

Model : ATZ HDMI-14TW

Description: HDMI 1x4 TV wall, AV/VGA/HDMI/USB Input, TCP/IP RS232 IR Control



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1. Introduction

The 1 by 4 HDMI TV Wall support CVBS/VGA/HDMI/USB play input sources to be freely 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. All the operation and control can be done through IR, Ethernet and RS-232.

The HDMI TV Wall is widely used in KTV, hotels, bars, leisure centers, shopping malls, television stores, cinemas, products display, media advertising, building, education and training, Brand stores, airports, subway, etc.

2. Feature

- Compliant with HDMI1.3a, DVI1.0;
- Output source signal to 4 displays (2 by 2 Video wall) as a full image with adjustable Bezel Correction;
- Supports IR, Ethernet and RS232 controls;
- Supports cascade to 9 display(3 by 3 video wall) mode;
- Supports CVBS/VGA/HDMI input and USB movie, picture and music playback;
- Advanced video De-interlacer for improving 480i and 576i SD video input;
- Support input formats:
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 with stereo audio input;

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;

USB: MPEG, H.264, RM/RMVB movie decode, JPEG, BMP, PNG Picture decode and MPEG1/2, MP3 audio decode;

- Support output resolution up to 1080p60Hz;
- Perfectly as a video screen splitter, a video converter and a video switcher

3. Package Contents

- HDMI 1 x4 TV Wall 1pcs
- 12V/2.5A DC power adaptor 1pcs
- Operation Manual 1pcs
- 38KHz IR Receiver cable 1pcs
- TV Wall Remote 1pcs
- RS232 cable 1pcs

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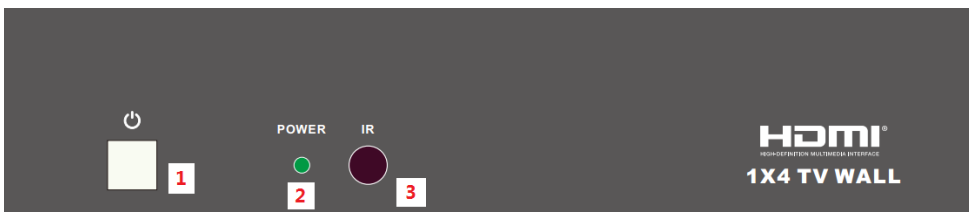


4. Specification

Video Bandwidth:	225MHz/6.75Gbps
Input ports:	1x HDMI (Female type), 1xUSB, 1xVGA, 1xCVBS+L/R
Output ports:	5 x HDMI (Female type) ,1xCoaxial, 2xL/R
HDMI Cable Distance:	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 (mm):	250mm (W) X 118mm(D) X 32mm(H)
Weight (g):	1050 g
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

5. Panel Functions

5.1 Front panel



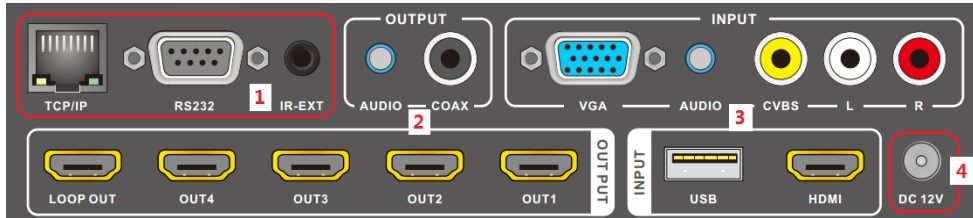
- 1) **Power Button:** Press this button to power the device on/off.
- 2) **Power Led:** The LED will illuminate green when the power is on, red when it is in 'Standby' mode.
- 3) **IR:** IR Receiver window (accepts the remote control signal of this device only).

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5.2 Rear panel



1) Control part

- **TCP/IP:** This port is the link for TCP/IP controls, connect to an active Ethernet link with an RJ45 terminated cable.
- **RS232:** Connect to a PC or control system with 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. It is suggest that the connection sequence should be placed as diagram showed for TV wall set up. **LOOP OUT** is the nominated port for cascading the input signal.
- **AUDIO OUT:** The coax and audio out where you connect to the digital or analog audio amplifier .

3) Input

Connect with source equipment such as DVD/Blue-ray players, PC, Game console or USB disc devices to CVBS,VGA,HDMI,USB input port.

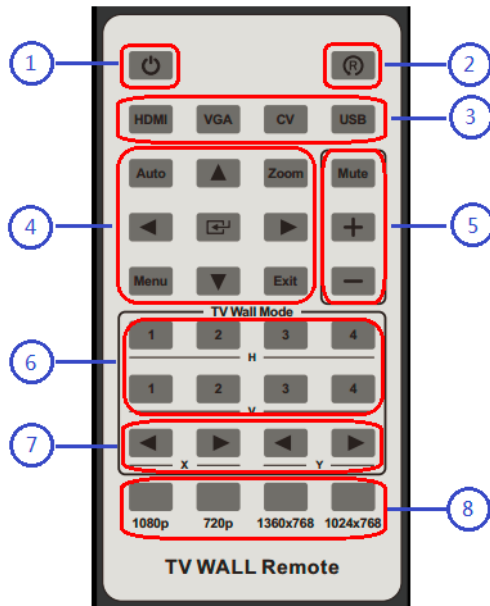
4) DC 12V

Plug the 12V/2.5A DC power supply into the DC12V power in.

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Remote Control



① Press this button to power on the TV Wall or set it to standby mode.

② Press this button for rotate 90° screen, only for 1x2, 1x3, 1x4 TV Wall mode.

③ Input Sources select button.

④ **AUTO** button for VGA input auto adjustment function; **ZOOM** button for all input sources zoom in and zoom out function. The else button for USB input source control function.

⑤ These buttons for Audio output volume adjustment function, (include HDMI, Coaxial and analog audio output).

⑥ TV Wall mode selection: such as 2x2 TV Wall mode, press “H” towards “2”, then press “V” towards “2”.

⑦ TV Wall Picture Bezel correction adjust: the users can set the bezel size of the images in zoom-in model, to make the whole image looks coherently.

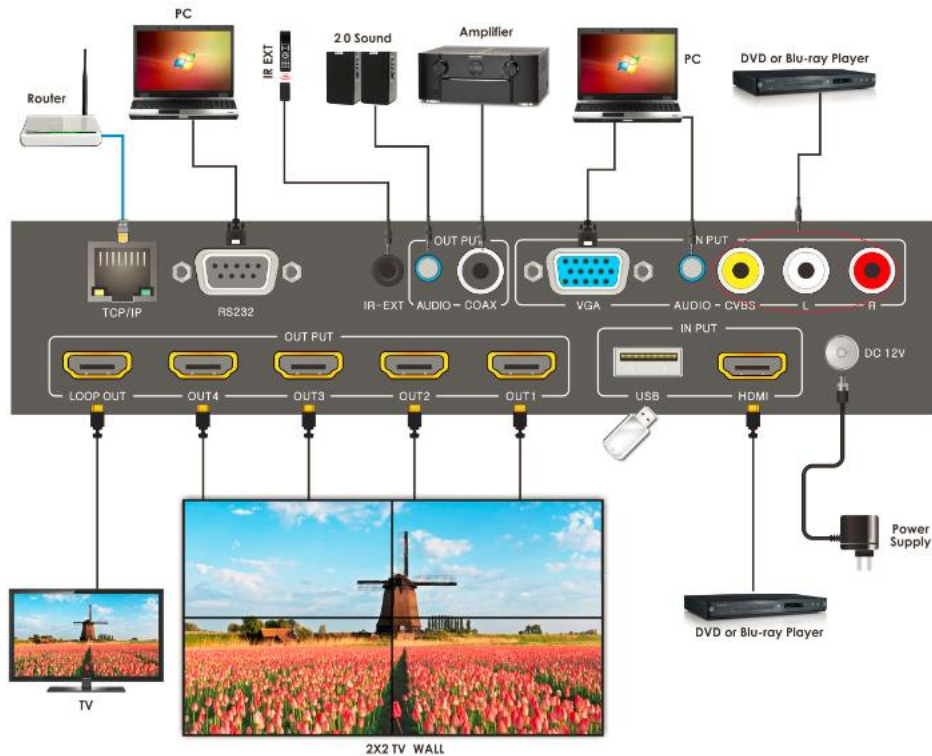
⑧ TV Wall output resolution selection.

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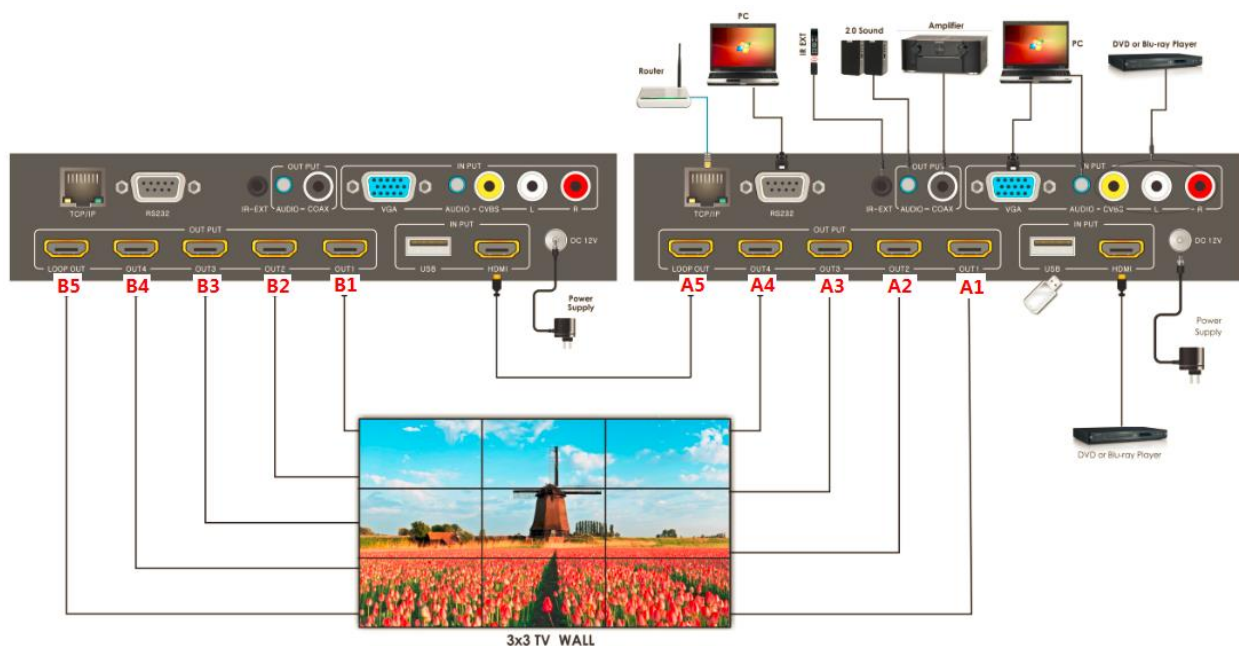
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5. Connection and Installation

● 2x2 TV Wall



● 3x3 TV Wall






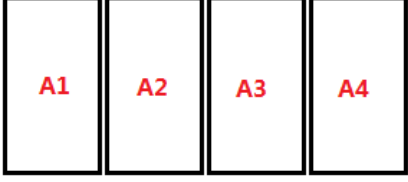



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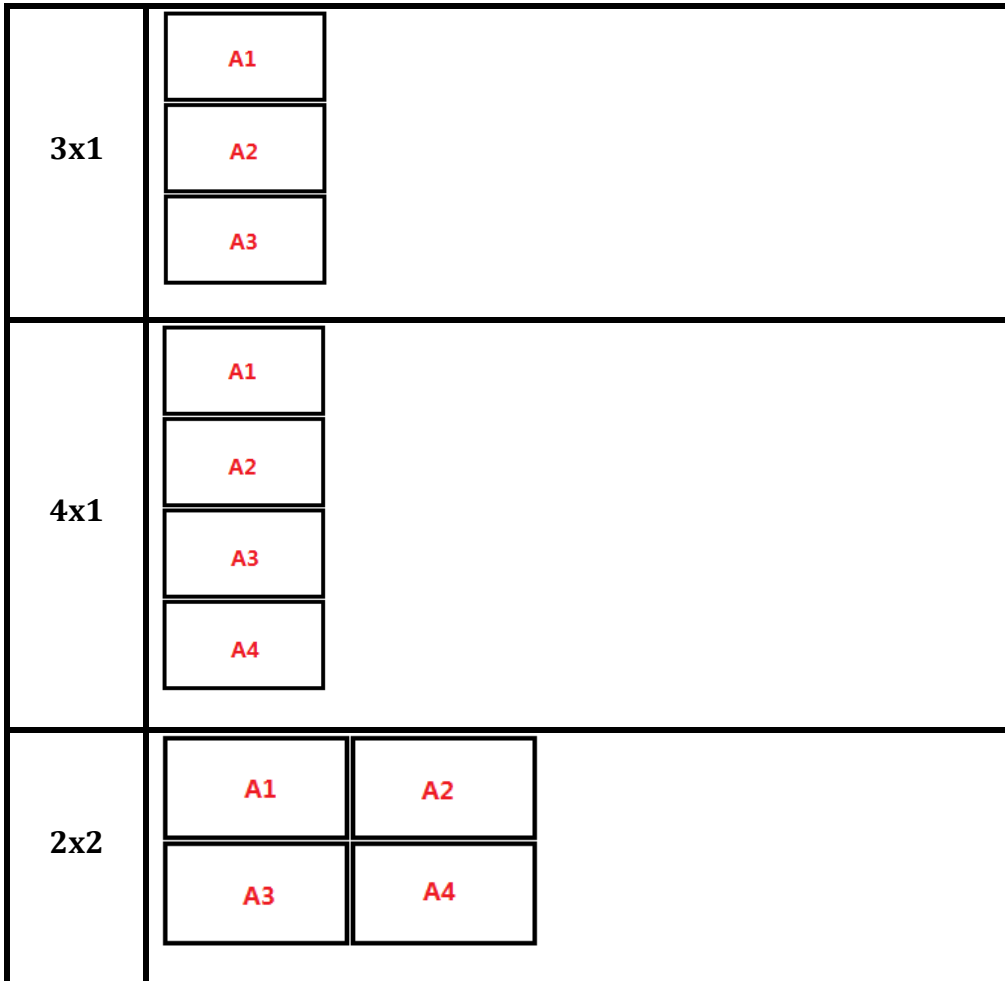


6. TV Wall connection sequence diagram

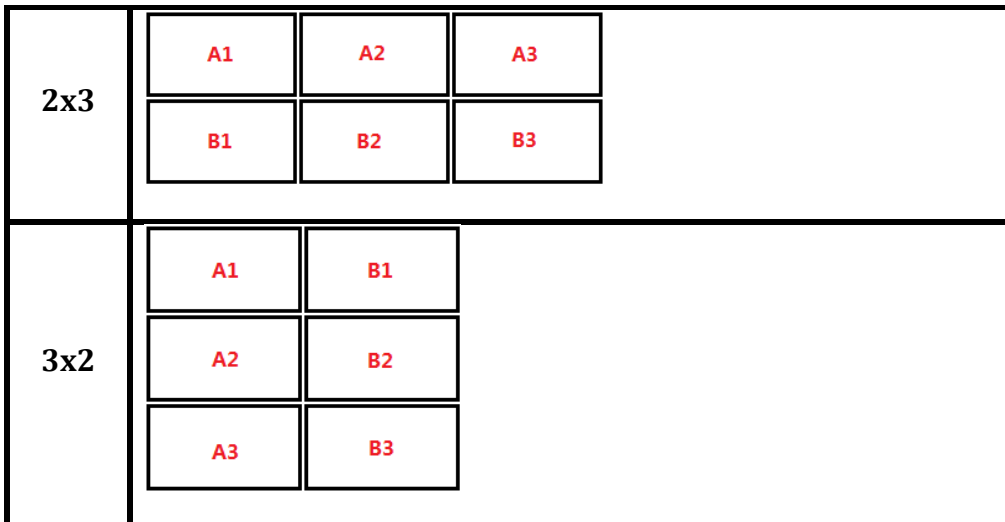
1x2(H)	
1x3(H)	
1x4(H)	
1x2(V)	
1x3(V)	
1x4(V)	
2x1	

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Cascade 2



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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	

8. TV Wall controller user guide

Installation:

The TV Wall controller is a green software. Just copy TVWallController.exe to PC which is used to control the TV Wall by RS232 COM port or TCP/IP to complete installation.

Preparation:

- Connect PC and TV Wall by RS232 cable (headers of both sides of cable should be FEMALE) or TCP/IP(local area network).
- Power-up TV Wall.
- Double click TVWallController.exe icon to run it.

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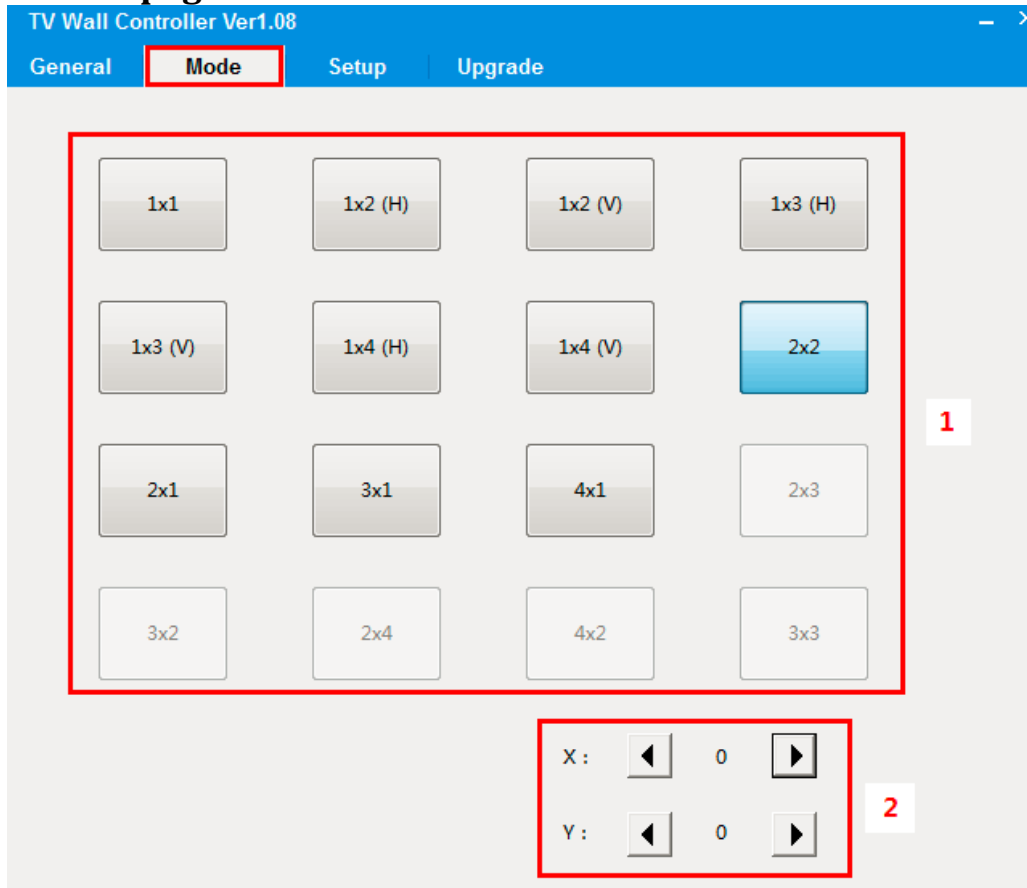
“General” page

1. Select RS232 COM or TCP mode.
2. Select RS232 COM port.
3. Click to connect or disconnect PC with TV Wall.
4. Select TV Wall IP.
5. Connect to TV Wall IP.
6. Search TV Wall IP.
7. Configure TV Wall IP and MAC address.
8. Click to reset to the 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;

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“Mode” page



1. TV Wall Mode selection.

2. TV Wall Picture Bezel correction adjustment.

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Figure 1 and Figure 2 will show you the difference between the original image and the image adjusted.



Figure 1 The Original Image



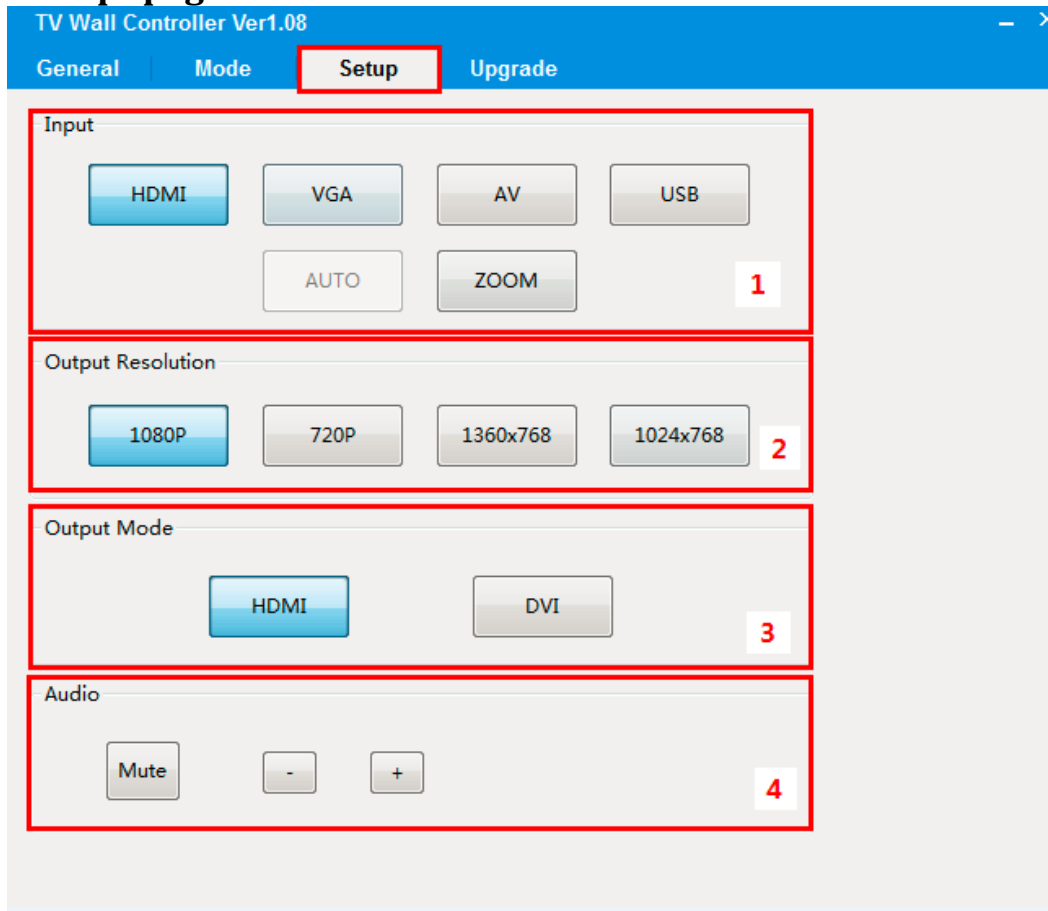
Figure 2 The Image Adjusted

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“Setup” page

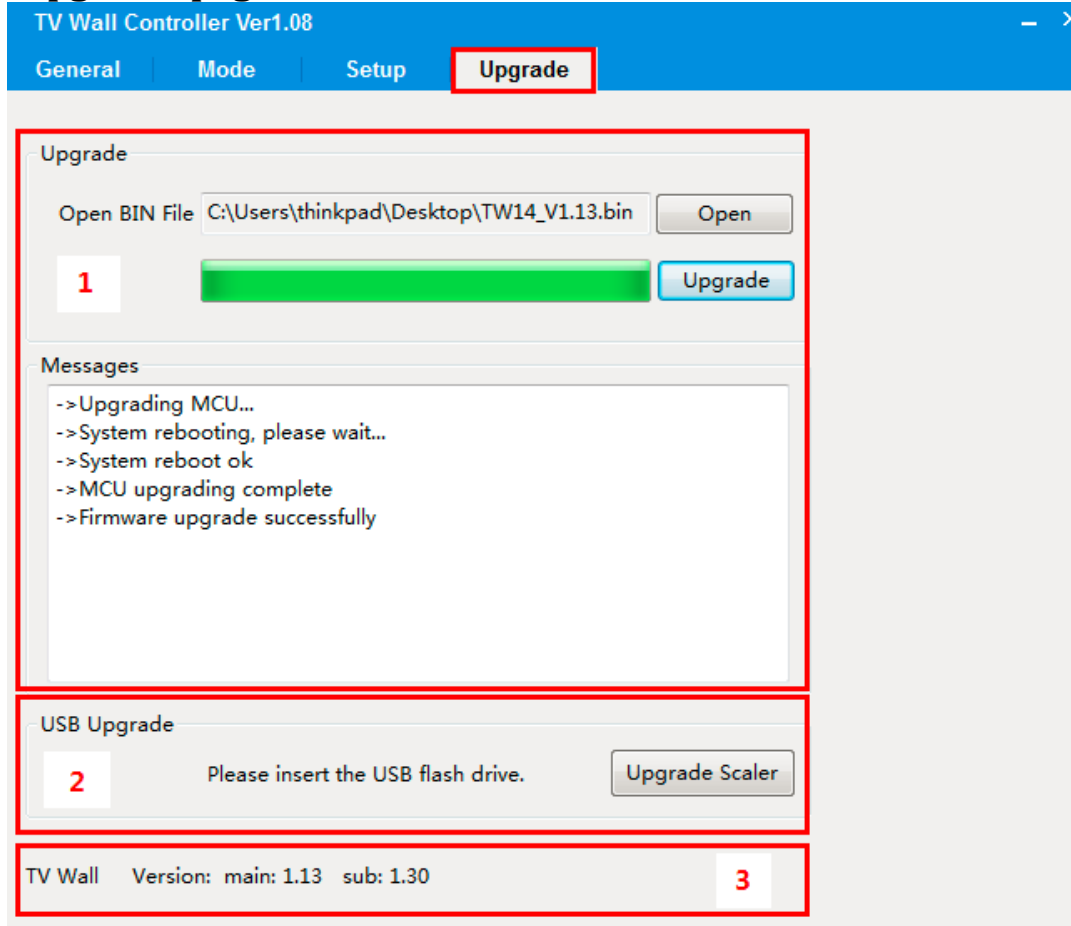


1. Input sources selection.
2. Output resolution selection.
3. Output mode selection.
4. Audio out volume adjustment.

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“Upgrade” page



The TV wall have two mcu (main and sub)can be upgraded.

1. Main mcu upgrade:

- Click to open FW file(file extension is “.bin”).
- Click to upgrade the Matrix software
- Display the message of the software upgrade process.

2.Sub mcu upgrade:

- Copy the sub mcu upgrade FW file to the USB flash drive.
- Insert the USB flash drive to the TV Wall USB port.
- click the “Upgrade Scaler” button to upgrade.

3.TV Wall software version.

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