HDMV-8X

User Manual

8 Port Full HD Multiviewer Real-Time USB/KVM Switch

View up to eight different HD digital video sources on one display device simultaneously

Smart-AVI
SMART AUDIO VIDEO INNOVATION

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WHAT'S IN THE BOX

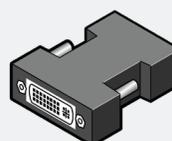| PART NO.	Q-TY	DESCRIPTION
SM-HDMV-8X	1	8-Port HDMI, USB Real-Time Multiviewer and KVM switch
	1	Power Cord

FRONT AND BACK

Figure 2-1

ACCESSORIES

CONTROLLING THE MULTIVIEWER VIA ETHERNET

The SMTCP-2 TCP/IP control module is available from smartavi.com

ATTACHING A DVI-D DEVICE

An inexpensive HDMI to DVI-D adapter will enable you to input or output your signals to DVI-D devices

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SPECIFICATIONS

VIDEO	
Video Bandwidth	Single-link 340MHz [10.2Gbps]
Resolution HDTV	480i,480p,720i,720p,1080i,1080p
PC Resolution	800 x 600 up to 1920 x 1200
Input Video Signal	1.2 volts
Input DDC Signal	5 volts
Single Link Range	1080p
Format	HDMI 1.4
DVI Compliance	Single-link DVI-D 2.0
HDCP Compliance	1.0/2.0
Video Bandwidth	Single-link 340MHz [10.2Gbps]
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	Tact Switches
RS-232	DB9 (female)
OTHER	
Power	Internal 100-240 VAC
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)
Humidity	Up to 90% (No Condensation)

Table 3-1

INTRODUCTION

The HDMV-8X allows you to view up to eight different high definition video sources simultaneously on one display device. Connections to video sources are managed via HDMI connectors. Use this device to simplify management of multiple sources by controlling them all through a single display using the front panel, RS-232, and either through TCP-IP or the optional KVM.

FEATURES

- View up to eight computers (8x) on a single monitor at the press of a button
- On-screen display (OSD) makes setup and switching easy
- Change views by pressing the Control Panel switches, RS-232, USB keyboard, or through LAN depending on your model
- Display each computer with clean and crisp high-resolution video
- Supports HD resolutions up to 1920x1080p
- Delivers uncompressed digital video with zero signal loss
- HDCP and HDMI 1.4 compliant
- Supports EDID for total control of compliant displays
- Outputs HDMI up to 20 feet

PANEL LAYOUT
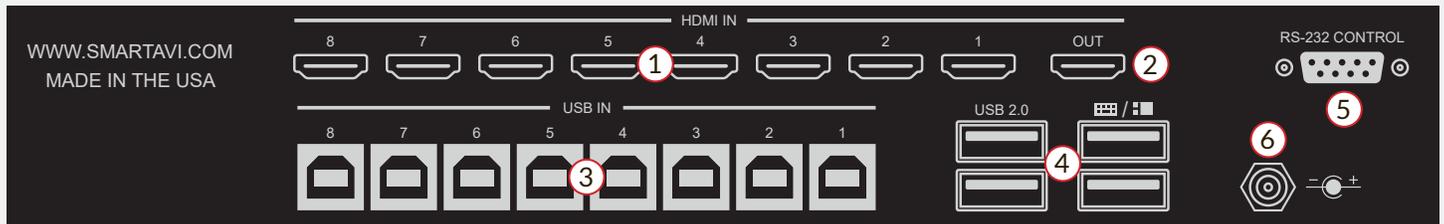

Figure 4-1

1. Control panel
2. Status OSD

Figure 4-2

1. HDMI Input
2. HDMI Output
3. USB Input
4. USB Output
5. RS-232 Control
6. Power Supply

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

— HDMI INPUT
— HDMI OUTPUT
— USB INPUT
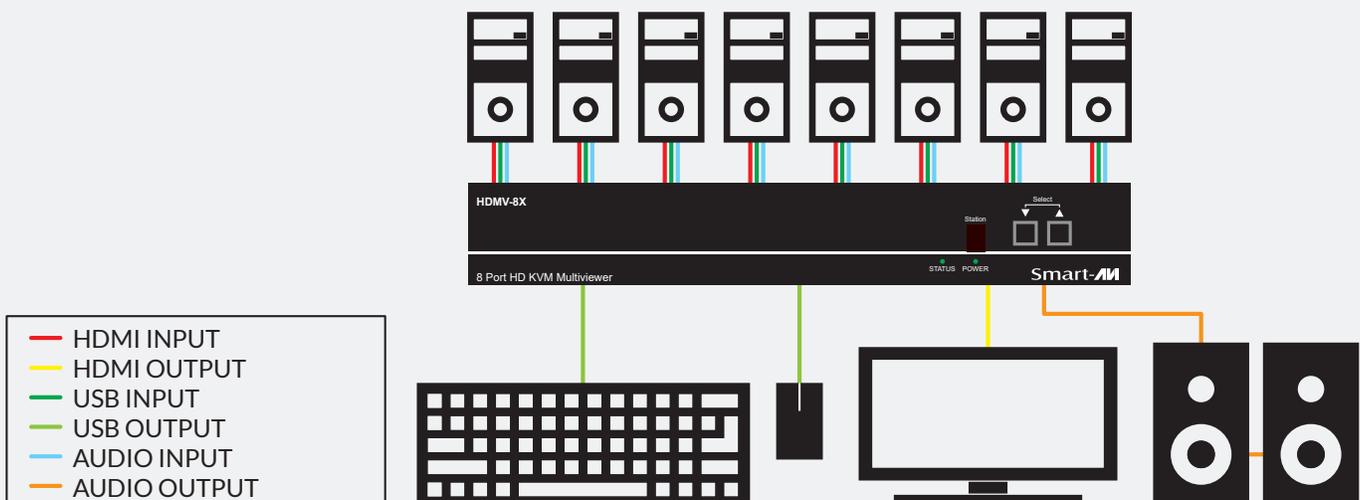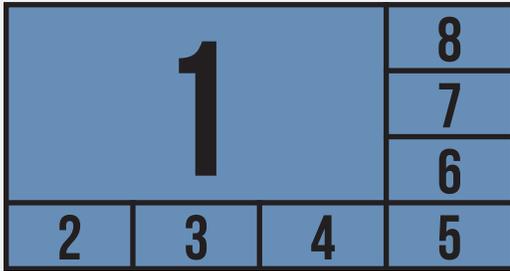— USB OUTPUT
— AUDIO INPUT
— AUDIO OUTPUT

Figure 4-3

AVAILABLE CONFIGURATIONS
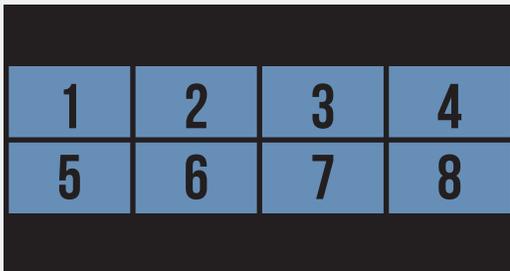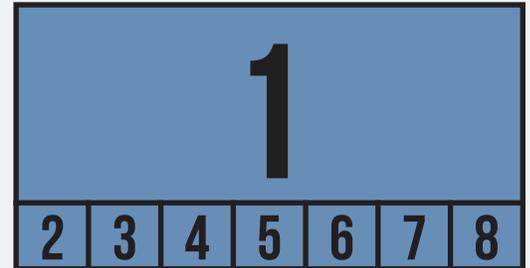
FULL SCREEN WITH PIP MODE

In Full Screen with PIP Mode, the full screen displays one of the eight video sources, and is accompanied by seven smaller images (thumbnails) evenly displayed along the bottom and the right-hand margin of the screen from left to right, from bottom to top, allowing simultaneous monitoring. Mode changing or selecting video sources will be done via buttons on the front panel.
Command layout: Ctrl, Ctrl, t.

FULL SCREEN WITH BOTTOM PIP MODE

In Full Screen with Bottom PIP Mode, the full screen displays one of the eight video sources, and is accompanied by seven smaller images (thumbnails) evenly displayed along the bottom of the screen from left to right, allowing simultaneous monitoring. Mode changing or selecting video sources will be done via buttons on the front panel.
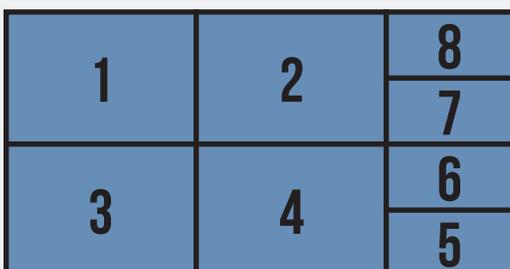**Command layout**: Ctrl, Ctrl, b.

2X4 MODE

In 2x4 Mode, all eight video sources are displayed on the screen similar to 8S1 mode except that they have original aspect ratio. Mode changing or selecting video sources will be done via buttons on the front panel.
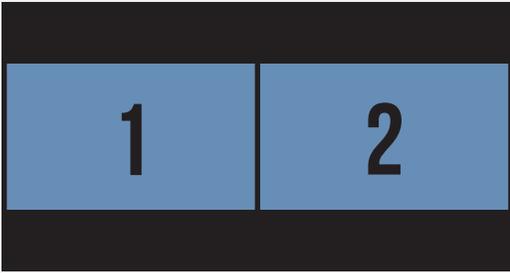
8X MODE

In 8x Mode, all eight video sources are displayed on the screen evenly from left to right, from top to bottom of the screen, each takes one ninth the size of the screen, allowing the user to simultaneously monitor the sources. Mode changing or selecting video sources will be done via buttons on the front panel.

2X2 WITH PIP MODE

In 2x2 with PIP Mode, the full screen displays four of the eight video sources evenly from left to right, from top to bottom with the first two are on top and the second two are on the bottom of the screen. The other four video sources are smaller images (thumbnails) evenly displayed along the right-hand margin of the screen from bottom to top, allowing simultaneous monitoring. Mode changing will be done via buttons on the front panel.

AVAILABLE CONFIGURATIONS (CONTINUED)
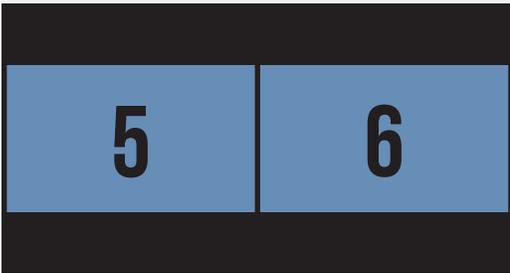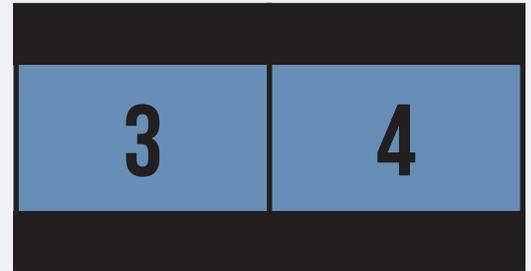
DUAL SCREEN MODE 1-2

In Dual Screen Mode 1-2, the full screen displays the first and the second video sources side by side with their original aspect ratios, allowing simultaneous monitoring. Mode changing will be done via buttons on the front panel.
Command layout: Ctrl, Ctrl, d, 1.

DUAL SCREEN MODE 3-4

In Dual Screen Mode 3-4, the full screen displays the third and the fourth video sources side by side with their original aspect ratios, allowing simultaneous monitoring. Mode changing will be done via buttons on the front panel.
Command layout: Ctrl, Ctrl, d, 2.
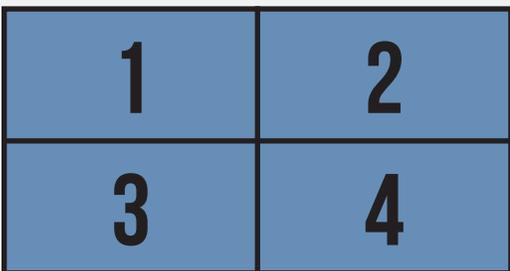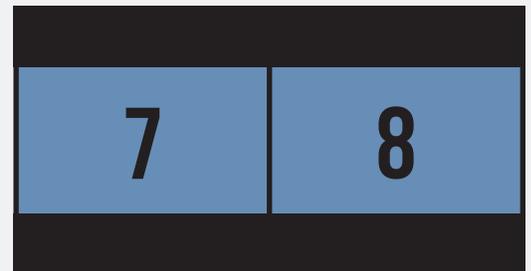
DUAL SCREEN MODE 5-6

In Dual Screen Mode 5-6, the full screen displays the fifth and the sixth video sources side by side with their original aspect ratios, allowing simultaneous monitoring. Mode changing will be done via buttons on the front panel.
Command layout: Ctrl, Ctrl, d, 3.

DUAL SCREEN MODE 7-8

In Dual Screen Mode 7-8, the full screen displays the seventh and the eighth video sources side by side, allowing simultaneous monitoring. Mode changing will be done via buttons on the front panel.
Command layout: Ctrl, Ctrl, d, 4.

QUAD SCREEN MODE 1-4

In Quad Screen Mode 1-4, the full screen displays the first four video sources evenly from left to right, from top to bottom (the first two are on top, the third and fourth are on the bottom of the screen), allowing simultaneous monitoring. Mode changing will be done via buttons on the front panel.
Command layout: Ctrl, Ctrl, q, 1.

QUAD SCREEN MODE 5-8

In Quad Screen Mode 5-8, the full screen displays the fifth to the eighth video sources evenly from left to right, from top to bottom (the fifth and sixth are on top, the seventh and eighth are on the bottom of the screen), allowing simultaneous monitoring. Mode changing will be done via buttons on the front panel.
Command layout: Ctrl, Ctrl, q, 2.

COMMAND SET

FULL SCREEN MODE

Full screen selection with keyboard, mouse, USB 2.0, and sound.

HOT KEYS	SERIAL
Ctrl, Ctrl, m, 1	/, /, m, 1
Ctrl, Ctrl, m, 2	/, /, m, 2
Ctrl, Ctrl, m, 3	/, /, m, 3
Ctrl, Ctrl, m, 4	/, /, m, 4
Ctrl, Ctrl, m, 5	/, /, m, 5
Ctrl, Ctrl, m, 6	/, /, m, 6
Ctrl, Ctrl, m, 7	/, /, m, 7
Ctrl, Ctrl, m, 8	/, /, m, 8

Full screen selection with keyboard, mouse and sound.

HOT KEYS	SERIAL
Ctrl, Ctrl, c, 1	/, /, c, 1
Ctrl, Ctrl, c, 2	/, /, c, 2
Ctrl, Ctrl, c, 3	/, /, c, 3
Ctrl, Ctrl, c, 4	/, /, c, 4
Ctrl, Ctrl, c, 5	/, /, c, 5
Ctrl, Ctrl, c, 6	/, /, c, 6
Ctrl, Ctrl, c, 7	/, /, c, 7
Ctrl, Ctrl, c, 8	/, /, c, 8

Multiscreen selection with keyboard, mouse and USB 2.0

HOT KEYS	SERIAL
Ctrl, Ctrl, u, 1	/, /, u, 1
Ctrl, Ctrl, u, 2	/, /, u, 2
Ctrl, Ctrl, u, 3	/, /, u, 3
Ctrl, Ctrl, u, 4	/, /, u, 4
Ctrl, Ctrl, u, 5	/, /, u, 5
Ctrl, Ctrl, u, 6	/, /, u, 6
Ctrl, Ctrl, u, 7	/, /, u, 7
Ctrl, Ctrl, u, 8	/, /, u, 8

Multiscreen and full screen selection for sound.

HOT KEYS	SERIAL
Ctrl, Ctrl, a, 1	/, /, a, 1
Ctrl, Ctrl, a, 2	/, /, a, 2
Ctrl, Ctrl, a, 3	/, /, a, 3
Ctrl, Ctrl, a, 4	/, /, a, 4
Ctrl, Ctrl, a, 5	/, /, a, 5
Ctrl, Ctrl, a, 6	/, /, a, 6
Ctrl, Ctrl, a, 7	/, /, a, 7
Ctrl, Ctrl, a, 8	/, /, a, 8

One large screen and seven thumbnail screens on the bottom and left side. Large screen has active keyboard, mouse, USB 2.0, and sound.

HOT KEYS	SERIAL
Ctrl, Ctrl, t, 1	/, /, t, 1
Ctrl, Ctrl, t, 2	/, /, t, 2
Ctrl, Ctrl, t, 3	/, /, t, 3
Ctrl, Ctrl, t, 4	/, /, t, 4
Ctrl, Ctrl, t, 5	/, /, t, 5
Ctrl, Ctrl, t, 6	/, /, t, 6
Ctrl, Ctrl, t, 7	/, /, t, 7
Ctrl, Ctrl, t, 8	/, /, t, 8

One large screen and seven thumbnail screens on the bottom of large screen. Large screen has active keyboard, mouse, USB 2.0 and sound.

HOT KEYS	SERIAL
Ctrl, Ctrl, b, 1	/, /, b, 1
Ctrl, Ctrl, b, 2	/, /, b, 2
Ctrl, Ctrl, b, 3	/, /, b, 3
Ctrl, Ctrl, b, 4	/, /, b, 4
Ctrl, Ctrl, b, 5	/, /, b, 5
Ctrl, Ctrl, b, 6	/, /, b, 6
Ctrl, Ctrl, b, 7	/, /, b, 7
Ctrl, Ctrl, b, 8	/, /, b, 8

IN1, IN2 divided with all functions on IN1.

HOT KEYS	SERIAL
Ctrl, Ctrl, d, 1	/, /, d, 1

IN3, IN4 divided with all functions on IN3.

Ctrl, Ctrl, d, 2	/, /, d, 2

IN5, IN6 divided with all functions on IN5.

HOT KEYS	SERIAL
Ctrl, Ctrl, d, 3	/, /, d, 3

IN7, IN8 divided with all functions on IN7.

Ctrl, Ctrl, d, 4	/, /, d, 4

IN1, IN2, IN3, IN4 divided into 4 displays with all functions on IN1.

HOT KEYS	SERIAL
Ctrl, Ctrl, q, 1	/, /, q, 1

IN5, IN6, IN7, IN8 divided into 4 displays with all functions on IN5.

Ctrl, Ctrl, q, 2	/, /, q, 2

Set resolution for 1920x1080p monitor.

HOT KEYS	SERIAL
Ctrl, Ctrl, s, 1	/, /, s, 1

Set resolution for 3840x1080 monitor.

Ctrl, Ctrl, s, 2	/, /, s, 2

Serial message reporting on.

HOT KEYS	SERIAL
Ctrl, Ctrl, d, o, n	/, /, d, o, n

Serial message reporting off. Off is the default setting.

Ctrl, Ctrl, d, o, f, f	/, /, d, o, f, f

IN1 through IN8 divided into 8 displays with all functions on IN1.

HOT KEYS	SERIAL
Ctrl, Ctrl, o	/, /, o

Restarts unit.

HOT KEYS	SERIAL
Ctrl, Ctrl,	/, /, r

LIMITED WARRANTY STATEMENT

A.   EXTENT OF LIMITED WARRANTY

Smart-AVI Technologies, Inc. warrants to the end-user customers that the Smart-AVI 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.

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

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

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

Smart-AVI limited warranty is valid in any country where the covered product is distributed by Smart-AVI.

B.   LIMITATIONS OF WARRANTY

To the extant allowed by local law, neither Smart-AVI nor its third party suppliers make any other warranty or condition of any kind whether expressed or implied with respect to the Smart-AVI 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 extant allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event will Smart-AVI 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.

NOTICE

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Designed and Manufactured in the USA

www.smartavi.com
Tel: (800)AVI-2131, (702) 500-0008
2455 W Cheyenne Ave, Las Vegas, NV 89032