The MIG-H9Mini video console

User Manual V1.0

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

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statement

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update log

Document version	release time	Update instructions
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catalogue

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Brief Introduction

Thank you for purchasing our MIG-H9Mini video console. I hope you can experience the excellent performance of the product. The design of the video console complies with international and industry standards, but if not operated properly, it may still cause personal damage and property damage. To avoid the potential hazards and benefit from your equipment whenever possible, follow the relevant instructions in this manual when installing and operating the product.

Brand Royalty

- VGA and XGA are registered trademarks of IBM Corporation.
- VESA is a trademark of the Video Electronics Standards Association.
- The HDMI, HDMI logo and High-Definition Multimedia Interface (High-definition Multimedia Digital Interface) are all trademarks or registered trademarks of HDMI Licensing LLC.

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About Software

It is not allowed to change, decompile, reverse compile, decrypt or reverse engineer the software installed on this product. The above acts are all illegal.

Features

- A 21.5-inch HD capacitive touch screen with a resolution of up to 1920*1080@60Hz
- Support storing 300 user presets
- Support customize presets and input OLED labels
- The buttons are equipped with LCD screens, which can be customized to rename and display content.
- Support touch control, key and mouse, console button in a variety of control methods
- Input, output and preset can be monitored in the console
- T-BAR switching
- Two independent gigabit network interfaces for the main control system and one HDMI interface for the console screen monitor
- The USB port is used to connect other external accessories, such as mouse, keyboard, U disk, etc
- It can be used with single or multiple MIG-V12 / MIG-V16 / Pro switcher
- Built-in high-performance PC video switching platform, boot automatic operation console software
- Support console backup
- Support screen brightness adjustment
- Support customize button atmosphere light color

Safety Instruction

- The input voltage range of the power supply of this product is 100~240V AC, and 50 / 60Hz. Please use the correct power supply.
- When you want to connect or remove any signal line or control cable, make sure that all power lines have been unplugged in advance.
- When you want to add or remove hardware devices from this product, please make sure that all signal cables and power cables have been unplugged in advance.
- Before any hardware operation, turn off the MIG-H9 Mini console and release your static electricity by touching the ground surface.
- Please use it in a clean, dry and ventilated environment, do not put this product in high temperature, wet and other environment.
- This product is electronic products, please stay away from the fire source, water source and flammable, explosive dangerous goods.
- There are high pressure components in this product. Please do not open the chassis or repair this equipment by yourself.
- If there is any smoke, odor and other abnormal conditions, please turn off the power switch immediately and contact the dealer.

Machine Specifications

Machine specifications	
Power standard	100～240V AC，50/60Hz
Power consumption	100W
Operation temperature	0~45℃
Dimensions	721.2 x 464.2 x 446 mm (length, width and height)
Net weight	21KG

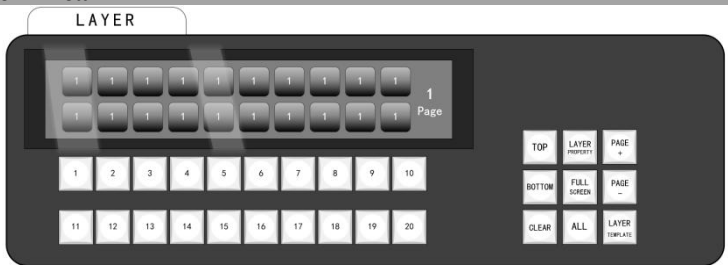
MIG-H9 Mini front and back panels

Front Panel

Touch Screen

Touch screen: single touch, allowing menu and parameter adjustments; real-time monitoring of input and output images, etc

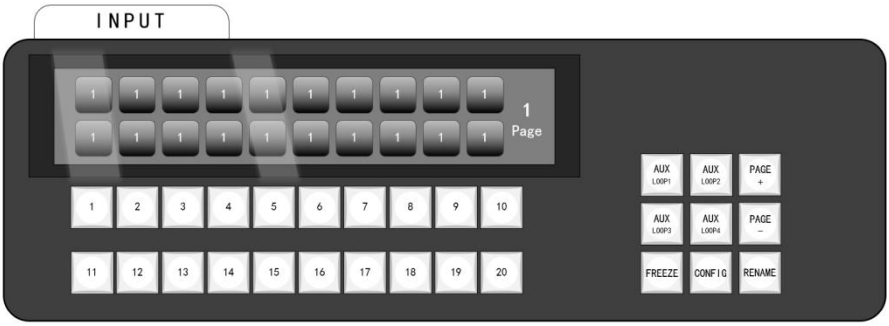
Layer Area



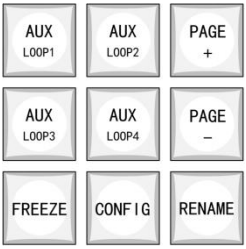
The button corresponds to 1 to 20 active layers. When the layer is turned on, the corresponding button lights up in green. The currently selected layer flashes alternately in green, while unused layers do not light up.

Button	Description
TOP **BOTTOM**	Shortcut button for placing the selected layer at the top or bottom
LAYER PROPERTY	Layer Properties
PAGE - **PAGE +**	Layer page turn
FULL SCREEN	The layer covers all the output ports with one button
CLEAR	Cooperate with the layer button to close the layer
ALL	Use with the CLEAR+ALL button to clear all the layers
LAYER TEMPLATE	Layer Template

Input Area

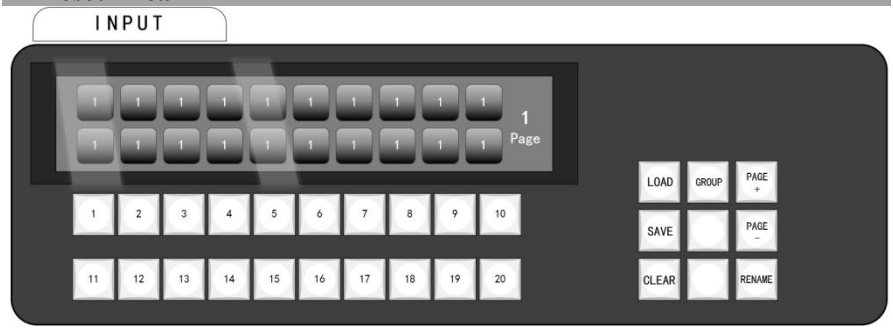


The number buttons 1-20 respectively input 1 to 20 of the controlled switcher. The buttons with signals are green, and the buttons without signals are the background color. The currently selected signal source is flashing green.
You can change the input source of the current selected layer;



Button	Description
AUX LOOP1 **AUX LOOP2** **AUX LOOP3** **AUX LOOP4**	4 AUX auxiliary output button, long press this button + input source area button to switch the corresponding auxiliary output signal source. AUX output source can select the output screen of PGM or PVW package through the mouse. If AUX 4 is used as HDMI monitor, the button has no effect
FREEZE	Input freeze, select the required freeze input source, and then click the Freeze button
CONFIG	Enter the confirm button and quickly jump to the input source menu
PAGE+ **PAGE-**	Turn the page button
RENAME	Input signal custom renaming

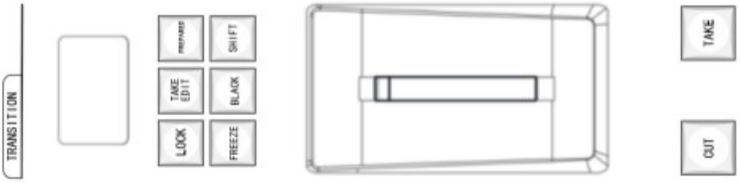
Preset Area



Each button corresponds to a user preset. One page can save 20 presets, with a total of 15 pages. The button with stored presets is green, the currently used preset is flashing green, and the button light without stored presets is the button background color. If there is a preset but the output resolution has been modified, or the output screen has been added/deleted, the button light is red. After restoring the resolution and output screen, the button light returns to green. This operation needs to be performed together with the edit button on the right side of this area.

Button	Description
PAGE+ **PAGE-**	Preset page turning key, with a total of 15 pages and 20 presets per page, totaling 300 presets
GROUP	If the user groups multiple MIG-V16 Pro units, after lighting the Group button, the MIG-V16 Pro units in each group can be saved, called, and switched to the same preset.
LOAD **SAVE**	The Load button lights up + the number button in the preset area to call the preset saved by the user. Long press Save + the number button in the preset area to save the preset on the corresponding number key.
RENAME	Rename button, short press RENAME to modify the note name of the selectedpreset
CLEAR	Long press the CLEAR + preset button to clear the stored preset

Switch Area



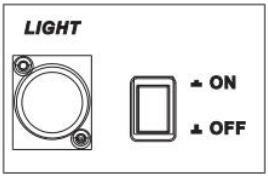
Button	Description
LOCK	Long press SHIFT + LOCK, lock all buttons of the console, including T-Bar; Repeat once to unlock
TAKE EDIT	Long press SHIFT + TAKE EDIT light button: enter editing mode, the output is completely synchronized with the preview. Change the preview layer properties, the output will change together; facilitate the early debugging of activities
PREPARE	The status indicator button, which is constantly on, indicates that switchingoperations can be carried out. In the "lock" state, the PREPARE button lightautomatically turns off, and switching cannot be carried out at this time
BlACK	Long press Shift+Black to output the black field signal;
FREEZE	Long press Shift+Freeze to freeze the output, causing it to remain in a certainframe of the screen; Repeating the combination of buttons once is thecorresponding reverse operation
CUT	Instant switching effect between PGM and PVW images
Take	PGM and PVW fade in and out swapping effects, with a TAKE time adjustable from 0.0 to 5.0 seconds

POWER: Console start button;

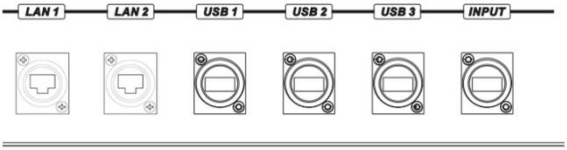
Back panel

Console lighting interface and switch

It can be connected to a gooseneck light for console lighting.



Network port and USB1-3 interface



- LAN 1-2：

  1、 The console is connected to the MIG-V12Pro / MIG-V16Pro video switcher platform through the network cable, and the network port has no used in sequence;

  2、 Either a crossover cable or a straight through cable can be used;

  3、 When MIG-H9Mini controls a single V16Pro / V12Pro video switcher, you can use a network cable to connect directly; if a single MIG-H9Mini controls multiple video switcher, please use a switch or router to build a local area network;

- USB1-3：

  1、 External keyboard and mouse control MIG-H9Mini;

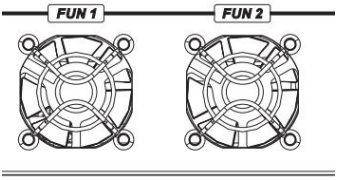
  2、 External U disk for the console software upgrade, etc;

  3、 The USB port has no sequential usage order;

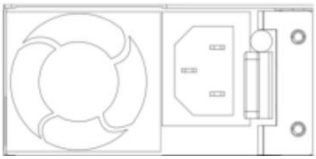
- HDMI INPUT：

HDMI interface: console monitor port, connected to the MIONITOR interface of MIG-V12Pro / MIG-V16Pro;

Other



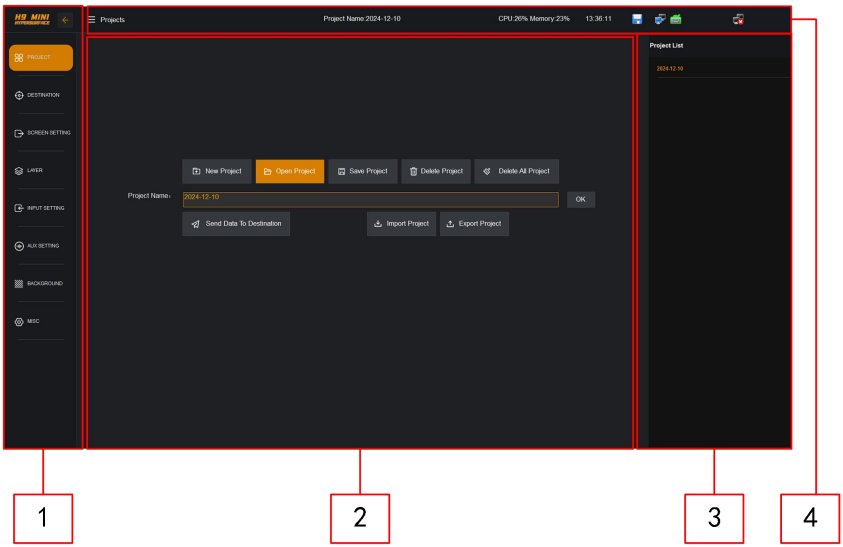
Console fan



Power interface

MIG-H9 Mini console software introduction

Summary



1、Navigation Menu

You can select the corresponding operation interface through this navigation menu bar, which will always be on the far left side of the software and will not change with the selection. The functions from top to bottom areas follows::

- PROJECT
- DESTINATION
- SCREEN SETTING
- LAYER
- INPUT SETTING
- AUX SETTING
- BACKGROUND
- MISC

2. Graphic area

Located in the middle of the software, depending on the menu page, this area will intuitively display project files, output screens, layer information, preset information, etc. in

the form of wireframes, images, etc.

3. Setting Area

Adjust parameters such as displaying engineering files, input/output resolution, and layer display in this area

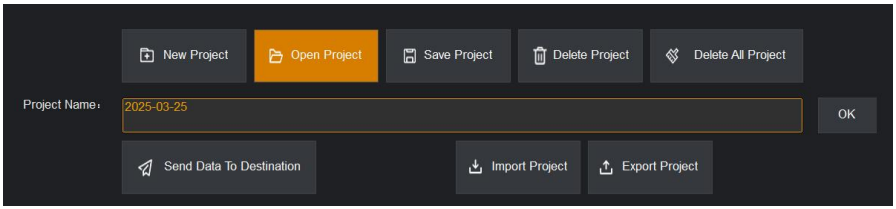
4. Title Column

Displays current project files, CPU and memory usage, machine time, connection status and console backup status, etc

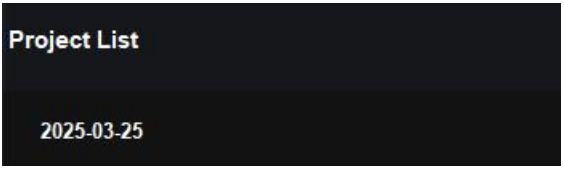
Introduction to Software Functions

PROJECT

In this menu, you can create, open, save, delete projects, delete all projects, import and export projects for console engineering files. When the USB drive is plugged into the USB port on the MIG-H9 Mini back panel, you can click the Export Project button to export the file to the USB drive. If you accidentally delete the project file, simply plug the USB drive with the project file into the MIG-H9 Mini USB port, click the Import Project button, and then click to send data to the machine to the video switching station.



In the project list on the right, the currently created project files will be displayed



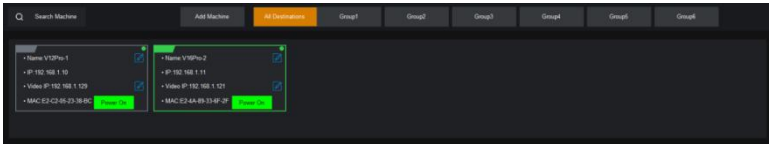
The steps to open the project file are as follows:

- On the right side of the project list, click to select the project file you want to open
- The file will be automatically added to the project column, and click the OK button to open it
- Then click the Send Data to the machine option again to send the data to the video switcher

DESTINATION

Connection status indication:

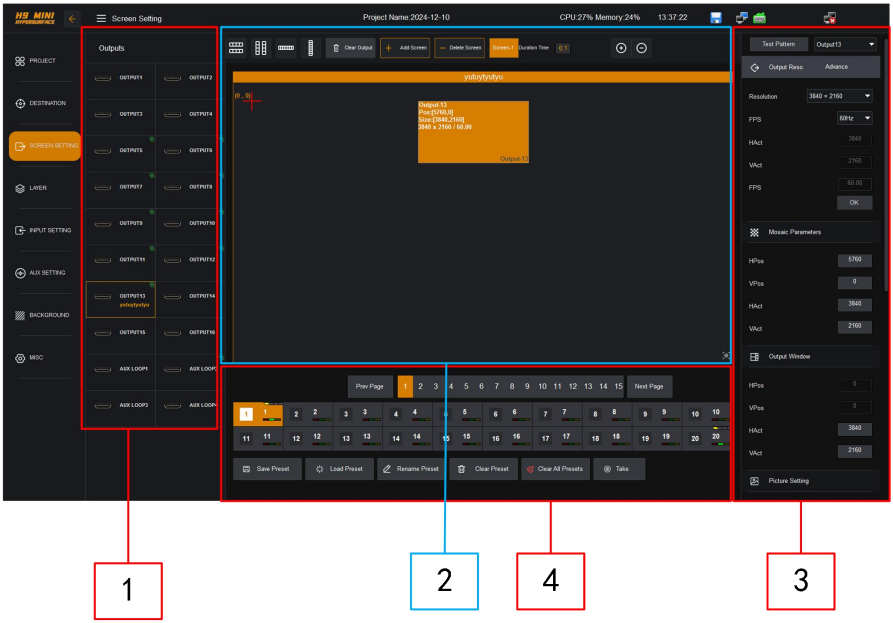
- Under this interface, all video switching stations connected to a single MIG-H9 Mini in the local area network can be queried
- Under normal circumstances, all connected video switcher will be automatically identified. Click the corresponding name and select the currently controlled video switcher
- One MIG-H9 Mini can control multiple MIG-V16 Pro, which can be divided into up to 6 groups for separate control



Physical status indication:

- Corresponding to the input and output board configuration of the video switcher
- Real-time monitoring of the connection status of the input and output ports. When the output port is connected to the back-end device, a green frame and the corresponding output resolution will be displayed. When the input port is connected to the PC, the current input port resolution will be displayed.;

SCREEN SETTING



1. output:

Output	Description
OUTPUT 1-16	The output is 1-16 ports, divided into 4 groups by board card. The output resolution in each group is the same, and up to 4 sets of custom resolution can be set. MIG-H9 Mini supports 4 screens , and the 4 output interfaces in the same group cannot be built separately on different screens
AUX LOOP 1-4	AUX loop out ports 1-4, which do not need to be manually established and can customize the resolution. The four AUX resolutions are consistent

2. screen:

Function	Description
Quick layout	There are 4 output shortcut layout options for users to quickly choose from:
Clear output	Select the output port in the screen, and then click the clear output option to delete the output
Add screen	At least 1 screen needs to be added in order to drag the output port onto the screen to create and use it. A maximum of 4 screens can be added
Delete screen	Select the screen that needs to be deleted, click on the Delete Screen option to delete the screen operation. If there are any outputs that have been created and used on this screen, they will also be deleted
Screen 1-2-3-4	After adding 4 screens : In the screen settings interface, screen 1-2is currently selected in yellow, and screen 3-4 is not currently selected in gray. At this time, the screen interface only displays the output ports established between screen1-2 and screen 1-2, while the output ports

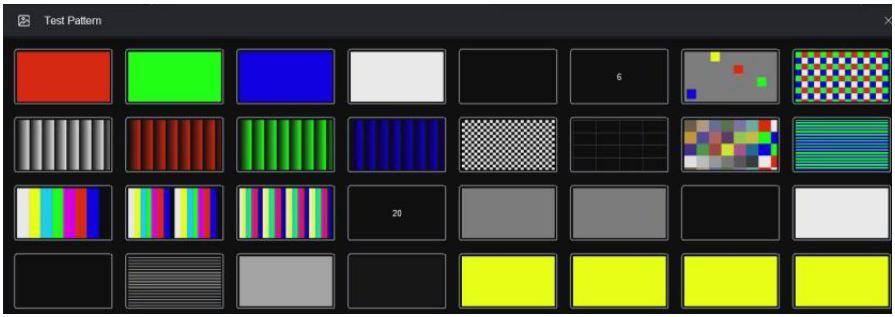
	established between screen 3-4 and screen 3-4 are hidden and not displayed
Switching duration	The duration of the fade in/out effect of the TAKE button can be customized and modified. The fade in/out duration ranges from 0.0 to 5.0 seconds
	Screen interface zoom in and out buttons, which can also be zoomed in and out using the mouse scroll wheel
	Click to reset to X, Y (0,0)

3. Preset Area:

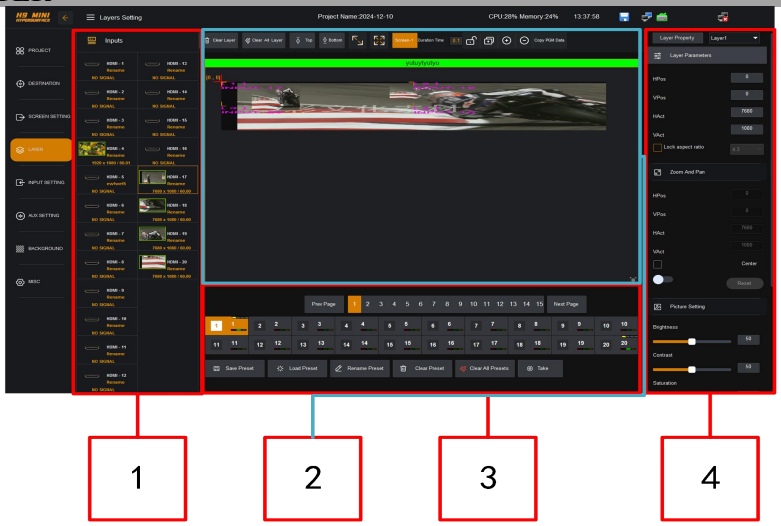
Function	Description
Save Preset	Save the current output layout and the layer display configuration to the device's hardware storage
Load Preset	Select the user to store the preset and load it into the monitoring window for display
Real-time Preview	Select the user's saved preset and click on Live Preview. The preset screen will be displayed in the Live Preview area, or you can directly drag the preset into the area to monitor it in real time
Rename Preset	Select a preset and click the rename preset option to modify the preset display label.After modification, the software will synchronize with the preset button OLED display, and Chinese/English can be edited
Clear Preset	Select user saved presets for individual deletion
Clear All Presets	Clear all user saved presets with one click
TAKE	Fade in and out toggle button
Previous Page / Number / next page	There are 20 presets on each page, which can be directly clicked on the corresponding page number, previous/next page, or the "Page-" and "Page +" buttons in the preset area of the console keyboard to flip up and down and select the preset. There are a total of 15 presets, and there are 300 presets available for users to storage;

4. Parameter Adjust:

Function	Description
Test Pattern	Built-in 32 test pictures, can quickly detect the screen display
Output Resolution	Fixed 9 resolutions: 1024 x 768,1280 x 1024,1920 x 1080,1920 x 1200, 3840 x 1080 3840 x 1280,3840 x 2160,4096 x 1080,4096 x 2160 and Custom custom resolution, the output frame rate can be set to 50Hz or 60Hz
Mosaic Parameters	The virtual number of LED screen points corresponding to each output port does not affect the actual output window size of each output port, making the parameters of output port mosaic on the software consistent with the actual number of screen points, facilitating layer calculation and arrangement
Output Window	Adjust the actual output window size of the output port
Image Settings	The brightness and contrast parameters of the output can be adjusted as a whole or individually, with a range of 0-100. The default parameters are all 50
Colour Temperature	The red, green, and blue parameters of the output can be adjusted as a whole or individually, with a range of 0-255 and default parameters of 128
Color Range	The color range can be adjusted as a whole or individually: FULL, LIMITED, default to FULL
Output Format	The output format can be adjusted as a whole or individually: DVI, HDMI, default to HDMI



LAYER



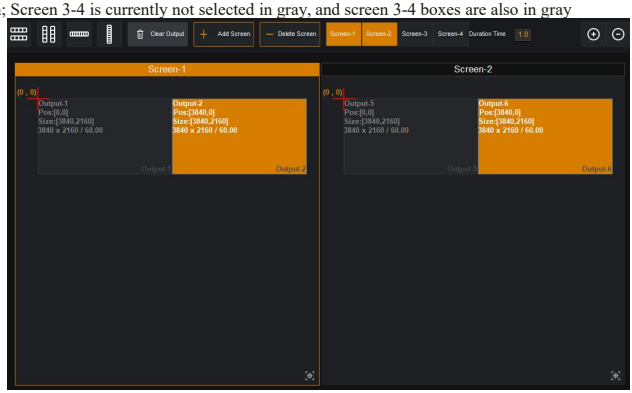
1、Input Source

- The number of input sources is determined by the number of input boards in the video switching station
- Display the resolution of the input source when there is an input signal, and display the real-time image of the input source when there is a monitor
- If there is no signal, the physical port will be displayed and "NO Signal" will be displayed
- The currently selected input source signal is displayed with a yellow border

2. Layer Layout Area

Function	Description
Layer	The single card supports 12*4K from 8 signal sources, and the cross-board output occupies layers
Clear Layer	Clear the currently selected layers
Clear All Layers	Clear all the layers of the current screen with one click
Top / Bottom	Set the layer to top/bottom with one click, and press the "TOP"/"BOTTOM" buttons in the keyboard area
	 :Layer in full screen at the output port where it is located;  : Layer in full screen at all output ports
Screen 1-2-3-4	After adding four screens：  in the layer settings interface, screens 1-2 are currently selected in yellow, and screens 3-4 are not currently selected in gray. When switching, the PVW and PGM of screens 1-2 are in an swapped state,while screens 3-4 are not swapped
Screen Renaming	Double click on SCREEN to rename settings
	Lock the layer size position of the current screen group to avoid changing the layer size position when selecting layers
	Copy the selected layer, and a layer with the same size and scaling parameters as the selected layer will appear on the right
Copy PGM Data	Copy all output parameters and layer layout parameters from PGM output to the PVW pre monitoring operation area

Screen 1-2-3-4: When screen 1-2 in the layer settings interface is currently selected in yellow, the 1-2 boxes on the screen are displayed in green; Screen 3-4 is currently not selected in gray, and screen 3-4 boxes are also in gray



3. Layer Parameters

Function	Description
Layer Properties	Layer cropping, layer border, color keys, mirror, shadow, emergence, and other settings
Layer Parameters	Change the layer horizontal start, vertical start, horizontal width, vertical height parameters Locking aspect ratio: 4:3,16:9, Custom
Zoom and Pan	Layer scaling and translation parameters for horizontal start, vertical start, horizontal width, and vertical height, selecting a certain part of the image
Image Settings	Adjust the layer brightness, contrast, and saturation parameters, with a parameter range of 0-100 and a default parameter of 50
Color Temperature	Adjust the layer red, green and blue parameters of the layer, with a parameter range of 0-255 and a default parameter of 128

Layer Properties

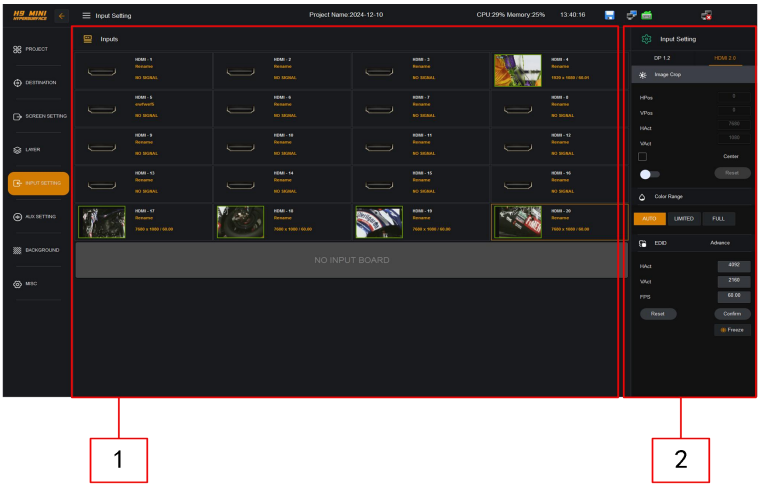
Function	Description
Layer Crop	Crop the upper, lower, left, and right images of the layer to display the input local image or remove the black edges of the image; "⊕ ⊖" button fine tune parameters
Layer Mirror	Mirror the layer content horizontally
Layer Border	The border width parameter range is 1-255, and the default width is 4; the border color red, green, and blue parameter ranges are 0-255, the default red parameter is 255, and the default green and blue parameters are 128. You can manually modify the red, green, and blue parameters or click Select Color to enter the color palette selection
Word Mode	One board supports 4 layers of custom color cutting, with 2 color options: text and background color, to ensure that the text cutting is neat and clean;
Picture Mode	Color correction for specific colors in the picture
Layer Feathering	The edge of the layer is blurred, and the feathering width parameter is adjustable from 32 to 255
Layer Shadow	Add a shadow effect to the bottom of the layer, divided into left and right shadow effects, the shadow range is 32-255 adjustable

Note: 1. A single output board supports up to 4 layer color keys

2. A single output board supports up to 6 layers of feathering and shadow effects

3. A single layer can only choose one of the 4 effects of color key, shadow, border, layer feathering display

INPUT SETTING



1、 Input Source

- The number of input sources is determined by the number of input boards on the video switcher
- Display the resolution of the input source when there is an input signal, and display the real-time image of the input source when there is a monitor
- If there is no signal, the physical port will be displayed and "NO Signal" will be displayed
- The currently selected input source signal is displayed with a yellow border
- Double click "Rename" to modify the input source note name. After making the changes, the OLED on the input source in the keyboard area will also be modified accordingly

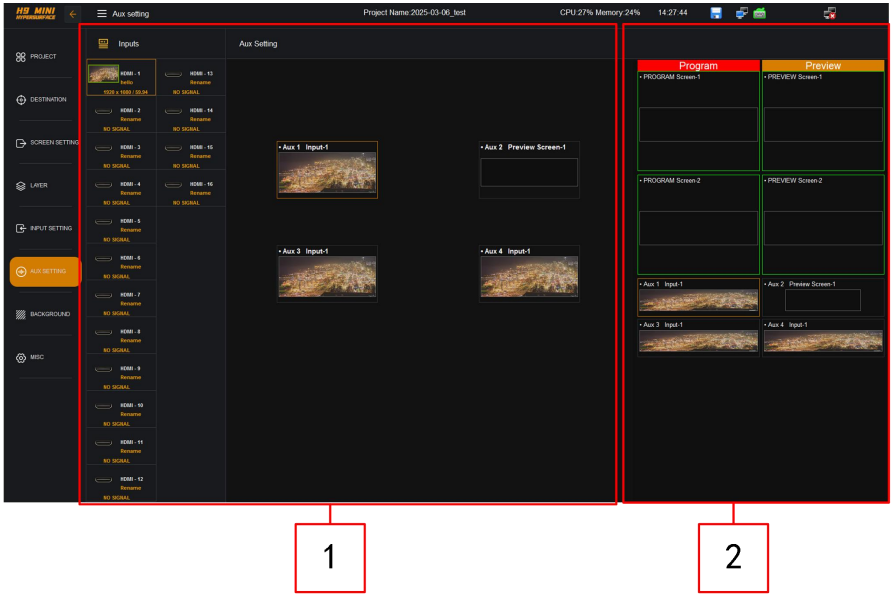
2、 Input Source Settings

Function	Description
DP1.2 / HDMI2.0	Use either DP1.2 or HDMI2.0 ports
Image Crop	Adjust the parameters of horizontal start, vertical start, horizontal width, and vertical height to capture the input source, display the local image of the input source, or remove the black edge of the input source
Color Range	Input color range selection: AUTO, LIMITED, FULL, default to AUTO
EDID	Change the horizontal width, vertical height, and refresh rate, and customize the output resolution of the input source
Freeze	Input freezing, select the input source that needs to be frozen, and then click the Freeze button. The effect is the same as selecting the input source in the keyboard area and clicking the Freeze button

Note 1: When configuring EDID, the computer display mode should be set to extended mode.

Note 2: After setting EDID, different computers and different graphics card output may need to restart the computer, or select the output resolution of the computer and the corresponding output resolution in the display setting resolution option.

AUX SETTING



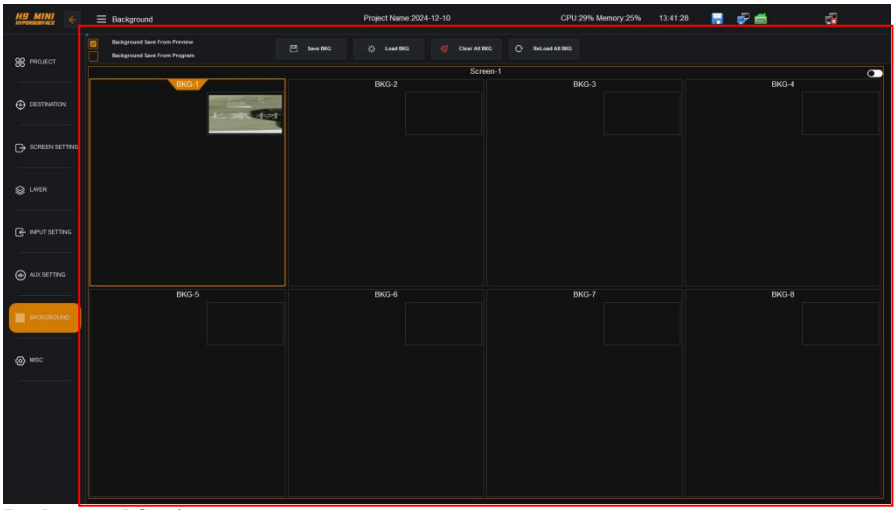
1. AUX Settings:

- 4 AUX LOOP output ports with the same output resolution

2. Preview Screen:

- You can view the multi-monitoring screen here
- After selecting AUX LOOP output port, click PVW or PGM to package the display

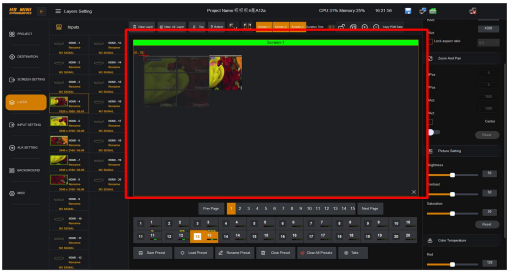
BACKGROUND



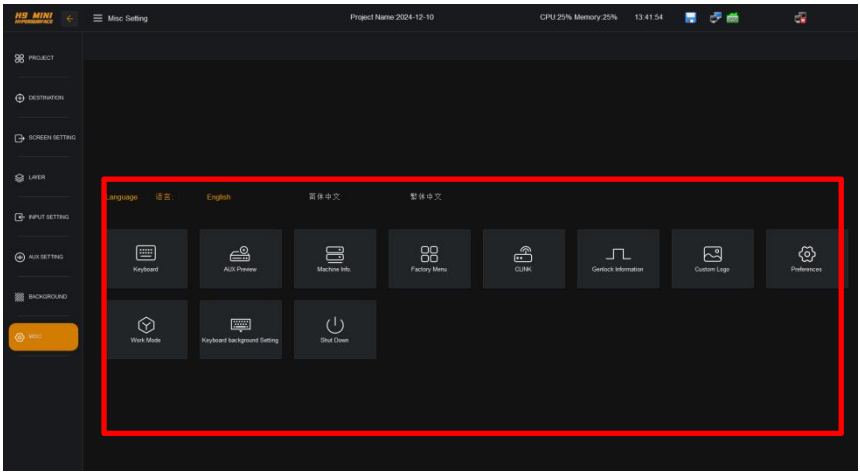
Background Settings:

Function	Description
Background	Each SCREEN can save 8 backgrounds. Choose to grab from pre monitoring or PGM, click BKG-X (X is 1-8 digits), and then click Save Background. After saving,load the background
Save Background from Pre Monitoring Save Background from PGM	Save the background from the pre monitoring or PGM (output)
Save Background	When there are multiple SCREENS, select BKG-X (X is 1-8 digits) for the corresponding SCREEN, and then click to save the background
Load Background	Select BKG-X (X is 1-8 digits), then click on the Load Background option to load the saved background to output
Clear All Backgrounds	Delete the background on all SCREEN stored by the user
Reload All Backgrounds	Reload all backgrounds, default to automatic loading when the video switching station is turned on

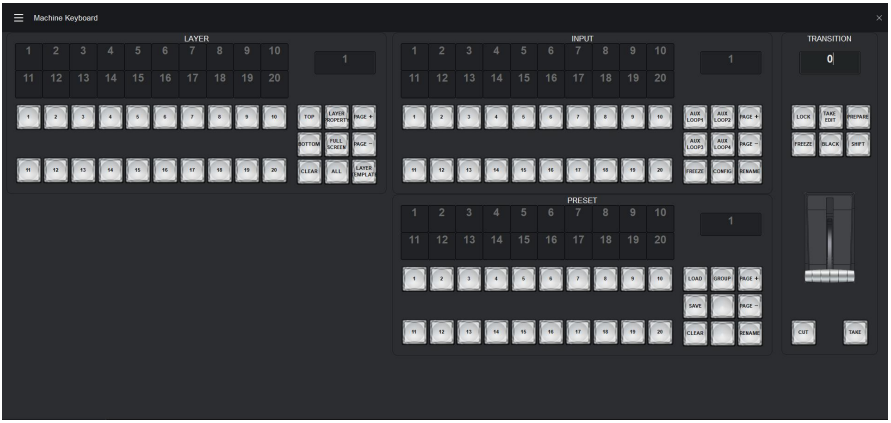
Load Background Display:



MISC



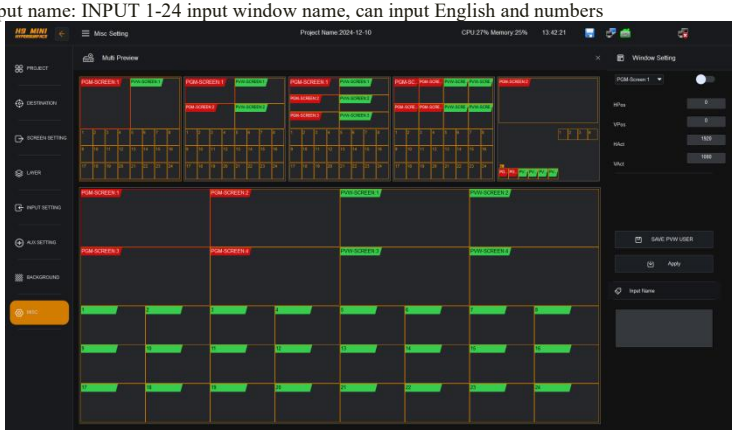
Language: The display language of the menu system can be set to English, Simplified Chinese, or Traditional Chinese
Keyboard: Display the button interface of the console



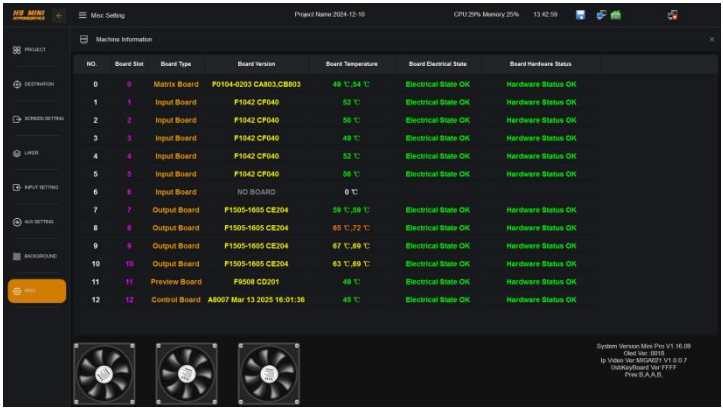
Aux pre monitoring: 4 fixed multi pre monitoring output layouts+1 user defined multi premonitoring output layout

Window Settings:

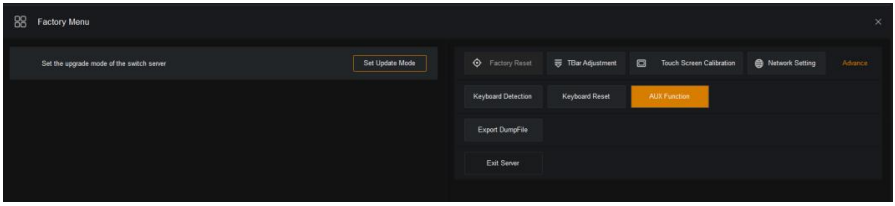
- PGM / PVW: Screen1-4 and INPUT 1-24 windows switch to adjust the horizontal start, vertical start, horizontal width and vertical height parameters of each display window
- Saving to PVW USER: User defined pre monitoring layout saving
- Sending data: Send the current auxiliary pre monitoring window layout to the multi pre monitoring output display of the video switching station
- Input name: INPUT 1-24 input window name, can input English and numbers



Machine information: The version of the video switcher input/output and control board, board temperature, board electrical status, board hardware status, etc



Factory Menu:

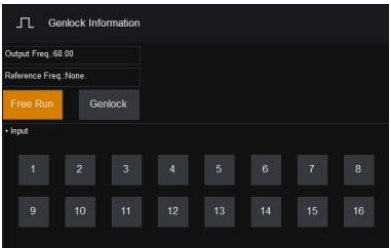


- Console software upgrade: Copy the new version of MIG-H9 Mini software to the U root directory, set the upgrade mode, select the software for installation, upgrade please operate carefully, please contact the technical engineer technical support
- Factory reset: Reset the video switcher. After resetting, you need to restart the video switcher
- T-Bar adjustment: T-Bar correction of MIG-H9 Mini to confirm the rod adjustment and switch the push for 3 or more times within 10 seconds
- Touch screen calibration: MIG-H9 Mini Touch screen correction, select "Tablet PC Settings" "Calibrated" in the pop-up window, if the touch is still not accurate, click "Reset" reset and then click "Calibrated" for accurate correction;
- Network setting: When the video switching platform changes the IP address of different network segments or the MIG-H9 Mini, the IP address of MIG-H9 Mini can be viewed in the network setting; the user can set the IP address of network 1-2, and the MIG-H9 Mini video console will automatically restart;
- Advanced Settings: Keyboard detection: The console keys are detected, and the kill key is pressed in turn to detect whether the keys are normal
- Keyboard Reset: Reset the key
- AUX Function: Set the AUX-D output function, AUX-D is AUX LOOP output, and AUX-D is HDMI monitor output
- Export the Dump File: Export the device dump log file
- Exit Server: Launch the current host software

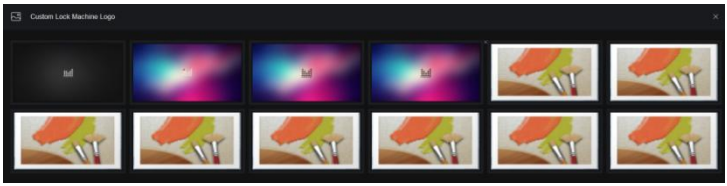
C-LINK: Run the software of C-Link for MAGNIMAGE control system

Genlock Information:

- Output refresh rate: Display the refresh rate of the current video switch station output resolution
- Reference refresh rate: Reference refresh rate
- Free rolling: Genlock synchronization mode is free rolling
- Genlock1-24: Genlock synchronization mode selects synchronization to one of the 1-24inputs

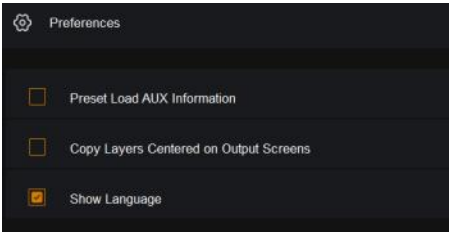


Lock screen image: Set the lock screen image, customized image, image resolution 1920 x 1080 in PNG format;



Preference Settings:

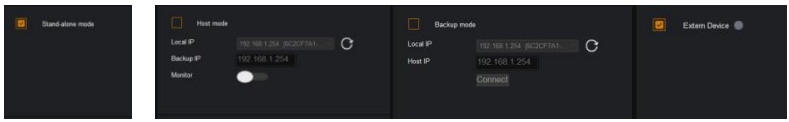
- Default Load AUX information: If checked, the AUX LOOP output screen can be saved to the preset. When loading the preset, the AUX LOOP screen will appear directly, and the default state is not checked
- Copy the layer centered on the output screen: Check the layer setting interface, select the layer to be copied, click the "" copy button option to copy the layer, the copied layer will be displayed in the horizontal direction of the output screen, and the state is not checked by default
- Display language: Check the display language to display language options in the function setting interface; if not checked, the language options will not be displayed in the function setting interface, and it will be checked by default



Working Mode:

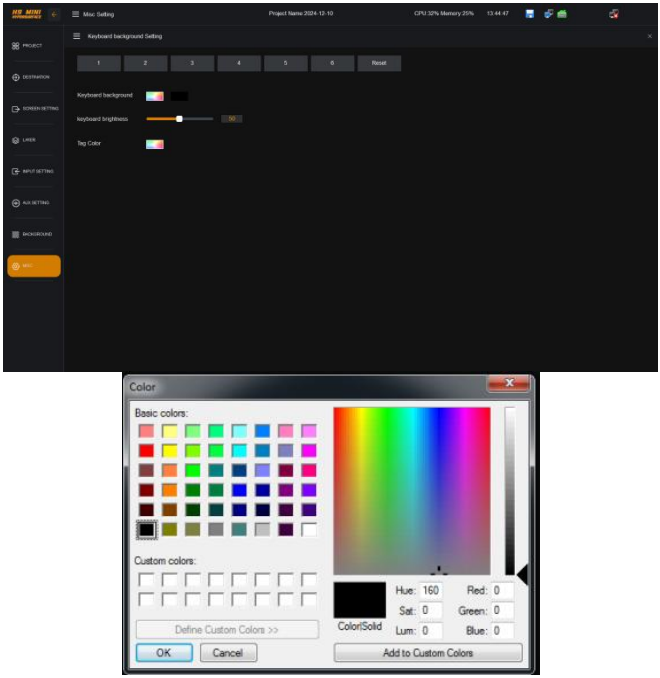
- Single machine mode: a MIG-H9 Mini video console connects to a MIG-V16 Pro video switcher mode by default
- Host mode: When the video console MIG-H9 Mini is in standby mode, the main video console selects the host mode, refreshes the IP address of the main video console, manually enters the backup video console IP address, and turns on monitoring status

- Backup mode: When the video console MIG-H9 Mini is in standby mode, select backup mode for the backup video console, refresh the backup video console IP, manually input the IP address of the main video console, and click the connection button to connect the main and backup online
- External device: The function has not been opened yet, waiting for further updates

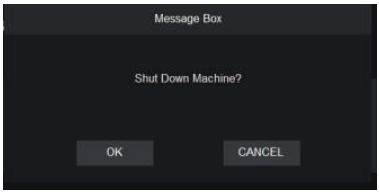


Keyboard Backlight Settings:

- 6 fixed color presets
- Adjustable outstanding board custom button background color and label color
- Button brightness can be set, with a parameter range of 0-100



Software Exit: Turn off the console to exit the system. This is the console shutdown button. Do not press and hold the power button for forced shutdown, as it may cause damage to the hard disk or system programs.


Message Box
Shut Down Machine?
OK
CANCEL

Warranty

Machine Warranty Period

- 24 months from the date of user’s purchase invoice;
- If the user’s purchase invoice is lost, the 60th day after the production date of this product is the warranty start date for the product.

Non-warranty

- Faults or damages caused by abnormal use reasons such as stains or surface scratches caused by machine immersion, collision, or use;
- Dismantling or modification without our company's consent;
- Failure or damage caused by use in a working environment other than that specified by the product (such as excessive temperature, low temperature, or unstable voltage);
- Faults or damages caused by force majeure (such as fires, earthquakes,etc.) or natural disasters (such as lightning strikes, etc.);
- The product has exceeded the warranty period.