



HDMI Matrix Switcher

User Manual

Model : HE10M

4K 10 x 10 HDMI (HDBaseT)CAT5e Matrix Switcher



Introduction

HE10M is a 10 x 10 HDMI matrix switcher which provide superior resolution up to 4K@30Hz. Additionally, the matrix can not only route 10 sources to 10 displays but also extend HDMI and IR signal up to 100M over HDBaseT™ technology.

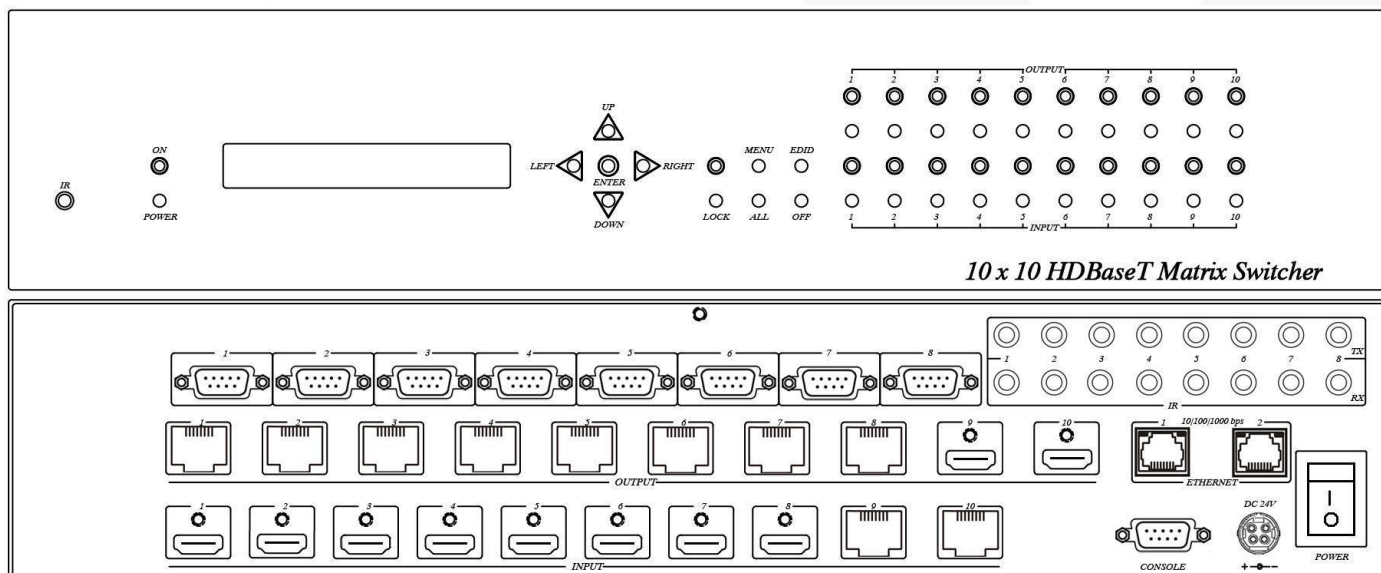
With HE10M, you're able to freely manage multiple HDMI sources and displays using mobile APP, Web GUI, IR remote, RS232 and front panel.

Features

- Resolution up to 4K@30Hz.
- Signal extension up to 100 meters over CAT5e/6.
- Built-in 2 HDMI local loop-out ports and 8 HDBaset RJ45 ports.
- Built-in 8 RS232 ports and 8 pairs of IR.
- Built-in 2 10/100/1000 Mbps Ethernet ports for network devices.
- Built-in LCM panel & LED indication.
- Managed via front panel, IR remote, RS232, Ethernet, and Android/ IOS App.

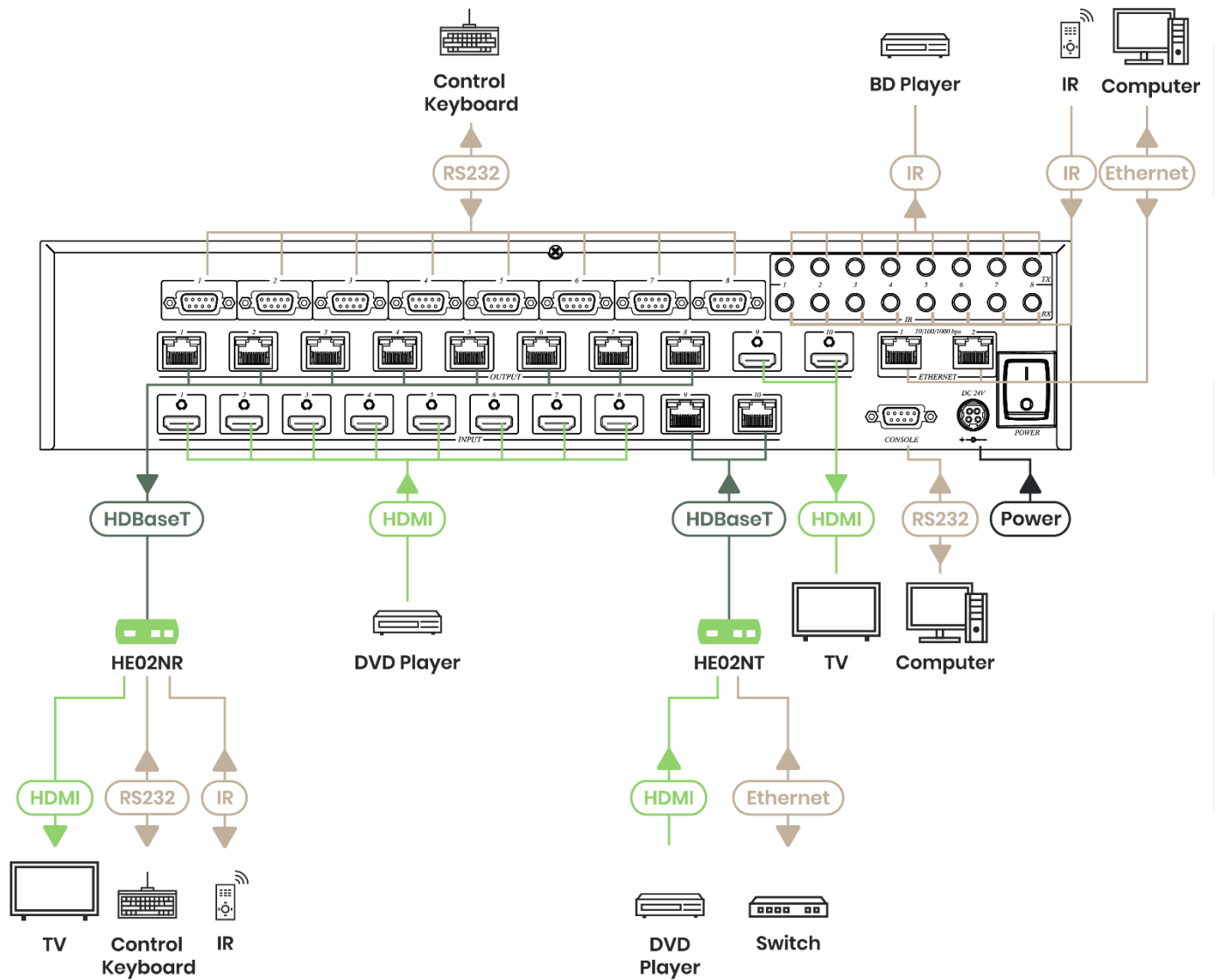
1. Panel View

HE10M



2. Connection View

HE10M



3. Keypad and LEDs

3.1 Back Panel Switch

POWER	I	Power on
	O	Power of

3.2 Back LED Indication

10M/100M/1G bps	Yellow	10M/100M bps link speed
	Green	1G bps link speed

3.3 Front LED Indication

ON	BLUE	Power on
	RED	Standby
	LED off	Power Off
INPUT 1~10	BLUE	Signal indication
	LED off	No signal
OUTPUT 1~10	BLUE	HDMI output indications
	LED off	Output unlink

3.4 Standby Mode

The IR Remote only could control POWER on/off.

3.5 Front Button Function

Power	Power on/standby
UP	Up
DOWN	Down
LEFT	Left
RIGHT	Right
ENTER	Select confirm key
MENU	Back to main menu
EDID	Copy EDID
LOCK	Button lock
ALL	Set selected input channel to all output
	When press ALL the second line of panel will show IN and flashing, select the input 1~10 then press ENTER
OFF	Turn off selected output, could be 1~10 or ALL
	When press OFF the second line of panel will show IN and flashing, select the input 1~10 or ALL then press ENTER
OUTPUT 1~10	Fast switch output
INPUT 1~10	Fast switch input

3.6 Panel Button Function

OUTPUT 1~10 & INPUT 1~10

Press OUTPUT 1~10 to select output port then the input at IN line of LCM will blink, press INPUT 1~10 to select input port to switch the channel

ALL

Press ALL button, the IN line of LCM will blink, press INPUT 1~10 to select input port to all output port.

OFF

Press OFF button, the IN line of LCM will blink, press ALL or OUTPUT 1~10 to select which port to turn off

EDID

Press EDID button, it will show "From OUTPUT" at second line of LCM and the channel number will blink, press OUTPUT 1~10 to select which port to copy EDID.

LOCK

Press LOCK till LOCK LED on then the panel button and IR remote control of MATRIX will be locked. Press LOCK till LOCK LED off to unlock.

*When the sub-menu setting changed, press the ENTER key to complete the setting. If no press ENTER key, then the setting will be failed.

37 LCM Panel Function

Power on Main Screen

When the power is on and the main screen appears

10X10 HDMI MATRIX

Channel Setting on Main Screen

The Matrix will jump to channel setting screen after 10 seconds, press the MENU key to enter the main

OUT	1	2	3	4	5	6	7	8	9	10
IN	1	2	3	4	5	6	7	8	9	10

Main Menu Option

- *1 - SWITCH
- 2 - SCENE
- 3 - ETHERNET
- 4 - EDID
- 5 - REMOTE ID

- 6 – VERSION
- 7 – RS-232 SETTING
- 8 – IR MODE SETTING
- 9 – IR TX SETTING
- 10 – IR RX SETTING
- 11 – HDBaseT IR ID



Operation

- Press UP or DOWN key to move * to select an item for setting and press ENTER key to enter into subpage.
- In MENU you could use key 1~11 of IR remote control to select the functions.
- When the selected sub-page setting is completed, press the MENU button to return to the main page.

4. LCM Main Menu Function Operations

4.1 Switch (Default: 1 2 3 4 5 6 7 8 9 10)

This function is used to switch the input/output port. Enter the SWITCH menu. Press the ENTER key, then the LCM second line INPUT will flash. Press LEFT or RIGHT button to select the output to be modified. Then press Up or Down button to select the input port. After that, press ENTER to confirm setting.

It also works with INPUT/OUTPUT button of panel or IR remote

OUT	1	2	3	4	5	6	7	8	9	10
IN	1	2	3	4	5	6	7	8	9	10

4.2 Scene

SCENE function provides 10 sets of channel setting to fast reload for different application.

LOAD
SAVE

LOAD

Reload saved scene, press UP or DOWN to select the number of setting ENTER to load.
At main screen you could use IR01 remote button A for quick load function, button 1~0 to select port number to load.

LOAD 1
1 2 3 4 5 6 7 8 9 10

SAVE

Save current channel setting, press UP or DOWN to select the number and ENTER to save.
At main screen you could use IR01 remote button B for quick save function, button 1~0 to select port number to save.

SAVE 1

4.3 Ethernet

- * IP Address
- Subnet Mask
- Gateway
- DHCP Client
- Media Type
- MAC Filter

IP Address (Default: 192.168.0.10)

IP Address 192.168. 0.10

This function can be setup MATRIX host intranet "IP Address", press the ENTER, the left-most number of second row will flash, then press the UP or DOWN button to change the numbers, , press LEFT or RIGHT to move to another location, the move to a position number will flash, press ENTER to complete the setting.

Subnet Mask (Default 255.255.255.0)

Subnet Mask 255.255.255.0

This function can be setup MATRIX host intranet "Subnet Mask", press the ENTER, the left-most number of second row will flash, then press the UP or DOWN button to change the numbers Press the ENTER, , press LEFT or RIGHT to move to another location, the move to a position number will flash, press ENTER to complete the setting.

Gateway (Default 192.168.0.1)

Gateway 192.168. 0. 1

This function can be setup MATRIX host intranet "Gateway", press the ENTER, the left-most number of second row will flash, then press the UP or DOWN button to change the numbers Press the ENTER, , press LEFT or RIGHT to move to another location, the move to a position number will flash, press ENTER to complete the setting.

DHCP Client (Default Disable)

DHCP Client Disable

When DHCP Clients setup at "Enable", the MATRIX host will automatically get IP Address, Subnet Mask, Gateway, if setup at "Disable", the MATRIX Host IP Address need go through "ETHERNET" menu to set IP Address, Subnet Mask, Gateway, to press the ENTER, the second row will flash, then press the UP or DOWN to select DISABLE, ENABLE, then press ENTER to complete the setting.

Media Type (Default AUTO)

Media Type
AUTO

This function can be setup MATRIX host intranet “Media Type, press the ENTER, the second row will flash, then press the UP or DOWN button to select AUTO 10MHalf 10MFull 10MHalf 10MFull, press ENTER to complete the setting.

MAC Filter (Default Disable)

MAC FILTER
DISABLE

MAC Filter can be setup with registered MAC Address in order to connect the MATRIX host Web UI, MAC Address required by the Web page to fill in, this function can only be setup at “DISABLE”, “ENABLE”, then to press the ENTER, the second row will flash, then press the UP or DOWN to select DISABLE, ENABLE, then press ENTER to complete the setting.

4.4 EDID (Default: 1080P LPCM-2CH)

Because the player output display resolution will be based on TV EDID, this Matrix provides four default EDID modes:” BUILD-IN MODE”, “COPY MODE”, “I. EDID MODE” and “PC EDID MODE”.

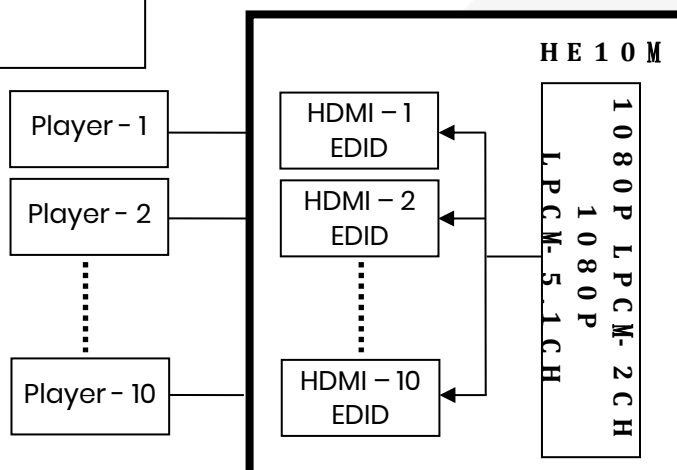
For 4K2K resolution you have to copy the EDID from your 4K2K monitor.

* BUILD-IN MODE
COPY MODE
I. EDID MODE
PC EDID MODE

4.4.1 BUILD-IN MODE

This mode supports video resolution 480p, 720p, 1080i / p at 24/50/60Hz, support 1080P LPCM two-channel audio and 5.1 channel. After enter BUILD-IN MODE menu, press UP or DOWN key to select 1080P LPCM-2CH or 1080P LPCM-5.1CH, then press ENTER to confirm setting.

1080P LPCM-2CH
1080P LPCM-5.1CH

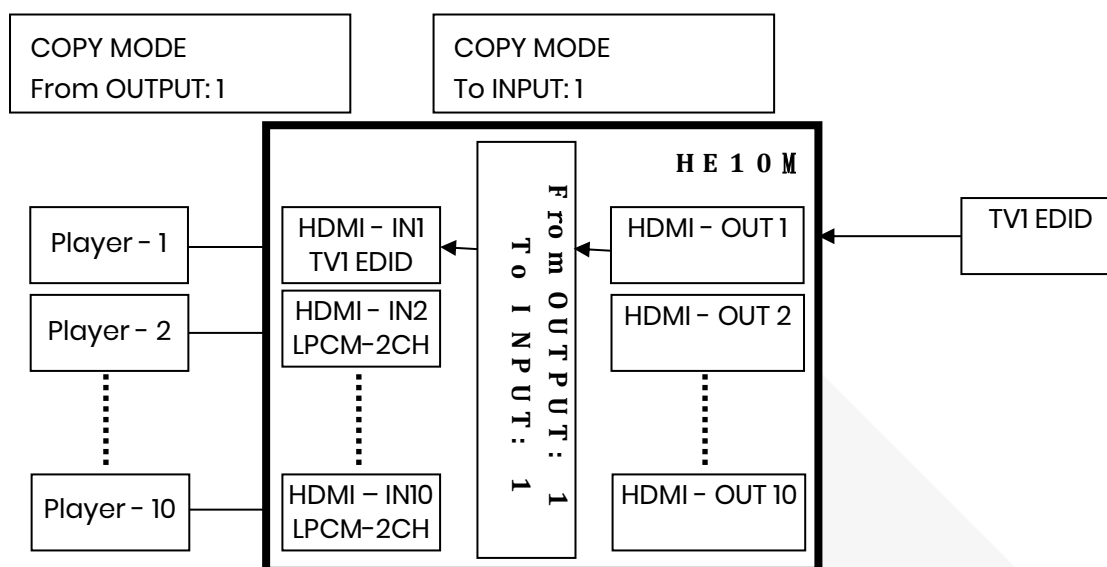


4.4.2 COPY MODE

To fully support the TV resolution and audio mode, the matrix provides “COPY MODE” to copy TV EDID for input source reference. When use the copy mode, recommend copying the lowest resolution TV EDID. Otherwise, it may cause no picture display if the TV resolution is not able to support higher resolution.

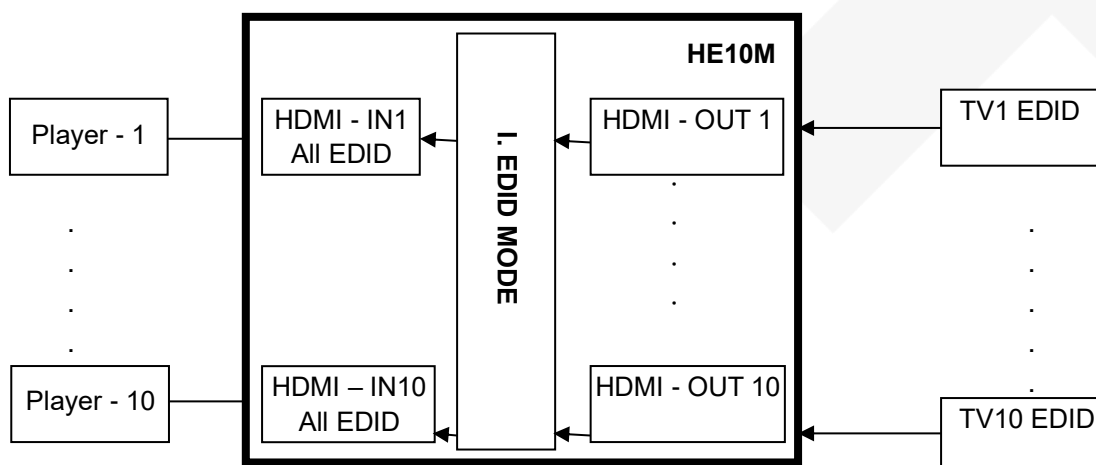
After entering COPY MODE menu, press UP or DOWN button to select the OUTPUT (1 to 10) and press ENTER, then press UP or DOWN button to select the INPUT (1 to 10 or ALL) and press ENTER to confirm.

Only connected output will be shown in OUTPUT list.



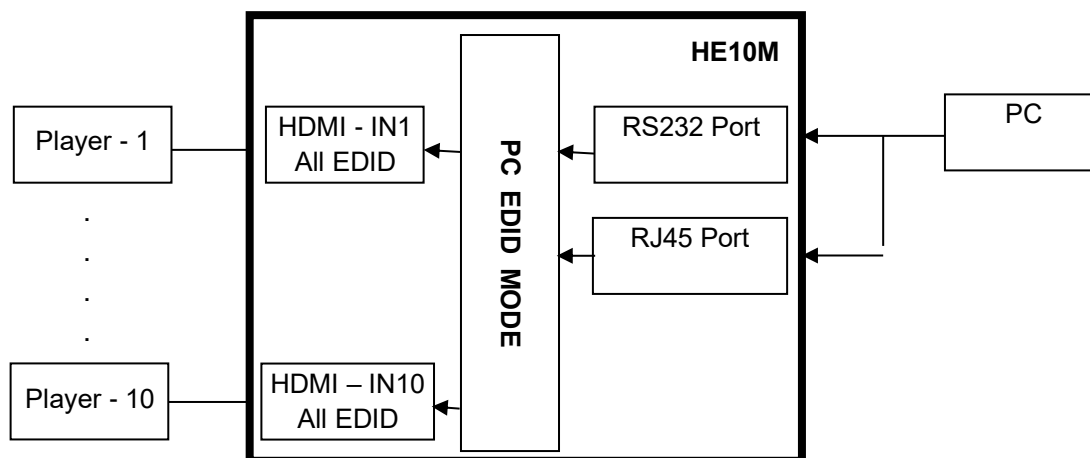
4.4.3 I. EDID MODE

In this mode, the MATRIX checks all the connected monitors and copies the EDID of the monitor that presents the lowest resolution. This EDID is then transmitted to all sources. E.g., if there is a monitor 1080p and a monitor 720p, the matrix transmits to the sources the EDID of the 720p monitor.



4.4.4 PC EDID MODE

In this mode you could upload EDID file from RS232 or RJ45 port of PC to MATRIX, please refer user manual of EDID Loader



4.5 Remote ID (Default IR ID: 4)

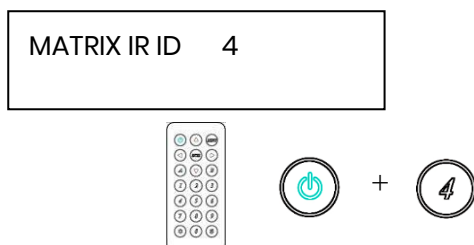
This function must be set to match the Matrix remote control IR01 with the matrix itself. A conflict with other devices remote control is avoided.

After entering MATRIX IR ID menu, press ENTER, the LCM LINE 1 number will flash. Then Press UP or DOWN button to select the number, and then press ENTER to confirm.

When finish MATRIX IR ID setting, MATRIX remote control IR01 must also set the same ID in order to operation in normal.

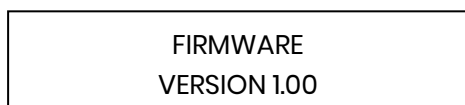
Remote IR ID setting mode: Press and hold the POWER button, then press the number button which can be set from 0 to 9, total 10 groups. (See 5.1)

These settings on IR01 remote control have to be done the first time you use the IR01 or when you change the batteries.



4.6 Version

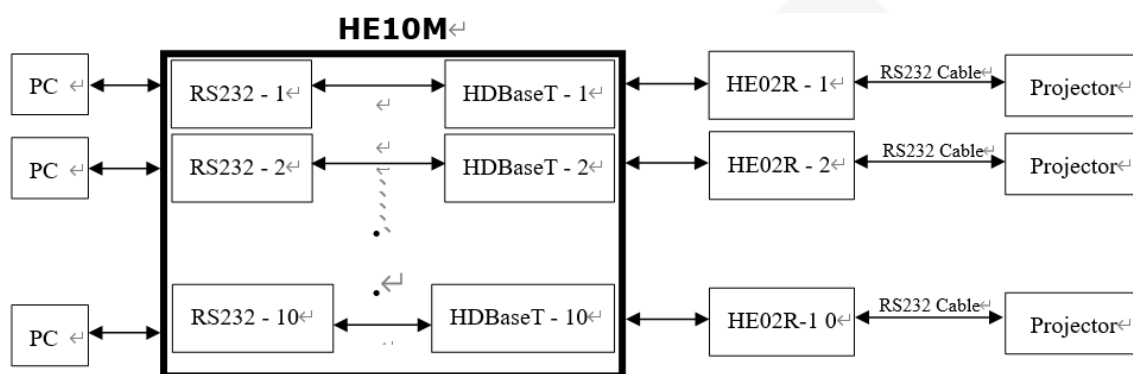
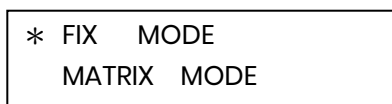
Display Matrix firmware version



4.7 RS-232 Setting (Default: FIX MODE)

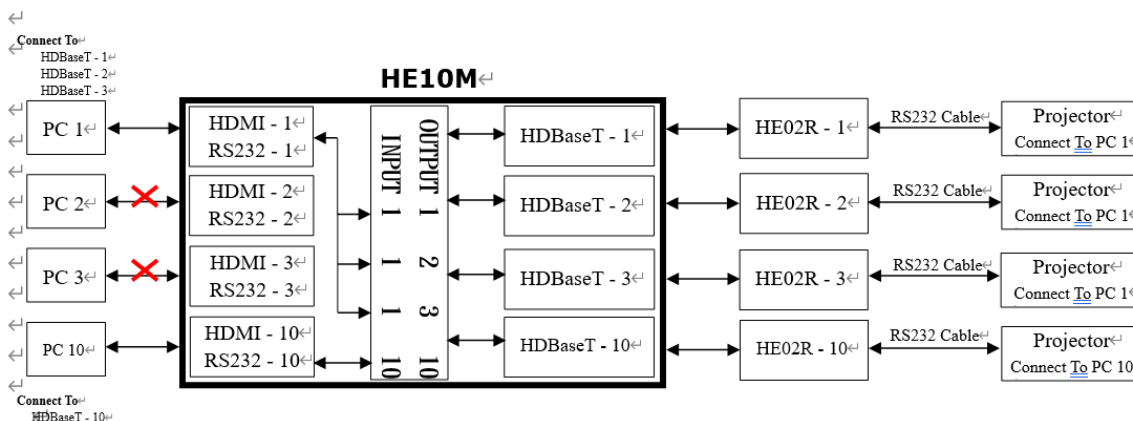
HDBaseT RS-232 extender function works in two mode. Enter RS-232 SETTING MENU, press ENTER. The * will flash, then press UP or DOWN button to select FIX MODE or MATRIX MODE. Press ENTER key to confirm setting.

- FIX MODE is one to one transmission, RS-232 port 1 only work with HDBaseT port 1, RS-232 port 2 only work with HDBaseT port 2, and so on...



RS-232 Setting: FIX MODE

- RS-232 MATRIX MODE is based on the Status of the Matrix. The RS-232 transmission will follow the HDMI switching. In the example below, RS-232 port 1 work with HDBaseT port 1, 2 and 3. RS-232 port 10 works with HDBaseT port 10

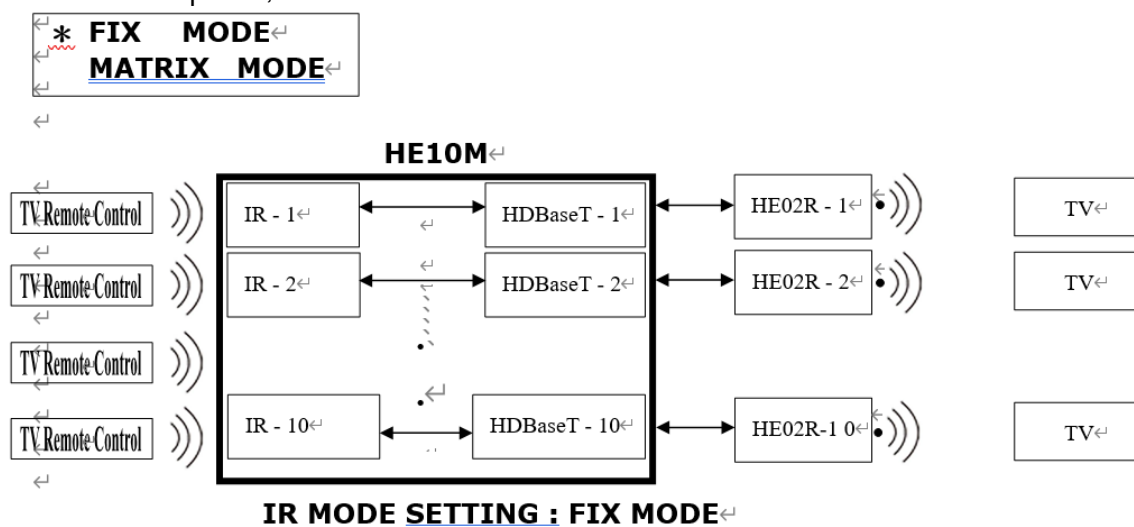


RS-232 SETTING : MATRIX MODE

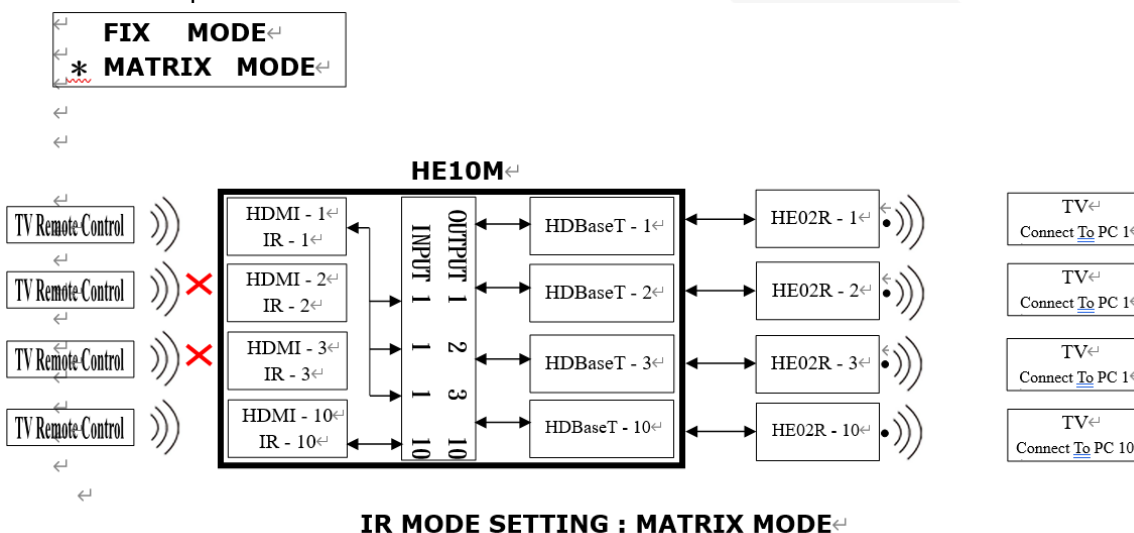
4.8 IR Mode Setting (Default: FIX MODE)

HDBaseT IR extender function works in two mode. Enter IR MODE SETTING MENU, press ENTER. The * will flash, then press UP or DOWN button to select FIX MODE or MATRIX MODE. Press ENTER key to confirm setting.

- FIX MODE is one to one transmission, IR port 1 only work with HDBaseT port 1, IR port 2 only work with HDBaseT port 2, and so on...



- IR MATRIX MODE is based on the Status of the Matrix. The IR transmission will follow the HDMI switching. In the example below, IR port 1 work with HDBaseT port 1, 2 and 3. IR port 10 works with HDBaseT port 10



4.9 IR TX SETTING (From matrix to remote locations) (Default IR TX: 0 0 0 0 0 0 0 0)

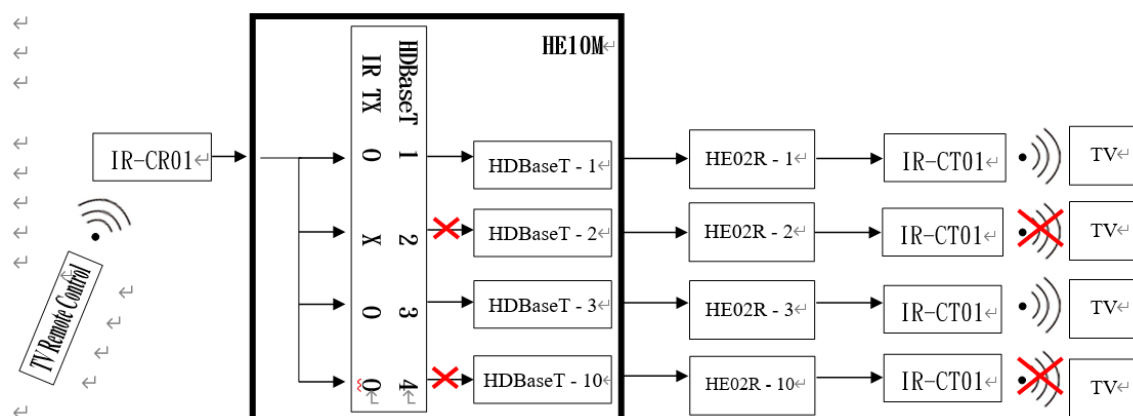
This function setup the IR signal whether from MATRIX, by IR Rx input jack, is sent to HDBaseT ports. Setting 0 the transmission is enabled, setting X transmission is off.

This is the typical application when the user wants to control from the matrix side the remote destination like a TV.

After entering IR TX menu, press ENTER. Then LCM second line of text will flash. Press RIGHT or LEFT button to select the IR TX output to be modified press UP or DOWN button to select O or X. Then press ENTER to confirm setting.

HDBaseT	1	2	3	4	5	6	7	8
IR TX	0	X	0	0	0	0	0	0

O : on X : off



4.10 IR RX Setting (From remote locations to matrix) (Default IR RX: O O O O O O O O)

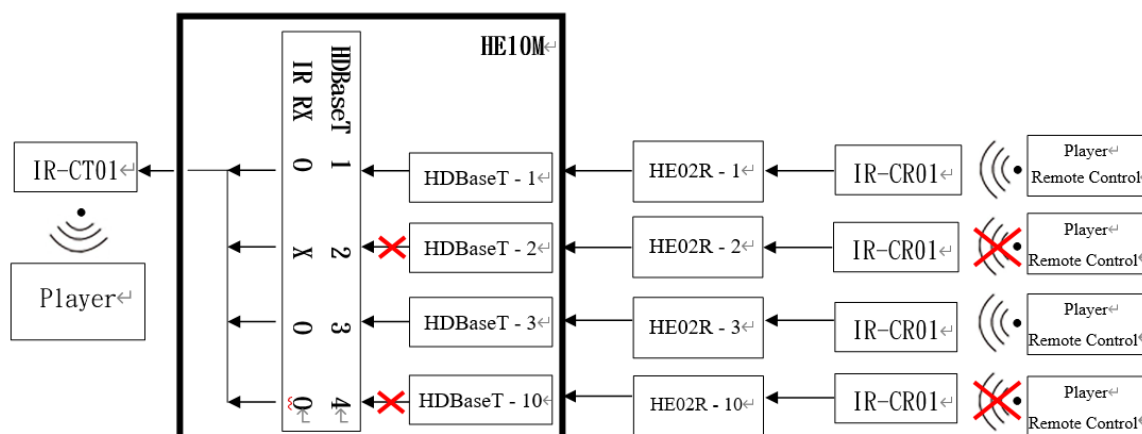
This function setup the IR signal whether from HDBaseT location is sent to MATRIX to control local device through the IR Tx output jack. Setting O the transmission is enabled, setting X transmission is off.

This is a typical application when the user wants to control from the remote location a source like a DVD player.

After entering IR RX SETTING menu, press ENTER. Then LCM second line of text will flash. Press RIGHT or LEFT button to select the IR RX input to be modified. Press UP or DOWN button to select O or X. Then press ENTER to confirm setting.

HDBaseT	1	2	3	4	5	6	7	8
IR RX	O	X	O	O	O	O	O	O

O : on X : off



4.11 HDBaseT IR ID (Default IR ID: 5 5 5 5 5 5 5 5)

HDBaseT	1	2	3	4	5	6	7	8
IR ID	5	5	5	5	5	5	5	5

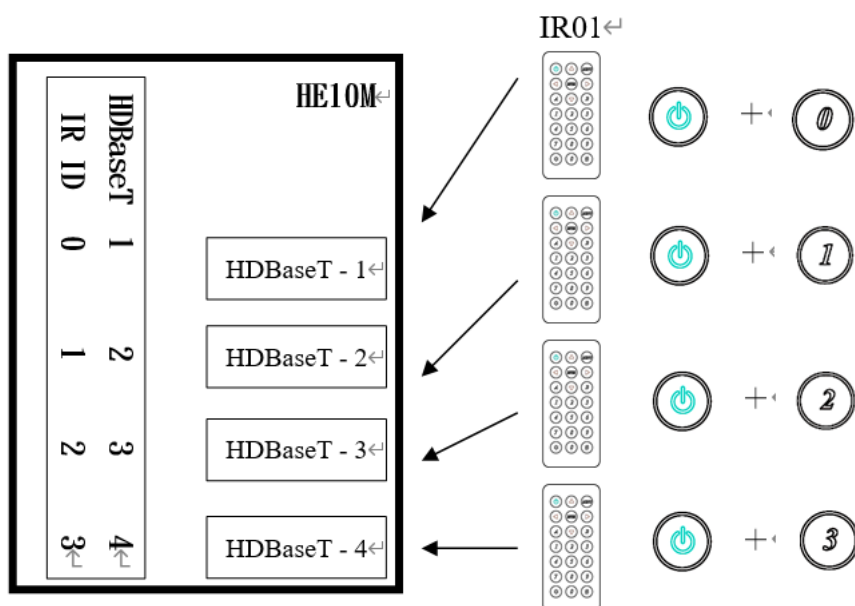
This function must be set to have different ID in order to avoid HDBaseT remote control IR01 conflicts with other devices remote control.

After entering HDBaseT IR ID menu, press ENTER. Then LCM second line of text will flash. Press RIGHT or LEFT button to select the IR ID input to be modified. Press UP or DOWN button to select the ID. Then press ENTER to confirm setting.

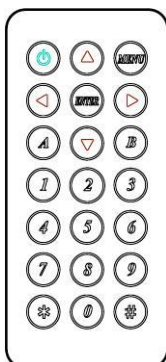
When you finish the HDBaseT IR ID setting, the HDBaseT remote controls IR01 must also be set with the same ID in order to perform the right operations. (See 5.2)

Remote IR ID setting mode: Press and hold the POWER button, then press the number button which can be set from 0 to 9, total 10 groups. (See 5.2)

These settings on IR01 remote control have to be done the first time you use the IR01 or when you change the batteries.



5. Remote Control Function (IR01)



To command the matrix locally, setup the remote control IR01 ID with the same code of the Matrix (see 4.2). The default code is 4. (Power+4)















Warning






These settings have to be done the first time you use the IR01 or when you change the batteries.

IR ID setup

Press and hold POWER button, then press Number key.

Remote control button define

[Symbol]	[Local Side]	[Remote Side]
 Power	On/Standby(same as Matrix)	Turn off output
 LEFT	Left (same as Matrix)	No function
 RIGHT	Right (same as Matrix)	No function
 UP	Up (same as Matrix)	No function
 DOWN	Down (same as Matrix)	No function
 ENTER	Confirm (same as Matrix)	No function
 MENU	Menu (same as Matrix)	No function
 1	Quick key 1	Select input 1
 2	Quick key 2	Select input 2
 3	Quick key 3	Select input 3
 4	Quick key 4	Select input 4
 5	Quick key 5	Select input 5
 6	Quick key 6	Select input 6
 7	Quick key 7	Select input 7


	Quick key 8	Select input 8
	Quick key 9	Select input 9
	Quick key 10	Select input 10
	EDID (same as Matrix)	No function
	OFF (same as Matrix)	No function

Local side (HE10M Matrix) remote control quick key operation

For example: to connect output port 1 to input port 4, press the quick key 1 (OUTPUT 1) and then press the quick key 4 (INPUT 4).

**IR remote can only power on the matrix at standby mode.*

Remote side (HDBaseT) remote control quick key operation

Press 1 to 0 to select the source input, press  to turn off the output.

6. Remote Control Function

HE10M support RS232 and TCP/IP control by same command as below:

6.1 RS232 Console

Connect the RS232 CONSOLE port to the COM port of the host by an F/M 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)



For Ethernet TCP/IP (Winsock), default IP address is 192.168.0.200, Port: 47011.



6.2 Operation Instruction format

Command + Δ(Space) + Parameter + Enter

[Command]	[Description]
POWERΔ[y]	Power on/off
TX[n]Δ[n]	Set RXn to TXn
RX[n]Δ[m,m,m,m...]	Set RXn to multiple TXm,m,m,m...
RS232Δ[a]	Set RS232 fix or matrix mode
IR_TXΔ[b]	Set TX IR on/off
IR_RXΔ[b]	Set RX IR on/off
HDBASET_IDΔ[p,p,p,p]	Set HDBaseT IR ID
MATRIX_IDΔ[p]	Set Matrix IR ID
EDID_COPYΔ[n]	Copy EDID from TX n
SAVEΔ[n]	Save setting to #n
LOADΔ[n]	Load setting from #n
KEYΔ[y]	Panel button& IR remote control Lock/Unlock
DHCPΔ[y]	DHCP client on/off
IP_ADDRESSΔ[x.x.x.x]	Set Matrix IP address
SUBNET_MASKΔ[x.x.x.x]	Set Matrix subnet mask
GATEWAYΔ[x.x.x.x]	Set Matrix gateway
MEDIA_TYPEΔ[z]	Network speed select
MAC_FILTERΔ[y]	Mac filter on/off
STATUS	Show connection status

VERSION	Show firmware version
HELP	Help

[Symbol]	[Parameter]
m	01~10, ff=ALL
n	00=off, 01~10=1~10
a	FIX MATRIX
b	0 or X 0 or X 0 or X 0 or X (0 = on X = off)
p	00~09=0~9
x	0~255
y	00=off, 01=on
z	00=auto, 01=10M, 02=100M, 03=10M Full, 04=10M Half

Example

- To route input 4 to output 1, send the following string.
TX01Δ04Enter
- To route input 2 to all output, send the following string.
RX02ΔffEnter
- To route input 2 to output 1,2,4, send the following string.
RX02Δ01,02,04Enter
- To put in standby the matrix, send the following string.
POWERΔ00Enter

Commands are **case insensitive**.

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

7. HDBaseT IR Function

Use IR01 (remote control) to control the Matrix input port switching from receiver side. (Work with IR-CR01 IR receiver cable). See chap. 4.5

Using remote control of source device or TV to control source device or TV. (Work with IR-CT01 IR emitter cable, IR-CR01 IR receiver cable).

HDBaseT Linking Cable

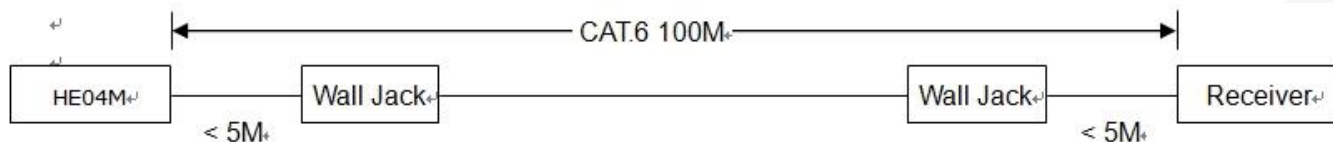
Recommend to use high quality Cat.5e Cat.6 Cat.6a UTP / STP or FTP cable.
AWG24 or AWG23 solid type is recommended.

HDBaseT Transmission Distance

Transmission distances up to 100 meters with AWG24 cable. Using a lower resolution won't extend to longer distance.

If the CAT5e/6 cable connections go through wall socket from the wall outlet to HE02R receiver, the cable length must less 5 meters between HE02R receiver and wall socket.

The wiring diagram as below



8. HDBaseT RJ45 Pin Define

Video Link (TIA/EIA-568-B)

1. Orange-white	DATA0 +
2. Orange	DATA0 -
3. Green-white	DATA1 +
4. Blue	DATA2 +
5. Blue-white	DATA2 -
6. Green	DATA1 -
7. Brown-white	DATA3 +
8. Brown	DATA3 -

Caution

1. First time to use HE04M remote control or change new batteries must set up IR ID.
2. The wiring must away from any equipment with electromagnetic wave, i.e.: microwave, mobile phone, radio equipment, high voltage, Fluorescent light fixtures, power lines, etc.
3. HDBaseT not regular network device, do not connect with any networking equipment to avoid damage.
4. IP Address, Subnet Mask, Gateway, DHCP Client, Media Type, MAC Filter setting made by HE04M ETHERNET MENU.
5. HDBaseT IR operation: Do not make IR emitter and receiver cable too close, to avoid interference and caused wrong operation.
6. HDBaseT RS232 under distribution mode: it not able to send two devices simultaneously.

9. Web Control Function

Initial IP Configuration

1. Setup MATRIX IP Address same as your PC with same domains. (Default 192.168.0.200)
2. MATRIX IP Address method, please refer to "ETHERNET" Chapter.
3. Input IP Address on a web page, you could link to the Web UI of the MATRIX host.
4. Web UI Operation

Switch Setting

- Power: Control MATRIX power on and standby.
- Output: Display output 1~10, it can change the display name by the Aliases page.
- Input: Display input 1~10, this field is a drop-down menu, this field is a drop-down menu which includes Input 1 ~ 10 and OFF. It can change the display name by the Aliases page.
- Reload: Get MATRIX host message.
- Advanced: Enter into the “Advanced” page.
- Apply: Complete the setting.
- All Port: Set all output from input 1~10 or off at once.

Advanced

MATRIX

Advanced

IP address	192.168.0.217
Subnet mask	255.255.255.0
Gateway IP	192.168.0.9
Media Type	Auto detect ▾
DHCP Client	Enable ▾
Auto Reset (No data input)	2 (1 ~ 255 Minute)
Device Name	MATRIX-01

MAC address OnLine

Scene
MAC Filter
Aliases
Back
Apply

- IP address: Change IP address
- Subnet mask: Change Subnet mask
- Gateway IP: Change Gateway IP
- Media Type: Change 10 / 100 / Auto detect
- DHCP Client: When setup at Enable, the MATRIX host will automatic get IP Address, Subnet Mask, Gateway, If setup at Disable, the MATRIX host IP Address, Subnet Mask, Gateway need to set from Advanced page.
- Auto Reset: The terminal connection people will be 4 users on line at same time, this function could setup the linking time to avoid long time linking and other user cannot use. When over the setting link time, the terminal will automatically disconnect the link. (0: no time setup, 1 ~ 255 Minute time range that can be setup)
- Scene: Click to enter Scene setup page
- MAC Filter: Enter to MAC Filter to setup page
- Aliases: Enter to Aliases to setup page
- Device Name: Can change device name
- Back: Jump back SWITCH SETTING page
- Online: Terminal connection users display, the max. 4 users on line.

Aliases

Output		Input	
Output 1	Output 1	Input 1	Input 1
Output 2	Output 2	Input 2	Input 2
Output 3	Output 3	Input 3	Input 3
Output 4	Output 4	Input 4	Input 4
Output 5	Output 5	Input 5	Input 5
Output 6	Output 6	Input 6	Input 6
Output 7	Output 7	Input 7	Input 7
Output 8	Output 8	Input 8	Input 8
Output 9	Output 9	Input 9	Input 9
Output 10	Output 10	Input 10	Input 10

Back Apply

- Aliases page can change input/output name, enter Apply to finish the setting after change The new name will update and correspond to SWITCH SETTING page Output / Input.
- Press Back jump back to advanced page.

MAC Filter

MAC Filter	Enable
MAC address 1	11-22-33-44-55-66
MAC address 2	00-00-00-00-00-00
MAC address 3	00-00-00-00-00-00
MAC address 4	00-00-00-00-00-00
MAC address 5	00-00-00-00-00-00
MAC address 6	00-00-00-00-00-00
MAC address 7	00-00-00-00-00-00
MAC address 8	00-00-00-00-00-00
MAC address 9	00-00-00-00-00-00
MAC address 10	00-00-00-00-00-00

Back Apply

- MAC Filter can be setup as registered MAC Address to link MATRIX host Web UI, the max. up to 10 groups MAC Address
- After MAC Address fill in, select Enable and press Apply to complete the setting.
- Press Back jump to advanced page.

Scene

MATRIX

Scene

Save	Load	1 2 3 4 5 6 7 8 9 10
Save1	Load1	01_02_03_04_05_06_07_08_09_10
Save2	Load2	01_02_03_04_05_06_07_08_09_10
Save3	Load3	01_02_03_04_05_06_07_08_09_10
Save4	Load4	01_02_03_04_05_06_07_08_09_10
Save5	Load5	01_02_03_04_05_06_07_08_09_10
Save6	Load6	01_02_03_04_05_06_07_08_09_10
Save7	Load7	01_02_03_04_05_06_07_08_09_10
Save8	Load8	01_02_03_04_05_06_07_08_09_10
Save9	Load9	01_02_03_04_05_06_07_08_09_10
Save10	Load10	01_02_03_04_05_06_07_08_09_10

Back
Update

- Save: Save 10 set of channel settings.
- Load: Reload 1 of the channel settings.
- Update: Refresh the status of Load.
- Back: Back to Advanced page.

10. Android APP Function

APP name: Matrix Controller



System Requirement

Android 4.0 and up

Size: 1.2M

Language: English, Traditional Chinese, Simplified Chinese

Google Play Download Link

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

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 of 10 by 10 matrix is 192.168.0.10

Default IP address of 4 by 4 matrix is 192.168.0.200

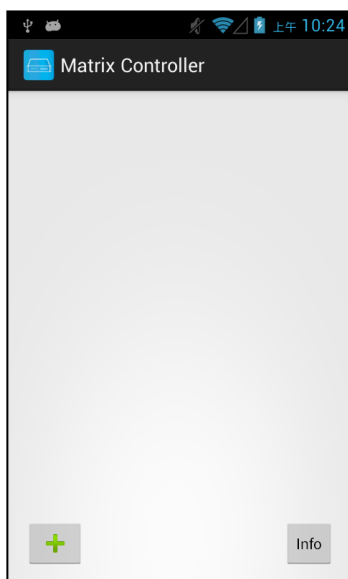
Default subnet mask is 255.255.255.0

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 [ETHERNET] 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

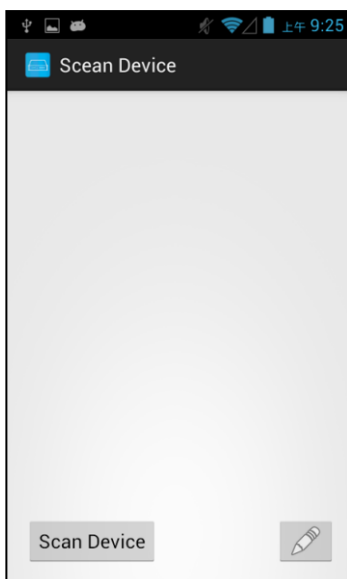


When first time enter the APP will see the main page

Bottom left 「+」 to add matrix

Bottom right 「Info」 to show information

Scan Device



Touch「+」button at main screen to enter「Scan Device」page

Touch bottom left「Scan Device」to start scan
Touch bottom right pen icon to input the IP address manually

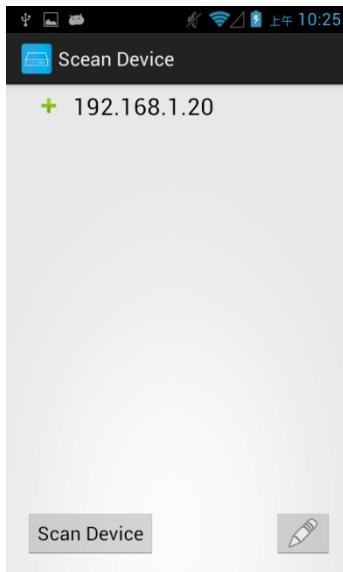
Add Matrix



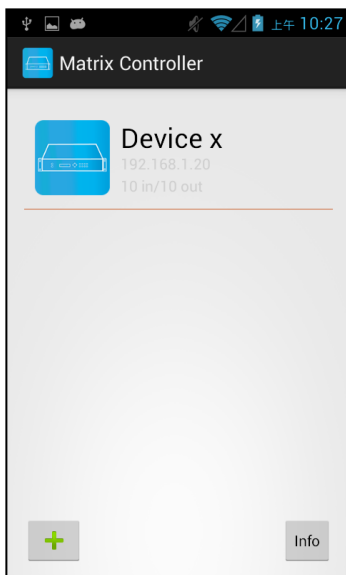
After scanning it will show all matrixes in the list
Touch the IP in list to enter「Add Device」page



Enter the name of matrix then touch「Add Device」to finish setting
Notice: Name should be unique, not allow duplicate.

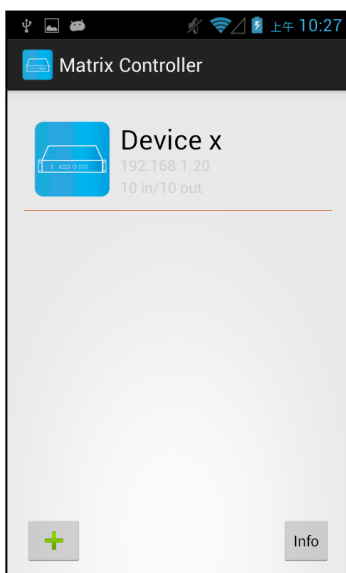


It will show「+」icon in front of the IP address when finished

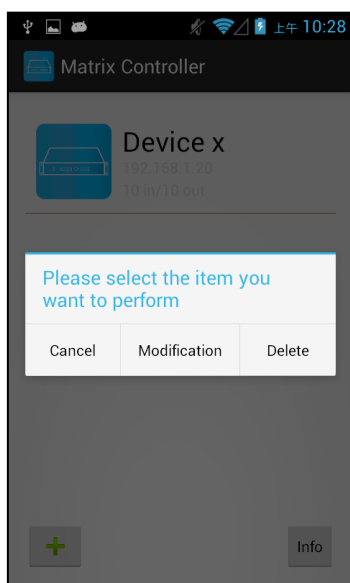


Return to main screen you will see the matrix which just add

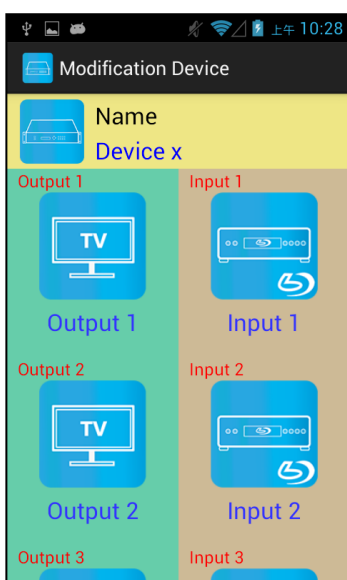
Modify Device



Press the matrix name to show pop-up dialog



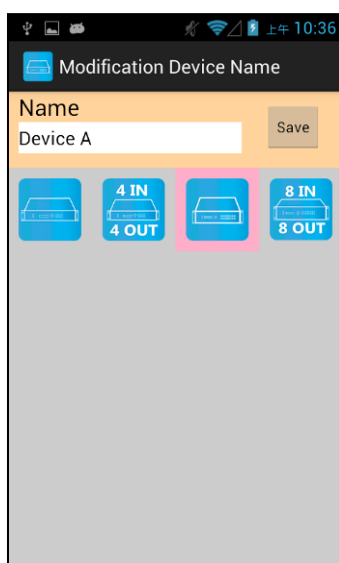
Touch「Modification」to enter modification page.



Yellow block shows matrix name and icon

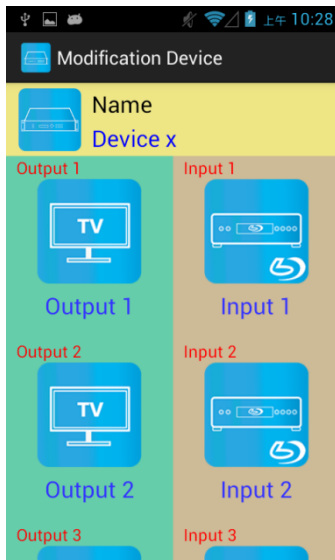
Green block shows name and icon of output devices

Brown block shows name and icon of input devices

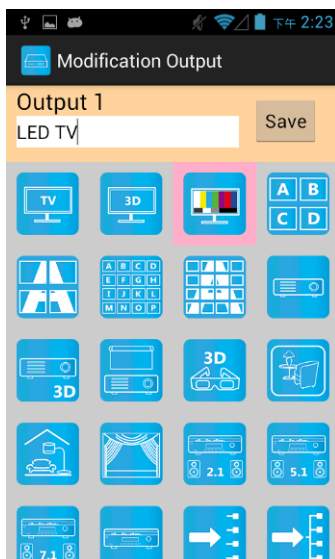


Touch yellow block to modify matrix name and icon

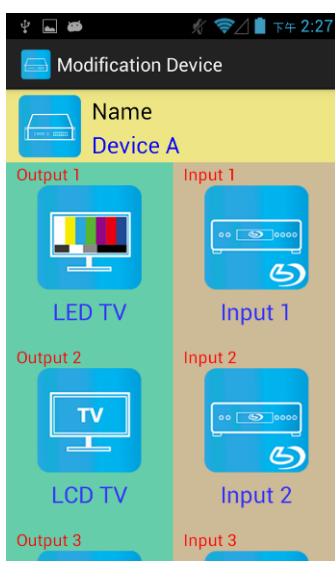
Input the name and select the icon you prefer then touch「Save」to finish



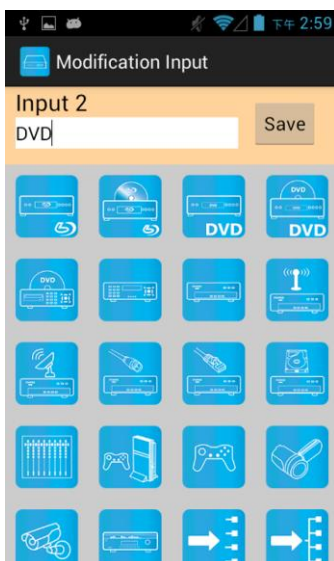
Return to Modification page you will see the matrix have been changed



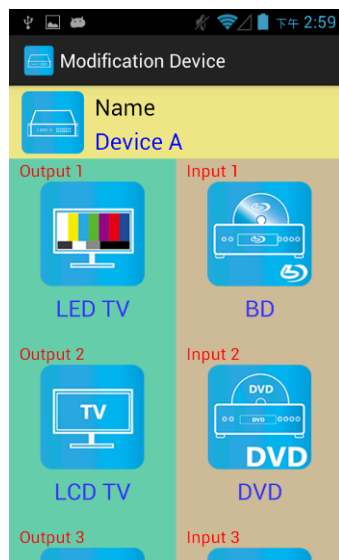
Touch green block to modify output name and icon
Input the name and select the icon you prefer then touch 「Save」to finish



Return to Modification page you will see the output have been changed

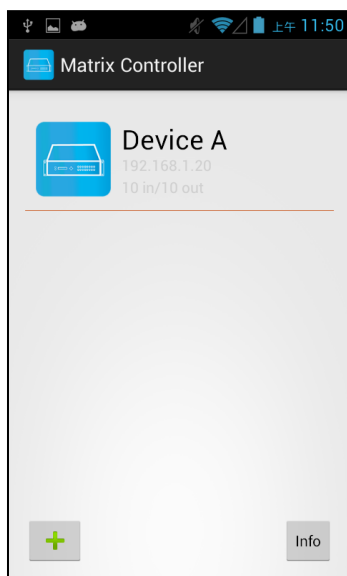


Touch brown block to modify input name and icon
Input the name and select the icon you prefer then touch「Save」to finish



Return to Modification page you will see the input have been changed

Output Channel Switching



Left: icon for matrix
Center upper big font for matrix name,
Center middle small font for matrix IP
Center lower small font for matrix type (4 by 4 or 10 by 10)

Notice: if shows「 Specify the host does not exist」 means the matrix not exist.

Touch the block of matrix to enter Controller page



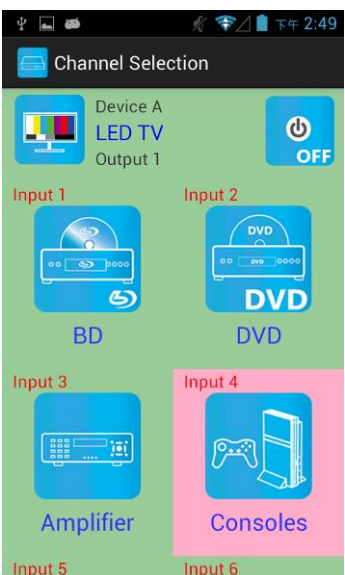
Top right 「Refresh」 to renew the status of matrix
Below 「Refresh」 button to power on/off the matrix

The block under device are Output 1~ Output 10
(4 by 4 matrix only shows Output 1~Output 4)
Left side shows output device name
Right sideshows current input device name

Bottom left 「Save Scene」 to save the scenes
Bottom right 「Load Scene」 to load the scenes



Touch output block to enter Channel Selection page

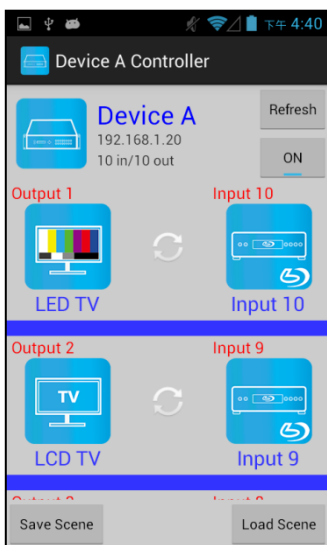


Touch input device to switch or ON/OFF icon to power on/off



It will return to Controller page after switching and refresh the status of channel

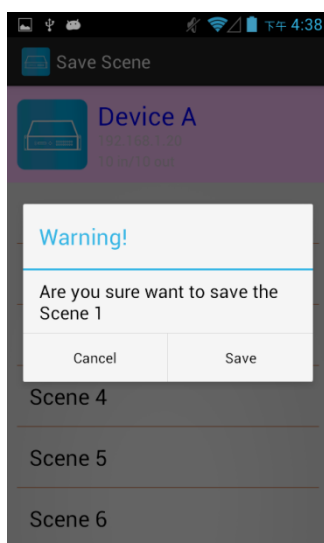
Save Scene



In Controller page touch bottom left 「 Save Scene 」 to enter Save Scene page



Touch the Scene column to show pop-up dialog



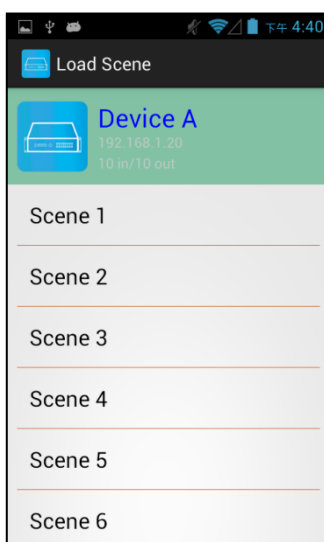
Touch 「Save」 to save current channels setting for all output
It will return to Save Scene page automatically.

Notice: if it shows "Please update device firmware" means your matrix do not support this function, please upgrade your firmware to enable this function.

Load Scene

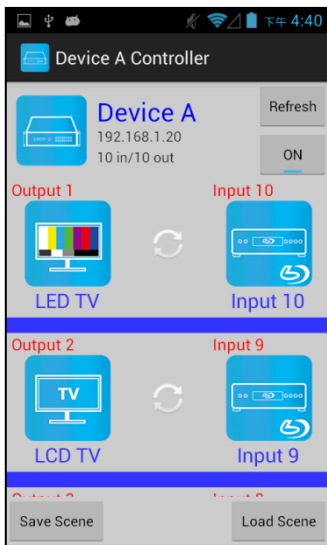


In Controller page touch bottom right 「Load Scene」 to enter Load Scene page



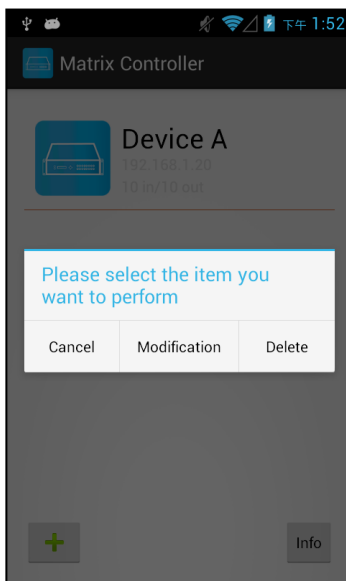
Touch scene column to load saved channels setting for all output
It will return to Load Scene page automatically. (Default is Output 1 to Input 1,
Output 2 to Input 2 and so on...)

Notice: if it shows "Please update device firmware" means your matrix do not support this function, please upgrade your firmware to enable this function.

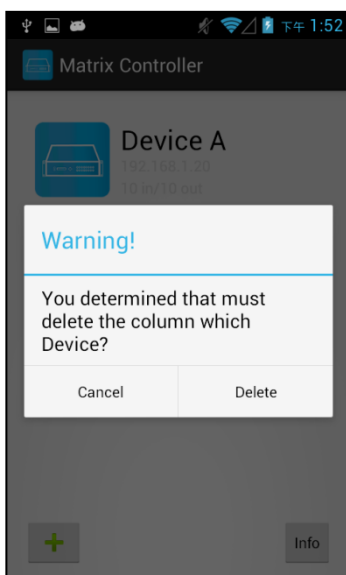


It will return to Controller page after switching and refresh the status of channel

Delete Matrix



Press the block of matrix in Controller page to show pop-up dialog then touch 「Delete」



Touch 「Delete」 to delete the matrix

11. iOS APP Function:

iTunes Download Link

<https://itunes.apple.com/us/app/matrix-control/id904487754?l=zh&ls=1&mt=8>

iTunes 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 of 10 by 10 matrix is 192.168.0.10

Default IP address of 4 by 4 matrix is 192.168.0.200

Default subnet mask is 255.255.0.0

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 [ETHERNET] 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

Top left 「+」 to add matrix

Top right 「Edit」 to enter delete mode

Bottom right 「Info」 to show information

Scan Matrix



Touch 「+」 button at main screen to enter 「Scan Device」 page

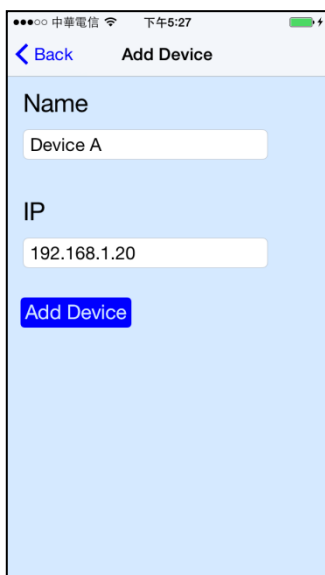
Touch bottom left 「Scan Device」 to start scan

Touch bottom right pen icon to input the IP address manually

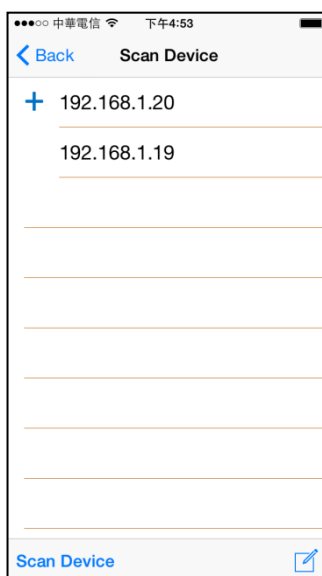
Add Matrix



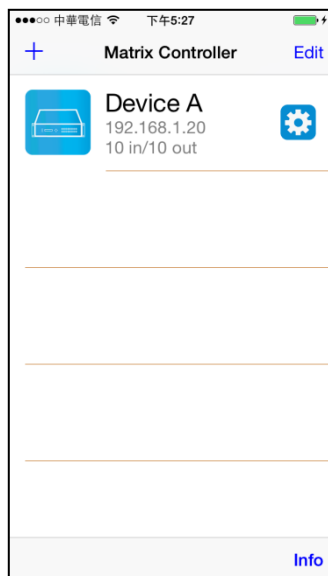
After scanning it will show all matrixes in the list
Touch the IP in list to enter 「Add Device」 page



Enter the name of matrix then touch 「Add Device」 to finish setting
Notice: Name should be unique, not allow duplicate.

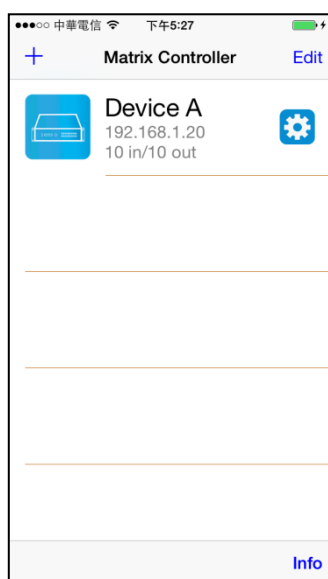


It will show 「+」 icon in front of the IP address when finished

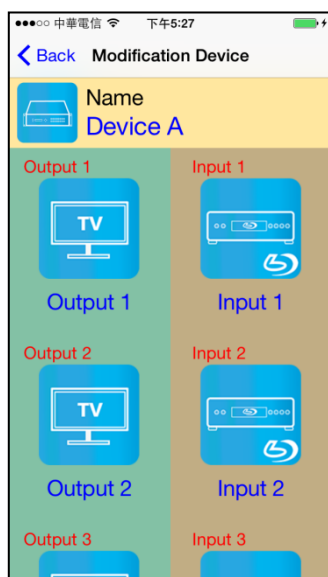


Return to main screen you will see the matrix which just add

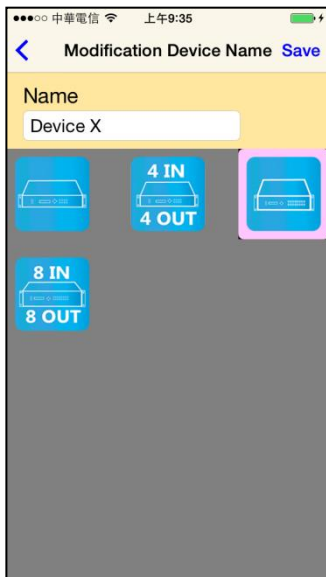
Modify Device



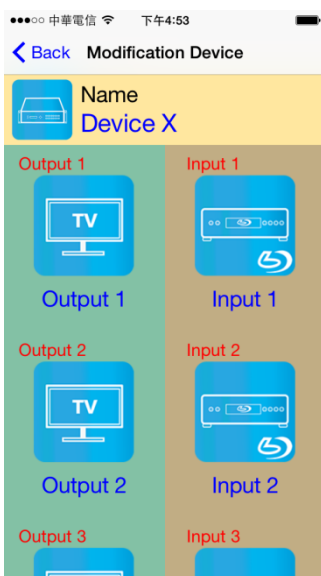
Touch the gear icon to enter Modification page



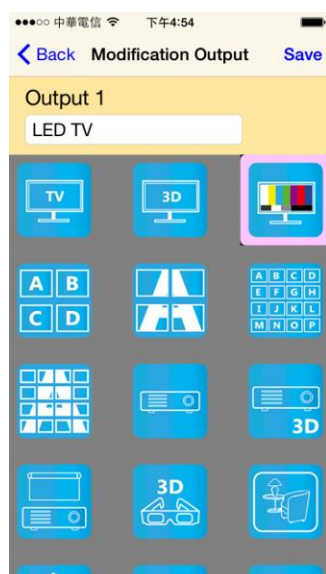
Yellow block shows matrix name and icon
Green block shows name and icon of output devices
Brown block shows name and icon of input devices



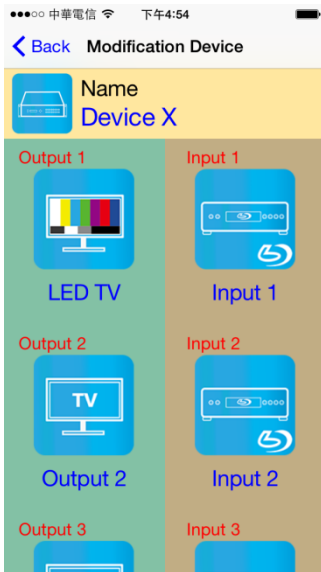
Touch yellow block to modify matrix name and icon
Input the name and select the icon you prefer then touch 「Save」 to finish



Return to Modification page you will see the matrix have been changed



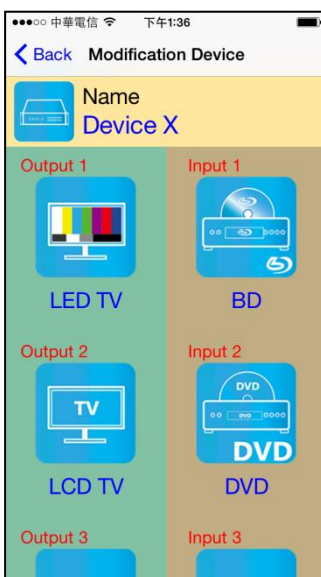
Touch green block to modify output name and icon
Input the name and select the icon you prefer then touch 「Save」 to finish



Return to Modification page you will see the output have been changed

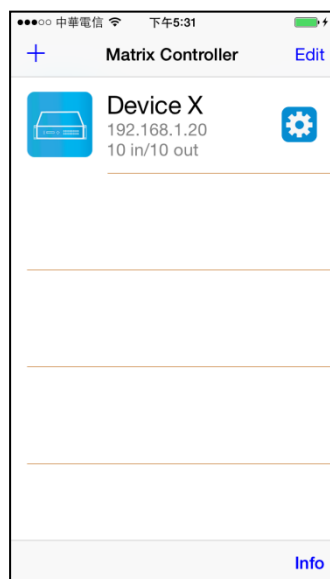


Touch brown block to modify input name and icon
Input the name and select the icon you prefer then touch 「Save」 to finish



Return to Modification page you will see the input have been changed

Output Channel Switching



Left: icon for matrix

Center upper big font for matrix name,

Center middle small font for matrix IP

Center lower small font for matrix type (4 by 4 or 10 by 10)

Right gear icon: enter Modification page

Notice: if shows 「Specify the host does not exist」 means the matrix not exist.

Touch the block of matrix to enter Controller page



Top right 「Refresh」 to renew the status of matrix

Below 「Refresh」 button to power on/off the matrix

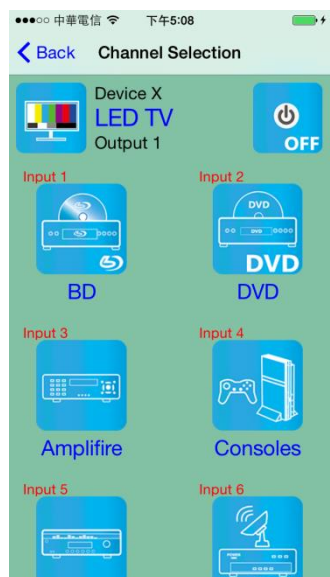
The block under device are Output 1~ Output 10
(4 by 4 matrix only shows Output 1~Output 4)

Left side shows output device name

Right side shows current input device name

Bottom left 「Save Scene」 to save the scenes

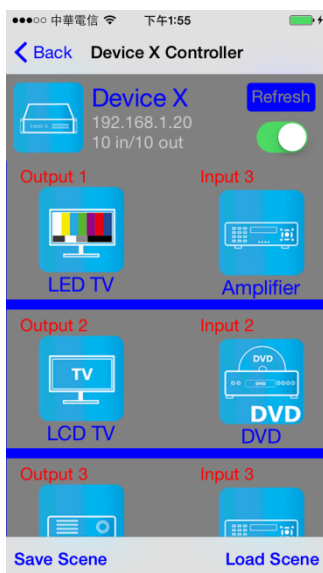
Bottom right 「Load Scene」 to load the scenes



Touch output block to enter Channel Selection page

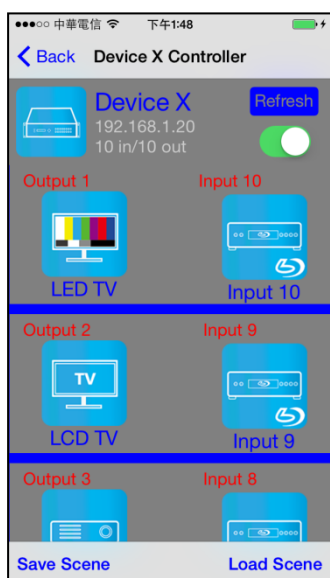


Touch input device to switch or ON/OFF icon to power on/off

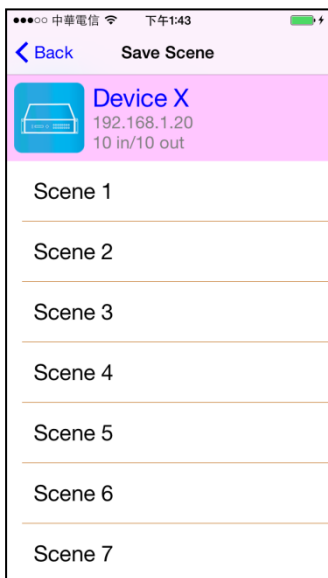


It will return to Controller page after switching and refresh the status of channel

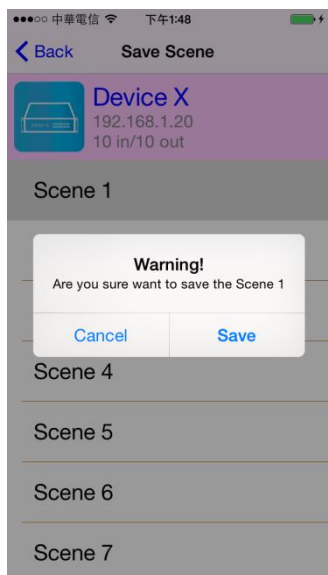
Save Scene



In Controller page touch bottom left 「Save Scene」 to enter Save Scene page



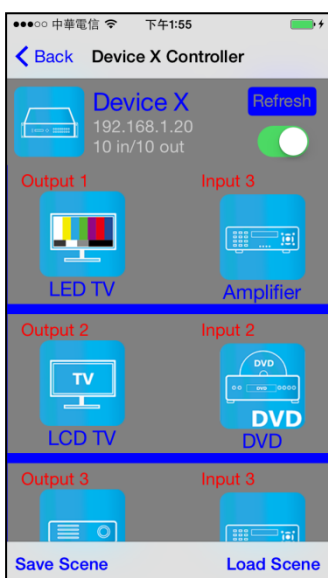
Touch the Scene column to show pop-up dialog



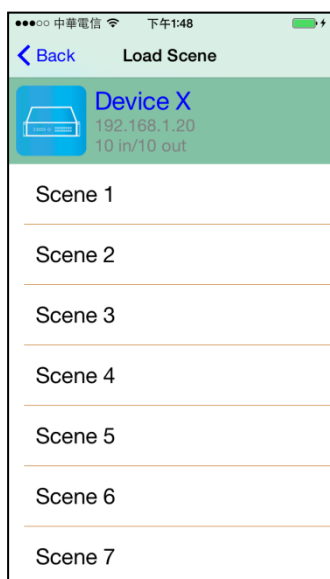
Touch 「Save」 to save current channels setting for all output
It will return to Save Scene page automatically.

Notice: if it shows “Please update device firmware” means your matrix do not support this function, please upgrade your firmware to enable this function.

Load Scene

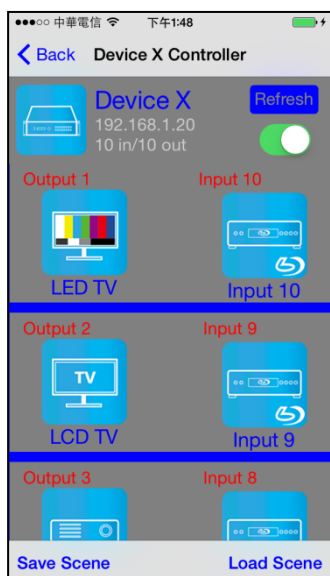


In Controller page touch bottom right 「Load Scene」 to enter Load Scene page



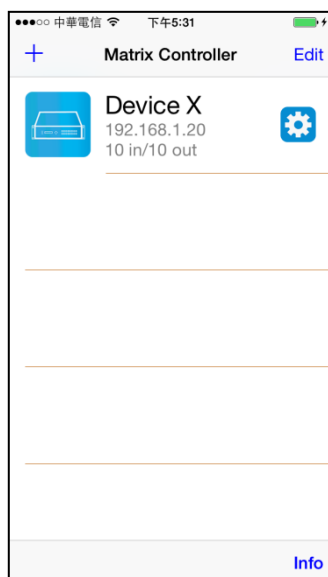
Touch scene column to load saved channels setting for all output
It will return to Load Scene page automatically. (Default is Output 1 to Input 1, Output 2 to Input 2 and so on...)

Notice: if it shows "Please update device firmware" means your matrix do not support this function, please upgrade your firmware to enable this function.

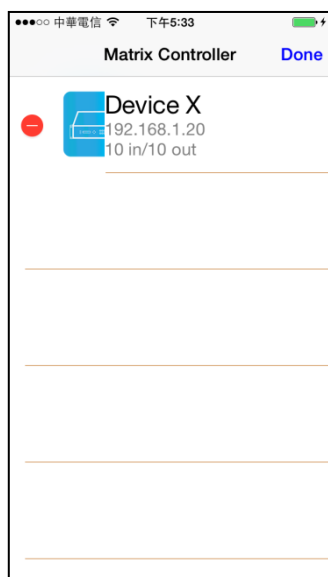


It will return to Controller page after switching and refresh the status of channel

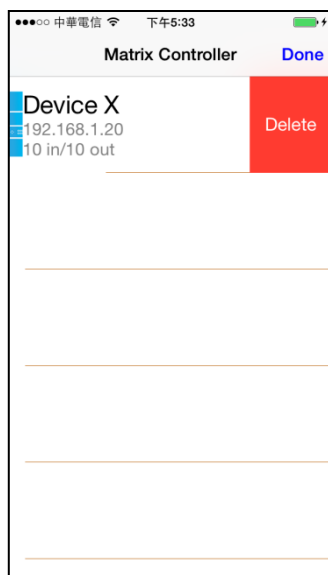
Delete Matrix



Touch top right **Edit** button to enter delete mode



Touch 「 - 」 button in the left of matrix



Touch 「 Delete 」 to delete the matrix
Touch top right 「 Done 」 to exit

Specification

ITEM NO.	HE10M
Support	
Compliance	HDMI 1.4, HDCP, DVI, 3D
Max. Video Resolution	4K@30Hz 4:4:4 12bit
Audio Format	LPCM 7.1, Dolby TrueHD, DTS-HD Master Audio
Ethernet Bandwidth	10/ 100Mbps
RS232 Baud Rate	115200 bps
IR Support	30-60Khz, ±45°, 5M
Ports & Interfaces	
Video Input	8 x HDMI Type A, 2 x HDBaseT
Video Output	2 x HDMI Type A, 8 x HDBaseT
Ethernet Interface	1 x RJ45
IR Interface	20 x 3.5mm Phone Jack
RS232 Interface	9 x DB9 Female
Power	
Power Supply	DC 24V 9A
Power Consumption	8A (Max)
Ambient Temperature	
Operation	0 to 55°C
Storage	-20 to 85°C
Humidity	up to 95%
Physical Characteristics	
Dimensions	483 x 197 x 88mm
Weight	5000g

ITEM NO.	HE02NR	HE02ER	HE02EIR
Support			
Max. Video Resolution	4K@30Hz 4:4:4 8bit		
Max. Transmission Distance	100M	100M	70M
Ethernet Bandwidth	10/ 100Mbps		
IR Support	30-60KHz, ±55°, 5M		30-60KHz, ±55°, 5M
RS-232 Baud Rate	115200bps/ Full Duplex		
Interfaces & Ports			
Video Input	1 x RJ45	1 x RJ45	1 x RJ45
Video Output	1 x HDMI Type A	1 x HDMI Type A	1 x HDMI Type A
Digital Audio Interface	1 x TOSLINK		
RS-232 Interface	1 x DB9 Male		
Ethernet Interface	1 x RJ45		
Link Interface	1 x HDBaseT		
Power			
Power Supply	DC 5V 2A Regulated		
Power Consumption	1200mA (Max)	1200mA (Max)	820mA (Max)
Ambient Temperature			
Operation	0 to 55°C		
Storage	-20 to 85°C		
Humidity	Up to 95%		
Physical Characteristics			
Dimension	88 x 120 x 30mm	49 x 92.3 x 25mm	49 x 92.3 x 25mm
Weight	280g	135g	135g