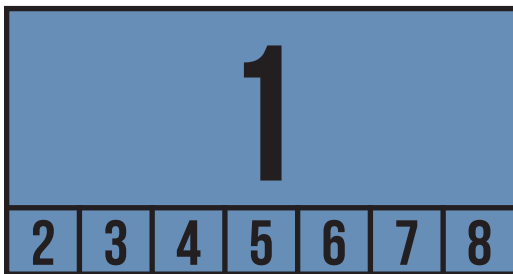
COMMAND SET (CONTINUED)

FULL SCREEN WITH PIP MODE



| DESCRIPTION | HOTKEY | SERIAL |
|---|-----------------------------------|------------------|
| One large screen and seven thumbnail screens on the bottom and left side. Large screen has active KM, USB, and sound. | [CTRL] [CTRL] t [ENTER] | // t <CR> |

FULL SCREEN WITH BOTTOM PIP MODE



| DESCRIPTION | HOTKEY | SERIAL |
|--|-----------------------------------|------------------|
| One large screen and seven thumbnail screens on the bottom of large screen. Large screen has active KM, USB and sound. | [CTRL] [CTRL] b [ENTER] | // b <CR> |

FUNCTIONAL COMMANDS

| DESCRIPTION | HOTKEY | SERIAL |
|-----------------|--------------------------------|------------------|
| Factory restore | [CTRL] [CTRL] f [ENTER] | // f <CR> |
| Restarts unit | [CTRL] [CTRL] r [ENTER] | // r <CR> |

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.

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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20241023



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