XTREEM-WALL

User Manual

4K INPUT MULTI-FORMAT 2X2 VIDEO WALL CONTROLLER

Smart-AVI

SMART AUDIO VIDEO INNOVATION

TABLE OF CONTENTS

WHAT'S IN THE BOX?

PART NO.	QTY	DESCRIPTION
XTRW-S	1	4K IN-HD OUT HDMI/DP/DVI-I Video Wall Controller
RMT-XW	1	IR Remote Control
SM-EYE3	1	IR Receiver
PS12VDC3.33A	1	Power Adapter
	1	Quick Start Guide

Brackets for mounting this device in a standard 19" rack can be ordered from SmartAVI.

Figure 2-1

INTRODUCTION

The XTREEM-WALL is Smart-AVI's easiest and most effective solution for building creatively configured video walls. With multi-format inputs for video resolutions up to 4K (3840x2160 @ 30Hz), the XTREEM-WALL sends multi-screen imagery to four connected HDMI displays in 1080p Full HD (1920x1080 @ 60Hz) output.

Best of all, the XTREEM-WALL is highly compatible with the most popular displays on the market, and features a wide variety of video wall modes.

FEATURES

- INPUT: (1) DP, (1) DVI-I Full HD Input, (1) HDMI 4K Input
- OUTPUT: (4) 1080p HDMI, (1) HDMI Local Loop
- Input up to 4K (3840x2160 @ 30Hz)
- Output up to 1080p (1920x1080 @ 60Hz)
- Creative configuration modes, including: Full Video Wall | Clone | PIP | POP | Flip
- Supports VGA & Y/Pb/Pr (With DVI-I Adapter)
- Supports IR remote control
- Control over web console
- Plug-and-Play ready
- Front Panel Buttons: XTREEM-WALL features a button control panel for switching between sources and accessing preset configurations.
- Web Console: Control everything from source resolution and aspect ratios to creative display modes from anywhere in the world over the Internet with SmartAVI's easy-to-use web console for the XTREEM -WALL.

APPLICATIONS

- Corporate or Educational Presentations
- Airport Installations
- Wall Displays
- Digital Signage
- Dealer Rooms
- Control Rooms
- Shopping Centers
- Security
- Point-of-Sale
- Entertainment Venues
- Corporate Lobbies
- Restaurants

TECHNICAL SPECIFICATIONS

VIDEO (and AUDIO)	
Video Format	DP, DVI-I, HDMI
Video Input	(1) DP; (1) DVI-I; (1) HDMI, VGA & Y/Pb/Pr support w/ DVI-I adaptor
Video Output	(4) HDMI 2.0 (1) HDMI Loopback
Input Resolution	Up to 4K (3840x2160 @ 30Hz)
Output Resolution	Up to 1080 (1920x1080 @ 60Hz)
Audio Input/Output	HDMI Digital Audio
Compliance	HDCP Compliant
CONTROL	
Front Panel	Buttons
TCP/IP	Web Console
IR Remote Control	RC-100 Infrared Remote Control with IR-EYE3 receiver
OTHER	
RS-232	DB9 Female, 115200 bps, N, 8 1, No flow control (For firmware updates only)
Power Adapter	12VDC 3.33A
Weight	6.95 lbs.
Dimensions	17"W X 10.8"D X 1.9"H
Working Temp.	32 to 122°F (0 to 50 °C)
Working Humidity	Up to 85% RH (no condensation)
Storage Temp.	-4 to 149 °F (-20 to 65 °C)
Storage Humidity	Up to 90% RH (no condensation)

HARDWARE INSTALLATION

1. Make sure the XTREEM-WALL is turned off.
2. Connect up to 3 inputs or sources. (1 DP, 1 HDMI, 1 DVI)
3. Connect up to 4 displays to the HDMI OUTPUT ports on the XTREEM-WALL. See Figure 5-2 for display locations.
4. Optionally connect a display to the HDMI OUT (Loopback) port.
5. Optionally connect the IR receiver to the IR input jack on the back of the XTREEM-WALL.
6. Optionally connect a network with a cat5/6 cable to the RJ45 LAN connector on the back of the XTREEM-WALL.
7. Turn on the XTREEM-WALL.
8. Wait for the unit to initialize.

NOTE: The RS-232 port on the back of the XTREEM-WALL is for firmware updates only.

Figure 5-1

Connect HDMI Output port 1 to the upper left display.
Connect HDMI Output port 2 to the upper right display.
Connect HDMI Output port 3 to the lower left display.
Connect HDMI Output port 4 to the lower right display.

Figure 5-2

Figure 5-3

HARDWARE INSTALLATION (Continued)

Figure 6-1 below shows a configuration using an HDMI source to display a video wall plus an additional display using the HDMI Out loopback port.

Figure 6-1

Figure 6-2 below shows a configuration using a DVI input for the video wall while using the HDMI loopback ports to connect an additional display.

Figure 6-2

FRONT PANEL CONTROL

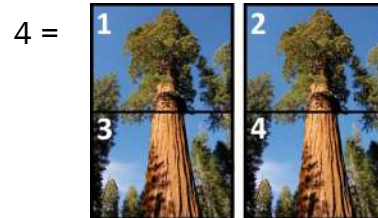

To switch between listed sources, press:
1. **DVI**
2. **HDMI**
3. **DisplayPort**

To switch to Video Wall mode, press the **WALL** button.
To switch to Clone mode, press the **CLONE** button.

Loading predefined display modes. First press the **MACRO** button. Then press:

1 =

2 =

3 =

4 =

5 = Standard video wall. Same as WALL button.

VIDEO WALL MODE

An Image can be displayed across four HD screens 2X2.

Figure 6-1

CLONE MODE

The image can be displayed on each display individually.

Figure 6-2

IR REMOTE CONTROL

BUTTON	DESCRIPTION
HDMI	Select HDMI input port
DVI	Select DVI input port
DP	Select DP input port
Info	Current settings will display
MENU	Turns on OSD (On Screen Display)
Back	Moves back 1 menu
Exit	Exit OSD
▲	OSD (On Screen Display) Navigation
▼	OSD (On Screen Display) Navigation
◄	OSD (On Screen Display) Navigation
►	OSD (On Screen Display) Navigation
OK	Executes selection or opens menu
OTH	Opens selected Menu
OSD TIME OUT	Sets time before OSD turns off
VIDEO WALL	Opens OSD for output settings

CONTROL VIA NETWORK

XTREEM-WALL TCP/IP control is a feature that allows mode switching and other configurations to be controlled remotely via HTTP. Manage your XTREEM-WALL with ease from anywhere in the world.

First you must find the IP address for the XTREEM-WALL . Finder.exe (Smart IP-Finder) is conveniently available on our website; please visit www.smartavi.com/helpful-links.html for this and our full list of compatible third-party software. Download and execute the IP address Finder software for your product. The XTREEM-WALL and its IP address should appear in the display as shown in Figure 9-1.
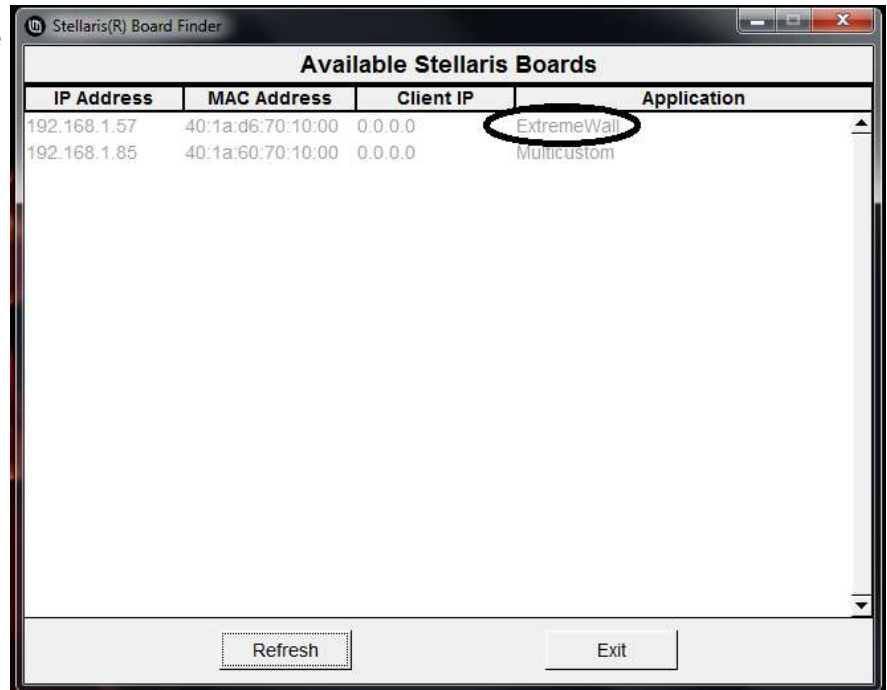

Figure 9-1

Enter the IP address into a web browser of your choice. You should see the XTREEM-WALL LOG-IN page as shown in Figure 9-2. The default username is ADMIN and the default password is PASS.
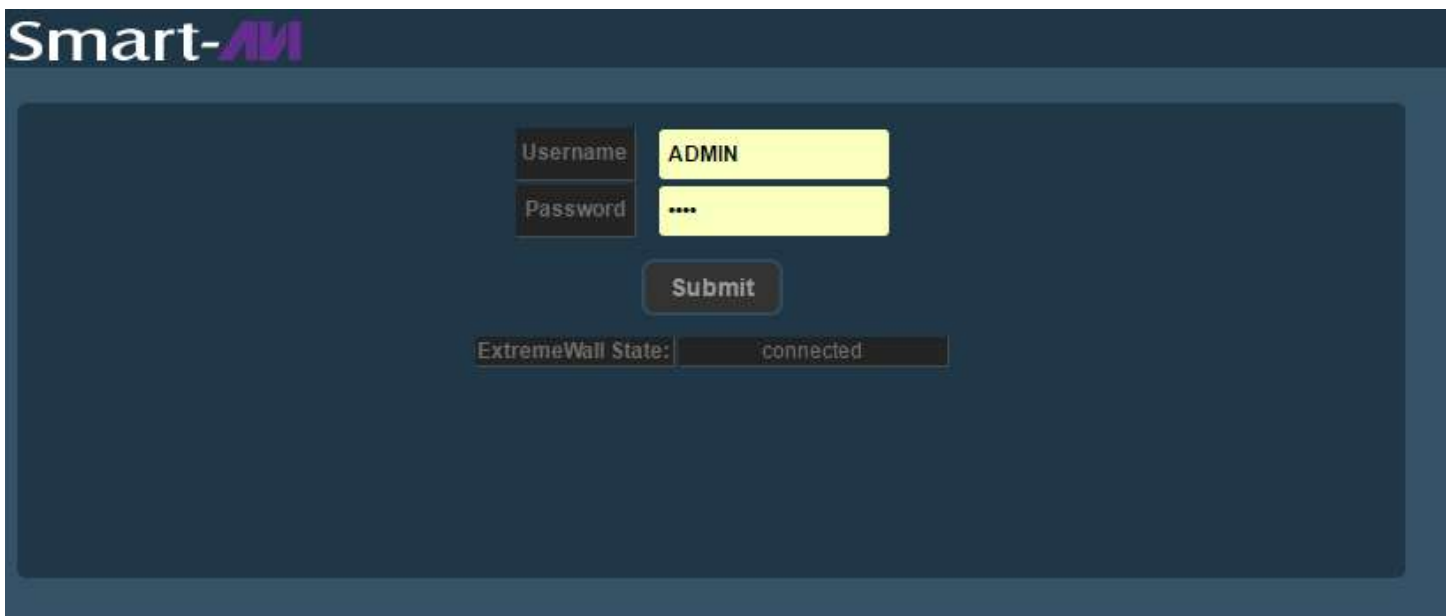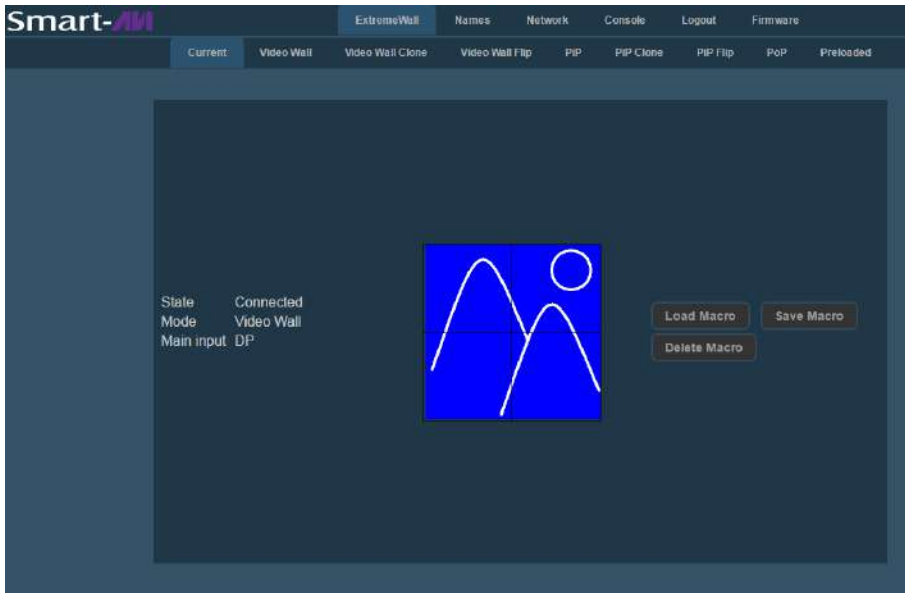

Figure 9-2

CONTROL VIA NETWORK (Continued)

Click the "XTREEM-Wall" tab in the top row and then click the "Current" tab in the second row to see the current status of the XTREEM-WALL.

Click the "XTREEM-Wall" tab in the top row and then click the "Video Wall" tab in the second row. Here you can select the source port for your video wall display.

Click the "XTREEM-Wall" tab in the top row and then click the "Video Wall Clone" tab in the second row. Here you can select the source port for your video wall display.

CONTROL VIA NETWORK (Continued)

Click the "XTREEM-Wall" tab in the top row and then click the "Video Wall Flip" tab in the second row. Here you can select the source port for your video wall display.

Figure 11-1

Why Video Wall Flip?

Many HDTV displays have a bezel that is wider on the bottom than it is on the top and sides as shown in figure 11-1. The Video Wall flip feature fixes this by allowing you to flip the top two displays in your video wall 180 degrees so the wide edges are on the outside of your video wall as shown in figure 11-2. Now select your source on the Video Wall Flip page and the video output to the top two displays will rotate 180 degrees as shown in figure 11-3.
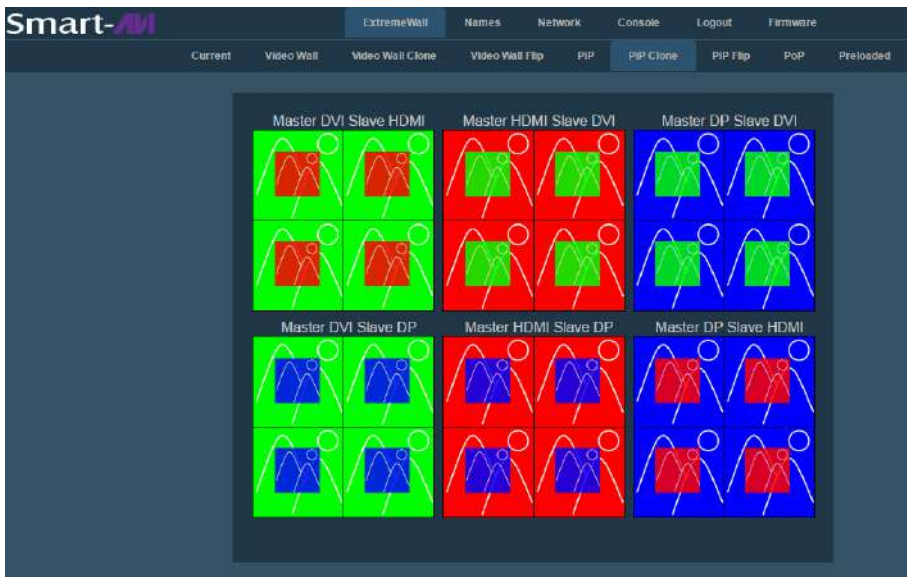

Figure 11-2

Figure 11-3

CONTROL VIA NETWORK (Continued)

Click the "XTREEM-Wall" tab in the top row and then click the "PiP" tab in the second row. Here you can select the source port (Master) for your video wall and the PiP port (Slave) that will appear smaller and center screen.

Click the "XTREEM-Wall" tab in the top row and then click the "PiP Clone" tab in the second row. Here you can select the source port (Master) for the background image on each display and the PiP port (Slave) that will appear smaller and centered in each display.

CONTROL VIA NETWORK (Continued)

Click the "XTREEM-Wall" tab in the top row and then click the "PiP Flip" tab in the second row. Here you can select the source port (Master) for your video wall and the PiP port (Slave) that will appear smaller and center screen.
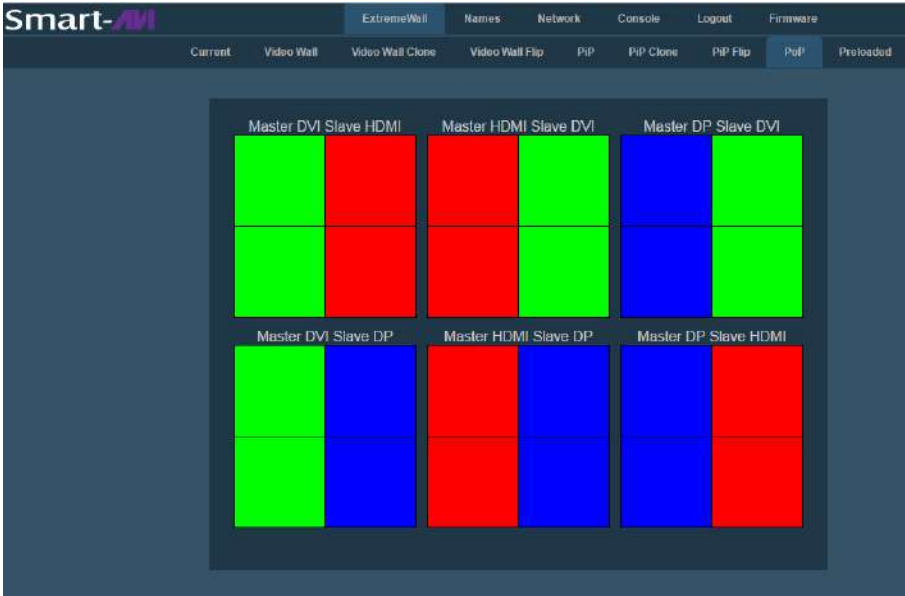

Figure 13-1

Why PiP Flip?

Many HDTV displays have a bezel that is wider on the bottom than it is on the top and sides as shown in figure 13-1. The Video Wall flip feature fixes this by allowing you to flip the top two displays in your video wall 180 degrees so the wide edges are on the outside of your video wall as shown in figure 13-2. Now select your source on the Video Wall Flip page and the video output to the top two displays will rotate 180 degrees as shown in figure 13-3.

Figure 13-2

Figure 13-3

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CONTROL VIA NETWORK (Continued)

Click the "XTREEM-Wall" tab in the top row and then click the "PoP" tab in the second row. Here you can select the source port for the left 2 displays and the source port for the right 2 displays.

The XTREEM-WALL's PoP feature creates 2 separate displays from 2 sources with 2 stacked monitors per display. The Input sources are sent to the output ports as shown in Figure 14-1.
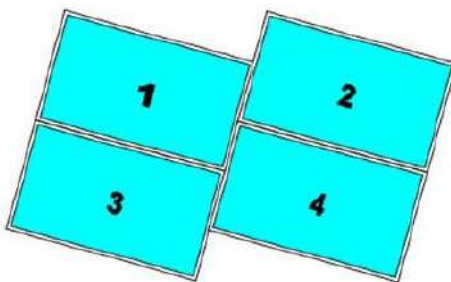

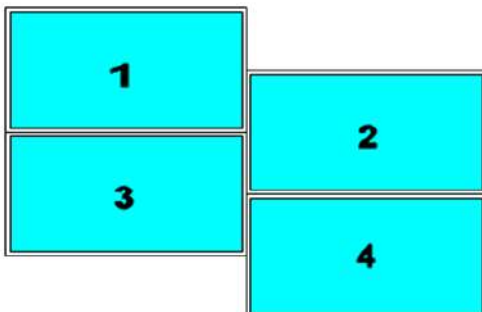Figure 14-1

PRE-DEFINED DISPLAY MODES

Figure 15-1

The XTREEM-WALL has several pre-defined display modes accessible with the remote control and on screen menus.

2x2 with clockwise 15 degree rotation and TV2 & TV4 shifted up 1/2 panel height (Ratio 1.7)

Figure 15-2

2x2 with TV2 & TV4 shifted down 1/2 panel height (Ratio 1.42)

Figure 15-3

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 con-sequential 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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