



MIG-680 Event Controller

User manual V1.0



Before using this video processor, please read this manual carefully and keep it for reference in the future.

MAGNIMAGE

All-in-one 4K Event Controller

Statements

Without the written permission, any unit or individual could not copy, reproduction or translate the book or part of it. Also could not transmit it in any form or any way (electronic, mechanical, photocopying, record or other way) for any business and profitable purpose.

The product specifications and information mentioned in this manual is just for reference, will not give prior notice if there is any update. Unless there is a special agreement, it is just used as guidelines. All the statements or information in this manual shall not constitute any form of guarantee.

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Briefs

Thanks for your purchasing our MIG-680 event controller. 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 danger, please obey the relevant instructions when you install and operate the product.

Trademark credit

- VESA is a Video Electronics Standards Association's trademark.
- HDMI, HDMI mark and High-Definition Multimedia Interface are all from HDMI.

Even if not specified company or product trademarks, trademark has been fully recognized VESA is a Video Electronics Standards Association's trademark.

About the software

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

Features

- 1 Program output + 1 Multi-preview + 4 AUX outputs
- 4K×2K@60Hz Program output and AUX output
- Customized input and output resolution
- Support HDMI 2.0&DP 1.2 inputs
- 8 standard 4K×2K@60Hz input
- Support expand 2 input modules, each one has 2 inputs
- Extended board support DP1.2、HDMI2.0、SDI、DVI
- Support HDCP1.4&2.2
- 4: 4: 4 processing technology
- Internal multi-layer processing realize 4 layer to 4 layer seamless switching
- Support layer clip, crop and zoom
- Support layer clone and shadow function
- Support save & load up to 3 logos
- Support layer mirror and shadow effect
- Layer and Logo support chroma-key
- Save & Load 20 user presets
- Support touch screen, rotary knob control and T-BAR switch
- Support Window & Mac software control
- Support USB upgrade
- Support the MIG-EXK200 keyboard when using PC control

Extended ports

The MIG-680 is the basic model. Based on this model, it can be extended with 2 input modules, the extended modules are shown in the following table:

Available extended module		Corresponding model	Description
Input Module	Expand 1 DP input module	MIG-680-P1	One DP input module includes 2 DP inputs
	Expand 2 DP input modules	MIG-680-P2	One DP input module includes 2 DP inputs
	Expand 1 HDMI input module	MIG-680-H1	One HDMI input module includes 2 HDMI inputs
	Expand 2 HDMI input modules	MIG-680-H2	One HDMI input module includes 2 HDMI inputs
	Expand 1 SDI input module	MIG-680-S1	One SDI input module includes 2 SDI inputs
	Expand 2 SDI input modules	MIG-680-S2	One SDI input module includes 2 SDI inputs
	Expand 1 DP and 1 HDMI input modules	MIG-680-PH	One DP input module includes 2 DP inputs One HDMI input module includes 2 HDMI inputs
	Expand 1 DP and 1 SDI input modules	MIG-680-PS	One DP input module includes 2 DP inputs One SDI input module includes 2 SDI inputs
	Expand 1 HDMI and 1 SDI input modules	MIG-680-HS	One HDMI input module includes 2 HDMI inputs One SDI input module includes 2 SDI inputs

Safety instructions

- The power input voltage range of the product is 100~240V AC/60HZ, please use the correct power supply accordingly.
- When you need to connect or pull out any signal or control cables. Please confirm that all the power supply cords have been pulled out ahead.
- When you need to add hardware device for the machine, make sure all of the signals and power cables have been pulled out ahead.
- Before you operate any hardware, please turn off the MIG-680 event controller' s power, release static electricity from your body by touching the ground surface.
- Please use the machine in clean, dry and ventilated environment, do not use it in the high temperature or 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 do not open the case or repair the equipment by yourself.
- As there is exceptional condition with smoke, ill-smelling, please turn off the switch at once and contact with the dealers.

Specification

Specification	
Input power supply	100 ~ 240VAC, 50/60Hz
Power consumption	120W
Overall dimension(L×W×H)	539.6×182.2×492.8 Unit mm(L×W×H)
Net Weight	16.6Kg

Function introduction

Brief

MIG-680 is a 4K seamless switcher which combines input, output, switching and controlling in one machine. Based on its 4K/60Hz 4:4:4 processing technology and matrix design, this switcher is able to manage and switch 4K video freely.

MIG-680 is equipped with a touch screen, which supports fast menu browsing and parameter adjustment the T-bar and the rotary knob can adjust the parameters of the layer precisely. It is a indispensable event controller with small size, powerful function and easy use in the video switching domain .

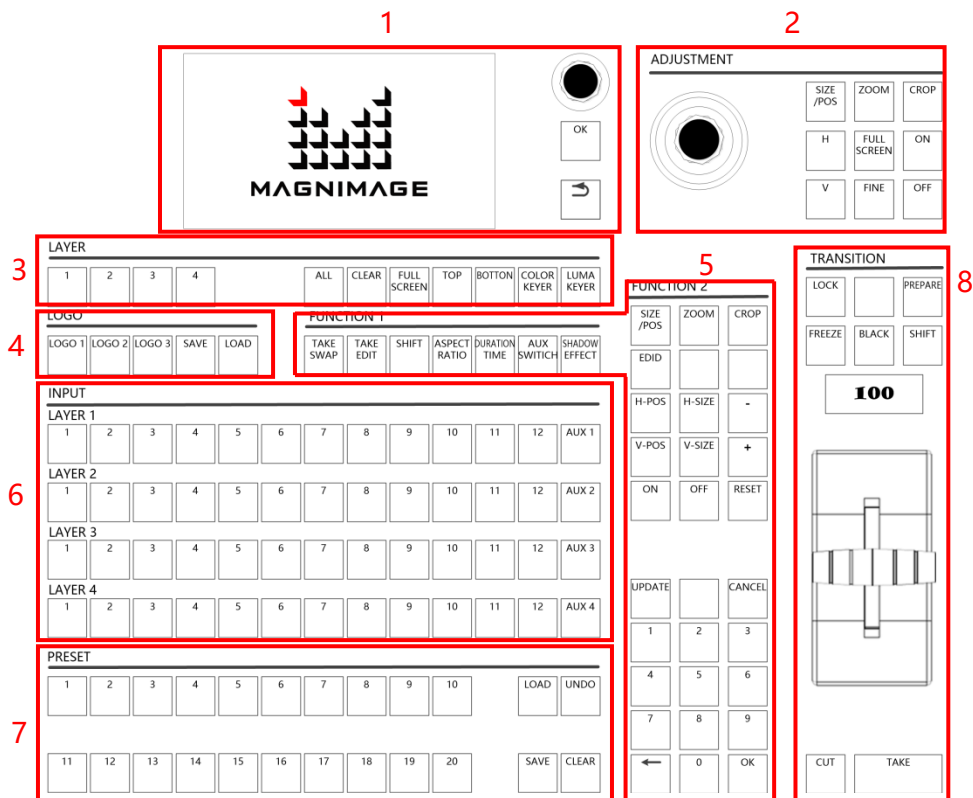
There are abundant input and output ports:

Input: DP 1.2×4 and HDMI 2.0×4, supporting various extended input modules and EDID function, such as DP1.2, HDMI2.0, 3G SDI and DVI.

Output: 1 program output, 1 Multi-preview and 4 AUX output, each one support 4096×2160@60Hz and customize the output resolution.

Support Window, Mac or Window withthe MIG-EXK200 keyboard control.

The front panel

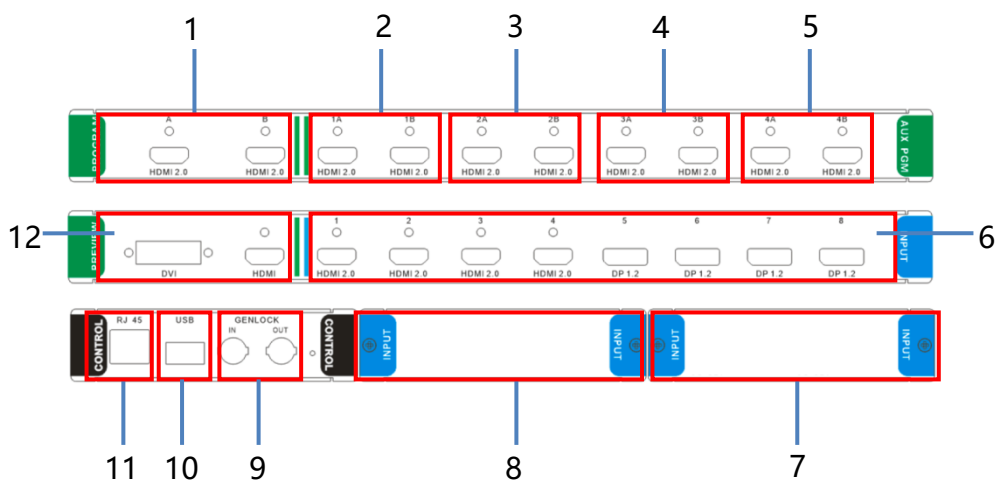


Button instruction

1	MENU area	Include touch screen, the rotary knob, OK button and return button to adjust parameters and operate menu
2	ADJUSTMENT area	Include the rotary knob and buttons to adjust parameters
3	LAYER area	Choose and operate layer area
4	LOGO area	Choose and operate LOGO area
5	FUNCTION 1~2 area	Function area
6	INPUT area	Choose input signal area
7	PRESET area	Choose and operate preset area
8	TRANSITION area	Include T-bar and buttons to switch function setting

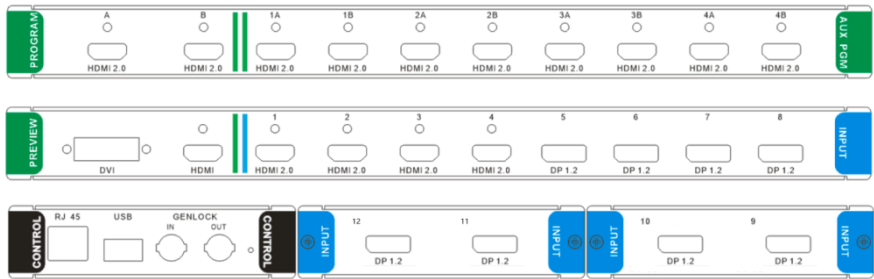
The rear panel

MIG-680 standard:

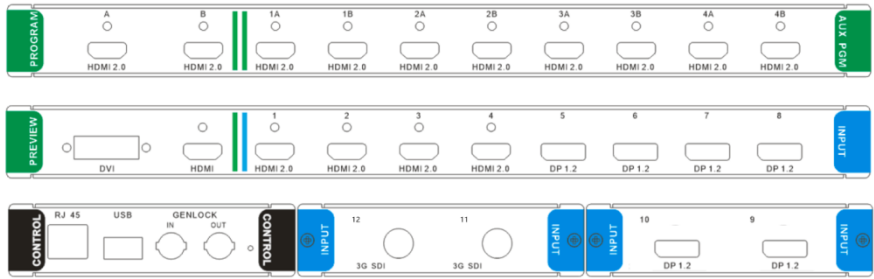


- 1- Program output
- 2- AUX output 1
- 3- AUX output 2
- 4- AUX output 3
- 5- AUX output 4
- 6- Standard input ports
- 7- Extended input slot 1
- 8- Extended input slot 2
- 9- Genlock input/output
- 10- USB: MIG-680 software upgrade
- 11- Internet access: connect PC
- 12- Multi-preview output ports

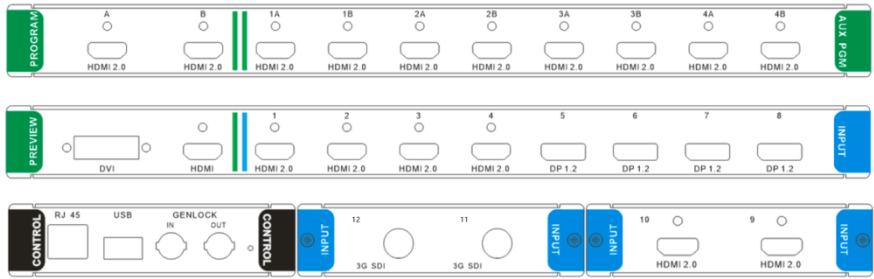
MIG-680-P2:



MIG-680-PS:

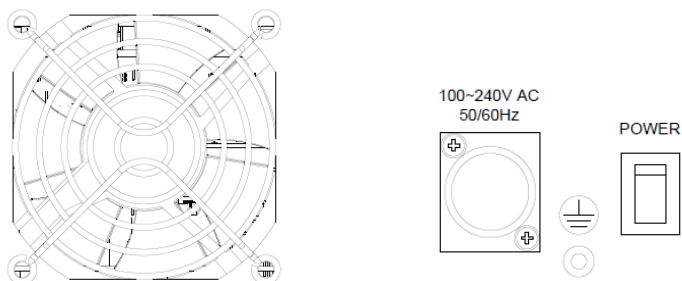


MIG-680-HS:



Remarks: the above is only the back of some models, please refer to “extended ports” menu for all model names.

Other



The fan, power interface and switch

Technical specifications

Standard inputs		
Port	Quantity	Resolution
HDMI 2.0 (1-4)	4	3840×2160/60Hz and EDID management
DP 1.2 (5-8)	4	3840×2160/60Hz and EDID management

Extended input module		
Port	Quantity	Resolution
DP1.2	DP×2	3840×2160/60Hz and EDID management
HDMI 2.0	HDMI×2	3840×2160/60Hz and EDID management
3G SDI	SDI×2	480i/60Hz, 576i/50Hz, 720p/60HZ, 1080i/50Hz, 1080i/60Hz, 1080P/60Hz (3G SDI)
DVI	DVI×2	1920×1080/60Hz and EDID management

Support 2 extended input modules, each one has 2 inputs.

Output		
Port	Quantity	Resolution (single output)
Output (PROGRAM) HDMI A-B	1×2	1920×1080/60Hz 3840×1280/60Hz 4096×2160/60Hz 1920×1080/59.94Hz 3840×2160/30Hz 3840×2400/60Hz 1920×1080/50Hz 4096×2160/30Hz 3840×2160/50Hz 1920×1200/60Hz 1920×2160/60Hz 4096×2160/50Hz 3840×1080/60Hz 3840×2160/60Hz
Output (AUX 1-4) HDMI 1A-4A &1B-4B	4×2	Customized resolution (optimize) : Horizontal resolution up to 4352 pixels Vertical resolution up to 2176 pixels
Output (PREVIEW) HDMI & DVI	DVI×1 HDMI×1	1920×1080/60Hz

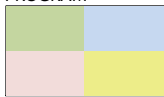
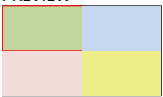




Remarks: 4×2 indicates 4 groups of output and 2 duplicate output ports in each group.

CONTROL interface	
RJ45×1	RJ45 interface to control MIG-680
USB×1	USB port to upgrade MIG-680
GENLOCK IN×1 OUT×1	Genlock port to keep synchronization between multiple units of MIG-680

User menu

Default status introduction

When turn on the power of MIG-680 event controller, the front panel of the LCD screen will display the opening interface in system start-up procedure, and the LCD screen will display the default status as below.


MAGIMAGE						
PROGRAM			PREVIEW			
						
	H Pos.	V Pos.	Width	Height	Clone	Logo
 Layer 1	0	0	960	540	OFF	None
 Layer 2	960	0	960	540	OFF	None
 Layer 3	0	540	960	540	OFF	None
 Layer 4	960	540	960	540	OFF	None

Here is the guidance:




Window	Description
PROGRAM	Reveal the layer' s size, position and status of the PROGRAM in real time, Notes: The PROGRAM frames will be not synchronous with the PREVIEW after openingTAKE EDIT, but the PROGRAM output frames of the machine are synchronous with the PREVIEW
PREVIEW	Reveal the layer' s size, position and status of the PREVIEW operation in real time, the red frame indicates the selected layer and the white frame indicates the layer that is not selected
Layer 1-4	The color lump status corresponds with the layer1-4 in the preview
H and V position	The corresponding H and V position of the layer
H width and V height	The corresponding H width and V height of the layer
Layer clone	The corresponding clone status of the layer , divided into off and on
Logo	The corresponding layer whether load the Logo , divided into: no, Logo1, Logo2, Logo3

Main menu introduction





The symbols listed in the below table will appear in the main menu, the specific meanings are as follows:

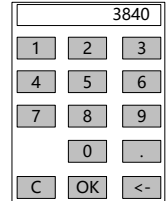
Icon	Explanation
	Return to the main menu or return to the previous menu

In the main menu, the user selects and adjusts each item by using the three buttons "OK", "↷" and the knob or by touching the corresponding menu. The operation mode is as follows:

Operation	Button
Open the main menu	Press the "OK" button or press the "knob" by default
Selected each item	Rotate the knob to select each item or touch click on the corresponding menu
Adjust parameters	When the right end of the item is a number or option parameter, press the "knob" to select the parameter, or touch click  " "  " to adjust the parameter to be small or large, or touch the parameter and click in the pop-up numeric key input area. Parameter adjustment
Enter the next menu	When the right end of the item is the  " symbol, press the "OK" button or press the knob or touch to click the menu.
Process some function	Use the knob to select the item to be executed, press the "OK" button or touch to click the function.
Return to the previous menu	Press the "↷" button or touch the return icon
Confirm operation	In order to avoid wrong operation in reset operation, it is necessary to confirm operation or touch click with "OK" key.
Menu button appear to yellow box	Indicate knob selected, could move to next operation
Function menu word is yellow	Indicate this function menu is occupied
Function menu word is white	Indicate this function menu is not occupied

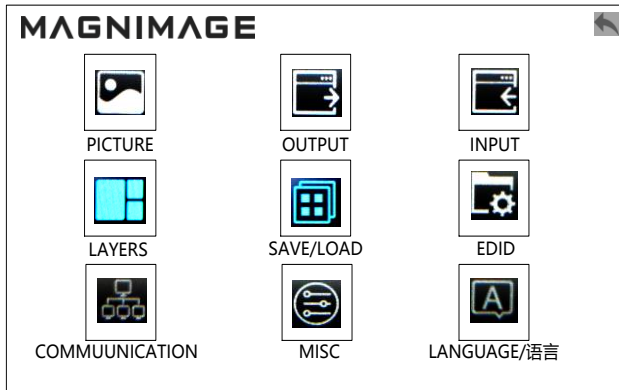
Numeric keypad description: in addition to any parameters that need to be modified, except press and rotate the knob, touch the left and right arrow keys to operate, it also clicks the corresponding parameter and pops up the numeric keypad on the screen to operate. And 0 to 9 represent numbers,

-  indicating a decimal point,
 -  means to exit the numeric keypad mod,
 -  indicating confirmation of the modified parameters
 -  Represents a backspace to delete the entered number.
- The numeric keypad is shown below.



Main menu

In the default state, press "OK" or "Knob" to enter the main menu, and the LCD screen will show the details as below:



The main menu has nine sub menu items. Rotating the knob to select the above listed nine sub menu title, the selected menu icon font color is yellow, selected, press "OK" button to enter the selected project, press "↶" to be back. Or touch the LCD screen enter correspond sub menu.

Picture setting

PICTURE

Page: 1/2

Bright LVL

OFF

Gamma

OFF

Layer1 Picture Setting

Layer2 Picture Setting

Layer3 Picture Setting

PICTURE

Page: 2/2

Layer4 Picture Setting

Reset Picture Setting

Cancel

Reset

Layer 1-4 picture setting:

PICTURE

Layer1 Picture Setting

Brightness

50

Contrast

50

Saturation

50

Color Temp

Reset

Cancel

Reset

15

Layer 1-4 color temperature setting:

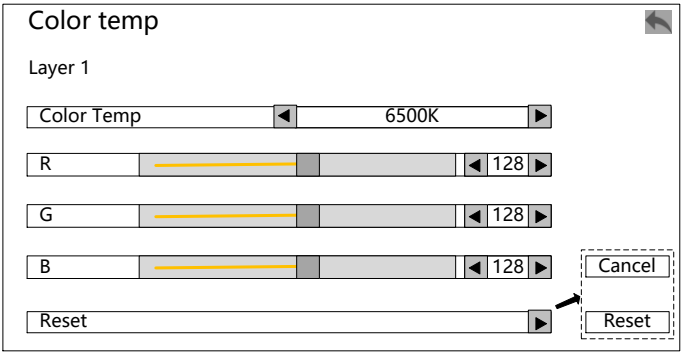


Image setting sub menu is used to set this device output layer' s brightness level, Gamma value and the parameter for each layer.		
Brightness level	Open or close this function, range from 0 to 16.	
Gamma	Open or close this function, gamma range from 0.0 to 5.0.	
Layer 1~4 picture setting	Brightness: range 0~100, the default is 50	
	Contrast: range 0~100, the default is 50.	
	Saturation: range 1~100, the default is 50.	
	Layer 1~4 color temperature setting	Divided into "4000K" , "5000K" , "6500" , "7500K" , " 8200K" , " 9300K" , "10000K" , "11500K" , "User" , total 9 options.
		Red range 0~225, the default is 128.
		Green range 0~225, the default is 128.
		Blue range 0~225, the default is 128.
Layer 1~4 picture setting	Reset all the layers' picture parameters to default setting.	

Note: Arrow points to the menu that pops up for this option.

Output setting menu

OUTPUT

PGM Resolution

Aux1 Resolution

Aux2 Resolution

Aux3 Resolution

Aux4 Resolution

OUTPUT

PGM HDMI Settings

Aux1 HDMI Settings

Aux2 HDMI Settings

Aux3 HDMI Settings

Aux4 HDMI Settings

PGM output, Aux1, Aux2, Aux3, Aux4 output resolution:

PGM/Aux1/Aux2/Aux3/Aux4 Resolution

1920×1080 60Hz

3840×1280 60Hz

4096×2160 60Hz

1920×1080 59.94Hz

3840×2160 30Hz

3840×2400 60Hz

1920×1080 50Hz

4096×2160 30Hz

3840×2160 50Hz

1920×1200 60Hz

1920×2160 60Hz

4096×2160 50Hz

3840×1080 60Hz

3840×2160 60Hz

Customized

PGM/Aux1/Aux2/Aux3/Aux4 Resolution

Set Output Resolution To 1920×1080 60Hz

Cancel Accept

PGM/Aux1/Aux2/Aux3/Aux4 Customized Resolution

Resolution Out Of Range! ! !

H act ◀ 3840 ▶

V act ◀ 1080 ▶

FPS ◀ 60 ▶

Accept ▶

Advanced ▶

Cancel

Continue

3840

1 2 3

4 5 6

7 8 9

0 .

C OK <-

Customized Resolution(Advanced)

265.036096MHz

H act ◀ 3840 ▶ V act ◀ 1080 ▶ FPS ◀ 60 ▶

H tot ◀ 4048 ▶ V tot ◀ 1095 ▶

H sync ◀ 16 ▶ V sync ◀ 5 ▶

Hbp ◀ 128 ▶ Vbp ◀ 5 ▶

Apply

3840

1 2 3

4 5 6

7 8 9

0 .

C OK <-

Main output, Aux1, Aux2, Aux3, Aux4 output HDMI setting:

PGM/Aux/Aux2/Aux3/Aux4 HDMI Settings

Color Space: RGB444

DVI/HDMI: HDMI Mode

RGB Range: 0-255

Options:


- RGB444
- YUV444
- DVI Mode
- HDMI Mode
- 16-235
- 0-255

Output setting is used to set this machine main output and Aux 1~4 output resolutions and output format(Color space, output mode, color scale range)	
Main output and aux 1~4 output resolution	<p>MIG-680 series video switcher support 14 kind of fixed resolution and customized resolution(Fifth option), customized resolution, horizontal 4352 pixels, vertical maximum 2176 pixels, more detail, please check "Output indicators" .</p> <p>Note:</p> <ol style="list-style-type: none"> 1. When customize resolution out of range, it will pup up "resolution out of range" tips. 2. Advanced menu within customize resolution could adjust H tot, output bandwidth and so on, please use with caution. If you accidentally modify this menu, you can reset the data by using fixed resolution.
Main output and aux 1~4 HDMI output setting	Adjust the HDMI output format, including color space(RGB444 and YUV444), output mode (DVI mode and HDMI mode), RGB color scale range(16~235 and 0~255). Adjusting output format, can be more compatible with MIG-680 output back-end processing equipment.

Note 1: For the MIG-680 main output and Aux output, A and B port output resolution is the same.

Note 2: The customized may not be a standard format, so some monitor will not recognize but LED screen will.

Input setting




INPUT 

Input Ports List




Image Crop

HDMI/DP RGB Range

Input Ports List:

Input Ports List Page: 1/2   

KEY 1	HDMI1---	4094×2176 60Hz	Total: 4294×2196
KEY 2	HDMI2---	No Signal	
KEY 3	HDMI3---	No Signal	
KEY 4	HDMI4---	No Signal	
KEY 5	DP1	---4096×2176 60Hz	Total: 4294×2196
KEY 6	DP2	---No Signal	
KEY 7	DP3	---No Signal	
KEY 8	DP4	---No Signal	

Input Ports List Page: 2/2   

KEY 9	SDI1	---No Signal	
KEY 10	SDI2	---No Signal	
KEY 11	HDMI1---	No Signal	
KEY 12	HDMI2---	No Signal	

Image Crop

Image Crop

Input 1

Input 2

Input 3

Input 4

Input 5

Input 6

OFF

OFF

OFF

OFF

OFF

OFF

Input 7

Input 8

Input 9

Input 10

Input 11

Input 12

OFF

OFF

OFF

OFF

OFF

OFF

Input Key 1 HDMI---4094×2176

Image Crop

Input Key 1 -4094×2176

Function OFF

Function ON

Reset

Match To Input

H Pos.

◀

0

▶

Width

◀

1920

▶

H Range

◀

1920

▶

V Pos.

◀

0

▶

Height

◀

1080

▶

V Range

◀

1080

▶

HDMI/DP RGB Range

HDMI/DP RGB Range

Input 1

Input 2

Input 3

Input 4

Input 5

Input 6

AUTO

AUTO

AUTO

AUTO

AUTO

AUTO

Input 7

Input 8

Input 9

Input 10

Input 11

Input 12

AUTO

AUTO

AUTO

AUTO

AUTO

AUTO

Input Key 1 HDMI---4094×2176

HDMI/DP RGB Range

Key 1 HDMI---4094×2176

Input source list	Display this machine all input signals resolution information.		
Image crop	Can select any part of image from input signal to display		
	Input button 1 -4096×2176	Indicates the currently selected input signal and resolution	
	Function off	Turn off image crop function	
	Function on	Turn on image crop function	
	Reset	Reset the image crop parameters	
	Match input signal	Match image crop parameters and references to the resolution of the input signal	
	Image crop setting	H Pos	Set image crop horizontal position
		Width	Set image crop horizontal width
		H range	Set image crop horizontal range
		V Pos	Set image crop vertical position
		Height	Set image crop vertical height
		V range	Set image crop vertical range
HDMI/DP RGB Range	To set the RGB range of HMDI or DP input. The default setting is "Auto" . The setting range is from 0-255 and 16-235, in order to fit the input.		

Note 1: 9 to 12 in the input source list are displayed only when adding extended input board to the machine, otherwise it is displayed as "None" .

Note 2: After turn on image crop function, please match input signal.

Note 3: Crop parameter could be set by the knob or the number keyboard.

Note 4: The image crop function is to intercept the input signal and output it according to the layer size. Therefore, the size and position of the window crop by the image is limited to input signal window. The setting parameters in the above table are mutually restricted.

Note 5: When image crop function is open for the selected input signal, all the layers of this signal which are cropped image.

Layer setting

Layer Configuration

Size/Position

Zoom

Layer Crop/Mask

Keying Settings

Shadow Effect

Aspect Ratio

Size/Position

Size/Position

Layer 1Layer 2Layer 3Layer 4OFFON

Clone

OFFON

H Pos.

540

960

OFFON

V Pos.

540

540

Mirrored Clone

Width

960

960

NormalMirror

Height

540

540

Zoom:

Zoom

Layer 1Layer 2Layer 3Layer 4

Function OFF

Function ON

Reset

Match To Input

H Pos.

0

Width

1920

H Range

1920

V Pos.

0

Height

1080

V Range

1080

Layer Crop/Mask

Layer Crop/Mask

Layer 1

Layer 2

Layer 3

Layer 4

Left

0

Right

0

Top

0

Bottom

0

Reset

Keying Settings:

Keying Setting

Luma Keyer

Color Keyer

Luma Keyer

Display Pixels Above luma

Luma

0

Function OFF

Edge

0

Function ON

No Swap

Keying Setting

Quick Templates

Edit

Keying SettingsQuick Template

Black Background	Black Text	
White Background	White Text	
Red Background	Red Text	
Green Background	Green Text	ON
Blue Background	Blue Text	OFF

Color KeyerTop Layer Color In Range Display

R Low

G Low

B Low

R High

G High

B High

0

0

0

0

0

0

Function OFF

Function ON

No Swap

PixelGrab

R 000 G 000 B 000

H Pos. 892

V Pos. 259

Auto Color Range

Shadow Effect:

Shadow Effect

Layer 1

Layer 2

Layer 3

Layer 4

ON/OFF

Width

OFF

ON

16

32

Aspect Ratio:

Aspect Ratio

Layer 1

Layer 2

Layer 3

Layer 4

Resize Layer Refer To Input Pixels

Lock Hsize Of The Layer

Resize

Lock Vsize Of The Layer

Resize

Resize Complete!

Layer Configuration	Set the layer parameter, like size/position, zoom, crop, color key, shadow effect, layer scale.			
Size/Position	Layer 1~4		Select the layer	
	Close/Open		Layer open or close	
	Horizontal and vertical position		Set the layer horizontal and vertical position	
	Width and height		Set the layer width and height	
	Layer clone		Clone the current layer(Please review the notes below)	
	Mirror clone		Clone and mirror the original layer	
Zoom	Layer 1~4		Select the layer	
	Function on/off		Turn on/off the zoom function	
	Reset		Reset the layer zoom parameter	
	Match input signal		Match the layer zoom datum with the input resolution.	
	Horizontal and vertical position		Set the layer horizontal and vertical position	
	Width and height		Set the layer width and height	
Layer Crop/Mask	Layer 1~4		Select the layer to be cropped	
	Left, right, up, down		Select the start position(4 direction) to crop	
	Reset		Reset the crop parameter	
	Keying Settings	LumaKeyer	Remove the part of low brightness according to the brightness setting, leave the high brightness part.	
Luma			Range 0~255, set a brightness value, remove the part of the image where brightness above the value	
Edge			Range 0~4, boundary processing, the bigger the value, the stronger the effect.	
Function on/off			Turn on/off the lumakeyer function	
Not exchange/exchange			Default not to exchange; after exchange, leave the low brightness part, remove the high brightness part	
Color Keyer		Quick Templates	Multiple available templates	
			Background color mode	Remove the background color which is selected
			Text color mode	Leave the text color which is selected
			On/Off	Function on or off
		Edit	Customize color keyer, for the top layer, leave the image color within the setting, remove the image color beyond the setting	
			Bottom value of RGB	Set a bottom value of RGB, range 0~255
			Top value of RGB	Set a top value of RGB, range 0~255
			On/Off	Turn on/off the customize color keyer
			Swap / No Swap	Default not to exchange; after exchange, leave the low brightness part, remove the high brightness part

Color Keyer	Color Keyer	Edit	Pixel reading	A yellow frame will show up, move it to select the color should be remove.	
				RGB value	Display the RGB value which is selected
				Horizontal/vertical position	Change the horizontal/vertical parameter to move the yellow frame, in order to select the color.
				Color range fast setting	After click, remove the color in the frame; click again to close.
Shadow Effect	Set the layer effect of shadow(suspending)				
	Layer 1~4		Select the layer to do the shadow effect		
	ON/OFF		Turn on/off the shadow effect		
	Width		Set the width of the shadow, 16 pixels and 32 pixels		
Aspect Ratio	According to the input signal resolution scale of the layer, layer width or height stays the same, reset the layer size, ensure the image display in normal scale.				
	Layer 1~4		Select the layer		
	The same width		Width stay the same, auto change the layer height , recover the image display scale		
	The same height		Height stay the same, auto change the layer width , recover the image display scale		

Note1: When using “Clone” , the width of the original layer must not exceed the half of the main output resolution; the original layer should be at the left part of the main output, take the middle line of the output outlet as the symmetry axis, the clone layer is at the symmetry area of right side.

Note 2: The cloned layer support mirror and layer suspending, it does not take up the number of active layers on the machine.

Note 3: The color key function and shadow function can not be used at the same time.

Note 4: Layer setting is only for program output. The AUX output only has 1 full screen layer.

Save and load

SAVE/LOAD

Save Preset

Load Preset

Clear All Preset

Preset Source

Logo

▶

▶

▶

◀ ▶

▶

Cancel

Accept

Program

Preview

SAVE/LOAD

Load Pst.Inclue AUX

Save Include PGM/PVW

Save Include AUX

◀ ▶

◀ ▶

◀ ▶

Not Include

Included

Not Include

Included

Not Include

Included

Save Preset:

Save Preset

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

Preset 1 Will Be Overwritten

Cancel

Continue

Load Preset

Load Preset

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

Logo

Logo

Save Loo

Load All Logo

Clear All Logo

Logo Source

Program

Program

Preview

Save Logo

Logo1

Logo2

Logo3

Logo1

Save

Program

Preview

H Pos.

0

Width

1920

V Pos.

0

Height

1080

Save Logo

Save Logo From

Preview

To Logo1

Saving

50%

Cancel

Continue

Load All Logo

Cancel

Continue

Save Preset	1~20	This machine can save 20 presets,two indicator lines at the bottom of each preset number: the left indicate lines that the main output preset has been saved, and the right indicate lines that the AUX output preset has been saved.		
Load Preset	1~20	This machine can load 20 presets, the main output presets will be called on the Multi-preview, the auxiliary output presets call please see the table below the "auxiliary output load presets" description		
Clear All Preset	Clear all saved presets on this machine			
Save preset channel	Select to save the preset from Program or Preview			
Logo	Save Logo	Logo 1/Logo 2/Logo 3	Select the Logo button to save	
		Logo 1	Displays the Logo number of the current operation	
		Save	Skip to the progress bar menu to save the Logo	
			Cancel/Continue	Select save Logo or not
		Program/Preview	Select the channel to save the logo	
		Horizontal position and vertical position	Set the horizontal and vertical positions to save the Logo	
		Horizontal width and vertical height	Set the horizontal width and vertical height of the saved Logo	
	Load all Logos	Load all saved logos		
	Clear all Logos	Clear all saved logos		
	Logo saving channel	Select the channel where you want to grab the Logo ,Program or Preview		
Auxiliary output loading presets	Whether the auxiliary output is switched to the preset setting when loading the preset, after "switch" is selected, call the preset, the auxiliary output will be switched directly.			
Save the main output presets	Select whether to save the setting for the main output as preset			
Save the auxiliary output preset	Select whether to save the setting for AUX output as preset			

Notice 1: When the layer is selected to load the Logo, the layer size will change to the size of the Logo, and the Logo will always be on the bottom .

Notice 2: Switch will load all logos automatically every time . Please wait for the completion of Logo loading before operation.

EDID

EDID

Input 1

Input 2

Input 3

Input 4

Input 5

Input 6

Input 7

Input 8

Input 9

Input 10

Input 11

Input 12

Input Key 1 EDID -3840×2160 60.00Hz

EDID

Input Key 1 HDMI

H Active

1920

V Active

1080

V Freq

60

Reset

Accept

Advanced

H Blank

280

V Blank

45

1920

1

2

3

4

5

6

7

8

9

0

.

C

OK

<-

EDID Setting	EDID can be set for all input signals from input 1 to input 12 except SDI, and the corresponding input signal can be selected to enter the EDID configuration menu.	
	Input Key 1 HDMI	Represents the input signal that setting of EDID currently
	H Active	Modify the horizontal resolution of EDID
	V Active	Modify the vertical resolution of EDID
	Reset	Reset the EDID parameter
	Accept	Write in EDID parameter
	Advanced	H Blank
		V Blank

Notice 1: During EDID setting, the computer display mode should be set to extended mode.

Notice 2: After setting EDID, may need to restart the computer if different computers and different graphics output .Or select the corresponding output resolution in the computer resolution option.

Communication

Communication

IP Setting

Protocol Info

IP Settings

IP Address

192.168. 1.222

Edit

Gateway

192.168. 1. 1

Edit

MAC

E2-B2-E0-EC-45-17

1

2

3

4

5

6

7

8

9

0

.

C

OK

<-

Reset

Apply

Communication

UDP Port: 61215

Take Fade Hexacimal Length39[0×27]

ED CB 28 48 00 01 01 00 2A

Take Cut

ED CB 28 48 00 01 00 29

Load Preset

1

ED CB 28 48 01 01 00 2A

2

ED CB 28 48 01 01 01 00 2B

10

ED CB 28 48 01 01 09 00 33

20

ED CB 28 48 01 01 13 00 3D

34

Communication setting		Make the computer to use the upper computer to connect to this switcher through the network by modifying the IP address of this processor.
IP Settings	IP address	Display or modify the IP address of this machine, you can select the number to edit through the knob or OK key, or click the edit key on the right side to enter the number .
	Gateway	Display or modify gateway of this machine, you can select the number to edit through the knob or OK key, or click the edit key on the right side to enter the number .
	MAC	Displays the physical address of this machine
	Reset	Reset the IP address and gateway of this machine
	Apply	Apply the modified IP address and gateway
Protocol Info		Displays communication protocol information in this machine

Notice 1:

If you want to use the computer to control this switcher, you need to install the upper computer software to connect to this processor through the network cable. You can modify the IP address and gateway of the upper computer or this device, so that the two devices are in the same network segment, and the connection can be successful.

MISC

MISC

Page: 1/2

Status Info

Test Pattern

Duration0.5S

Take Mode

Swap

Frame Lock Setting

Free Run

Swap

Edit

Free Run

Lock To Layer1

Genlock

MISC

Page: 2/2

Screen Touch

Enable

T-Bar

Enable

T-bar Calibration

Factory Reset

Enable

Disable

Diabile

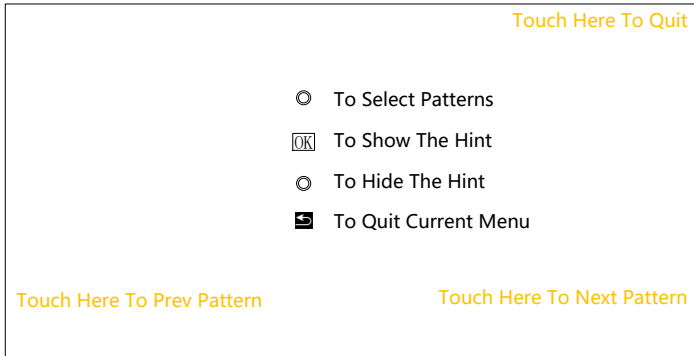
Enable

Status Info:

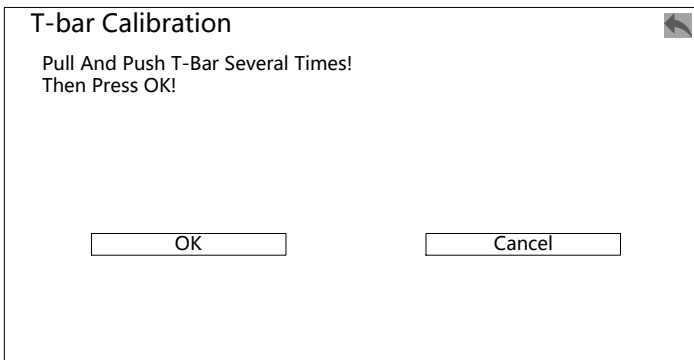
Status

Firmware Version

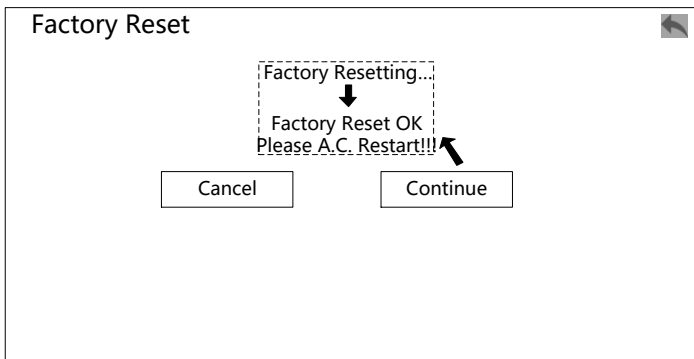
Hardware Status



T-Bar Calibration:



Factory Reset:



MISC option	Set up the functions of this machine	
Status Info	Firmware version	Displays the firmware version of this machine
	Electrical state	Display the electrical status of each part of this machine
Test Pattern	Output test screen (main output), 0 is closed	
	LCD panel test pattern	Test whether the LCD panel of this machine displays normally or not, operate through the knob or the prompt menu on the LCD screen.
Duration	Select the switch speed of the TAKE button, ranging from 0 to 3 seconds, 0.5 seconds is default	
Take Mode	Select the switch mode of this switcher, switch mode or edit mode, switch mode is default	
Frame Lock Setting	Select the synchronous mode of this machine, publish as free scroll, synchronize to layer 1 and Genlock, you can just use the default free scroll mode.	
Touch screen	Select to enable touch screen. It is enabled by default	
T-bar	Select to enable the T-bar.It is enabled by default	
T-bar Calibration	Calibrate the T-Bar	
Factory Reset	Reset the machine to factory settings ,prompt A.C. Restart after confirming to continue.Then the power off and restart.	

Notice: If you want to upgrade the firmware version, please contact the technical support of MIG .

Language

Language/语言

English

▶

简体中文

▶

繁體中文

▶

English	Set the display language of the menu system to English
简体中文	Set the display language of the menu system to simplified Chinese.
繁體中文	Set the display language of the menu system to traditional Chinese

Multi-preview interface introduction

After turning on MIG-680 series switcher, connect external monitor with Preview port, then the monitor will show Multi-preview interface, as shown below:

PROGRAM		PREVIEW	
		1	
OUTPUT INFORMATION		AUX OUTPUT	
PGM RESOLUTION 1920×1080 60.00Hz		AUX1 INPUT 1	AUX2 INPUT 1
AUX1 RESOLUTION 1920×1080 60.00Hz		AUX3 INPUT 1	AUX4 INPUT 1
AUX3 RESOLUTION 1920×1080 60.00Hz			
AUX2 RESOLUTION 1920×1080 60.00Hz			
INPUT INFORMATION			
1 HDMI1 1920×1080 60Hz	2 HDMI2 NO SIGNAL	3 HDMI3 NO SIGNAL	4 HDMI4 NO SIGNAL
5 DP1 1920×1080 60Hz	6 DP2 NO SIGNAL	7 DP3 NO SIGNAL	8 DP4 NO SIGNAL
9 SDI NO SIGNAL	10 SDI NO SIGNAL	11 NONE	12 NONE

Above information are illustrated as below :

Window	Guidance
PROGRAM	PROGRAM, the size and position of output layers, real-time image are showed (sync with LED screen)
PREVIEW	PREVIEW, the size and position of output layers, real-time image are showed,The red box represents the currently selected layer and displays the sequence number of the layer in the upper left corner. When the layer has no signal or no layer, the corresponding area shows black
OUTPUT INFORMATION	display the resolution of main output port and 4 AUX output ports
AUX OUTPUT	display the current input signal of AUX output
INPUT INFORMATION	The serial number, signal type and input resolution of all input signals are displayed. The font green indicates that the input signal is present, red indicates that there is no signal, and NONE indicates that the input port is not extended.

Button

The menu system of the product can be set up conveniently and intuitively to meet the user's requirements.

MIG-680 series video console uses a full color single touch LCD to display the entire user menu. The LCD screen will display the default state if the user has no operation or the operation has timed out. If you use the keys on the front panel of the machine to set the machine, the LCD screen will display the corresponding menu according to the user's operation, so as to prompt the user to operate better, faster and more intuitively.

The menu system of MIG-680 series video console will be introduced in detail for you by combining the button function and the display of the LCD screen

How to use the button

MIG-680 series video console front panel button, divided into 9 areas: MENU、ADJUSTMENT、LAYER、LOGO、INPUT、FUNCTION 1&FUNCTION 2、TRANSITION、PRESET、

MENU AREA:

This area contains 2 buttons and a knob that can be pressed: OK、↩button and knob.



Short press "knob", its function is same as confirm key (OK); When the return key is pressed(↩) the menu system will return to the next level in turn until it returns to the default state, or long press to return to the main interface.

In the main menu, the confirm key is also used to switch between browsing mode and setting mode, for example:

Browsing mode	Setting mode
<div><div>Layer 1 image mode</div><div><div>Brightness</div><div>50</div></div><div><div>Contrast</div><div>50</div></div><div><div>Saturation</div><div>50</div></div></div>	<div><div>Layer 1 image mode</div><div><div>Brightness</div><div>50</div></div><div><div>Contrast</div><div>50</div></div><div><div>Saturation</div><div>50</div></div></div>
↩ OK button、 Light press "knob" , switch between the above two modes ↗	

In browsing mode, rotate the "knob" counterclockwise and move the cursor up or to the left. Turn the knob clockwise and the cursor moves down or to the right. When the cursor is moved to the item to be adjusted, press the "knob" or the "confirm" key to enter the setting mode. At this time, rotate the "knob" counterclockwise to reduce the current parameter value. Turn the "knob" clockwise to increase the value of the current parameter. To continue setting other items on this page, please switch back to browse mode. To return to the next level menu, use the return button. If the adjustment is finished, press the back button to return to the superior menu until the default state, or wait for the system timeout, the default state will

bereturned automatically (in some special interfaces, the system will not automatically return to the default state, such as: screen switching shortcut interface, user mode shortcut interface, test pattern interface, etc.).

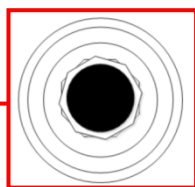
ADJUSTMENT area:

Adjust the layer size/position, and use the joystick to change the position of the currently selected layer. With H and V buttons, you can change the size of the layer

To zoom the image in the current layer, use H button, V button and joystick

Image crop: it should be used together with H button, V button and joystick, and some images of the input source can be cropped and displayed in full screen

Control the size of selected parameters by joystick: up, down, left, right and top rotation



SIZE /POS	ZOOM	CROP
H	FULL SCREEN	ON
V	FINE	OFF

Turn selected layer on or off, layer zoom or signal crop on or off, etc

H: Horizontal
V: vertical

Select the layer and quickly go full screen

Fine, easy to adjust parameters accurately

Notes: SIZE/POS、ZOOM、CROP、H、V、FINE the bright red of the button indicates that the corresponding function of the key is turned on, while the dark indicates that the corresponding function is not turned on.

LAYER AREA:

LAYER



Corresponding to 1-4 active layers of the machine



Long press CLEAR+ layer button: delete selected layers;

Long press CLEAR+ALL: delete all layers;

FULL SCREEN: quickly go full screen;

TOP: Too the layer;

BOTTOM: bottom the layer;

COLOR KEYER: quickly enter color keyer menu;

LUMA KEYER: quickly enter lumakeyer menu;

Notes: Green buttons 1-4 means the layer is on, no light means the layer is not on, yellow means the layer is currently selected and created, and red means the layer is selected and not created.

LOGO AREA:

LOGO



Select a layer, then select the corresponding LOGO button, the corresponding LOGO can be loaded into the layer display. Yellow indicates that the LOGO is selected, green indicates that the LOGO has been saved, and no light indicates that the LOGO has not been saved

SAVE: quickly enter LOGO saved menu
LOAD: quickly enter LOGO loaded menu

FUNCTION 1&2 AREA:

FUNCTION 1

TAKE SWAP	TAKE EDIT	SHIFT	ASPECT RATIO	DURATION TIME	AUX SWITCH	SHADOW EFFECT
--------------	--------------	-------	-----------------	------------------	---------------	------------------

Long press SHIFT+TAKE SWAP: when switching, exchange Program and Preview;

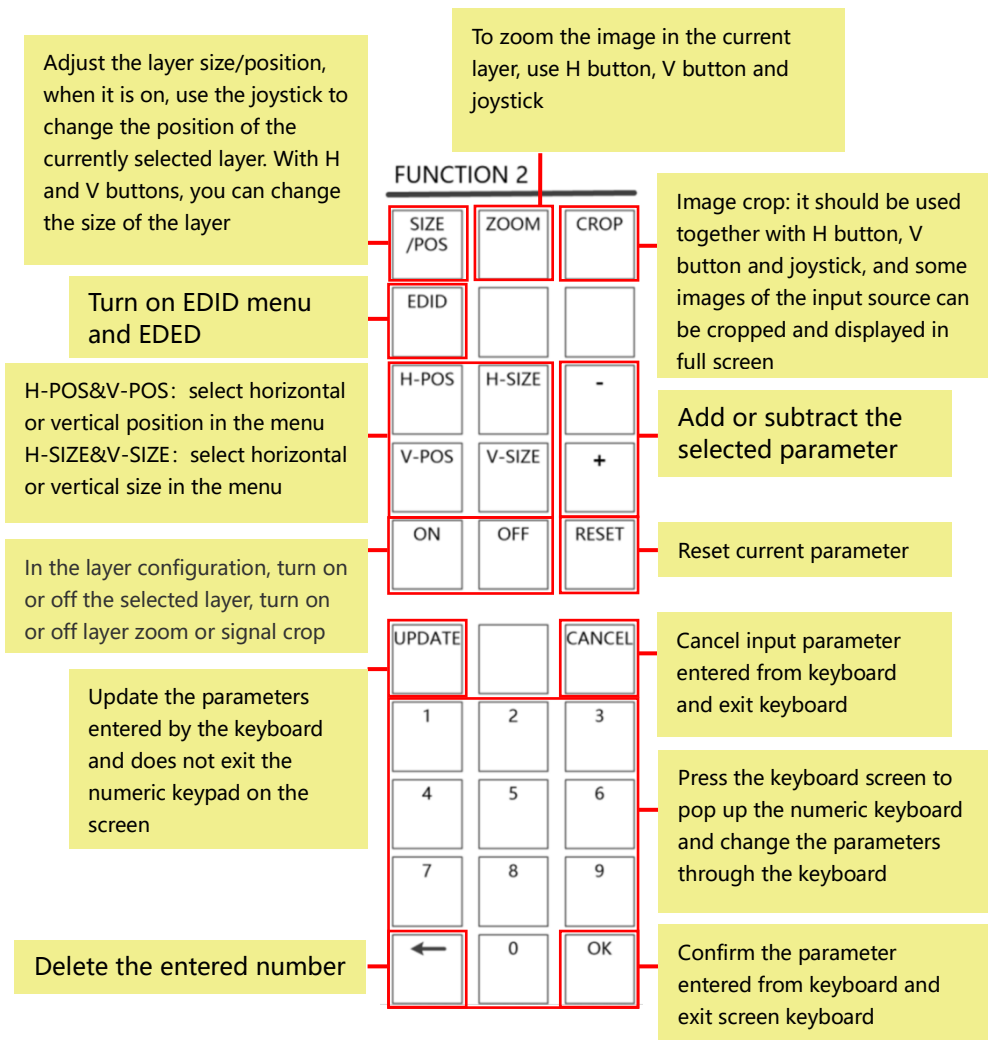
Long press SHIFT+TAKE EDIT: Edit mode, Program and Preview output at same time;

ASPECT RATIO: quickly enter layers ratio menu;

DURATION TIME: adjust the time when TAKE fade in and fade out(quickly enter function item menu);

AUX SWITCH: long press AUX SWITCH + LAYER1-4 input signal button, the input signal can be switched to 4 AUX outputs;

SHADOW EFFECT: quickly enter SHADOW EFFECT menu;



Notes: SHIFT+TAKE EDIT: When PROGRAM and PREVIEW are kept in sync, PROGRAM on the output preview screen will not change, and the actual PROGRAM has been synchronized with preview screen.

INPUT AREA:

INPUT

LAYER 1												AUX 1
1	2	3	4	5	6	7	8	9	10	11	12	
LAYER 2												AUX 2
1	2	3	4	5	6	7	8	9	10	11	12	
LAYER 3												AUX 3
1	2	3	4	5	6	7	8	9	10	11	12	
LAYER 4												AUX 4
1	2	3	4	5	6	7	8	9	10	11	12	

LAYER 1-4 The button in the corresponding area is not lit, it means that the button corresponds to invalid input signal, green means that the button corresponds to valid input signal, yellow means that the corresponding layer selects valid input signal, and red means that the corresponding layer selects invalid input signal

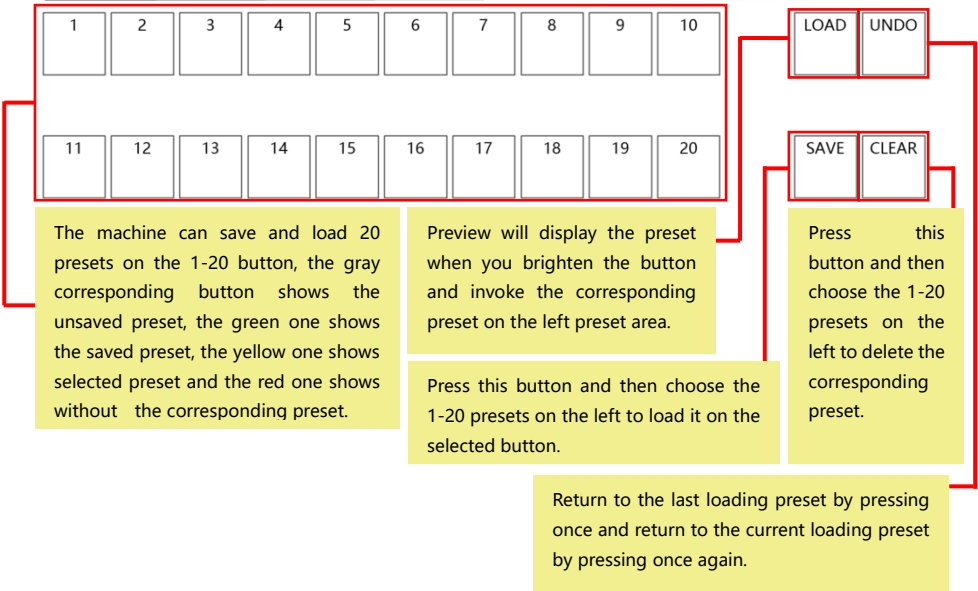
Press and hold the corresponding AUX 1-4 to select the input signal for AUX on the left side

Notes: 1. Select the input signal for layer 1-4 just select the input signal below the corresponding layer 1-4 area, which is convenient and fast.

2. Press the AUX 1-4 output to select the input signal of each AUX. To quickly change the input signal, press the AUX SWITCH button in the region of FUNCTION 1 and select the input signal button corresponding to the left side of AUX 1-4

PRESET AREA:

PRESET



TRANSITION AREA

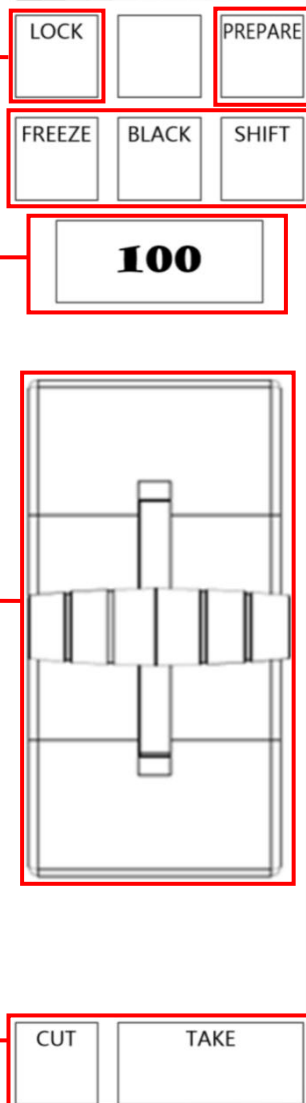
Press SHIFT+LOCK to lock the all buttons on the machine, including T-Bar and once again to unlock.

It's a switching process display screen, the number 0 and 100 indicate the completion of switch, the button PREPARE will quench and the switch is not completed when the screen indicates the number 1-99

T-Bar: A push rod to control the switching speed

The button Cut: Seamless switch between PREVIEW and PROGRAM
The button Take: Fade in/out between PREVIEW and PROGRAM

TRANSITION



PREPARE: It's a state indication button, you're able to load presets and switch when the button is lighting, but if the button quenched, you can't load presets and use CUT and TAKE to switch.

Press Shift+ Black: The PROGRAM output changed to the black signal and press it once again to regain the normal signal.
Press Shift+ Freeze: Freeze the PROGRAM output to stay in some frame and press it once again to regain the normal signal.

Warranty

Machine warranty

- 24 months from the date of purchase of the user' s invoice.
- If the user purchase invoice is lost, the 60 days after the production date will be the warranty start date for the product.

Non-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.
- The product is out of warranty expiry.