

ANI-VW

1x4 HDMI VIDEO WALL SCALER SPLITTER (Cascadable)





SAFETY INFORMATION



1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the "ON" position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain.
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance.
 - E. The equipment has been dropped, or the enclosure damaged.

▶ CONTENTS

INTRODUCTION & CONTENTS1
 FEATURES & SPECIFICATIONS.....2
 PANEL FUNCTIONS3
 REMOTE CONTROL4
 TV WALL CONNECTION SEQUENCE DIAGRAM5
 TV WALL CONTROLLER USER GUIDE6
 CONNECTION DIAGRAM9

DEAR CUSTOMER

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

INTRODUCTION

The ANI-VW 1x4 HDMI TV Wall Scaler Splitter supports CVBS/ VGA/HDMI/USB Input signal types arranged on (4) displays. The embedded scaler converts signals from the input sources to match the native resolution of monitors, flat panel displays, projectors as well as user-selectable output settings up to 1920x1080. Operational control via the included remote, IR, Ethernet or RS-232. This product has a 3 year warranty.

PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- ANI-VW HDMI 1x4 TV Wall
- 38KHz IR Receiver cable
- Wireless IR Remote
- RS-232 cable
- 12V/2.5A DC power adaptor
- Users Guide

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

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FEATURES

- HDMI 1.3a, DVI 1.0 Compliant
- Output source signal to (4) displays (2 by 2 Video wall) as a full image with adjustable Bezel Correction
- IR, Ethernet and RS-232 control
- Cascade to (9) displays (3 by 3 video wall)
- Supports CVBS/VGA/HDMI Inputs
- USB movie, picture and music playback
- Advanced video De-interlaced for improving 480i and 576i SD video input
- Supports output resolutions up to 1080p60Hz
- Perfect as a video screen splitter, a video converter and a video switcher

SPECIFICATIONS

- **Supported Input Formats:**
 - **HDMI:** 1080p@50/60Hz, 1080i@50/60Hz, 720p@50/60Hz, 576i/p,480i/p, 640x480@60Hz, 800x600@60Hz, 1024x768@60Hz, 1280x1024@60Hz, 1280x720@60Hz, 1360x768@60Hz, 1440x900@60Hz, 1680x1050@60Hz, 1920x1080@60Hz
 - **CVBS:** PAL, NTSC, SECAM with stereo audio input
 - **VGA:** 640x480@60Hz, 800x600@60Hz, 1024x768@60Hz, 1280x1024@60Hz, 1280x720@60Hz, 1360x768@60Hz, 1440x900@60Hz, 1680x1050@60Hz, 1920x1080@60Hz
 - **USB:** MPEG, H.264, RM/RMVB movie decode, JPEG, BMP, PNG Picture decode and MPEG1/2, MP3 audio decode
- **Video Bandwidth:** 225MHz/6.75Gbps
- **Input Ports:**
 - HDMI (Female type)
 - USB
 - VGA
 - CVBS+L/R
- **Output Ports:**
 - (5) HDMI (Female type)
 - Coaxial
 - (2) L/R
- **HDMI Cable Distance:** ~50ft/15M@8-bit 1080p
- **ESD Protection:** Human Body Model:
 - ± 8kV (air-gap discharge)
 - ± 4kV (contact discharge)
- **Power Supply:** 12V/2.5A DC (US/EU standards, CE/FCC/UL certification)
- **Dimensions (WxDxH):** 9.9 x 4.6 x 1.25 in (250x118x32mm)
- **Weight:** 2.4 lbs /1050g
- **Chassis Material:** Metal
- **Silkscreen Color:** Black
- **Operating Temperature:** 0°C~40°C / 32°F~104°F
- **Storage Temperature:** -20°C~60°C / -4°F~140°F
- **Relative Humidity:** 20~90% RH (non-condensing)
- **Power Consumption:** 7.5W

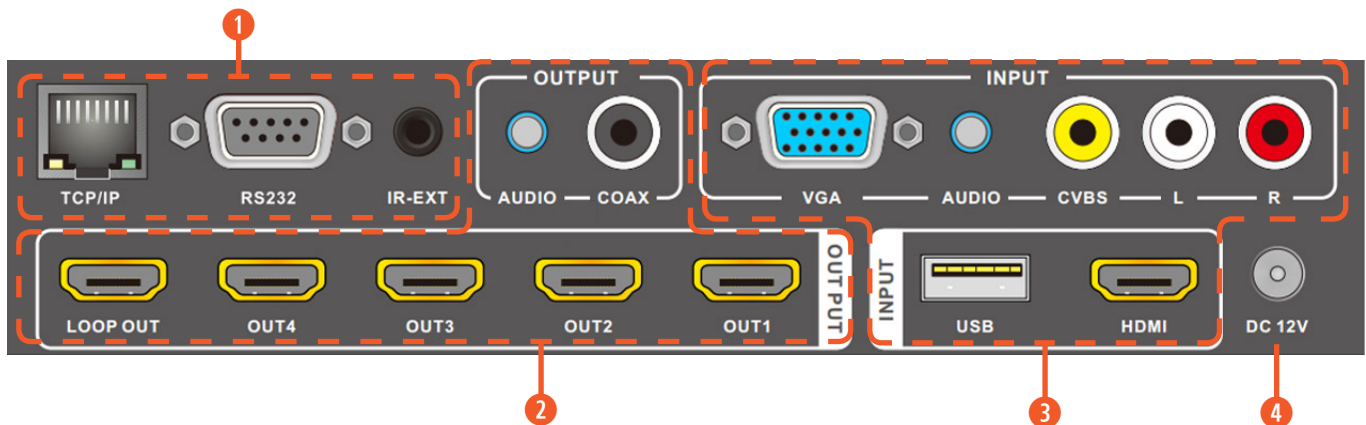
As product improvements are continuous, specifications are subject to change without notice.

FRONT PANEL



- ① **POWER BUTTON:** Press this button to power the device ON/OFF.
- ② **POWER LED:** The LED will illuminate green when the power is 'ON', red when it is in 'Standby' mode.
- ③ **IR:** IR Receiver window (accepts the remote control signal of this device only).

REAR PANEL



- ① **CONTROL PART:**
 - **TCP/IP:** This port is the link for TCP/IP control, connect to an active Ethernet link with a RJ45 terminated cable.
 - **RS-232:** Connect to a PC or control system with a D-Sub 9-pin cable for the transmission of RS-232 commands.
 - **IR EXT:** If the panel sensor is obstructed or the unit is installed in a closed area out of infrared line of sight, the IR RX receiver included can be inserted into the IR EXT port at the rear to extend the IR sensor range and enable local control of the TV Wall.
- ② **OUTPUT:**
 - **HDMI OUT:** Connect with HDMI TV/displays for output image display.
 - **AUDIO OUT:** Coax (digital coax) or Analog stereo audio out connected to your audio amplifier.
- ③ **INPUT:** Connect with source equipment such as DVD/Blue-ray player, PC, Game console or USB vices to CVBS, VGA, HDMI, USB input port.
- ④ **DC 12V:** Connect the included 12V/2.5A DC power supply into the DC12V power in.

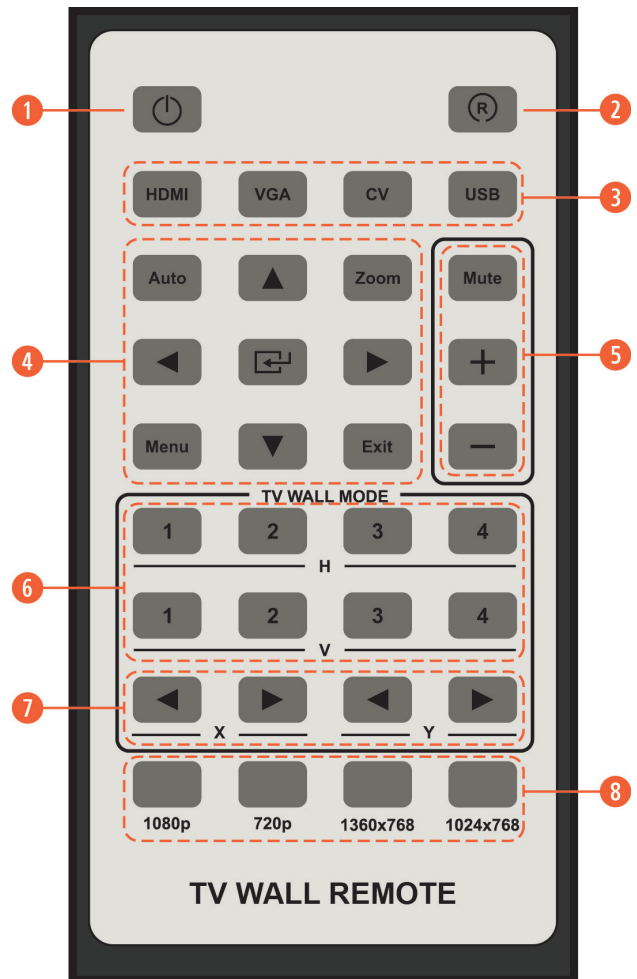
REMOTE CONTROL

- 1 Press this button to power on the TV Wall or set it to standby mode.
- 2 Press this button to rotate the display 90° (only for 1x2, 1x3, 1x4 wall modes).
- 3 **Input Source** select button.
- 4 **AUTO** button for VGA input auto adjustment function.
ZOOM button to zoom in and zoom out function for all input sources. The additional buttons are for USB input source control function.
- 5 Audio output volume adjustment, applies to HDMI, Coaxial and analog audio output simultaneously.
- 6 TV Wall mode selection. **For Example:** as 2x2 TV Wall mode, press “H” then “2”, followed by “V” then “2”.
- 7 TV Wall Picture Bezel Correction Adjust: the user can set the bezel size of the images in zoom-in mode.
- 8 TV Wall output resolution selection.

IR COMMANDS: NEC Codes

SYSTEM CODE: 0X08

POWER:	0X4D	-:	0X17
R:	0X0B	H1:	0X4C
HDMI:	0X09	H2:	0X0D
VGA:	0X54	H3:	0X56
CV:	0X47	H4:	0X16
USB:	0X42	V1:	0X40
AUTO:	0X08	V2:	0X10
UP:	0X48	V3:	0X11
ZOOM:	0X4B	V4:	0X52
MUTE:	0X43	XL:	0X4F
LEFT:	0X0C	XR:	0X44
ENTER:	0X19	YL:	0X50
RIGHT:	0X0F	YR:	0X0E
+:	0X03	1080P:	0X13
MENU:	0X55	720P:	0X12
DOWN:	0X57	1360X768:	0X15
EXIT:	0X4E	1024X768:	0X53



TV WALL CONNECTION SEQUENCE DIAGRAM

Cascade 2

1x2 (H)	A1	A2		
1x3 (H)	A1	A2	A3	
1x4 (H)	A1	A2	A3	A4
1x2 (V)	A1	A2		
1x3 (V)	A1	A2	A3	
1x4 (V)	A1	A2	A3	A4
2x1	A1			
	A2			
3x1	A1			
	A2			
	A3			
4x1	A1			
	A2			
	A3			
	A4			
2x2	A1	A2		
	A3	A4		

2x3	A1	A2	A3	
	B1	B2	B3	
3x2	A1	B1		
	A2	B2		
	A3	B3		
2x4	A1	A2	A3	A4
	B1	B2	B3	B4
4x2	A1	B1		
	A2	B2		
	A3	B3		
	A4	B4		
3x3	A1	A2	A3	
	A4	B1	B2	
	B3	B4	B5	

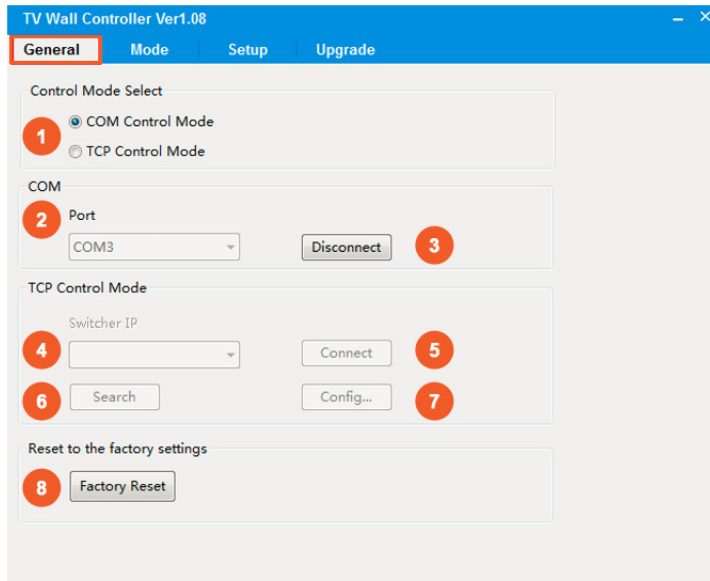
TV WALL CONTROLLER USER GUIDE

Installation: The TV Wall controller GUI software requires no installation. Just copy the **TVWallController.exe** file to your PC to control the TV Wall via the RS-232 COM port or TCP/IP to complete installation.

Preparation:

- Connect the PC and TV Wall with a RS-232 cable (straight cable FEMALE) or TCP/IP.
- Power-up the TV Wall.
- Double click the **TVWallController.exe** icon to run it.

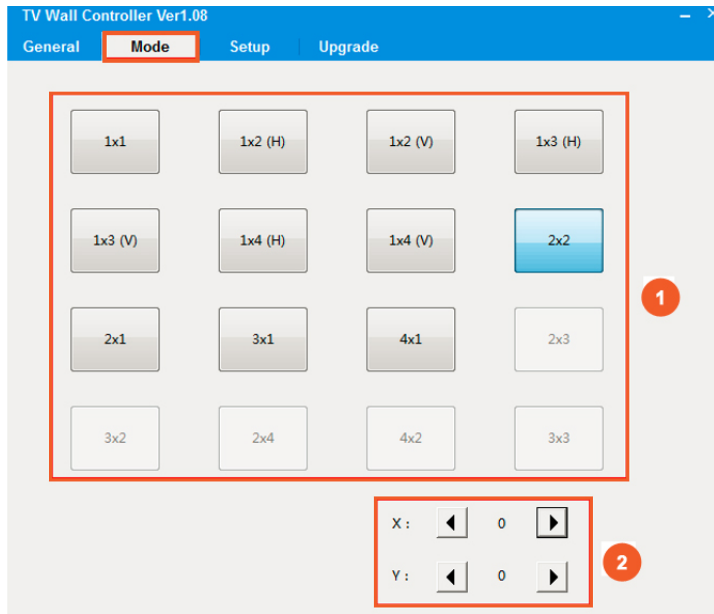
“General” Page:



- 1 Select RS-232 COM or TCP mode.
- 2 Select the RS-232 COM port.
- 3 Click to connect or disconnect the PC with the TV Wall.
- 4 Select TV Wall IP.
- 5 Connect to the TV Wall IP.
- 6 Search TV Wall IP.
- 7 Configure TV Wall IP and MAC address.
- 8 Click to reset to factory default settings.
 - **Input Source:** HDMI
 - **Output Resolution:** 1080p60Hz
 - **Output Mode:** HDMI
 - **Audio Volume:** 80
 - **TV Wall Mode:** 1x1
 - **Bezel correction:** X=0, Y=0

TV WALL CONTROLLER USER GUIDE

“Mode” Page:



- ① TV Wall Mode selection.
- ② TV Wall Picture Bezel correction adjustment. **Figure 1** and **Figure 2** will show you the difference between the original image and the adjusted image.



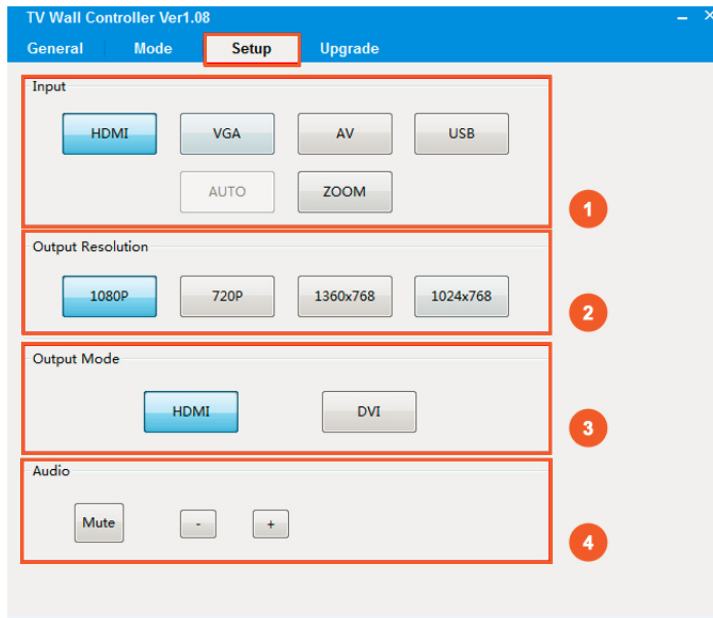
Figure 1: Original Image



Figure 2: Adjusted Image

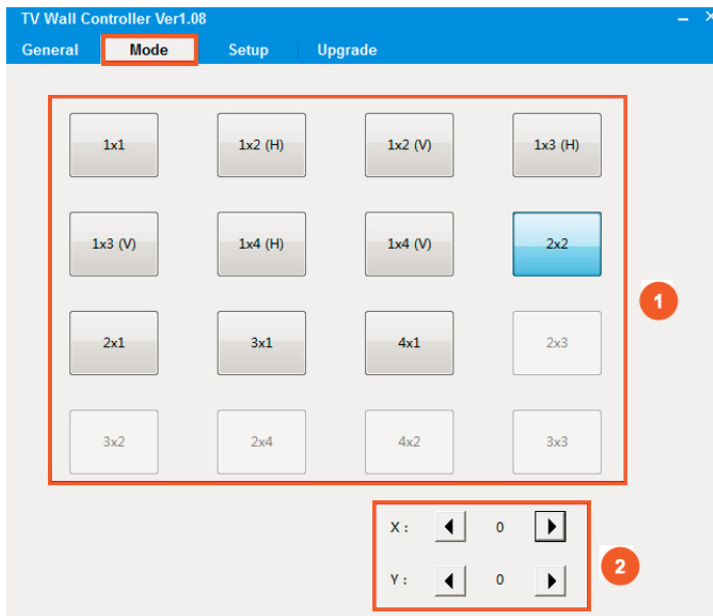
TV WALL CONTROLLER USER GUIDE

“Setup” Page:



- 1 Input sources selection.
- 2 Output resolution selection.
- 3 Output mode selection.
- 4 Audio out volume adjustment.

“Upgrade” Page:



The TV wall contains (2) microcontrollers (MCU); a main MCU and a sub MCU. The main MCU is updated using the GUI software while the sub MCU is updated using the USB port.

1 Main MCU Upgrade:

- Click to open the **FW** file (file extension is “.bin”).
- Click the “**Upgrade**” button to update the ANI-VW.
- A display message of the software upgrade process appears in the Messages field.

2 Sub MCU Upgrade:

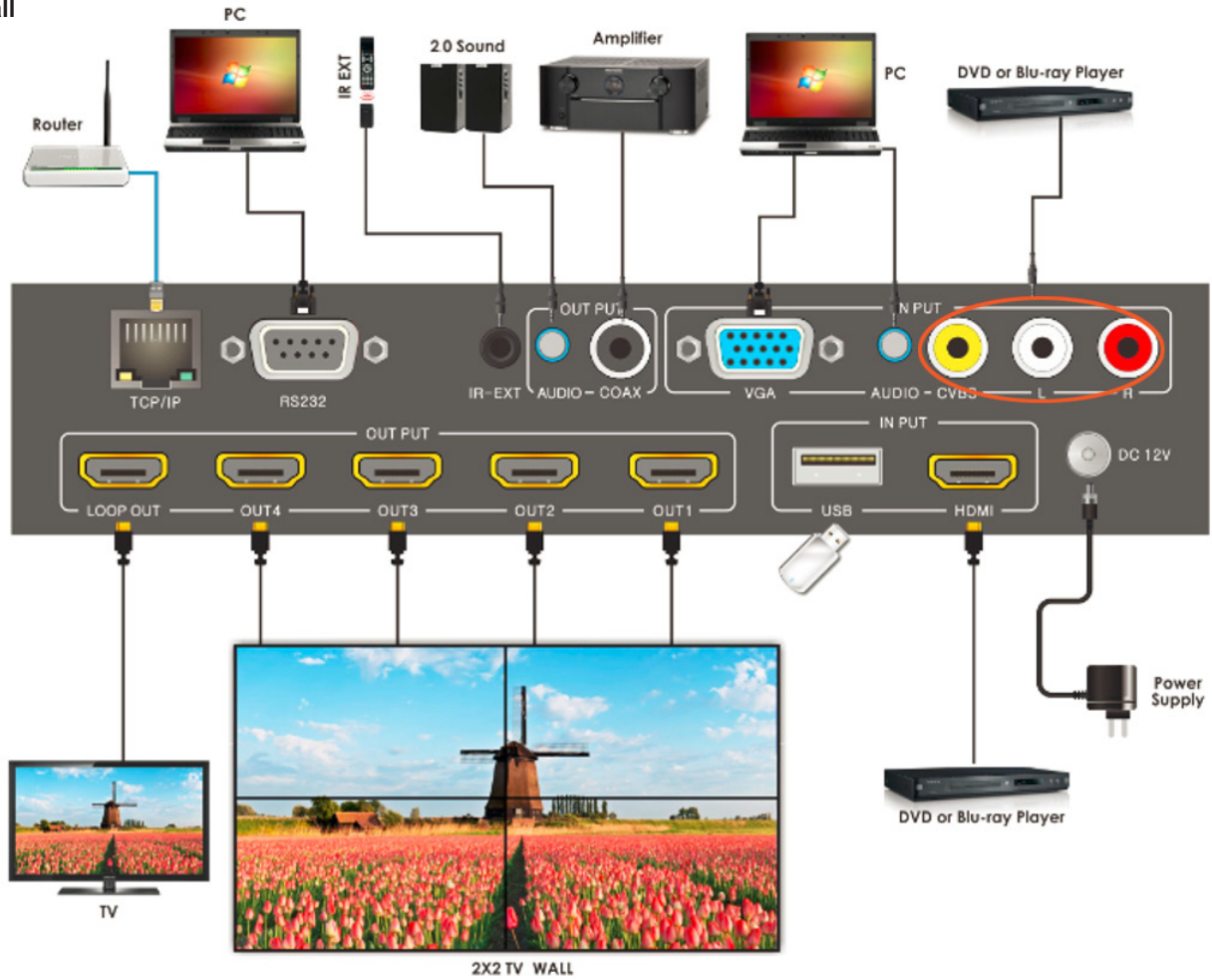
- Copy the sub MCU upgrade FW file to the USB flash drive.
- Insert the USB flash drive into the TV Wall USB port.
- Click the “**Upgrade Scaler**” button to update the ANI-VW.

3 Displays the TV Wall software version.

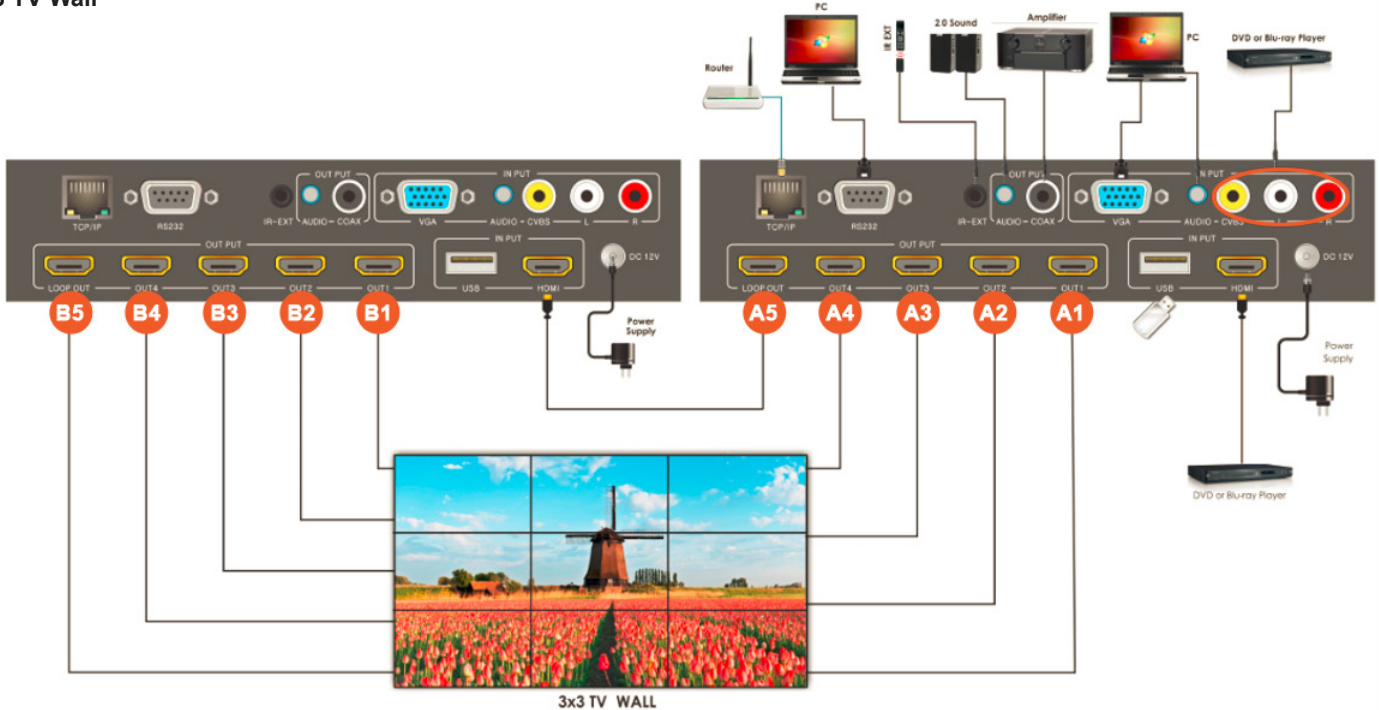
ATTENTION: Any interruption (especially power interruption) during the upgrade process may render the system unusable.

CONNECTION DIAGRAM

2x2 TV Wall



3x3 TV Wall



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