
HDTVMT0808VF2 User Manual



Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

SURGE PROTECTION DEVICE RECOMMENDED

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

SAFTY AND NOTICE

1. The transmission distances of HDMI over UTP cables are measured using TE CONNECTIVITY 1427071-6
2. EIA/TIA-568-B termination (T568B) for CAT cables is recommended for better performance.
3. DO NOT use 568A/568B standard mixed CAT cable (cross-over cable) because there are 2 pairs swapped, this will make POE OVER-CURRENT and damage POE components. Please use straight-through CAT cable (both RJ45 headers are 568A or 568B standard).
4. It is recommended that power up the device after connections of source, sink and CAT cable.
5. To reduce the interference among the unshielded twisted pairs of wires in CAT cable, do not run HDBaseT / Zone Cat5e/6/6a cabling with or in close parallel proximity to mains power cables. Shielded CAT cables can be used to improve EMI problems, which is worsen in long transmission.
6. Because the quality of the CAT cables has the major effect on how long the transmission limit can achieve and how good is the received picture quality, the actual transmission range is subject to one's choice of CAT cables.
7. Do not substitute or use any other Power Supply other than the enclosed unit, or a HDTV Supply approved Replacement Part. Doing so will void the warranty and potentially expose the user to dangerous voltages resulting in an electrical shock.
8. Do not disassemble the device for any reason. Doing so will void the manufacturer's warranty. Also, our unique case is an integral part of the design of this unit and is responsible for cooling and circuitry shielding. Any modifications to this case will potentially cause malfunction and product failure.
9. Do not expose the device to water, moisture, or liquids. Possible electric shock may result as well as failure of the unit to operate.

Table of Contents

| | |
|------------------------------------|----|
| 1. Introduction..... | 4 |
| 2. Features..... | 4 |
| 3. Panel Description..... | 5 |
| 4. Remote Control Description..... | 7 |
| 5. Connection Diagram..... | 8 |
| 6. Specifications..... | 9 |
| 7. Package Contents..... | 9 |
| 8. RS-232 Pin Assignment..... | 10 |
| 9. GUI Control..... | 10 |
| 10. Maintenance..... | 20 |
| 11. Warranty Policy..... | 20 |
| 12. Limitations of Warranty..... | 20 |
| 13. Exclusive Remedies..... | 21 |
| 14. RMA Policy..... | 21 |

Introduction

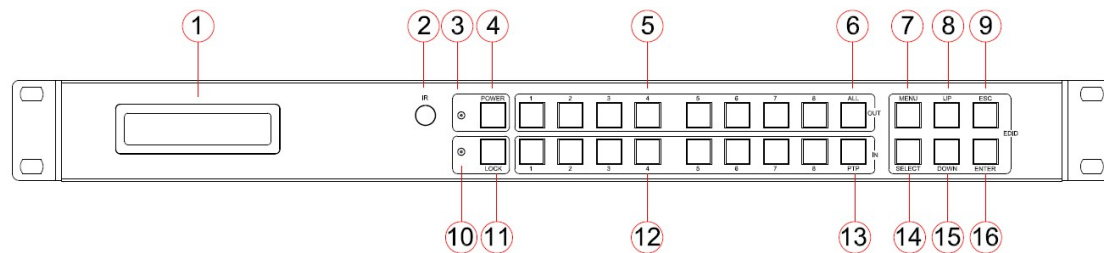
The HDTVMT0808VL2 HDBaseT 8×8 Matrix for HDMI routes eight Hi-Def sources to any eight HDTV displays, supporting 1080p Full HD up to 4K plus all 3D formats, along with multichannel digital audio formats such as Dolby® True HD and DTS-HD® Master Audio™. Based on HDBaseT chipset inside, the output distance can reach up to 70m over Cat5e/Cat6. Each source can be routed to any display using the front-panel push buttons, IR remote control, RS-232 interface, or via TCP/IP.

Features:

- Supports resolutions up to 1080p@60HZ, 48-bit deep color, 4k@30HZ
- HDBaseT chipset inside for the output distance up to 70m in 1080p, and 40m in 4K.
- Matrix can power the remote receiver, POH, no power supply needed for remote receivers.
- Allows any source to be displayed on multiple displays at the same time
- Allows any HDMI display to view any HDMI source at any time
- Dolby TrueHD and DTS-HD master audio pass through HDMI output
- Advanced EDID management for rapid integration of sources and displays
- Front-panel LCD display for status feedback
- Multiple switching mode, push-in button, IR remote control, RS-232 control, and TCP/IP control
- Easy installation with rack-mounting ears
- Full 3D pass-through.
- HDCP compliant

Panel Description

Front Panel



1. LCD display---Show the status of input-output selection, EDID info and so on.
2. IR receiver window----Receive the IR from the remote control of HDTVMT0808VL2.
3. Power LED indicator---Indicate the status of the power for the matrix.
4. Power button---Press to power on/off the matrix.
5. HDMI output selection button 1 to 8---Press to select the output from 1 to 8.
6. All button for HDMI outputs---Press to select all of the outputs from 1 to 8.
7. Menu button---Press to enter EDID set mode. Three EDID segments will display on the LCD panel formatted as: INPUT VIDEO AUDIO, for example: IN1 1080P 2.0CH, means to set 1080P 2.0CH EDID to INPUT1. The blinking segment is the one can be changed currently.

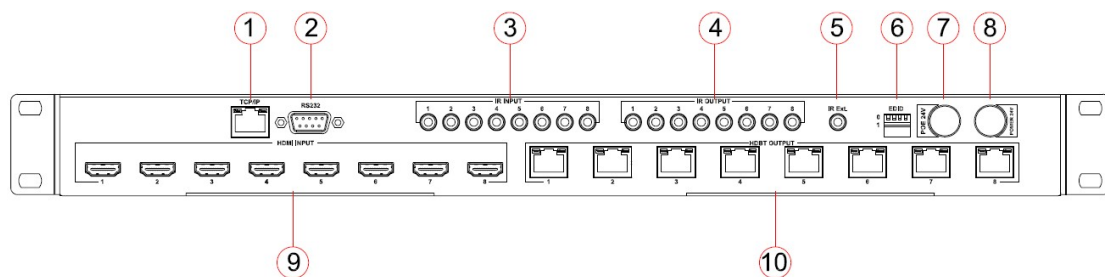
Segment content items as below:

| INPUT | VIDEO | AUDIO | Note |
|-------|-------|--------|--|
| IN1 | 1080I | 2.0CH. | |
| IN2 | 1080P | 5.1CH | |
| IN3 | 3D | 7.1CH | |
| IN4 | 4K2K | NONE | |
| IN5 | D1024 | | D1024=DVI 1024 x 768 |
| IN6 | D1080 | | D1080=DVI 1920 x 1080 |
| IN7 | D1200 | | D1200=DVI 1920 x 1200 |
| IN8 | OUT1 | | OUT1=Copy OUTPUT1 EDID to INPUTx |
| ALL | OUT2 | | ALL=Set EDID to ALL INPUTs OUT2=Copy OUTPUT2 EDID to INPUTx |
| | OUT3 | | OUT3=Copy OUTPUT3 EDID to INPUTx |
| | OUT4 | | OUT4=Copy OUTPUT4 EDID to INPUTx |
| | OUT5 | | OUT5=Copy OUTPUT5 EDID to INPUTx |
| | OUT6 | | OUT6=Copy OUTPUT6 EDID to INPUTx |
| | OUT7 | | OUT7=Copy OUTPUT7 EDID to INPUTx |
| | OUT8 | | OUT8=Copy OUTPUT8 EDID to INPUTx |

8. Up selection button--- Press to change segment's value.

-
9. ESC---Press to quit EDID set mode.
 10. Lock LED indicator---Indicate the status of Lock.
 11. Lock button---Press to lock the buttons of the front panel.
 12. HDMI input selection button 1 to 8---Press to select the input from 1 to 8.
 13. PTP button---Press to mirror all inputs and outputs (e.g. output 1 to input1, output 2 to input2 and so on).
 14. Selection button---Press to select segment to change setting. Selected segment will be blinking.
 15. Down selection button---Press to change segment's value.
 16. Enter button--- Press to set EDID to specified INPUT or copy EDID from specified OUTPUT to specified INPUT.

Rear Panel



1. RJ45 ----TCP/IP control
2. RS232 port---Connect to this port for the control of the matrix from a computer
3. IR inputs 1 to 8 ---- 3.5mm stereo phone-jack
4. IR outputs 1 to 8 ---- 3.5mm stereo phone-jack
5. IR extension receiver input ---- 3.5mm stereo phone-jack
6. DIP switch for EDID---1080i/2.0,1080p 3D/2.0,1080p/2.0,1080p/5.1,1080p/7.1, Copy and Use EDID from Display

| DIP ON (Down) /OFF (UP) Switching Positions | | | | EDID Type |
|---|-----|-----|-----|----------------|
| 1 | 2 | 3 | 4 | |
| OFF | OFF | ON | OFF | 1080p 3D/2.0 |
| OFF | ON | OFF | OFF | 1080p/2.0 |
| OFF | ON | ON | OFF | 1080i/2.0 |
| ON | OFF | OFF | OFF | 1080p/5.1 |
| ON | OFF | ON | OFF | 1080p/7.1 |
| ON | ON | OFF | OFF | 4K |
| OFF | OFF | OFF | OFF | Copy sink EDID |

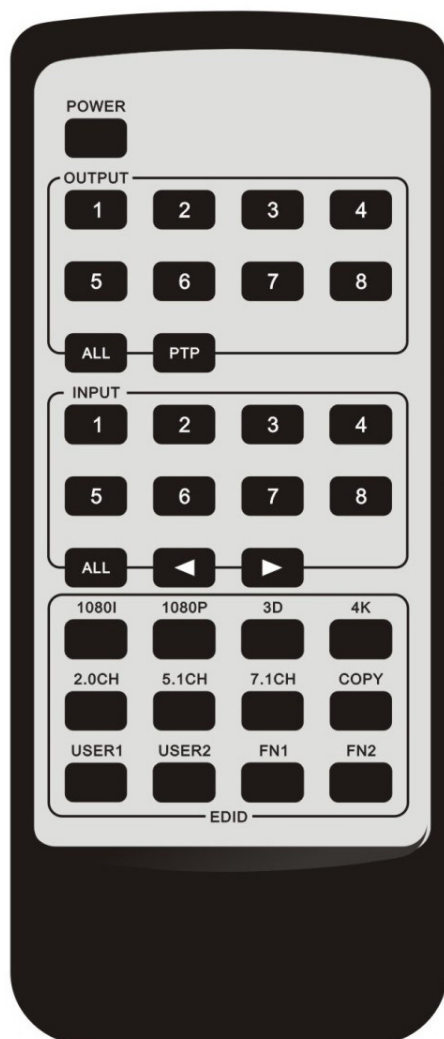
7. POE power port---Use included 24V/6.25A DC adaptor to power the remote receivers.

8. Power port---Use included 12V/6.25A DC adaptor to power the matrix switcher.

9. HDMI inputs 1 to 8----Connect HDMI sources.

10. HDBT outputs 1 to 8----Output for displays.

Remote Control Description



Output and Input select

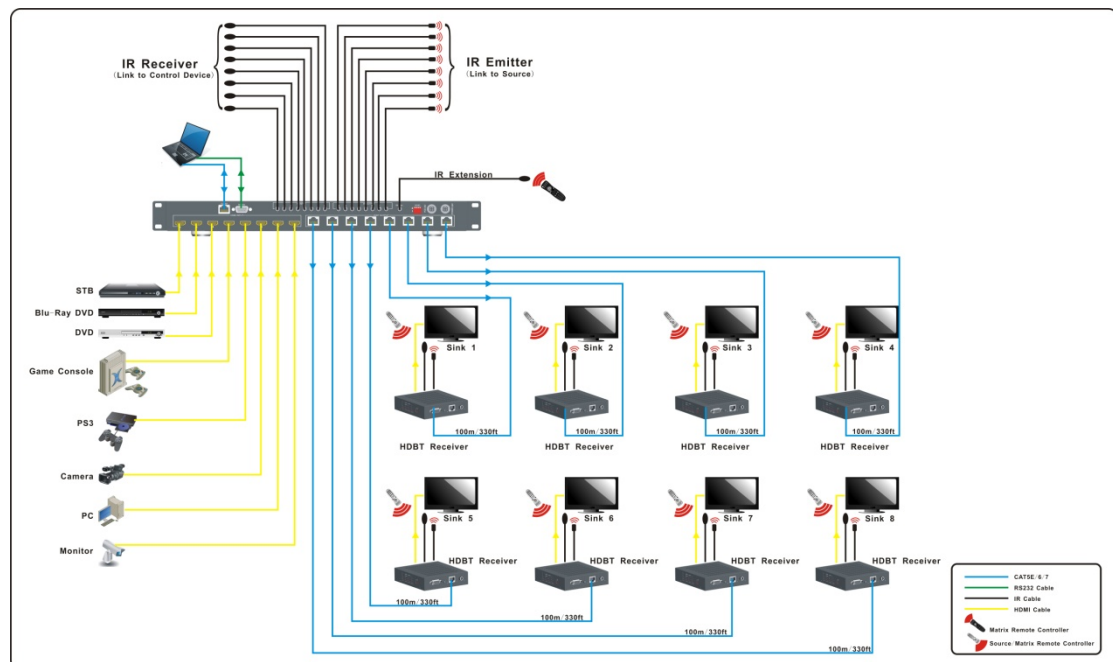
A. OUTPUT-X select INPUT-Y:

1. Press OUTPUT-X (X means 1 to 8 of outputs)→Press INPUT-Y (Y means 1 to 8 of inputs)
2. Press OUTPUT-X (X means 1 to 8 of outputs)→ press the left and right arrow buttons to select the input.

B. All outputs select INPUT-Y: Press ALL button in zone OUTPUT→Press INPUT-Y button (Y means 1 to 8 of inputs), then INPUT-Y switched to ALL OUTPUTS

C. Mirror all inputs and outputs (Ex. Input 1 to output 1, input 2 to output 2, etc): Press PTP button in Zone OUTPUT

Connection Diagram



Specifications

| | |
|-------------------------|------------------------------------|
| Bandwidth | 2.97Gbps per color |
| Video Input Connectors | 8 x HDMI Type A, 19-PIN, Female |
| Video Output Connectors | 8 x RJ45, Female |
| RS232 Serial port | DB-9, Female |
| TCP/IP Port | RJ45, Female |
| IR Input Ports | 9 x 3.5mm Stereo Jack |
| IR Output Ports | 8 x 3.5mm Stereo Jack |
| Rack-Mountable | 1U Rack Height, Rack Ears included |
| Dimensions(Lx Wx D) | 428mm x 300mm x 43mm, w/o feet |
| Shipping Weight | 2.7KG |
| Operating Temperature | 32°F to 104°F (0°C to 40°C) |
| Storage Temperature | -4°F to 140°F (-20°C to 60°C) |
| Power Supply | 12V/5A DC (Main), 24V/6A DC (POH) |

NOTE: Specifications are subject to change without notice. Weight and dimensions are approximate.

Package Contents

1. 1x HDTVMT0808VL2 Matrix Switcher
2. 8x IR Emitters
3. 9x IR Receivers
4. 1x 12V/5A DC Power Supply for Matrix
5. 1x 24V/6A DC Power Supply for Receivers, POH
6. 1x Main Remote Control
7. 8x zone Remote Controls
8. 2x Rack mount ears
9. 1x CD for control software

RS-232 Pin Assignment

| HDTVMT0808VL2 | | Remote Control Console | |
|---------------|------------|------------------------|------------|
| PIN | Assignment | PIN | Assignment |
| 1 | NC | 1 | NC |
| 2 | Tx | 2 | Rx |
| 3 | Rx | 3 | Tx |
| 4 | NC | 4 | NC |
| 5 | GND | 5 | GND |
| 6 | NC | 6 | NC |
| 7 | NC | 7 | NC |
| 8 | NC | 8 | NC |
| 9 | NC | 9 | NC |

Baud Rate: 57600 bps

Data Bit: 8-bit

Parity: None

Stop Bit: 1-bit

Flow Control: None

GUI Control

PC System: Microsoft Windows Operation System

Installation

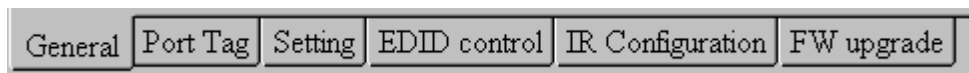
8x8 HDMI Matrix controller is a green software. You just need to copy "8x8 HDMI Matrix Controller vx.x.exe" to the PC which is used to control the Matrix by RS232 COM or TCP to complete installation.

Preparation

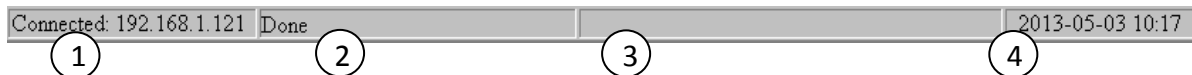
- ① Connect PC and Matrix by RS232 cable or UTP cable
- ② Power up Matrix (It will take about 5 seconds to be ready)
- ③ Double click "8x8 HDMI Matrix Controller vx.x.exe" icon to run it

How to control Matrix

Common information

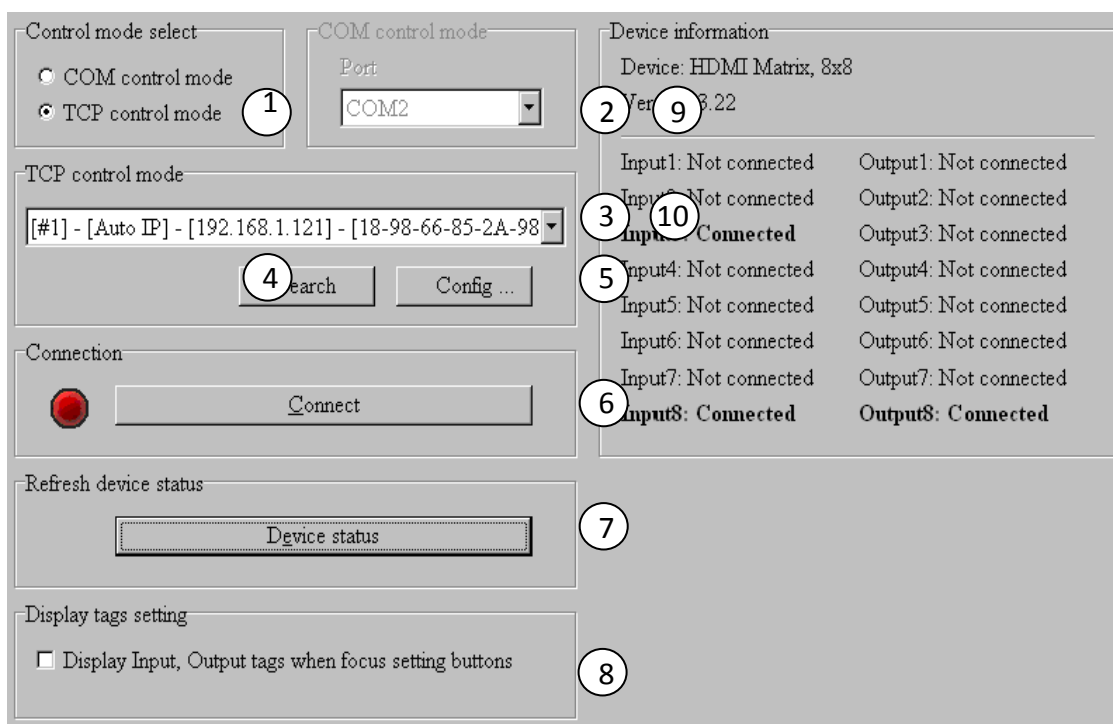


Click to select tab page



- ① COM port or TCP connect status
- ② Control command process status
- ③ Prompt message display area
- ④ Date and Time display

“General” page



- ① Select control mode: RS232 COM mode (Auto COM ports detected) or TCP mode
- ② List detected COM ports
- ③ List all Matrix devices after search operation
- ④ Click to search all Matrix devices that connected in same subnet
- ⑤ Click to configuration the selected Matrix's TCP control configurations
- ⑥ Click to connect or disconnect PC and Matrix (Connection will be established automatically before control commands sending)
- ⑦ Click to refresh device status: include device information displayed in ⑨ area and Input/output port connection status in ⑩ area.

NOTE: Tab pages cannot be changed during control command is processing.

-
- ⑧ To enable or disable Input/output tags displaying when setting buttons on “Setting” page focused
 - ⑨ Device information display area
 - ⑩ Input/output port connection status

Set TCP control configuration

Click Config button to show TCP configuration window.



- ① Set tag to identify Matrix device
- ② Set IP mode: Subnet should support DHCP protocol when set Auto IP mode, then Matrix device will obtain IP automatically. Otherwise, set Static IP mode and designate a useable IP for Matrix device
- ③ Set IP address, not editable when Auto IP mode selected. **Note:** The last IP BYTE's range is 2-252.
- ④ Matrix device MAC address
- ⑤ Click OK to set configuration. If configuration is set OK, Matrix devices will be searched out again
- ⑥ Click to Close the window and configuration cancelled

“Port Tag” page

| Input port tags | | Output port tags | |
|-------------------------------|--------------------------|--------------------------------------|----------------------------|
| Tag of Input1 Blue-ray DVD | Tag of Input5 Device5 | Tag of Output1 Meeting room | Tag of Output5 Display5 |
| Tag of Input2 Game player | Tag of Input6 Device6 | Tag of Output2 Entertainment room | Tag of Output6 Display6 |
| Tag of Input3 Set-top Box | Tag of Input7 Device7 | Tag of Output3 VIP | Tag of Output7 Display7 |
| Tag of Input4 PC | Tag of Input8 Device8 | Tag of Output4 Office | Tag of Output8 Display8 |
| Edit | | Edit | |

- ① Input port tags
- ② Click to edit Input port tags
- ③ Output port tags
- ④ Click to edit Output port tags

NOTE: Edit boxes are read only, click “Edit” button to pop up window to edit the tags.

One set of Input/output port tags can be set for Matrix device when COM control mode selected.

Input/output port tags can be set for respective Matrix device according to device’s MAC address.

Edit Input port tags

After action of ②, edit form will pop-up as below:

| Input port tags | |
|--|---------------------------------------|
| Device name connect Input1 Blue-ray DVD | Device name connect Input5 Device5 |
| Device name connect Input2 Game player | Device name connect Input6 Device6 |
| Device name connect Input3 Set-top Box | Device name connect Input7 Device7 |
| Device name connect Input4 PC | Device name connect Input8 Device8 |

OK Cancel

Define tags for respective Input port, then devices connect the Input ports can be easily remembered.

Click buttons with “x” caption to delete tag which is no use any more, if tag is still used by any other Input port, delete action will be discarded.

Edit Output port tags

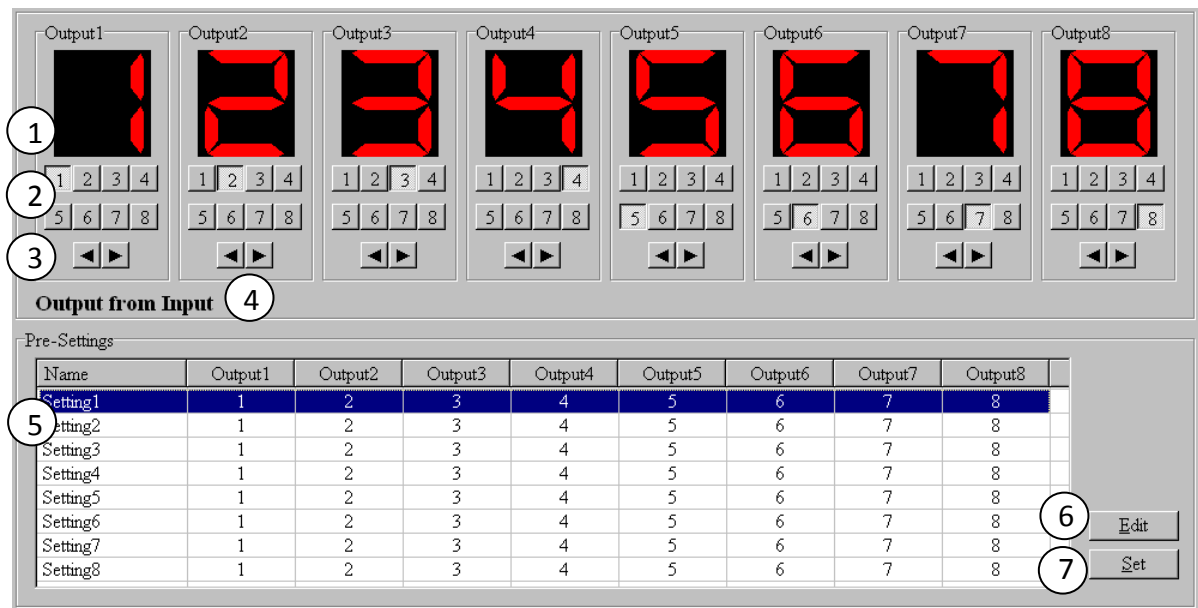
After action of ④, edit form will pop-up as below:

| Display name connect Output | Display name connect Output |
|-----------------------------|-----------------------------|
| Meeting room | Display5 |
| Entertainment room | Display6 |
| VIP | Display7 |
| Office | Display8 |

Define tags for respective Output port, then displays connect the Output ports can be easily remembered.

Click buttons with “x” caption to delete tag which is no use any more, if tag is still used by any other Output port, delete action will be discarded.

“Setting” page

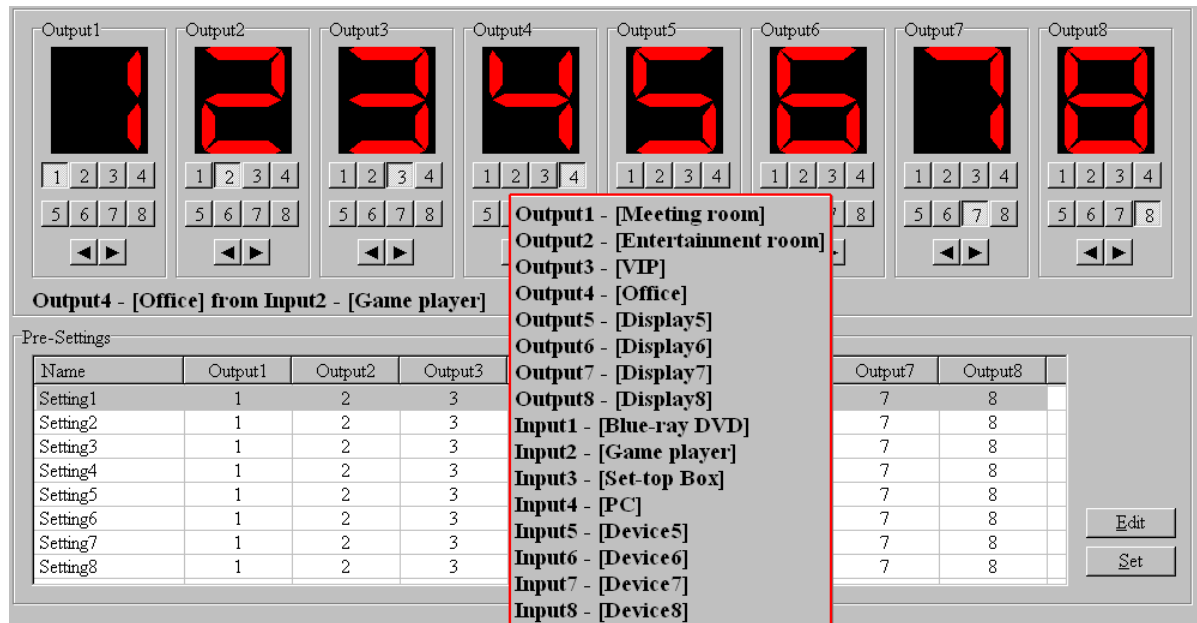


- ① LED which displays Input number for respective Output port
- ② Click to select Input port for respective Output port
- ③ Click to select previous or next Input port for respective Output port
- ④ Display Output from Input with tag information when mouse moves over ② buttons
- ⑤ Pre-Setting items: Default is Port to Port
- ⑥ Click to edit selected pre-setting item
- ⑦ Set selected pre-setting item to Matrix

NOTE: When Change to this “Setting” page, software will try to refresh source selection status of Output port.

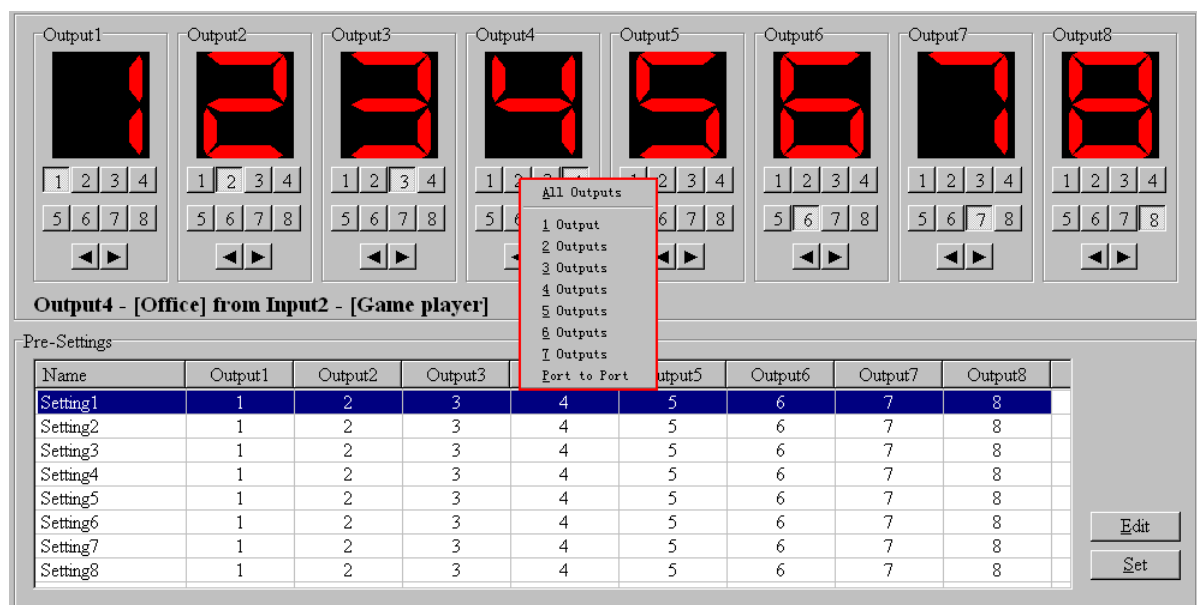
Pop-up tag messages

When “Display Input, Output tags when focus setting buttons” checkbox on “General” page is checked and Input/output port tag has been defined, tag messages will pop up like as:



Pop-up Menu

When mouse moves over ② setting buttons, and click mouse right button, menu will pop up like as:



All Outputs: All Outputs from same Input

“1 Output” to “7 Outputs”: Set current Output (where mouse right clicked) and the next x-1 (x range is from 1 to 7, set total x Outputs at the same time) Output(s) from same Input

Port to Port: Output1 from Input1, Output2 from Input2, Output3 from Input3, etc.

Edit selected pre-setting item

After action of ⑥, edit form will pop-up as below:

- ① Pre-Setting name
- ② Set all Output ports from same Input
- ③ Select Input for respective Output

“EDID control” page

- ① Set EDID mode for selected Input port or All Input ports, click “Set” button to complete action.

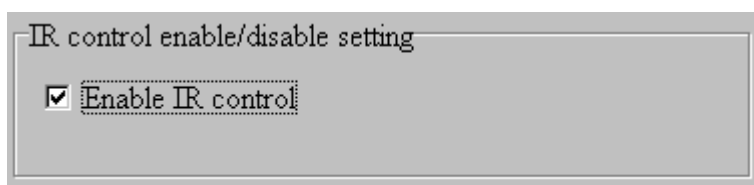
NOTE: When set User1/User2 EDID mode, should Download EDID content to User1 Memory/User2 Memory first. User1/User2 default EDID content is 1080p, Stereo Audio 2.0.

- ② Copy EDID from Output port to selected Input port or All Input ports, click “Copy” button to complete action.
- ③ Read EDID content from Output port and display in grid, click “Read” button to complete action.
- ④ Save EDID content which displayed in grid to binary file (file extension is “.bin”)
- ⑤ Open EDID binary file and display in grid
- ⑥ Download EDID content which displayed in grid to selected Input port or All Input ports, click “Download” button to complete action. When User1 Memory/User2 Memory selected, download EDID content to respective memory then User1/User2 EDID mode can be set.
- ⑦ EDID content displaying grid

NOTE: EDID content displayed in grid is read only.

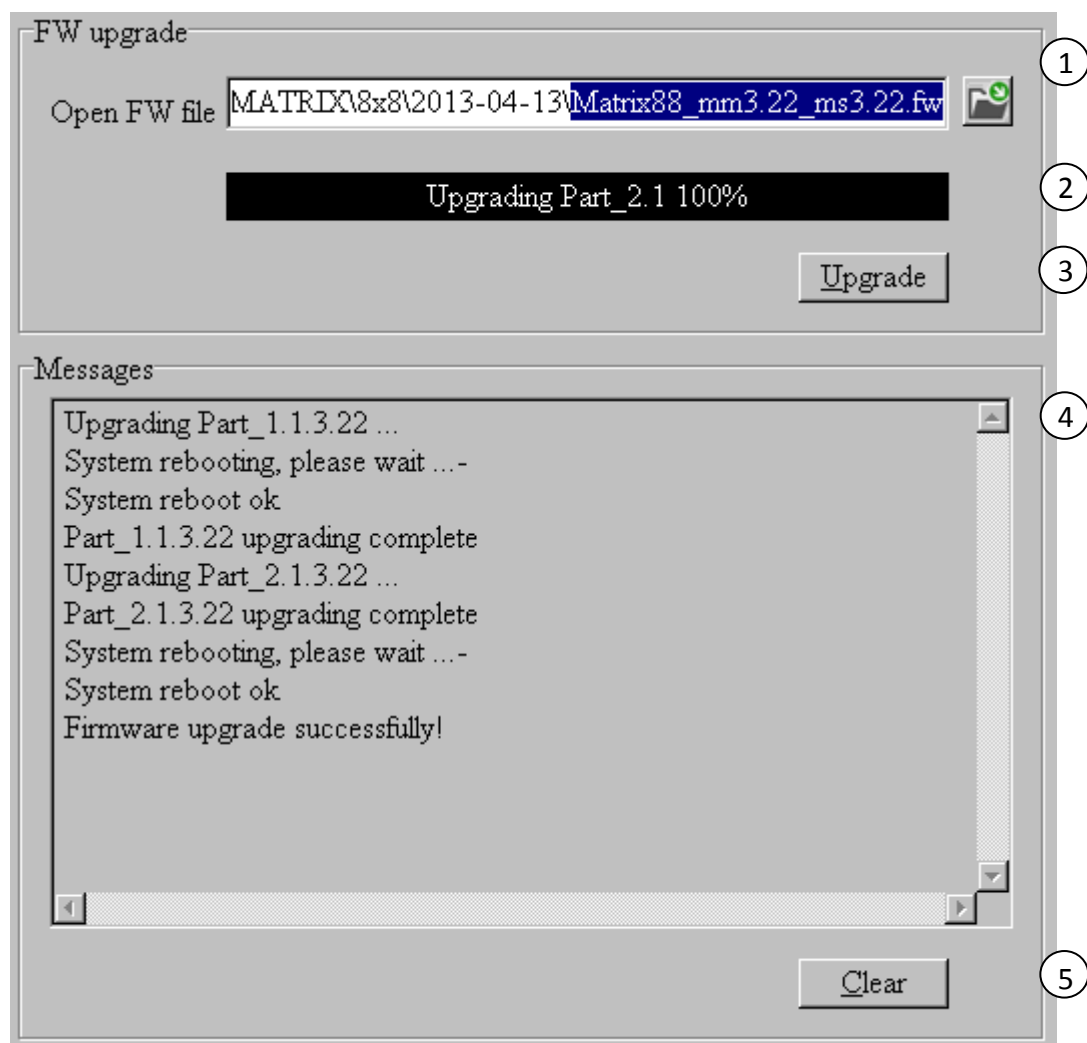
- ⑧ Click to clear EDID content displayed in grid

“IR Configuration” page



To enable or disable IR control function. When box checked, IR control function enabled, otherwise, IR control function disabled. This setting is not memorized. IR control function is always enabled after power up.

“FW upgrade” page



- ① Click to open firmware file (file extension is ".fw").
- ② Firmware upgrade progress
- ③ Click the button to upgrade firmware.

NOTE: If failure occurs during upgrading firmware process, the following steps SHOULD be done sequentially to establish next upgrading procedure:

- 1) Power down the Matrix
- 2) Close the 8x8 HDMI Matrix Controller
- 3) Re-power up the Matrix, then wait for 10 seconds to ensure the Matrix is ready
- 4) Run 8x8 HDMI Matrix Controller, open firmware file and upgrade again

- ④ Firmware upgrading messages display
- ⑤ Click to clear the messages displayed in the memo box.

Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

Warranty Policy

HDTV Supply products are warranted against defects in material and workmanship for two years from the date of shipment. During the warranty period, HDTV Supply will, at its option, repair or replace products that prove to be defective. Repairs are warranted for the remainder of the original warranty or a 90 day extended warranty, whichever is longer.

For equipment under warranty, the owner is responsible for freight to HDTV Supply and all related customs, taxes, tariffs, insurance, etc. HDTV Supply is responsible for the freight charges only for return of the equipment from the factory to the owner. HDTV Supply will return the equipment by the same method (i.e., Air, Express, Surface) as the equipment was sent to HDTV Supply.

All equipment returned for warranty repair must have a valid RMA number issued prior to return and be marked clearly on the return packaging. HDTV Supply strongly recommends all equipment be returned in its original packaging.

Tonlyware's obligations under this warranty are limited to repair or replacement of failed parts, and the return shipment to the buyer of the repaired or replaced parts.

Limitations of Warranty

The warranty does not apply to any part of a product that has been installed, altered, repaired, or misused in any way that, in the opinion of HDTV Supply, would affect the reliability or detracts from the performance of any part of the product, or is damaged as the result of use in a way or with equipment that had not been previously approved by HDTV Supply.

The warranty does not apply to any product or parts thereof where the serial number or the serial number of any of its parts has been altered, defaced, or removed.

The warranty does not cover damage or loss incurred in transportation of the product.

The warranty does not cover replacement or repair necessitated by loss or damage from any cause beyond the control of HDTV Supply, such as lightning or other natural and weather related events or wartime environments.

The warranty does not cover any labor involved in the removal and or reinstallation of warranted equipment or parts on site, or any labor required to diagnose the necessity for repair or replacement.

The warranty excludes any responsibility by HDTV Supply for incidental or consequential damages arising from the use of the equipment or products, or for any inability to use them either separate from or in combination with any other equipment or products.

A fixed charge established for each product will be imposed for all equipment returned for warranty repair where HDTV Supply cannot identify the cause of the reported failure.

Exclusive Remedies

Tonlyware's warranty, as stated is in lieu of all other warranties, expressed, implied, or statutory, including those of merchantability and fitness for a particular purpose. The buyer shall pass on to any purchaser, lessee, or other user of Tonlyware's products, the aforementioned warranty, and shall indemnify and hold harmless HDTV Supply from any claims or liability of such purchaser, lessee, or user based upon allegations that the buyer, its agents, or employees have made additional warranties or representations as to product preference or use.

The remedies provided herein are the buyer's sole and exclusive remedies. HDTV Supply shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.

RMA Policy

When returning product to HDTV Supply for any reason, the customer should fill out the official RMA form to obtain a RMA number. Without the permission or approval, HDTV Supply will be no responsible for any return. This can be initiated by emailing or calling your related sales.

All requests are processed within 48 hours.

Standard Replacement

For customers that agree to return defective product to HDTV Supply first, a Standard Replacement option is available.

An RMA number must first be issued by sales. This RMA number will need to be referenced on the outside of the return shipment.

Upon receipt of the defective product, HDTV Supply will, at its discretion, either repair or replace the product and ship it out in the most expeditious manner possible. Subject to availability, the replacement product will be shipped on the business day following receipt of the defective product.

In the event the product returned to HDTV Supply has been discontinued (i.e. the product is no longer being manufactured by HDTV Supply but is still under warranty), HDTV Supply will, at its discretion, either repair or replace with recertified product.

Once you have obtained an RMA number

After obtaining an RMA number from HDTV Supply, you must send the product - freight prepaid - to HDTV Supply Technology Co., Ltd. The HDTV Supply RMA number must be prominently displayed on the outside of your package. If you send your product to HDTV Supply without the RMA number prominently displayed on the outside of the package, it will be returned to you unopened.

Please use a shipping company that can demonstrate proof of delivery. HDTV Supply does not accept responsibility for any lost shipments unless proof of delivery to HDTV Supply is provided.

Please note:

Product shipped to HDTV Supply must be properly packaged to prevent loss or damage in transit.

Shipping your RMA to HDTV Supply using regular mailing envelopes is not acceptable, as they do not protect the product from damage during shipping.

HDTV Supply will not repair or replace a module that is shipped in such a way that the product is not properly protected.

HDTV Supply will not accept any product that has been damaged as a result of accident, abuse, misuse, natural or personal disaster, or any unauthorized disassemble, repair or modification.