SYSOLUTION

# S50S Video Processor

## Instructions

Version：V.1.0

## 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

| No. | Version | Details | Date |
| --- | --- | --- | --- |
| 1 | Ver.1.0 | Initial | 2022.09.14 |

The document is subject to change without prior notice.

# Catalog

# Product Description

S50S is an very simple product for led display, with rich functions and high-definition multi-type input interfaces,which also integrates professional display control technology and powerful video processing capability, so make the installation very simple but efficient.

With high-performance image processing chip,advanced interlaced image adaptive processing technology,ultra-clear noise reduction engine and video image enhancement technology, so that to eliminate phenomenon of gauge frequency image motion dragging and jagged, make led display more clear, delicate and more stable.

**Applicable scenarios**

Suitable for a wide range of applications such as small and medium-sized LED displays in shopping malls, hotels, exhibition displays and TV studios.

**Features**

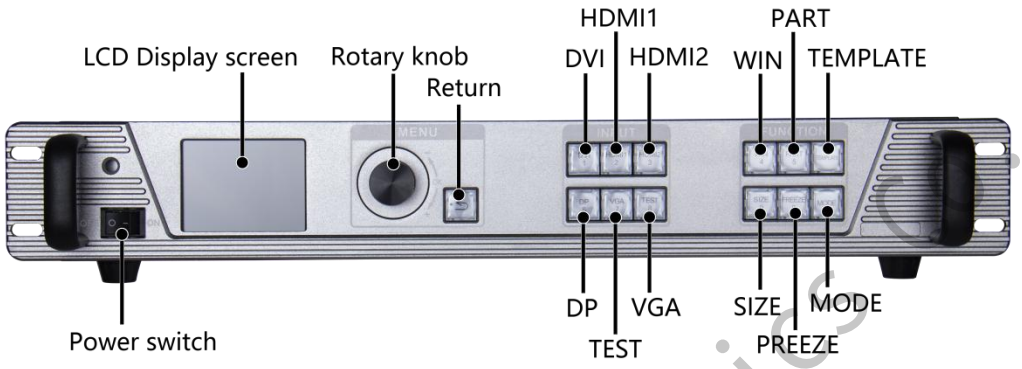
1. 5.2 megapixels in a single unit with customised output resolution of up to 7680 pixels horizontally and 3840 pixels vertically.
2. 4 simultaneous screen displays.
3. Audio/video switching/volume adjustment.
4. Input ports： DVI*1,HDMI*2, DP*1, VGA*1, Audio*1.
5. Template saving and loading.
6. Seamless multi-screen switching and seamless single layer switching.
7. Timetable, one-touch blackout, built-in test chart card, USB upgrade, key lock.

# Load range

| | | |
|---|---|---|
| **Load capacity** | Single Network Port | 650,000 pixel point |
| | Complete machines | 5.2 million pixel point |
| **Maximum width** | Complete machines | 7680 |
| **Maximum number** | Complete machines | 3840 |

# Interface definitions

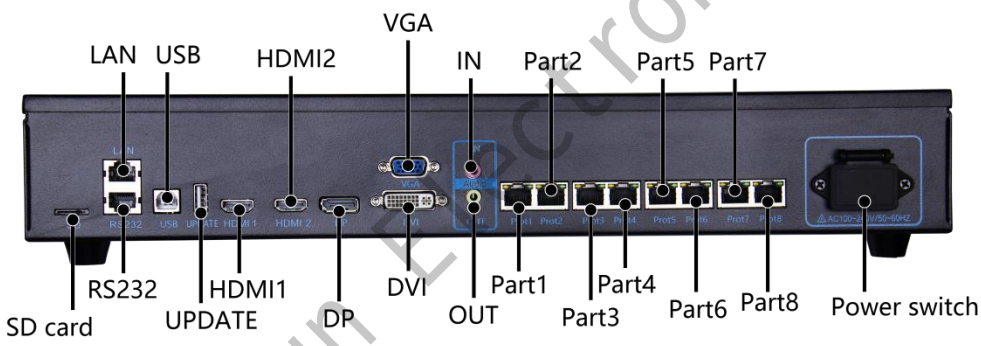
**Front panel**




| Front Panel Description | | |
|---|---|---|
| **Serial number** | **Keystrokes** | **Description** |
| 1 | Power switch | Power on/off of the device |
| 2 | LCD screen | Display of the operating menu |
| 3 | Operating buttons | Knob button for menu selection<br>Return button |
| 4 | Input source switching keys | DVI, DVI input/number key 1<br>HDMI1, HDMI1 input/number key 2<br>HDMI2, HDMI2 input/number key 3<br>DP, DP input/number key 6<br>VGA, VGA input/number key 7 |

| | | |
|---|---|---|
| | | TEST, test chart card key/number key 8 |
| 5 | Function buttons | WIN, layer selection / numeric key 4<br>PART, partial full screen shortcut/number key 5<br>TEMPLATE, multi-screen template shortcut<br>SIZE, screen resizing shortcut/number key 9<br>FREEZE, image blacked out / numeric key 0<br>MODE, loading scene shortcut |

**Rear panel**



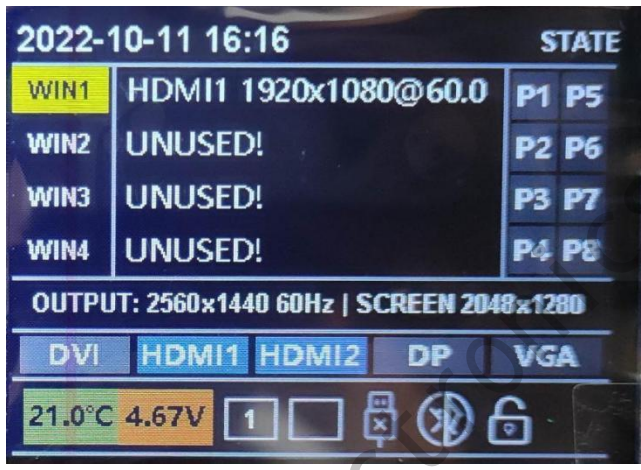

| **Extended Function Interface** | | |
|---|---|---|
| **Interface** | **Number** | **Description** |
| SD card | 1 | Installation of SD cards to store large screen configuration parameters for data patrol |
| **Input interface** | | |
| **Interface** | **Number** | **Description** |
| DVI | 1 | 1920x1080/60HZ, 3840*540/60HZ and EDID management |
| HDMI1 | 1 | 1920x1080/60HZ, 3840*1080/60HZ and EDID management |

| | | |
|---|---|---|
| HDMI2 | 1 | 1920x1080/60HZ, 3840*1080/60HZ and EDID management |
| DP | 1 | 1920x1080/60HZ, 3840*2160/60HZ and EDID management |
| VGA | 1 | 1920x1080/60HZ and EDID management |
| **Output Connector** | | |
| **Interface** | **Number** | **Description** |
| Gigabit network port | 8 | Interface type. RJ45<br>Transmission speed: 1000BaseTX<br>Receiver card support: D70/D90 series receiver cards and multifunction cards |
| **Processor control interface** | | |
| **Interface** | **Number** | **Description** |
| UPDATE | 1 | USB upgrade port |
| USB | 1 | Supports 1920 x 1200 @ 60Hz |
| LAN1 | 1 | 100 megabit network communication interface (reserved interface) |
| RS232 | 1 | Serial port interface |
| **Power supply interface** | | |
| **Interface** | **Number** | **Description** |
| Power connector | 1 | AC power input interface 100V~240V |

# Operation Menu

## Main Interface

After power on the processor, first, please check LCD screen.



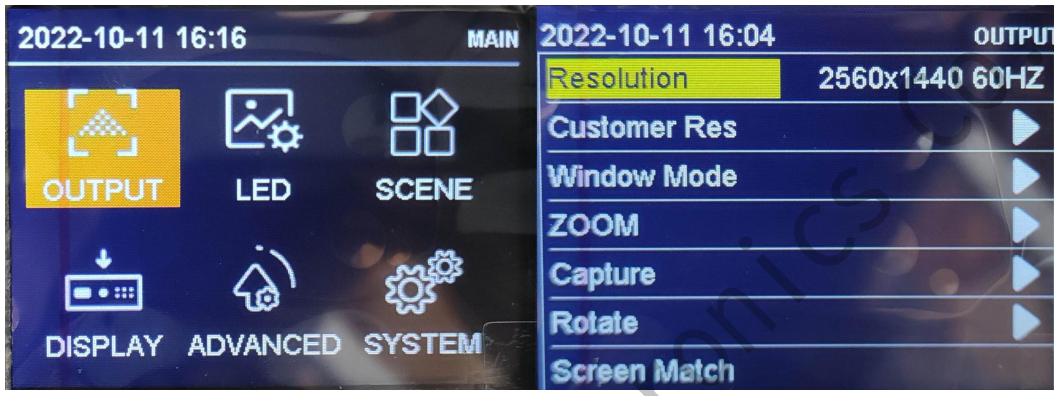

The LCD screen contains the front-end input signal source resolution, each window information, key lock status, output signal resolution and so on.

# Main Menu

## 1. Output

### 1.1. Resolution

Go to the "Output" menu, as follows.




The system is preset with 18 types of output resolutions, When applied to the LED display, can choose a preset output resolution ,which is larger than that of LED screen resolution, or can customize set the output resolution according to the LED display.

For example, we use a desktop’ s monitor resolution is 1920X1080,set the graphics card output to copy or extend the 1920X080 resolution, DVI line output to the video processor, LED screen resolution is 1344X704.

Following are the methods:

Steps:

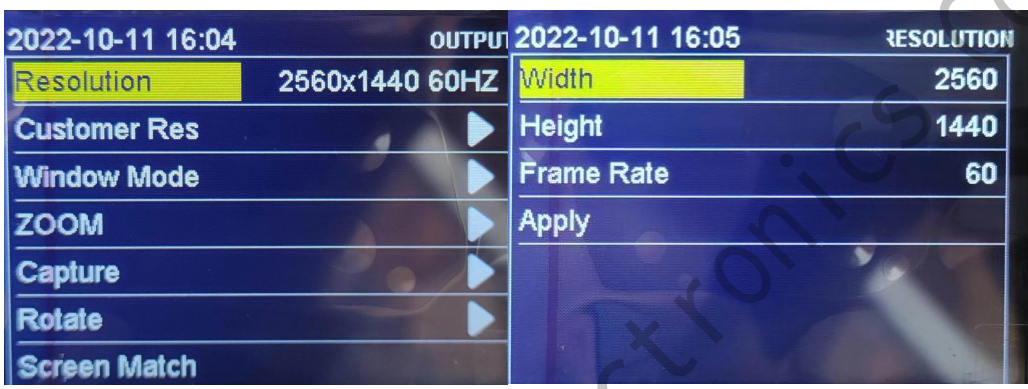
First of all, make sure all hardware device interface is normal and the input and output connections are correct.

step1, set output resolution, go to the main menu - "output" - "resolution" and choose a preset resolution which is larger than 1344X704 ,such as "1366X768, 1680X1050, 1920X1080".

Step 2, set up a full-screen display, that is, the entire desktop of the computer scaled to the LED screen, go to the main menu - "output" - enter the "window adjustment", adjust to 1344 horizontal width, 704 vertical height.

step3, make the set parameters as a template, go to Main Menu - "Scene" save, select a template to save.

## 1.2. Custom Resolution

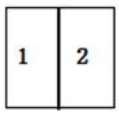
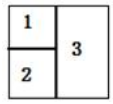
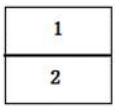
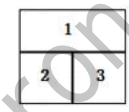
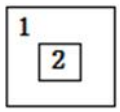
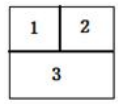
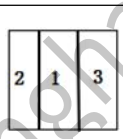
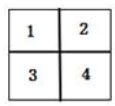
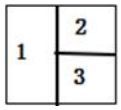



When the preset 18 output resolution does not meet our needs in the output resolution, such as 1920X1280 size, need to customize the resolution, the specific operation: Main Menu - "Output Display" - "Resolution" - "Custom Resolution", set the screen width to 1920, height to 1280, refresh rate 60, then apply.

## 1.3. Display Mode

The knob switches to "Output" - "Display Mode" to select the output display mode , up to 4 windows can be opened.

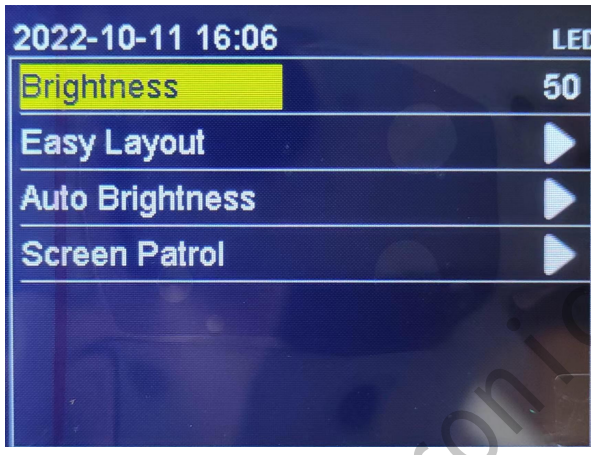
Multi-Window Notes

| NO. | Open window illustration | Cautions | NO. | Open window illustration | Cautions |
|---|---|---|---|---|---|
| 1 |  | 1,2 can not pass the vertical center line | 6 |  | 1,2,3 can not pass the vertical center line, 1,2 can be moved up and down |
| 2 |  | 1,2 can not cross the horizontal center line | 7 |  | 1 can move at will within the screen, 2, 3 can not pass the vertical center line, can move up and down |
| 3 |  | 2 start can not lean on the left and right side of 1, interval for a column, 1, 2 in the scope of the screen can move at will | 8 |  | 3 can move at will within the screen, 1, 2 can not pass the vertical center line, can move up and down |
| 4 |  | 1 can be moved at will, 2,3 can not cross the vertical center line | 9 |  | 1,2,3,4 can not pass the vertical center line, can move up and down |
| 5 |  | 1,2,3 cannot cross the vertical center line, but 2,3 can be moved up and | | | |

| | | | | | |
|---|---|---|---|---|---|
| | | down | | | |

## 2. LED

Go to the "LED" menu, as follows.




### 2.1. Brightness Adjustment

Adjust led screen brightness.

### 2.2. Simple Screen Connection

As shown in the figure below, the processor provides eight common display connection methods,users can choose to apply them according to the actual connection of the network cable.

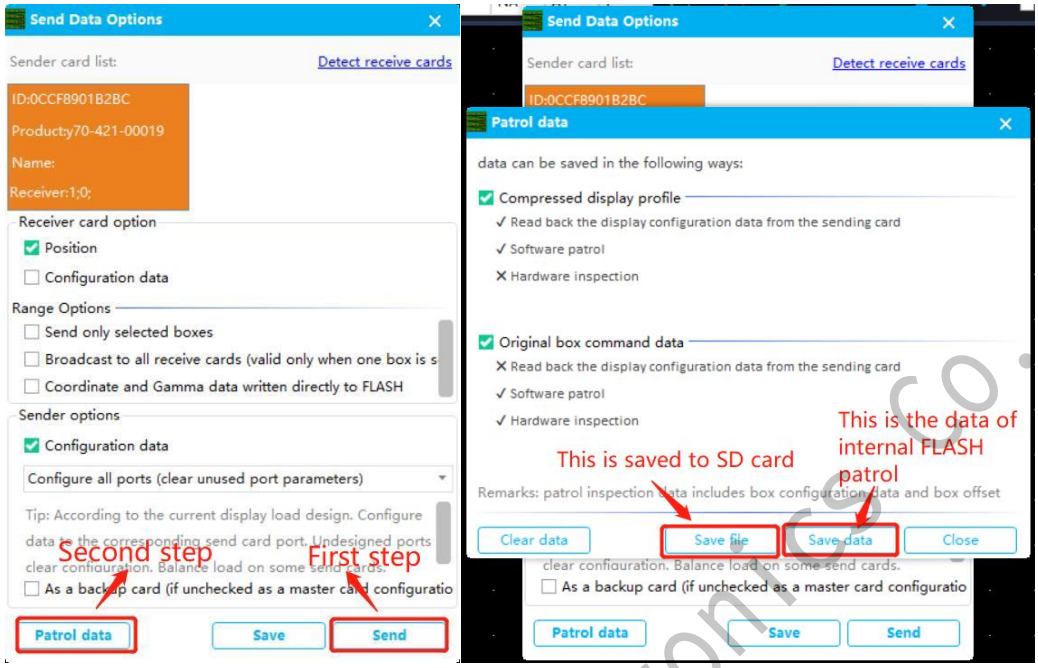

Arrangement, select horizontal vertical arrangement, set the horizontal, vertical offset, the next step, set the number of columns, the number of rows of boxes, the way of alignment,

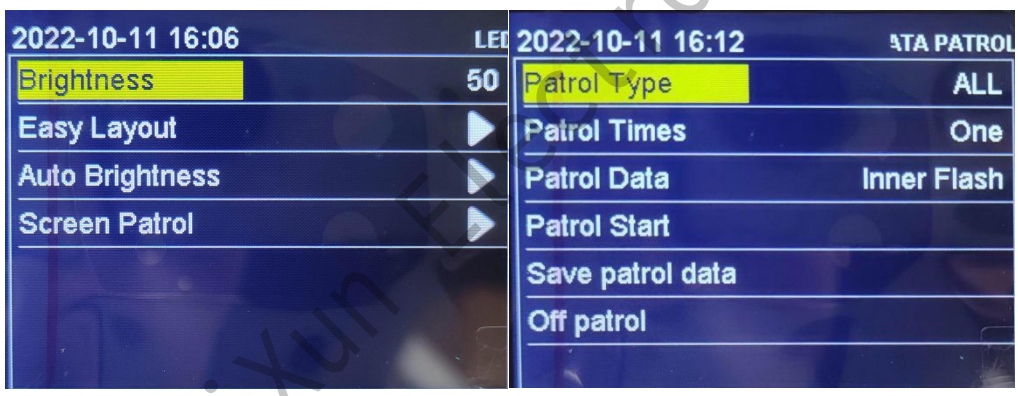
after the completion of the next set of network port.

## 2.3. Envvironment brightness

Connecting light sensor, plug the debug cable, check "Auto Adjust" in LEDOK express software then disconnect the USB debug cable, set the brightness range and the number of segments in this interface, so as to set the range of parameters for automatic screen adjustment.

## 2.4. Screen Patrol




LED -- Screen inspection -- Internal inspection

In Ledset4.0 software,enter complex adjustment , send the display connection file, and then click the inspection data to save data. internal storage inspection has two tyes: receiving card, sending card, all; choose the number of inspections, only receiving card inspection can be unlimited inspection, sending card, all can only be selected one time; solidy after inspecting;

Note: Need unplug usb cable when enable receiving card unlimited inspection, can not

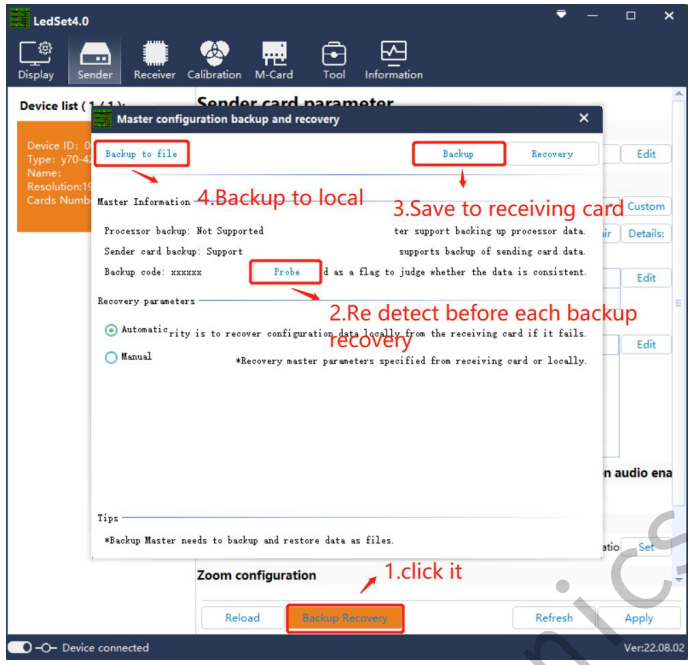
operate when USB unplugged, can long press the button for 10 seconds to close the inspection or re-insert the USB to close;

LED -- screen patrol -- external SD card patrol

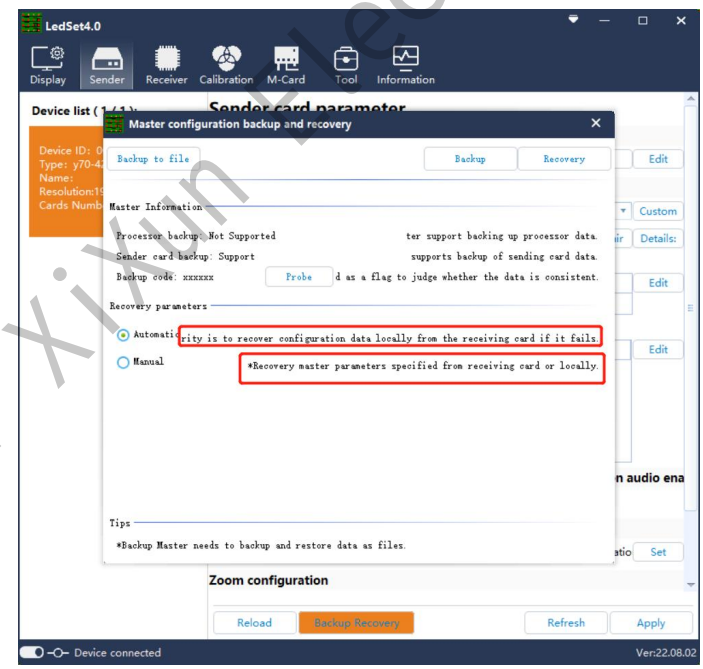
InLedset4.0 software, complexmode, to send the display connection file, and then click the inspection data then save data, save the file to the SD card (file suffix must be: .bin), for external SD card inspection has two tyes: receiving card, sending card, all; choose the number of inspections, only receiving card inspection can be unlimited inspection, sending card, all can only be selected one time; solidy after inspecting;

Note: Need unplug usb cable when enable receiving card unlimited inspection, can not operate when USB unplugged, can long press the button for 10 seconds to close the inspection or re-insert the USB to close.

## 2.5. Backup Recovery




Backup: Data can be backed up to two locations, first is receiving card, second, save to locally generated file.



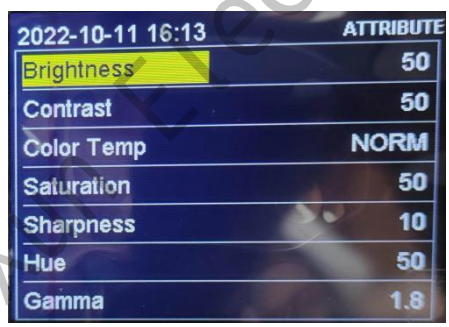

Recovery: The default is automatic, giving priority to recovering from the receiving card and restoring the configuration data locally if it fails, or you can manually select to recover data from the receiving card or locally.

## 3. Scenes


Here, can save and load the parameters set by the video processor , including input signal, input resolution, output resolution, position offset, scaling, interception and other information to save as templates for next time, the system has 8 templates for users to save.

## 4. Images

Go to the "Image" menu, as follows.




**Brightness**: (default 50) adjust the value of 0-100.

**Contrast ratio**: (default 50) adjust the value of 0-100.

**Color temperature**: switch "cool, normal, warm" mode respectively.

**Saturation**: (default 50) adjust 0-128 value.

**Sharpness**: (default 50) adjust 0-128 value.

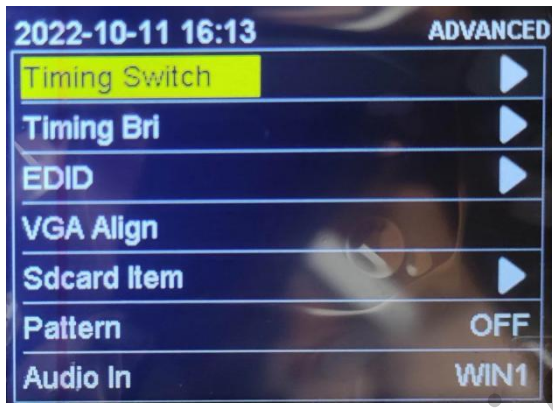
**Tone**: (Default 50) Adjust 0-128 value.

**Gamma**: Adjustable gear 1.8, 2.0, 2.2, 2.4, 2.6 .

**Restore default**: All image parameters are restored to the factory state.

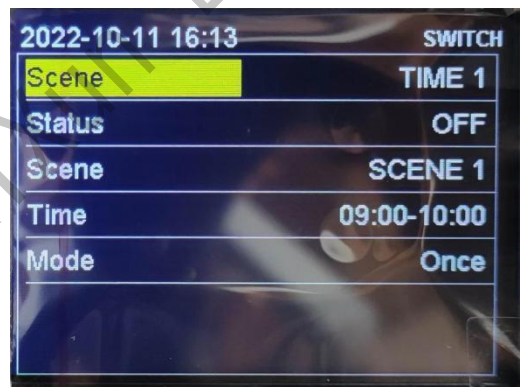
## 5. Advanced

Go to the "Advanced" menu, as follows.




There are 10 options under advanced settings :"Timer Switching, Timer Brightness, EDID, VGA Correction, SD Card Backup, Test Mode, Audio Input, Volume, Freeze, and Black Screen", which are described below.

### 5.1. Timer switching




**Time period**, can set1-5, 5 time periods, when time overlapped, priority execute the previous time period.

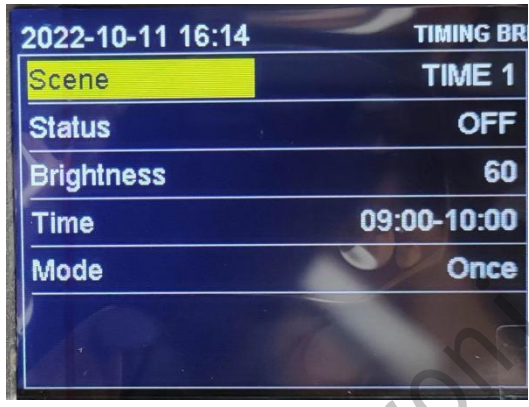
**Status**, off by default, when turn on then can enable the timed switch, switch the port at the set time.

**Port**, set the switch port "HDMI, DVI, VGA, CVBS".

**Time**, customized start and end time.

**Number of times**, select single or daily.

## 5.2. Timer brightness




**Time period,** you can set the break section 1-5, 5 time periods, when there is an overlap of

**Time**, priority execution of the previous time period.

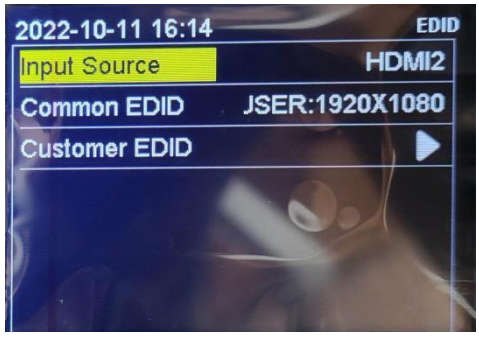
**Status**, off by default, on to start the timed switch and switch the port at the set time.

**Brightness**, set the brightness value, range "0-100".

**Time**, custom start and end time.

**Number of times**, select single or daily.

## 5.3. EDID




Can choose Input signal VGA, HDMI1, HDMI2, DP, DVI. 1366x768_60Hz, 1440x900_60Hz,

1920x1080_60HZ, 2560x1080_60HZ, 3840x1080_60HZ, 3840x2160_60HZ and other common EDIDs can be set, also can customize the resolution according to LED display.

### 5.4. VGA calibrationEDID

Input VGA signal, when there is missing, offset and other abnormal phenomena, the application of this function can automatically make adjustments to the VGA signal position.

### 5.5. SD card backup

The processor parameter settings are backed up to the SD card, or the parameters are restored from the SD card.

### 5.6. Test Mode

Off by default, test white, red, green, blue and black in turn.

### 5.7. Audio Input

Select audio corresponding to follow window 1,2,3,4

### 5.8. Volume

(Default 30) with 0-100 levels adjustable

### 5.9. Freeze

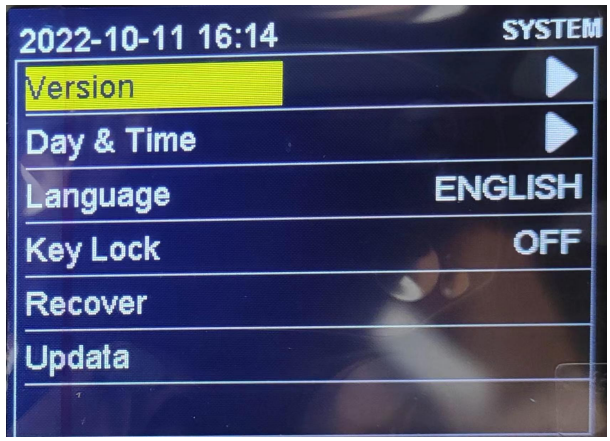
The default "off" state, operated by the knob, when turned to "on", the output screen freezes without control, and then turned to "off", the output screen continues to display.

### 5.10. Freeze

Default 0, toggle 1 for black screen status.

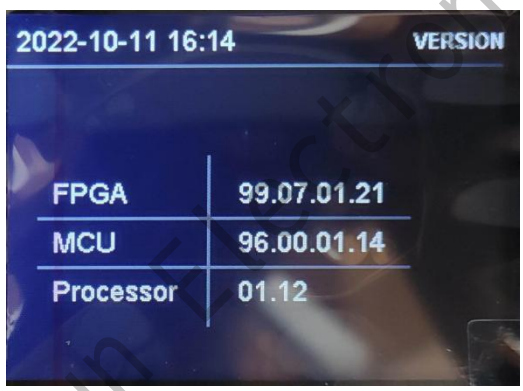
## 6. System Settings

Enter the "System" screen to view the system program version information and system settings.



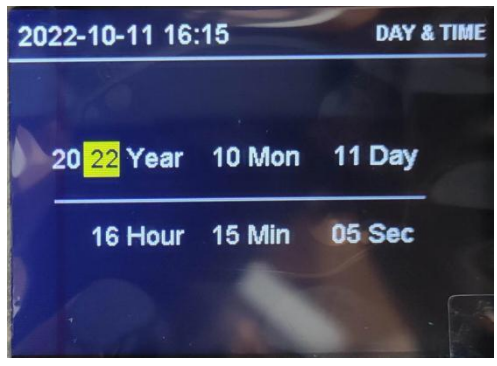

## 6.1. Version Information

Enter the "System Settings" menu - "Version Information" to display the current video processor model and system program version number information, as follows.

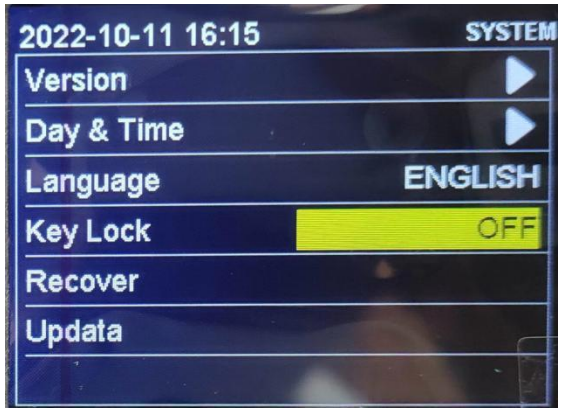



## 6.2. Time Setting

Go to "System Settings" menu - "Time Settings" according to "Year, Month, Day, Hour, Minute, Second" Set the date and time as follows.



## 6.3. Push button lock

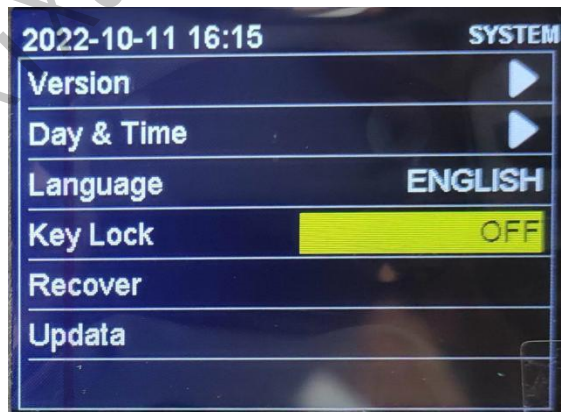



Turn on the key lock function, in order to prevent mistake operation, lock the front panel key function. Default is off, select "on" state, then press OK button to confirm, 3 minutes without operation automatically locked.

Unlock method: Press the OK button to unlock.

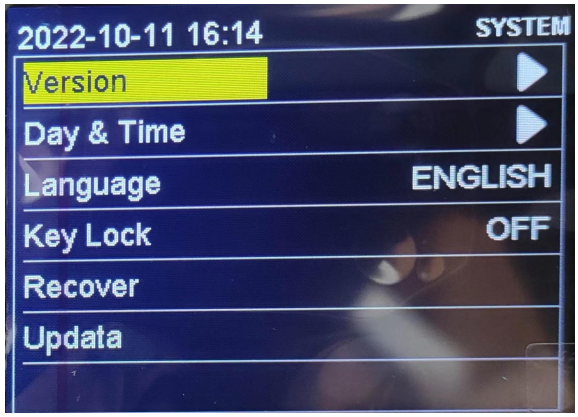
## 6.4. Language

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




## 6.5. Factory Settings

Press the OK button to restore the factory settings directly.Must contact technical support before use this function.




## 6.6. Upgrade Processor

Insert the USB drive and select Upgrade Processor.Please contact technical support in advance.