

Model : ATZ HDMI-31-ROBOX
Description: 2x HDMI, 1x DP rotation box: 90°/180°/270°/ left-right mirroring / up-down mirroring.



Features:

- This product is a high-definition picture rotating box specifically designed for LCD TVs, ultra narrow edge LCD screens, and projectors. It can be connected to LCD TVs or other display devices and rotated at various angles according to user needs.
- It supports 2-channel HDMI (1.4 and 2.0), DP(1.4) signals input.
- The product can be cascaded to achieve a maximum of 255 signal outputs.

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- The product adopts a high-definition processing chip, supporting 1080P, 4K signal input and 1080P signal output.
- The product is designed with an infrared remote control, allowing users to quickly and fully control the rotator with just one click, making it simple and convenient to expand its functions.
- Simultaneously supporting 2 HDMI and 1 DP inputs, all input signals can be switched to the large screen for rotating display.
- Supports audio input and output, and supports synchronous output of audio and corresponding video.
- Supports flipping of any screen at 90 degrees, 180 degrees, 270 degrees, left and right mirroring, and up and down mirroring.
- Support remote control for remote operation, all functions of setting, switching, and adjusting the vertical rotation box can be completed on the infrared remote control; The remote control adopts an ultra sensitive design, supporting direct mode switching of the numeric keys 0-9 on the remote control, which is convenient and easy.
- Support window mode, 1P, 2PLR, 2PTR, PIP, 4P mode display, support multiple input signals to be spliced and displayed in window mode, this function cannot be used for rotation mode.
- Support intelligent temperature control protection technology, making the product's heat dissipation performance more stable, reliable, and durable.
- Support trimming black edge technology, which can achieve the display of black edges without black edges around the image.
- Support horizontal 0 ° and vertical 90 ° irregular splicing, combined to create a super large and arbitrary wall curtain.

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Specifications:

name	parameter	specifications
incoming signal	HDMI1 Signal	HDMI 1.4 HDMI embedded audio, support from 640x480 to 3840 x 2160 @ 30 hz;
	HDMI2 Signal	HDMI 2.0 HDMI embedded audio, support from 640x480 to 3840 x 2160 @ 60 hz;
	DP signal	DP1.2 DP embedded audio, support for 640x 480 to 3840 x 2160 @ 60 hz;
output signal	HDMI signal	The maximum resolution supports 1920x1080 / 60 HZ;
Audio output	audio frequency	3.5 Audio interface, support synchronous switching of left and right sound channel stereo, audio and video signals;
other	control method	Infrared remote control
	supply electricity	DC12V - 2A
	Splicing mode	not have
	power dissipation	10W
Case specifications	size	170mm (length) * 130mm (width) * 30mm (height)
	weight	0.6Kg

Interface Description:






INPUT		OUTPUT	
DC 12V:	power interface	HDMI :	HDMI Output
HDMI 1 :	HDMI 1 input		
HDMI 2 :	HDMI 2 input	AUDIO :	3.5mm Audio Output
DP:	DP input		
RS232 IN:	Serial ports	RS232 OUT:	Serial port output

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Remote control button instructions:

OFF	Power off option
ON	Power on option
DP	DP signal
DVI	HDMI 1 signal
HDMI	HDMI2 signal
	Volume decrease
	Volume increase
	Image rotation
SW/SP	No function
INPUT	Switch signal source menu
←	Left menu options
→	Right menu options
↑	up menu options
↓	downt menu options
OK	confirm
MENU	Menu Options/Return to Previous Level
EXIT	Exit Options
MUTE	Mute option
UPGRADE	NO FUNCTION
Number keys 1-9	Mode retrieval



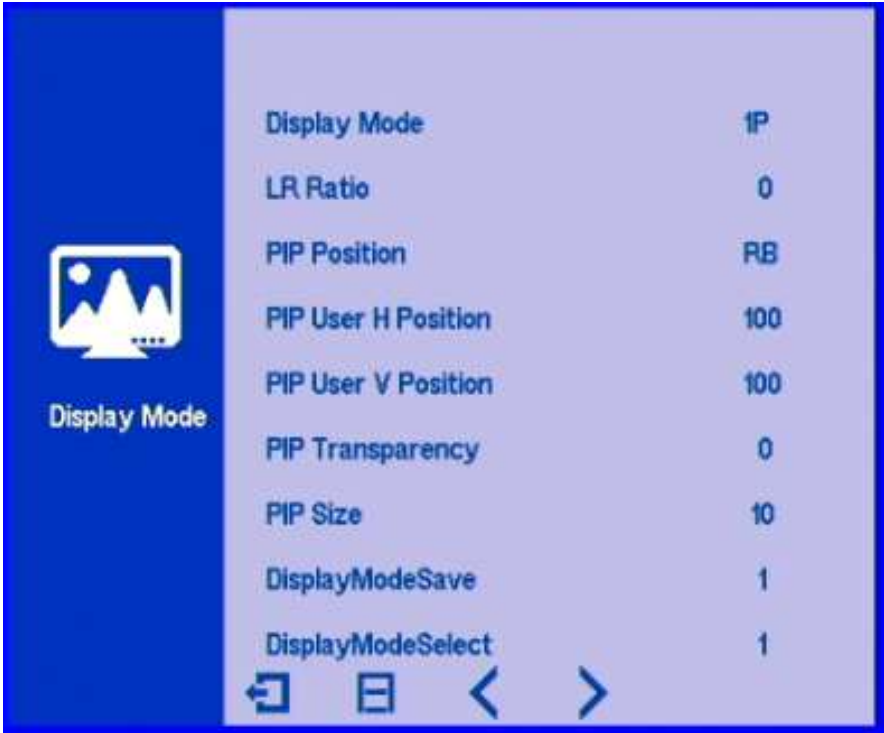
Function Description:

1. Window opening setting mode

A、 Press the MENU+left and right keys on the panel to enter the window mode, press the up and down keys to select the window mode, and press the OK key to confirm the selected mode. The window mode displays 1P, 2PLR, 2PTB, PIP, and 4P modes

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B、Enter PIP mode and press OK to confirm



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C. Press the INPUT+left and right buttons on the remote control to switch the first screen signal to HDMI 1. Press the OK button to select the first window, so that the icon runs into the switching signal. Press the left and right buttons to adjust to the desired signal and press OK to confirm.



D. LT can be switched in PIP window mode, RT, LB, RB, MIDDERR, USER window modes can be switched left and right by pressing the remote control.



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E. The PIP window mode can adjust the horizontal and vertical positions of the PIP user in the USER mode, and the horizontal size of the screen can be adjusted by pressing the remote control left and right.

F. Press the left and right keys to adjust the size of the PIP window.

G. Window mode in 2PLR mode - enter left window settings - adjust the value size - press OK key to confirm.

2. Mode preset save

Save current display: Users can save the set image mode and signal input status to 1-9 modes, press the left and right keys to select 1-9 modes, and press the OK key to save. This way, the next time they turn on, they can directly press the remote control digital shortcut key to switch to the previously saved mode.

3. Main menu description

A、Image menu: Adjust brightness, chromaticity, contrast.



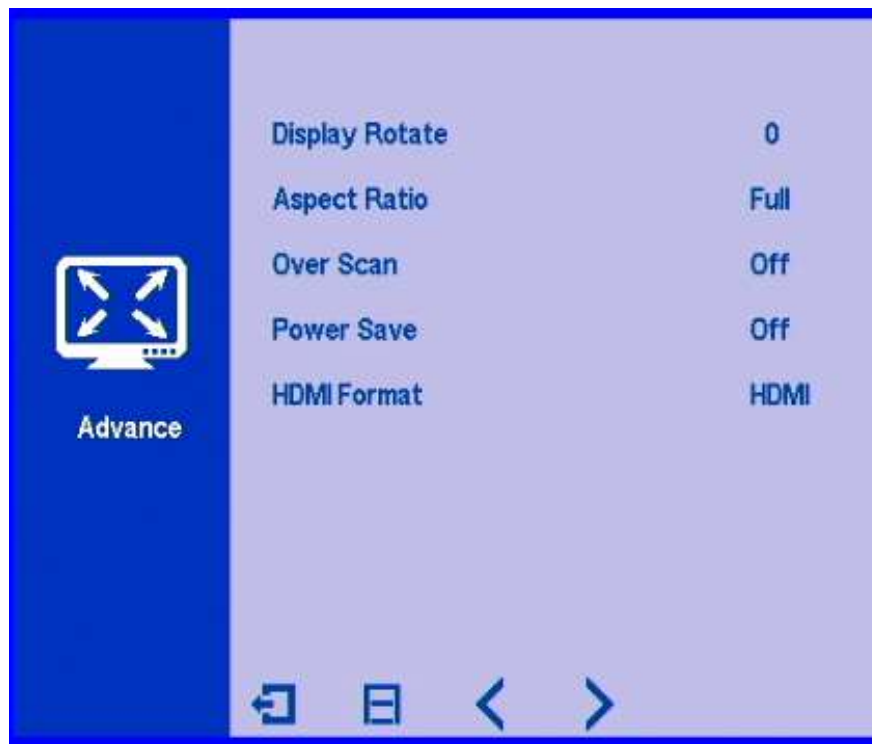
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B、Purchase price menu:

Image rotation, adjust screen ratio mode, automatic sleep mode; Image rotation: It can be rotated 90 degrees, 180 degrees, 270 degrees, mirrored left and right, and flipped up and down.

Proportional mode: Supports 16:9, 4:3, 5:4, 1:1.。



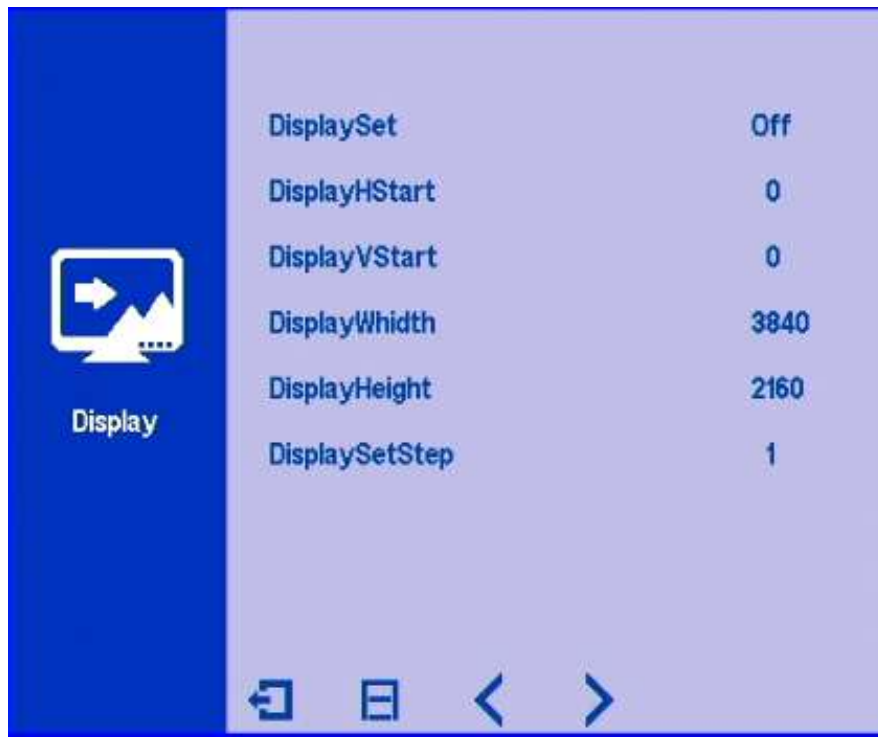
C、Settings menu: Set language, restore factory settings



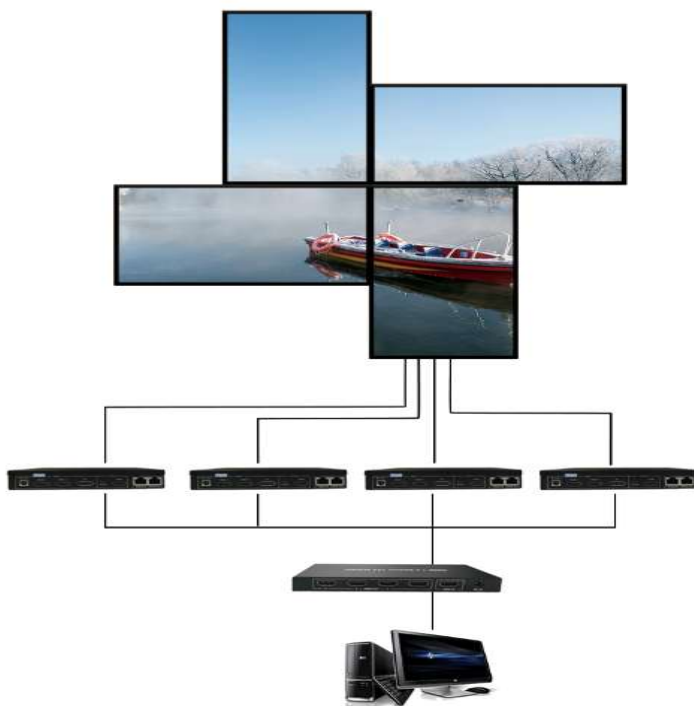
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4、Crop black border function: adjust horizontal and vertical positions, set image width and height



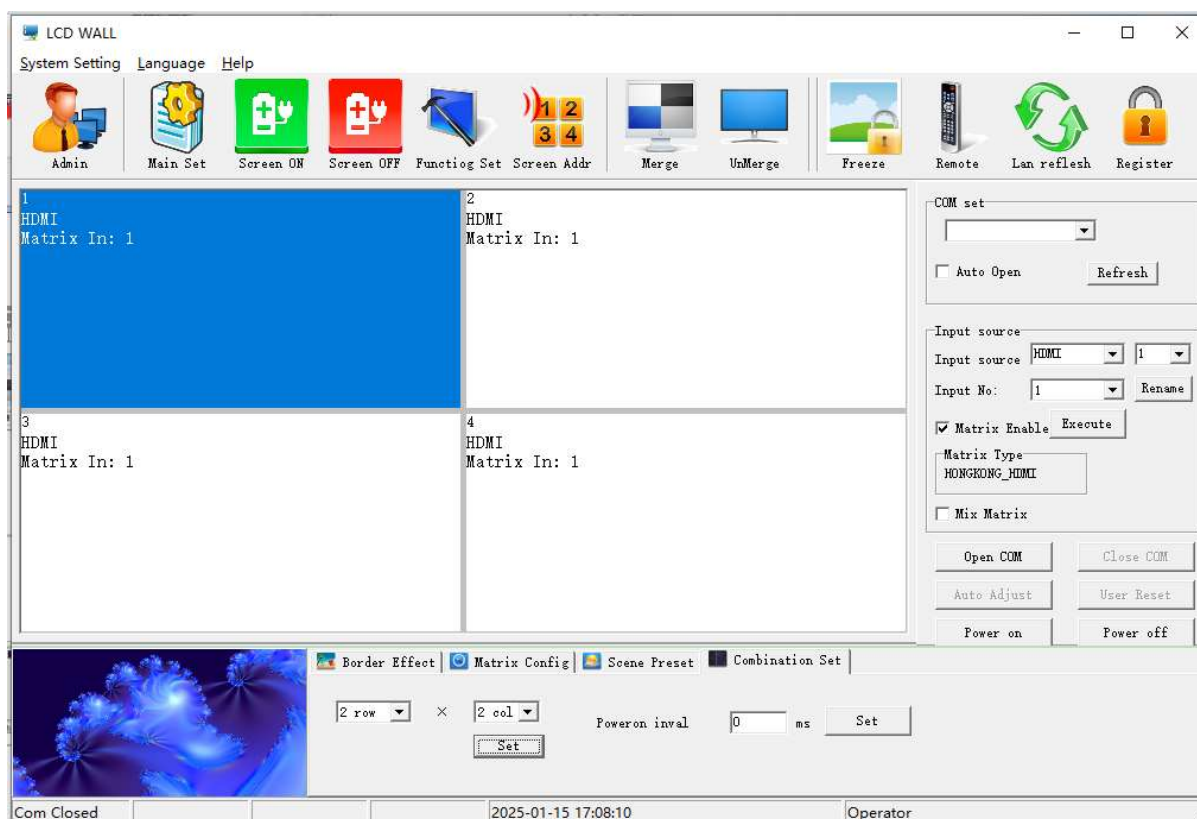
Alien splicing and setting



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1. Alien splicing is the process of calculating the display area of each screen by adjusting the pixel positions or screen overlay sizes, and then fusing and splicing to complete the splicing setting.
2. Connect the upper computer and machine serial port for easy computer operation and setup.
3. Open the large screen splicing display system
4. Set the curtain wall address, corresponding to each screen number. The screen number starts from the top right corner screen and is set in sequence for each line. After completing the settings, open the function settings



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5、Open Irregular Splicing: Open

IPAD V

IPAD H

IPHONE V

IPHONE H

Close

Screen Saver

☐ Off ☐ On

Power on LOGO

☐ Off ☐ On

Picture Rotate

☐ 0 ☐ 270

☐ 180 ☐ LR MIR

☐ 90 ☐ UPD_MIR

Irregular Merge

☐ Off ☐ On

Licence Warning

☐ Off ☐ On

Time Display

☐ Off ☐ On

Picttrue Effect

☐ Mod1 ☐ Mod2

Matrix only serial rate:

9600

Set

Version

Update Time

serial must restart after changing rate

Timer

Timer Mode

Off

Power off

00

Hour

00

Minute

Timer Mode

Off

Power on

00

Hour

00

Minute

Set

HDMI/DVI Signal Strengthen

Off

On

HDMI/DVI Extend

Off

On

Control mode

☐ Command Control

☐ Net Control

Server Set

IP Addr Set

192.168.16.254

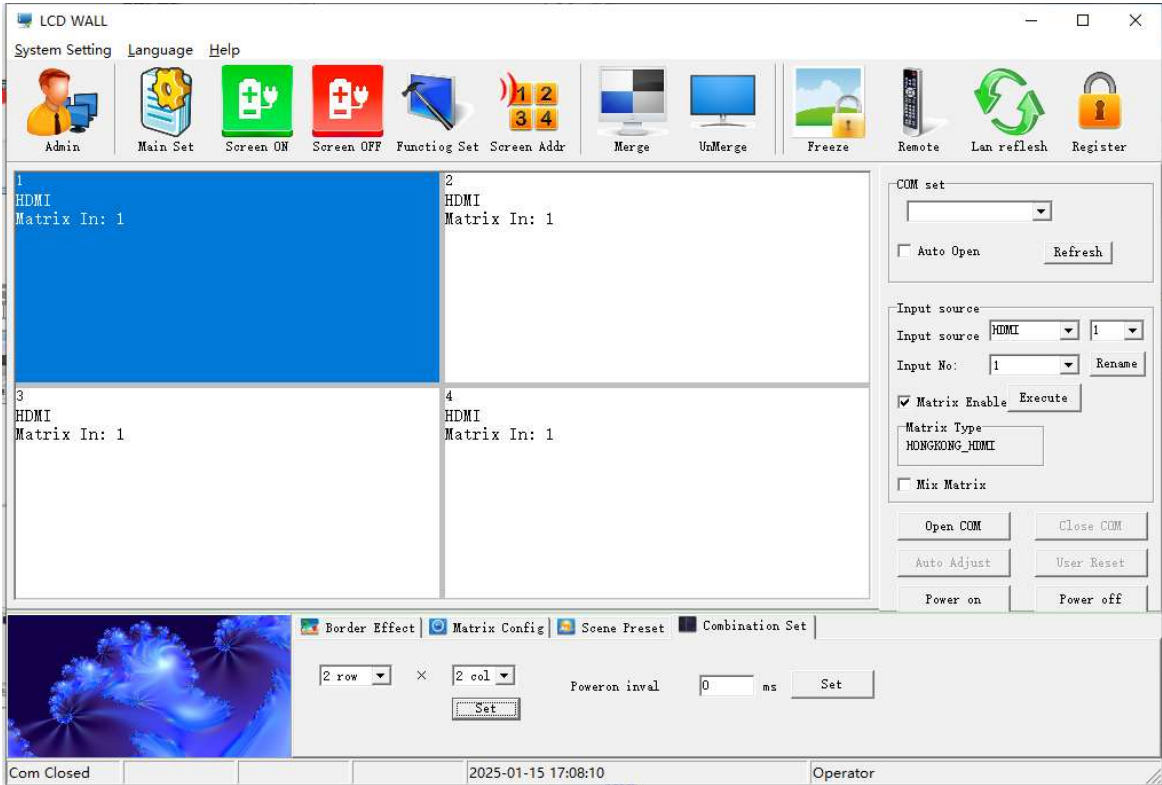
Connect

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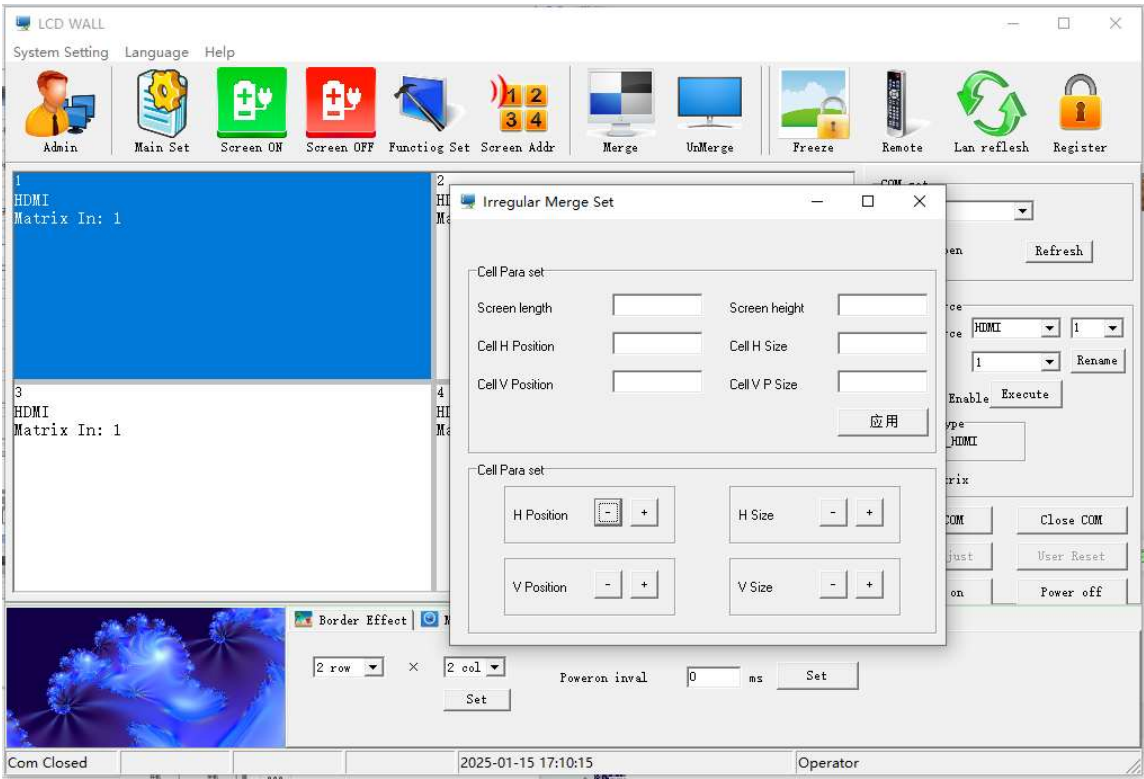
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6、Select the first screen area and right-click with the mouse



7、Select Irregular Splicing ->Any Splicing Settings



Notes: - All brand names and trademarks are properties of their respective holders and are referred to here for descriptive purpose only. Photo attached is for reference only, it may be slightly varied in items of colour, shape from the actual item delivered from time to time.

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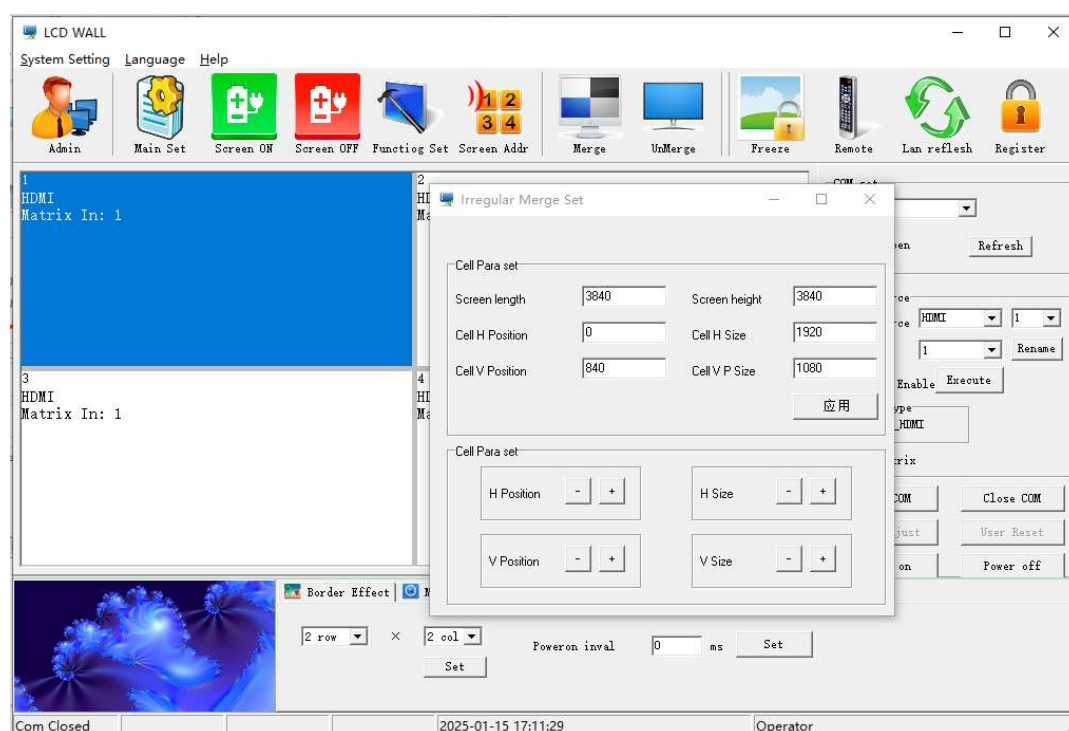
8、Set up irregular stitching with the following image style (reference)



Firstly, we know that it is an irregular splicing of 4 screens, so the software splicing mode is set to 2x2

①The first screen

1. Set the first screen
2. Set numerical values, calculate pixel positions, and set the screen display area
3. Settings completed ->Application, the first screen is already set up

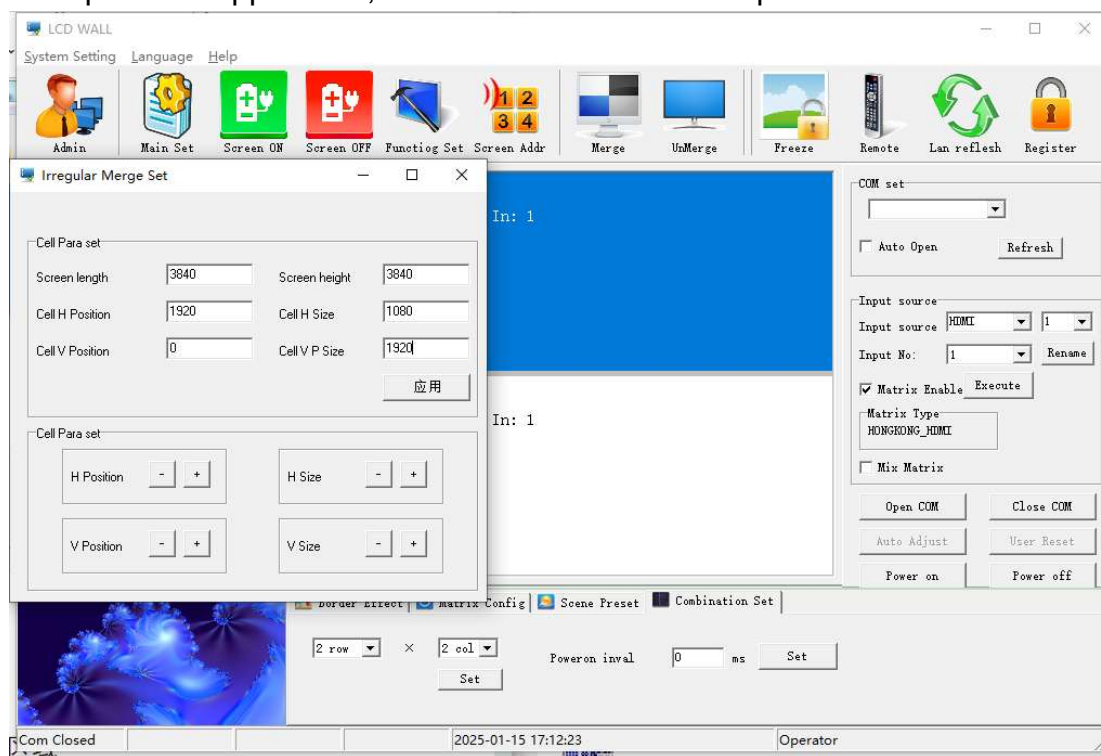


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② Second screen

1. Set the second screen
2. Set numerical values, calculate pixel positions, and set the screen display area
3. Settings completed ->Application, the second screen is set up

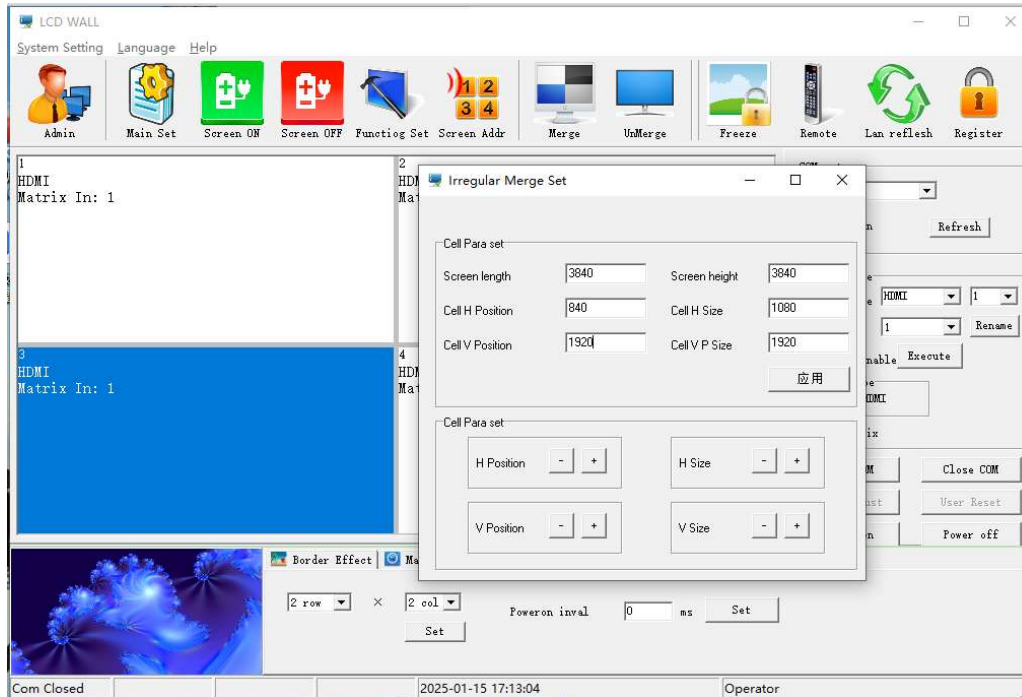


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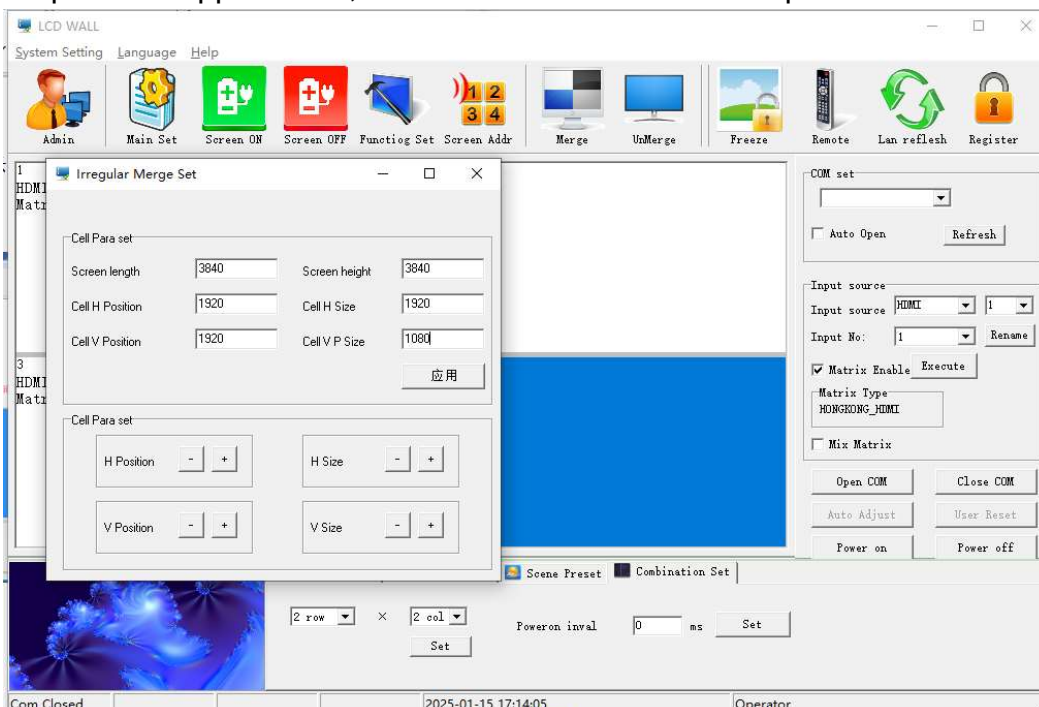
③ The third screen

1. Set the third screen
2. Set numerical values, calculate pixel positions, and set the screen display area
3. Settings completed -> Application, the third screen is set up



④ The fourth screen

1. Set the fourth screen
2. Set numerical values, calculate pixel positions, and set the screen display area
3. Settings completed -> Applications, the fourth screen is now set up



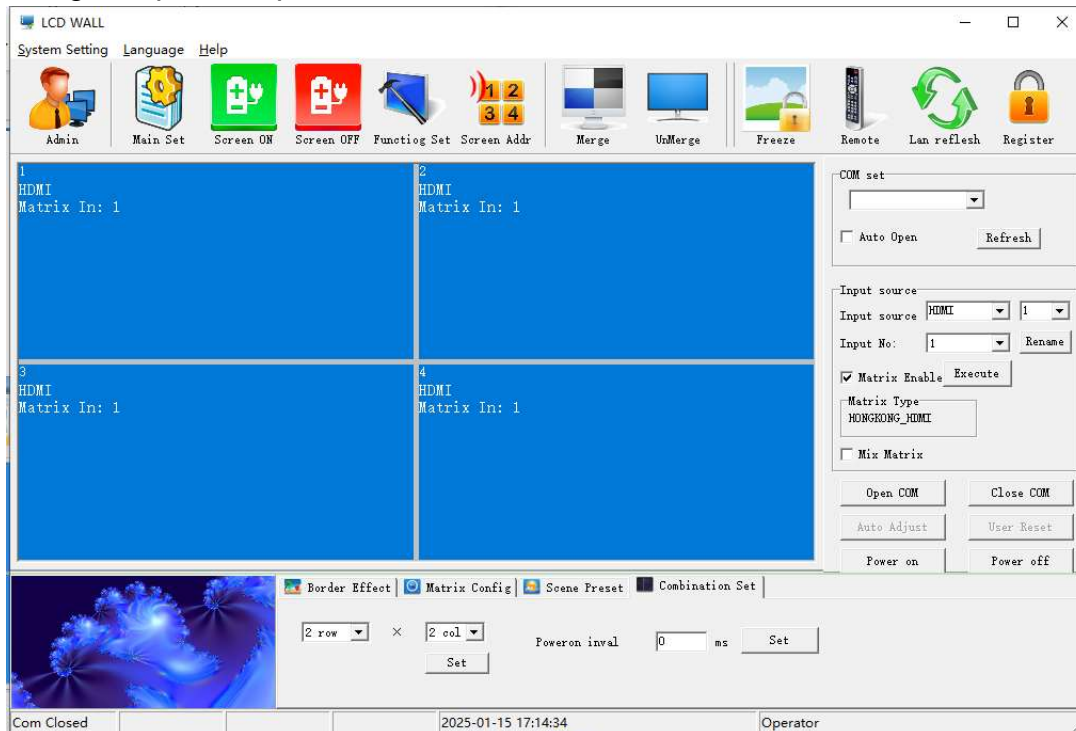
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9、 After setting up the four screens, exit any splicing settings

1. Left click on four screens and drag them to the selected state

2. Point stitching completion operation



Part 9. Common problems and solutions

After the wiring is completed and the startup work is started, the screen keeps displaying "no signal"

1. Please check if the signal cable on the device is properly plugged in.
2. Try restarting the device to re capture the signal.
3. Try replacing the signal cable.
4. Did the signal switch correctly.

When there is no response when using the remote control to remotely operate the vertical screen box

1. Check if the remote control is abnormal and if there is a battery.
2. Check if the distance is too far and if there are any obstacles in the middle.

·After completing the wiring and starting the splicing, it was found that the screen did not rotate

1. Check if the rotation setting in the menu settings is correct.

After completing the wiring and starting the splicing, it was found that the image was very blurry/blurred screen with ghosting

1. Check if the input and output signal lines are normal.
2. Check if the display device is working properly

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Precautions:

- Please use a DC 12V-2A power supply and ensure that the entire engineering system uses the same protective ground.
- Do not place objects on power lines, signal lines, communication lines, and other cables. Avoid stepping on or squeezing the cables to prevent dangers such as leakage or short circuits.
- When inserting or unplugging signal cables from the device, the device needs to be powered off to avoid damaging the device; Damage caused by live plugging and unplugging is not covered by the warranty.
- There may be openings on the outer surface of the device for heat dissipation. Do not block these openings to prevent heat accumulation and potential damage to the device or fire hazards.
- The working environment of the equipment should pay attention to dust and moisture prevention, especially to prevent liquids from soaking and splashing into the interior of the equipment.
- Relative humidity: $\leq 80\%$, storage temperature: $-10^{\circ}\text{C}—+80^{\circ}\text{C}$.
- Operating temperature: $0^{\circ}\text{C}—+70^{\circ}\text{C}$.
- Pay attention to anti-static treatment during the assembly and transportation of the whole machine.
- When assembling the whole machine, it can be installed downwards or sideways, and should not be subjected to heavy pressure.

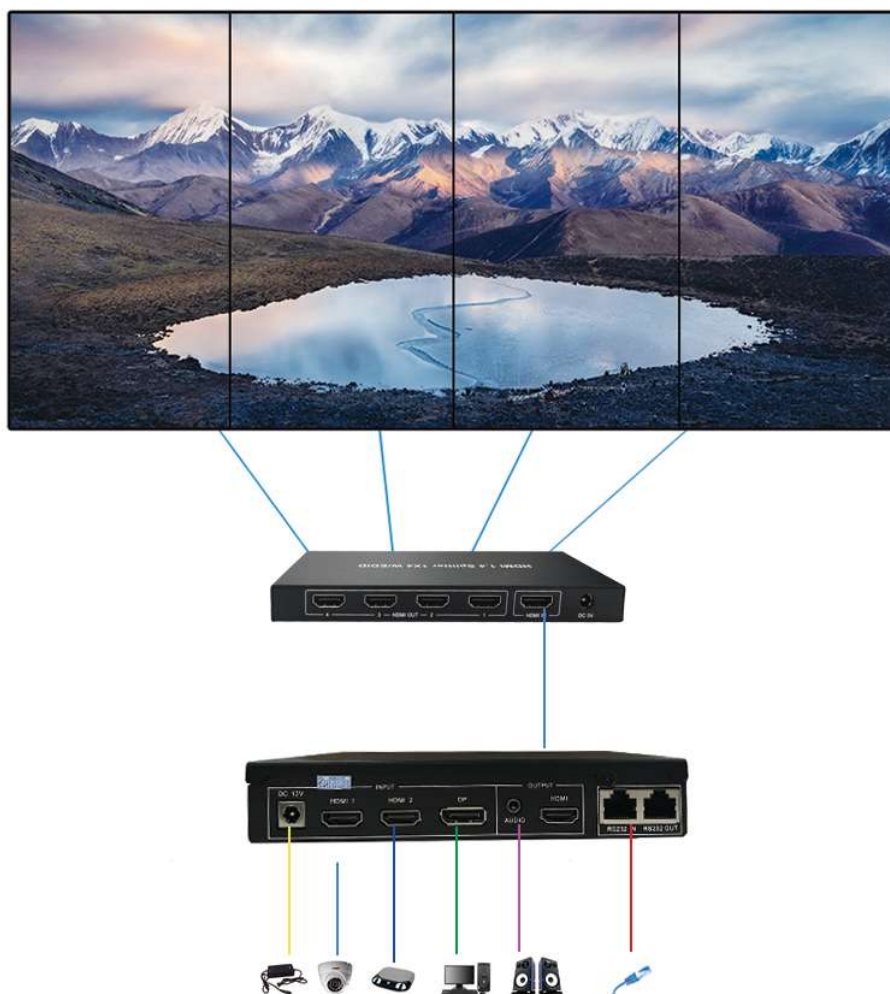
The connection wire between this product and the matching module board cannot be too long, otherwise it may affect performance and image quality.

Package Contents :

1x Power adapter
1x Remote control
1x Serial adapter (DB9F/RJ45F)

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Product Diagram:



Warranty: 2 Years

Warranty is effective from the date of original delivery.

This warranty shall be void if a serial number has been removed from the product.



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