

# **S40 Video Processor**

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## **Instructions**

Version: Ver.1.1

## Statement

Dear user friend , thanks for choosing Shanghai Xixun Electronic Technology Co. , Ltd. (hereinafter referred to as Xixun Technology) as your LED advertising equipment control system. The main purpose of this document is to help you quickly understand and use the product. We strive to be precise and reliable when writing the document, and the content may be modified or changed at any time without notice.

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# Update Record

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No.	Version	Details	Date
1	Ver.1.0	Initial	2020.12.14
2	Ver.1.1	2th version	2024.10.22

The document is subject to change without prior notice.

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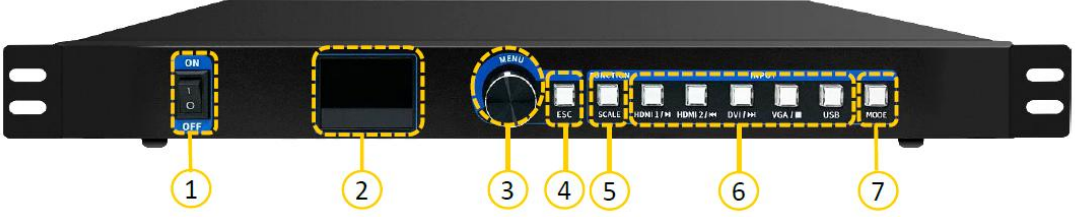
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# Interface definition

## Front Panel



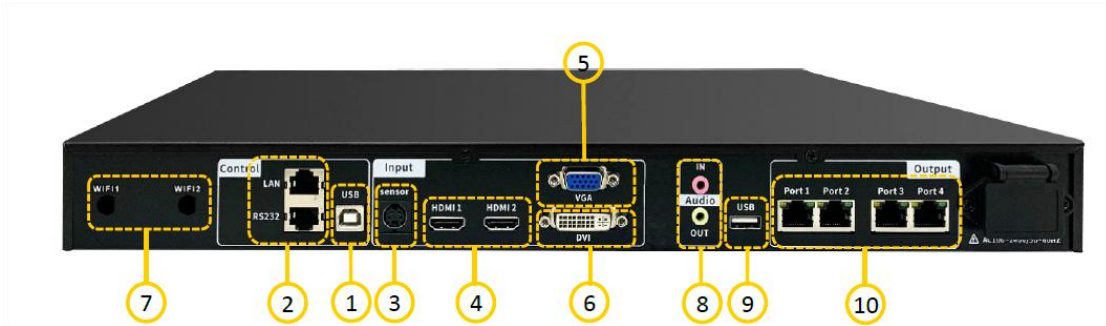
The image shows the front panel of a device with the following components labeled with numbers 1 through 7:

- 1: Power button (ON/OFF)
- 2: LCD screen
- 3: Knob (MENU)
- 4: ESC button
- 5: SCALE button
- 6: Input buttons (HDMI 1/2, DVI/FM, VGA, USB)
- 7: MODE button

2	LCD screen	Displays the current state of the device, as well as the settings menu.
3	Knob	<ol style="list-style-type: none"> <li>1. under the main interface, press the knob to enter the menu operation interface.</li> <li>2. Under the menu operation interface, rotate the knob to select the menu, press down the knob to select the current menu or enter the submenu.</li> <li>3. After selecting the menu with parameters, you can adjust the parameters by turning the knob, please note that you need to press down the knob again to confirm the adjustment.</li> </ol>
4	Esc	Return/ cancel the current menu or action.
5	SCALE	Full screen zoon shortcht key
6	Input	Enter the source key introduction : <b>HDMI1</b> input source button, which is reused as" ▶   " when the usb flash

	<p>drive is playing,pause or play the file.</p> <p><b>HDMI2:</b> HDMI2 input source key, when u disk is playing, reuse is "⏮" , select the last file to play the current file</p> <p><b>DVI:</b> DVI input source key, when u disk is playing, reuse is "⏭" , select the next file to play the current fileb.</p> <p><b>VGA:</b> VGA input source key, when u disk is playing,reuse is "■" , stop playing. ,</p> <p><b>USB:</b> External media play,u disk play input soruce.</p> <p>The long light indicates that the source is connected and in use. The indicator light flashes to indicate that the interface is in use but there is no signal source.</p> <p>The indicator light is off to indicate that the signal source is not in use.</p>
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Later Version



**input interface**

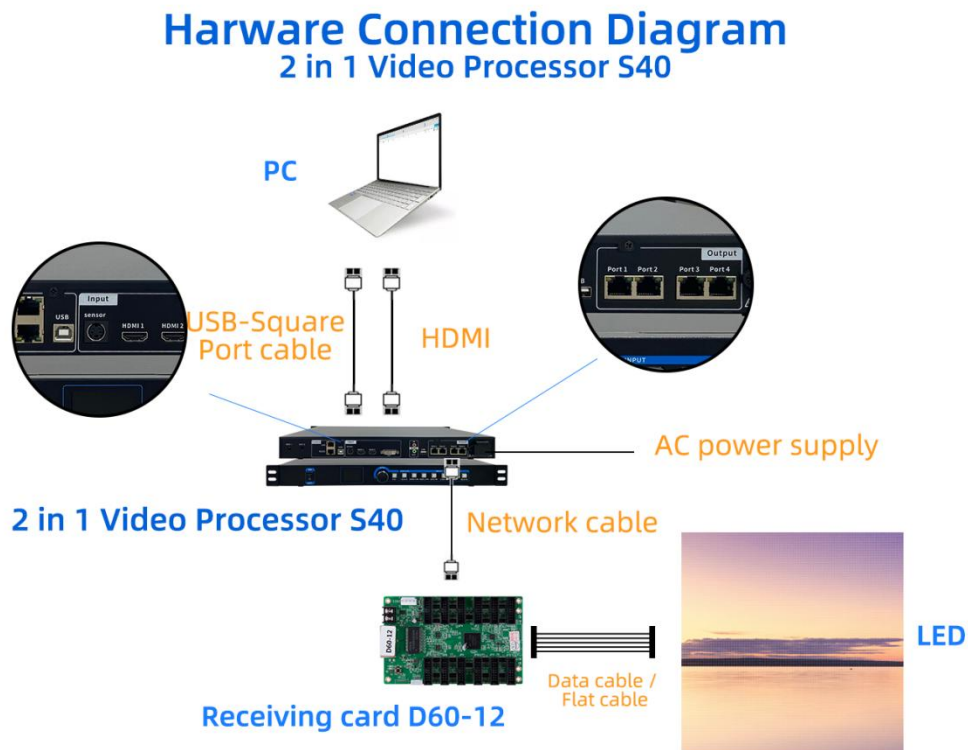
No.	Ports	Unit	Illustrations
3	sensor	1	Sensor interface
4	HDMI	2	HDMI1.3 Standards , the maximum resolution it could support: 1920 × 1080@60Hz. It is downwards compatible and support HDCP1.4.
5	VGA	1	Maxi support 1920x1080@60Hz , Resolution video source input, downward compatibility.
6	DVI	1	VESA standard maxi support 1920 × 1080@60Hz input video source input, downward compatible.
8	AUDIO IN	1	3.5mm Audio Interface.
9	USB	1	1 × USB 2.0 Interface , connecting to the U-disk , it supports 1080p@30fps Video files, The U-Disk File System Supports NTFS、 FAT32 and FAT16 , but the exFAT ( FAT64 ) is not supported. Image Formats: jpg、 jpeg、 png and bmp.



			<p>Video Encoding : MPEG1/2 , MPEG4 , Sorenson H.263 , H.263 , H.264(AVC1) , H.265(HEVC) , RV30/40, Divx, Xvid.</p> <p>Video Bit Rate: Below 4000</p> <p>Audio Encoding : MPEG1/2 Layer I , MPEG1/2 LayerII , MPEG1/2 Layer III, AAC-LC, VORBIS, PCM and FLAC.</p>
<b>Output Ports</b>			
No.	Ports	Unit	Illustrations
10	Network Port	4	four network port output interface, connected to the receiving card.
8	AUDIO OUT	1	3.5mm Audio Port It supports the audio channel : 3.5mm audio channel、 HDMI、 USB
<b>Control Ports</b>			
No.	Ports	Unit	Illustrations
1	USB-B	1	USB debug port
2	LAN	1	100 megabit communication network port
	RS232	1	Debug Series Connection Port
7	WIFI antenna	2	Wireless Router WIFI antenna (custom)

# Hardware connection Diagram

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Software download and Installation :

LEDOK express

Download link:

[https://drive.google.com/file/d/1TOiJ\\_-raeULoJmh1D4fqEjmZ7tB6JI0T/view?usp=sharing](https://drive.google.com/file/d/1TOiJ_-raeULoJmh1D4fqEjmZ7tB6JI0T/view?usp=sharing)

Ledset4.0

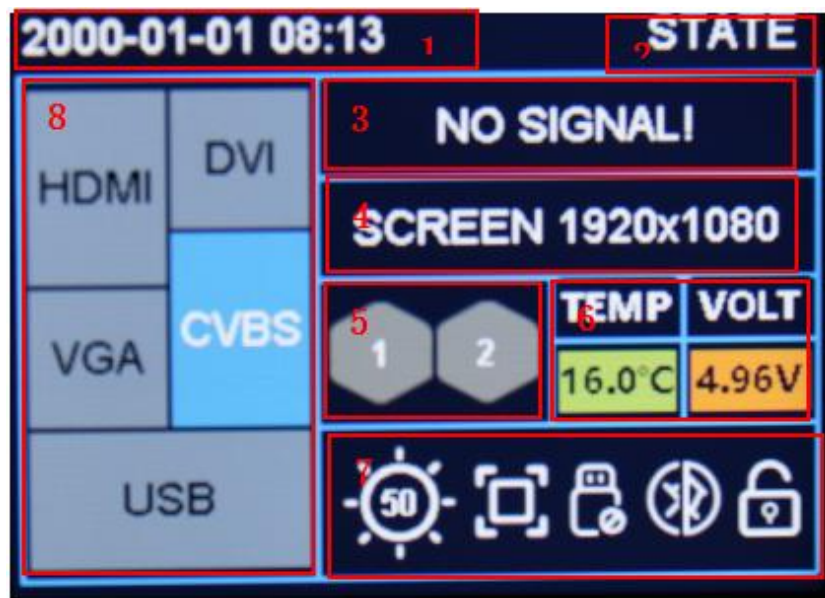
Download link:


[https://drive.google.com/file/d/1EjLo0ZHwKfAcyQEM6DvN6xmgyrjldvfr/view?usp=drive\\_link](https://drive.google.com/file/d/1EjLo0ZHwKfAcyQEM6DvN6xmgyrjldvfr/view?usp=drive_link)

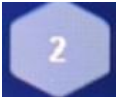
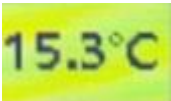







# Operation Menu









## Main Interface



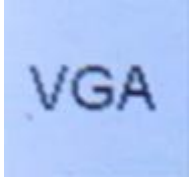
Main interface After the processor is turned on, the LCD screen displays the main interface as follows:



No.	Illustration
1	Real Time
2	Current display interface
3	The input resolution of the currently selected input signal source; No signal!
4	Sending card image capture resolution
5	Number: indicates the serial number of the network port  : Indicates that the receiving card is connected

	 : Indicates that the receiving card is not connected	
6、7	Function Status	
	Icon	Illustration
		Real-time temperature monitoring of equipment
		Real-time power monitoring of equipment
		Processor brightness value
		Timing brightness on
		FULL SCREEN DISPLAY
		1:1 Pixel to Pixel Display
		Screen freezes off
		Screen freezes on

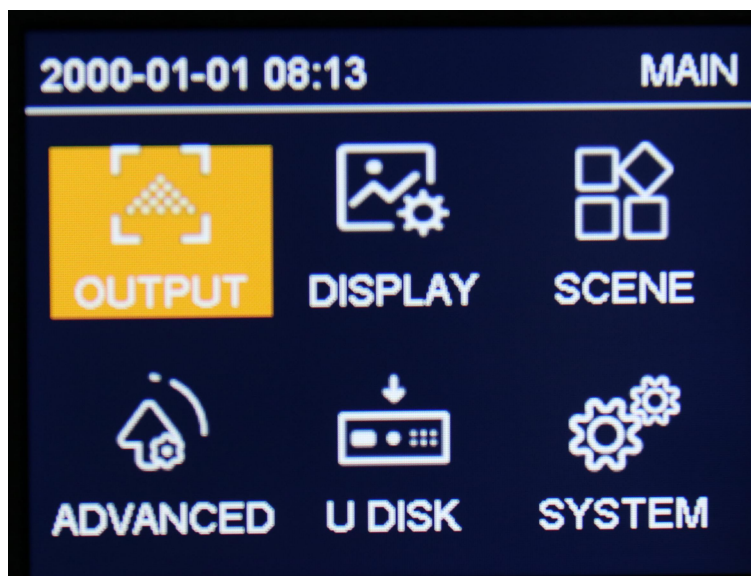
	U disk is connected
	U disk is not connected
	The keys are not locked
	The Keys are locked
	Stop play
	Pause playback
	Previous
	Play

		Next
8	<p>Input Signal Source</p> <p> : Blue background indicates selected</p> <p> : Gray background means not selected</p>	

# Main Menu

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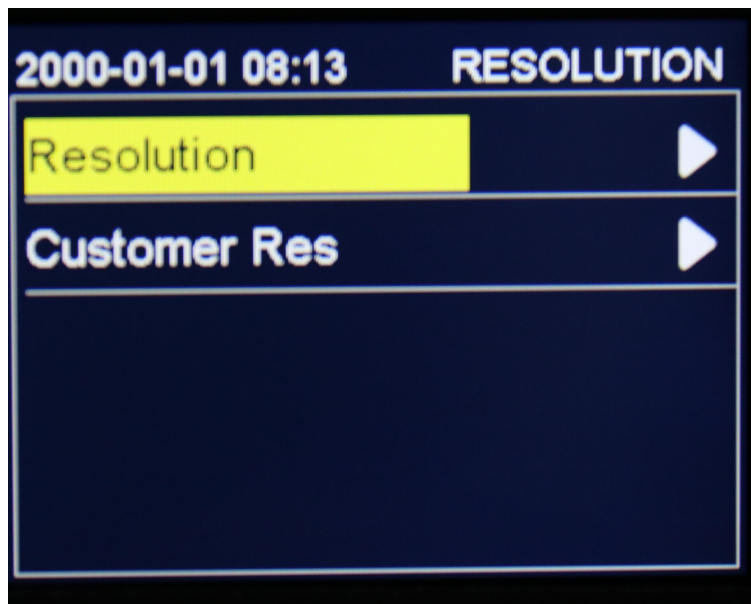
In the main interface, press the knob to enter the menu operation interface, press the knob to enter the sub menu, and press ESC to return to the previous level.



## Output

### Output Resolution Setting

Enter the "Output" menu, as shown in the figure below:



Common resolutions are 1024x1280 60HZ, 1280x720 60HZ, 1366x768 60HZ, 1440x900 60HZ, 1280x1024 60HZ, 1680x1050 60HZ, 1920x1080 60HZ, 1920x1200 60HZ, 2048x1024 60HZ, 2304x1080 60HZ, 2560x1080 60HZ, 3840x640 60HZ, 1080x1920 60HZ. When actually applied to the LED display screen, we can choose a preset output resolution larger than the LED screen resolution, or set it to an output resolution that is just the size of the LED display screen resolution.

For example, we use a desktop computer with 1920X1080 resolution monitor, the graphics card output is set to copy or extend 1920X080 resolution, DVI cable output to the video processor, the LED screen resolution is 1344X704, use 1 image to send and load, how to set ?What about the LED video processor parameters?

The following describes the general setting method: Operation method:

### **Operation Method**

First of all, the interface of each hardware device is normal and the input and output connections are correct. I will not introduce it in detail here.

The first step is to set the output resolution, the specific operation: main  
[www.sysolution.net](http://www.sysolution.net)



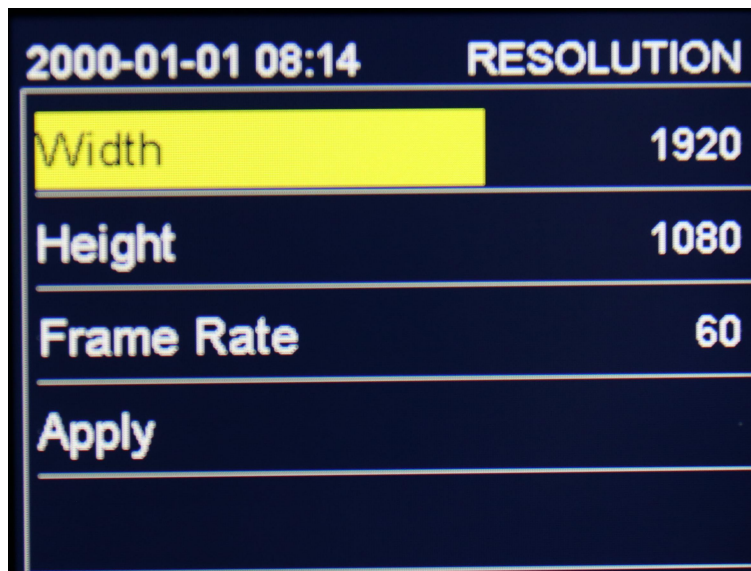
menu-"output display"- "resolution" select a preset resolution larger than 1344X704, such as "1366X768, 1680X1050, 1920X1080" are all OK, apply;

The second step is to set the full-screen display, that is, the entire desktop of the computer is zoomed and displayed on the LED screen. Specific operations: main menu-"output display"-enter "window zoom" and change the horizontal width to 1344 and the vertical height to 704;

The third Step, set the partial display, press the "SCALE key" to switch the full screen/partial screen (the default is 1:1 point-to-point output);

The fourth step, set the parameter as a template, the specific operation: main menu-"template selection "Save, select 1 template to save.

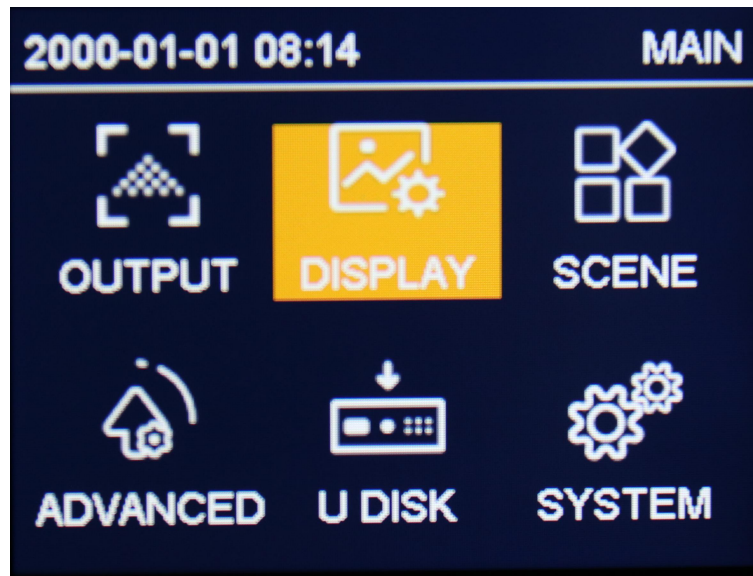
### Custom Resolution



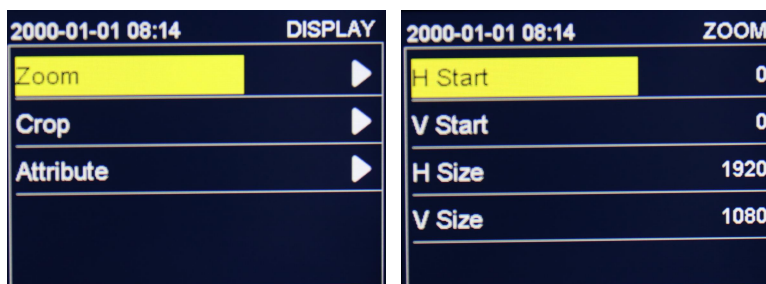
2000-01-01 08:14		RESOLUTION
Width		1920
Height		1080
Frame Rate		60
Apply		

When the output resolution that meets our needs is not available in the common output resolutions, such as 1920X1280 size, then the resolution must be customized. The specific operation: main menu-"output display"- "custom resolution", set the screen width Set it to 1920, screen height 1280, refresh rate 60, and application.

## Image



## Image Scaling



It means that the image output by the video processor is displayed on the full screen on the LED display. If the resolution is exactly the same, there is no need to set the "window zoom" step; if the resolution is different, you need to set it and display the image on the LED screen. It will be reduced or enlarged, just adjust the horizontal start, vertical start, horizontal width, and vertical height to the image size we need.

## Input interception (Capturing)

2000-01-01 08:15	CROP
Crop Switch	OFF
H Start	0
V Start	0
H Size	1920
V Size	1080

A certain part of the output image of the video processor is displayed in full screen on the LED display. The system defaults to the "off" state (the following parameter adjustment items are grayed out and cannot be modified). Only when the state is "on" can the function adjust the parameters effectively. Turn on the interception function. The screen parameters we will intercept are such as "horizontal start, vertical" Start, image width, image height" are set.

## Image Properties

Enter the "Image Properties" menu, as shown in the figure below:

2000-01-01 08:15	ATTRIBUTE
Brightness	50
Contrast	50
Color Temp	NORM
Saturation	50
Sharpness	15

**Brightness**

adjust the output image brightness value, the system default is 50, 0-100 can be set.

**Contrast**

adjust the output image contrast value, the system default is 50, 0-100 can be set.

**Color temperature**

adjust the color temperature mode of the output image, the system default is Normal Color temperature, and "cool color, warm color, custom" can be set.

When the color temperature is customized, you can manually adjust the red, green, and blue values.

**Saturation**

adjust the saturation value of the output image, the system defaults to 50, 0-100 Can be set.

**Sharpness**

adjust the sharpness value of the output image, the system default is 20, 0-64 can be set.

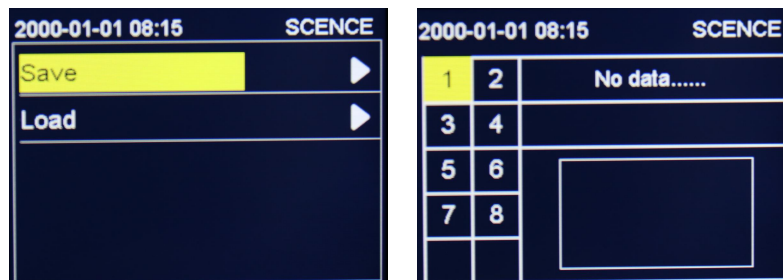
**Hue**

adjust the tone value of the output image, the system default is 50, 0-128 can be set.

## Scenarios

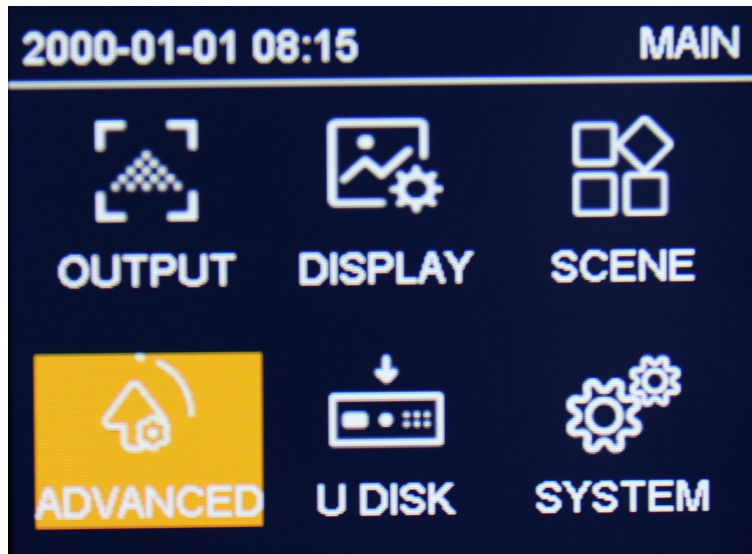


Enter the scene selection menu, as shown in the figure below:

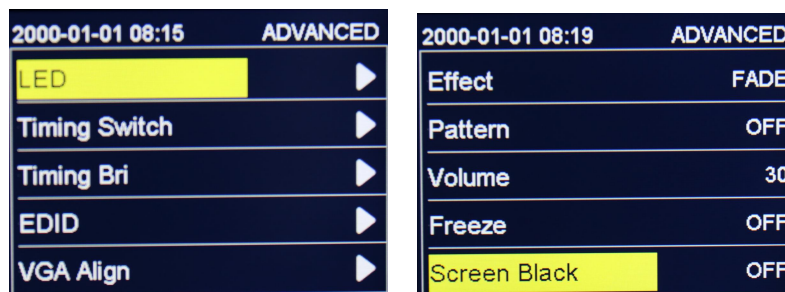


Here, we can save and load the parameters set by the video processor, including the input signal, input resolution, output resolution, position offset, zoom, interception and other information to save as a template, which is convenient for next use. The system has 8 templates for users to save.

## Advanced



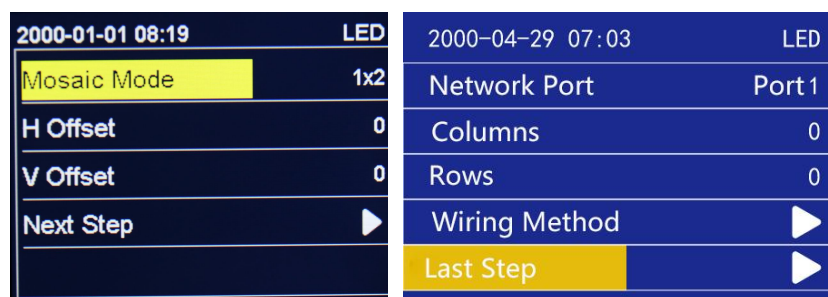
Enter the "Advanced Settings" menu, as shown below:



There are 10 function settings in the advanced settings: "LED, EDID management, VGA correction, volume, freeze, switching effect, test mode, black screen, timing brightness, automatic brightness", which are introduced below.

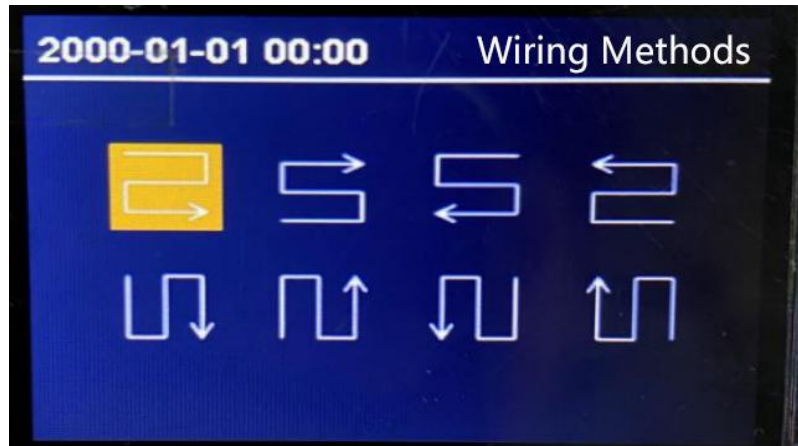
### LED

Enter the "LED" menu, as shown in the figure below:



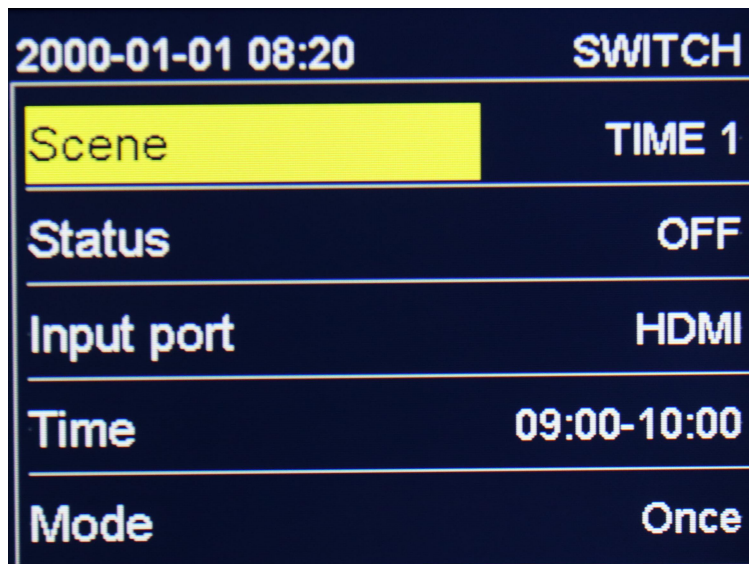
Select the network port arrangement mode "1X2, 2X1".

Set the number of rows and columns of each network port box. Eight common wiring methods can be selected for the wiring method.



### Timing Switch

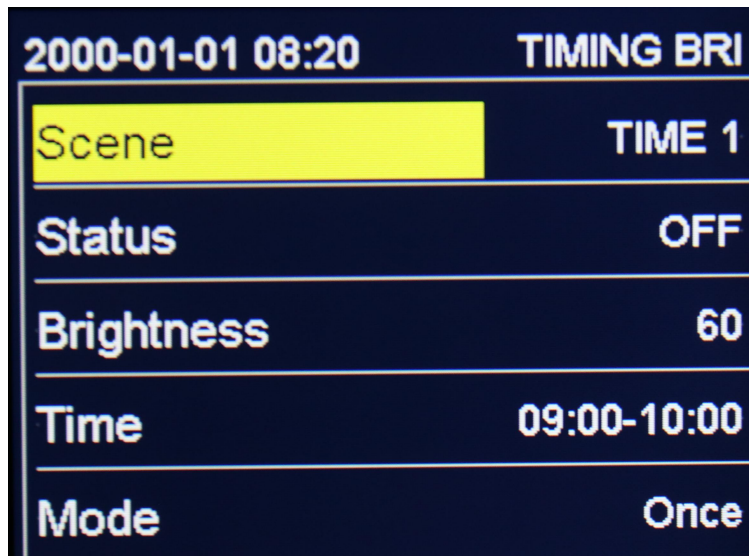
Enter the "timing switch" menu, as shown in the figure below:



- Set the number of time periods, up to 5 segments.
- Status: On means to turn on the timing switching function; Off means to turn off the timing switching function.
- Port: Switch the input signal source.
- Time: Set the switching time.
- Times: Switch times within the set time period.

## Timing Brightness

Enter the "timing brightness" menu, as shown in the figure below:



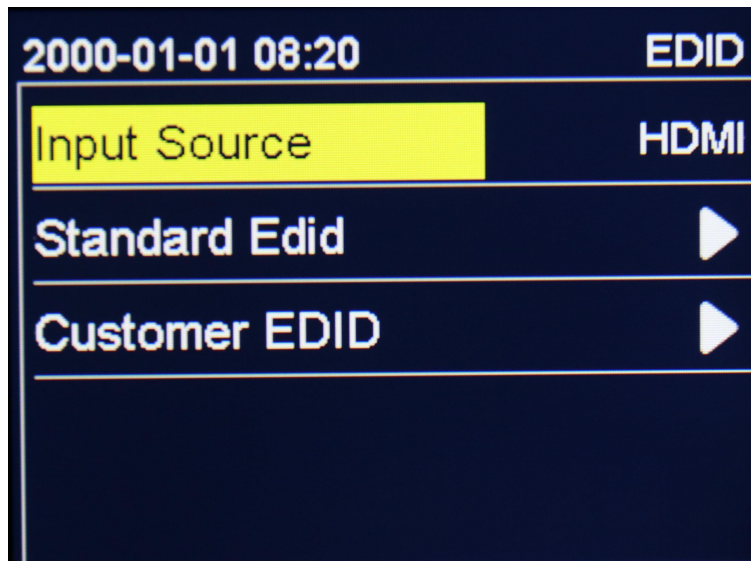
2000-01-01 08:20		TIMING BRI	
Scene		TIME 1	
Status		OFF	
Brightness		60	
Time		09:00-10:00	
Mode		Once	

- Set the number of time periods, up to 5 segments.
- Switch: On means to turn on the timing switching function; off means to turn off the timing switching function.
- Brightness: switch the brightness value
- Time: set the switching time
- Times: switch times within the set time period

## EDID Management

Enter the "EDID Management" menu, as shown below:





### **Input Signal Source**

EDID of HDMI and DVI input signal sources, including resolution size and refresh frequency parameters. The settings are described below.

### **Common EDID**

Enter the sub-menu, select the common EDID "1366x768\_60HZ, 1440x900\_60HZ, DVI\_1080P, HDMI\_1080P" to quickly se.

### **Custom EDID**

Enter the sub-menu, you can set "EDID type, image width, image height, refresh rate", the application takes effect

### **VGA Calibration**

Enter the "VGA Calibration" menu, as shown in the figure below:

2000-01-01 08:21		VGA
Mode	AUTO	
H Start	0	
V Start	0	
H Width	1920	
V Height	1080	

There are two modes: "Auto" and "Manual". In automatic mode, the following "horizontal start, vertical start, image width, image height, phase" setting parameters do not work; only in manual mode, The parameters set below are valid.

When the connected VGA signal is output by the video processor in automatic mode by default, if the image output to the LED screen is normal, there is no need to modify it; if the image output to the LED screen is missing, offset, etc., then Need to modify the parameters manually.

Switch to "Manual" mode, visually inspect the image on the LED screen, adjust the "horizontal start, vertical start, image width, image height" parameter values through the knob, modify one by one, set when the visual image is displayed to the appropriate position.

Phase is to improve the output to the LED screen when there is an abnormal display (such as flash point, blurry), and the value can be adjusted from 0 to 2500.。

### Switching Effects

Special effects for switching between input signals, the default "fade in and fade out" effect, you can switch the "seamless switching" effect.

## Test mode

Default "off" state, switch to "white, red, green, blue, black" and other test screens in turn.

## Volume

Set the numerical value of the output audio volume, the default is 40, and it can be set to 0-100.

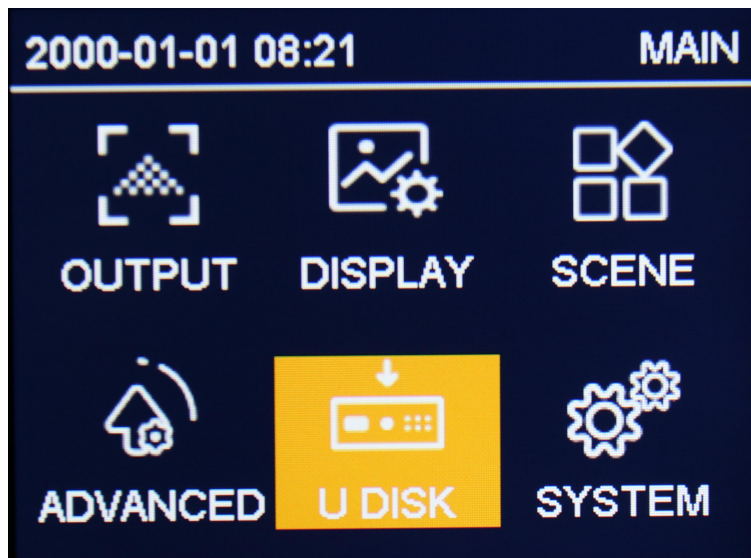
## Freeze

The default "off" state, through the knob operation, when turned to "on", the output screen is frozen uncontrolled, and then turned to "off", the output screen continues to display.

## Black Screen

Default "off" state, switch to "on" black screen state.

## U Drive Disk



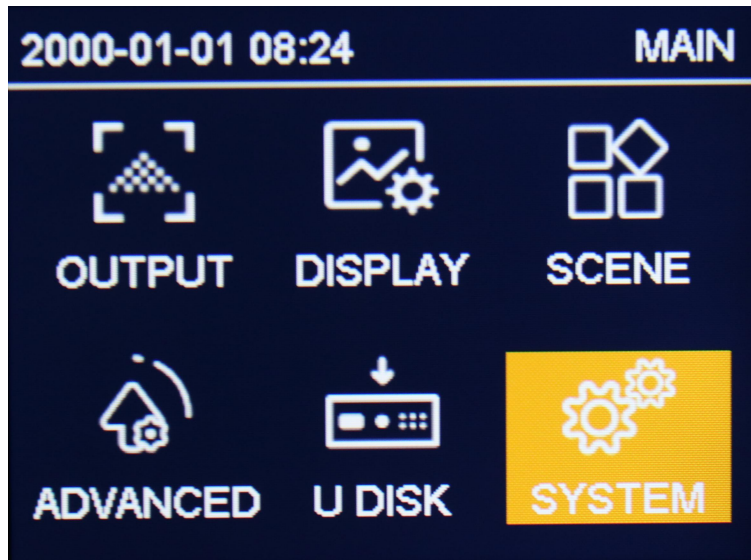
To use the U disk playback function, first insert the U disk into the USB port of the video processor, and then press the "USB" signal switch button on the front panel to enter the U disk signal state. At this time, we enter the "U disk playback" from the main menu.

If a U disk is inserted into the processor without pressing the "USB" signal switch button

on the front panel, you want to enter the "U Disk Play" menu through the knob and press the OK button. If you can't enter the U disk to view and play files, it will pop up.

Press the "USB" button on the front panel to switch to the U disk information. If you press the "USB" button again, you can play the files in the root directory of the U disk, such as "pause/play, previous song, next song, stop" function , At this time, pressing the other "HDMI, DVI, VGA, CVBS" signal switching function is invalid, press "Esc" to exit the U disk playback operation.

## System



## Version Information

That is the version information of the current video processor system program.

2000-01-01 08:24	SYSTEM	2000-01-01 08:24	VERSION
Version	▶		
Language	ENGLISH		
Day & Time	▶		
Key Lock	OFF		
Recover			
		FPGA	97.01.01.05
		MCU	96.00.05.01
		Processor	V01.09

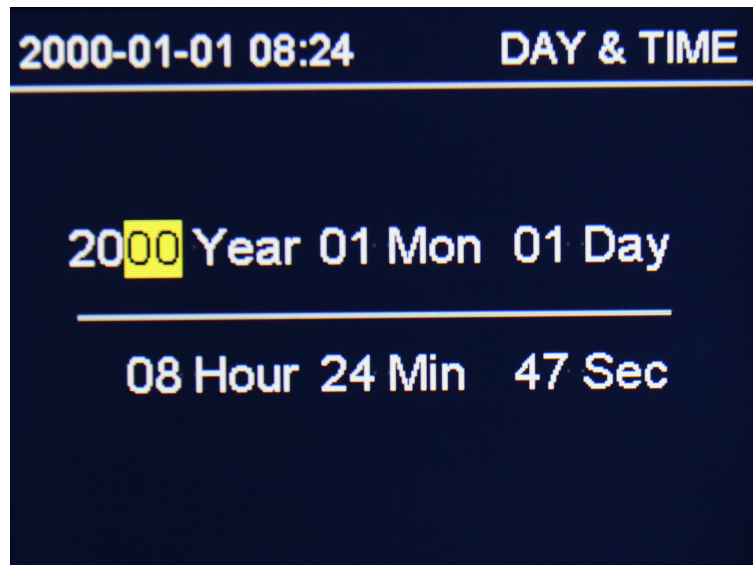
## Language

The default system language is "Chinese", you can switch to "English" language, press OK

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to confirm.

## Time Settings



Select the corresponding number and turn the knob to increase or decrease the number.

After setting, press the knob to confirm.

## Key Lock

Turn on the key lock function to prevent misoperation and lock the front panel key functions. The default "off" state, select the "on" state, and then press the OK button to confirm, you can set to automatically lock without operation for 1-3 minutes; unlocking method: press the OK button and there will be a prompt, then press any button to unlock.

## Factory Settings

Press the OK key to pop up the prompt message "Are you sure to restore the factory settings? (Confirm/Return)"; press the OK key to confirm, and press the Esc key to return.

## Upgrade Processor

Put the V56 upgrade program into the U disk, insert the USB port, select "Upgrade Processor" until the upgrade automatically restarts and enter the status interface, at which

time the upgrade is complete.