



8x8 HDMI 18G Matrix with Video Wall Scaling

User Manual

English



No. 38260

lindy.com

LINDY

Safety Instructions

! WARNING !

Please read the following safety information carefully and always keep this document with the product.

Failure to follow these precautions can result in serious injuries or death from electric shock, fire or damage to the product.

The device works with a high voltage of up to 230 VAC (North Americas: 120 VAC).

Touching the internal components or a damaged cable may cause electric shock, which may result in death.

To reduce risk of fire, electric shocks or damage:

- Do not open the product. There are no user serviceable parts inside.
- Qualified servicing personnel must only carry out any repairs or maintenance.
- Never use damaged cables.
- Do not expose the product to water or places of moisture.
- This product is intended for indoor use only.
- Do not place the product near direct heat sources. Always place it in a well-ventilated place.
- Do not place heavy items on the product or the cables.
- Please ensure any adapters are firmly secured and locked in place before inserting into a wall socket



Introduction

Thank you for purchasing the 8x8 HDMI 18G Matrix with Video Wall Scaling. This product has been designed to provide trouble free, reliable operation. It benefits from both a LINDY 2-year warranty and free lifetime technical support. To ensure correct use, please read this manual carefully and retain it for future reference.

The Lindy 8x8 HDMI 18G Matrix with Video Wall Scaling is the professional solution for distributing content from several source devices to many HDMI displays, or for creating eye-catching video wall setups.

Package Contents

- 8x8 HDMI Matrix
- Country Specific C13 Power Cable, 1.5m
- IR Extension Cable, 1.5m
- 8 x IR Emitter Cable
- 8 x IR Receiver Cable
- IR Remote & CR2025 Battery
- Lindy QIG

Features

- Supports resolutions up to 3840x2160@60Hz 4:4:4 8bit
- Seamless switching between devices
- Video Wall scaling – create dual 2x2 setups or a single video wall up to 4x2
- Individual IR matrix control
- Analogue audio extraction & embedding to and from HDMI
- EDID Management
- Controllable output resolution scaling
- Push button, IR, RS-232, TCP/IP Control

Specification

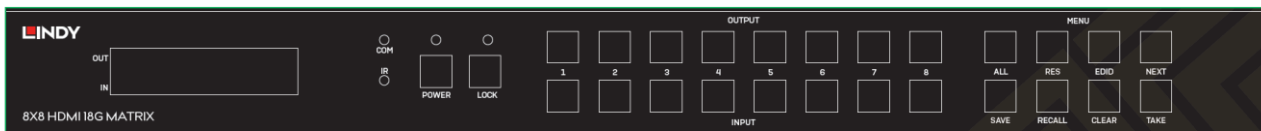
- HDMI 2.0 18Gbps
- HDCP 2.2/1.4
- HDMI Audio Pass-through, 2CH Analogue Audio Extraction
- IR Support: 20-60kHz
- Housing Material: Metal
- Operating Temperature: 0°C - 40°C (32°F - 104°F)
- Storage Temperature: -20°C - 70°C (-4°F - 158°F)
- Humidity: 10-50% RH (non-condensing)
- Power Requirements: 100W, 110-240VAC
- Colour: Black

Connections

- Input: 8 x HDMI Type A (Female), 8 x 3.5mm (Female),
- Output: 8 x HDMI Type A (Female), 8 x 3.5mm (Female)
- Control: RS-232 (Female), RJ-45 (Female), 16 x IR 3.5mm (Female), IR Extension 3.5mm (Female)
- Power: IEC C13 (Female)

Front and Rear Panel Overview

Front Panel



Input 1-8: Select between 8 HDMI source devices by pushing the required Input button

Output 1-8: Select between 8 HDMI displays by pushing the required Output button

Power: Press and hold for 3 seconds to turn the matrix on or off. When the matrix is on the Power LED will be illuminated

Lock: Press to lock or unlock the matrix's front panel push button control. When the controls are locked the Lock LED will be illuminated.

All: Press ALL then a chosen Input and the Take button consecutively, this will switch the user's chosen Input to output on all output displays

Save: Press Save and a chosen Output, this will save the current layout of Inputs – Outputs under the selected Output push button. The maximum number of possible saved layouts is 8.

Recall: Press Recall and the same chosen Output as above to set the chosen layout from the previously set 8 options.

Res: Press Res, a chosen output, then Next. Repeatedly pressing Next will allow the user to cycle through several output resolutions for the selected display. Press Take to select the desired resolution. When Auto resolution is selected the optimum resolution of the display will be chosen.

The options for supported output resolutions are as followed:

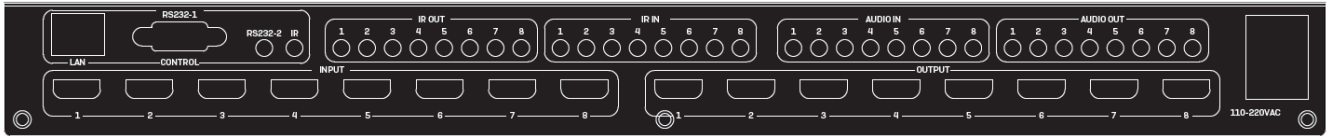
Auto / 3840x2160@60Hz / 3840x2160@50Hz / 3840x2160@30Hz / 1920x1200@60Hz / 1920x1080@60Hz / 1920x1080@50Hz / 1360x768@60Hz / 1280x1024@60Hz / 1280x720 @60Hz / 1280x720@50Hz / 1024x768@60Hz

EDID: Press EDID, then a chosen Input, then Next. This will allow the user to manage the EDID of the chosen Input port. The Manual EDID setting is for EDID Management via the Matrix's control software.

The options for EDID are as follows:

Manual / 3840x2160@60Hz / 3840x2160@30Hz / 1920x1200@60Hz / 1920x1080@60Hz / 1280x1024@60Hz / 1280x720@60Hz / 1024x768@60Hz

Rear Panel



LAN: Control the unit using TCP/IP Control.

RS-232-1: Control the unit using RS-232 Control.

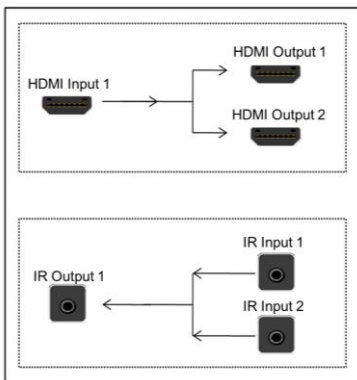
RS-232-2: Reserved for future use

IR: Reserved for future use

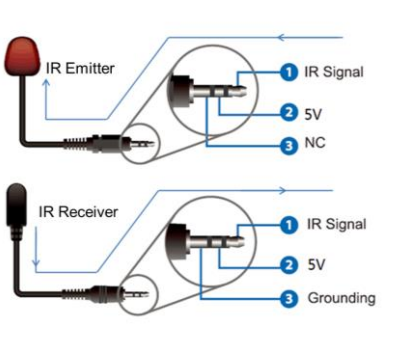
Analogue Audio Input Ports 1-8: These correspond with the Input HDMI port of the same number. Embed analogue audio via a 3.5mm connection into HDMI.

Analogue Audio Output Ports 1-8: These correspond with the Output HDMI port of the same number. Extract analogue audio via a 3.5mm connection from HDMI.

IR Input / Output Ports 1-8: These correspond with the Input HDMI to Output HDMI port of the same number for control from the display side. If HDMI 1 is routed to Outputs 1 + 2, this will correspond with the IR routing by IR Input 1 + 2 will be routed to IR Output 1. Please see below for a diagram:



Please note individual IR cables are not included with this unit. 3.5mm IR cables with the following pin out can be used:



IR Extension: Connect with included IR Extension cable with control provided over the matrix from the included IR remote

C13 Power: Connect with included AC Power cord.

Control

IR Extension & Remote

Connect with the IR extension cable and ensure this is in clear line of sight of the IR Remote

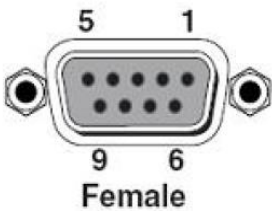
This can provide basic switching control over each source and display.



RS-232 and LAN Control

For RS232 Control, the baud rate is 9600 via the DBP Connector RS-232-1

Please see below for the pin layout of the DB9 Connector



Index	Pin
1	N/u
2	Tx(Matrix →PC)
3	Rx(Matrix ←PC)
4	N/u
5	Gnd
6	N/u
7	N/u
8	N/u
9	N/u

Please note: the RS-232-2 connection is reserved for future use.

For LAN/IP Control, please see the default setting below

IP Type	Static IP
Static IP	192 . 168 . 0 . 247
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 0 . 1

RS-232 Command List

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET/GET	Space	The target that handles this command.	Space	Command type	[Parameter1] [Parameter2]	↵ This is ASCII carriage return 0x0d

Notes:

Space is the ASCII character 0x20

↵ Represents the ASCII character 0x0d

All Return messages are always terminated by CR/LF, the ASCII characters 0x0d 0x0a

All items shown in square brackets, [], are optional.

Any SET command that contains leading zeroes should not include the leading zeros in any response message.

The value ranges for certain commands are not given, please state and minimum and maximum values for each command that uses a numerical value range.

Input Command

Input Type (Get only)

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
SET/GET	Space	INx/INxx/INxxx x is the input port number For example, IN1/IN01/IN001	Space	IN-TYPE	Null (0 byte) or CVBS/VGA/YUV/HDMI/DVI	↵ This is ASCII carriage return 0x0d

A. GET input type of input board:

Send: GET IN1 IN-TYPE↵

Receive: IN1 IN-TYPE UH

Input Signal Format (Get only)

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
GET	Space	INx/INxx/INxxx x is the input port number For example, IN1/IN01/IN001	Space	IN-SIGNAL	Send: Null (0 byte) Receive: TYPE@Resolution (N bytes) or TYPE@NO-SIGNAL	↵ This is ASCII carriage return 0x0d

GET input signal format of input board:

Send: GET IN1 IN-SIGNAL↵

Receive: IN1 IN-SIGNAL UHD@3840x2160p30

Output Type (Get only)

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
GET	Space	INx/INxx/INxxx x is the input port number For example, IN1/IN01/IN001	Space	OUT-TYPE	Null (0 byte) or HDMI/DVI	↵ This is ASCII carriage return 0x0d

GET output type of input board:

Send: GET IN1 OUT-TYPE↵

Receive: IN1 OUT-TYPE HDMI

Output Signal Format

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
SET/GET	Space	INx/INxx/INxxx x is the input port number For example, IN1/IN01/IN001	Space	OUT-SIGNAL	Null (0 byte) or TYPE@Resolution (N bytes)	↵ This is ASCII carriage return 0x0d

A. GET output signal format of input board:

Send: GET IN1 OUT-SIGNAL↵

Receive: IN1 OUT-SIGNAL HDMI@3840x2160p30

Send: GET IN3 OUT-SIGNAL↵

Receive: IN3 OUT-SIGNAL HDMI@1920x1080p60

Send: GET IN5 OUT-SIGNAL↵

Receive: IN5 OUT-SIGNAL HDMI@1920x1080p60

B. SET output signal format of input board:

Send: SET IN1 OUT-SIGNAL HDMI@1024x768p60↵
HDMI@1024x768p60

Receive: IN1 OUT-SIGNAL

Send: SET IN2 OUT-SIGNAL HDMI@4K2Kp60↵
HDMI@4K2Kp60

Receive: IN2 OUT-SIGNAL

Send: SET IN3 OUT-SIGNAL HDMI@1920x1080p60↵
HDMI@1920x1080p60

Receive: IN3 OUT-SIGNAL

NOTE:

1. The output type of input board only support DVI and HDMI

2. The supported output resolution:

- 3840x2160p60
- 3840x2160p50
- 3840x2160p30
- 3840x2160p25
- 1920x1200p60
- 1920x1080p60
- 1920x1080p50
- 1600x1200p60
- 1400x1050p60
- 1366x768p60
- 1360x768p60
- 1280x1024p60
- 1280x768p60
- 1280x720p50
- 1024x768p6

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
GET/SET	Space	INx/INxx/INxxx x is the input port number For example, IN1/IN01/IN001	Space	AUDIO	EMBEDDED L/R	↵ This is ASCII carriage return 0x0d

Input Audio Select:

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
GET	Space	INx/INxx/INxxx x is the input port number For example, IN1/IN01/IN001	Space	AUDIO	Send: Null (0 byte) Receive: N bytes	↵ This is ASCII carriage return 0x0d

Send: GET IN1 AUDIO↵ Receive: IN1 AUDIO EMBEDDED
Send: SET IN1 AUDIO L/R Receive: IN1 AUDIO L/R

Output Command

Input Signal format (Get only)

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
GET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	IN-SIGNAL	Send: Null (0 byte) Receive: TYPE@Resolution (N bytes)	↵ This is ASCII carriage return 0x0d

TYPE:

UHD-HDMI: HDMI without HDCP

UHD-DVI: DVI

UHD-HDMI-1.4: HDMI with HDCP 1.4

UHD-HDMI-2.2: HDCMI with HDCP 2.2

A. GET input signal format of output board:

Send: GET OUT1 IN-SIGNAL↵	Receive: OUT1 IN-SIGNAL UHD-HDMI@4K2Kp30
Send: GET OUT3 IN-SIGNAL↵	Receive: OUT3 IN-SIGNAL HDMI@1920x1080p60
Send: GET OUT5 IN-SIGNAL↵	Receive: OUT5 IN-SIGNAL HDMI@1920x1080p60
Send: GET OUT7 IN-SIGNAL↵	Receive: OUT7 IN-SIGNAL HDMI@1920x1080p60

Output Type

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
SET/GET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	OUT-TYPE	Null (0 byte) or	↵ This is ASCII carriage return 0x0d

Command parameters:

UHD-HDMI: HDMI without HDCP

UHD-DVI: DVI

UHD-HDMI-1.4: HDMI with HDCP 1.4

UHD-HDMI-2.2: HDCMI with HDCP 2.2

GET output type of output board:

Send: GET OUT1 OUT-TYPE↵ Receive: OUT1 OUT-TYPE UHD-HDMI

SET output type of output board:

Send: SET OUT1 OUT-TYPE UHD-HDMI↵ Receive: OUT1 OUT-TYPE UHD-HDMI

NOTE:

- Total output type list is as followed:

UHD-HDMI,

UHD-HDMI-1.4,

UHD-HDMI-2.2,

UHD-DVI

Output Signal Format

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
SET/GET	Space	OUTx/OUTx x/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	OUT-SIGNAL	Null (0 byte) or TYPE@Resolution (N bytes)	↵ This is ASCII carriage return 0x0d

TYPE:

UHD-HDMI: HDMI without HDCP

UHD-DVI: DVI

UHD-HDMI-1.4: HDMI with HDCP 1.4

UHD-HDMI-2.2: HDMI with HDCP 2.2

Resolution:

3840x2160p60

3840x2160p50

3840x2160p30

3840x2160p25

1920x1200p60

1920x1080p60

1920x1080p50

1600x1200p60

1400x1050p60

1366x768p60

1360x768p60

1280x1024p60

1280x768p60

1280x720p50

1024x768p60

GET output signal format of output board:

Send: GET OUT3 OUT-SIGNAL ↵
@1920x1080p60

Receive: OUT3 OUT-SIGNAL UHD-HDMI

SET output signal format of output board:

Send: SET OUT1 OUT-SIGNAL 1024x768p60 ↵
HDMI @1024x768p60

Receive: OUT1 OUT-SIGNAL UHD-

Brightness Setting

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
SET/GET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	BRIGHTNESS	Null (0 byte) or x/xx/xxx x is the brightness value	↵ This is ASCII carriage return 0x0d

GET brightness of output board:

Send: GET OUT1 BRIGHTNESS ↵

Receive: OUT1 BRIGHTNESS 50

SET brightness of output board:

Send: SET OUT1 BRIGHTNESS 55 ↵

Receive: OUT1 BRIGHTNESS 55

Contrast Setting

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
SET/GET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	CONTRAST	Null (0 byte) or x/xx/xxx x is the contrast value	↵ This is ASCII carriage return 0x0d

GET contrast of output board:

Send: GET OUT1 CONTRAST ↵

Receive: OUT1 CONTRAST 50

SET contrast of input board:

Send: SET OUT1 CONTRAST 55 ↵

Receive: OUT1 CONTRAST 55

Saturation Setting

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
SET/GET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	SATURATION	Null (0 byte) or x/xx/xxx x is the saturation value	↵ This is ASCII carriage return 0x0d

GET saturation of output board:

Send: GET OUT1 SATURATION↵

Receive: OUT1 SATURATION 50

SET saturation of output board:

Send: SET OUT1 SATURATION 55↵

Receive: OUT1 SATURATION 55

Sharpness Setting

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
SET/GET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	SHARPNESS	Null (0 byte) or x/xx/xxx x is the sharpness value	↵ This is ASCII carriage return 0x0d

GET sharpness of output board:

Send: GET OUT1 SHARPNESS↵

Receive: OUT1 SHARPNESS 50

SET sharpness of output board:

Send: SET OUT1 SHARPNESS 55↵

Receive: OUT1 SHARPNESS 55

Picture Quality Reset

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
SET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	PQ-RESET	Null (0 byte)	↵ This is ASCII carriage return 0x0d

Reset the picture quality of output board:

Send: SET OUT1 PQ-RESET↵

Receive: OUT1 PQ-RESET

Software Version (Read only)

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
GET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	VERSION	Send: Null (0 byte) Receive: N bytes	↵ This is ASCII carriage return 0x0d

Get the software version of output board:

Send: GET OUT1 VERSION↵

Receive: OUT1 VERSION 2019/01/01-12:00:00

**Routing Command
Video Routing**

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	INx/INxx/INxxx x is the input port number For example, IN1/IN01/IN001	Space	VIDEO	OUTa [OUTb OUTc ...] or ALL	↵ This is ASCII carriage return 0x0d

Set video route: Input port-x/xx/xxx switch to output port-a/b/c... , or all output ports

For example, SET video route: Input port 1 switch to output port 1

Send: SET IN1 VIDEO OUT1↵
OUT1

Receive: IN1 VIDEO

For example, SET video route: Input port 1 switch to output port 1, 2, 3

Send: SET IN1 VIDEO OUT1 OUT2 OUT3↵
OUT2 OUT3

Receive: IN1 VIDEO OUT1

For example, SET video route: Input port 1 switch to all output ports

Send: SET IN1 VIDEO ALL↵
ALL

Receive: IN1 VIDEO

NOTE:

We can switch one input port to one output port, or to more than one output ports at a time.

Recall/Save Mode of Route

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (1/2/3 bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	ROUTE-MODE	x/xx/xxx x is the mode value	↵ This is ASCII carriage return 0x0d

GET (Recall) the route mode saved before:

For example, GET (Recall) the route mode 1

Send: GET SYS ROUTE-MODE 1↵

Receive: SYS ROUTE-MODE 1

SET (Save) current route to a mode:

For example, SET (Save) current route to mode 1

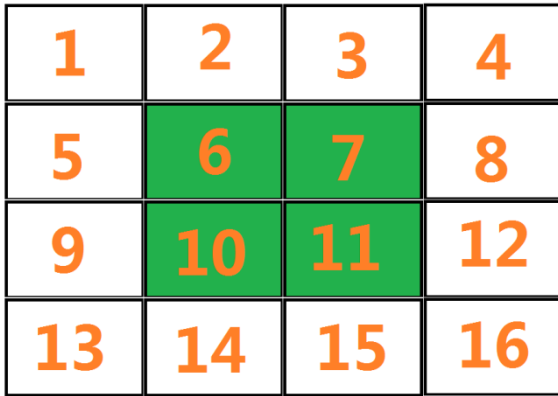
Send: SET SYS ROUTE-MODE 1 ↵

Receive: SYS ROUTE-MODE 1

Video Wall

Set Video Wall:

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	TVWALL	Line : Column : P: Q: Margin-Left: Margin-Right: Margin-Top: Margin-Bottom: Input:	↵ This is ASCII carriage return 0x0d



Picture-1 for example: The entire TV wall consists of 16 screens, placed in 4 rows and 4 columns. Screens 6/7/10/11 make up a 2x2 splice. The parameter of the splice which make up by Screens 6/7/10/11:

Line: How many rows of the Digital Information Display, picture-1 for example, 2

Column: How many columns of the Digital Information Display left picture for example, 2

P: The row number of the current output connected: Screen 6: 1 Screen 7: 1 Screen 10: 2 Screen 11: 2

Q: The column number of the current output connected:

Screen 6: 1 Screen 7: 2 Screen 10: 1 Screen 11: 2

The border of each screen is 20 pixels for example:

Margin-Left: The width of the left margin (pixels): Screen 6: 0 Screen 7: 20 Screen 10: 0 Screen 11: 20

Margin-Right: The width of the right margin (pixels): Screen 6: 20 Screen 7: 0 Screen 10: 20 Screen 11: 0

Margin-Top: The width of the top margin (pixels): Screen 6: 0 Screen 7: 0 Screen 10: 20 Screen 11: 20

Margin-Bottom: The width of the bottom margin (pixels): Screen 6: 20 Screen 7: 20 Screen 10: 0 Screen 11: 0

Input: Which input route to the current panel

SET TV-WALL mode of one output port

Picture-1 Screen 6/7/10/11, and the source input is input 1 For example:

Send: SET OUT6 TVWALL 2 2 1 1 0 20 0 20 1↵	Receive: OUT6 TVWALL 2 2 1
1 0 20 0 20 1	
Send: SET OUT7 TVWALL 2 2 1 2 20 0 0 20 1↵	Receive: OUT7 TVWALL 2 2 1
2 20 0 0 20 1	
Send: SET OUT10 TVWALL 2 2 2 1 0 20 20 0 1↵	Receive: OUT10 TVWALL 2 2
2 1 0 20 20 0 1	
Send: SET OUT11 TVWALL 2 2 2 2 20 0 20 0 1↵	Receive: OUT11 TVWALL 2 2 2
2 20 0 20 0 1	

Sending these four commands will create a 2x2 splice

How to Exit Video wall mode:

e.g Exit TV-WALL combination of output port6,7,10,11

Send: SET OUT6 TVWALL 1 1 1 1 0 20 0 20 1↵
1 1 0 20 0 20 1

Receive: OUT6 TVWALL 1 1

Send: SET OUT7 TVWALL 1 1 1 1 0 20 0 20 1↵
1 1 0 20 0 20 1

Receive: OUT7 TVWALL 1 1

Send: SET OUT10 TVWALL 1 1 1 1 0 20 0 20 1↵
1 0 20 0 20 1

Receive: OUT10 TVWALL 1 1 1

Send: SET OUT11 TVWALL 1 1 1 1 0 20 0 20 1↵
1 0 20 0 20 1

Receive: OUT11 TVWALL 1 1 1

Video Wall Mode Save/Recall:

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (1/2/3 bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	TVWALL-MODE	x/xx/xxx x is the mode value	↵ This is ASCII carriage return 0x0d

GET (Recall) the route mode saved before:

For example, GET (Recall) the route mode 1

Send: GET SYS TVWALL-MODE 1↵

Receive: SYS TVWALL-MODE 1

SET (Save) current route to a mode:

For example, SET (Save) current route to mode 1

Send: SET SYS TVWALL-MODE 1 ↵

Receive: SYS TVWALL-MODE 1

EDID

Read EDID

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
GET	Space	OUTx/OUTxx/OUTxxx x is the output port number For example, OUT1/OUT01/OUT001	Space	EDID	Send: (4/5 byte) PART1 PART2 PART16 Receive: (53/54 bytes) PART1 d1 d2 ... d16 PART2 d1 d2 ... d16 PART16 d1 d2 ... d16	↵ This is ASCII carriage return 0x0d

GET (Read) EDID data from output port

For example, GET (Read) EDID data from output port 1 (Read 16 times)

Send: GET OUT1 EDID

```
Receive: OUT1 EDID PART1 00 FF FF FF FF FF FF 00 63 18 22 00 66 00 00 00
Receive: OUT1 EDID PART2 05 1C 01 03 80 59 32 78 0A EE 91 A3 54 4C 99 26
Receive: OUT1 EDID PART3 0F 50 54 01 08 00 81 C0 81 C0 81 00 81 80 95 00
Receive: OUT1 EDID PART4 A9 C0 B3 00 01 01 08 E8 00 30 F2 70 5A 80 B0 58
Receive: OUT1 EDID PART5 8A 00 C4 8E 21 00 00 1E 02 3A 80 18 71 38 2D 40
Receive: OUT1 EDID PART6 58 2C 45 00 50 1D 74 00 00 1E 00 00 00 FD 00 17
Receive: OUT1 EDID PART7 3C 0F 88 3C 00 0A 20 20 20 20 20 20 00 00 00 FC
Receive: OUT1 EDID PART8 00 48 44 4D 49 0A 20 20 20 20 20 20 20 01 16
Receive: OUT1 EDID PART9 02 03 40 F1 55 61 10 1F 04 13 05 14 20 21 22 5D
Receive: OUT1 EDID PART10 5E 5F 60 65 66 07 12 03 16 01 23 09 07 07 83 01
Receive: OUT1 EDID PART11 00 00 6E 03 0C 00 30 00 B8 3C 21 10 80 01 02 03
Receive: OUT1 EDID PART12 04 67 D8 5D C4 01 78 80 03 E2 00 4F E3 0F 01 E0
Receive: OUT1 EDID PART13 01 1D 80 D0 72 1C 16 20 10 2C 25 80 50 1D 74 00
Receive: OUT1 EDID PART14 00 9E 66 21 56 AA 51 00 1E 30 46 8F 33 00 50 1D
Receive: OUT1 EDID PART15 74 00 00 1E 00 00 00 00 00 00 00 00 00 00 00
Receive: OUT1 EDID PART16 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 A1
```

NOTE:

EDID totally have 256 bytes, so we need to read 16 times and 16 bytes will be read per time.

Write EDID

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (53/54 bytes)	Command tail (1 byte)
SET	Space	INx/INxx/INxxx x is the input port number For example, IN1/IN01/IN001	Space	EDID	PART1 d1 d2 ... d16 PART2 d1 d2 ... d16 PART16 d1 d2 ... d16	↵ This is ASCII carriage return 0x0d

SET (Write) EDID data to input port

For example, SET (Write) EDID data to input port 1 (Write 16 times)

```
Send: SET IN1 EDID PART1 00 FF FF FF FF FF FF 00 63 18 22 00 66 00 00 00↵
Receive: IN1 EDID PART1 00 FF FF FF FF FF FF 00 63 18 22 00 66 00 00 00
Send: SET IN1 EDID PART2 05 1C 01 03 80 59 32 78 0A EE 91 A3 54 4C 99 26↵
Receive: IN1 EDID PART2 05 1C 01 03 80 59 32 78 0A EE 91 A3 54 4C 99 26
Send: SET IN1 EDID PART3 0F 50 54 01 08 00 81 C0 81 C0 81 00 81 80 95 00↵
Receive: IN1 EDID PART3 0F 50 54 01 08 00 81 C0 81 C0 81 00 81 80 95 00
Send: SET IN1 EDID PART4 A9 C0 B3 00 01 01 08 E8 00 30 F2 70 5A 80 B0 58↵
Receive: IN1 EDID PART4 A9 C0 B3 00 01 01 08 E8 00 30 F2 70 5A 80 B0 58
Send: SET IN1 EDID PART5 8A 00 C4 8E 21 00 00 1E 02 3A 80 18 71 38 2D 40↵
Receive: IN1 EDID PART5 8A 00 C4 8E 21 00 00 1E 02 3A 80 18 71 38 2D 40
Send: SET IN1 EDID PART6 58 2C 45 00 50 1D 74 00 00 1E 00 00 00 FD 00 17↵
Receive: IN1 EDID PART6 58 2C 45 00 50 1D 74 00 00 1E 00 00 00 FD 00 17
Send: SET IN1 EDID PART7 3C 0F 88 3C 00 0A 20 20 20 20 20 20 00 00 00 FC↵
Receive: IN1 EDID PART7 3C 0F 88 3C 00 0A 20 20 20 20 20 20 00 00 00 FC
Send: SET IN1 EDID PART8 00 48 44 4D 49 0A 20 20 20 20 20 20 20 01 16↵
Receive: IN1 EDID PART8 00 48 44 4D 49 0A 20 20 20 20 20 20 20 01 16
Send: SET IN1 EDID PART9 02 03 40 F1 55 61 10 1F 04 13 05 14 20 21 22 5D↵
Receive: IN1 EDID PART9 02 03 40 F1 55 61 10 1F 04 13 05 14 20 21 22 5D
Send: SET IN1 EDID PART10 5E 5F 60 65 66 07 12 03 16 01 23 09 07 07 83 01↵
Receive: IN1 EDID PART10 5E 5F 60 65 66 07 12 03 16 01 23 09 07 07 83 01
Send: SET IN1 EDID PART11 00 00 6E 03 0C 00 30 00 B8 3C 21 10 80 01 02 03↵
Receive: IN1 EDID PART11 00 00 6E 03 0C 00 30 00 B8 3C 21 10 80 01 02 03
Send: SET IN1 EDID PART12 04 67 D8 5D C4 01 78 80 03 E2 00 4F E3 0F 01 E0↵
```

```

Receive: IN1 EDID PART12 04 67 D8 5D C4 01 78 80 03 E2 00 4F E3 0F 01 E0
Send: SET IN1 EDID PART13 01 1D 80 D0 72 1C 16 20 10 2C 25 80 50 1D 74 00↵
Receive: IN1 EDID PART13 01 1D 80 D0 72 1C 16 20 10 2C 25 80 50 1D 74 00
Send: SET IN1 EDID PART14 00 9E 66 21 56 AA 51 00 1E 30 46 8F 33 00 50 1D↵
Receive: IN1 EDID PART14 00 9E 66 21 56 AA 51 00 1E 30 46 8F 33 00 50 1D
Send: SET IN1 EDID PART15 74 00 00 1E 00 00 00 00 00 00 00 00 00 00 00↵
Receive: IN1 EDID PART15 74 00 00 1E 00 00 00 00 00 00 00 00 00 00 00
Send: SET IN1 EDID PART16 00 00 00 00 00 00 00 00 00 00 00 00 00 00 A1↵
Receive: IN1 EDID PART16 00 00 00 00 00 00 00 00 00 00 00 00 00 00 A1
    
```

NOTE:

EDID totally have 256 bytes, so we need to write 16 times and 16 bytes will be write per time.

System Command

Device Size

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0/3-7 bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	SIZE	a b [c d] a is input ports number b is output ports number c maximum route mode number	↵ This is ASCII carriage return 0x0d

GET the device size:

For example, GET the device size (16x16)

```

Send: GET SYS SIZE↵
Receive: SYS SIZE 8 8 8 32
    
```

Device IP

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	IP	AT+WANN=mode,address,mask,gateway	↵ This is ASCII carriage return 0x0d

GET the device size:

For example, GET the device IP (MAC: D8B04CB947DF)

```

Send: GET SYS IP↵
Receive: SYS IP D8B04CB947DF
DHCP,192.168.0.119,255.255.255.0,192.168.0.1
    
```

```

Send: GET SYS IP↵
Receive: SYS IP D8B04CB947DF
STATIC,192.168.0.222,255.255.255.0,192.168.0.24
    
```

SET the device IP:

For example, Set the device IP to STATIC 192.168.1.1

```

Send: SET SYS IP STATIC,192.168.0.222,255.255.255.0,192.168.0.1↵
Receive: SYS IP STATIC,192.168.0.222,255.255.255.0,192.168.0.1
    
```

For example, Set the device IP to DHCP (auto obtain)

```

Send: SET SYS IP DHCP↵
Receive: SYS IP DHCP
    
```

System Reset

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	SYS	Space	RESET	ALL	↵ This is ASCII carriage return 0x0d

SET (Reset) the device :

For example, Set (Reset) the device

Send: SET SYS RESET ALL ↵ Receive: SYS RESET ALL

Panel Lock

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	SYS	Space	PANEL-LOCK	ON OFF	↵ This is ASCII carriage return 0x0d

For example:

Send: SET SYS PANEL-LOCK ON ↵ Receive: SYS PANEL-LOCK ON
Send: SET SYS PANEL-LOCK OFF ↵ Receive: SYS PANEL-LOCK OFF

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
GET	Space	SYS	Space	PANEL-LOCK	NULL	↵ This is ASCII carriage return 0x0d

For example:

Send: GET SYS PANEL-LOCK ↵ Receive: SYS PANEL-LOCK ON

Input Lock

1 2	Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	SYS	Space	INPUT-LOCK		↵ This is ASCII carriage return 0x0d	

For example:

Send: SET SYS INPUT-LOCK 1-3-5-7- ↵ Receive: SYS INPUT-LOCK 1-3-5-7-//lock the input 1 3 5 7
Send: SET SYS INPUT-LOCK 12345678 ↵ Receive: SYS INPUT-LOCK 12345678//lock the input 1 2 3 4 5 6 7 8

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
GET	Space	SYS	Space	INPUT-LOCK	NULL	↵ This is ASCII carriage return 0x0d

For example:

Send: GET SYS INPUT-LOCK ↵ Receive: SYS INPUT-LOCK 1-3-5---

Output Lock

3	Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
	SET	Space	SYS	Space	OUTPUT-LOCK		↵ This is ASCII carriage return 0x0d

For example:

Send: SET SYS OUTPUT-LOCK 1-3-5---↵

Receive: SYS OUTPUT-LOCK 1-3-5---//lock

the input 1 3 5

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
GET	Space	SYS	Space	OUTPUT-LOCK	NULL	↵ This is ASCII carriage return 0x0d

For example:

Send: GET SYS OUTPUT-LOCK ↵

Receive: SYS OUTPUT-LOCK 1-3-5---

PC Software

Please run the latest version of the software from the Download section of your local Lindy website

On entry a password is required:

For Administrator access: 111111

For User access: 000000

Master Reset Password if passwords are lost: Lindy19

To change this from the pre-set password:

Select the drop-down to select account: Administrator or User

Input the current password, then select modify

Input the new password twice, then select modify again

Connecting to the Web-Gui

On the default first page, please select UART if using with RS-232 or Network if using a LAN connection.

For RS-232 Control:

To identify IP information:

- Once connected and UART is selected, select the Find Via UART button on the Matrix Switch page. This will show the IP information of the matrix. This can also be done via the Network Setting page.

To set IP address:

- On the Network Setting tab, select Find Via UART to read the current IP address.
- Modify the IP address type to Static IP or to Auto IP (DHCP). If set to Static IP, the new IP address, subnet mask and gateway information can be added.
- Select Save Config to save the configuration
- Select Find Via UART to confirm the change has been successful

For Network control follow the steps below:

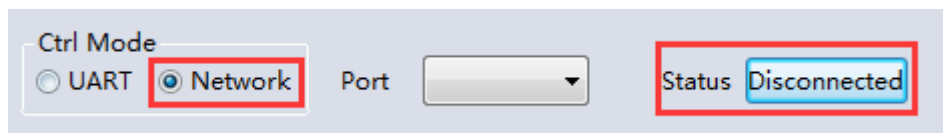
To identify IP address: Once connected and Network is selected, select the Search Device button on the Matrix Switch page. This will show the IP information of the matrix. This can also be done via the Network Setting page.

To set IP address:

- On the Network Setting tab, select Search Device.
 - Select the device to configure.
 - Modify the IP address or address type.
 - Select Save Config to save the configuration
 - A success message should now show. Select Search device again to confirm the change has been successful.
-

For direct connection, please follow the instructions below

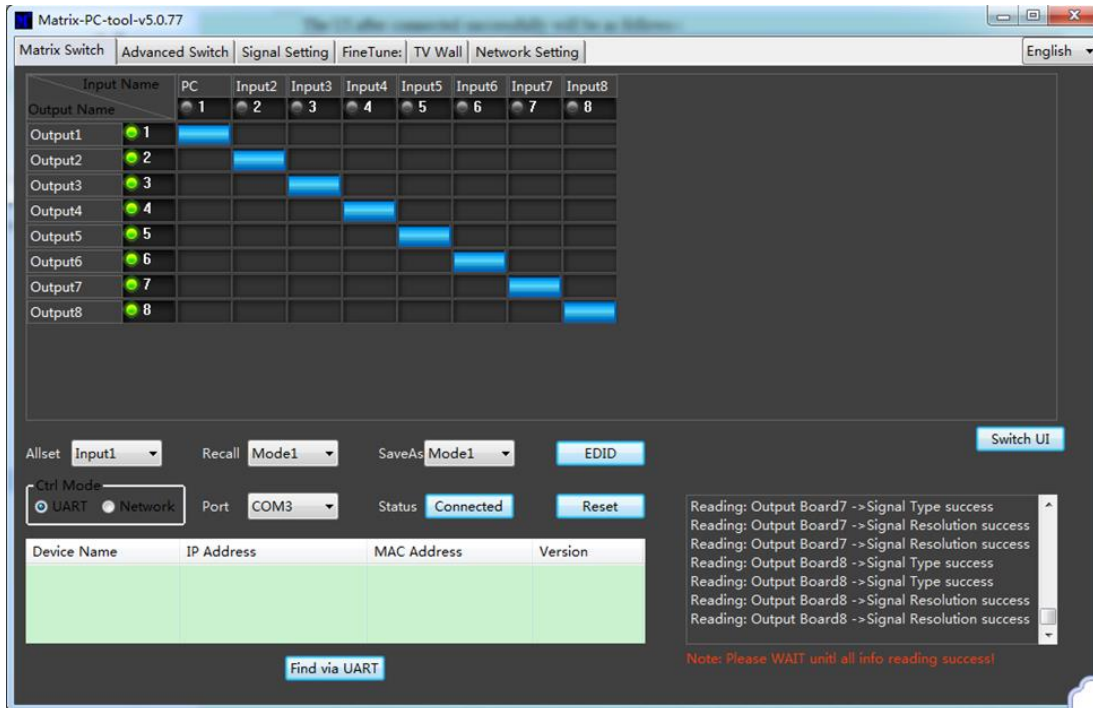
- Connect the matrix and PC using Cat.x cable
- Please ensure the matrix and PC are in the same network segment (The default IP address of the matrix is 192.168.0.247, and the default network mask of the matrix is 255.255.255.0).
- Run the control software. Please note: **If the IP address of the PC has changed after running the software please reboot the software.**
- Select Network under CTRL Mode
- Select Search device
- Select the matrix to control (Once selected, the software will read the network configuration)
- Select Disconnected to connect to the matrix
- Once a successful connection is made, Status will be changed to Connected. If this is selected again it will disconnect from the matrix.



For connection via a Network switching or routing system please follow the process above with direct connection to a network switch between the PC and matrix. If the IP address is not obtained automatically by the software via Automatic (DHCP) mode, please ensure the network switch supports DHCP.

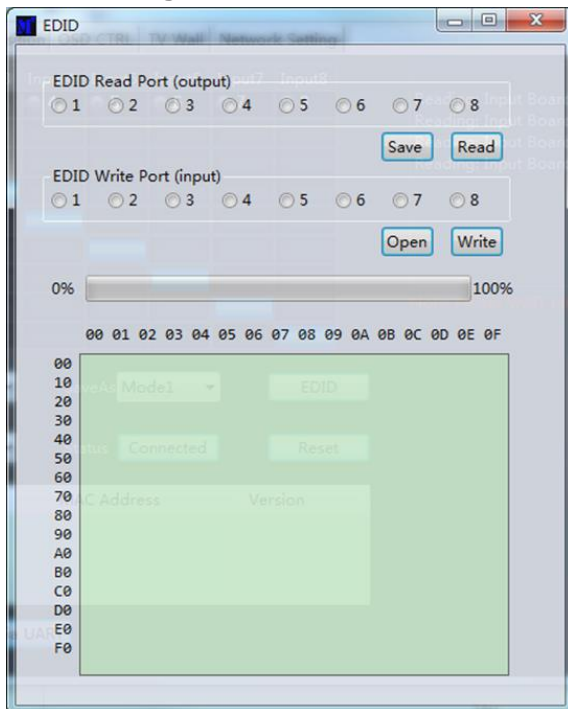
Once connected the user can now progress with controlling the matrix.

Matrix Switch



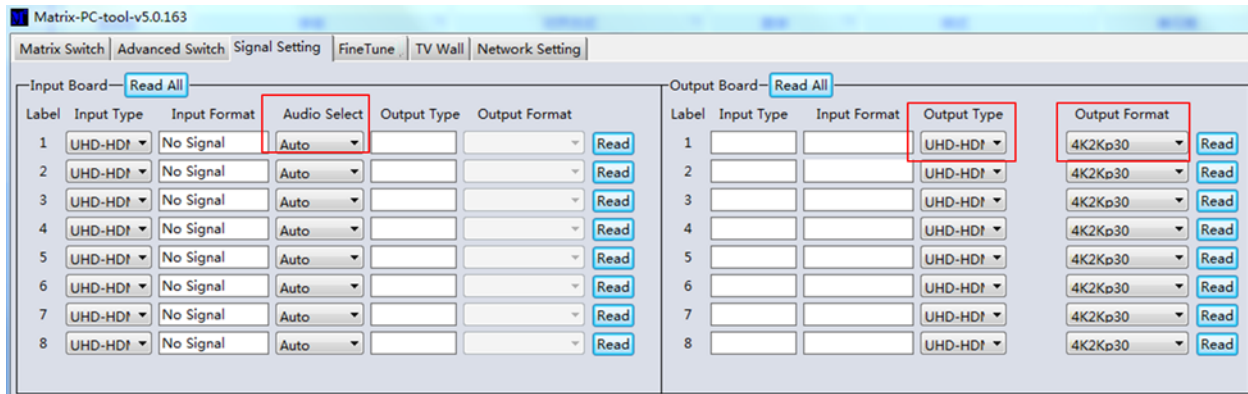
- Switch UI: The user can select this to change the UI from the default
- Allset: This provides a shortcut to switch 1 input to all output displays
- Recall: Recall a specific matrix routing that has been previously saved
- SaveAs: Save current matrix routing.
- System Reset: Factory reset the unit.
- EDID: Select this button to open the EDID Management page

EDID Management



- Read EDID: Select your chosen output port and select Read to show the output EDID
- Write EDID: Once an EDID has been read, select a chosen Input port and then Write to change the EDID
- Save EDID: Once changed, select Save to save the current EDID
- Manual EDID: 1 Input port at a time can be manually controlled by the Front Panel

Signal Setting



Audio Select

Auto – If an HDMI input signal is provided, HDMI audio will be passthrough. If a DVI Input signal is provided, the matrix will rely on the analogue audio input connection for audio.

External – The matrix will use the corresponding analogue audio input connection.

Output Type

This allows for changes to be made to the signalling between HDMI 1.4, HDMI 2.2 and DVI.

Output Format

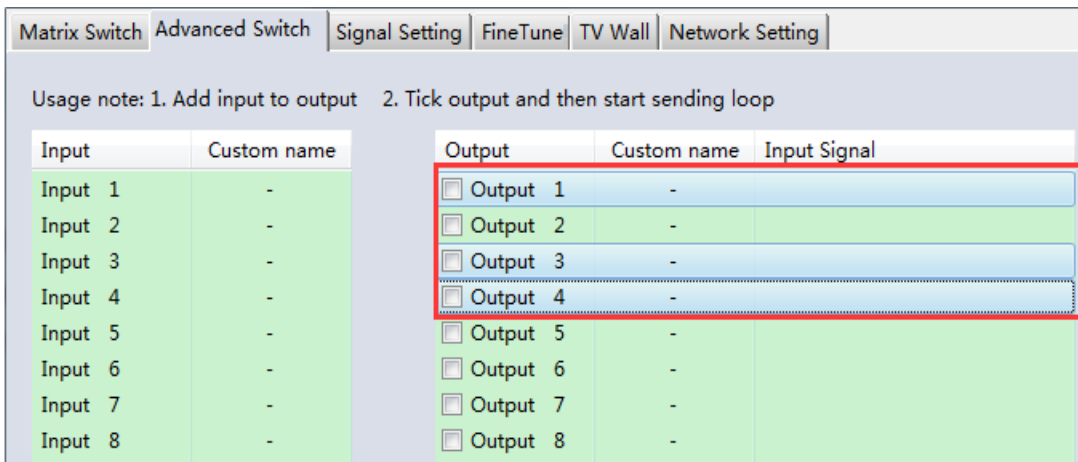
The user can select a desired output resolution.

Fine Tune

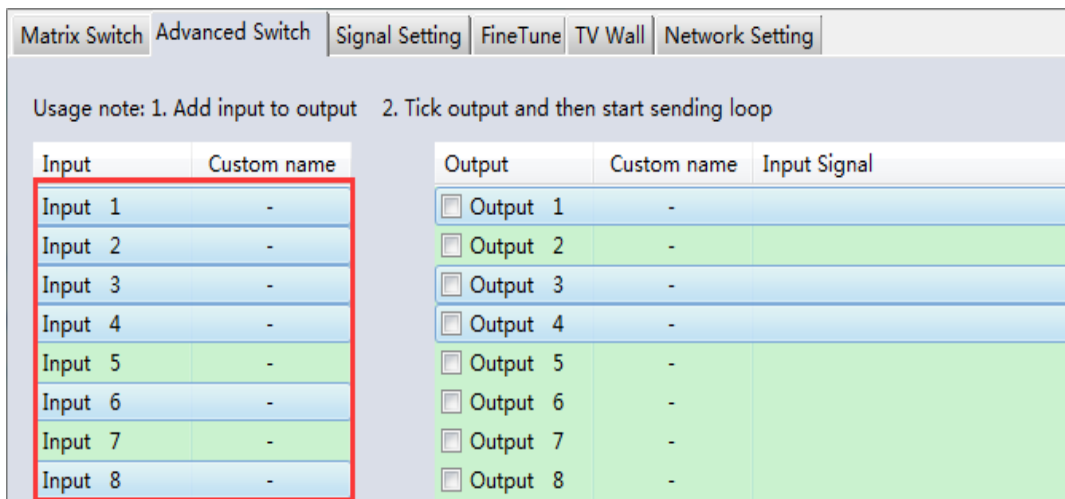
This setting is reserved for future use

Advanced Switch

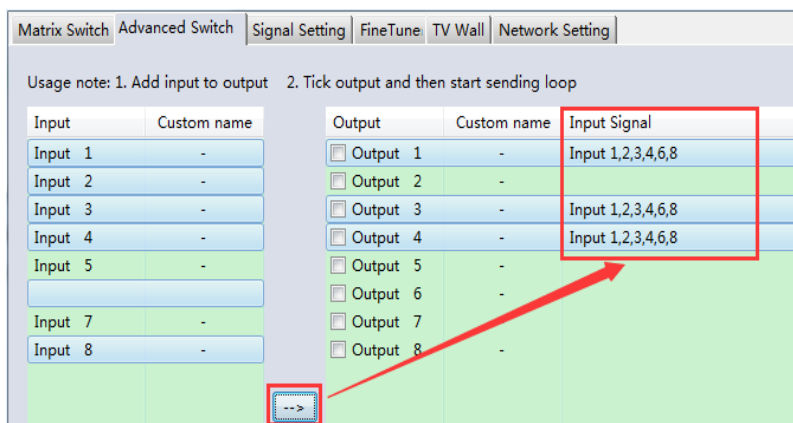
This software allows for automatic switching of devices at time intervals.



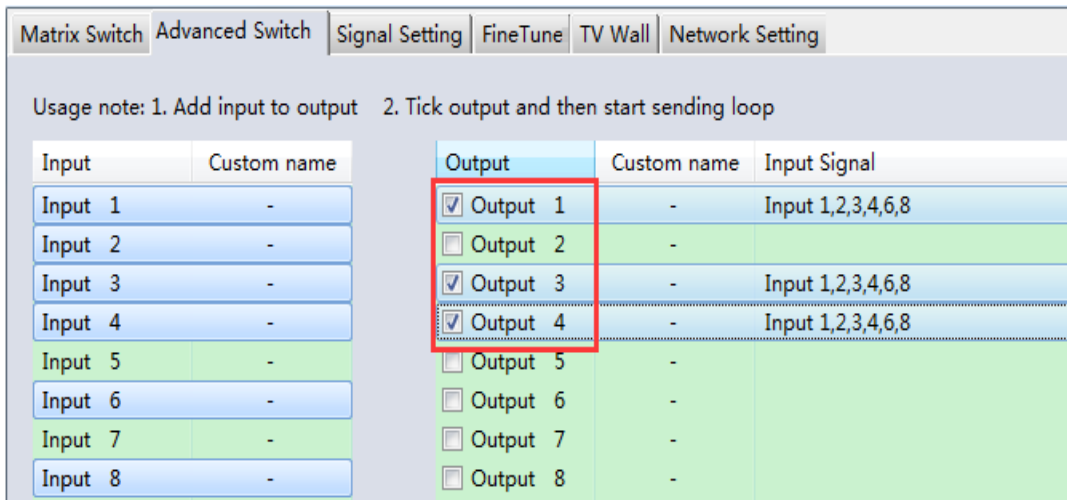
Select the Output port that requires control. Select CTRL and the desired ports to select multiple outputs.



Select CTRL and then select the desired input ports.

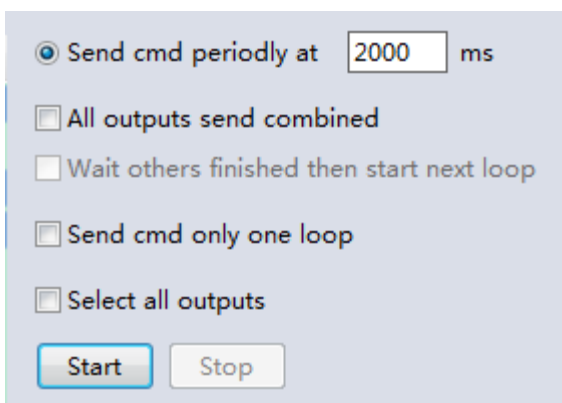


Select the → button to configure the selected inputs ports to the selected output ports.



Please ensure the desired output ports are ticked.

To configure automatic switching



Switch Frequency: The default is 2000milliseconds

Send all outputs combined: All outputs will be un-ticked by default

Un-ticked – Switch all ports one by one

Ticked – Switch all output & the desired input ports at the same time

Please note: If many input ports are selected, this will switch inputs one by one

Wait until others have finished then start next loop: This can be selected when “Send all outputs combined” is ticked

Un-ticked - When the number of the selected input ports is not the same as selected output ports, the next loop will automatically start once the final output has finished.

Ticked – All outputs will start a new loop at the same time. When the number of the selected input ports is not the same as selected output ports, the next loop will automatically start once the final output has finished.

Stop CMD after one loop: Automatically stops switching once one loop is finished

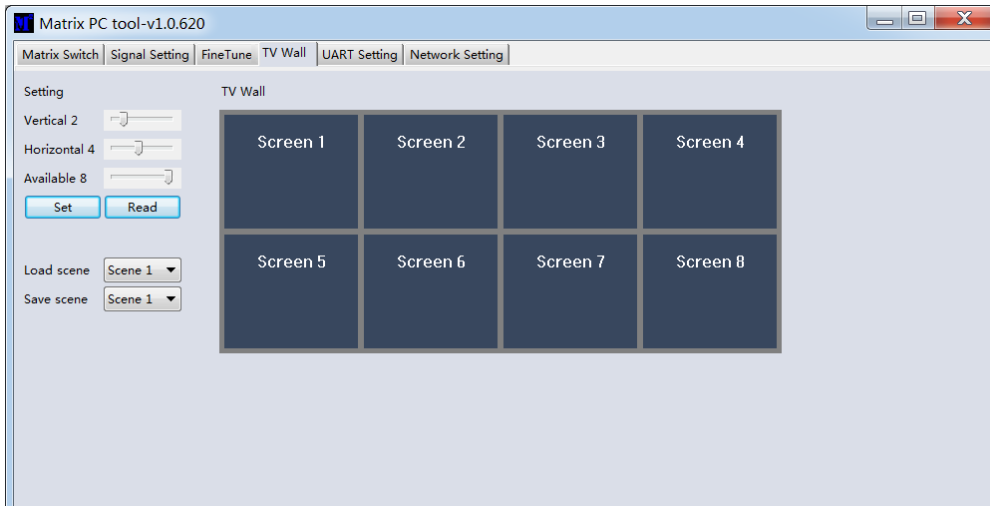
Select all outputs: Quickly tick/un-tick all output ports

Select Start to begin the automatic switching loop

While in progress, select Stop to instantly stop the loop.

Video Wall

Select and set the desired layout of a video wall.



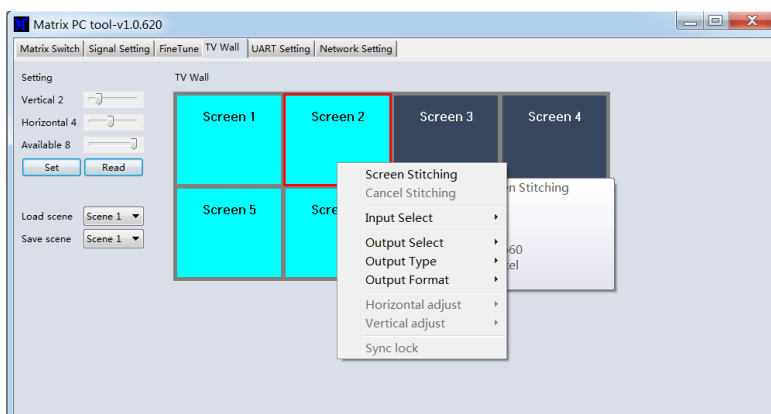
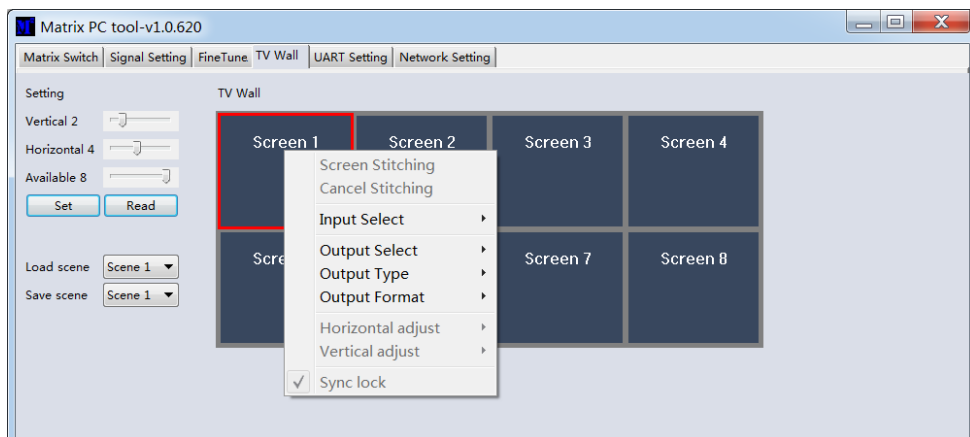
Creating a video wall

Select one of the screens on the software and right click. This will open a menu.

Input Select: Select the Input port to display on the video wall (1-8)

Output Select: Sync the desired output with the connected display

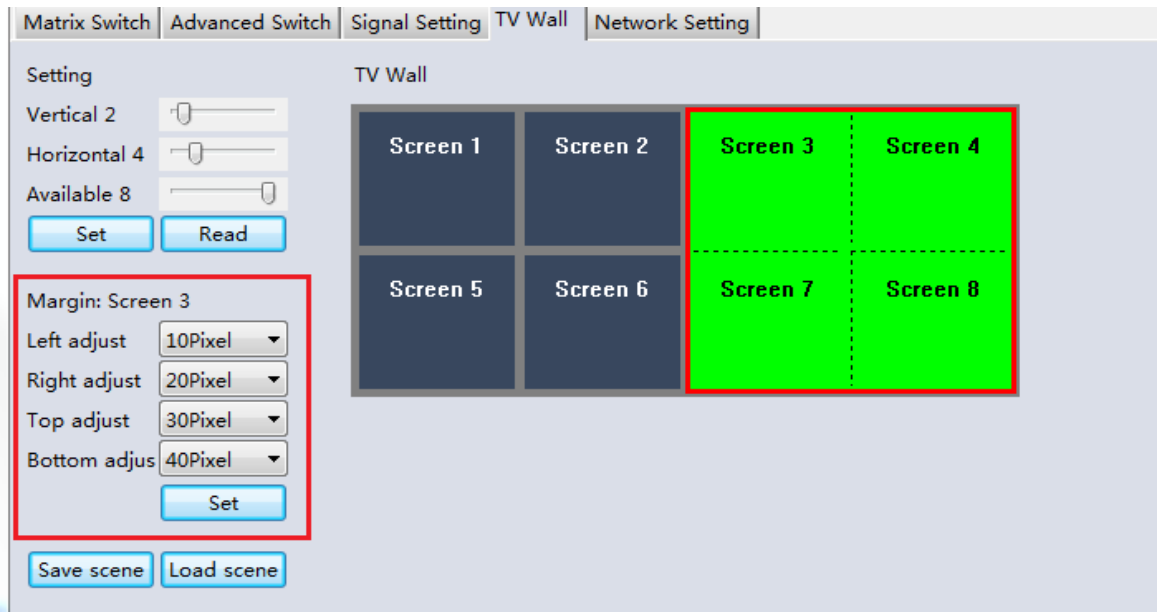
Output Format: Set the Output resolution



Select one of the screens and drag to select further screens. Right click and select Screen Stitching

If a single display is not required within the video wall, right click the display and select Cancel Stitching.

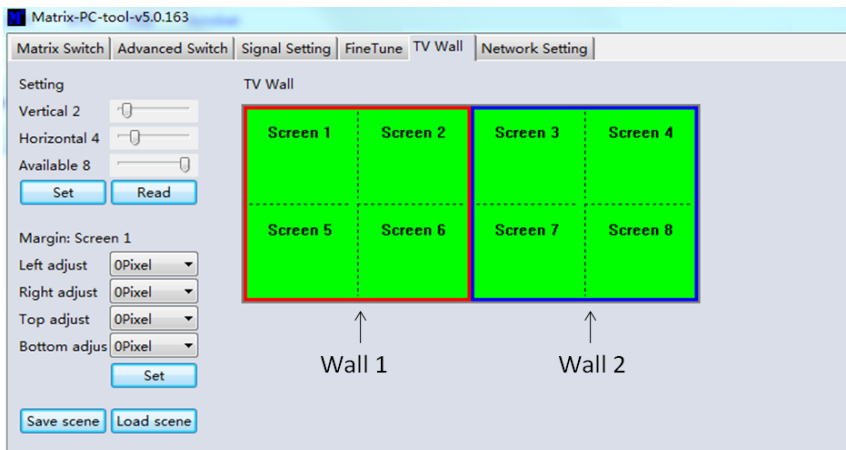
Bezel Adjustment



The user can configure the bezel from all sides of each display within a video wall. The maximum bezel adjustment is 100Pixels. Once set please click Set to confirm.

Separate Video Wall layouts

This matrix allows for two separate 2x2 video wall layouts.

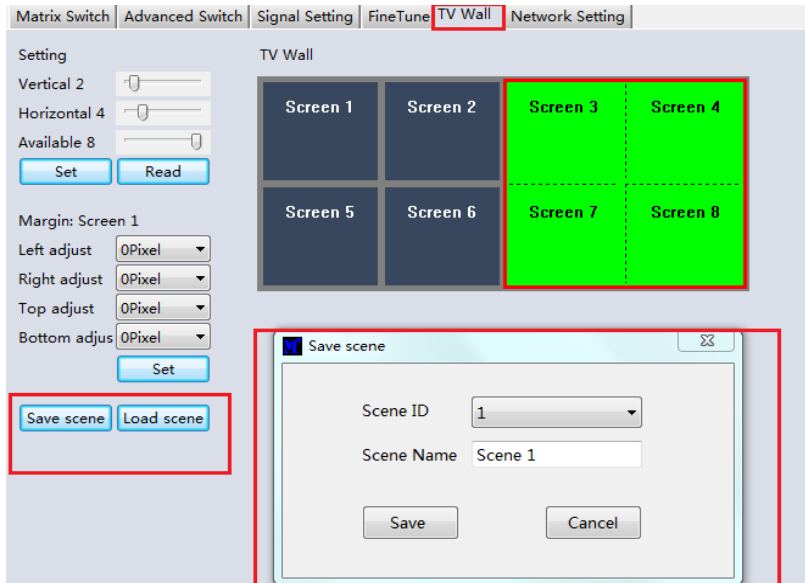


Multi-View Video Wall

The user can change a single display to a different source within the video wall



Save or Load Layout



Once a layout is configured, please click Save Scene and enter the details. To load a scene select Load Scene and enter the desired details of the scene to be loaded.

Web Control

For basic switching control

- Input the IP address in the web browser, then press 'Enter'
- Input the username: admin
- Input the password: admin
- Login and then the user can control the matrix

Troubleshooting**If the matrix cannot be found via the Web-Gui or Lan, please follow the solutions below:**

The IP address of the matrix or PC may have been added automatically but is still connected via Cat.X cable or the matrix has been connected to a non-HDCP network switch. Please set up the IP address type of the device or PC under Static mode or connect to a network switch that supports HDCP. Please check the Cat.X cable is connected securely.

If the Web-Gui shows the message “device response timeout” after connection:

The IP address of the PC and Matrix may not be in the same network segment. Please ensure they are both within the same segment.

If the Web-Gui shows the message “TCP connection failed! Error Code:xxxx” once connected to the matrix:

The IP address of the PC and Matrix may not be in the same network segment. Please ensure they are both within the same segment.

A firewall is blocking the Web-Gui. Please ensure the firewall will allow the Web-Gui or disable the firewall on the PC.

CE/FCC Statement

CE Certification

LINDY declares that this equipment complies with relevant European CE requirements.

CE Konformitätserklärung

LINDY erklärt, dass dieses Equipment den europäischen CE-Anforderungen entspricht

UKCA Certification

LINDY declares that this equipment complies with relevant UKCA requirements.

FCC Certification

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

The enclosed power supply has passed Safety test requirements, conforming to the US American versions of the international Standard IEC 60950-1 or 60065 or 62368-1.

LINDY Herstellergarantie – Hinweis für Kunden in Deutschland

LINDY gewährt für dieses Produkt über die gesetzliche Regelung in Deutschland hinaus eine zweijährige Herstellergarantie ab Kaufdatum. Die detaillierten Bedingungen dieser Garantie finden Sie auf der LINDY Website aufgelistet bei den AGBs.

Hersteller / Manufacturer (EU):

LINDY-Elektronik GmbH
Markircher Str. 20
68229 Mannheim
Germany
Email: info@lindy.com , T: +49 (0)621 470050

Manufacturer (UK):

LINDY Electronics Ltd
Sadler Forster Way
Stockton-on-Tees, TS17 9JY
England
sales@lindy.co.uk, T: +44 (0)1642 754000

Recycling Information



WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

Europe, United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.

Germany / Deutschland

Rücknahme Elektroschrott und Batterie-Entsorgung

Die Europäische Union hat mit der WEEE Richtlinie Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt. Das Entsorgen von Elektro- und Elektronikgeräten über die Hausmülltonne ist verboten! Diese Geräte müssen den Sammel- und Rückgabesystemen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernehmen die Gerätehersteller.

LINDY bietet deutschen Endverbrauchern ein kostenloses Rücknahmesystem an, beachten Sie bitte, dass Batterien und Akkus den Produkten vor der Rückgabe an das Rücknahmesystem entnommen werden müssen und über die Sammel- und Rückgabesysteme für Batterien separat entsorgt werden müssen. Ausführliche Informationen zu diesen Themen finden Sie stets aktuell auf der LINDY Webseite im Fußbereich.

France

En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique.

Chaque Etat membre de l' Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Italy

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate. Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.

Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.



Tested to comply with
FCC Standards
For Home and Office Use!

No. 38260

5th Edition, January 2023

lindy.com