

LED Video Processor

User Manual

A Before using this LED Video processor please read this manual carefully and preserved for reference in the future.

MAGNIMAGE

Statements

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Briefs

Thanks for your purchasing our LED Video processor. Do hope you can enjoy the experience of the product performance. The design of the LED video processor conforms to international and industry standards. But if with improper operation, there will be a personal injury and property damage. In order to avoid the dangerous, please obey the relevant instructions when you install and operate the product.

Trademark credit

- VGA and XGA are the trademarks of IBM.
- VESA is a Video Electronics Standards Association's trademark.
- HDMI、HDMI mark and High-Definition Multimedia Interface are all from HDMI Licensing LLC.

Even if not specified company or product trademarks, trademark has been fully recognized.

About software

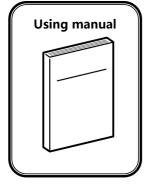
Do not change, decompile, disassemble, decrypt or reverse engineer the software installed in the product, these acts are illegal.

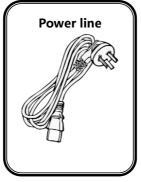
Features

- Support user-defined output resolution, maximum horizontal 3840 pixel, and maximum vertical 1920 pixel.
- Quick switch for different input signal, 2 kinds of switch mode.
- Picture and text overlay, convenience to achieve the effect of the captions superposed and image compound.
- Operating mode can be restored soon, convenient for any apply condition.
- Input hot backup function, allow you to be no longer embarrassed in case of sudden loss of the input signal.
- 5 dual track audio switching

Using directions

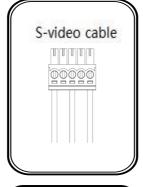
Included Accessories

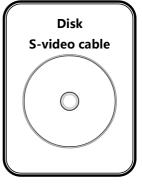












Sending card stud bolts 4pin2.54 sending card power cable

M3 screws × 4

Safety instructions

- Please use the correct power supply according that the power input voltage for this product range is 100 ~ 240V AC, 50/60Hz.
- When you need connect or pull out any signal or bound guideline. Please confirm that all the power supply cords have been pulled out ahead.
- When you need to add hardware device for the LED video processor, make sure all of the signals and power cables have been pulled out ahead.
- Before you operate any hardware, please turn off the LED video processor's power, and to set you on the electrostatic by touching the ground surfaces.
- Please use the processor in clean, dry and ventilated environment, not use it in the high temperature, humidity environment.
- The product is the electronic product; please stay away from the fire,
 water and of which is inflammable and blast, dangerous.
- This product is with high pressure components, please don't open the case or maintain it by your own.
- As there is exceptional condition with smoke, ill-smelling, please turn off the switch at once and contact with the dealers.

Function introduction

Brief

LED-515D series products are the video processor developed for led display system, adopted the top image processing chips, internal 12 bits processing, with clearer images and richer colors.

Advanced alternate motion picture processing technology, to remove video motion tail or jagged, for the normal PAL/NTSC video, output image will be clearer, for the HD 1080i signal, output image details will be rich, full color and image quality is in the leading level.

Advanced image scaling technology, support user-defined output resolution, single unit can support horizontal resolution 3840 at maximum, vertical resolution 1920 at maximum, refresh frequency rate 120Hz, can upgrade the output signal bandwidth utilization greatly; furthermore, also can use the traditional standard output resolution, then scaling the output image by pixel to pixel according to the real size of the LED screen.

Accurate dual picture input image intercepting function, can realize the pixel to pixel display and material fusion.

Perfect video image input port, including $1 \times VGA$, $1 \times DVI$, $1 \times DP$, $1 \times HDMI \ \ 2 \times video \ (PAL/NTSC)$, support full HD signal input, can be connected with various audio and video equipment.

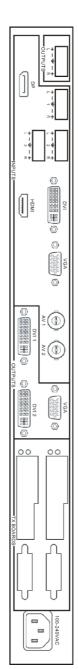
Support seamless switch between different input signal sources and picture in picture function.

Support 5 audio channel switching.

Support seamless switch between different input signal sources and picture in picture function.

The whole unit is with pure hardware framework, steady and reliable.

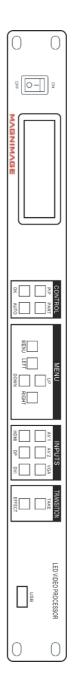
Back panel graphic figure



putput	Audio input and output
VGA output port	VGA
2 DVI output port (DVI-D)	DVI1~DVI2
	Output

Output	
DVI1~DVI2	2 DVI output port (DVI-D)
VGA	VGA output port
Audio input and output	ut
HDMI	HDMI digital audio input port
DP	DP digital audio input port
Audio input port	3 channel
Audio output port 1 channel	1 channel

Front panel figure



Control interface	erface		
PIP	Shortcut key of PIP function	AV1	CVBS1 select key
PART	Shortcut key for part or full	AV2	CVBS1 select key
OK	Confirm key	VGA	VGA input key
AUTO	To adjust the input image position	TAKE	switch the images
MENU	Switch to menu	HDMI	HDMI input key
LEFT	Left key for menu	DP	DP input key
ΠP	Up key for menu	DVI	DVI input key
DOWN	Down key for menu	EFFECT	switch key for image switching
RIGHT	Right key for menu		

Technical Specification

Input		
Port	Number	Resolution
AV	2	PAL/NTSC
VGA	1	VESA
DVI	1 VESA (support 1080i input)	
HDMI	1	EIA/CEA-861 , HDMI-1.3 standard
DP	1	DisplayPort 1.1

Output		
Port	Number	Resolution
VGA	1	1024×768/60Hz/75Hz/85Hz/100Hz/120Hz
DVI	2	1280×1024/60Hz 1440×900/60Hz
		1680×1050/60Hz 1600×1200/60Hz
		1600×1200/60Hz – Reduced
		1920×1080/60Hz/50 2560×816/60Hz
		Hz
		2048×640/60Hz 1920×1200/60Hz
		2304×1152/60Hz 2048×1152/60Hz
		1024×1280/60Hz 1536×1536/60Hz
		User-defined output resolution (bandwidth
		optimization) :
		H Resolution 3840(max.)
		V Resolution 1920(max.)

General	
Power supply	100~240VAC, 50/60Hz
Power consumption	20W
Operating temperature	0~45℃
Cabinet dimension	482.6mm × 283mm × (44.5 + 6) mm
Net weight	3.6 Kg

Using Menu

LED-515D adopted a high brightness & contrast LCD screen to display the entire menu system, if the user does not have operation or operation overtime, the LCD screen will show the default state. Operate the menu system with the knob and button. The user can check and set its function and states convenient and intuitive to meet the demand.

The following will combine the keys function and the LCD screen display, detailed introduces you to LED-515 of menu system.

How to use the buttons

The front panel buttons of LED-515 is divided into four areas : MENU, CONTROL, INPUTS, TRANSITION.

MENU

This area contains 5 button: MENU, UP, DOWN, LEFT and RIGHT KEY. which can be pressed, a confirmation key (OK), and a return key (). Short press "knob", its function is same as the confirmation button; Long press "knob", can make the menu system return to the default state at once; When to press return key, the menu system may be back to the higher level menu in turn until returning to the default state.

In the default state , press "MENU" for main menu ; in main menu , press "UP" or "DOWN" for selecting, press "OK" or "RIGHT" to enter , press "LEFT" or "RIGHT" for increase or decrease. Finish adjusting, press" MENU" to come back to default state. If you don' t have operation after long time, it will automatically come back to default state. (It won' t come to default state automatically when you are in PIP shortcut/ Mode shortcut/ Test pattern mode, etc)

CONTROL

There are 4 buttons: PIP, PART, AUTO and OK key.

	The default menu system
_	state
PIP	Open or close the dual picture function, if long press the button, change the cascading relationship between picture 1 and picture 2 in the permission.
PART	Switch part and full
AUTO	Automatically rectify the image display position when the current input source is VGA.
OK	Confirm key

INPUTS

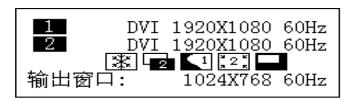
In the default state ,can select input signal as image 1 by press the button.

TRANSITION

Press TAKE or EFFECT button, image switching menu will be called out .TAKE button is used for switching image, EFFECT button is used for different switching mode.

Default state introduction

Turn on the power supply of LED-515, in the process of the system startup, the LCD front panel would display the start interface on the left screen, when the start completed, there will show the machine's current state on the screen as the following figure shows:



Above the figure, there are 4 lines content, explanation as the following:

Lines	Details		
The first line	Picture 1 (main picture, is also default picture) port name and current input signal resolution.		
The second line	Picture 2 (vice-picture) port name and current input signal resolution.		
The third line	State prompt area, by several icons to show the machine current working state. There are 8 icons areas from left to right: 1. Image freeze state area 1. PIP state area 2. Picture 1 image intercepting state area 3. Picture 2 image intercepting state area 4. PART (part or full screen) state area Check details in next page.		
The fourth line	Output resolution, check details in "Output indicators" [CD9].		

In the default state, the third line area of LCD screen is status prompt area, by several icons to show the machine current working status. Please see the table below:

Form1: State icons and meanings

Icons	Area	Name	Hint (shortcut key in the bracket)
***	1	Image freeze state	Image is frozen
1	2	PIP off	PIP function off (PIP)
	2	PIP on [1]	PIP function on , picture 1 is on the top (PIP)
2	2	PIP on [2]	PIP function on , picture 2 is on the top (PIP)
* 1 *	3	Image intercepting 1 off	Image intercepting1 function turn off (CROP)
1	3	Image intercepting 1 on	Image intercepting1 function open (CROP)
2 k	4	Image intercepting 2 off	Image intercepting 2 function turn off (CROP)
2	4	Image intercepting 2 on	Image intercepting 2 function open (CROP)
	5	PART function off	PART function off , cutdown image shown on the monitor (PART)
	5	PART function on	PART function on , full screen image shown on the monitor (PART)

Main menu introduction

The main menu will show the symbols listed in the table below, please check its specific meaning in the table below:

In the main MENU, the user can use the "MENU", UP ", "DOWN"," LEFT"," RIGHT"," OK" six key to select and adjust the each item. Its operation is fixed pattern, please check the following table:

Operation	Button
Open the main	Press "MENU" in the default state
menu	
Select the each	press "UP" and "DOWN" key
item	
Adjust the parameters	In the setting mode, press "LEFT" or "RIGHT".
Enter the next level menu	Where there is "▶" , press "RIGHT" or "OK"
Performs some specific functions	Where there is "▶" , press "RIGHT" or "OK"
Back to the higher level menu	press "MENU"
Confirm When the reset operation, to avoid the incorrect ope	
operation	need to use the "OK" button to confirm operation

Main menu

In the default state, press "UP" or "DOWN" to enter the main MENU state, the LCD screen will show the details as below:

Image quality	•
Output setting	•
Audio setting	•
Image crop	>
Image switch	•
Test picture	•
Function setting	•
PIP	•
Time and task	>
Language	>

The main menu has nine sub menu items, divided into three separate page display. Rotating "UP" / "DOWN" to select the above listed seven sub menu title, selected, press "OK" or "RIGHT" button to enter the selected project, press "MENU" to be back.

The main menu contains the following functions:

Picture quality	brightness, contrast, color, sharpness, color temperature, Gamma,	
	·	
adjustment	image intensification, scene setting, etc.	
0.1	output resolution setting, picture 1 position, size setting, part or full	
Output setting	screen switch, etc	
	<u></u>	
Audio setting	Three outside audio input according to input signal.	
Image crop	input image intercepting function of image 1 or 2	
Image switch	Automatic switch (hot backup), switch mode setting.	
Test picture	Test picture choose、pixel positioning function	
Function	Freeze, save and recover the user mode, input resolution lock, DVI	
setting	arbitrary mode, etc.	
DID	Picture 2switch,input source choose, window position, size setting,	
PIP	text overlay, hierarchical display, etc.	
Time and task	Setting time and task.	
Menu		
la	Support English and Chinese	
language		

Picture quality adjust sub menu

Image mode	standard
Brightness	50
Contrast	50
Color	50
Sharpness	12
3Ddenoise/VGA	off/►
Scene mode	norma
Color temperature	•
Gamma	off
VGA strengthen	off
DVI enhance	off
Image parameter	•



Color temperature	Normal	
Red	50	
Green	50	
Blue	50	

Image mode	"user" , "vivid" , "soft" , "normal"	
Brightness	Range 0~100 .	
Contrast	Range 0~100 .	
Color	Range 0~100 .	
Sharpness	Range 0~24 .	
3D de-noise	This function is valid when picture 1 is not VGA, divided into "Off", "Adaptive", "Low", "Medium", "High" these five kinds of de-noise mode.	
VGA rectify	It is effective when Picture 1 input port is VGA, automatically to rectify the position and size of input image, at this time, should ensure input image to be full screen and with a bright edge.	
Scene mode	Divided into "Normal"、"Vivid"、"Theatre"、"Game"、"Sport" the five modes.	
Color	Divided into "Normal", "Warm", "Cool", "User" the four options. Only when select "User", "Red", "Green", "Blue" the three regulations is effect and the range is 0 to 100.	
temperature	Red Range 0~100 , Valid in the color temperature is "user" .	
	Green Range 0~100 , Valid in the color temperature is "user" .	
	Blue Range 0~100 , Valid in the color temperature is "user" .	
Gamma	Control the output Gamma value of video processor, divided into "Off"、"2.0"、"2.2"、"2.8"、"- 1.1"、"- 1.2" six options.	
VGA strengthen	This function is divided into "Off"、"Level0"、"Level1"、"Level2"、"Level3"、 "Level4"、"Adaptive" the six modes.	
DVI enhance	In the state of DVI input, the function can greatly improve the output image color and clarity	
Image parameter reset	Reset above all the parameters to be the default value.	

Output setting sub menu

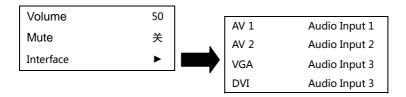
Output Resolution	
H width	1024
V height	768
H position	0
V position 0	
Part and full	Full



Output	LED-515Dsupport 19sorts of regular output resolution.	
Resolution	find details in " output indicators" [9].	
H width	Minimum is 64 , maximum is " the width of the current output resolution " (for	
	example: 1024 of 1024×768 60Hz).	
\/ haimht	Minimum is 48, maximum is "the height of the current output resolution" (for	
V height	example: 768 of 1024×768 60Hz).	
II manisian	Minimum value is -16; the biggest can be set to be the differentials between	
H position	"the width of the current output resolution" and "H width".	
V position	Minimum value is -16; the biggest can be set to the differentials between "the	
v position	height of the current output resolution" and "V height".	
	Full: namely PART function shut.	
	Now the complete image will be shown on the LED screen, and the monitor will	
	display shrunken image, "H width" , "V height" , "H Position" and "V Position"	
Part and	four parameters take effect automatically.	
full	Part : namely PART function open.	
	At this time the LED screen will show a part of the image, and the monitor	
	will display full screen image, "H width", "" V height", "H Position" and "V	
	Position" four parameters will to be void.	

Please set the output resolution, H width and V height based on the physical resolution of LED screen. If do not have suitable output resolution, please select the options with bigger resolution than the reality.

Picture Crop sub menu

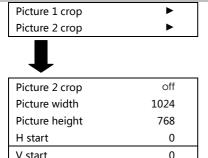


Volume	Default set is 50 (0100)
Mute	ON/OFF
Interface	Interface matched with input signal

LED-515D support 5 channel 2 audio input switching. One channel is HDMI, one is DP , other 3channel can be matched with AV1, AV2, VGA, DVI.

Picture switching sub menu

Picture 2 crop reset



Picture 1 crop	off
Picture width	1024
Picture height	768
H start	0
V start	0
Picture 1 crop reset	•

Picture 1/2	Open or close the function of crop the input image1/2, default is closed.	
crop		
Picture width	the minimum value is 64, the maximum value is the "input signal width"	
Picture	the minimum value is 32, the maximum value is the "input signal height".	
height		
H start	the minimum value is 0 , the maximum value is the D-value of "input signal	
	width" minus "picture width".	
V start	the minimum value is 0 , the maximum value is the D-value of "input signal	
	height" minus "picture height".。	
Reset	Reducing the above four parameters for the default state, that is the	
	maximum value of picture width and height, starting for 0.	

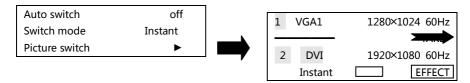
LED-515D support double image intercepting function, it can simple double channel image fusion.

Image intercepting function only can be used when input signal effective. The size of intercepting image will be limited within the size of input signal.

Additional remarks: input signal width, height and other information can be checked in the display of "current input signal resolution specifications" and in the state of "defaut state" [12]

For example, input signal resolution specifications of signal input picture 1 is $1920 \times 1080~60$ Hz , then, the input signal width is 1920, the height is 1080, 60Hz is refresh frequency.

Picture switching sub menu



Auto	off	Auto switch function is closed.
switch	Picture 1	If the picture 1 input signal effective, the picture 1 is on the top.
	priority	
	Picture 2	If the picture 2 input signal effective, the picture2 is on the top.
	priority	
	Signal	The effect input signal picture is on the top.
	priority*	
Switch	2 kind of switch	mode
mode		
Picture	From this to en	ter the picture switch fast interface (will force to close the auto
switch**	switch function)).

*: signal priority options, used when the two picture input signals is invalid, the first effective picture is located in the top, the next effective picture will no longer make the layer change.

* * : All the operation could be accomplished in the shortcut menu of the picture switching . As the above the right shows, the first interface is the input port of picture 1 and input signal prompt; The third line is picture 2 input port and input signal prompt; The second line is separator and switch button prompt (" TAKE "button, it will be the same effect to press the" OK "button and" TAKE " in the interface); The fourth line is a switch mode information, the left character is used to display the current switching mode, the right is the key prompt (" EFFECT "button), to short press" EFFECT "button , switching mode will change as the forward direction, long press" EFFECT "button, switch mode will change as the reverse direction.

In the fast switching interface, can use the INPUTS button to switch the bottom layer picture(the un-highlighted picture of the interface) input port, when it shows the effective format of the input signal, to press "TAKE" button can display the input signal on the top in seamless switching.

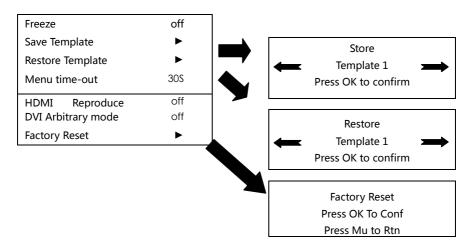
Test picture sub menu

Test picture	0
H location	-1
V location	-1

Test picture	Range 0~72 . 0 means no test picture display , 1~72 means test picture number.	
	Open test picture, will close the picture 2 by force.	
	If there is no signal for the picture 1 input port, it will be displayed for	
	"Unavailable "	
H location *	The valid range minimum value is 0, maximum value is the horizontal width of	
	the current output resolution.	
	To determine the horizonal position of the cursor on the screen, "-1 ",	
	close the cursor.	
V location*	The valid range minimum value is 0, maximum value is the vertical height of	
	the current output resolution.	
	To determine the vertical position of the cursor on the screen, "-1", close	
	the cursor.	

^{*: &}quot;H position"and" vertical position ", as long as there is a numerical for "-1 ", in the picture will not display the positioning cursor.

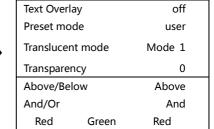
Function setting sub menu



Freeze	Freeze functional switch, the picture display normal when it is closed, and be still when it is open.
Save Template	Save the current user settings. Can save 10 groups template at the most.
Restore	Restore the before settings from template.
Template	
Menu time-out	Without any operation, the menu system will be back to the default state
	time. The default value is "30S", can be set to "60S" or "10S".
HDMI	HDMI reproduce rate setting, the default is closed.
Reproduce rate	
DVI Arbitrary	DVI arbitrary mode setting, the default is closed.
mode	
Factory Reset	Restore factory setting.

Dual image sub menu

Picture	off	
Source	DVI	
Transparency	0	
Text Overlay	>	
H width	1024	
V height	768	
H position	0	
V position	0	
Top display	Picture 2	



Dual	Dual Pictures function "On" and "Off" . The default is Off
Pictures	
Input	Switching input port of picture 2 (vice channel).
Source	This will be restricted by the input port of picture 1, details in the "Dual
	pictures input source conflict list" [24].
Transparenc	The transparency of vice image, range is 0~3 , when the value is 0, completely
у	opaque, 3 the transparency is the highest
Text Overlay	Text overlay, cutout synthesis menu, check details in the <u>text overlay</u>
	specification
H width	The horizontal width of the vice image, and the minimum value is 64,
	maximum value is "the current output resolution width".
V height	The vertical height of the vice image, and the minimum value is 48, maximum
	value is "the current output resolution height"
H position	The top-left corner of Vice image levels of coordinates in "output resolution
	window".
V position	The top-left corner of Vice image vertical coordinates in "output resolution
	window".
Top display	Switching the current top picture, can choose "picture 1" or "picture 2".

Form 2 : Dual pictures input source conflict list

Picture 1 Picture 2	AV1	AV2	VGA	DVI	HDMI	DP
AV1	✓	×	√ *	√ *	√ *	√ *
AV2	×	✓	√ *	✓ *	√ *	✓ *
VGA	✓	✓	✓	✓	✓	✓
DVI	✓	✓	✓	✓	✓	✓
HDMI	✓	✓	✓	✓	✓	✓
DP	✓	✓	✓	✓	✓	✓

Note 1: During the above graph with "*" combinations, because the picture 2 didn't go interlaced processing, there will be a slight shaking phenomenon in the picture, in this kind of circumstance, can consider exchange picture 1 and picture 2 input source.

Text Overlay	
Text Overlay	Text overlay function "open" and "closed" . The default is closed.
Blend Mode	Divided into "mode 1" and "mode 2" two patterns.
	Mode 1 : in this mode the text pixels are on top and not blended. The non-text pixels
	are blended with the other channel using the Transparent setting in Dual Pictures sub
	Menu.
	Mode 2: in this mode the text pixels are blended with the other channel using the
	Transparent setting in Dual Pictures sub Menu. The non-text pixels are completely
	transparent.
Above/Below	Above: The pixel that has any color value above the Red, Green and Blue level
	become tagged as TEXT PIXELS, the rest of the pixels become NON-TEXT pixels. The
	judgment should be combined with the "And/Or" conditions.
	Below : The pixel that has any color value below the Red, Green and Blue level
	become tagged as TEXT PIXELS, the rest of the pixels become NON-TEXT pixels. The
	judgment should be combined with the "And/Or" conditions.
And/Or	And: all three color must be used to trigger the above / below comparison
	Or : any color is enough to trigger the above / below comparison
Red	Red Threshold, Range: 0~255
Green	Green Threshold, Range: 0~255
Blue	Blue Threshold, Range: 0~255

Time and task

Time setting		•
Task setting		•
Arrange task		•
Task number	OFF	



Date			
Time			

Number	0	
Time	//	
character	Invalid	
Operate	Switch input	
Interface	AV	ľ

Time and task	
Time setting	Set time and date
Task setting	1 number , set tack number , 64 tasks can be set
	2 time, time to do the task
	3 character repeat everyday
	Do not repeat
	Repeat in 24 hr.
	Repeat every week.
	4 operate , 1) switch input port > interface / time range
	2) select template > choose template number / time range
Arrange task	From 0-63
Task number	Turn on or off.

Menu language submenu

Language select	
中文/Chinese	
English/英文	

中文/Chinese	the menu will display in Chinese
English/英文	the menu will display in English

Shortcuts menu

LED-515 sets up total six input shortcuts (INPUTS), four function shortcuts (CONTROL), and two picture switch shortcuts (TRANSITION). Input shortcuts are: "AV1", "AV2", "VGA", DVI", "HDMI", DP". Function shortcuts are: "PIP", "PART", "AUTO", "OK" and

Switch shortcuts are "TAKE" and "EFFECT".

All the name of the keys and its position of the machine, please refer to the "Front panel graphical representation" [\square 8.

Note: Unless specifically mentioned otherwise, all shortcut keys are not effective unless in the "default state".

Input shortcut

In the non-menu state, short to press any input shortcuts, no.1 signal input channel port will switch directly to the input port which is corresponding with the input shortcuts. Moments later, the menu system will show the input channel state, including port name, whether the input signal is effective or not, also will show signal resolution specifications in effective case. About this content, please refer to the "default state introduction" [\square 12].

Function shortcut

PIP function shortcut:

Icon	Explanation
1	PIP function closed, channel 1 signal display normally.
	PIP function open, channel 1 is on top, namely channel 1 display area covers channel 2 image.
2	PIP function open, channel 2 is on top, namely channel 2 display area covers channel 2 image.

PART function shortcut:

PART function, namely PART or full-screen display image fast switching function.

In the state of LED display normally, PART function should be closed; when in the circumstance of the monitor to setup broadcast, can use PART function open, image full resolution display characteristics, to make the process convenient and fast.

Icon	Explanation		
	PART function closed.		
	LED screen display the complete program picture, the program picture		
	is shrinking in the monitor.		
	PART function open.		
	LED screen display part program picture, the programs' picture is full		
	screen in the monitor.		

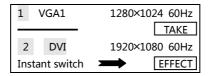
AUTO function shortcut:

Auto Adjusting Please Wait . . .

At this moment, system is to adjust the display position of the image automatically, after this process completed, the menu system returns to "default state" [12].

TAKE & EFFECT function shortcut:

In the "default state" [\square 12] , to press "TAKE" or "EFFECT" , the menu will be fast picture switch interface as belows:



Tips:

- 1. Before entering the interface, the system will prompt the user to force close all the confict function (automatic switch), and turn on the picture 2.
- 2. Short to press "EFFECT" button, switch mode is changed forward direction
- 3. When the current switching mode to be "Fade", it will appear a vertical progress bar in the LCD screen, the user can use the knob to control the process of fade artificially.
- 4. In this interface, the "OK" button and "TAKE" button has the same effect.

FREEZE function shortcut:

In the " $\underline{\text{defaut}}$ state" [\square 12] , press "MUSE" and "OK" button , can switch current image into FREEZE.[\square 22]

If it shows as "** , output image is freeze no matter how you change the input signal. In real use, it can select one of the freeze image , even plug out/turn off /switch the input signal , it will be stay in the freeze image.

If it doesn't show "FREEZE", it will be as regular scene.

Note: when you open the freeze function, it will have no use to change the input signal, please turn off the freeze function if you want to change to other input signal.

Input signal hot backup

Summarize

Note that what the input signal hot backup is? What is the use of it?

In simple terms, warm backup is that when the input signal missed, using spare input signal automatically and rapidly to replace the original input signal, maximum ensure output image uninterrupted.

Hot backup is a powerful guarantee to the stability of the system, which makes the impact to be the lowest that made by signal input device failure.

How to use the hot backup?

Enter the "PIP submenu" and select "automatic switching function", you can set how to use LED-515 hot backup function here. Here are four options, for details please refer to the table below:

Item	Details	
Off	Not to use the heat backup function	
Window1	If window 1 signal is effective, then output channel 1	
	image, otherwise, the output channel 2 image.	
Window2	If window 2 signal is effective, then output channel 2	
	image, otherwise, the output channel 1 image.	
	In the case of two channels signal are invalid, the	
cianal	first effective of the two channels signal, then its	
signal	image will be output, the behind signal does not	
	affect the output image.	

Note that when you use the hot backup function, location and size of channel 1 or channel 2 output image should be set in advance according to actual use. Recommend using "picture 1 priority" option, set the backup sources to the channel 2.

Hot backup is the operation based on the signal detection, when the signal source is unstable or lost moments, there will be instant black screen, but within the fastest time (around 0.2 seconds), backup channel image will be displayed, let picture interrupt time reduced to a minimum.

FAQ

LED-515D provides abundant function for the customers, some functions use requires users to have quite a bit of professional knowledge. When you have problems, can try to timing machines, if cannot solve it according the following step, please contact with the local agent, or contact our service department directly. For your safety, do not attempt to repair the product by yourself.

Phenomenon	Check list	Page
Equipment without image, no	Check the power cord	
display in the front panel.	Check the power switch	
The front panel of the screen is displaying information, but no image output or output image is not stable	 Check whether properly connected the input signal and have switched to the corresponding source (if no signal, the front panel LCD screen will display no signal, and the machine will have no image output at the moment) Check display terminals whether to support the output resolution and refresh rate of LED-515. Check if the brightness and contrast set too low. Check whether the user color temperature set too low. check picture 1 and 2 input status, whether the top picture showed a signal Try to reset the machine to be the factory setting 	☐ 12] ☐ 9] ☐ 16] ☐ 12] ☐ 12] ☐ 24]
	by "factory reset" of the "function Settings" sub	~
Image display position deviation	 Enter "output Settings" submenu, adjust the "horizontal position" and "vertical position', till the image display properly 	[□17]
VGA or DVI port images showed abnormal	Check whether the input signal resolution is accordance with VESA standard.	[9]
VGA Image displayed in un-full screen	 Press the front panel "AUTO" button until the image display correct (automatic adjustment, please use the full screen and not take black side signal) 	[] 83
PIP display abnormal	Check if it is reasonable that the item numerical of "horizontal width" and "vertical height", "horizontal position" and "vertical position" of "PIP" submenu.	[25]
Fade function is invalid	 Check whether automatically switch function is closed Whether the input signal of Picture 1 and picture 2 is effective. 	[□ 19] [□ 12]

The warranty provisions

- 12 months warranty start from the day we make invoice to you;
- If you lost invoice, warranty will start from 60days after our production date.

They are not include in our warranty

- The machine soaking and collisions produced besmirch or surface scratches and other abnormal using causes of malfunction or damage;
- Demolition machine or modification, which is not to be agreed by our company;
- Using in the not specified used working conditions, resulting in fault or damage (such as high temperature, low voltage or unstable etc.);
- Force majeure (such as fire, earthquake, etc.) or natural disasters (like lightning, etc) caused the fault or damage;
- Beyond the product warranty.