

## WolfPack 2-Input & 4-Output Video Wall Controller with TV Rotation

**SKU: 2x4VW**



Version: V22.01

# Contents

<b>1. Introduction.....</b>	<b>4</b>
<b>2. Features.....</b>	<b>4</b>
<b>3. Specification.....</b>	<b>4</b>
<b>4. Packing.....</b>	<b>4</b>
<b>5. Panels.....</b>	<b>4</b>
5.1 Front Panel.....	4
5.2 Back Panel.....	4
<b>6. Operation diagram.....</b>	<b>4</b>
6.1 Connection diagram.....	5
<b>7. After sales .....</b>	<b>8</b>

## 1. Introduction

This WolfPack 2-Input & 4-Output Video Wall Controller with TV Rotation is designed to be a truly capture, AD convert, route, distribute all-format signal to the video wall(LCD displays), while maintaining a true digital signal. The controller with many different video interfaces, include 2 inputs(HDMI+DP) with up to 4K60 resolution and 4 HDMI outputs with 1080P resolution and 3.5mm audio output. Supports different Video Wall modes, 1x2, 1x3, 1x4, 2x2 etc, with the 4K input and 1080P output, it can realize the point to point(pixel to pixel) display. This controller can be controlled by remote control, front buttons and RS232 commands. .

## 2. Features

- Supports 2 inputs, resolution up to 4K60
- Outputs support image 90, 180 and 270 degrees rotation
- Supports 4 HDMI with 1080P60 resolution outputs
- Supports multiple splicing ways: 2x2, 1x4, 4x1, 1x3 ...
- Supports the splicing edge adjustment
- Supports HDMI 2.0, HDCP compatible
- Supports the IR remote, push-button control and RS232 commands

## 3. Specification

Product name	WolfPack 2-Input & 4-Output Video Wall Controller with TV Rotation
Control	Front buttons, remote control, RS232 commands
Input	1* HDMI, 1*DP
Output	4*HDMI, 1*3.5mm audio
Resolution	<b>Input:</b> 1920X1080,1920X2160,1920X3240,1920X4320,3840X1080,3840X2160,5760X1080, 7680X1080 <b>Output:</b> 1080P60Hz
Display splice mode	2x2, 1x4, 4x1, etc...
Power Supply	DC 12V3A
Power Consumption	10W
Dimension (WxHxD)	223*104*27mm
Weight	2.5KG/ 5.5lbs

Operating Temperature	-10°C to 50°C
Storage Temperature	-25°C to 55°C

## 4. Packing

TV Wall Controller	1	Unit
Power adapter	1	Pcs
Remote control	1	Pcs
Mount ears	1	Pair

## 5. Panels

### 5.1 Front Panel



**OFF/ON:** power switch

**IR:** for the IR remote control

**POWER:** power switch

**IN1:** The HDMI input indicator

**IN2:** The DP input indicator

**OUT1~4:** The 4 HDMI outputs indicators

**IN1:** For selecting the HDMI input

**IN2:** For selecting the DP input

**H+:** For the horizontal bezel increase

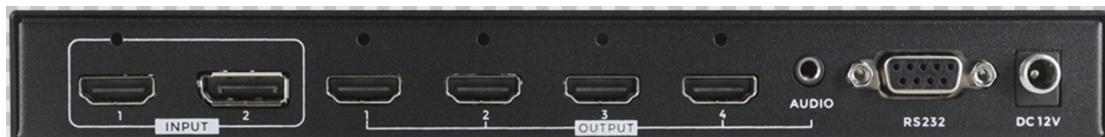
**H-:** For the horizontal bezel decrease

**V+:** For the vertical bezel increase

**V-:** For the vertical bezel decrease

**UPGRADE:** for the firmware upgrading

### 5.2 Back Panel



**INPUT:** 1 HDMI input, 2 DP (only one to output at time)

**OUTPUT:** 4 HDMI outputs to connect to displays

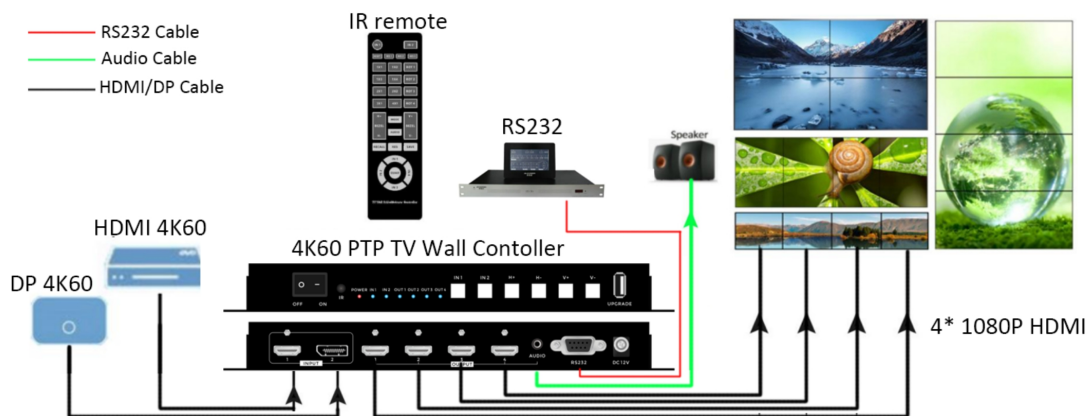
**AUDIO OUT:** for the audio de-embedded

**RS232:** female DB9 port for commands control

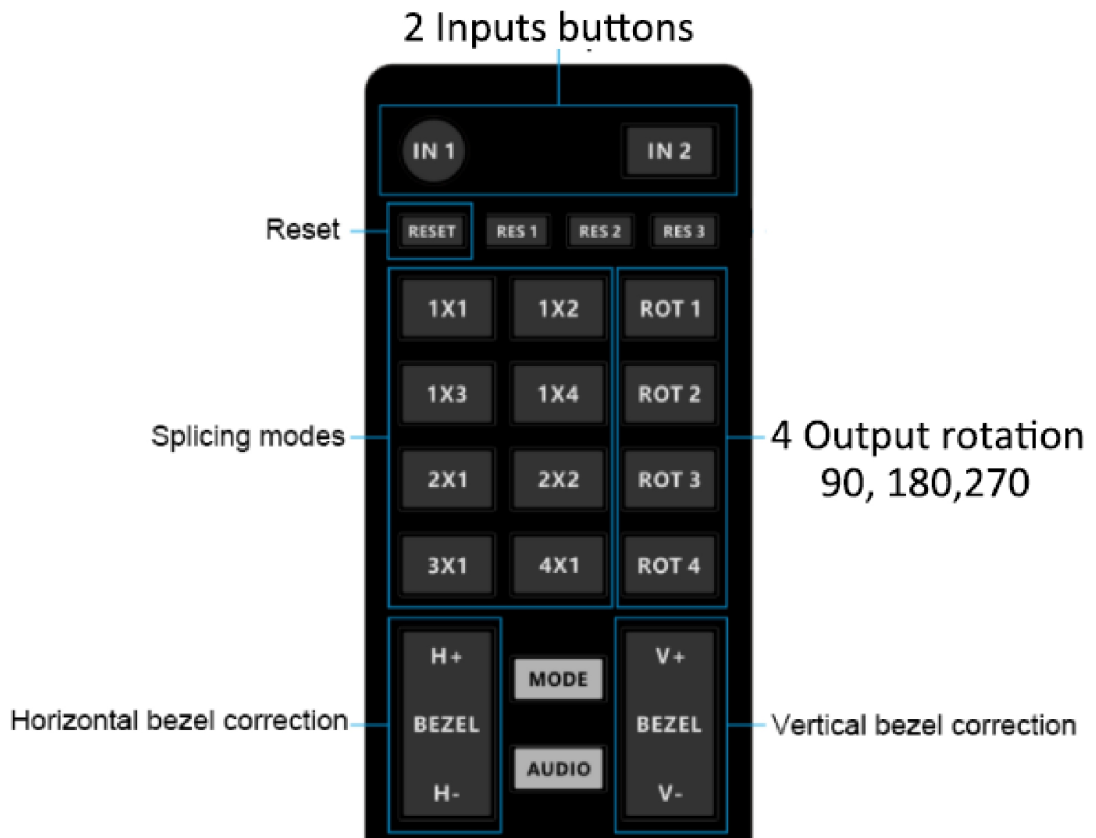
**DC 12V:** power supply

## 6. Diagram and control operations

### 6.1 Connection diagram



### 6.2 IR remote control



\* The other gray buttons on this remote control is for the HDMI multiviewer

**IN1, IN2:** when 2 inputs connected, users can press the IN1 for HDMI or IN2 for DP to output

**RESET:** Press to reset when want to reset the bezel correction, output ports flip/rotating.

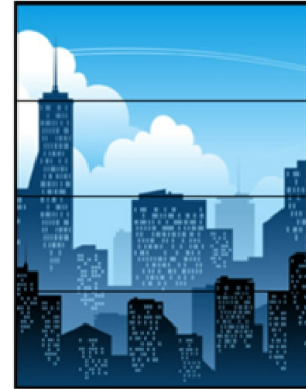
**SPlicing MODES:** quick setup buttons for users to set the video wall



2x1 mode  
(1920x2160)



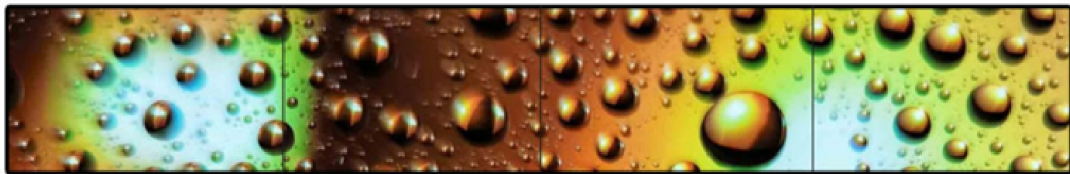
3x1 mode  
(1920x3240)



4x1 mode  
(1920x4320)



1x3 mode (5760x1080)



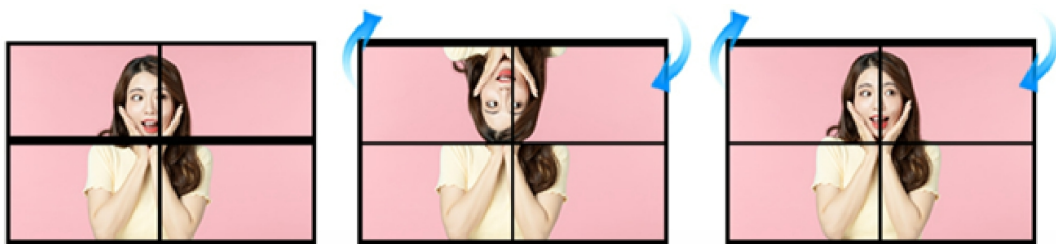
1x4 mode, resolution up to 7680x1080

**ROT1:** For HDMI output 1 flipping, need to press reset button when want the normal display.

**ROT2:** For HDMI output 2 flipping, need to press reset button when want the normal display.

**ROT3:** For HDMI output 3 flipping, need to press reset button when want the normal display.

**ROT4:** For HDMI output 4 flipping, need to press reset button when want the normal display.



Before Flipping

TV Flipped

Image Flipping

**BEZEL H+, H-:** For the video wall horizontal bezel corrections(Reset button to back or 100 hits)

**BEZEL V+, V-:** For the video wall vertical bezel corrections(Reset button to back or 100 hits)



Before bezel corrections  
(image is out of shape)

After bezel corrections  
(image is perfect)

### 6.3 RS232 commands control

**Factory default:** EB 90 00 12 00 ff 21 00 00 00 00 00 00 00 00 00 00

**Output standard resolution:**

EB 90 00 12 00 ff 23 00 00 00 00 00 00 00 00 00 00 //1920x1080@60

EB 90 00 12 00 ff 23 14 00 00 00 00 00 00 00 00 00 //1920x1080@30

EB 90 00 12 00 ff 23 02 00 00 00 00 00 00 00 00 00 //1920x1200@60

**Customize output resolution:** H<=2048, V<=2048, Hz<=170M

EB 90 00 12 00 ff 23 FF 00 00 00 00 00 00 00 00 00

Red for H, blue for V, Orange for Hz

Eg1.: 1920X1080@60

EB 90 00 12 00 ff 23 FF 07 80 04 38 3C 00 00 00 00 00 //1920x1080@60

Eg 2: 2000 X 1000@60

EB 90 00 12 00 ff 23 FF 07 D0 03 E8 3C 00 00 00 00 00 //2000x1000@60

**Recall Presets:**

EB 90 00 12 00 ff 2E 00 00 00 00 00 00 00 00 00 00 // Recall Preset 1

EB 90 00 12 00 ff 2E 01 00 00 00 00 00 00 00 00 00 // Recall Preset 2

EB 90 00 12 00 ff 2E 02 00 00 00 00 00 00 00 00 00 // Recall Preset 3

EB 90 00 12 00 ff 2E 03 00 00 00 00 00 00 00 00 00 // Recall Preset 4

EB 90 00 12 00 ff 2E 04 00 00 00 00 00 00 00 00 00 // Recall Preset 5

EB 90 00 12 00 ff 2E 05 00 00 00 00 00 00 00 00 00 // Recall Preset 6

EB 90 00 12 00 ff 2E 06 00 00 00 00 00 00 00 00 00 // Recall Preset 7

EB 90 00 12 00 ff 2E 07 00 00 00 00 00 00 00 00 00 // Recall Preset 8

EB 90 00 12 00 ff 2E 08 00 00 00 00 00 00 00 00 00 // Recall Preset 9

EB 90 00 12 00 ff 2E 09 00 00 00 00 00 00 00 00 00 // Recall Preset 10

**Save Presets:**

EB 90 00 12 00 ff 2F 00 00 00 00 00 00 00 00 00 00 // Save Preset 1

EB 90 00 12 00 ff 2F 01 00 00 00 00 00 00 00 00 00 // Save Preset 2

EB 90 00 12 00 ff 2F 02 00 00 00 00 00 00 00 00 00 // Save Preset 3

EB 90 00 12 00 ff 2F 03 00 00 00 00 00 00 00 00 00 // Save Preset 4

EB 90 00 12 00 ff 2F 04 00 00 00 00 00 00 00 00 00 // Save Preset 5

EB 90 00 12 00 ff 2F 05 00 00 00 00 00 00 00 00 00 // Save Preset 6

EB 90 00 12 00 ff 2F 06 00 00 00 00 00 00 00 00 00 // Save Preset 7

EB 90 00 12 00 ff 2F 07 00 00 00 00 00 00 00 00 00 // Save Preset 8

EB 90 00 12 00 ff 2F 08 00 00 00 00 00 00 00 00 00 // Save Preset 9

EB 90 00 12 00 ff 2F 09 00 00 00 00 00 00 00 00 00 // Save Preset 10

**TV Wall Working modes:**

EB 90 00 12 00 ff 32 00 00 00 00 00 00 00 00 00 00 // Mode1 1x1

EB 90 00 12 00 ff 32 01 00 00 00 00 00 00 00 00 00 00 // Mode2 1x2  
EB 90 00 12 00 ff 32 02 00 00 00 00 00 00 00 00 00 // Mode 3 2x1  
EB 90 00 12 00 ff 32 03 00 00 00 00 00 00 00 00 00 // Mode 4 1x3  
EB 90 00 12 00 ff 32 04 00 00 00 00 00 00 00 00 00 // Mode5 3x1  
EB 90 00 12 00 ff 32 05 00 00 00 00 00 00 00 00 00 // Mode 6 1x4  
EB 90 00 12 00 ff 32 06 00 00 00 00 00 00 00 00 00 // Mode 7 4x1  
EB 90 00 12 00 ff 32 07 00 00 00 00 00 00 00 00 00 // Mode8 2x2

**Input Standard EDID setting:**

EB 90 00 12 00 ff 26 00 00 00 00 00 00 00 00 00 00 // Both inputs to 1080P60  
EB 90 00 12 00 ff 26 00 00 01 01 00 00 00 00 00 00 00 // Both inputs to 4k30  
EB 90 00 12 00 ff 26 00 00 02 02 00 00 00 00 00 00 00 // Both inputs to 4k60

**Input Customize EDID setting:**

EB 90 00 12 00 ff 24 02 04 38 05 EC 3C 00 00 00 00 00 00 // HDMI switch to 1080x1516x60  
EB 90 00 12 00 ff 24 03 04 38 05 EC 3C 00 00 00 00 00 00 // DP switch to 1080x1516x60

**Inputs switching**

EB 90 00 12 00 ff 31 02 00 00 00 00 00 00 00 00 00 // Switch to input 1 HDMI  
EB 90 00 12 00 ff 31 03 00 00 00 00 00 00 00 00 00 // Switch to input 2 DP

**Image freeze and unfreeze**

EB 90 00 12 00 ff 2A 00 00 00 00 00 00 00 00 00 00 // unfreeze  
EB 90 00 12 00 ff 2A 01 00 00 00 00 00 00 00 00 00 // freeze

**Outputs rotation:**

EB 90 00 12 00 ff 34 00 00 00 00 00 00 00 00 00 00 //OUT1 ROT 0  
EB 90 00 12 00 ff 34 00 01 00 00 00 00 00 00 00 00 //OUT1 ROT 90  
EB 90 00 12 00 ff 34 00 05 00 00 00 00 00 00 00 00 //OUT1 ROT 180  
EB 90 00 12 00 ff 34 00 02 00 00 00 00 00 00 00 00 //OUT1 ROT 270  
EB 90 00 12 00 ff 34 01 00 00 00 00 00 00 00 00 00 //OUT2 ROT 0  
EB 90 00 12 00 ff 34 01 01 00 00 00 00 00 00 00 00 //OUT2 ROT 90  
EB 90 00 12 00 ff 34 01 05 00 00 00 00 00 00 00 00 //OUT2 ROT 180  
EB 90 00 12 00 ff 34 01 02 00 00 00 00 00 00 00 00 //OUT2 ROT 270  
EB 90 00 12 00 ff 34 02 00 00 00 00 00 00 00 00 00 //OUT3 ROT 0  
EB 90 00 12 00 ff 34 02 01 00 00 00 00 00 00 00 00 //OUT3 ROT 90  
EB 90 00 12 00 ff 34 02 05 00 00 00 00 00 00 00 00 //OUT3 ROT 180  
EB 90 00 12 00 ff 34 02 02 00 00 00 00 00 00 00 00 //OUT3 ROT 270  
EB 90 00 12 00 ff 34 03 00 00 00 00 00 00 00 00 00 //OUT4 ROT 0  
EB 90 00 12 00 ff 34 03 01 00 00 00 00 00 00 00 00 //OUT4 ROT 90  
EB 90 00 12 00 ff 34 03 05 00 00 00 00 00 00 00 00 //OUT4 ROT 180  
EB 90 00 12 00 ff 34 03 02 00 00 00 00 00 00 00 00 //OUT4 ROT 270  
EB 90 00 12 00 ff 35 00 00 00 00 00 00 00 00 00 00 //OUT1~OUT4 ROT 0  
EB 90 00 12 00 ff 35 01 01 01 01 00 00 00 00 00 00 00 //OUT1~OUT4 ROT 90  
EB 90 00 12 00 ff 35 05 05 05 05 00 00 00 00 00 00 00 //OUT1~OUT4 ROT 180  
EB 90 00 12 00 ff 35 02 02 02 02 00 00 00 00 00 00 00 //OUT1~OUT4 ROT 270  
EB 90 00 12 00 ff 35 00 01 05 02 00 00 00 00 00 00 00 //OUT1~OUT4 ROT 0~270

**Output image setting**

EB 90 00 12 00 ff 2B FF 00 80 80 80 00 00 00 00 00 00 //RGB 128 (Default)  
EB 90 00 12 00 ff 2B FF 00 32 32 32 00 00 00 00 00 00 //RGB 50  
EB 90 00 12 00 ff 2B FF 01 32 80 80 00 00 00 00 00 00 //Contrast 50  
EB 90 00 12 00 ff 2B FF 01 19 80 80 00 00 00 00 00 00 //Contrast 25

**Bezel correction setting(from 0~100)**

EB 90 00 12 00 ff 40 00 00 00 00 00 00 00 00 00 00 //H0  
EB 90 00 12 00 ff 40 00 05 00 00 00 00 00 00 00 00 //H0.005  
EB 90 00 12 00 ff 40 00 0A 00 00 00 00 00 00 00 00 //H0.01  
EB 90 00 12 00 ff 40 00 14 00 00 00 00 00 00 00 00 //H0.02  
EB 90 00 12 00 ff 40 00 1E 00 00 00 00 00 00 00 00 //H0.03  
EB 90 00 12 00 ff 40 00 28 00 00 00 00 00 00 00 00 //H0.04



EB 90 00 12 00 ff 40 00 32 00 00 00 00 00 00 00 00 //H0.05  
.....  
EB 90 00 12 00 ff 40 00 00 00 00 00 00 00 00 00 //V0  
EB 90 00 12 00 ff 40 00 05 00 00 00 00 00 00 00 //V0.005  
EB 90 00 12 00 ff 40 00 0A 00 00 00 00 00 00 00 //V0.01  
EB 90 00 12 00 ff 40 00 14 00 00 00 00 00 00 00 //V0.02  
EB 90 00 12 00 ff 40 00 1E 00 00 00 00 00 00 00 //V0.03  
EB 90 00 12 00 ff 40 00 28 00 00 00 00 00 00 00 //V0.04  
EB 90 00 12 00 ff 40 00 32 00 00 00 00 00 00 00 //V0.05

## 7. After-Sales

### 7.1 Warranty Information

The Company warrants that the process and materials of the product are not defective under normal use and service for 2 (2) years following the date of purchase from the Company or its authorized distributors.

If the product does not work within the guaranteed warranty period, the company will choose and pay for the repair of the defective product or component, the delivery of the equivalent product or component to the user for replacement of the defective item, or refund the payment which users have made.

The replaced product will become the property of the Company.

The replacement product could be new or repaired.

Whichever is longer, any replacement or repaired of the product or component is for a period of ninety (90) days or the remaining period of the initial warranty. The Company shall not be responsible for any software, firmware, information, or memory data contained in, stored in, or integrated with the product repaired by the customer's return, whether or not during the warranty period.

### 7.2 Warranty limitations and exceptions

Except above limited warranty, if the product is damaged by over usage, incorrectly use, ignore, accident, unusual physical pressure or voltage, unauthorized modification, alteration or services rendered by someone other than the Company or its authorized agent, the company will not have to bear additional obligations. Except using the product properly in the proper application or normal usage