# EZWall-Pro 2X2

### User Manual

## Multi-Format Video Wall Processor



**2x2 HD Video Wall Controller**
**HDMI, VGA, Composite and Y/Pb/Pr Inputs +**
**Integrated USB Media Player**

Smart-AVI
SMART AUDIO VIDEO INNOVATION

## TABLE OF CONTENTS

## WHAT'S IN THE BOX

| PART NO. | QTY | DESCRIPTION |
|---|---|---|
| EZW2X2-S | 1 | EZWall-Pro: 2X2 Video Wall Controller |
| CCPWR06 | 1 | Power supply cord |
| SAVI-RMT | 1 | IR Remote Control |
| SM-EYE2 | 1 | IR Receiver |
| 999-EN-EZWLL-EAR-P | 2 | 19" Rack mount brackets |
|  | 1 | Quick Start Guide |



Figure 2-1



Figure 2-2

# INTRODUCTION

Thank you for choosing Smart-AVI EZWall-Pro for your video wall solution. The EZWall-Pro offers top-notch HD DVI output for five different type of signal inputs. Create striking 2x2 wall displays easily with simple signal-switching and flexible connectivity. The EZWall-Pro even features a fully-integrated USB media player, perfect for populating your displays with enticing digital content.

Capable of expanding any supported video input to four large-scale screens at 1080p, the EZWall-Pro showcases stunning picture quality and SmartAVI products' signature ease of use. In this guide, you will learn how to install and optimize your experience with the EZWall-Pro using basic steps. We will cover setting the hardware up, activating and connecting your systems, and offer helpful tips on how to best use EZWall-Pro's excellent selection of picture modes to enhance your video wall.

# FEATURES

- Four screen (2x2) multi-Layout, multi-format video wall controller
- Outputs: (4) DVI single-link
- Inputs: (2) HDMI, (1) VGA, (1) Composite AV, (1) Y/Pb/Pr, (2) USB
- Integrated USB Media Player for digital video, imagery and audio
- Internal EDID learning
- 1080p (1920x1080 @ 60Hz) Full HD resolution output
- No additional hardware or software required
- Supports control via Front Panel Buttons
- Supports control via  IR Remote control
- Supports control via RS-232
- Supports control via TCP/IP
- Easy to set-up
- Easy to use

# 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 | |
|---|---|
| Output Resolutions | Up to 1080P (1920x1080@60Hz) |
| Input Resolutions | Up to 1080P (1920x1080) |
| Input Video Signal | 1.2 volts |
| Input DDC Signal | 5 volts |
| Outputs | (4) DVI-D (1) AV Composite |
| DVI Format | Single-link |
| Inputs | (2) HDMI, (1) VGA, (1) AV Composite **, (1) Y/Pb/Pr, (2) USB 2.0 Type A |
| HDCP Compliance | 1.0/2.0 |
| Audio | (1) 3.5mm input, (1) 3.5mm output |
| **CONTROL** | |
| Front Panel | Buttons |
| RS-232 | DB9 Female, 9600, N, 8, 1, no flow control |
| IR Remote Control | SAVI-RMT |
| Ethernet (TCP/IP) | RJ-45 |
| **OTHER** | |
| Power | 100-240 VAC |
| Dimensions | 17.06" W x 3.6" H x 7.25" D |
| Weight | 7.3 lbs. |
| **USB MEDIA PLAYER** | USB player requires the IR Remote Control for navigation and media selection. |
| Signal Type | USB 2.0, 1.1, and 1.0 (Type A) |
| Video Formats * | MJPEG, MPEG-1, MPEG-2, MPEG-4, Vvid, DivX H.264 |
| Max Resolution | 1920x1080 @30fps |
| Max Data Rate | 20 Mbps |
| Audio Formats * | MP3, WMA, AAC, MP2, PCM, AC3 |
| Photos Max Resolutions * | JPEG - 15360x8640, BMP - 9600x6400, PNG - 9600x6400 |
| Other | Max TXT resolution: 1200x800<br>Max ANSI/UNICODE GB/UTF8 file size: 1MB |

*PLEASE NOTE: EZWall-Pro only supports the primary formats listed above. Any unlisted formats are not compatible with EZWall-Pro.

** AV2 IN Port does not function at this time.

# HARDWARE INSTALLATION

1. Position EZWall-Pro conveniently and keep it unplugged.
2. Connect DVI output cables between the EZWall-Pro and your video wall screens
3. Connect any input to their corresponding signal source (Blu-Ray player, computer, etc)
4. Optionally connect the IR receiver to the IR input jack at the back of the EZWall-Pro.
5. Optionally connect an RS-232 cable from a PC to the RS-232 port of the unit for additional control.
6. Optionally connect an Ethernet cable to the EZWall-Pro for additional control over the internet (TCP/IP)
7. Optionally connect stereo speakers to the EZWall-Pro.
8. Power on all connected devices.
9. Power on the EZWall-Pro.
10. Wait a few seconds for the unit to initialize.



Figure 5-1



Figure 5-2

# FRONT PANEL CONTROL

To switch to <u>Video Wall mode</u>, press the WALL button.



Figure 6-1

To switch to <u>Clone mode</u>, press the CLONE button.



Figure 6-2

To switch between listed sources, press:



1. VGA
2. HDMI 1
3. HDMI 2
4. USB 1 Media Player
5. USB 2 Media Player
6. Y/PB/PR AV

(Press 6 again to switch between Y/PB/PR and AV 1)

Figure 6-2

* USB player requires the IR Remote Control for navigation and media selection.

# IR REMOTE CONTROL

| BUTTON | DESCRIPTION |
|---|---|
| WALL | Video Wall Mode  (Figure  6-1) |
| CLONE | Clone Mode (Figure 6-2) |
| SOURCE | Pressing SOURCE followed by pressing a number will select the source port number. (Table 7-1) |
| F1 | 1X2 Mode * (Page 8, Figure 8-1) |
| F2 | 2X1 Mode * (Page 8, Figure 8-2) |

# USB PLAYER REMOTE CONTROL **

| BUTTON | DESCRIPTION |
|---|---|
|  | While Navigating ON Screen Menus |
| USB | Pressing USB followed by pressing number 1 or 2 will select the USB port. |
| [OK] Center Button | Enter or Select |
| CH+ | Navigate UP |
| CH- | Navigate DOWN |
| ◼− | Navigate LEFT |
| ◼+ | Navigate RIGHT |
|  | While Videos or Pictures are displayed |
| [OK] Center Button | DISPLAY MENU |
| CH- | TURN OFF MENU |
| ◼+ | VOLUME UP |
| ◼− | VOLUME DOWN |

\* Note that when not using all four displays the unused displays will be a clone of output #1

\*\* The USB player requires the IR Remote Control for navigation and media selection.



Source Port Numbers:
1. VGA
2. HDMI 1
3. HDMI 2
4. Y/PB/PR
5. AV 1

Table 7-1

Note that when not using all four displays the unused displays will be a clone of output #1

Figure 8-1
1X2 Mode
(F1 Button)



Figure 8-2
2X1 Mode
(F2 Button)

# RS-232 COMMANDS

The EZWall-Pro may also be controlled via RS-232 commands. This feature requires that an RS-232 card is installed in your computer or a USB to RS-232 adapter. Check the RS-232 connections on your computer and the EZWall-Pro to determine if you need a male to male, female to female or male to female cable.

**Establish a connection to EZWall-Pro:**
1. Connect a straight-through RS-232 cable to the RS-232 connector on the PC.
2. Connect the other end of the cable to the RS-232 port of the EZWall-Pro.
3. Power on the device.

If you are using a USB to COM port adapter and need to identify the COM port used do the following:

1. Click on the start button.
2. Click on Control Panel.
3. Click on Device Manager.
4. Click on the arrow next to Ports (COM & LPT).

You should see the name of your adapter and the COM port number in use.

**Setting up the Terminal Application:**
Run the terminal client of your choice such as HyperTerminal or PuTTY.
Select the correct COM port on the PC.
Use the following connection settings: **9600, N, 8, 1, no flow control.**
Once the connection is established type //? And hit enter. The EZWall-Pro should respond with a firmware version number and a list of available commands.

| COMMAND | DESCRIPTION |
|---------|-------------|
| //? | Help (List of Commands) |
| //B | Boot EZWall-Pro |
| //C | Clone display mode |
| //I# | Select input (# = 1=VGA, 2=HDMI1, 3=HDMI2, 4=USB1, 5=USB2, 6=YPBPR, 7=AV) |
| //QA | Query IP Address |
| //QC | Query available video Configurations |
| //QM | Query current Mode |
| //QF | Query Firmware version |
| //QS | Query current Status |
| //V | default Video Configuration (2X2) |
| //W | Wall |
| //Z | Sleep |
| //nxn | switch to Video Configuration (//2X1, //2X2, //1X2) See page 8 |

Figure 9-1

* USB player requires the IR Remote Control for navigation and media selection.

# CONTROL VIA ETHERNET

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

First you must find the IP address for the EZ-Wall-Pro. 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 EZWall-Pro and its IP address should appear in the display as shown in Figure 9-1.
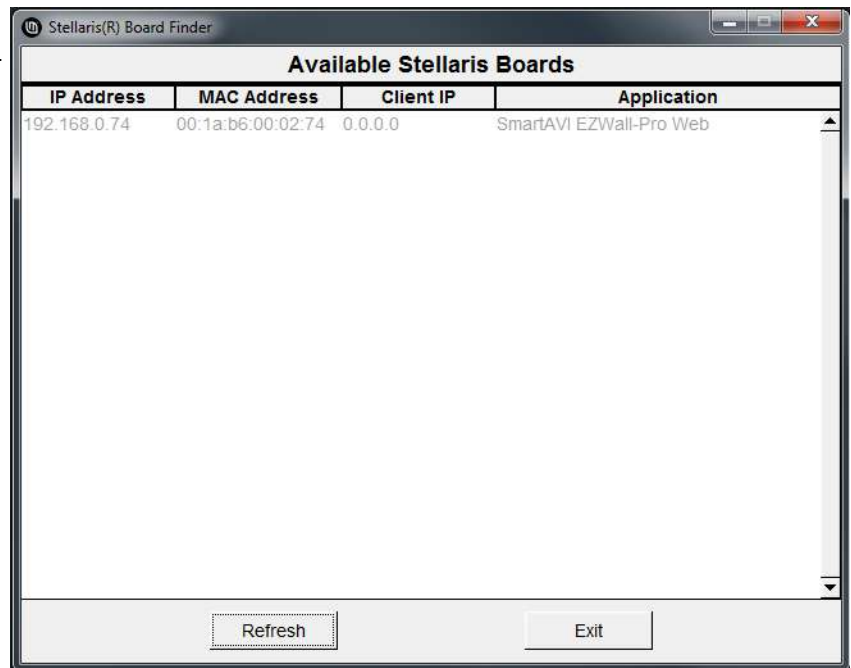


Figure 9-1

Enter the IP address into a web browser of your choice. You should see the EZWall-Pro Home/Welcome page as shown in Figure 9-2.



Figure 9-2

# CONTROL VIA ETHERNET (Continued)

Click on the LOG IN tab in the top tool bar.
Enter the User ID and Password in the Login page.
The User ID and Password are case sensitive.
User ID = admin, Password = 1234

You can change the User ID and password by clicking the ADMINISTRATION button. See Figure 10-1
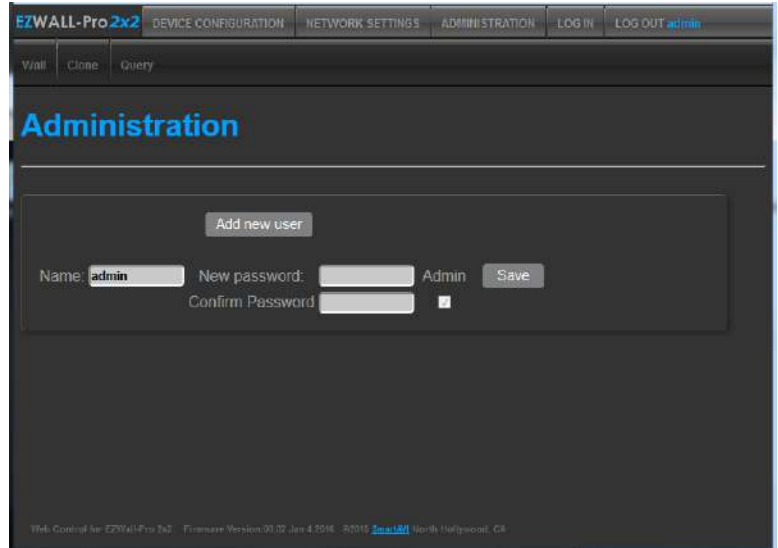


Figure 10-1

Click the Network Settings tab in the top toolbar to configure your network settings.
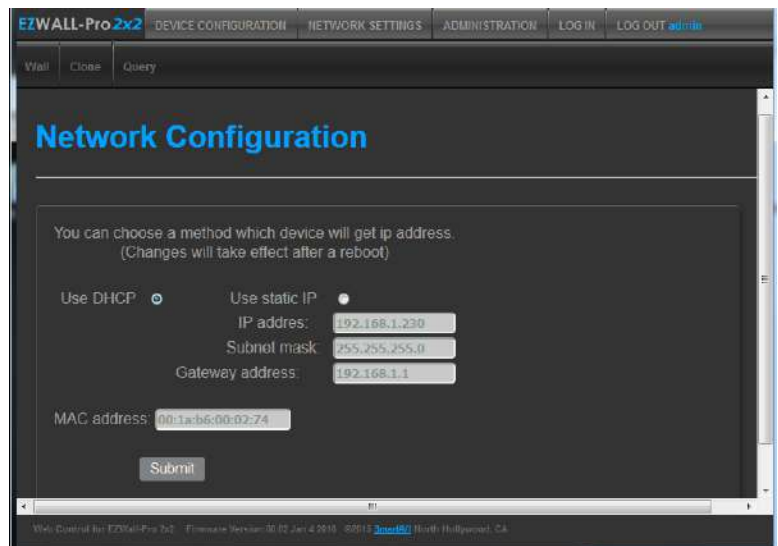See Figure 10-2.



Figure 10-2

# CONTROL VIA ETHERNET (Continued)

You can use the internal web page to set the EZWall-Pro to Wall  Mode or Clone Mode and set the desired source*. See Figures 11-1 and 11-2.
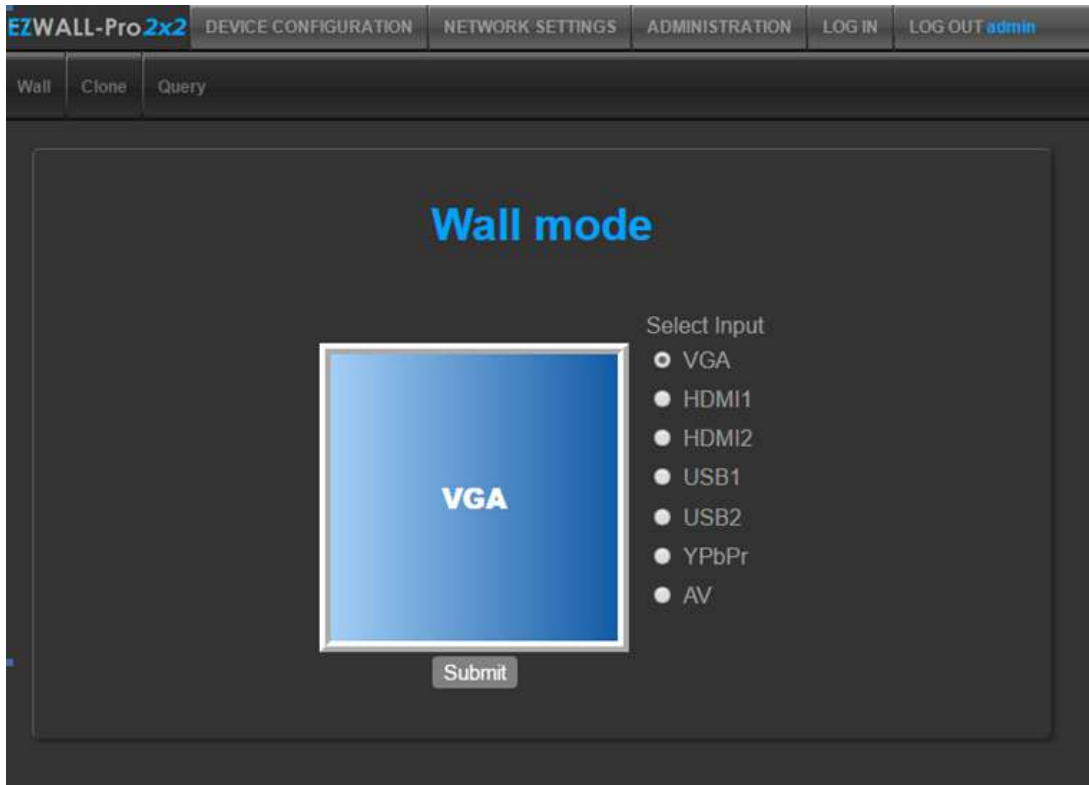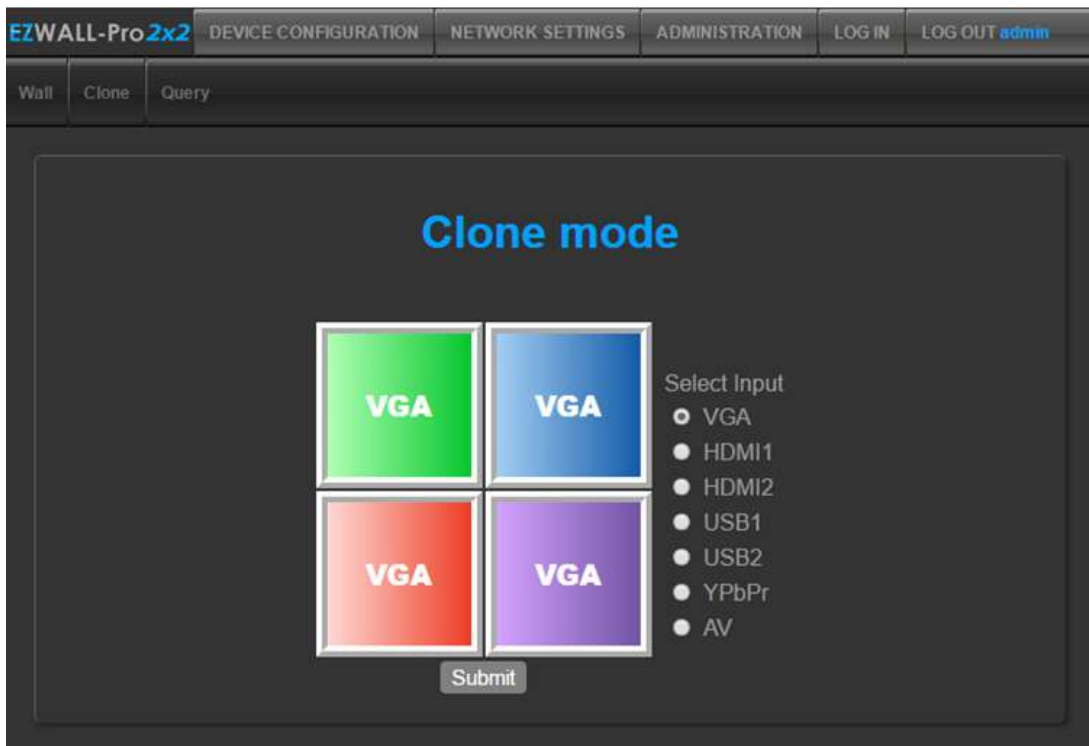


Figure 11-1



Figure 11-2

* USB player requires the IR Remote Control for navigation and media selection.

# 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.

Designed and Manufactured in the USA

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