V4 multi-scene seamless switcher

User manual

⚠ Before using this LED Video Seamless Switcher，please read this manual carefully and preserved for reference in the future.

MAGNIMAGE

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Statements

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The product specifications and information mentioned in this manual is just for reference, will not give prior notice if there is any updated. 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.

Contents

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Briefs

Thanks for your purchasing our V4 multi-scene video switcher. Do hope you can enjoy the experience of the product performance. The design of the LED switcher 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.
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About software

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

Features

- 2 main splicing output，single machine support 3840 x1080
- Every single main output support 4 layers and 1 background
- Modify size and position of layers window randomly
- 1 multi-screen preview output，1 auxiliary preview output
- multi-layers processing and realize 8 layers to 8 layers fade switching，numerous switch effects
- Built-in matrix and support 12 input（optional），maximum expanding 20 input
- 30 presets and built-in 30 default templates
- Work template machine more quickly to save and restore function，make it convenient for your quickly switch under a variety of applications
- Support 3 HD background pictures and 1 pure color background
- Test overlay,let image composition and subtitle overlay easily
- Edge blending，used in projection splicing
- EDID management
- Input/output image real-time monitoring
- Support synchronization，more machine cascade splicing
- 60Hz real-time processing，all channel 24-bit RGB processing
- Support multiple operating control
- Double power supply redundancy backup
- Blade board design

Using directions

Included Accessories

MIG-V4 host accessories

Using manual	Certification	USB DISK

产品合格证
本产品经检验合格准予出厂
检验员 _____
日期 _____
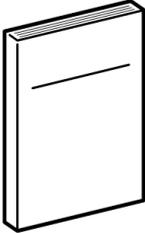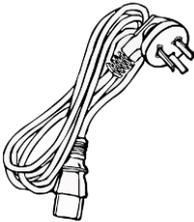
Power line×2	DVI line×2

....
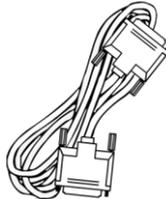
MIG-H1 accessories
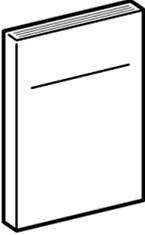
Using manual	Certificate	Light×2 Flange edge×2 M4 screw×8

产品合格证
本产品经检验合格准予出厂
检验员 _____
日期 _____
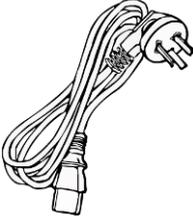
Power line	Cross cable

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 power supply of V4 and H1, 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 ofswitcher,ifthereare any smoke, odor, or abnormal conditions occur,thencontact your dealer.

Functions

Overview

MIG-V4 switcher is composed of MIG-V4 host and MIG-H1 console,single MIG-H1 can control up to 9MIG-V4 hosts.

High-performance MIG-V4 host adopts advanced 12 bit algorithm,and it make picture more clear,delicate,colorful,ensure the output signal synchronization and reducibility as well.Single machine supports output capability up to 3840*1080 pixels,and it supports 1 multi-screen preview and 1 auxiliary preview.It can realize 8 layers to 8 layers fade switching,the built-in matrix supports 12 inputs,and can expand 20 inputs with full live preview of all inputs sources.When V4 works with H1, it can realize large LED video wall display,multi-scene and multi-layer switching,backupetcfunctions,and it is widely applied in auto show,conference,productslaunching,and stage show etc events.

MIG-V4 host adopts hardware architecture on basis of high speed and capable FPGA array,and digital bus matrix.For all kinds of inputs sources,V4 ensures original signal recovery by adopting RGB 24 bits/60Hz internal processors,ensures high quality image output without delay and supports seamless splicing for multi-screen outputs by using a built-in high-performance image scaling engine.

MIG-V4 supports various input sources,including DVI,VGA,HDMI,SDI and supports EDID management for input sources.

All series video wall switchers are designed with built-in standard associative modularity,which support online upgrade and internet remote control,making technical supports and after-sale maintenance convenient.

Rule of naming

MIG-V4 switcher is composed of MIG-V4 host and MIG-H1 console.

Console Type:MIG-H1

3 basic host,the type as follow

Host type	Input port type
MIG-V4-A	4VGA、4DVI、4SDI
MIG-V4-B	4DVI、4DVI、4SDI
MIG-V4-C	4HDMI、4DVI、4SDI
MIG-V4-D	4DVI、2SDI、2VGA、4HDMI
MIG-V4-E	8DVI、2SDI、2VGA
MIG-V4-F	4DVI、6VGA、2SDI

Host can add input expanding board to add the type and quantity of input port.

Expanding input board type:

Expanding input board type	Description
MIG-V-DVI	4DVI input
MIG-V-VGA	4VGA input
MIG-V-HDMI	4HDMI input
MIG-V-SDI	4SDI input
MIG-V-SDIVGA	2SDI input、 2VGA input

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Technology specification

Input signal spec		
Ports	**No.**	**Spec**
VGA	4	VESA
DVI	4	VESA
HDMI	4	EIA/CEA-861，HDMI-1.3
SDI	4	480i、576i、720p、1080i/p（3G SDI）
SDI VGA	2SDI input、 2VGA input	

Output signal spec		
Ports	**No.**	**Resolution**
DVI（main output）	2×2	1920×1080/60Hz
DVI（Multi-preview）	1×2	1920×1080/60Hz
DVI(Auxiliary-Monitor)	1×2	1920×1080/60Hz
Notes:2×2 represent 2 group of DVI,each group has 2 DVI ,which are copy effect.		

Electrical spec	
Power supply	100～240VAC，50/60Hz
Operation temperature	0~45℃
Operation humidity	10% -90%

MIG-V4 front panel introduction

Front panel introduction
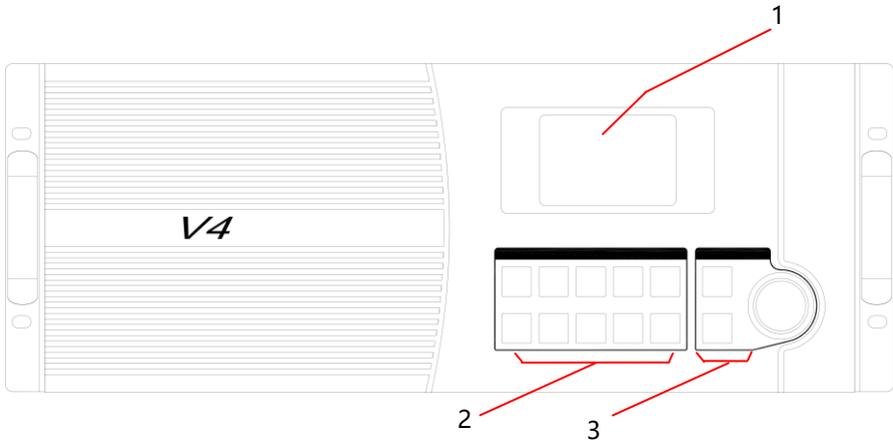
1- Display screen:display current work state,inputinformation,electrical state etc.

2- Function buttons:realize appointed functions in special menu

3- Menu buttons:browse and set menu,includingconfirm,back and shortcut knob.

Rear panel introduction
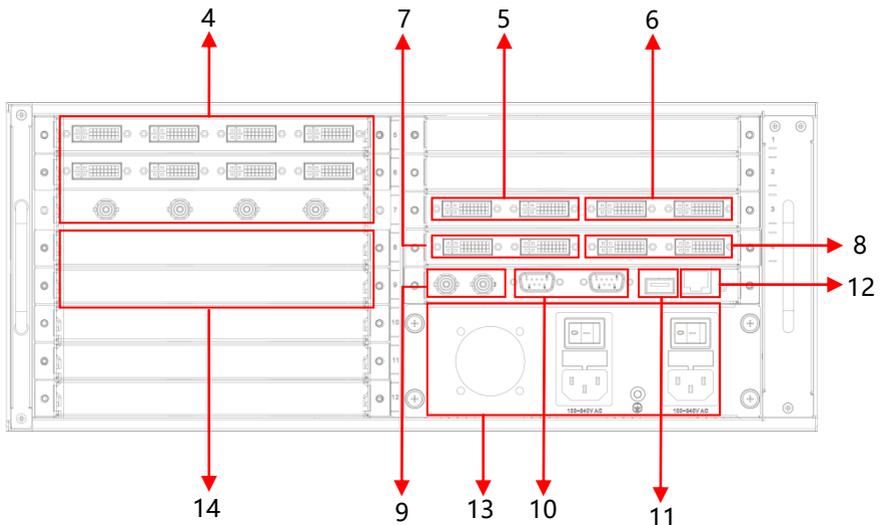
4- Standard Inputs Area: 12-channel inputs

5- Program 1: main output screen 1 port

6- Program 2: main output screen 2 port

7- Multi-screen preview : program output、preview output、 input signals real-time monitoring

8- Auxiliary preview: Full screen monitor any input signal

9-Multiple MIG-V4 host cascade splicing,frame lock plugs

10- RS232 control plug

11- USB plug: for upgrading

12- LAN: Connect to H1 via Ethernet cable

13-Dual power and Replaceable fan module

14- Expanded inputs: maximum 2 input slots

MIG-V4 card introduction

VGA input card	
Signal format	VESA
Ports	15 pin D-sub/mother ports
Ports Qty.	4/input card

DVI input card	
Signal format	VESA
Ports	24+5pin/mother ports
Ports Qty.	4/input card

HDMI input card	
Signal format	EIA/CEA-861 HDMI-1.3
Ports	HDMI Type A
Ports Qty.	4/input card

....

SDI input card	
Signal format	480i、576i、720p、1080i/p（3G SDI）
Ports	SDI/mother ports
Ports Qty.	4/input card

SDIVGA 输入卡	
信号规格	2SDI，2VGA

DVI output card	
Signal format	1920×1080/60HZ
Ports	24+5pin/mother ports
Ports Qty.	4/input card（each 2 are coping effect）

Control card	
Signal format	Support sync signal，RS-232 and internet control port，USB

MIG-V4 host using menu

Using the menu of products is convenient to set,which meet user requirements,MIG-V4 host adopt a high brightness & contrast LCD screen to display the entire menu system.When the user does not have operation or operation timeout, the LCD screen will show the default state.If use the machine front button to set the machine,the LCD screen show the corresponding menu according to user operation,in order to prompt the user to operate better,faster and more intuitive .

The following introduce MIG-V4 host menu system detailed according to the keyboard and LCD screen display.

How to use the keys

The front panel keys of MIG-V4 are divided into two areas: MENU, FUNCTION.,

MENU AREA

This area contain 2 buttons and 1 knob,a confirmation key(OK), a return key (⤺)   and a knob.

In the default state,press "OK" to enter the main menu,rotating knob to choose menu title,then press OK to enter the item to set,rotating knob to choose and modify.Afteradjusting,press ⤺ to return to previous menu until the default interface.If no operation after adjusting,menu will return to default interface automatically within a few minute.

FUNCTION AREA

This area contain 10 buttons:1、2、3、4、5、6、7、8、9、10.

Only operate in special menu state,forexample,when setting IP address,you can press number buttons to input directly.

Default state introduction

After turning on the power of MIG-V4,the front panel screen display turn-on interface in the process of system start-up,afterit,the screen display current state,as showed below:

Default state interface after turn-on :

MAGNIMAGE			
V4 MULTI-DISPLAY SWITCHER			
1 DVI	2 DVI	3 DVI	4 DVI
5 VGA	6 VGA	7 VGA	8 VGA
9 SDI	10 SDI	11 SDI	12 SDI
13 NONE	14 NONE	15 NONE	16 NONE
17 NONE	18 NONE	19 NONE	20 NONE
🌡 Output Reso.1920×1080 60Hz			
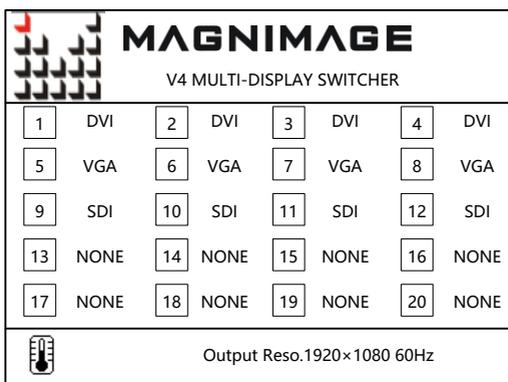
Input info	With the machine corresponding to the type of input slot,the number turn green when there is a signal.
🌡	Real-time control operation temperature, red represent warning
Output Resolution	The resolution of every DVI output port :1920× 1080 60HZ

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MIG-V4 main menu

In the non-menu state,press OK button then enter the main menu state,the LCD screen will display as follow:

```
Menu

Status Info
EDID Manage
Misc
Communication
语言菜单/Language


```

```
Menu

Input Config
About Magnimage




```

The main menu has 7 sub-menu items,divided into 2 pages display.Rotating" knob" to select the above listed 7 sun-menu title,afterselected,press" OK" button to enter the selected item,press " ⟶ " to be back.

....

Status Info

Input Information
Firmware Version
Temperature & Fans
Electric Report

Input Information

1 DVI	2 DVI	3 DVI	4 DVI
5 VGA	6 VGA	7 VGA	8 VGA
9 SDI	10 SDI	11 SDI	12 SDI
13 NONE	14 NONE	15 NONE	16 NONE
17 NONE	18 NONE	19 NONE	20 NONE

Reconfig Input List

Input information	Display the slot state of every input slot,ifalteration,you should read setting then set in this menu

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```
┌─────────────────────────────────────────────────┐
│  Firmware Version                               │
│  ┌───┬──────────────┐ ┌────┬──────────────────┐ │
│  │ 1 │ A1529-F54D3  │ │ 9  │ A1529-F0AC5-F0AC5│ │
│  │ 2 │ A1529-F34C9  │ │10  │ A1529-F0AC5-F0AC5│ │
│  │ 3 │ A1515-F2511  │ │11  │ A1529-F0BD1-F0BD1│ │
│  │ 4 │              │ │12  │ A1529-FAAC5-F05CA│ │
│  │ 5 │              │ │    │ V3-V005-201301   │ │
│  │ 6 │              │ │    │                  │ │
│  │ 7 │              │ │    │                  │ │
│  │ 8 │              │ │    │                  │ │
│  └───┴──────────────┘ └────┴──────────────────┘ │
└─────────────────────────────────────────────────┘

┌─────────────────────────────────────────────────┐
│  Electric report                                │
│  ┌───┬──────────────┐ ┌────┬──────────────────┐ │
│  │ 1 │ V OK A OK 0000│ │ 9  │ V OK A OK 0000  │ │
│  │ 2 │ V OK A OK 0000│ │10  │ V OK A OK 0000  │ │
│  │ 3 │ V OK A OK 0000│ │11  │ V OK A OK 0000  │ │
│  │ 4 │ None          │ │12  │ V OK A OK 0000  │ │
│  │ 5 │ None          │ │                       │ │
│  │ 6 │ None          │ │   ┌────┐              │ │
│  │ 7 │ None          │ │   │ OK │   Details    │ │
│  │ 8 │ None          │ │   └────┘              │ │
│  └───┴──────────────┘ └────┴──────────────────┘ │
└─────────────────────────────────────────────────┘
```

Firmware version	Display firmware information of every slot
Temperature&Fans	Display the state of operation and the temperature of every slot
Electrical Report	V4 host real-time monitor the current and voltage of every slot

....

```
EDID Management
    1 : 1-DVI   A  1280x1024  60Hz
    2 : 1-DVI   B  1280x1024  60Hz
    3 : 1-DVI   C  1280x1024  60Hz
    4 : 1-DVI   D  1280x1024  60Hz
    5 : 2-VGA   A  1920x1080  60Hz
    6 : 2-VGA   B  1920x1080  60Hz
    7 : 2-VGA   C  1920x1080  60Hz
    8 : 2-VGA   D  1920x1080  60Hz

   OK        Config EDID
```

```
EDID Setting        1: 1-DVI A
H                   1280            ◁▷
V                   1024            ◁▷
Field Freq           60             ◁▷
Apply Setting                        ▷
Restore                              ▷
```

H	Set the horizontal width of input resolution
V	Set the vertical height of input resolution
Field Freq	Set the fresh frequency of input resolution
Apply Setting	Confirm and apply the resolution
Restore	Restore default EDID

```
Misc

Auto Load Background        off
LCD Test Pattern                    ▷
Factory Reset                        ▷



```

Auto Load Background	Set power on,if MIG-V4 host load background automatically
LCD Test Pattern	Test the LCD screen of V4 host
Factory Reset	Reset factory default setting

If user turn on "Auto Load Background ",MIG-V4 will load stored background when power on every time, boot time get longer,after waiting for completion of loading,then continuing other operations.

When user turn off   "Auto Load Background ",boot time get shorter.If you need to use background at this time, you can load entire background through background setting menu in MIG-H1.The default "Auto Load Background " is off.

....

```
┌─────────────────────────────────────┐
│ Communication                       │
├─────────────────────────────────────┤
│ IP Address          192.168.1.223   │
│ Subnet Mask         255.255.255.0   │
│ Apply Setting                    ▷  │
│ Cancel                           ▷  │
│ Reset                            ▷  │
│                                     │
│                                     │
├─────────────────────────────────────┤
│                                     │
└─────────────────────────────────────┘
```

	IP address	Default state:192.168.1.223
	Subnet mask	Default state:255.255.255.0
Communication	Apply setting	Before applying,modify internet parameter,after confirming then back to previous menu
	Cancel	Cancel the change of IP and subnet mask then back to previous state
	Reset	Reset internet setting to default

Languange/菜单语言

```
菜单语言/Language

English                    ▷
简体中文                    ▷
繁體中文                    ▷



```

English	Set the menu system language to English
简体中文	Set the menu system language to simply Chinese
繁体中文	Set the menu system language to Chinese

....

Input ports setting				
INPUT 1	DVI A	DVI A	DVI A	DVI A
INPUT 2	VGA A	VGA A	VGA A	VGA A
INPUT 3	HDMI A	HDMI A	HDMI A	HDMI A
INPUT 4				
INPUT 5				
INPUT 6				
INPUT 7				
INPUT 8				

Input ports setting				
INPUT	DVI A	DVI A	DVI A	DVI A
INP	INPUT1-DVIA			
INP	Brightness	128	◁▷	
INP	Contrast	128	◁▷	
INP	EDID M		▷	
INP				
INP				
INP				
INPUT 8				

Brightness	Range :0-256
Contrast	Range :0-256
EDID management	Customize input resolution

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About Magnimage

About Magnimage

http://www.magnimage.com/cn/

Website	http://www.magnimage.com/cn/
Wechat （Chinese）	ID:Magnimage
Wechat （English）	ID：Magnimage-ENG

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MIG-H1 front&rear panel introduction

Front panel introduction

1 screen and menu setting

2witch mode option

3 Adjustment area

12 Destinations area

11 Presets area

10 Output screen

9 layers area

MAGNIMAGE

4 Preset editing

8 Input area

7 Group area

6 Function area

5 Transition area
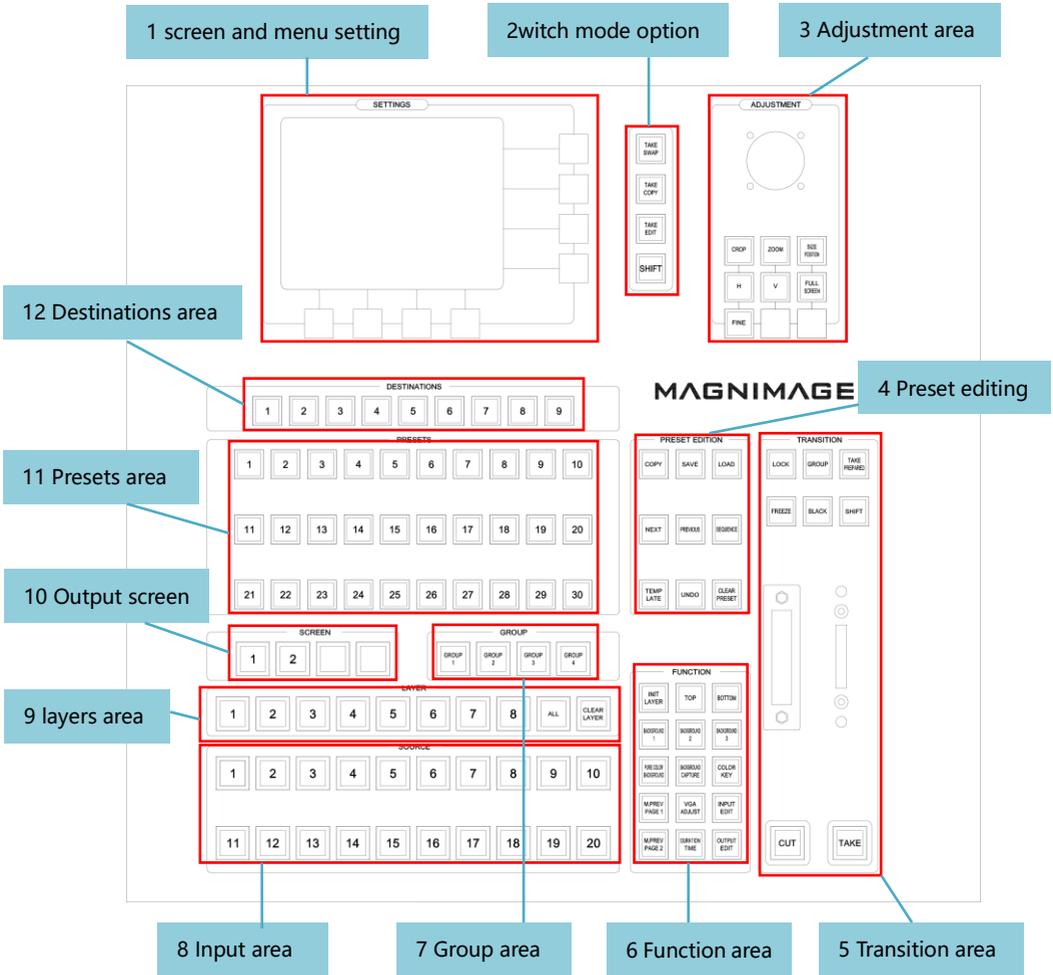
1 Display screen and menu setting

SETTINGS

Control cursor move up and down

Enter or exit menu

In special menu,realize appointed functions
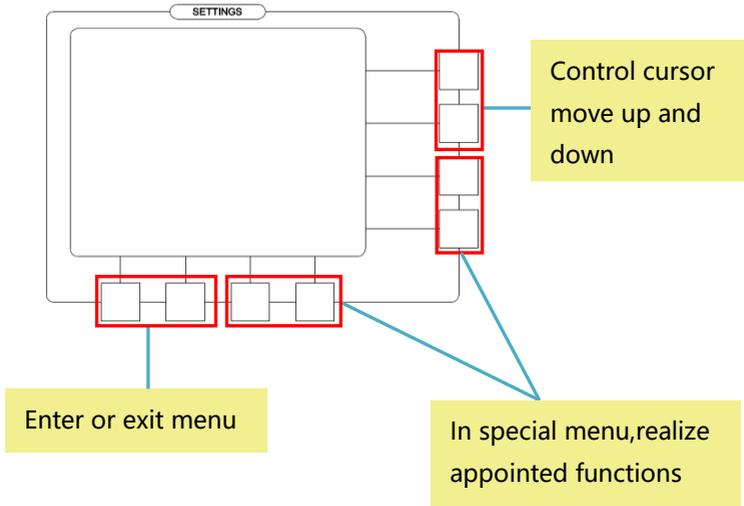
The port of light

Connect light

....
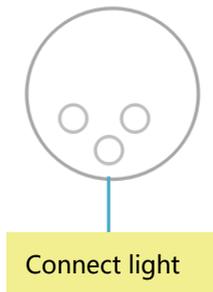
2 Switch mode option area
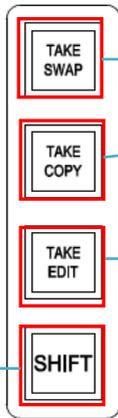
TAKE SWAP — Switch between main output and preview

TAKE COPY — Copy between main output and preview

TAKE EDIT

Above switch modes are combined button，SHIFT+corresponding

SHIFT

The same between main output and preview,if modify preview,main output will change

3Adjustment area

ADJUSTMENT
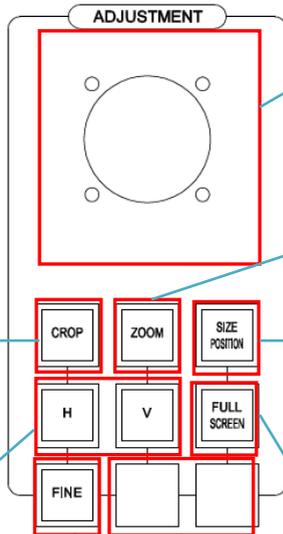
oystick :up、down、left、right and rotate,can control cursor move up and down and enter or exit menu,in special menu,modify size and position of layers

Image crop：use it through H，V button and joystick，crop the part of input signal

CROP   ZOOM   SIZE POSITION

H   V   FULL SCREEN

FINE

Zoom the image of layer through H and V button

After pressed ,use joystick to modify the position of the layers；verify size of layers through H and V button

Horizontal and vertical

Fine,modify accurate

Prepare buttons

Set full screen

4Preset editing area

PRESET EDITION

COPY   SAVE   LOAD

NEXT   PREVIOUS   SEQUENCE

TEMP LATE   UNDO   CLEAR PRESET
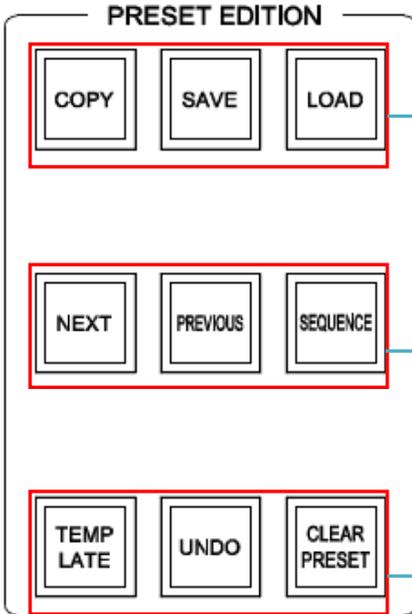
Copy+number key in preset area , copy preset , for example choose preset 1 , then press Copy , press Copy＋2, and 1 preset be copied to preset 2 ;

Long press Save+number key in preset area , store the preset to number key

Load key+number key in preset area , call the template user stored

After setting schedule duty in menu:

Press Next :next preset

Previous:last preset

Sequence:restart duty

Template+number key in preset area：call default template

Undo:back to last preset

Clear preset+number key in preset area：clear current preset

....

Devided the units of MIG-V4 into group and lighted group key,every MIG-V4 of group switch together Take prepared:the key light on means switch operation available,only in the "lock" state,TAKE PREPARED key light off,switch operation is unavailable

Lighted , lock all buttons in transition area and T-Bar,pressagain,

TRANSITION

LOCK   GROUP   TAKE PREPARED

FREEZE   BLACK   SHIFT

Shift+Black key : the main output screen turn to black
Shift+Freeze key : freeze main output screen , stay at the picture of one frame.
Repet press the combinatorial keys ,get reverse operation.

LED light , the procedure of switching

Cut
Take:fade in fade out

CUT   TAKE

T-Bar : manual control the speed of switch

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FUNCTION

INIT LAYER	TOP	BOTTOM
BACKGROUND 1	BACKGROUND 2	BACKGROUND 3
PURE COLOR BACKGROUND	BACKGROUND CAPTURE	COLOR KEY
M.PREV PAGE 1	VGA ADJUST	INPUT EDIT
M.PREV PAGE 2	DURATION TIME	OUTPUT EDIT

Clear all layers

Choose background of MIG-V4,every main output can store 3 background

Choose pure background of MIG-V4 , change color of pure background via background setting

M.Prev Page1:multi-screen preview 1-10

Adjust time of fading 0-5S

Top : top the current layers
Bottom : bottom the current layers

Capture background , capture main output

Call color key menu rapidly , realize text overlay, cut picture

VGA adjustment menu , make VGA adjustment convenient

Input Edit:set input signal EDID etc ;
Output Edit : call output menu rapidly

....

10 Output screen area

1,2 correspond main output 1 and 2

7 Group area

Group MIG-V4 that control ba same H1 , maximum 4 groups ; current option group light flicker

SCREEN

| 1 | 2 | | |

GROUP

| GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |

LAYER

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | ALL | CLEAR LAYER |
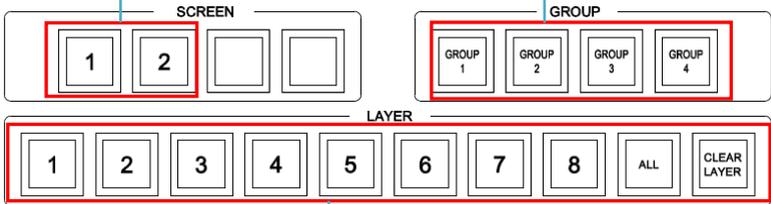
9 layers area

The button of 1 to8 correspond 8 layers , Clear layer+number button : clear current layer ; Clear+All : clear all layers
When using, the layer light turn red , current option layer light is flickering from yellow to red

SOURCE

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
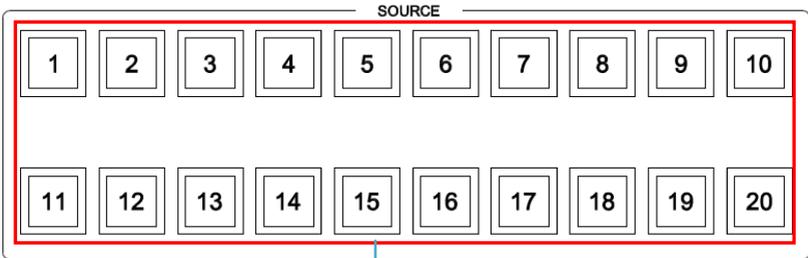
8 Input area

The number keys correspond 1 to 20 input of MIG-V4; can change the input resource selected currently; signal input source that selected currently will full display on auxiliary preview ; the key with signal is green, the key with no signal is red, the green light means signal source that selected currently; it can switch the input to auxiliary preview by long pressing number key for 3 seconds.

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12Destinations area

According to the IP scanning from the MIG - V4 , determine each key to corresponding MIG - V4; each MIG-H1 maximum controls 9 MIG-V4 at the same time,the corresponding button lamp to red. The currently selected MIG - V4 button is red-yellow flashing.
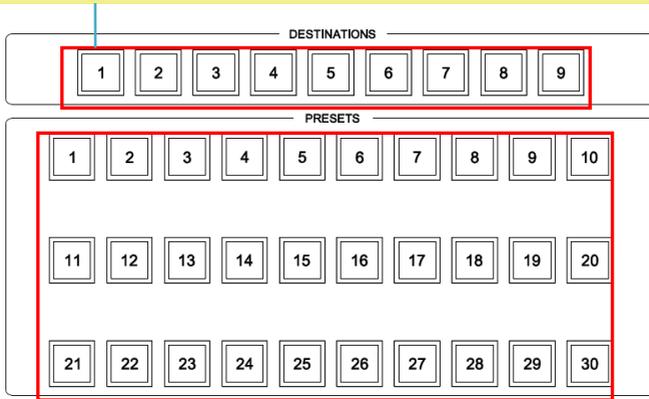
11Presets

Each key corresponds to anative template. the user can also make a preset for storage; it need to cooperate with the key in preset edit zone to operate; the bottom that stores preset is green, the bottom that currently use is green-yellow flashing, the bottom that no preset is lightless.

MIG-H1 Back Panel Introduction

LAN port，can link to
MIG-V4 via LAN

reserve RS232 control
port

USB port ,can upgrade MIG-H1; store
or read preset file through USB flash
disk ; Import BMP format high
definition background image into
MIG-V4

Light switch

MIG-H1 power port

MIG-H1 switch

100-240V AC 50/60Hz
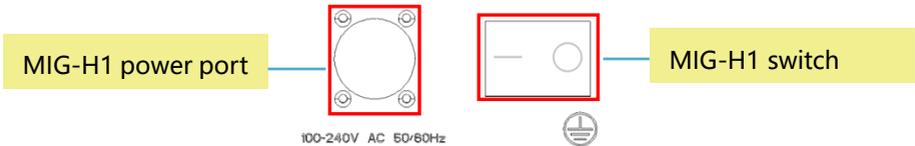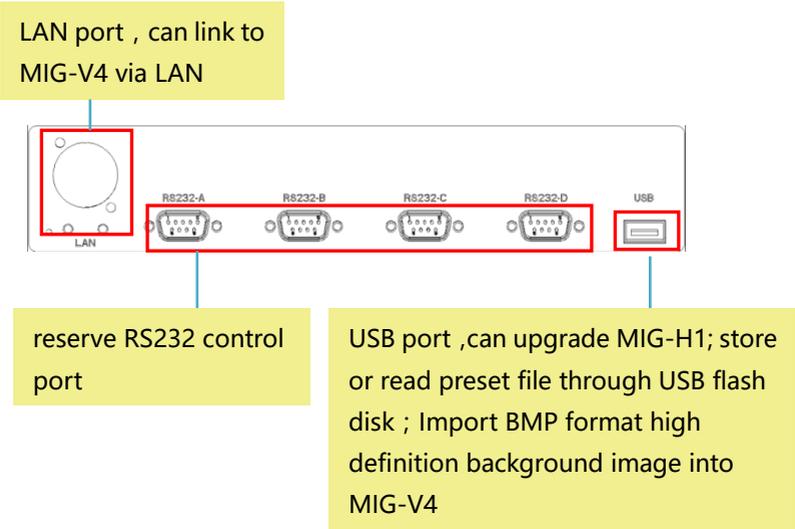
MIG-H1 Console Usage Menu

Using the menu system of product can set conveniently and intuitively to meet customer requirements. MIG-H1 console adopts a LCD with high-brightness and high-contrast to display the whole menu.LCD screen willdisplay non-menu under the condition of users without operating or timeout. If use front panel button to set the machine, the LCD screen will display the corresponding menuaccording to user's operation , in order to prompt user to operatebetter faster and more intuitive.

The following will combine keyboardwithLCD screen display and introduce you MIG - H1 menu system in detail.

Default State Introduction

After opening the power of the MIG-H1, and during the system's startup, the boot interface will be displayed onthe front panel LCD screen. After the start up, the screen will show the current state of the machine as shown below:

Default state interface after the boot

MAGNIMAGE
V4 -HYPERSURFACE

DVI Output Resolution:1920×1080/60HZ

■ Menu   Dest[1]Wait Connected IP:0.0.0.0

....
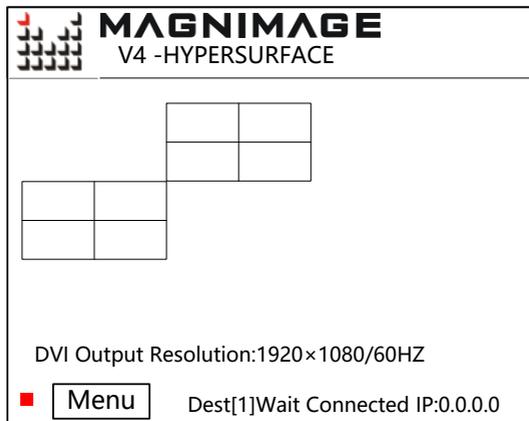
■	Green flashing when MIG-H1console connected with MIG-V4 mainframe, otherwise red flashing
Dest[1]	Corresponding IP will be displayed when MIG-H1 console connected with MIG-V4 mainframe , otherwise display 'Wait Connected'

MIG-H1 Main Menu Introduction
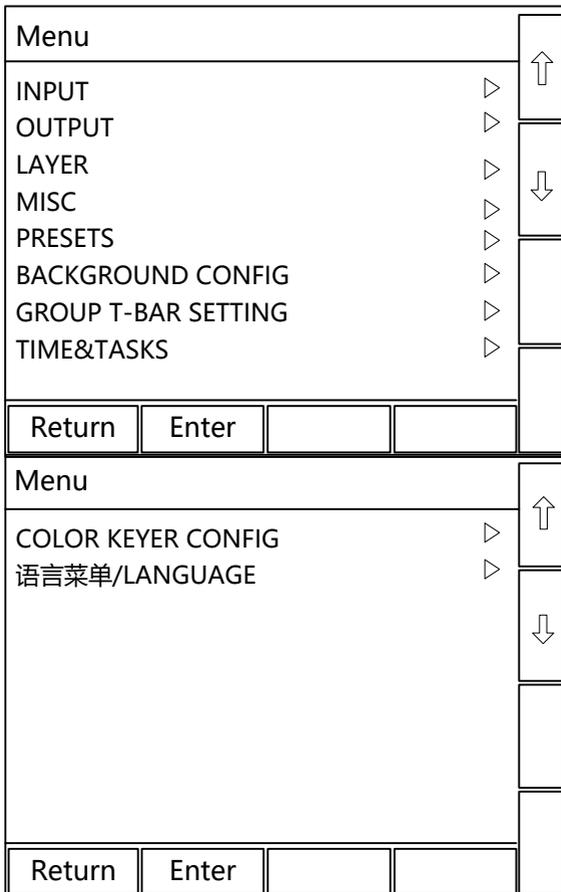
Menu			⇧
INPUT	▷		
OUTPUT	▷		
LAYER	▷		⇩
MISC	▷		
PRESETS	▷		
BACKGROUND CONFIG	▷		
GROUP T-BAR SETTING	▷		
TIME&TASKS	▷		
Return	Enter		

Menu			⇧
COLOR KEYER CONFIG	▷		
语言菜单/LANGUAGE	▷		⇩
Return	Enter		

The main menu has ten sub menu items, divided into two pages display.Through prompting, selectbutton of the display perimeter to enter or return to menu and the cursor moves up and down.

InputSetting Sub Menu

INPUT	SRC.1[NONE]	⇧
Brightness	0	
Contrast	0	⇩
Image Crop	▷	
EDID	▷	
VGA Adjustment	▷	
Return	Enter	

EDID	SRC.1[NONE]	
Width	1280	◁▷
Height	1024	◁▷
Refresh Rate	60	◁▷
Return	SET	RESET

....

Brightness	The range of 0-256
Contrast	The range of 0-256
Image crop	Afterintercepting input signal, according to the current layer set the function of the output to the screen
EDID	Customized input resolution
VGA adjustment	Automatically adjusts the display position of theVGA input image

Output Setting Sub Menu

```
 OUTPUT                              ⇧
─────────────────────────────────
 Brightness                 0
 Contrast                   0
 Output Areaa Config        ▷       ⇩
 Edge Blending Cfg.         ▷



─────────────────────────────────
  Return  │       │        │ RESET
```

```
 Output Area Config
                                    ON
 ┌────────┬────────┐
 │        │        │
 │        │        │
 └────────┴────────┘
 PRESER(1-10)USED FOR NUMBER KEY(1-10)OFF
 Screen Select   1    On
 H Positon     0   V Position  0
 H Size     1920   V Size   1080


─────────────────────────────────
  Return  │  SET  │        │ RESET
```

Brightness	The range of 0-256
Contrast	The range of 0-256
Output area settings	Canset respectively twogroups main output channel switched on or off, the horizontal and vertical position, can overlay.

```
Edge Blending Cfg.

Edge Blending Cfg.                    OFF
Screen1 Blending Setting               ▷
Screen1 Blending Setting               ▷




   Return                      RESET
```

```
Screen1 Blending Setting

Horizontal size1（Area1/Area2）    ON
Horizontal Height                 1664
Horizontal Width                   256
Gamma Choice                       1.2
The Choice Of Fusion
Direction               From Left To Right
Customized Curve



 H  Area1    H Area2    V Area1    V Area2
```

....

Edge blending Settings:

Each main output channel can open edge blending function according to user's actual usage, set the horizontal/vertical starting of fusion and the horizontal size/vertical height of fusion.

Gamma choice: adjust Gamma curve of fusion zone

The choice of fusion direction is: the direction from dark to light (the direction of transparency gradient from 0to 100%)

Customized curve: user-defined Gamma curve

Layer Sub Menu


```
Layer Choose    5
H Position    1920    V Position    0
H Width        960    V Width     540
```
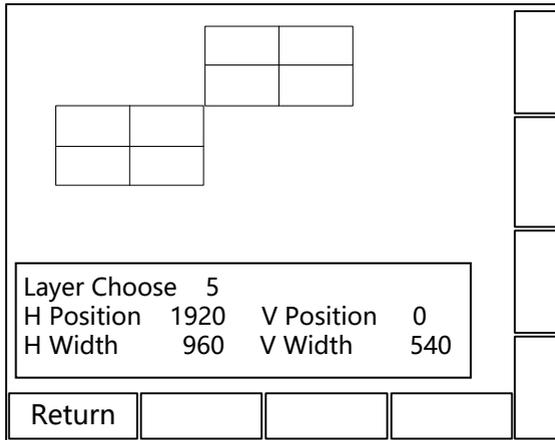
Return

Cooperate with joystick and buttons of MIG - H1, it can change size and location on the currently selected layer.

```
┌─────────────────────────────────────┬──────┐
│ Misc SET                            │  ⇧   │
│─────────────────────────────────────│      │
│ Communication                    ▷  │      │
│ Tbar And Jointed Arm Set         ▷  │      │
│ USB Operate                      ▷  │  ⇩   │
│ Factory Reset                    ▷  │      │
│                                     │      │
│                                     │      │
│                                     │      │
│                                     │      │
│ ┌────────┬────────┬──────┬────────┐ │      │
│ │ Return │ Enter  │      │        │ │      │
│ └────────┴────────┴──────┴────────┘ │      │
└─────────────────────────────────────┴──────┘
```

```
┌─────────────────────────────────────┬──────┐
│ Communication                       │  ⇧   │
│─────────────────────────────────────│      │
│ Located IP Set                   ▷  │      │
│ Destinations Connected Information ▷ │      │
│                                     │  ⇩   │
│                                     │      │
│                                     │      │
│                                     │      │
│                                     │      │
│                                     │      │
│ ┌────────┬────────┬──────┬────────┐ │      │
│ │ Return │ Enter  │      │        │ │      │
│ └────────┴────────┴──────┴────────┘ │      │
└─────────────────────────────────────┴──────┘
```

Set IP ; inquire destinations connection information

….

```
┌─────────────────────────────────┬──────┐
│ Tbar And Joined Arm Set         │  ⇧   │
├─────────────────────────────────┤      │
│ Tbar Set                    ▷   ├──────┤
│ Joined Arm Set              ▷   │      │
│                                 │  ⇩   │
│                                 ├──────┤
│                                 │      │
│                                 ├──────┤
│                                 │      │
│  Return   Enter                 │      │
└─────────────────────────────────┴──────┘
```

```
┌─────────────────────────────────┬──────┐
│ Factory Reset                   │  ⇧   │
├─────────────────────────────────┤      │
│ Reset V2/3/4                ▷   ├──────┤
│ Reset H1/H2                 ▷   │      │
│                                 │  ⇩   │
│                                 ├──────┤
│                                 │      │
│                                 ├──────┤
│                                 │      │
│  Return   Enter                 │      │
└─────────────────────────────────┴──────┘
```

Tbra& joystick setting	Adjust respectively Tbar and joystick
U disk	Import BMP format high definition background image into MIG-V4 mainframe from U disk; import preset file stored in U disk into console;
Factory reset	Can choose to reset console or mainframe, after resetting, corresponding facility need to restart

Preset Sub Menu

```
Preset                                    ⇧

Presets U-Disk Operation           ▷
Clear All Presets                      ▷




   Return    Enter
```

```
Presets U-Disk Operation              ⇧

Save All Presets                     ▷
Read All Presets                     ▷
Preset U-Disk Operation              ▷     ⇩




   Return    Enter
```

Preset U-disk operation	choose to save the presets that user's stored to the U disk Load the preset file that in U disk into H1 console; Import BMP format high definition background image into MIG-V4 mainframe from U disk; import preset film stored in U disk into console;
Clear all presets	clear all the presets

....

Background Config

⇧

Load All Background ▷
Switch All To Background Color ▷
Background Management ▷
Background Capture ▷

⇩

| Return | Enter | | |

Background Capture

Save Captured Background In :
 Background1
 Background2
 Background3
Capture Picture In Program Screen !

| Return | | Start | |

Load all backgroundload all background image stored in native machine,
it will prompt completion when progress bar is 100%

Switch all to background colortwo groups of main output both switch to
pure color background

Background capture : capture the image of main output, can stored 3 pictures.
It will prompt completion when progress bar is 100%

```
┌─────────────────────────────────┬─────┐
│ Background Management           │  ⇧  │
│                                 ├─────┤
│ Output/Screen 1            ▷    │     │
│ Output/Screen 2            ▷    │  ⇩  │
│                                 ├─────┤
│                                 │     │
│                                 ├─────┤
│                                 │     │
│  ┌──────┬──────┬──────┬──────┐  │     │
│  │Return│Enter │      │      │  │     │
│  └──────┴──────┴──────┴──────┘  │     │
└─────────────────────────────────┴─────┘
```

```
┌─────────────────────────────────┬─────┐
│ 背景设置          Prog.Screen 1 │     │
│                                 ├─────┤
│  Background1      Background2    │     │
│  [image]          [image]        ├─────┤
│                                 │     │
│  Background3      Background Color├─────┤
│  [image]          [black]        │     │
│  ┌──────┬──────┬──────┬──────┐  ├─────┤
│  │Return│      │ LOAD │ Edit │  │     │
│  └──────┴──────┴──────┴──────┘  │     │
└─────────────────────────────────┴─────┘
```
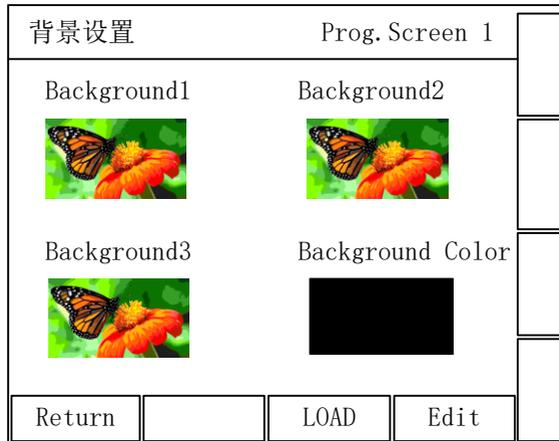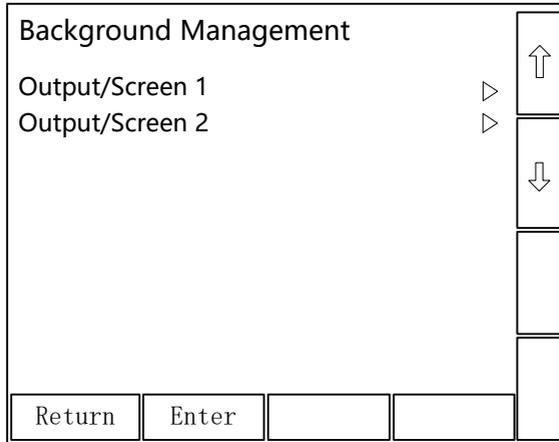
Load all backgroundload all background image stored in native machine,
it will prompt completion when progress bar is 100%

Switch all to background color   two groups of main output both switch to
pure color background

Background management : can manage respectively the background image of
output 1 and 2;" LOAD" invoke stored
background image and pure color background

Background capture : capture the image of main output, can stored 3 pictures.
It will prompt completion when progress bar is 100%

GROUP T-BAR Sub Menu

```
GROUP T-BAR Setting

LOCAL IP:192.168.1.110
Dest.[1]IP:192.168.1.233
Dest.[2]Not Connected
Dest.[3]Not Connected
Dest.[4]Not Connected
Dest.[5]Not Connected
Dest.[6]Not Connected
Dest.[7]Not Connected
Dest.[8]Not Connected

  Return   |   Enter   | Add To  | Del From
          |          | Group   |  Group
```

It can group MIG-V4 mainframe controlled by the same MIG-H1. It can add or delete grouping selected MIG-V4, but can be divided into four groups at most.

Shortcut: long press group 1,and then press destination key 1,2,3 in turn, so it makes three V4 mainframes within the same group.

```
TIME&TASKS

Time                              ▷
Task                              ▷
Clear All Tasks                   ▷




         Return      Enter
```

```
Task Set            Page1/16
                                      New
Take[1]None
Take[2]None
Take[3]None
                                      Edit
Take[4]None
Take[5]None
Take[6]None
                                      Del.
Take[7]None
Take[8]None
                                      Run
   Return    Rank    Page Up   Page
                               Down
```

Date	Set time and date
Tasks	Users can sort storage of the preset and directly press "NEXT" to next preset task; "PREVIOUS" to last preset task; "SEQUENCE" to restart
Clear all tasks	Edited task setting will be cleared totally

....

Color Keyer

Pixel H Position		3030
Pixel H Position		640
Color Key		OFF
Red Range	0	0
Green Range	0	0
Blue Range	0	0

Color Keyer Useful On the Top Displayed Layer !

Return	Recall Pos.	ON	OFF

Using a joystick choose the color of the need to remove by controlling cursor up and down and move around and then press "ON" to open color key function.

Language Sub Menu

```
┌─────────────────────────────────┬──────┐
│ 菜单语言/LANGUAGE                │      │
│                                 ├──────┘
│ English                      ▷  │
│ 中文简体                     ▷  ├──────┐
│ 中文繁体                     ▷  │      │
│                                 ├──────┘
│                                 │      │
│                                 ├──────┐
│                                 │      │
│                                 ├──────┘
│ ┌────────┬────────┬──────┬──────┤      │
│ │ Return │ Enter  │      │      │      │
└─┴────────┴────────┴──────┴──────┴──────┘
```

English	The Menu will display in English
简体中文	The Menu will display in simplified Chinese
繁体中文	The Menu will display in traditional Chinese

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….

Warning

1. MIG-V4 is not related to the function of operation on its display interface, while it can browse input information, electrical state and communication, etc.

2. Single MIG-V4 must use a crossover cable when it connected with MIG-H1 via LAN; if many MIG-V4 connected with MIG-H1 using switches, there is no requirement for the order of cable.

3. Single MIG-V4 supports two 1080p outputs. It can accomplish single machine splicing.Multiple machines can obtain whole picture through combining splicing which are completely synchronized.

4. MIG-H1 input crop operation will take effect on all layer using the signal.

5. Background capture steps: press "background capture" key in functional zone of MIG-H1, choose storage location according to menu screen and then begin to capture. It will prompt "OK" when progress bars shows 100%. Next, choose "load all background" in background setting menu, after loading, we can select output screen 1 or 2 and choose the corresponding background using "background 1-3" key in functional zone. Capture background are main output images. Please note that do not perform other operationsin the process of grasping and loading. We must affirm every step finished before next step. Please select "load all background" again after outage and restart of MIG-V4.

6. It needs to lighten group key to save and load the preset of group. The switch of group needs to be done with T-Bar.

Warranty Explanation

Whole Unit Warranty Period

- Three years (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 lightening stroke) ；
- Beyond warranty period.