



# **HD full-color LED video processor**

**LM-VC01-AUDIO**

User Manual

# Table of Contents

1 <sup>th</sup> . Installation instructions .....	2
2 <sup>th</sup> . Product descriptions.....	3
3 <sup>th</sup> . Panel structure.....	4
4 <sup>th</sup> .Wiring and installation.....	5
5 <sup>th</sup> . Other Settings.....	9

# 1th. Installation instructions

For your and equipment safety, please make sure to read the safety instructions carefully before using the equipment.

If you have any queries during use, please read this manual first. There is a detailed description of the device operation in the text. If you still have any questions, please contact us and we will give you a satisfactory reply as soon as possible.

Please pay attention to the following when installing the equipment:

## **1, power:**

Please use the single phase, three wire AC 220V power source with protection, and ensure that the entire engineering system uses the same protective ground. Don't use unprotected power supply, The grounding wires of the power socket can not be destroyed.

## **2, power failure:**

When you need to move the equipment or other work that needs to be cut off, you should turn off all the power supply, including the power switch, unplug the power plug, etc., to ensure the safety of you and the equipment.

## **3. cable:**

Do not put anythings on the power line, signal line, communication cable and so on. The cable should be prevented from being trampled or squeezed so as to avoid the danger of leakage or short circuit.

## **4 .signal line connection:**

When the signal line is inserted from the device, the equipment needs to be cut off so as not to damage the equipment. The damage caused by live plug is not covered by warranty.

## **5. heat sink:**

The outside surfaces of the equipment may have openings for heat dissipation. Do not plug these openings in order to avoid heat accumulation, damage to the equipment, or fire.

## **6.equipment placement:**

Equipment should be properly installed, such as standard rack, chassis, cabinet, or placed on a stable and flat work surface to prevent equipment from falling.

## **7.the environment:**

Equipment work environment should pay attention to dust, moisture-proof, especially to prevent liquid immersion and splash into the equipment inside.

## **8, maintenance:**

All maintenance work should be done by professional maintenance personnel. Without training, do not try to repair equipment by oneself. Don't open the machine frame to prevent electrical shock.

## **9, Safety precautions:**

The equipment is not suitable for non professional personnel to operate and debug, and users should be trained and directed by professionals.

Please read this Manual carefully before operation and keep it properly for future use.

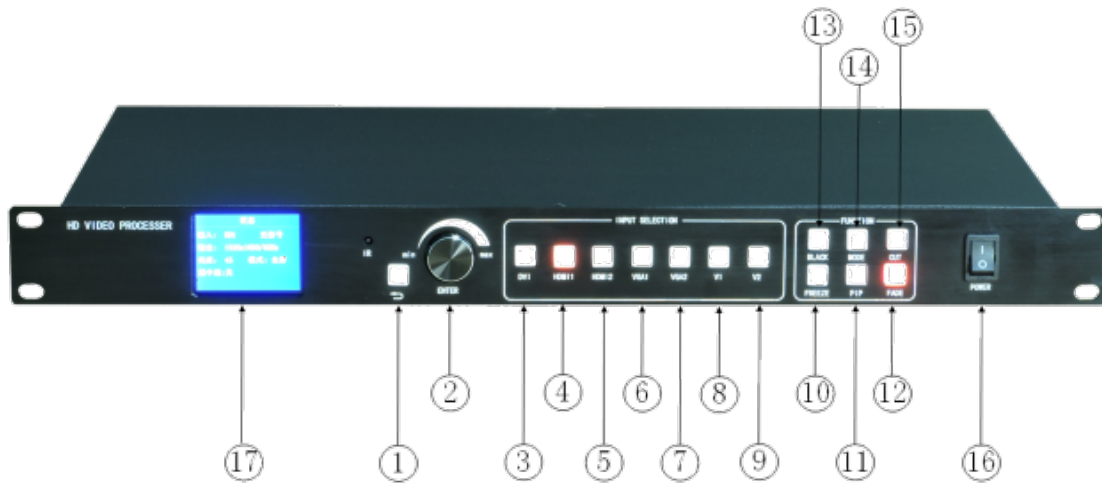
## **2<sup>th</sup>. Product descriptions**


LM-VC01-AUDIO video processor is a high-performance full-color LED video processor, using advanced European and American image processing chip for program design. The product design employs 30 bit digital image processing technology, advanced interlacing signal processing and seamless switching technology for professional demonstration environment.

Compared with ordinary LED full-color video processor market, LM-VC 01-AUDIO support the highest resolution can reach 3840x660@60HZ; support 1 DVI and 2 HDMI, 2 VGA, 2 BNC Road, a total of 7 input signals, and can be customized according to user needs audio function.

# 3<sup>th</sup>.Panel structure

## Front panel



1),  : return -key for returning to the main menu after the menu setting is complete.

2) ,ENTER:menu knob, used to set LED parameters, enter the main menu before you can adjust the volume size;

3),DVI :Key for digital signal channel;

4),HDMI1: Key for HDMI1 multimedia channel;

5),HDMI2:Key for HDMI2 multimedia channel;

6),VGA1: Key for analog signal channel (VGA1)

7),VGA2: Key for analog signal channel (VGA2)

8),V1: Keys for compound signal channels (v1)

9),V2: Keys for compound signal channels (v2)

10),FREEZE: keys for image static and image active.

11),PIP – Key for double-window shortcut setting

12),FADE: key for Switching to fade seamless switching mode;

13),BLACK: Switching black screen;

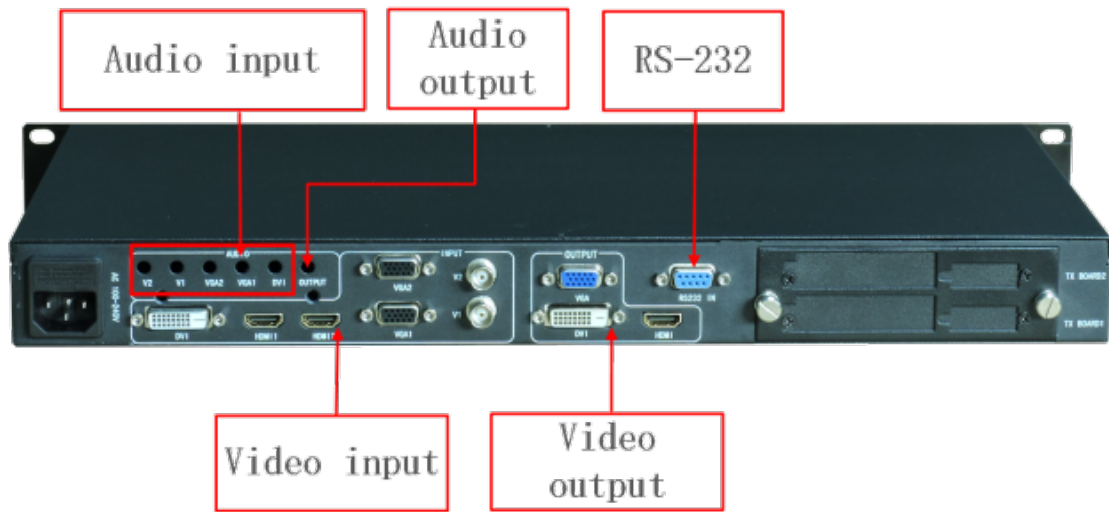
14),MODE: Splicing /Full View switching

15),CUT: image Quick switching;

16),POWER - Device switch, OFF (Power OFF), ON (Power ON)

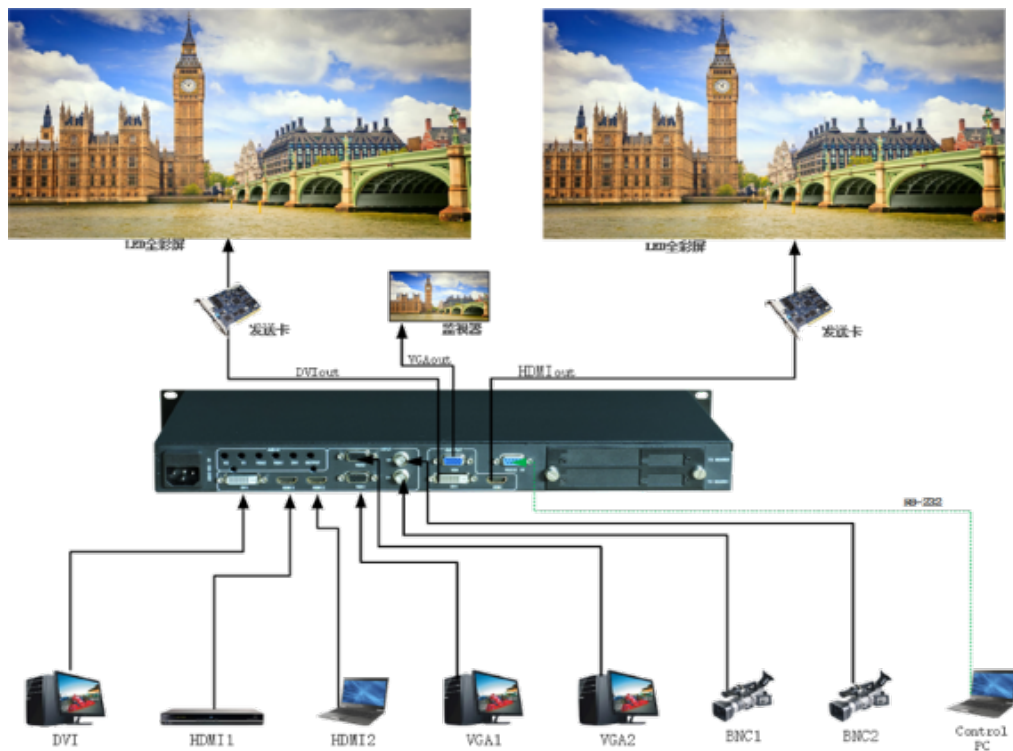
17),LCD - Text display screen, able to display the menu, parameters and other information

## Back panel



## 4<sup>th</sup> .Wiring and installation

### Wiring diagram



## **Installation steps**

1. First of all, it should be ensured that the graphics card can directly control the transmitter card and the led screen can display images normally when the video processor is not used;
2. Then complete wiring as shown in the diagram, connect the DVI(the HDMI) interface of the graphics card to the DVI-IN(the HDMI-IN) port of the video processor and then connect the DVI-OUT (the HDMI-OUT)port of the processor to the transmitter card;
3. After correct wiring is ensured, power on to enable the video processor.

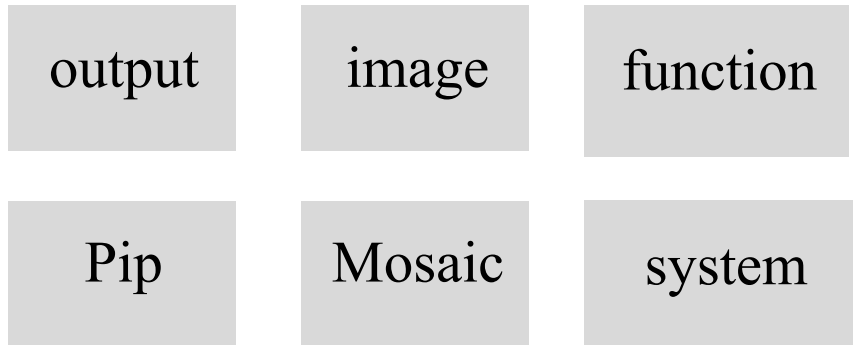
Note: To facilitate customers' flexible and convenient operation, the processor can accommodate the transmitter card, namely, the transmitter card can be installed in the processor and powered on by the processor, which thus has eliminated the limitation that the transmitter card must be powered on by a desktop. The installation method is detailed as follows:

- ① Remove the anchorage corner on the transmitter card;
- ② Unscrew and pull out the knobs on the rear panel, and then remove the temporary baffle;
- ③ In the processor, there will be a four-wire small plug reserved corresponding to the wire slot on the transmitter card; connect them and fix the transmitter card to the video processor;
- ④ Fit the drawer box again in place and then just short-circuit the upper and lower DVI interfaces.

## 4. Settings

Step 1: Click on “MENU” to enter the “Main MENU” interface.

### Main menu



#### Step 2, output settings

- 1, Click “output” to set the output resolution in the output settings,determine the LED send card resolution;
- 2, Click “output” to set the horizontal width, vertical height, horizontal start and vertical starting point in the output settings,determine the LED screen resolution,
- 3, after setting up, press the return key to set up;

#### Step 3, image brightness and contrast settings

Click “image” to set the brightness, contrast, chroma, and sharpness of the output image;

#### Step 4, function settings

Click “function” to set the language, OSD time, loading mode, storage time, fade in time, seamless switching mode ;

#### Step 5, pip settings

- 1, Click “pip” to set picture in picture settings, open the PIP
2. Set the signal that needs to be superimposed. The input signal is the signal superimposed on the upper image;
- 3, Click “size of the location ” to set the size and location of the superimposed screen;



## **Step 6, image mosaic setting**

Note: cascading is not supported. A distributor is required at the front of multiple registers.

1, Click “mosaic” to set mosaic mode.

1.1 “Full screen”---image no mosaic model

1.2 “Screenshot ”---capture a part of the image from the source of the front signal . The Screenshot image is displayed with the resolution of the input signal as a reference resolution;

1.2.1 Select “point to point”, The input resolution point is covered on the output resolution of the send card setting, and the horizontal width, vertical height, and starting point are invalid

1.2.2 Select “the user-defined mode”---Intercept any part of an image and set its resolution. The width and height of the intercepted image do not exceed the input resolution of the signal source.

1.3 Select “Equal mode”---The interception of images is setting by the horizontal and vertical .Set the LED video processor, which can output image of the equal to send to sending card.

1.4 Select “no Equal mode”--According to the resolution of the output LED video processor to set the interception of the image size,If the set value is larger, the less part of the image is intercepted, No equal mode suitable for the input port of the transform resolution;

2 “Adjust width” “Adjust height” “Adjust the start of line” “Adjust the start of column”,Adjust the image position to achieve perfect stitching.

## **Step 7, system setting**

1, Machine serial number--one computer can also have more than one LED video processor;

2, splicing synchronization - set to open, you can optimize the splicing when two LED screen is not synchronized;

3,VGA setting - corrects the offset of the VGA signal and corrects the position;

4, Button lock - set, all keys can not hit invalid, restart the function automatically canceled;

# 5<sup>th</sup>. Other Settings

## 1、 Remote control

Press the MENU button, and then press the OK button, you can pop-up control menu on the LED screen and the machine LCD screen, through remote control to achieve full functional control of the device.

Note: the remote control mode is the same as the button setting. Please compare the function keys of the remote control;



Voice-    Voice+

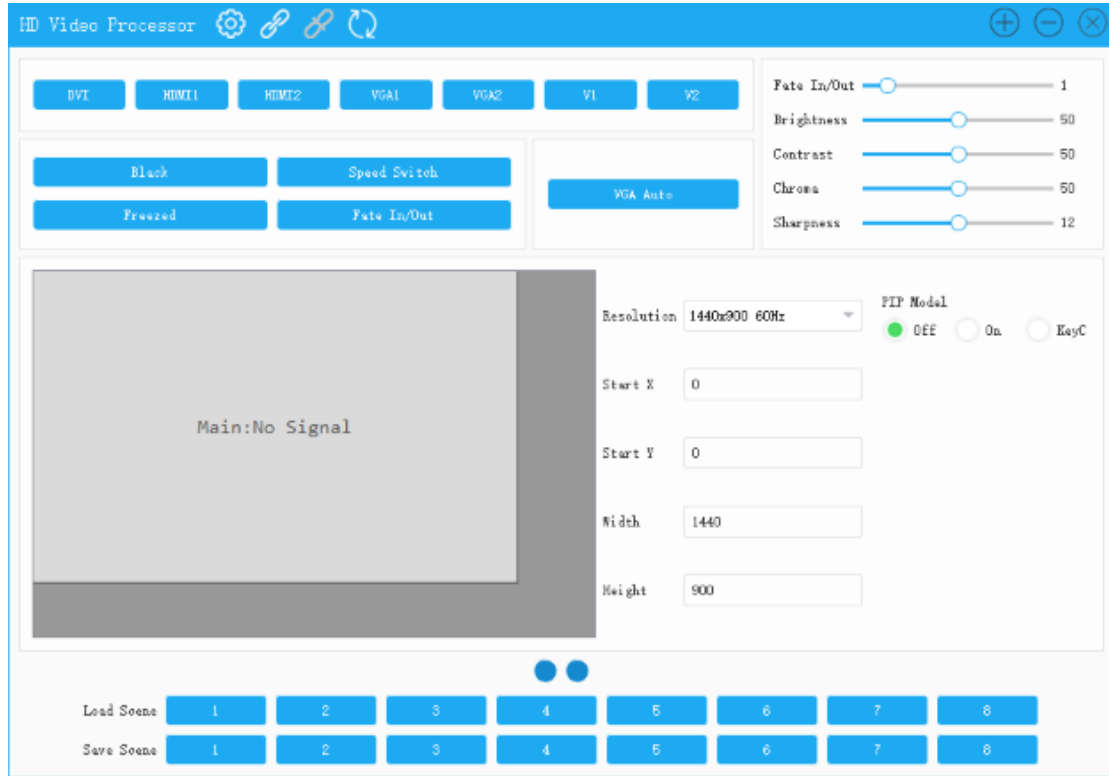
OK: Menu;  
◀: Left;  
▶: Right;  
▲: Up;  
▼: Down;  
↶: Back;  
SOURCE: splice ON/OFF;  
SWITCH: CUT/FADE Switch;

1: DVI;  
2: HDMI1;  
3: HDMI2;  
4: VGA1;  
5: VGA2;  
6: V1;  
7: V2;

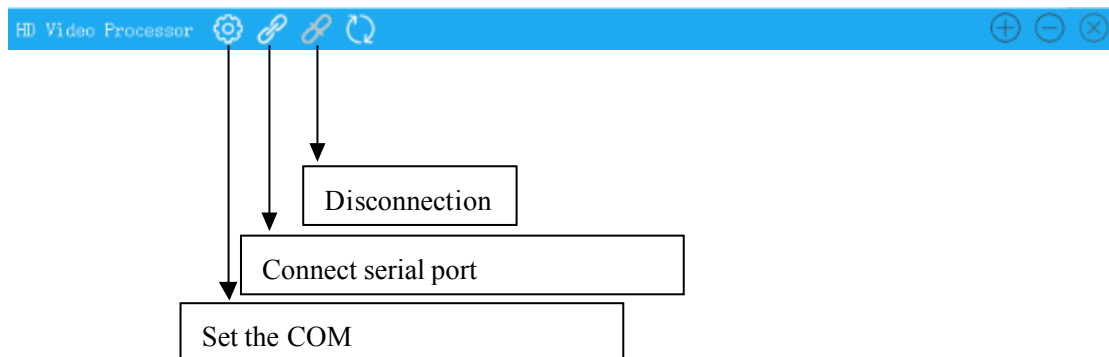
## 2,Interface software control

### 1、run software

Through the RS-232 serial port control, run the software, pop-up the following interface, and through the serial port can be connected to the LED control, function settings and key settings the same,



### 2、 Connection device



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