

LED 视频处理器

LED Video Processor



用户手册

User's Manual



Scale & Switcher
Full HD DP & SCA
PIP & FADER

Introduction

This manual contains information about how to use, install and configure the LED video processor, in addition, also relates to knowledge LED video processor and LED video systems. Users are LED video processor, please read this manual in detail.

About LED Video Processor

LED video processor is a mid-market seamless handover effects video processor, it supports high definition digital input, analog HD input, analog SD input, audio input. With up to 8 video, three audio inputs, as well as 3-way video in the same format, an audio output, and can achieve all channels seamlessly switch audio and video synchronization.

The following lists the LED video processor supports audio and video input formats table:

DVI input	VESA standard, the maximum 1920x1200 @ 60Hz
HDMI input	480i / p 676i / p 720p 1080i / p 8/10/12 bit color depth
VGA input	VESA standard, the maximum 1920x1200 @ 60Hz
CVBS input	PAL, NTSC, PAL-M / N, SECAM
Analog audio input	analog audio signal

Output formats:

DVI output	any resolution up to 2304x1152 @ 60Hz
VGA output	any resolution up to 2304x1152 @ 60Hz
Custom resolution output	
Analog audio output	to any channel analog audio signals

Feature

Multi channel video input - LED Video Processor with 9 channel video input, of which 4 CVBS , 2 VGA, 2 DVI 1 HDMI 1 3G-SDI inputs. Basically has covered the civil and industrial use requirements. Video input switching all and can realize the fast cutting and fade switching effect.

Multi video and audio synchronous - LED Video Processor with 8 channel video input, 3 channel audio switching. Each video can be any combination of the corresponding audio (including HDMI audio), the corresponding relation between the set of audio and video, video channel automatic memory to audio.

Seamless switching-LED Video Processor can also seamlessly switch between any channel switching ,The time adjustable from 0 to 1.5 seconds. With a fade transition effect, switch the input channel, so that the screen can be switched smoothly to the second screen. Using fast switching, switching input channels, you can instantly switch the video output.

Full output resolution-LED Video Processor designed for users with useful output resolution, the widest reach 2560 points, the highest of 1920 points, for a variety of dot matrix display. Up to 20 kinds of output resolution for users to choose, and can be adjusted to point output.And it have custom resolution.

Pre-switching technology - pre-switching technology, is switching the input signal is switched to predict in advance whether the input channel signal. This feature reduces the line is disconnected or may be due to the case of no signal input to switch directly lead to errors, improve the success rate performances.

Support PIP - PIP technology unaltered state in the original image, the other input of the same or different overlay images. LED Video Processor PIP function, not only can be adjusted overlay size, location, borders, etc. You can also use this feature to achieve Picture outside Picture (POP), dual-screen display.

One key black - black screen during a performance is an essential operation, during a performance, you need to close the image output, you can use the black buttons for fast black.

Support Freeze - During playback, you may need to freeze the current picture together to achieve "pause" screen. Freeze the screen, the operator can also change the current input selection or change lines, etc., to avoid background operation affect performance results.

PART and FULL fast switching - LED Video Processor a simple and functional operation of the interception part of the screen and full-screen operation, any one input channel can be independently set different interception effect, and each channel is still able to seamlessly switch. Users can arbitrarily set the current channel interception of part of the screen size and position, and the other channels remain unchanged intercept method. When switching between channels most of its screen or full screen function follow.

Preset -LED Video Processor user presets with 4 groups, each user can store all user default setup parameters, use the LOAD preset shortcut keys you can quickly recall. Can achieve rapid field parameter backup and recall function

Equal and unequal splicing - splicing is LED Video Processor important part, which can be achieved equal splicing and unequal splicing, splicing on greatly satisfy users' needs. On multiple processors to achieve frame synchronization, 0 delay, no tail and other technologies to enable smooth performance perfect. Unequal spliced portion of the output is the same with the picture settings, the user can read the following chapters for instructions.

30bit scaling technology - LED Video Processor using a dual-core image processing engine, a single core can process 30 image scaling technology to achieve pixel output from 64 to 2560, while achieving 10 times the image to enlarge the output, ie, the maximum screen more than 25,600.

Brightness adjustment technology - LED Video Processor unique brightness adjustment function, reduce the brightness solved after layering lost, so that more true color reproduction.

Saved directly technology - Saved directly technology to solve the user's settings and manually save tedious process, that users of co-ordination or adjust parameters without the implementation of artificial save operation, LED Video Processor user parameters automatically stored in EEPROM, even if the power When turned on, the parameters before power remains in the device.

ACC & ACM image filtering - LED Video Processor using ACC and ACM image filtering engine, handling each color, nonlinear filtering effect of the lowest loss rate of the image, restore the color fidelity.

Support the upper RS232 interface control - can use computer to connect processor to use PC software to set the output resolution, brightness, audio switch, switch signal source, etc.....

Panel

Rear Panel

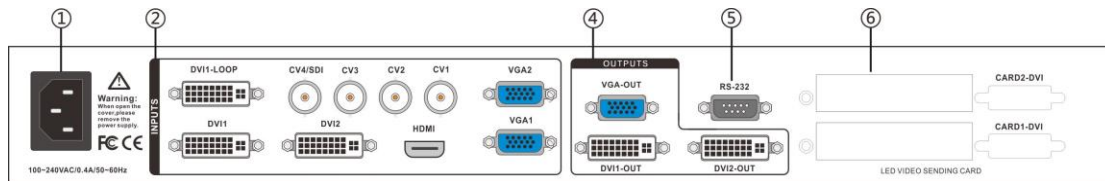


Figure 1-Video processor rear panel

① **AC power input** - using IEC standard power cable video processor, the input power is 100-240 VAC, 50-60Hz.

② **video input** - processor can receive digital video signals, the analog video signal, a CVBS video signal, the following criteria for each input interface.

- CV1, CV2, CV3 , CV4 CVBS video input, BNC connector, input video support PAL, PAL-M / N, NTSC, SECAM formats. You can connect DVD players and camcorders.
- DVI1, DVI2 input, DVI-I standard interface, use the DVI-I or DVI-D cable, the video input format supports VESA standard.
- HDMI HD video input, HDMI-A standard interface, support HDMI1.3 standard video inputs and VESA standards. Used to connect desktop computers and HDMI high-definition player.
- VGA1, VGA2 video input, using the standard DB-25 connector, supports the VESA standard video input for connecting a desktop computer, laptop or other VGA video output device.

③ **Audio Interface** - Processor with -channel analog audio inputs, one analog audio output.

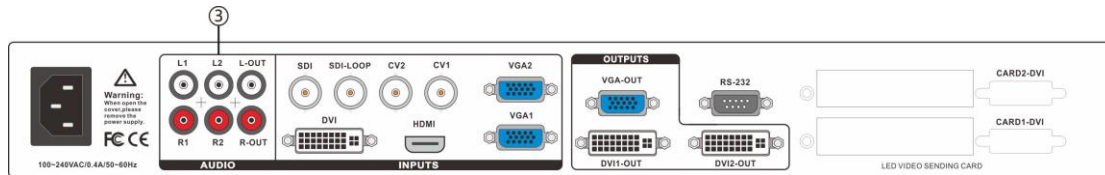


Figure 2—Audio Interface

④ **video output** - video output interface processor programming

- VGA output, using the standard DB-25 connector. DVI output interface with the output video format as used to connect to a monitor.
- DVI output, using the DVI-I connector, the output video format is set by the processor, two DVI outputs the same signal at the same time. Used to send the card or connected to the LED monitor.

⑤ **RS-232** - Serial communication connector for engineering testing, the device is programmed, PC software control, communication baud rate is 115200bps.

⑥ **LED sending card** - LED sending card installation location aside, you can install one or two to send cards. When installed, the user can first open the back cover and the small bracket, mounting, internal set aside four 5V power connector, four 2.0x4PIN connectors. After installing the plug 5V power supply.

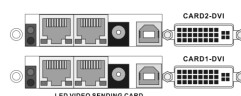


Figure 3-LED sending card

Front Panel

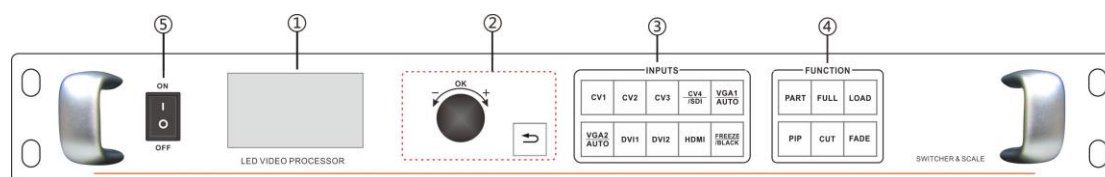


Figure 4-Front Panel

① **LCD display** - Display menu and current information.

② **Menu operation buttons** - Menu operation keypad with "Return key" ,Knob "confirm and adjust." The following are included on each key.

- ↶ button, Exit key, or return to the previous menu.
- Knob , press the OK button to enter the menu or submenu key to confirm the function. Rotate around + "plus" - "minus" operation, you can adjust the menu position or adjust the parameter value becomes small.

③ **Input Selection** - INPUT button in the region, including all of the input 8-channel switch button, the test pattern, screen freeze, black screen, VGA automatic correction function buttons. button Indicators of the button state in the region there are three kinds, namely:

The button lamp flashes slowly: Flashing interval of about one second, and has been in flashing, indicating that the channel table when no signal switching.

Button light flashes quickly: When you press the button, the button indicating rapid flashing time is about 0.3 seconds, indicates that the device is currently being tested and decodes the input video.

button indicator light: Indicates the current channel signals are connected properly or the current function is active. Here is the Enter button on regional detailed description of the function buttons

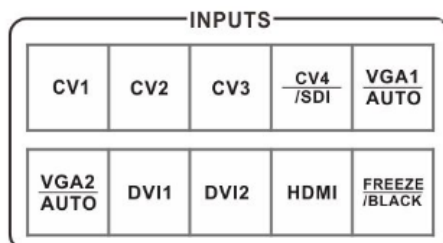


Figure 5- Inputs

- **CV1, CV2, CV3, CV4,** CVBS video switching button.
 - **VGA1, VGA2** button, VGA input switching buttons and automatic correction button (AUTO function). When the input channel for VGA1 or VGA2, repeatedly pressing VGA1 or VGA2 button VGA video processor corrects the current channel, so that the screen output is normal. VGA channel AUTO function: When the input channel for VGA1, and VGA1 have screen output, press VGA1 (AUTO) button, you can recalibrate the current VGA1 signal. VGA2 button also has the same functionality and operation.
 - **DVI1, DVI2,** HDMI bond, respectively, after the corresponding panel DVI1, DVI2, HDMI video inputs.
- ④ **Function button area** - function button area contains a wide mode, preset call, PIP and transition effects operating buttons can quickly achieve operating each function.

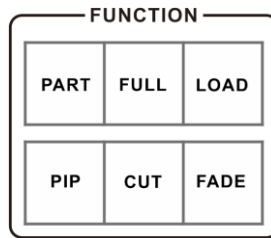


Figure 6—Function

- **PART** button: Part of the screen display mode, the user settings menu, good splicing interception parameters section of the screen, press this button part of the screen to display the results. In the following sections a detailed description of the operation.
- **FULL** button: A full screen mode, by default, all input channels are full-screen mode display mode. When the user wants to set the mode from part to full-screen mode, simply press **FULL** button.
- **LOAD** button: To load preset scenes shortcuts. In the default state, press the **Menu** button to bring up a list of preset scenes, together with the function button menu to bring up the preset scene. Save and recall presets on the scene, in the following sections will be described in detail.
- **PIP** button : to turn on or off the PIP function buttons. User pre-set parameters PIP menu, use the PIP shortcuts to quickly turn on or turn off the PIP function. About PIP's use, in the following sections in detail.
- **CUT** button, **FADE** button : Switching effect, **CUT** for fast cutting effect, **FADE** to fade transition effect. Users when switching input channels can pre-select the transition effect is good press the Enter button.

Tip: When PIP (Picture in Picture) feature to work, you can not use PAT button output test pattern; unusable FREEZE / BLACK button (or black screen freeze function); function and can not be used CUT and FADE function (rapid transition effects and Fade switching effect).

Menu System

Menu Structure

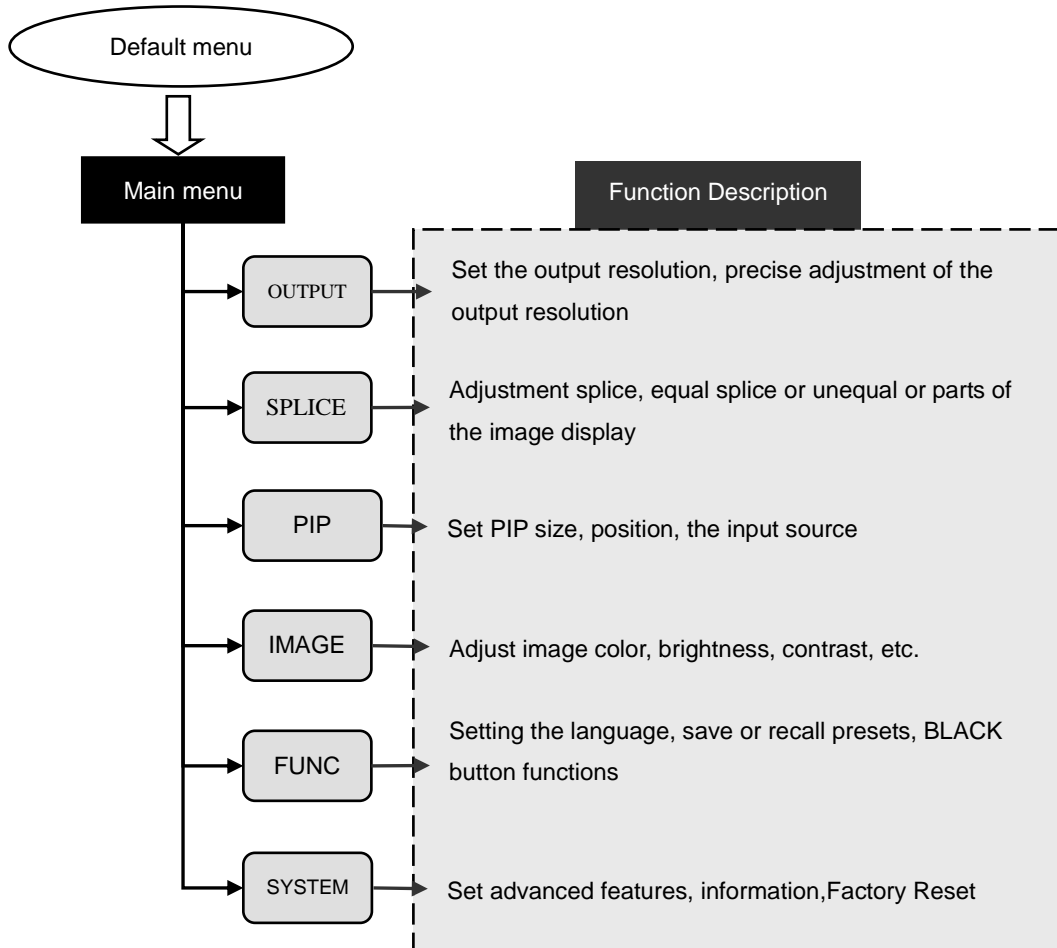


Figure 7 - Main Menu structure diagram

Operation menu

The main menu operation buttons \rightarrow “exist”, **knob**, **OK** the man-machine interface for a 128x64 dot matrix LCD screen.

Boot process equipment is as follows:

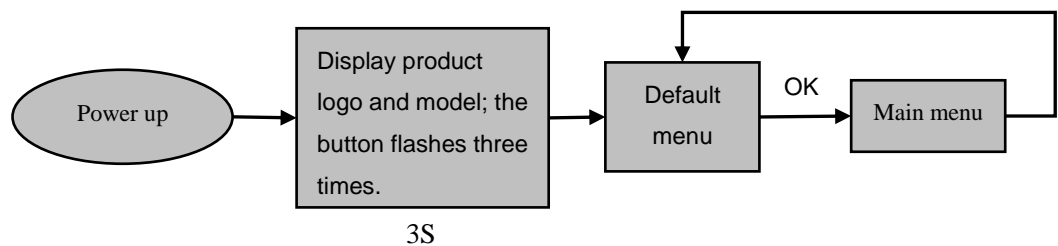


Figure 8- processor boot process and enter the main menu

Default menu

The default menu after the device starts, LCD screen interface, shown above, the input source, the input source connected state, the input source is connected, the output resolution, mosaic mode, brightness and output audio channels and other information, shows the processing the main parameters menu system.

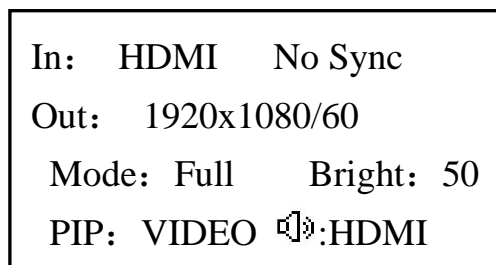


Figure 9 - Default menu

Main menu

The Main Menu is an important parameter adjustment user interface, almost all of the settings can be done in the main menu. In the following sections there will be a detailed description of the operation and settings for each function.

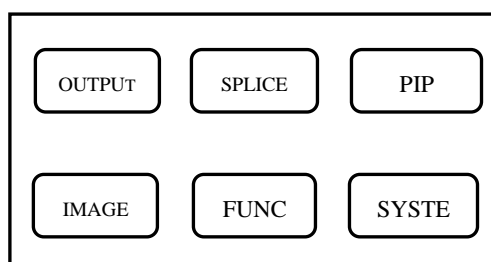


Figure12-Main menu

Setting and Operation

Language

Before using LED video processor, make sure the language you wish to use, if not, please follow the operation to complete.

Default Menu → Main Menu → FUNC → Language

默认菜单→主菜单→功能→语言

Above is the menu operation path, use the button to enter the language settings menu you can select the language.

Reset

When using LED video processor may not be confirmed because of errors or problems arise when setting these parameters, you can enter the menu, make overall reset. Here is the process of resetting the machine.

Default Menu → Main Menu → SYSTEM → Reset All→OK

After the reset, all user parameters back to factory state, users with caution.

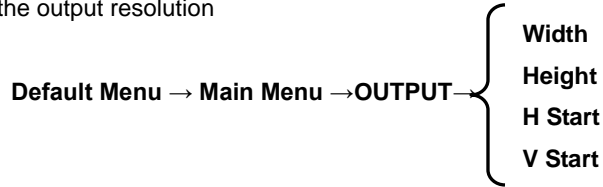
Output Resolution

Using different resolution display or LED screen, to achieve point-to-point output, it is necessary to set the output resolution and the resolution of precise adjustment.

1. select a larger than screen resolution

Default Menu → Main Menu → OUTPUT → Output resolution → confirmed

2. to fine-tune the output resolution



Tip: You reset the output resolution, the system will reset all parameters menu splicing to ensure data consistency. Accurate adjustment of the user is smaller than the resolution of only the currently selected resolution when the resolution is equal to the exact adjustment of the currently selected resolution, the horizontal and vertical start value start value can not be adjusted.

Switching Effect

Processor with two Switching Effect, Fast switching, fade in fade out and corresponding **CUT or FADE** button.

CUT (Fast switching): when the input video switch, switch-free stay.

FADE (fade in fade out): when the input video switcher, both before and after the video image fusion, the switching process smoother over.

The user can set to switch effects following two operations

1. press **CUT** or **FADE** button, press the button, the button indicator lights to alert the user of the current state of transition effects.
2. to enter the menu settings

Default Menu → Main Menu → FUNC → Seamless

Fade time settings

Fade time can be controlled fade switching state of the time, the processor provides 0.5 seconds to 1.5 seconds fade time setting switch. Enter the menu settings as follows

Default Menu → Main Menu → FUNC → Fade Time

Black and Freeze settings

Black and screen freezes shared the FREEZE / BLACK button, in the menu system is displayed as "BLACK button." It is set as follows

Default Menu → Main Menu → FUNC → BLACK FUNC

Once set up, simply press FREEZE / BLACK button to achieving a black screen or screen

NOTE: When FREEZE / BLACK button role, you can not use the Enter button or the PIP function.

freeze

Splicing applications

LED Video Processor has a powerful splicing, enabling hardware splicing 10x10 processors to

achieve frame synchronization. There introduce it's equal splicing and unequal

Equal Splicing

For example the following parameters of the LED screen wall

Device Name	Specification	Parameter	Other
LED unit	P3.9	Resolution 128x128	
LED screen	20x16 unit	Resolution 2560x2048	
LED sending card	XX	Support resolution 1280x1024	
LED video processor	LED Video Processor	Support resolution 2304x1152	
NOTE: In calculating the LED video wall, try using the resolution calculation, in order to avoid errors!			

From the above parameters that can be divided into four equal portions LED screen area, a resolution of 1280x1024, respectively, these four named PANEL1, PANEL2, PANEL3, PANEL4, corresponding to the processor P1, P2, P3, P4, send card named S1, S2, S3, S4. Below is a schematic connection

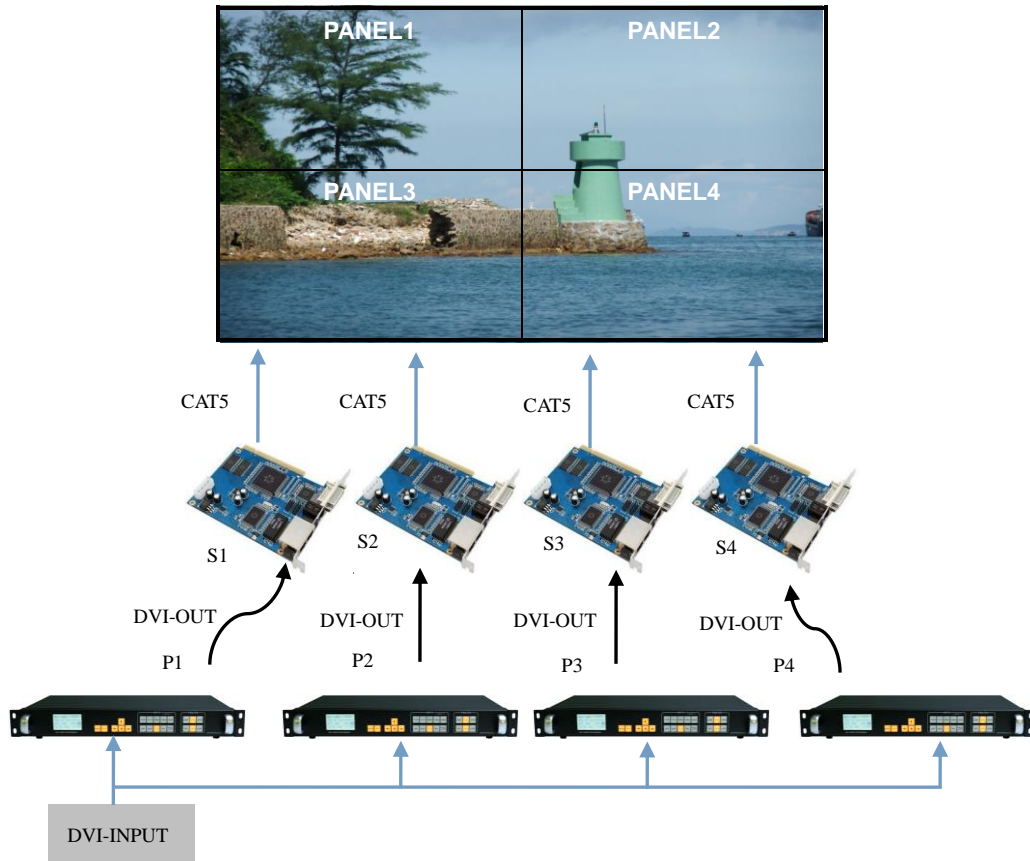


Figure 13-Equal Splicing

Steps:

1. Refer to Figure 13 for all connected devices.
2. LED screen software will adjust PANEL1 ~ PANEL4 respectively into four separate display area. (For details, please refer to the relevant suppliers of LED system operation)
3. are provided P1 ~ P4 video processor parameters. Since the processor comes with 1280x1024 / 60 resolution, so no need to further fine-tune. All of the following parameters, only the splice location is not the same.

Processor P1、P2、P3、P4:

1. Set the output resolution

Default Menu → Main Menu → OUTPUT → Resolution → 1280x1024 60Hz

2. Set the splicing parameters

Default Menu → Main Menu → SPLICE → MODE → V-Wall

Default Menu → Main Menu → SPLICE → Pattern → Equal

Default Menu → Main Menu → SPLICE → V-Wall Sync → On

Default Menu → Main Menu → SPLICE → Parameters → H Units → 2

Default Menu → Main Menu → SPLICE → Parameters → V Units → 2

Processor P1: Splice position

Default Menu → Main Menu → SPLICE → Parameters → Position → 1

Processor P2: Splice position

Default Menu → Main Menu → SPLICE → Parameters → Position → 2

Processor P3: Splice position

Default Menu → Main Menu →SPLICE→Parameters→Position→3

Processor P4: Splice position

Default Menu → Main Menu →SPLICE→Parameters→Position→4

NOTE: splicing synchronization open, cut and fade function is disable.

Unequal Splicing

For example the following parameters of the LED screen wall

Device Name	Specification	Parameter	Other
LED unit	P3.9	Resolution 128x128	
LED screen	21x7 unit	Resolution 2688x896	
LED sending card	XX	Support resolution 2048x640 Two card connected 2048x1280	
LED video processor	LED Video Processor	Support resolution 2304x1152	
NOTE: In calculating the LED video wall, try using the resolution calculation, in order to avoid errors!			

From the above parameters that can be divided into four LED screen unequal area, resolution of 1408x512, 1280x512, 1408x384, 1280x384, respectively, these four named PANEL1, PANEL3, sending cards corresponding S1, S2, corresponding to the video processor P1; PANEL2, PANEL4, sending cards corresponding to S3, S4, corresponds to the video processor P2. Below is a connection

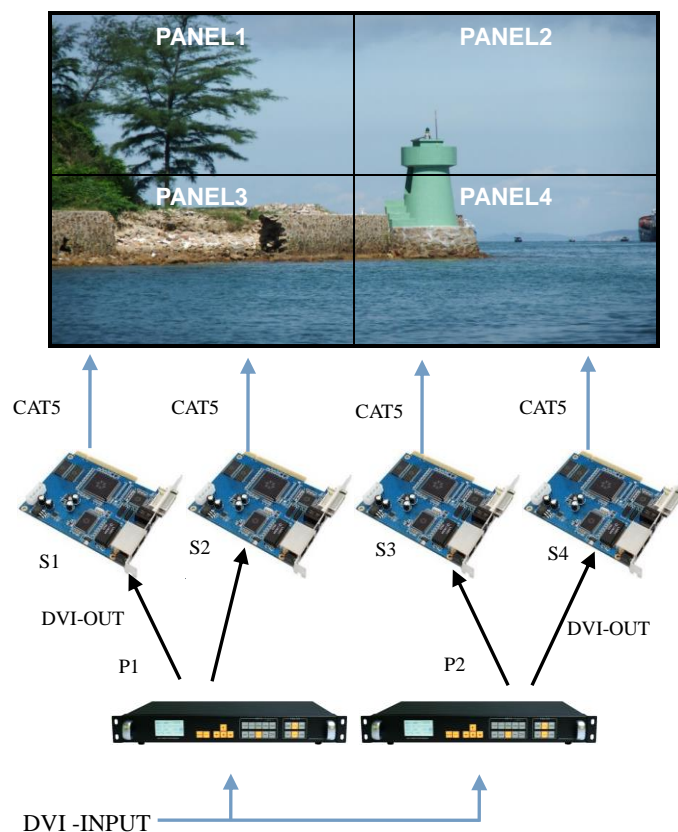


Figure 14-Unequal Splicing

Steps:

- 1.Refer to Figure 14 Connect all devices.
- 2.Sending card S1 and S2 cascade, S3 and S4 cascade. Respectively adjustment LED screen software PANEL1 and PANEL3 into a complete display area, PANEL2 and PANEL4 set another full display area. (For details, please refer to the relevant suppliers of LED system operation)
- 3.Are provided P1 ~ P2 video processor parameters.

Processor P1:

- 1.Setting resolution

Default Menu → Main Menu → OUTPUT →Resolution→1440x900 60Hz

Default Menu → Main Menu → OUTPUT→Width→1408

Default Menu → Main Menu → OUTPUT→Height→896

2. Setting splice

Default Menu → Main Menu →SPLICE→ MODE →V-Wall

Default Menu → Main Menu →SPLICE→ Pattern →Unequal

Default Menu → Main Menu →SPLICE→V-Wall Sync →On

Default Menu → Main Menu →SPLICE→Parameters→H Total→2688

Default Menu → Main Menu →SPLICE→Parameters→V Total→896

Default Menu → Main Menu →SPLICE→Parameters→H Start→0

Default Menu → Main Menu →SPLICE→Parameters→V Start→0

Processor P2:

1. Setting resolution

Default Menu → Main Menu → OUTPUT → Resolution → 1280x720 60Hz

Default Menu → Main Menu → OUTPUT → Width → 1280

Default Menu → Main Menu → OUTPUT → Height → 896

2. Setting splice

Default Menu → Main Menu → SPLICE → MODE → V-Wall

Default Menu → Main Menu → SPLICE → Pattern → Unequal

Default Menu → Main Menu → SPLICE → V-Wall Sync → On

Default Menu → Main Menu → SPLICE → Parameters → H Total → 2688

Default Menu → Main Menu → SPLICE → Parameters → V Total → 896

Default Menu → Main Menu → SPLICE → Parameters → H Start → 1408

Default Menu → Main Menu → SPLICE → Parameters → V Start → 0

NOTE: splicing synchronization open, cut and fade function disable.

Capture

Interception of part of the screen function is unequal extension splicing function. In actual use, may be used to intercept the partial screen display, displays only a partial area of input channels. Such as the Windows user interface, users simply DVI1 channel video playback window, the other input channel to full screen. Processor provides users with two control keys, as shown below.



Figure15-Capture

Setting:

1. Select the channel you want to capture part of the screen, such as DVI1;
2. To enter the menu settings unequal splicing parameters (equivalent to capture part of the screen parameters), the total pixel values and the start value is adjusted by visual inspection is completed.

Default Menu → Main Menu → SPLICE → MODE → V-Wall

Default Menu → Main Menu → SPLICE → Pattern → Unequal

Default Menu → Main Menu → SPLICE → V-Wall Sync → off

Default Menu → Main Menu → SPLICE → Parameters → H Total → 4200

Default Menu → Main Menu → SPLICE → Parameters → V Total → 3000

Default Menu → Main Menu → SPLICE → Parameters → H Start → 0

Default Menu → Main Menu → SPLICE → Parameters → V Start → 0

When switching the channel, as long as you want to advance channel selection **FULL** or **PART** effect effect, the device will automatically save the current output for the input channel effects, that is, each input channel display mode can be different.

PIP

PIP is the use of digital technology to display two programs on the same screen. That is the normal viewing of the main screen, while the insertion of one or more sub-picture compressed in order to appreciate the main screen while monitoring other channels. When operating in PIP mode mode, the user must provide at least two of the input signal, and the PIP menu settings accordingly. PIP function can be realized outside-picture effects, namely POP, PBP is a special application of the PIP.

Steps:

1. Turn on PIP, there are two ways to open, one by **PIP** button, the second is in the menu system

Default Menu → Main Menu → PIP → PIP mode → PIP

NOTE: When the PIP is enabled, cut and fade function can not be used.

2. Set the input source, the processor of the main channel and PIP channel, the same type of input source can not be achieved PIP function, so users can refer to the following table PIP source conflict table.

Default Menu → Main Menu → PIP → PIP setup → Input

Table 3 - PIP Source conflict table

		Main Channel							
		CV1	CV2	VGA1	VGA2	DVI1	DVI2	HDMI	SDI
PIP Chanel	CV1	√	x	√	√	√	√	√	√
	CV2	x	√	√	√	√	√	√	√
	VGA1	√	√	√	x	√	√	√	√
	VGA2	√	√	x	√	√	√	√	√
	DVI1	√	√	√	√	√	x	x	√
	DVI2	√	√	√	√	x	√	x	√
	HDMI	√	√	√	√	x	x	√	√
	SDI	√	√	√	√	√	√	√	√

3. Size and position parameters, specific parameters set by the user, the user can also adjust the PIP border transparency.

Default Menu → Main Menu → PIP → PIP setup → H Start

Default Menu → Main Menu → PIP → PIP setup → V Start

Default Menu → Main Menu → PIP → PIP setup → Width

Default Menu → Main Menu → PIP → PIP setup → Height

Keying

Keying is an extension of the PIP function, which is accomplished by the PIP channel input color image minus the red, green, blue, black, and white colors to get results. Keying function can be used for some simple effects processing and overlay subtitles. Easy setting operation, please refer to the setup.

For example, Figure 16A is a picture-channel playback of video for PPT, 16B is the main input channels, 16C is a matting effect.

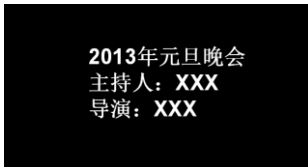


Figure 16A-PIP Chanel



16B-Main Chanel



16C-Output

Setting step:

Default Menu → Main Menu → PIP → PIP mode→Keying

Default Menu → Main Menu → PIP→Keying Setup→ Input→ DVI

Default Menu → Main Menu → PIP→Keying Setup→ Chroma Key→ Black

Preset

Preset is to facilitate users to use quickly recall commonly used in a variety of scenarios, reducing the user when the operation is repeated complicated settings, improve work efficiency. Each contains a preset mode signal channel mode, the display mode of various parameters, image quality settings. Processor provides 4 preset save space, here to save and recall preset mode operation.

Save Preset

When the user adjust all the parameters, to enter to save the current preset

Default Menu → Main Menu → FUNC→ Preset→Save Mode → Preset [1] → confirm

In saving mode submenu have Preset [1] to Preset [4], four storage space, the user can choose. Storage space is empty, the right of the status display for ☆, when the state has been saved had the right argument appears as ★. Users can also cover save.

Recall Preset

Recall preset parameters have two operating modes, keyboard shortcuts and menu calls

1. Use **LOAD** button

In the default menu state, press the **LOAD** button to call up the menu to enter the preset scene. Use the **↵** and **↓** buttons to select the saved preset scene, press **MENU** button to confirm.

2. Setting in menu

Default Menu → Main Menu → FUNC→ Preset→Read Mode→Preset [1]→confirm

Pre-Switching

Pre-switching function can help users predict the source to be switched is connected properly, reduce misuse live performances. Details as follows:

1. Into the pre-switching operation menu

When **CUT** or **FADE** button lights up, repeatedly pressing the **FADE** button or **CUT** button, LCD screen will prompt the user to enter the signal pre-switching state.

CUR: DVI
 PRE: VGA NoSync
 TRANS FADE: 0.5S
 Press EXIT to exit!

Figure 17-Pre-Switching

2. To select the input source to be switched, press **FADE** or **CUT** button or button switch.

In the pre-switching, press CV1 ~ SDI one button point, **FADE** or **CUT** button or key indicator flashes

quickly, prompting the user to press the flashing **CUT** or **FADE** button switch.

NOTE: The same type of signal can not be pre-selected, otherwise it will prompt "invalid channel!" Conflict pre-selected signal PIP input signal and the same conflict, a detailed check list of the PIP conflict.

Brightness and Contrast

Processor technology unique brightness, contrast adjustment, adjust color reproduction and high brightness after the picture level without loss. Adjust the brightness, it is best to adjust the brightness and contrast with, ensure perfect output effect. There are two ways to adjust the brightness

1. Use shortcut keys to adjust the brightness

In the default menu, press the **Menu** button control ← button, in order to reduce the brightness, press → to increase the brightness. At this point the brightness values will change the default menu.

2. Enter the image brightness and contrast settings menu

Default Menu → Main Menu → IMAGE → Brightness → 50

Default Menu → Main Menu → IMAGE → Contrast → 50

Key Lock

Key lock function for the user in a complex environment to avoid misuse or others inadvertently

Lock

Enter the system menu, enable key lock function

Default Menu → Main Menu → SYSTEM → Keypad Lock → on

Unlock

Press the **FADE** button last 2 second, processor automatically unlocked.

VGA Adjust

Under normal circumstances, switch to the VGA input source, the processor will automatically correct input source color, image size and position. If the processor does not automatically corrected successfully, the user can manually correct implementation.

1. Use AUTO to adjust

When the input source is switched to the VGA input, VGA button is pressed again, the system will self-correct input source.

2. Enter menu to adjust

Switching to the VGA input state, enter the menu

Default Menu → Main Menu → SYSTEM → VGA Setting → Auto Adjust → confirm

If automatic calibration is unsuccessful, you can try manually correct

Default Menu → Main Menu → SYSTEM → VGA Setting → H Position

Default Menu → Main Menu → SYSTEM → VGA Setting → V Position

Default Menu → Main Menu → SYSTEM → VGA Setting → H Clock

Default Menu → Main Menu → SYSTEM → VGA Setting → V Clock

NOTE: When no VGA signal input, the system prompts not correct.

Audio and video synchronization

Video processor provides eight channels of video and 4 audio, there are three-way external audio input and 1 channel audio input HDMI audio. So switching to a set of audio output. Follows

Set the current corresponding audio and video channels. In the default menu, use the ↑ and ↓ buttons to toggle IN1 ~ IN3, HDMI, a total of 5 off the total state. Video channel and audio channel automatically associated with the current set up after the next press CV1 ~ HDMI input buttons which the processor automatically switches associated audio channels.

Specifications

DVI Inputs

Quantity	2
Connector	DVI-I
Signal Standard	DVI1.0, HDMI1.3 Backward compatible
Supported resolutions	VESA, PC to 1920x1200, HD to 1080p

HDMI Inputs

Quantity	1
Connector	HDMI-A
Signal Standard	HDMI1.3Backward compatible
Supported resolutions	VESA, PC to 1920x1200, HD to 1080p

VGA Inputs

Quantity	2
Connector	DB15
Signal Standard	R、 G、 B、 Hsync、 Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level: 300mV Sync-tip: 0V
Supported resolutions	VESA, PC to 1920x1200

※ SDI Inputs(Optional)

Connector	1
Signal Standard	BNC
Supported resolutions	SD/HD/3G-SDI
Connector	1080p 60/50/30/25/24/25(PsF)/24(PsF)720p 60/50/25/24 1080i 1035i 625/525 line

CVBS (Video) Inputs

Quantity	2 x 2
Connector	BNC
Signal Standard	PAL/NTSC 1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm
Supported resolutions	480i,576i

※ Audio Inputs

Quantity	1 x 2
Connector	RCA
Signal Standard	Analog audio

※ Audio Output

Quantity	1
Connector	RCA
Signal Standard	Analog audio

DVI/VGA Outputs

Quantity	2 DVI, 1VGA		
Connector	DVI-I, DB15		
Signal Standard	DVI: DVI1.0	VGA: VESA	
Resolutions	1024x768@60Hz	1920x1080@60Hz	2304x1152@60Hz
	1280x720@60Hz	1920x1200@60Hz	2560x816@60Hz
	1280x1024@60Hz	1024x1280@60Hz	1280x720@50Hz
	1440x900@60Hz	1536x1536@60Hz	1920x1080@50Hz
	1600x1200@60Hz	2048x640@60Hz	1024x1920@60Hz
	1680x1050@60Hz	2048x1152@60Hz	

Whole machine

N.W	3.0kg
Size (mm)	Case size: (LWH) 253x440x56
	Packing size: LWH =515x110x355
Power Supply	100VAC – 240VAC 50/60Hz
Maximum power	18W
Temperature	0°C~45°C
Storage humidity	10%~90%

