



Full HD Digital & Analog Signal Mixed Video Switcher

User Manual V1.1

⚠ Before using this Mixed Video Switcher, please read this manual carefully and preserve for future reference.

MAGNIMAGE

MIG-630C series

Statements

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Briefs

Thanks for your purchasing our full HD Digital & Analog mixed signal video switcher. 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.
- 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

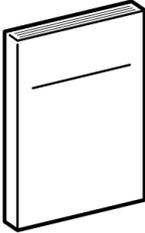
- available for 10 signals input at a time (can be extended to 12) ;
- available for 3 image output(DVI+VGA port, including 1 main output and 2 PVW
- available for 1 Logo input and 1 black background input
- available for multi switch effects including instant switch, fade in and fade out, and edge dissolve, and the switch time is adjustable

- available for overlying, cutout synthesis function, and can easily achieve caption overlying and image synthesis effects
- internal multi image layer handling , and available for 3 image output at a time at most
- available for storage and invoking of multi-templates

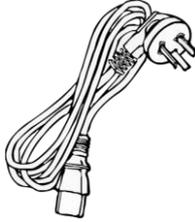
Using directions

Included Accessories

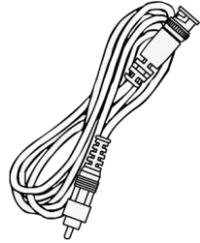
Using manual



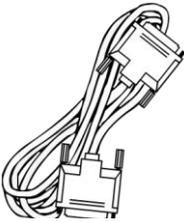
Power line



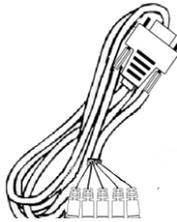
CVBS cable



DVI signal cable



5BNC-VGA
switching line



USB Cable



Compact Disk



Certificate of
Quality



Port Expansion

Name	Corresponding product model	Explanation
One external expandable SDI input	MIG-630CS1	External one channel SDI input
Two external expandable SDI inputs	MIG-630CS2	External two channel SDI input
One external expandable DVI input	MIG-630CD	External one channel DVI input
One External expandable SDI input and one DVI input	MIG-630CSD	External one channel SDI input and one channel DVI input

Safety Tips

- This product power supply input voltage range is from 110~240VAC, 50/60Hz, please use the correct power.
- Please make sure that all power cables are unplugged when connecting or disconnecting any signal lines or control lines.
- Make sure that all signal and power cables are unplugged when adding hardware to the products or removing the hardware devices in this product.
- Please turn off the switcher power supply, and release the static electricity from your body by touching a grounded surface before making any hardware operation.
- This product must be used in a clean, dry, ventilated environment. This product cannot be used in environments of high temperature and humidity.
- This product is electronic products which should be kept away from fire, water, inflammable and explosive dangerous goods.
- This product has high-voltage components. Please do not open the case or conduct any self-maintenance to this equipment.
- Immediately turn off the power switch should there any smoke, odor, or abnormal conditions occur and contact your dealer.

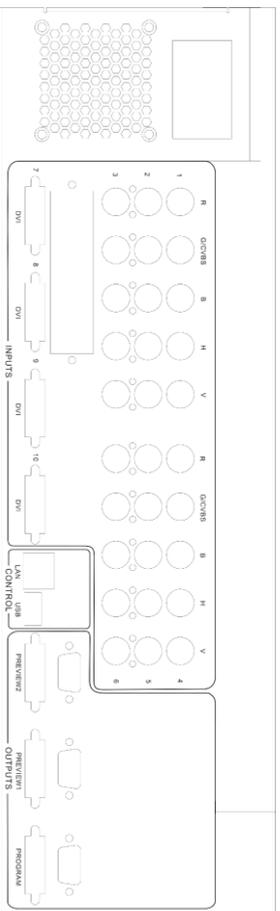
Features

Overview

- MIG-630C series is the video switcher developed especially for display systems. It adopts industry-leading image processing chip with 12 internal digital processing, making images clearer and colors richer.
- Its advanced interlace moving image adaptive processing technology can eliminate the trailing and jaggies of video image motion. For normal PAL / NTSC video, the output image is more crisp and clear. For HD 1080i signal, the output of image detail is clearer and colors richer, making the image quality in the industry-leading level.
- The complete video interface includes 6 channel VGA port, 6 channel AV port, one SDI expansion port, one digital signal expansion port and 3 signal output interface, each contains one DVI and one VGA output, achieving multi-channel analog digital mixed- signal input and the mixed independent output of multi-channel analog and digital signal.
- The product supports a variety of switching mode including flash switch, fade-in and fade-out, wipe and edge of the dissolve, etc. The switching time is adjustable which is able to meet the requirements of the various occasions.

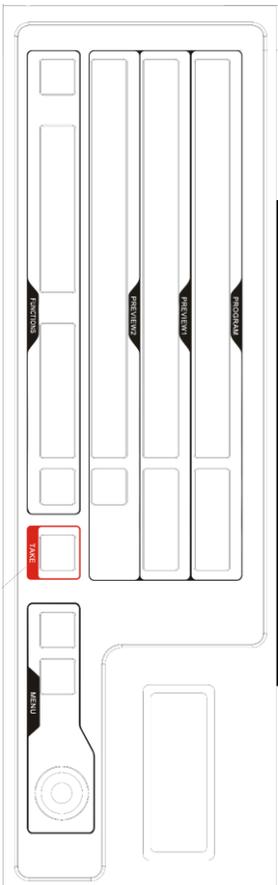
- Multi-layer processing technology is set in the product which can open three screens at the same time, and support 1 channel Logo input and black input.
- The product supports graphics overlay and matting function, facilitating the achievement of a subtitle overlay and image synthesis.
- The product' s man-machine interface is friendly which is easy and fast to operate.
- The machine is pure hardware architecture, and its work is stable and reliable.

Rear panel introduction



Video Input Port		Video Output Port	
AV1~AV6	6 Video Input Port	DVI1~DVI3	3 Channel -DVI Output Port (DVI-D Single-Channel)
VGA1~VGA6	6 Channel VGA Input Port	VGA1~VGA3	3 Channel VGA Output Port
DVI1~DVI4	DVI Input Port (DVI-D Single-Channel)		
E.M.	Expandable Input Port (One Channel SDI Extendable and One Digital Video Interface)		

Front panel introduction



Key Description			
1~10	10 channels input signal	EFFECT2	Switch effect shortcut 2
SDI	SDI Input signal choosing key	CUT	Instant switch key
E.M	Expand module input choosing	FADE	Fade in and fade out key
LOCK	Lock key	LOGO	LOGO selecting key
PIP1	Start picture in picture 1	BLACK	Blackground selecting key
PIP2	Start picture in picture 2	MODE	Template selecting key
Multi Preview	Multi-preview shortcut key	TAKE	Switch key
SIZE	Output image size adjustment	OK	Confirmation key
POSITION	Output image location adjustment		backspace
EFFECT1	Switch effect shortcut 1	knob	Menu key

Technical Specifications

Input Index		
Port	Channel(s)	Resolution Specifications
AV	6	PAL/NTSC
VGA	6	VESA Standard
DVI	4	VESA Standard (Support 1080i Input)
SDI	1 (Extendable Port)	480i , 576i , 720p , 1080i/p(3G SDI)
E.M	1 (Extendable Port)	SDI or DP Port Extendable

Output Index		
Port	Channel(s)	Resolution Specifications
VGA	3	1024×768/60Hz
DVI	3	1280×1024/60Hz 1440×900/60Hz 1600×1200/60Hz 1920×1080/60Hz/50Hz 1920×1200/60Hz

Machine Specification	
Input Power	110 ~ 240VAC , 50/60Hz
Machine Power	80W
Operating Temperature	0~45°C
Dimensions	485mm × 345mm × 136mm
Weight	5.5 Kg

Usage Menu

MIG-630C series uses a highlight high contrast LCD to display the user menu. Under the conditions of user not having the operation or the operation timed out, the LCD screen will display the non-menu state. If you use the buttons on the front panel to set the machine, LCD screen will display the appropriate menu according to user' s operation, prompting users to operate better, faster and more intuitively.

The following will combine the LCD screen display and front panel buttons to introduce you to the menu system of series MIG-630C in detail.

Non-Menu State introduction

After opening the power of the MIG – 630C series, and during the system' s startup, the boot interface will be displayed on the left of the front panel LCD screen. After the start up, the screen will show the current state of the machine as shown below:

Prog	#1	VGA	1920x1080	60Hz
Pre1	#2	VGA	1920x1080	60Hz
Pre2	#7	DVI		No signal
Output Resolution : 1920x1080 60Hz				

There is a total of four aspects in the figure above, described as follows:

number of rows	Explanation
First Row	The main output channel shows the input signal channel, the signal type and its resolution.
Second Row	Pre-monitoring channel displays the input signal channel, the signal type and its resolution.
Third Row	Pre-monitoring double-channel display shows the input signal channel, signal type and its resolution.
Fourth Row	Resolution of three-channel output.

Note: #+figure, indicate No. of each input port, corresponding to the No. Of the rear panel.

Main menu introduction

Use "OK" button in the main menu to return and the knob button to select and adjust various projects. The operation has a fixed mode, please see the table below:

Main Menu

In the non-menu state, press "knob" and the menu system will enter the main menu and what displayed on the LCD screen will be shown as below:

Image Settings	▶
Input Configuration	▶
Output Configuration	▶
Picture Switching	▶
<hr/>	
VGA Adjust	▶
PIP	▶
Image Crop	▶
Chroma Key Function	▶
<hr/>	
Function	▶

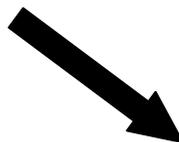
By rotating the knob to select the option you want to perform and then tap the knob or "OK" button to enter the option to operate. Press the "Back" key to exit.

Image Set Submenu

Image Mode	Standard
Brightness	50
Contrast	50
Color	50
Hue	50
Acuteness	12
VGA Enrichment	Off
DVI Enrichment	Off
Color Temperature	▶
Image Parameter Reset	▶



Image parameter reset
Press the OK button to continue
Press return to cancel



color temperature	Standard
Red	50
Green	50
Blue	50

Import Configuration

Button 1	Port #1	Type VGA
Button 2	Port #2	Type VGA
Button 3	Port #3	Type VGA
Button 4	Port #4	Type VGA
Button 5	Port #5	Type VGA
Button 6	Port #6	Type VGA
Button 7	Port #7	Type DVI
Button 8	Port #8	Type DVI
Button 9	Port #9	Type DVI
Button10	Port #10	Type DVI
SDI	Port #11	Type SDI
E.M	Port #12	Type SDI

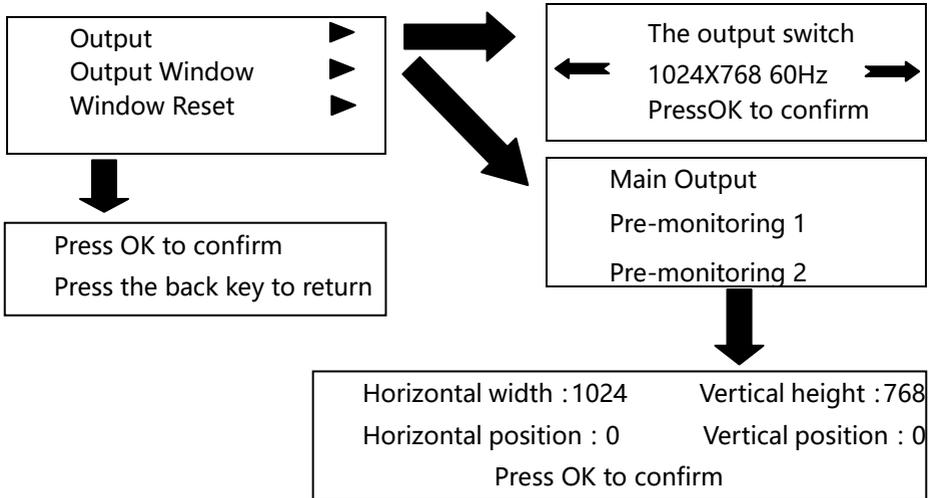
Button	Refers to the switch keys serial number on the front of the stage panel
--------	---

Port	Refers to the units serial number on the rear of switch panel interface
------	---

Type	Refers to the input signal type corresponding to the port (AV , VGA , DVI or SDI)
------	---

Attention should be paid to the port type: for buttons 1 to 6, the corresponding ports are 1 to 6, and type can be selected VGA or AV; for buttons 7 to 10, the corresponding ports are 7 to 10, and type can only be DVI; the port 11 corresponding to Button SDI is an extendable SDI port; the port 12 corresponding to button EM is another extendable digital interface.

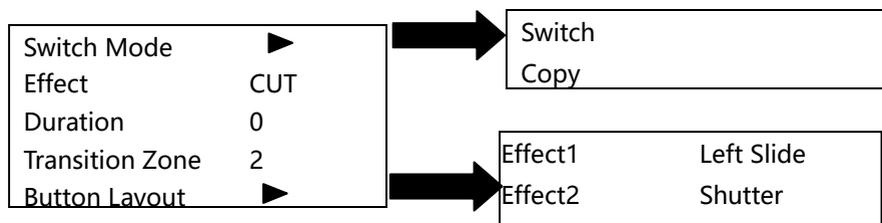
Output Configuration



Output Resolution	MIG-630C series supports 7-channel resolution output as follows: 1024x768/60Hz, 1280x1024/60Hz, 1440x900/60Hz, 1600x1200/60Hz , 1920x1080/50Hz, 1920x1080/60Hz, 1920x1200/60Hz,
Output window	The output of the three-way window size is as follows: the main output, pre-monitoring 1 and pre-monitoring 2. Horizontal Width : The level of points of the output window. Vertical Height: the vertical points of the output window. Horizontal Position: the level of starting position of the output window. Vertical Position : vertical starting position of the output window.
Reset	Restore the original size of the window.

The selection of the resolution is to set the output resolution to the three channel output port (the resolution of three channel output port is the same). Then to individually adjust the screen size and position of the three channel output signal by adjusting the output window (screen size, position can only be adjusted within the set resolution range).

Image Transition



Switch Mode Two choices of "Exchange" and "Copy"

Mode

Exchange: the exchange between main output window screen and preview output window screen.

Copy: copy the preview output window screen to the main output window.

Effect Effect when switching screen.

Duration The time spent to switch pictures.

Transition Zone The unit of screen transition edge is pixels when switching the screen.

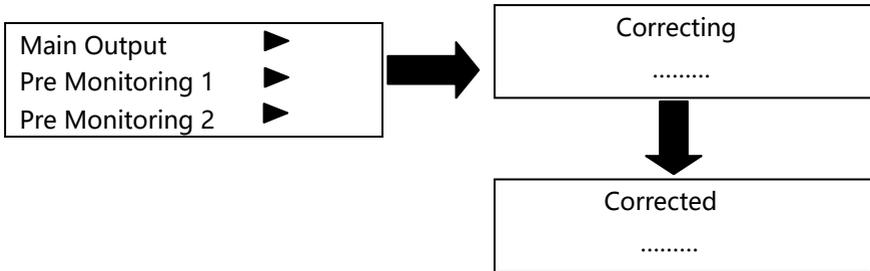
Button Layout Deploy the switch effect of "effect 1" and "effect 2" .

MIG-630C series has 16 kinds of transition effects: flash switch, fade-in and fade-out, right slide, left slide, up slide, down slide, horizontal inward, horizontal outward, vertical inward, vertical outward, box inward, box outward, cross inward, cross outward, checkerboard and blinds.

Duration is time spent to switch pictures which can adjust the time between the two effects of the screen through selecting the cycle time.

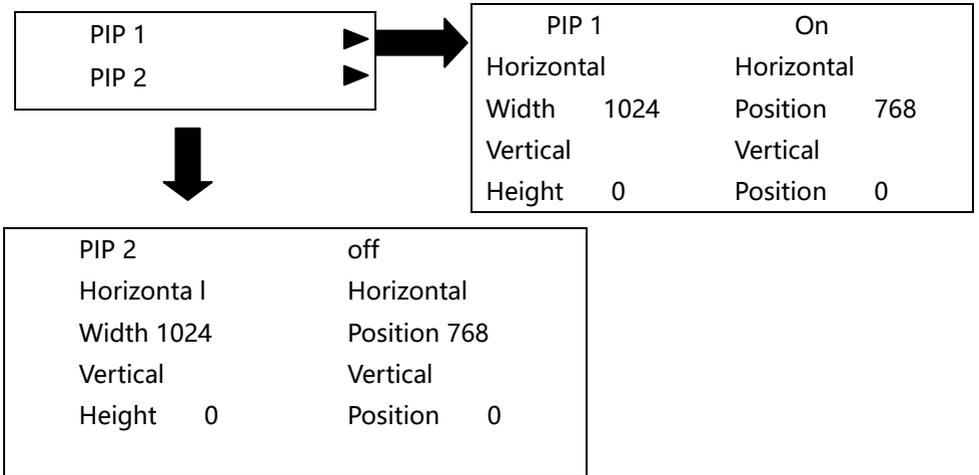
Through button configuration it can define the switching effect of "Effect1" and "Effect2" , and can switch signal directly by tapping the two keys to select a transition effect.

VGA Adjust



Main Output	Correction of the VGA input signal in main output channel
PIP 1	Correction of the VGA input signal in first pre-monitoring channel
PIP 2	Correction of the VGA input signal in second pre-monitoring channel

PIP



PIP Picture in Picture has the function of "open" and "off", the default is off.

Horizontal Width Level of the points of output window.

Vertical Height Vertical points of the output window.

Horizontal Position Starting position of the output window.

Vertical Position The vertical starting position of the output window.

First open the picture in picture. Adjust the horizontal width and vertical height to adjust the size of the PIP. By adjusting the horizontal and vertical position to adjust the position of the PIP, dual screen or three-screen picture in picture, picture out picture can be achieved.

Image Crop

Port	#10	DVI	Main Output
Image Crop			On
Horizontal		Horizontal	
Width	1024	Position	0
Vertical		Vertical	
Height	768	Position	0

Image Crop	The image capture has the function of "open" and "off", the default is off.
Horizontal Width	Interception of the level of image points.
Vertical Height	Vertical interception of image points.
Horizontal Position	Interception of the image starting position.
Vertical Position	Interception of the vertical starting position of the image.

Open "image capture" function. Adjust the horizontal width and vertical height to determine the level of interception of the image pixels and vertical pixels. Determine the regional location of the intercepted image through adjusting the horizontal position and vertical position so that you can cut off part of the image, such as the black edges from top to bottom in HD movies, or make screenshots in a region to zoom into full screen.

Chroma Key Function

Chroma function	key	Off
Chroma settings	key	▶



Layer Selection	Picture in picture 2	▶
Color range 1		▶
Color range 2		▶
Color range 2 switch	Disable/Enable	

Red	(0~0)	Red	0
Green	(0~0)	Green	0
Blue	(0~0)	Blue	0
Auxiliary Cursor	 		

Chroma function key Chroma key has the function of "open" and "off", the default is off.

Chroma settings key Color settings.

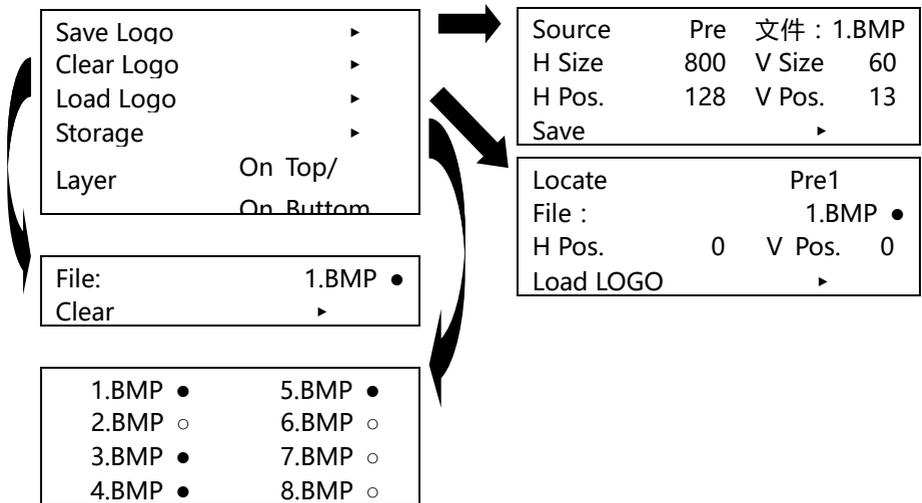
Layer Selection	Select the layer screen.
Color Range	Select the scope of three primary colors.
Red	Range 0~255
Green	Range 0~255
Blue	Range 0~255

Auxiliary Cursor: To move the icon by selecting the "up" or "down", "left" or "right" .

Color range second switch. "Open" and "off" in the color range.

After finishing selecting LOGO layer (PIP 1 or PIP 2), enter color range 1, then select the color need to be wiped through the auxiliary cursor "left" or "right", "up" or "down" . Take white LOGO with black background for example. You can move the cursor to the black areas and press "OK" to erase the black areas of the LOGO screen. By doing this, the main screen image can float out and LOGO can thus be embedded in the main screen.

LOGO Setting



Save LOGO	Source	Selected to save Logo output channel which can be PREVIEW or PROGRAM
	File	Selected to save LOGO file, it can be 1~8.BMP
	H width	To adjust the horizontal width of the frame from the source channel.

	V height	To adjust the vertical height of the frame from the source channel.
	H position	To adjust the horizontal setting of the frame from the source channel.
	V position	To adjust the vertical setting of the frame from the source channel.
	Save LOGO	To save the selected part of image from the source channel to the specified files, the process takes a few minutes.
Clear LOGO	File	Select the files that need to clear LOGO content.
	Clear LOGO	Clear the LOGO content of the specified files.
Load LOGO	Channel	Output channel used to selected the location of display.
	File	Select the LOGO files which needs to be loaded.
	H position	To adjust the horizontal width of the frame from the location channel.
	V position	To adjust the vertical height of the frame from the location channel.
	Load LOGO	Load the specified LOGO files to the LOGO layer according to the frame position of the location channel.
	Storage state	View the storage state of all the available files.

Note1: the switcher will shut down for a period in the process of saving logo, this process may last for 8~180 seconds.

Note 2: Two key lights in the front panel may twinkle alternately in the process of saving or loading LOGO files.

Note 3: It takes 170~180 seconds to save LOGO, the time takes to load is in proportion to the LOGO area.

Note 4: Please do not cut off the electricity supply before the saving process reaches 100%, or the operation will fail.

Note 5: ○ indicates that file is empty, indicates that LOGO content has been saved in the file.

Test Pattern

Adjust All		On
Prog	0	Pre 0

Set	On	The other three will be adjusted automatically when adjusting any one of the output channel.
-----	----	--

	Off	The following four output channels are independent of each other, and they can be adjusted to different test cards.
--	-----	---

Prog	Scope 0~72 , 0 is to close test card , adjust the test card of the main output channel.
-------------	---

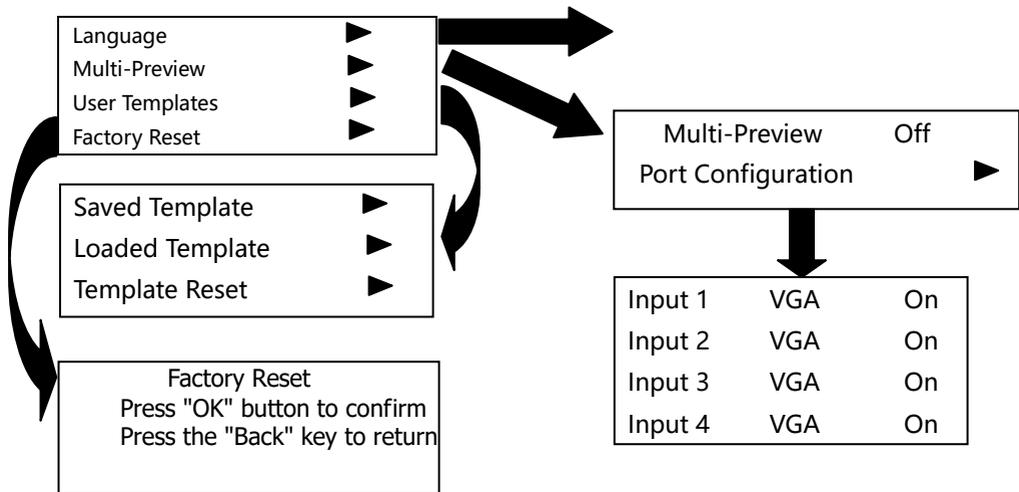
Pre	Scope 0~72 , 0 is to close test card , to adjust preview 1 output channel.
------------	--

Customized EDID

```
DVI port  #7
H      1920      V
Output refresh rate
apply   ▶ reset ▶
```

DVI port	Select the signal source port which needs customized EDID.
H	Adjust the value of horizontal resolution.
V	Adjust the value of vertical resolution.
Output refresh rate	Adjust the value of refresh rate.
application	Write the adjusted resolution parameters into user setting, apply the customized EDID.
Restore	Restore the default parameter settings.

Fuction



Language	You can choose the type of language customer needs. "English" and "Chinese".						
Multi-Preview	Simultaneously preview the specified or the entire channel screen. Multi-channel pre-monitoring uses the time-sharing processing technology. Therefore when opening the multi-channel preview function, please select the input channels which need to pre-monitored. Only activated channels are pre-monitored.						
User Template	"Save" or "Activate" template.						
	<table border="1"> <tr> <td>Saved Template</td> <td>Save the current parameter settings in the specified template. Select the knob to save the template serial number.</td> </tr> <tr> <td>Loaded Template</td> <td>Loaded the template saved in advance. Select the knob to choose the desired template need to be loaded.</td> </tr> <tr> <td>Template Reset</td> <td>Restore the factory settings of the template.</td> </tr> </table>	Saved Template	Save the current parameter settings in the specified template. Select the knob to save the template serial number.	Loaded Template	Loaded the template saved in advance. Select the knob to choose the desired template need to be loaded.	Template Reset	Restore the factory settings of the template.
Saved Template	Save the current parameter settings in the specified template. Select the knob to save the template serial number.						
Loaded Template	Loaded the template saved in advance. Select the knob to choose the desired template need to be loaded.						
Template Reset	Restore the factory settings of the template.						
Factory Reset	Restore factory settings.						

Usually there will be different parameter settings when switching from one image to another, so it needs to adjust corresponding parameter settings if switch from two-image to three-image. There will not be enough time on site, so the functions of templates will be important. Preparing the two-image data into a template and three-image data into another, it only needs to switch between the two templates to achieve multi-image switching.

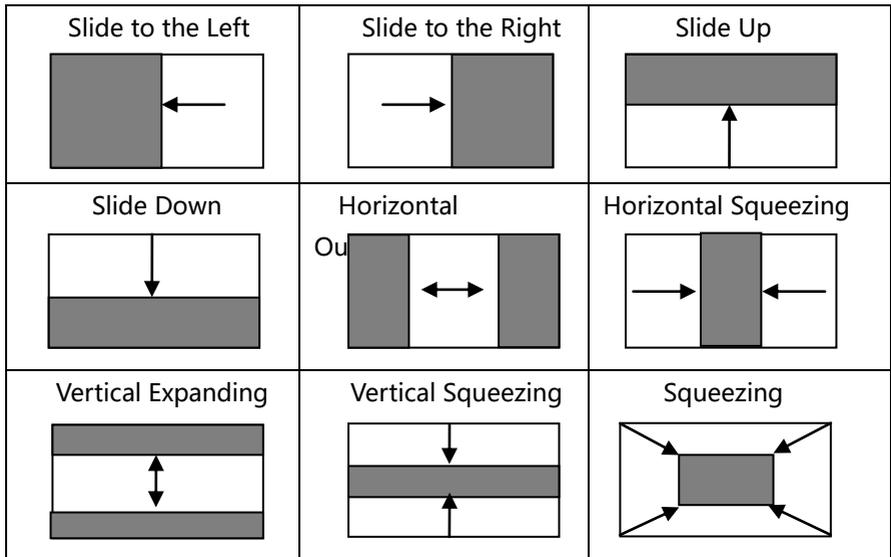
QUICK APPLICATION

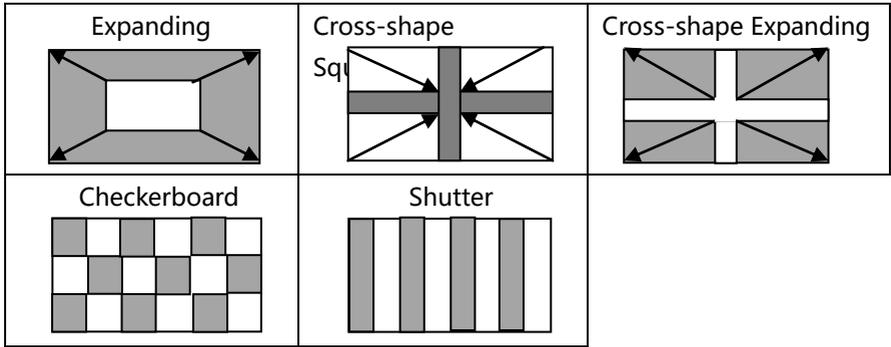
Port Introduction

MIG-630C series is supportive for 6 AV signal input, 6 VGA signal input and 4 DVI input , and 2 expanding input, including 1 SDI input and 1 DVI input. MIG-630Cseries is supportive for 3 group signal output including main output, preview 1 and preview 2. They are all independent output, and each group includes 1 VGA and 1 DVI.

Signal Switching

The 14 kinds of transition effects are shown as below :First choose input signal which needs to present through PRE 1. When the signal is presented on the screen steadily, switch the preview channel image and main channel image by switch button. The switching mode can be exchanging or copying, and the switching effect can be selected, like instant switch or fade in and fade out, or wiping. The 14 types of switching effects are shown below:





Shortcut Introduction

Number Key

There are three rows of number keys. The first row are signal choosing keys of the main channel, and the second row is input signal choosing key of channel DVI 1. The third row is input signal choosing key of DVI 2. These keys are corresponding to signal paths of rear panel.

LOCK

Locking button, lightly press this key, and the menu panel turns out with a lock image (as the arrow below shows). At this time, other keys on the panel are invalid, avoiding incidents caused by neglect touch.

Prog	#1	VGA	1920x1080	60Hz
Pre1	#2	VGA	1920x1080	60Hz
Pre2	#7	DVI	No signal	


Output distinguish ability : 1920x1080

PIP1

Double image shortcuts, lightly press this key, and open the debug menu of picture in picture 1 in DVI 1.

Picture in Picture1	Open
Horizontal Width1024	Horizontal Location 768
Vertical Height 0	Vertical Location 0

PIP2

Double image shortcuts, lightly press this key, and open the debug menu of picture in picture in DVI 2.

Picture in Picture 2	Open
Horizontal Width 1024	Horizontal Location 768
Vertical Height 0	Vertical Location 0

MULTI PREVIEW

Multi image preview, lightly pressing this key, and preview the chosen input signal in DVI 2 by time division.

SIZE

Shortcut for adjusting image size , lightly pressing this key, and the menu to adjust the three image size will pop out.

Size			
Prog	H	1024	V 768
Pre1	H	1024	V 768
Pre2	H	1024	V 768

Prog represents the main channel. Pre1 represents preview channel 1. Pre2 represents preview channel 2. H represents horizontal width. V represents vertical height.

POSITION

Shortcut for adjusting image location ,lightly pressing this key, and the menu to adjust the three image location will pop out.

Position			
Prog	H	0	V 0
Pre1	H	0	V 0
Pre2	H	0	V 0

Prog represents the main channel. Pre1 represents preview channel 1. Pre2 represents preview channel 2. H represents horizontal start. V represents vertical start.

EFFECT1 和 EFFECT2

Effect switching button , define the switching effects of the two keys, and lightly press the two keys, then switch effects can be chosen.

CUT

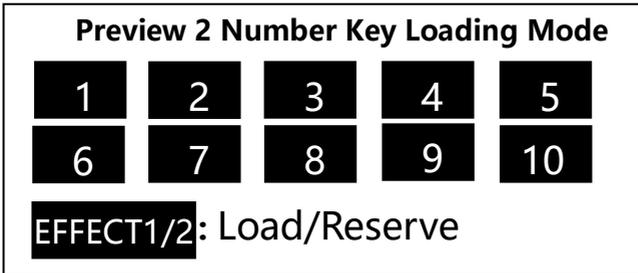
Instant switch button , lightly press this key and turn the switch effect into instant switch.

FADE

Fade in and fade out button , lightly press this key and make the switch effect fade in and fade out.

MODE

Mode shortcut button, lightly press this key and mode dialog box will pop out as below



Number Key 1 to 10 can choose serial number of templates which are needed for loading or reservation. Lightly pressing key "EFFECT1" , the current menu can be switched into template loading interface. Lightly pressing key "EFFECT 2" , the current menu can be switched into template reserving interface.

FREEZE

Screen freeze button, the three output channels are equipped with one freeze key each. Lightly pressing this key will stop the graphics.

LOGO

Shortcut button, lightly pressing this key, prepared LOGO can be added. This shortcut only serves for main channel and DVI 1 channel.

BLACK

Black background shortcut button , lightly pressing this key will make the channel turn a blank screen. This shortcut only serves for main channel and DVI 1 channel.

TAKE

Switching button , lightly pressing this key executes switching.

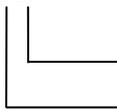
OK

Confirmation button , lightly pressing this key to choose or perform certain function.

Backspace button, lightly press this key and return to superior menu.

Model Introduction

MIG-630C X X



Expand Input 1
Expand Input 2

Warranty Explanation

Whole Unit Warranty Period

- One year (from the buying date);
- If the invoice is lost, the 60 days after the production date will be the warranty start date for the product.

The warranty provisions

- Immersion in water, collision, blots and scratch on surface after use, or other failures and damages caused by abnormal use ;
- Disassembling and retrofit unauthorized by our company;
- Failures and damages caused by abnormal working environment (like over heated temperature, low or unsteady voltage);
- Failures and damages caused by irresistible reasons (like fire hazard and earthquake) or natural hazards (like lightning stroke) ;
- Beyond warranty period.