



HDMI Matrix Switcher

# User Manual

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Model : HM44

4 X 4 HDMI Multiviewer/Seamless Matrix Switcher Support  
Video wall



## Introduction

HM44 is a 4 x 4 HDMI whose resolution up to 1080p. Additionally, the seamless switching function ensures no frame loss during picture transitions and supports 2 x 2 video wall function for you to freely and smoothly switch channel.

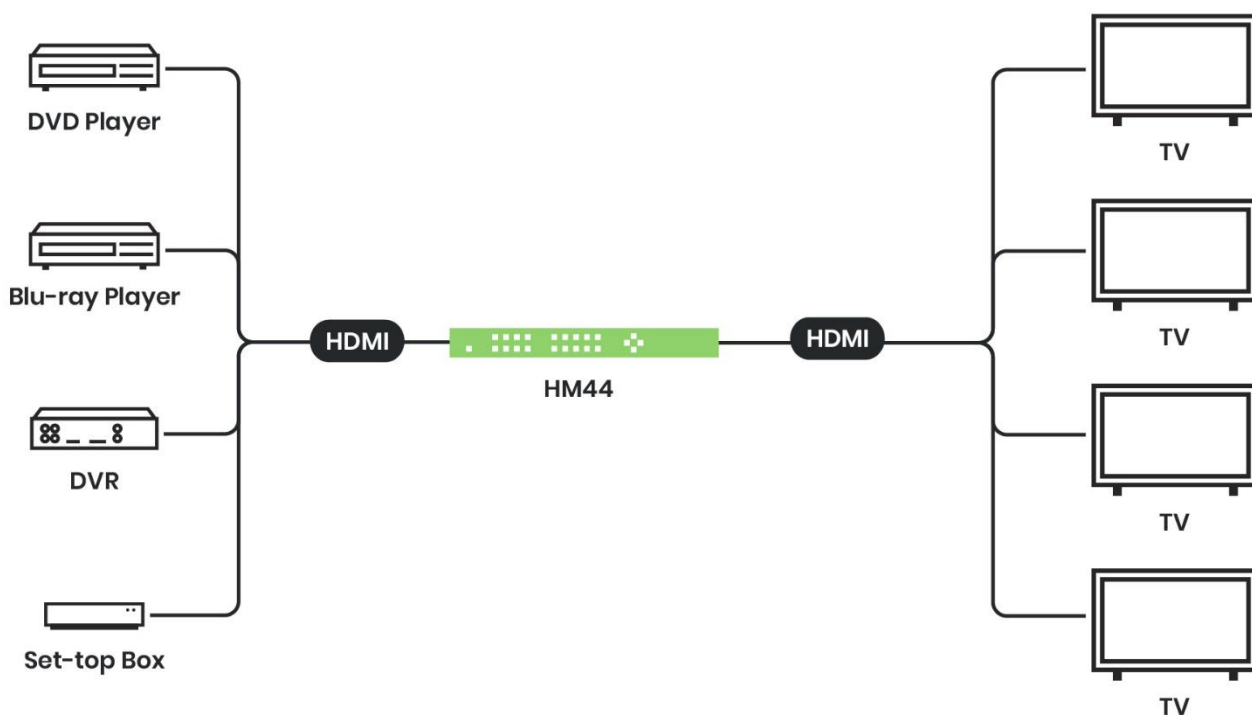
It is an ideal solution for small to large commercial venues that require multiple contents to be routed and need instant video switching.

## Features

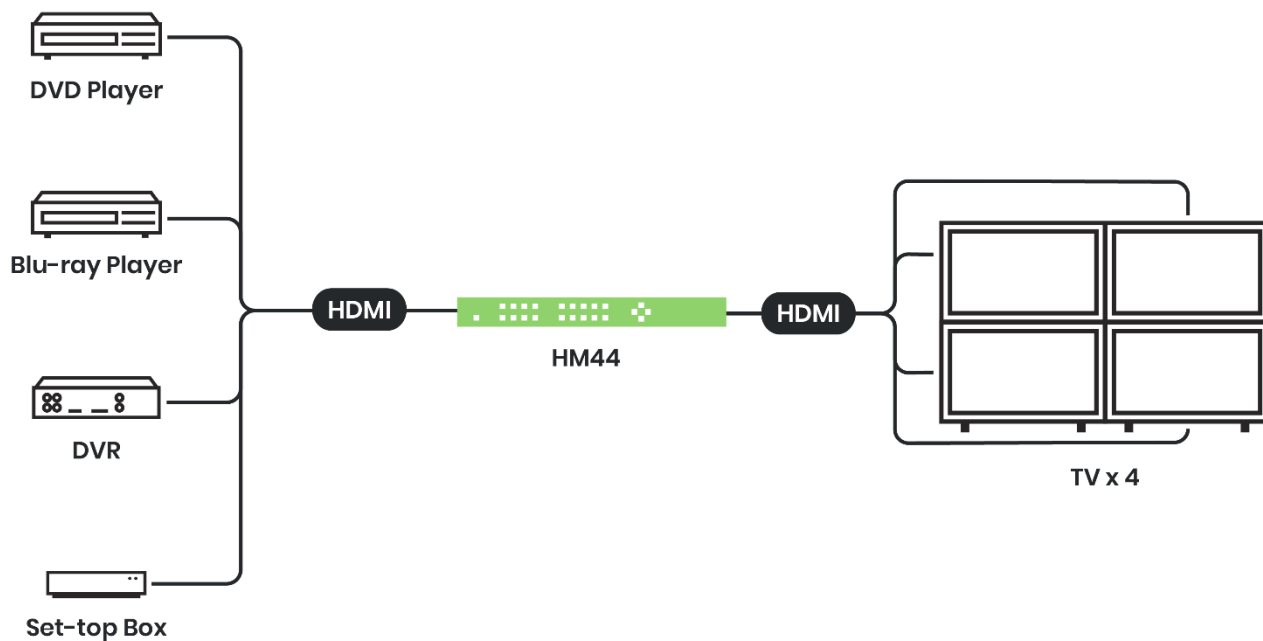
- Resolution up to 1080p@60Hz and 1920 x 1200 (WUXGA)
- Supports 2 x 2 Video-Wall with 4 selectable input sources.
- Supports seamless switching.
- Supports video scaler. Support PiP (Picture in Picture) function, allowing you to watch videos in a floating window.
- Supports OSD menu setting. Firmware upgradable through web server or RS232 port.
- Managed via panel buttons, IR remote, RS232, Web GUI and mobile APP.

## Installation View

### Multiview Mode

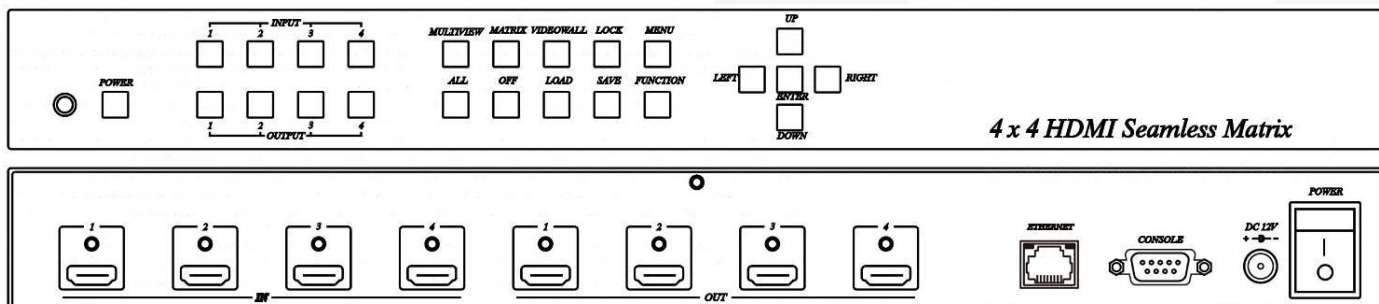


### Video Wall Mode



### Panel view

#### HM44

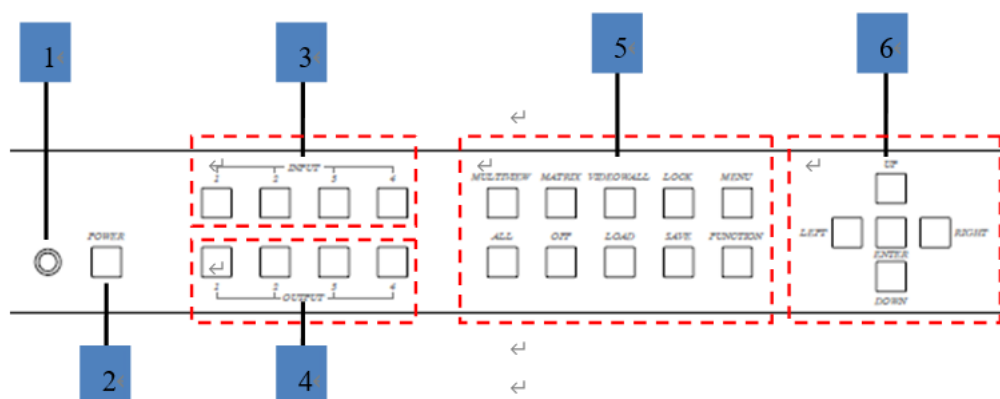


#### Ethernet control



For Ethernet TCP/IP(Winsock) Default IP address: 192.168.0.200, Port:47011

## Front Panel Function



## Panel Button Function

No.	Function Name	Description
1	IR	Receiving IR remote signal
2	POWER	Power on / standby
3	INPUT 1~4	Press these buttons to select the desired input
4	OUTPUT 1~4	Press these buttons to select the desired output (not available for videowall mode)
5	MULTIVIEW	Enter Multiview mode (All output display same screen)
	MATRIX	Enter Matrix mode
	VIDEOWALL	Enter videowall mode
	LOCK	Use this button to lock / unlock panel button and prevent accidental changes.
	MENU	Enter OSD menu Back to upper level of menu
	ALL	Select all output (not available for videowall mode)
	OFF	Turn off the selected output (not available for videowall mode)
	LOAD	Load layout/source in Multiview and Matrix mode from scene 1~8 Load screen position in VIDEOWALL mode from scene 1~4
	SAVE	Save current layout/source in Multiview and Matrix mode to scene 1~8 Save screen position in VIDEOWALL mode to scene 2~4
	FUNCTION	Switch different PIP/POP layout in Multiview Mode Bezel correction (adjust screen position) in VIDEOWALL MODE Not available in MATRIX MODE
6	UP	Move menu function up in OSD Move screen position up in videowall mode.
	DOWN	Move menu function down in OSD Move screen position down in videowall mode.
	LEFT	Move menu function left in OSD Move screen position left in videowall mode.
	RIGHT	Move menu function right in OSD Move screen position right in videowall mode.
	ENTER	Execution selected function

## Operating

### Multiview mode

#### Output/input selection

1. Press OUTPUT 1~4 buttons to select the desired output windows (A~D), button LED will light on. You could select multiple outputs at the same time.
2. Press INPUT 1~4 buttons to switch to desired input
3. Press ENTER to quit the input selection.

#### Window layout selection

1. Press FUNCTION button to enter layout selection.
2. Press INPUT /OUTPUT 1~4 to select desired layout, total 8 sets.
3. Press ENTER to quit the layout selection.

#### Save scene

1. Press SAVE button.
2. Press INPUT /OUTPUT 1~4 to save current windows layout and source of windows.
3. Press ENTER to confirm.

#### Load scene

1. Press LOAD button.
2. Press INPUT /OUTPUT 1~4 to load saved layout/source.
3. Press ENTER to confirm.

### Matrix mode

#### Output/input selection

1. Press OUTPUT 1~4 buttons to select the desired output monitor, button LED will light on. You could select multiple OUTPUT at the same time.
2. Press INPUT 1~4 buttons to switch to desired input
3. Press ENTER to quit the input selection.

#### Save scene

1. Press SAVE button.
2. Press INPUT /OUTPUT 1~4 to save current source of output.
3. Press ENTER to confirm.

#### Load scene

1. Press LOAD button.
2. Press INPUT /OUTPUT 1~4 to load saved output/source, total 8 sets.
3. Press ENTER to confirm.

## Videowall mode

### Input selection

1. Press INPUT 1~4 buttons to switch to desired input

### Bezel correction

1. Press FUNCTION button.
2. Press OUTPUT 1~4 to select the monitor to adjust screen position, shift depends on output resolution.
3. Press INPUT 1~4 to select the monitor to adjust screen position, shift depends on input resolution.
4. Press UP, DOWN, LEFT or RIGHT button to shift the screen.
5. Press ENTER to quit the position adjustment.

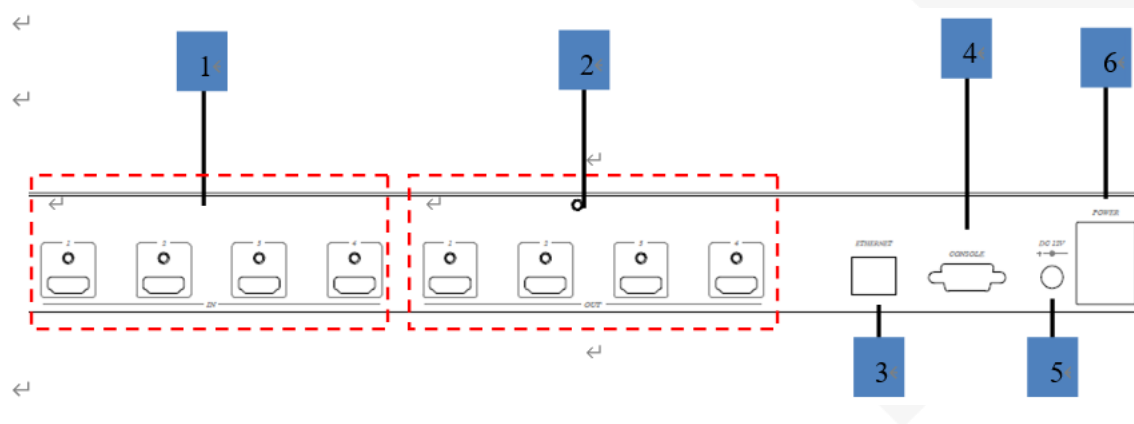
### Save scene

1. Press SAVE button.
2. Press INPUT 2~4 to save current position of each screen.
3. Press ENTER to confirm.

### Load scene

1. Press LOAD button.
2. Press INPUT 1~4 to load saved position of each screen(1 is factory default), total 4 sets.
3. Press ENTER to confirm.

## Rear Panel Function





## Panel Connector Function

No.	Name	Description
1	INPUT 1~4	HDMI Input 1~4
2	OUTPUT 1~4	HDMI Output 1~4
3	ETHERNET	Yellow LED: Link
		Green LED: Data transmit/receive WebGUI control / Web firmware update
4	RS232	RS232 control / firmware update
5	DC12V	External power supply
6	I/O	I: Power on O: Power off













## IR Remote Control (IR01)

Initial at first time use the remote control or after change battery of remote control, the IR remote control and the equipment IR Remote ID must be using same. The default IR Remote ID is 0.

To setting the Remote ID, Press and hold power button, then press button 0 to complete the setting.  +  . (for example)



## Remote Control Button Function

Symbol	Function Name	Description
	POWER	Power on / standby
	UP	Move menu function up in OSD
	DOWN	Move menu function down in OSD
	LEFT	Move menu function left in OSD
	RIGHT	Move menu function right in OSD
	ENTER	Execution selected function
	MENU	Enter OSD menu Back to upper level of menu
	Quick output/input selection	Press to select output 1 Switch to input 1 if output have been selected
	Quick output/input selection	Press to select output 2 Switch to input 2 if output have been selected
	Quick output/input selection	Press to select output 3 Switch to input 3 if output have been selected
	Quick output/input selection	Press to select output 4 Switch to input 4 if output have been selected
	Reserved	

6	Reserved	
7	Multiview	Switch to Multiview Mode
8	Matrix	Switch to Matrix mode
9	Videowall	Switch to Videowall mode
0	Turn off video	Turn off video if output have been selected
A	Reserved	
B	Reserved	
*	Reserved	
#	Reserved	

## OSD MENU

MAIN	SUB MENU	DESCRIPTION		
SETUP	OUTPUT RESULTION	480P	1366x768	
		576P	1440x900	
		720P50	1600x1200	
		720P60	1680x1050	
		1080P24	1920x1200	
		1080P50	BACK	
		1080P60, Default	EXIT	
		1024x768		
		1280x800		
		1280x1024		
	PICTURE SETTING	OUT SELECT	OUT1~OUT4, Default OUT1	
		CONTRAST	0~100, Default 50	
		BRIGHTNESS	0~100, Default 50	
		SATURATION	0~100, Default 50	
		HUE	0~100, Default 50	
		RESET		
		BACK		
		EXIT		
		OSD SETTING	MENU TIMEOUT	0~100, Default 20
			INFO TIMEOUT	0~100, Default 5
	INFO POSITION		RIGHT TOP	
			LEFT TOP, Default	
			RIGHT BUTTON	
			LEFT BUTTON	
	INFO DISPLAY		ON, OFF, Default ON	
	BACK			
	EXIT			



EDID	INPUT1 EDID	1080P 2CH, Default		
		1080P MLT		
		OUTPUT 1		
		OUTPUT 2		
		OUTPUT 3		
		OUTPUT 4		
		INPUT2 EDID	1080P 2CH, Default	
			1080P MLT	
			OUTPUT 1	
			OUTPUT 2	
			OUTPUT 3	
			OUTPUT 4	
		INPUT3 EDID	1080P 2CH, Default	
			1080P MLT	
			OUTPUT 1	
			OUTPUT 2	
			OUTPUT 3	
			OUTPUT 4	
		INPUT4 EDID	1080P 2CH, Default	
			1080P MLT	
	OUTPUT 1			
	OUTPUT 2			
	OUTPUT 3			
	OUTPUT 4			
	INPUT ALL	1080P 2CH, Default		
		1080P MLT		
		OUTPUT 1		
OUTPUT 2				
OUTPUT 3				
OUTPUT 4				
BACK				
EXIT				
HDCP	HDCP	FOLLOW INPUT, Default		
		ALWAYS ON		
	BACK			
	EXIT			
AUDIO	MULTIVIEW MODE	OUTPUT1 AUDIO	IN 1, Default	
			IN 2	
			IN 3	
			IN 4	
			OFF	
	MULTIVIEW MODE	OUTPUT 2 AUDIO	IN 1	
			IN 2, Default	
			IN 3	
			IN 4	
			OFF	
MULTIVIEW MODE	OUTPUT 3 AUDIO	IN 1		

				IN 2	
				IN 3, Default	
				IN 4	
				OFF	
				OUTPUT 4 AUDIO	IN 1
				IN 2	
			IN 3		
			IN 4, Default		
			OFF		
			BACK		
			EXIT		
			MATRIX MODE		
	IN 2				
	IN 3				
	IN 4				
	FOLLOW, Default				
	OFF				
	OUTPUT 2 AUDIO	IN 1			
		IN 2			
		IN 3			
		IN 4			
		FOLLOW, Default			
		OFF			
	OUTPUT 3 AUDIO	IN 1			
IN 2					
IN 3					
IN 4					
FOLLOW, Default					
OFF					
OUTPUT 4 AUDIO	IN 1				
	IN 2				
	IN 3				
	IN 4				
	FOLLOW, Default				
	OFF				
BACK					
EXIT					
VIDEO WALL			OUTPUT 1 AUDIO	IN 1	
				IN 2	
				IN 3	
				IN 4	
				FOLLOW, Default	
				OFF	
	OUTPUT 2 AUDIO	IN 1			
		IN 2			
		IN 3			
		IN 4			

				FOLLOW, Default	
				OFF	
				OUTPUT 3 AUDIO	IN 1
				IN 2	
				IN 3	
				IN 4	
				FOLLOW, Default	
				OFF	
				OUTPUT 4 AUDIO	IN 1
				IN 2	
				IN 3	
				IN 4	
				FOLLOW, Default	
				OFF	
				BACK	
EXIT					
BACK					
EXIT					
BACK					
EXIT					
NETWORK	IP ADDRESS	BYTE 1	192		
		BYTE 2	168		
		BYTE 3	0		
		BYTE 4	200		
		BACK			
		EXIT			
	SUBNET MASK	BYTE 1	255		
		BYTE 2	255		
		BYTE 3	255		
		BYTE 4	0		
		BACK			
		EXIT			
	GATEWAY IP	BYTE 1	192		
		BYTE 2	168		
		BYTE 3	0		
		BYTE 4	1		
		BACK			
		EXIT			
	DHCP CLIENT	DHCP CLIENT	ON		
			OFF, Default		
		BACK			
	MEDIA TYPE	MEDIA TYPE	10M		
			100M		
			AUTO, Default		
		BACK			
		EXIT			

	MAC FILTER	MAC FILTER	ON	
			OFF, Default	
		BACK		
		EXIT		
		BACK		
EXIT				
SYSTEM	DEVICE ID	DEVICE ID	0~99, Default 0	
		BACK		
		EXIT		
	REMOTE ID	REMOTE ID	0~9, Default 0	
		BACK		
		EXIT		
	FACTORY DEFAULT		FACTORY DEFAULT	
	REBOOT		REBOOT	
	INFORMATION	FIRMARE V1.00		
		WEB	V1.0	
	BACK			
	EXIT			
	EXIT			

## WebGUI Control

### Initial IP Configuration

1. Setup host IP Address same as your PC with same subnet. (Default 192.168.0.200)  
To change IP Address please enter OSD menu by panel button or IR remote control.
2. Enter IP Address in your web browser and you could link to the web page of host.
3. Browser support: Internet Explorer 9, Chrome 42.0.2311.135 m, Firefox 31.0 and higher

### WebGUI Operating

#### Login



4x4 HDMI MATRIX/MULTIVIEW/VIDEOWALL

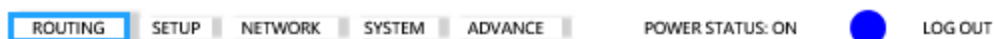
Username: Administrator

Password:

Login

- USERNAME : admin
- PASSWORD : 123

#### Main Page



- ROUTING : Include MULTIVIEW, MATRIX, VIDEOWALL three mode
- SETUP : OUTPUT RESOLUTION, HDCP SETTING, ID SETTING, PICTURE SETTING, OSD SETTING
- NETWORK : IP ADDRESS, SUBNET MASK GATEWAY, DHCP CLIENT, MEDIA TYPE, MAC FILTER
- SYSTEM : change password
- ADVANCE : Adjust user define layout of MULTIVIEW mode

## Multiview

### 4x4 HDMI MATRIX/MULTIVIEW/VIDEOWALL

ROUTING SETUP NETWORK SYSTEM ADVANCE POWER STATUS: ON LOG OUT

MULTIVIEW MATRIX VIDEOWALL

#### VIDEO SETTING

Current State

A 1	B 2
C 3	D 4

Window A  
  Window B  
  Window C  
  Window D

A	B	C	D
<input checked="" type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> 1
<input type="radio"/> 2	<input checked="" type="radio"/> 2	<input type="radio"/> 2	<input type="radio"/> 2
<input type="radio"/> 3	<input type="radio"/> 3	<input checked="" type="radio"/> 3	<input type="radio"/> 3
<input type="radio"/> 4	<input type="radio"/> 4	<input type="radio"/> 4	<input checked="" type="radio"/> 4
<input type="radio"/> OFF	<input type="radio"/> OFF	<input type="radio"/> OFF	<input type="radio"/> OFF

#### AUDIO SETTING

OUT1 AUDIO

OUT2 AUDIO

OUT3 AUDIO

OUT4 AUDIO

WINDOW LAYOUT

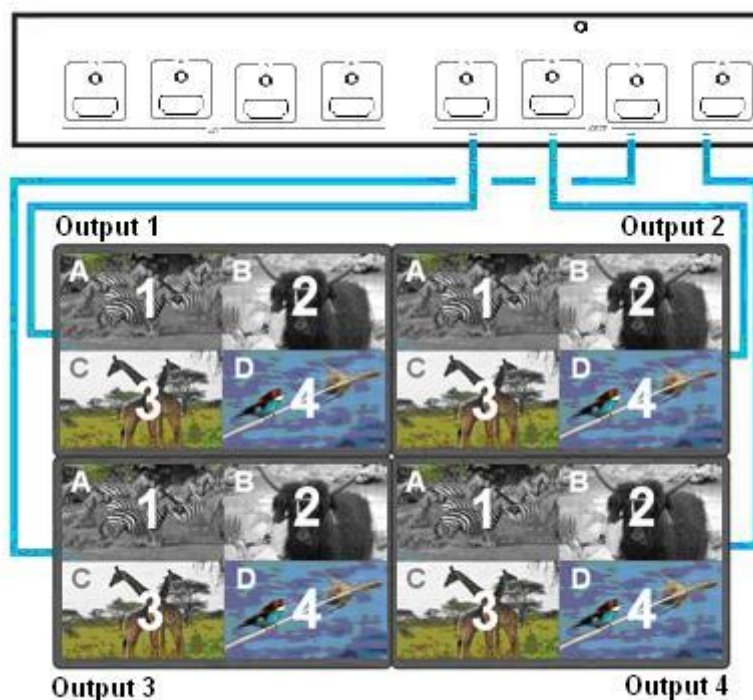
REFRESH   APPLY

#### MULTIVIEW SCENCE

SCENCE#1

LOAD   SAVE

- VIDEO SETTING : Select video source of window A~D to input 1~4 or off
- AUDIO SETTING : Select audio source of output 1~4 from input 1~4 or off
- WINDOW LAYOUT : Select windows layout from default 1~4 or user define 1~4
- MULTIVIEW SCENCE : Select SCENCE 1~8 to load or save
- REFRESH : Refresh the information of host
- APPLY : Apply changes



## Matrix

4x4 SEAMLESS MATRIX/MULTIVIEW/VIDEOWALL

ROUTING | SETUP | NETWORK | SYSTEM | ADVANCE | POWER STATUS: ON | LOG OUT

MULTIVIEW | **MATRIX** | VIDEOWALL

### VIDEO SETTING

	Output1	Output2	Output3	Output4
Input1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Input4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### AUDIO SETTING

OUT1 AUDIO

OUT2 AUDIO

OUT3 AUDIO

OUT4 AUDIO

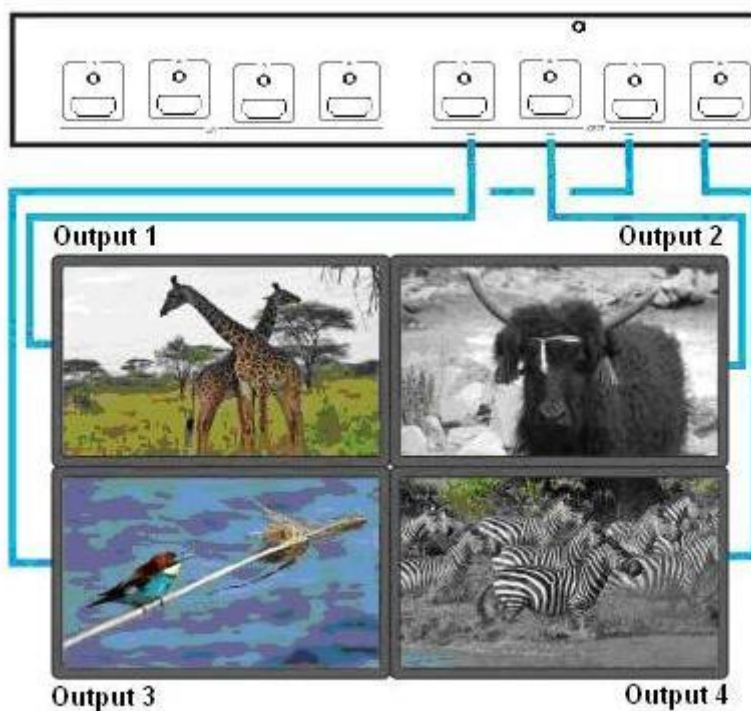
REFLASH    APPLY

### MATRIX SCENCE

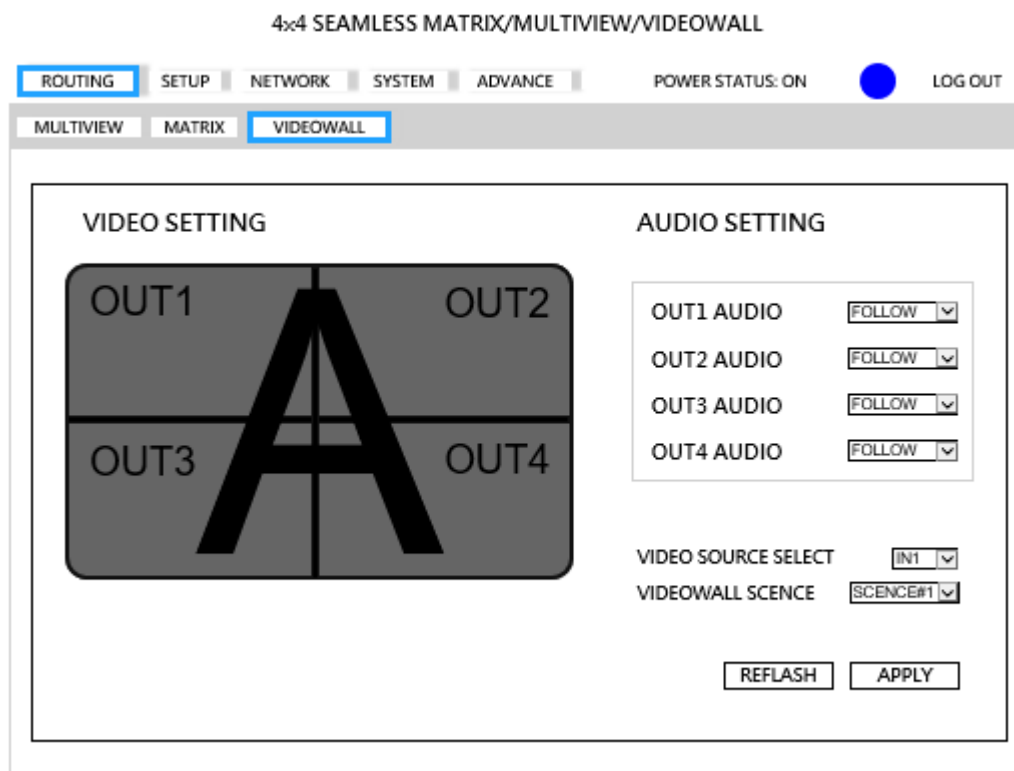
SCENCE#1

LOAD    SAVE

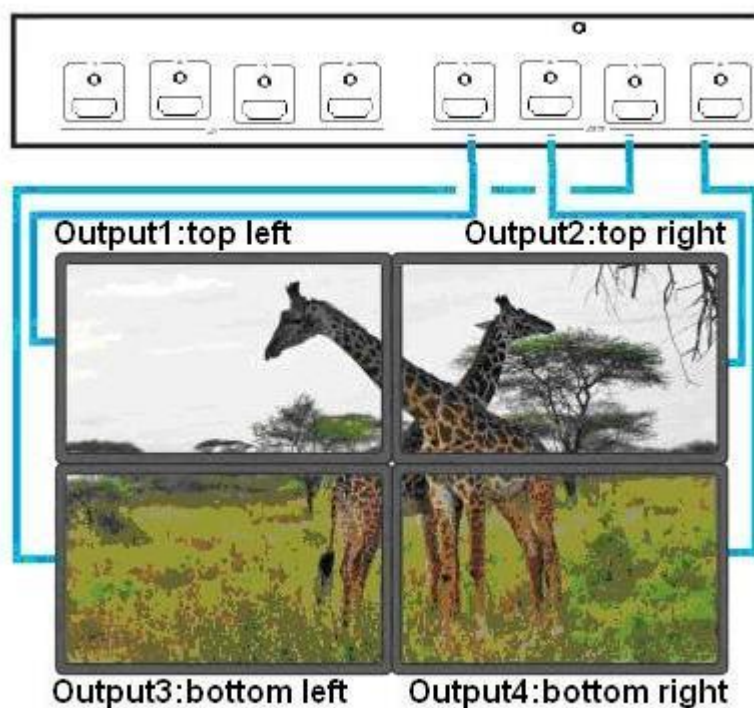
- VIDEO SETTING : Select video source of output 1~4 to input 1~4, off or follow.
- AUDIO SETTING : Select audio source of output 1~4 from input 1~4,off or follow
- MATRIX SCENCE : Select SCENCE 1-8 to load or save
- REFRESH : Refresh the information of host
- APPLY : Apply changes



## Videowall



- VIDEO SETTING : Display video wall block of output 1~4
  - AUDIO SETTING : Select audio source of output 1~4 from input 1~4,off or follow
  - Video SCENCE : Select SCENCE 1~4 to load
  - REFRESH : Refresh the information of host
  - APPLY : Apply changes
- \*SCENCE 1 is factory default





## Setup

4x4 HDMI MATRIX/MULTIVIEW/VIDEOWALL

ROUTING **SETUP** NETWORK SYSTEM ADVANCE POWER STATUS: ON LOG OUT

<p><b>OUTPUT RESOLUTION</b></p> <p>1080P60</p> <p><b>HDCP SETTING</b></p> <p>FOLLOW INP</p> <p><b>ID SETTING</b></p> <p>DEVICE ID: 0</p> <p>REMOTE ID: 0</p>	<p><b>PICTURE SETTING</b></p> <table style="width: 100%; text-align: center;"> <thead> <tr> <th></th> <th>OUT1</th> <th>OUT2</th> <th>OUT3</th> <th>OUT4</th> </tr> </thead> <tbody> <tr> <td>CONTRAST</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> </tr> <tr> <td>BRIGHTNESS</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> </tr> <tr> <td>SATURATION</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> </tr> <tr> <td>HUE</td> <td>50</td> <td>50</td> <td>50</td> <td>50</td> </tr> </tbody> </table>		OUT1	OUT2	OUT3	OUT4	CONTRAST	50	50	50	50	BRIGHTNESS	50	50	50	50	SATURATION	50	50	50	50	HUE	50	50	50	50	<p><b>OSD SETTING</b></p> <p>MENU TIMEOUT: 20</p> <p>INFO TIMEOUT: 5</p> <p>INFO POSITION: LEFT T</p> <p>INFO DISPLAY: ON</p>
	OUT1	OUT2	OUT3	OUT4																							
CONTRAST	50	50	50	50																							
BRIGHTNESS	50	50	50	50																							
SATURATION	50	50	50	50																							
HUE	50	50	50	50																							

REFLASH    APPLY

- OUTPUT RESOLUTION : Support 480P, 576P, 720P50, 720P60, 1080P24, 1080P50, 1080P60, Default 1080P60, 1024x768, 1280x800, 1280x1024, 1366x768, 1440x900, 1600x1200, 1680x1050, 1920x1200
- HDCP SETTING : Set HDCP always on or follow input.
- ID SETTING : Set DEVICE ID, Default 0, REMOTE ID, Default 0
- PICTURE SETTING : Set CONTRAST, BRIGHTNESS, SATURATION, HUE of output 1~4, Default 50
- OSD SETTING : Set MENU TIMEOUT, Default 20s, INFO TIMEOUT, Default 5s, INFO POSITION, Default LEFT TOP, INFO DISPLAY, Default ON
- REFRESH : Refresh the information of host
- APPLY : Apply changes

## Network

4x4 HDMI MATRIX/MULTIVIEW/VIDEOWALL


ROUTING | SETUP | **NETWORK** | SYSTEM | ADVANCE | POWER STATUS: ON | LOG OUT

IP ADDRESS	<input type="text" value="192.168.0.232"/>	
SUBNET MASK	<input type="text" value="255.255.255.0"/>	
GATEWAY IP	<input type="text" value="192.168.0.1"/>	
DHCP CLIENT	<input type="text" value="OFF"/>	<input type="button" value="REFRESH"/>
MEDIA TYPE	<input type="text" value="AUTO"/>	<input type="button" value="APPLY"/>
MAC FILTER	<input type="text" value="OFF"/>	
MAC ADDRESS 1	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 2	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 3	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 4	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 5	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 6	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 7	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 8	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 9	<input type="text" value="0.0.0.0.0.0"/>	
MAC ADDRESS 10	<input type="text" value="0.0.0.0.0.0"/>	

- IP ADDRESS: Set IP address, **Default 192.168.0.200**
- SUBNET MASK: Set Subnet mask, **Default 255.255.255.0**
- GATEWAY: Set gateway address, **Default 192.168.0.1**
- DHCP CLIENT:
  - ON: Get IP Address, Subnet Mask, Gateway from existing DHCP server
  - OFF: Set IP Address, Subnet Mask, Gateway by WebGUI or OSD menu manually, **Default OFF**
- MEDIA TYPE: Set link speed of Ethernet port to 10 / 100 / Auto detect, **Default AUTO**
- MAC FILTER: Add up to 10 registered MAC Address, only the MAC address which is in the list can be able to connect host by Ethernet, **Default OFF.**
- REFRESH : Refresh the information of host
- APPLY : Apply changes

## System

4x4 SEAMLESS MATRIX/MULTIVIEW/VIDEOWALL

ROUTING | SETUP | NETWORK | **SYSTEM** | ADVANCE | POWER STATUS: ON  LOG OUT

PASSWORD	<input type="text"/>
NEW PASSWORD	<input type="text"/>
CONFIRM PASSWORD	<input type="text"/>
	<input type="button" value="APPLY"/>

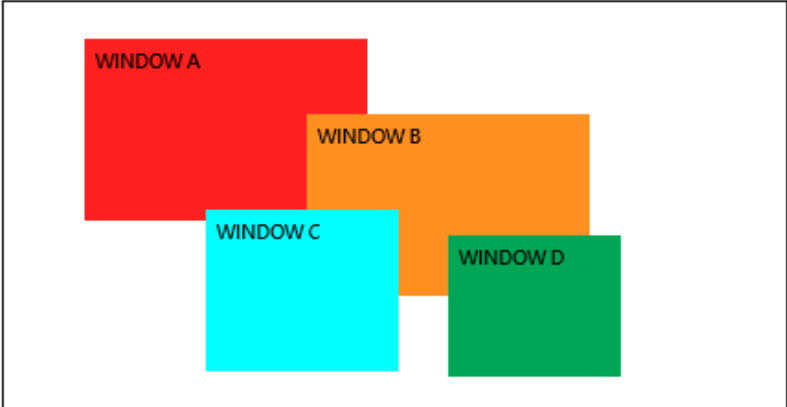
- PASSWORD : Enter old password, **Default 123**
- NEW PASSWORD : Enter new password
- CONFIRM PASSWORD : Enter new password again to confirm
- APPLY : Apply changes

## Advance

4x4 HDMI MATRIX/MULTIVIEW/VIDEOWALL

ROUTING | SETUP | NETWORK | SYSTEM | **ADVANCE** | POWER STATUS: ON ● LOG OUT

**Window Edit**



	WINDOW A	WINDOW B	WINDOW C	WINDOW D
WIDTH	<input type="text" value="640"/>	<input type="text" value="640"/>	<input type="text" value="640"/>	<input type="text" value="640"/>
HEIGHT	<input type="text" value="480"/>	<input type="text" value="480"/>	<input type="text" value="480"/>	<input type="text" value="480"/>
X.POS	<input type="text" value="100"/>	<input type="text" value="800"/>	<input type="text" value="100"/>	<input type="text" value="900"/>
Y.POS	<input type="text" value="10"/>	<input type="text" value="10"/>	<input type="text" value="510"/>	<input type="text" value="490"/>
PRIORITY	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="3"/>	<input type="text" value="4"/>
BORDER	<input type="text" value="YES"/>	<input type="text" value="YES"/>	<input type="text" value="YES"/>	<input type="text" value="YES"/>
COLOR	<input type="text" value="BLUE"/>	<input type="text" value="PURPLE"/>	<input type="text" value="GREY"/>	<input type="text" value="WHITE"/>

WINDOW LAYOUT

- WIDTH, HEIGHT: Set size of the windows.
- X.POS,Y.POS: Set top left position of window by x, y coordinate.
- PRIORITY: Set the priority of windows, 1 is top and 4 is bottom.
- BORDER: Select YES to show border of window, select NO to disable.
- COLOR: Set color of border.
- WINDOW LAYOUT : Select windows layout from user define 1~4 to load or save
- LOAD: Select windows layout from user define 1~4 to modify
- SAVE: Save windows layout to user define 1~4 after change the value

## RS232 Remote Control Command



Connect the CONSOLE port to the COM port of the host by Female to Male RS232 straight cable (pin 2 to pin 2; pin 3 to pin 3, pin 5 to pin 5)

Communication format is 9600, 8, N, 1 (9600 bps, 8 data bits, no parity check, 1 stop bit)

### Operation Instruction Format

Command + Δ (Space) + Parameter + Enter(0D or 0A in Hex)

[Command]		[Description]
POWER	y	Power on/standby
SMOUT1	n	Output 1 from input n in seamless matrix
SMOUT2	n	Output 2 from input n in seamless matrix
SMOUT3	n	Output 3 from input n in seamless matrix
SMOUT4	n	Output 4 from input n in seamless matrix
SMOUTALL	n	All output from input n in seamless matrix
SMADOOOUT1	n	Output 1 audio source from input n in seamless matrix
SMADOOOUT2	n	Output 2 audio source from input n in seamless matrix
SMADOOOUT3	n	Output 3 audio source from input n in seamless matrix
SMADOOOUT4	n	Output 4 audio source from input n in seamless matrix
SMADOOOUTALL	n	All output audio source from input n in seamless matrix
MVWINA	n	Window A from input n in multiview
MVWINB	n	Window B from input n in multiview
MVWINC	n	Window C from input n in multiview
MVWIND	n	Window D from input n in multiview
MVWINALL	n	Set all windows from input n in multiview
MVADOOOUT1	n	Output 1 audio source from input n in multiview
MVADOOOUT12	n	Output 2 audio source from input n in multiview
MVADOOOUT13	n	Output 3 audio source from input n in multiview
MVADOOOUT14	n	Output 4 audio source from input n in multiview
MVADOOOUT1ALL	n	All output audio source from input n in multiview
VDWALLRX	n	Input port n in video wall
VDWALLADOOOUT1	n	Output 1 audio source from input n in video wall
VDWALLADOOOUT2	n	Output 2 audio source from input n in video wall
VDWALLADOOOUT3	n	Output 3 audio source from input n in video wall
VDWALLADOOOUT4	n	Output 4 audio source from input n in video wall
VDWALLADOOOUTALL	n	All output audio source from input n in video wall
LOADSM		
SAVESM		
LOADMV		
SAVEMV		
LOADVDWALL		
SAVEVDWALL		
DHCP	y	DHCP Client on/off

IP_ADDRESS	[x.x.x.x]	Set IP address
SUBNET_MASK	[x.x.x.x]	Set subnet mask
GATEWAY	[x.x.x.x]	Set gateway
MEDIA_TYPE	z	Set Ethernet link speed
MAC_FILTER	y	MAC filter on/off
VERSION		Display firmware version
HELP		Show all commands

[Symbol]	[Parameter]
<u>n</u>	0=OFF, 1=INPUT1, 2=INPUT2, 3=INPUT3, 4=INPUT4
<u>y</u>	00=OFF, 01=ON
<u>z</u>	00=10Mbps, 01=100Mbps 02=Auto
[x.x.x.x]	Ethernet parameter, 0~255, EX:192.168.0.1 or 255.255.255.0

### Example

SMADOOOUT1△ 03	Set output 1 switch to input 3 in MATRIX mode
MVADOOOUT3△ 04	Set output 3 switch to input 4 in MULTIVIEW mode
VDWALLADOOOUT3△ 02	Set audio output from input 2 in VIDEOWALL mode

Commands are **case insensitive**.

The host will reply **OK** once string is correct, **NG** in case of incorrect string

## APP Control

### APP name

Android: 4x4 Multiviewer/Video Wall/Seamless Matrix Control  
iOS: 4x4 Multiviewer Control



### System Requirement

iOS version 10.3 or later  
Size: 3.8M

Android version 5.0 or later  
Size: 2.8M

### App Store Download Link

<https://itunes.apple.com/us/app/4x4-multiviewer-control/id1420804403?l=zh&ls=1&mt=8>

### Google Play Download Link

<https://play.google.com/store/apps/details?id=com.sct.hm44test>

### App Store Download QR code



### Google Play Download QR code



## System Setting

Connect mobile phone to Wi-Fi and set the IP/ subnet mask same with matrix network segment

Default IP address is 192.168.0.200

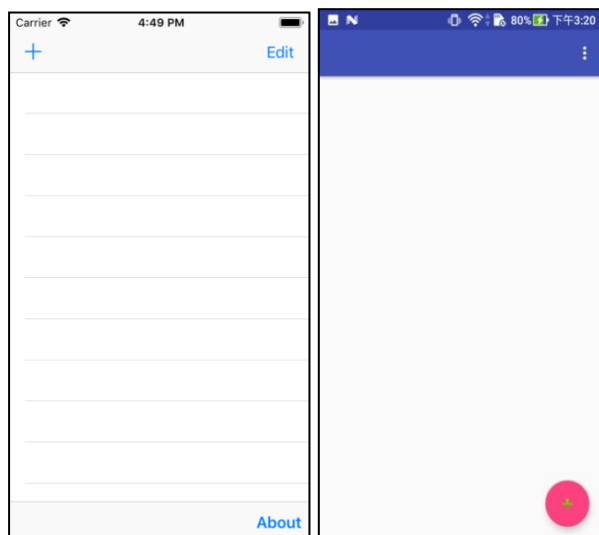
Default subnet mask is 255.255.255.0

You could also set to DHCP mode, please refer user manual

There are two ways to get the IP address of matrix:

1. Use APP function: Scan Device to get the IP address.
2. Use panel button or IR remote control by press [MENU], select to [NETWORK] function and press [ENTER] to enter [IP ADDRESS] function than press [ENTER], it will show IP Address in the LCD panel of matrix

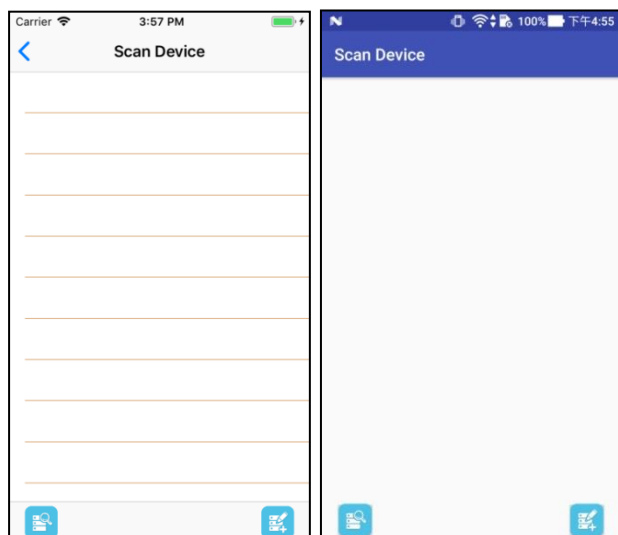
## Main Page



When first time enter the APP will see the main page

Touch 「+」 icon to add matrix

## Scan Device

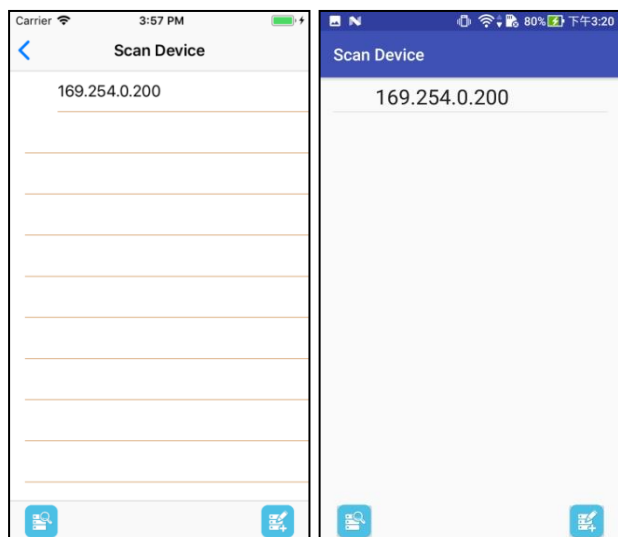


Touch bottom left  icon to start scan

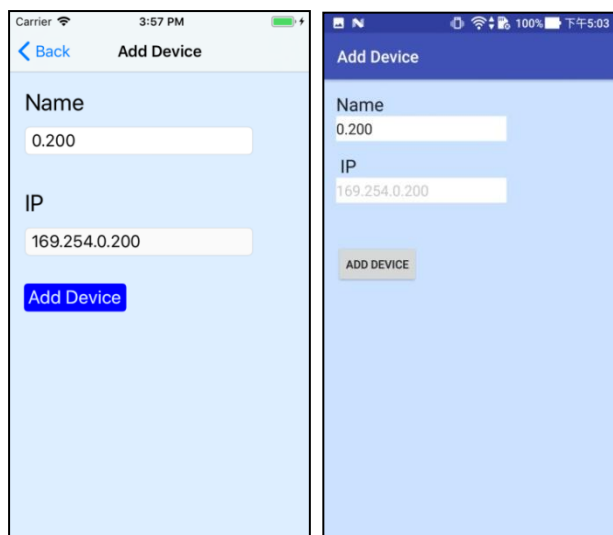
Touch bottom right  icon to input the IP address manually



## Add Device

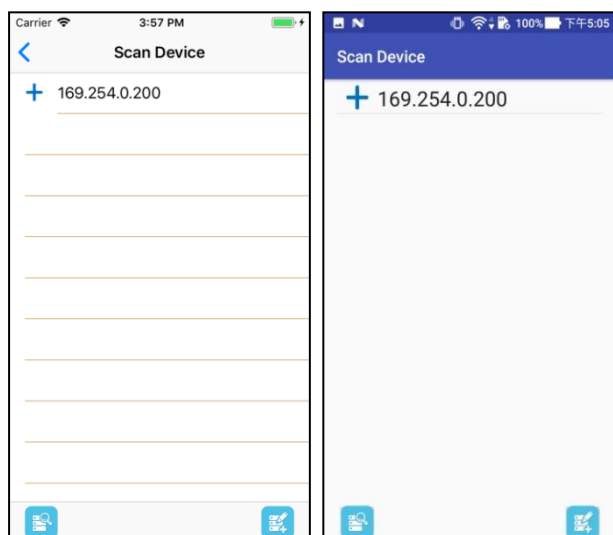


After scanning it will show all matrixes in the list  
Touch the IP in list to enter 「 Add Device 」 page

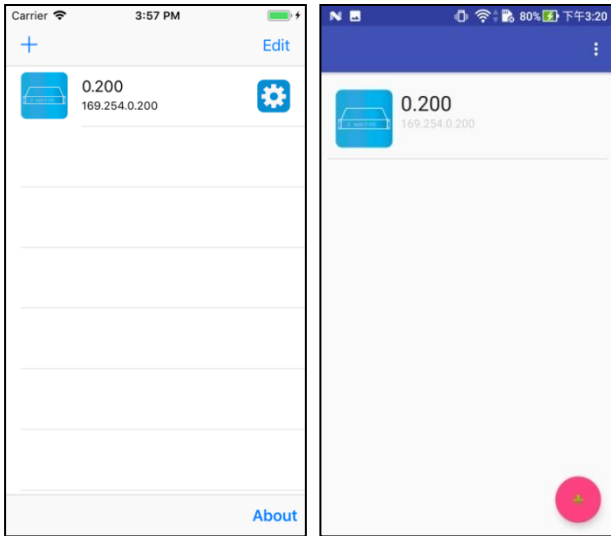


Enter the name of matrix then touch 「 Add Device 」 to finish setting

**Notice: Name should be unique, not allow duplicate**

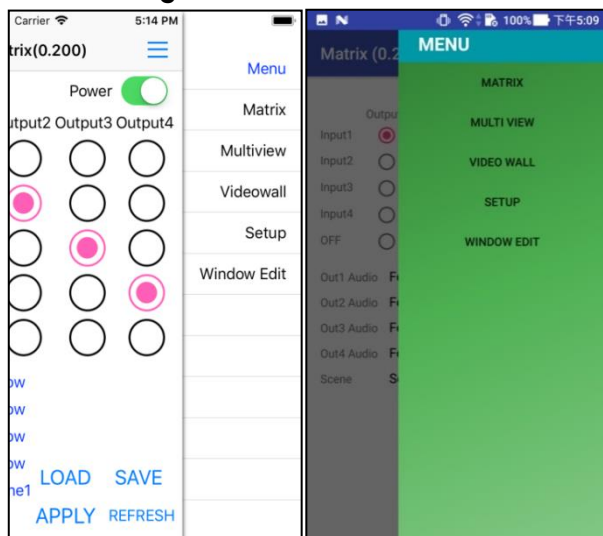


It will show 「 + 」 icon in front of the IP address when finished



Return to main screen you will see the matrix which just add

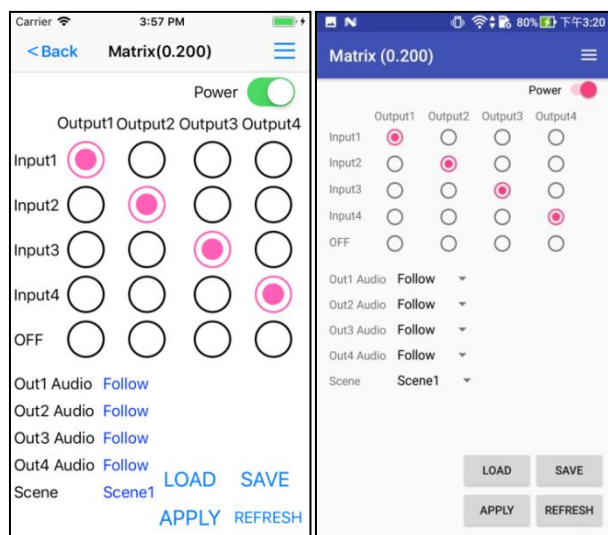
### Mode Change



Touch top right 「☰」 icon to show menu

Touch mode or function name to switch

### Matrix



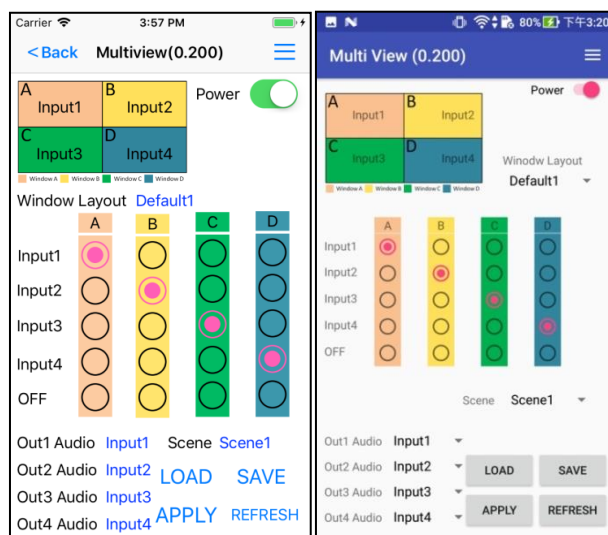
Set input for each output then touch 「APPLY」

Touch 「LOAD」 to load scene

Touch 「SAVE」 to save current setting to scene

Touch 「REFRESH」 to update status

### Multiview



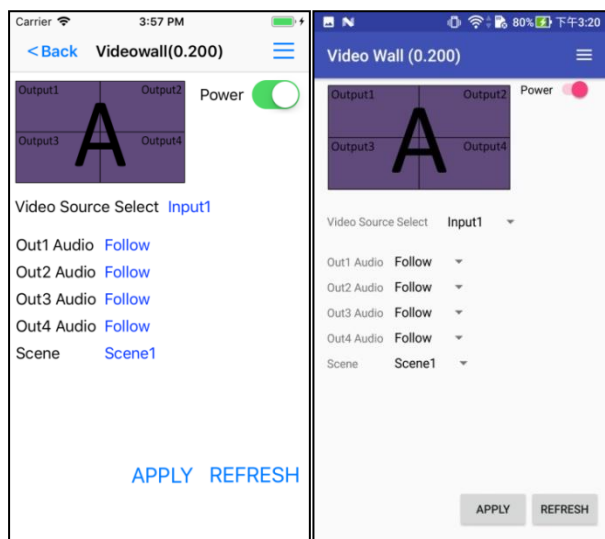
Set input for each window then touch 「APPLY」

Touch 「LOAD」 to load scene

Touch 「SAVE」 to save current setting to scene

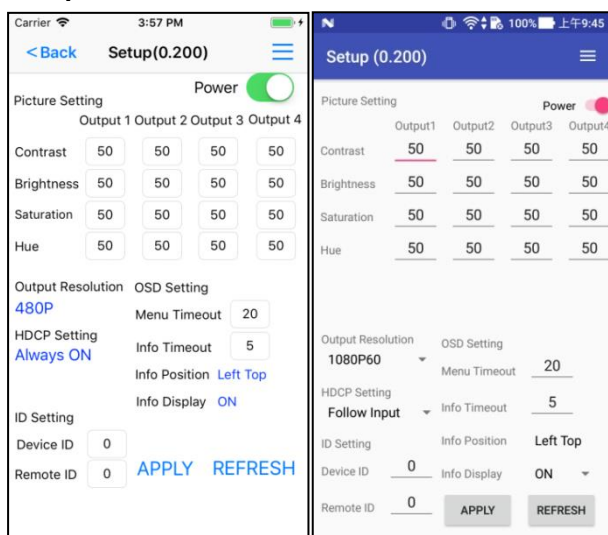
Touch 「REFRESH」 to update status

## Videowall



Set input for video wall and audio source for each output then touch 「APPLY」  
Touch 「REFRESH」 to update status

## Setup

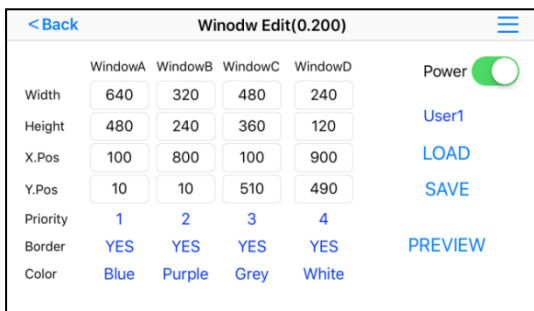


Set Contrast, Brightness, Saturation, Hue for each output

Set Output Resolution, HDCP, ID and OSD for matrix then touch 「APPLY」

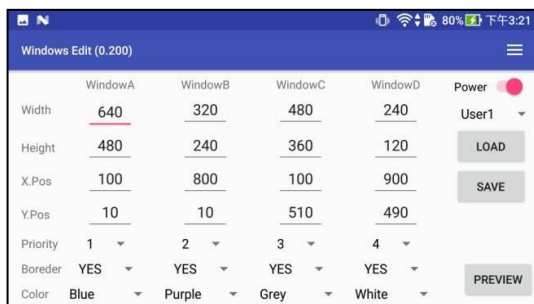
Touch 「REFRESH」 to update status

## Window Edit



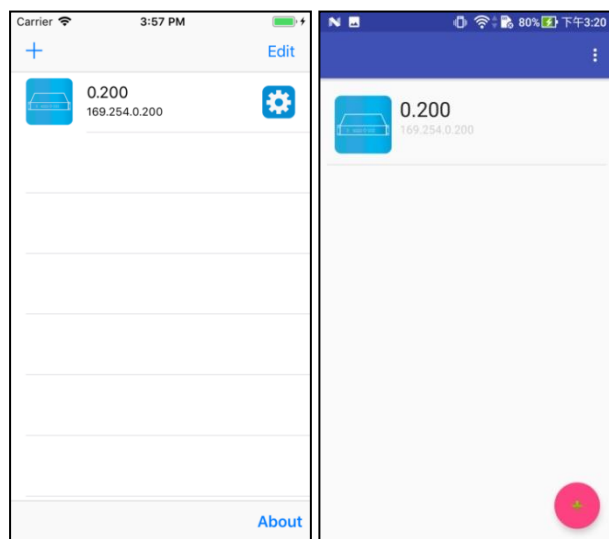
Set Width, Height, X.Position, Y.Position, Priority(of windows), Border(Enable/Disable), Color(of boarder) for each windows then touch 「PREVIEW」


Touch 「LOAD」 to load previous user define setting



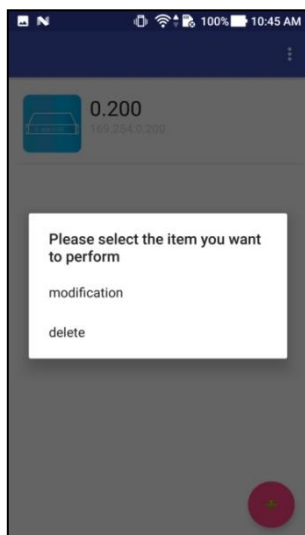
Touch 「SAVE」 to save current status to user define setting

## Device Name Modification

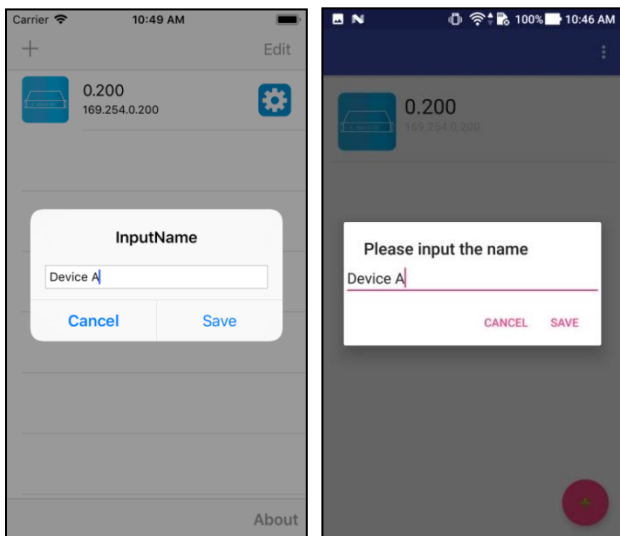


For iOS please touch top right  icon

For Android please press the device in the list to pop up message "Please select the item you want to perform"

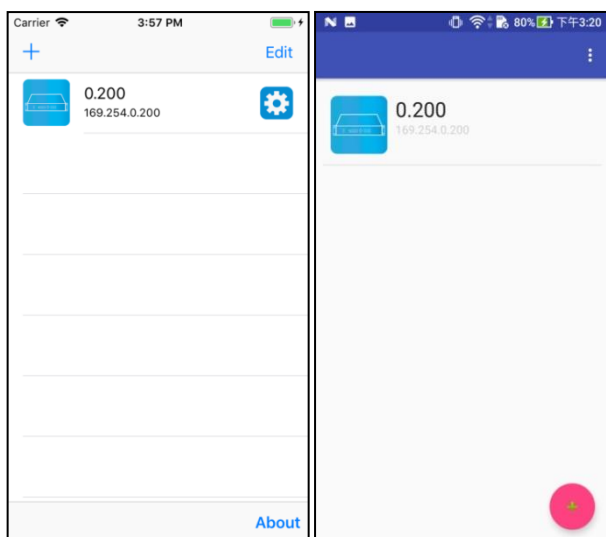


then touch 「modification」 for Android



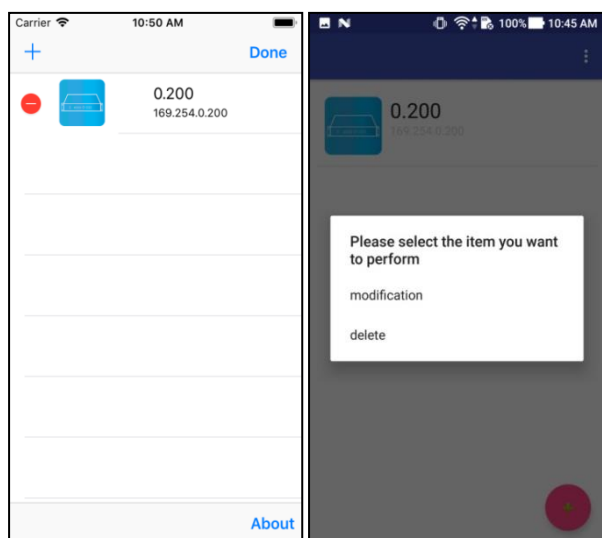
Enter the name then touch 「Save」

### Delete Device



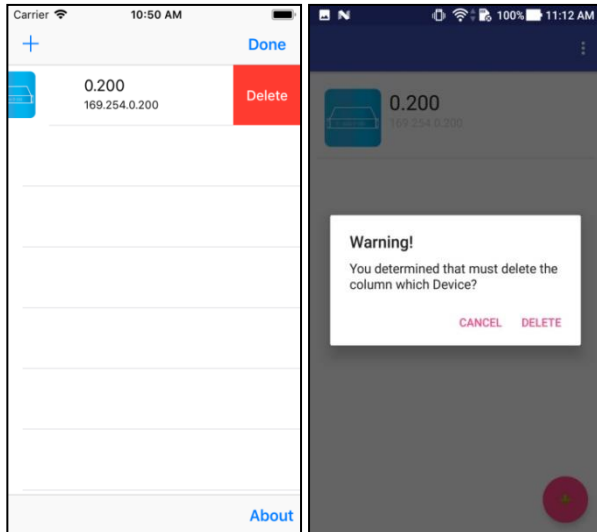
For iOS please touch top right 「Edit」

For Android please press the device in the list to pop up message "Please select the item you want to perform"



Touch  icon for iOS

Touch 「delete」 for android



Touch 「Delete」 to confirm

## Specification

ITEM NO.	HM44
Support	
Compliance	HDMI1.3, HDCP 1.4, DVI 1.0
Max. HDMI Resolution	1080p@60Hz
Audio Format	LPCM 7.1@192KHz, Dolby TrueHD, DTS-HD MA
RS232 Baud Rate	9600bps
IR Support	45°, 5M
Ports & Interfaces	
Video Input	4 x HDMI Type A
Video Output	4 x HDMI Type A
Ethernet Interface	1 x RJ45
RS232 Interface (Console)	1 x DB9 Female
Power	
Power Supply	DC 12V 4.16A
Power Consumption	2A (Max)
Ambient Temperature	
Operation	0 to 55°C
Storage	-20 to 85°C
Humidity	up to 95%
Physical Characteristics	
Dimensions	483 x 177 x 44mm
Weight	2300g