

Model No: LM-HD808

Operating Instructions

Thanks for purchasing our product.

Please be sure to read this instruction manual carefully before using our product.



Introduction

LM-HD808 is an 8-by-8 HDMI matrix. It allows any of the eight Input Channels (HDMI) to be routed to any of the eight Output Channels (HDMI), no matter the source is HDCP or not. Users can choose several different ways to control the matrix: by using infrared, RS232, and LAN and supplied remote control.

LM-HD808 internal EDID library features default EDID configurations, in addition to native EDID data for any output/display.

LM-HD808 offers solutions for digital entertainment center, HDTV retail and show site, HDTV, STB, DVD and projector factory, noise, space and security concerns, data center control, information distribution, conference room presentation, school and corporate training environments.

HDMI Matrix (Routing Type)



■ Product Overview

Dear customer

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.

■ Features

- Allows up to eight HDMI audio/video devices to be independently switched to eight HDMI monitors, HDTV's, or projectors.
- The eight output channels could show the same or different source simultaneously no matter the source is HDCP or not.
- Reading and saving EDID function from displays.
- Support high definition resolutions, including: 1080p@60Hz@36 b/pixels, 3D, 1080i, 720p and other standard video formats.
- Each port support both HDMI and DVI inputs.
- With extra infrared extension receiver.
- Four switching modes: panel buttons, local IR, RS232 and Ethernet.
- HDCP compliant
- HDMI 1.3 supported.

Notice

Grand being Inc. reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

Warning

To reduce the risk of fire, electric shock or product damage:



1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



6. Clean this apparatus only with dry cloth.



2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.



7. Unplug this apparatus during lightning storms or when unused for long periods of time.



3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



8. Protect the power cord from being walked on or pinched particularly at plugs.



4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



9. Only use attachments / accessories specified by the manufacturer.



5. Do not place sources of naked flames, such as lighted candles, on the unit.



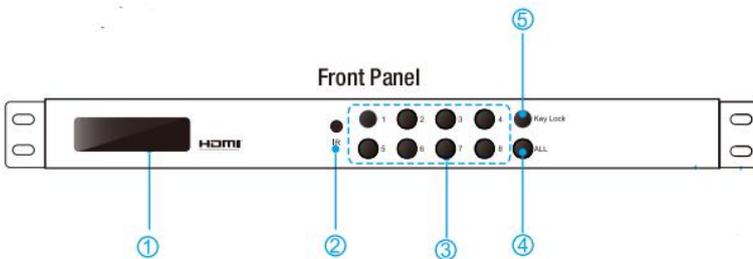
10. Refer all servicing to qualified service personnel.

■ Package Contents

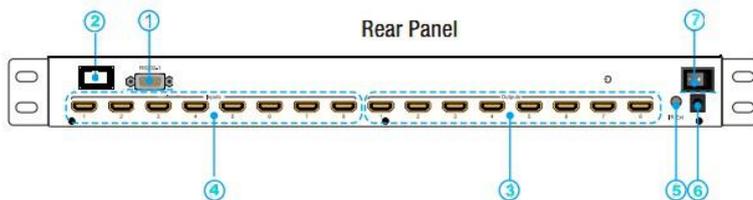
- ① 1x Main unit. P/N_ LM-HD808.
- ② 1x Remote.
- ③ 1x IR RX (IR receiver cable).
- ④ 1x RS232 converter.
- ⑤ 12V/DC Power Supply.
- ⑥ Operating Instructions.
- ⑦ Mounting ears.

📖 **NOTE:** PART NUMBER (Abbreviation as P/N).

■ Panel Descriptions



- ① LCD indicator, displays the status of each output port.
- ② IR receive window.
- ③ OUT1~8 & IN1~8: Press the output source selection button in order to choose which input port corresponds to the desired output port. First select your output port from 1~8, then choose the desired input port from ports 1~8.
- ④ ALL: Press this button to set all the outputs to display with the same input. First press the "ALL" button then press an input number to confirm the selection.
- ⑤ LOCK: Press this button to lock all the functions and press it again to release the lock.



- ① RS232 port.
- ② LAN port.
- ③ HDMI output port.
- ④ HDMI input port (HDMI or DVI).
- ⑤ Power: Press this button to turn the system on.
- ⑥ IR extender: This slot is where you can extend your IR receiver with an IR extender cable that supports only 38KHz.
- ⑦ Power input: Plug the 12V DC power supply into the unit and connect the adapter to an AC wall outlet.

■ Connections and Operations

- 1) Connect the HDMI input source (such as HD-DVD/ PS3/STB etc.) into LM-HD808.
- 2) Connect HDMI OUT of LM-HD808 to display equipment.
- 3) Connect the Broadband IR receive cable into LM-HD808 IR RX ports.
- 4) Power on the input source you want to show. (Keep the unused input power off, otherwise it may interfere the normal display).
- 5) Plug the power cable into LM-HD808.
- 6) Turn on the power, when the LED panel stops flashing circularly, the initialization of the matrix are ready.
- 7) Turn on the displays you want to watch.
- 8) Use the remote to control the matrix, or using Front Panel, RS232 and LAN port to control.

2. Control via IR remote.

User can control the HDMI route of the matrix by using the IR remote. There are two group key pads for sixteen ports. Press the output source selection button in order to choose which input port corresponds to the desired output port. (For example: Output 8 select Input 7, first press output 8, then press input 7, LCD display 8-7)



 **NOTE:** if the IR remote isn't work, please press the " system code switch key", but please do not put the remote against the LM-HD808

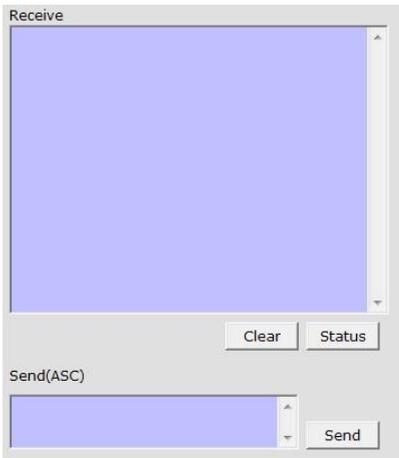
3. Control via RS232.

1) The Interface of LM-HD808 control



2) The Message Window

2.1) Receive Window



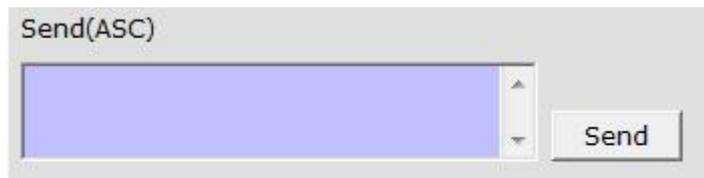
The “receive window” will show the message received from HD808. When you click the Control Buttons (⌘↵ see step 4) or send Control Command (⌘↵ see 2.3) to HD808, it will send out the message about “operation results” as below:

2.2) Status Button

Click this button to read the status of HD808. The status is about which input is selected by the output.

2.3) Send Window

Input the control command in this window. The control command use ASCII.

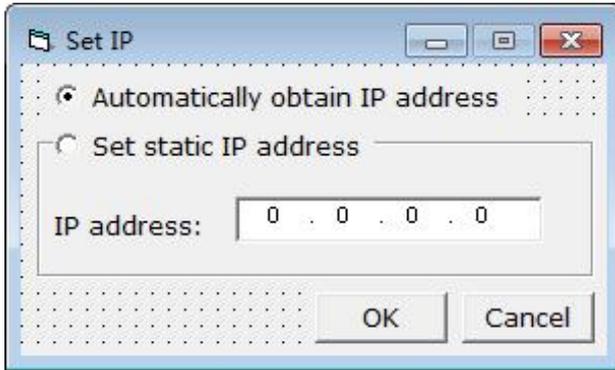


2.4) Setting Button

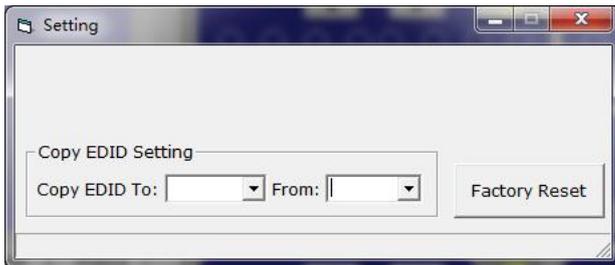
Click this button to enter Setting menu.

2.5) IP SET Button

Click this button to set IP address for LAN control (for example: 192.168.0.3).

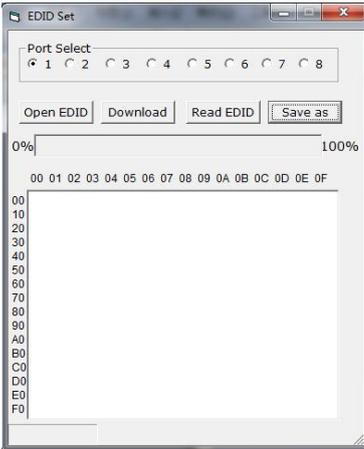


2.6) EDID Copy Set button



To click the menu to choose the INPUT A and Output B can copy the EDID of Output B Display to the Input A and also can do save of the EDID info . Factory Reset button represents the functions of setting the EDID back to the default EDID.(1080 2CH)

2.7) EDID Set button



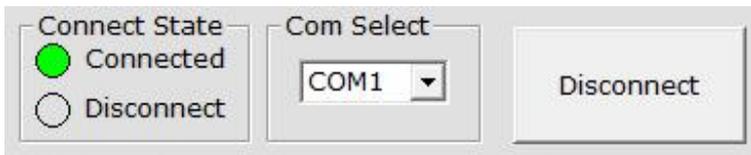
Select the Output Port in “Port Select” column, click “Read” button to get EDID from display equipment.

Select the Input Port in “Port Select” column, click “Write” button to set EDID of this Input Port the same as display equipment.

Click “Save as” button to save EDID read from display equipment as “*.bin” file.

Click “Open” button to open saved “*.bin” file, select the Input Port in “Port Select” column, click “Download” button to set EDID of this Input Port the same as “*.bin” file.

3) The Com status



3.1) Connect state.

Connect state shows the com open or not.

3.2) Com select.

→ Select which com you will use.

→ Connect button.

The word on this button will change when the connection state changes. If the word is “Disconnect”, then click this button, the com will be closed. If the word is “Connect”, then click this button, the com will be opened.

4) Control command format

If user want to write his own control software, below are data format and baud rate setting.

Com port setting:

Baud Rate:	9600 bps
Data bits:	8 bits
Parity:	None
Stop bits:	1 bit
Flow control:	None

5) RS232 command

command	HEX	feedback	description
cir_0x\r\n	63 69 72 20 30 xx 0D 0A	s1y	Output 1 select input 1~8 "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
cir_1x\r\n	63 69 72 20 31 xx 0D 0A	s2y	Output 2 select input 1~8 "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
cir_2x\r\n	63 69 72 20 32 xx 0D 0A	s3y	Output 3 select input 1~8 "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
cir_3x\r\n	63 69 72 20 33 xx 0D 0A	s4y	Output 4 select input 1~8 "x" : indicate the input port, range from 0~7.

			"y" : indicate the input port, range from 1~8.
cir_4x\r\n	63 69 72 20 34 xx 0D 0A	s5y	Output 5 select input 1~8 "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
cir_5x\r\n	63 69 72 20 35 xx 0D 0A	s6y	Output 6 select input 1~8 "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
cir_6x\r\n	63 69 72 20 36 xx 0D 0A	s7y	Output 7 select input 1~8 "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
cir_7x\r\n	63 69 72 20 37 xx 0D 0A	s8y	Output 8 select input 1~8 "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
asw_x\r\n	61 73 77 20 xx 0D 0A	s1y s2y s3y s4y s5y s6y s7y s8y	All output select input x; "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
bc_\r\n	62 63 20 0D 0A	s1x	Obtain the input status.

		s2x s3x s4x s5x s6x s7x s8x	"x" : indicate the input port, range from 1~8.
sed_x_y\r\n	73 65 64 20 xx 20 yy 0D 0A	sed_x_y	Copy edid from "x" to "y", "x""y" range from 0~7
rst_\r\n	72 73 74 20 0D 0A		Reset factory settings.

6) Web password reset

The command length is 4 bytes.

rpw+ '↵'

"rpw" is the key word , '↵' is carriage return.

When you send the Web password reset command to MX0808, if succeed, it will feedback "rpw", and the web password will be set as "0000000000".

4. LAN control

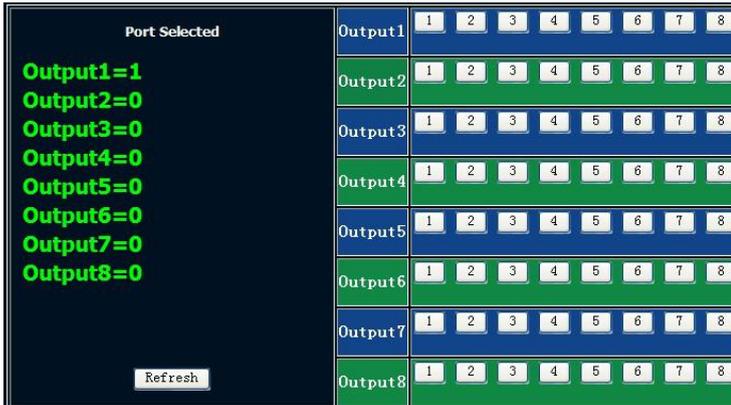
Note: Use the direct UTP cable to connect with PC, or use cross cable to connect to the Ethernet switcher

A. Double click **Netfinder.exe**. Click “Search” button to get the device IP address.



B. Click “Web Browser” button. A web browser will be shown. The default password is “0000000000”, input the password and login. The device controller page will be displayed.

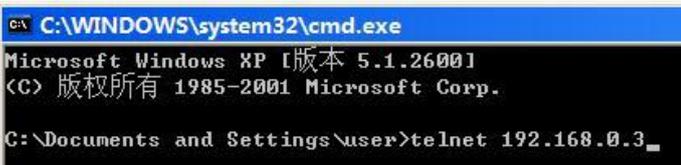




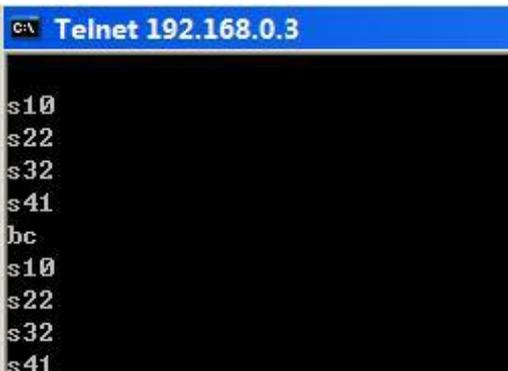
The right area is for device controlling. Click these buttons to control the device. It is the same as using the remote controller. The left area shows which input ports are being chosen by the output ports.

C. Telnet Control

Telnet matrix's IP address



Now you can control the matrix (Page 14: Control command format)



■ Specifications

Operating Temperature Range	0 to +35°C (32 to +95°F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Video Format Supported	DTV/HDTV:3D/ 1080P/1080i/720P/ 576P/480P/576i/480i
Audio Format Supported	DTS -HD、Dolby HD
Output Video	HDMI 1.3 with 3D
Maximum Transmission Distance	1080P 15m over HDMI cable
Power Consumption	24 Watts (Max.)
Dimensions	W436.9XH211XT44.5mm
Mass (Main unit)	2800g

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

■ Typical Application



■ Maintenance

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

■ Product Service

● Provided Service

- 1) **Damage Requiring service:** The unit should be serviced by qualified service personnel if:
 - The DC power supply cord or AC adapter has been damaged;
 - Objects or liquids have gotten into the unit;
 - The unit has been exposed to rain;
 - The unit does not operate normally or exhibits a marked change in performance;
 - The unit has been dropped or the cabinet damaged.
- 2) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- 3) **Replacement parts:** When parts need replacing ensure the service uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4) **Safety check:** After repairs or service, ask the service to perform safety checks to confirm that the unit is in proper working condition.

● Mail-In Service

When shipping the unit, carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a daytime phone and/or email address where you can be reached.

If repair is needed during the limited warranty period the purchaser will be required to furnish a sales receipt/proof of purchase indicating date of purchase, amount paid and place of purchase. Customer will be charged for the repair of any unit received without such proof of purchase.

● Warranty

If your product does not work properly because of a defect in materials or workmanship, Grand being Company (referred to as "the warranty") will, for the length of the period indicated as below,

(Parts (1) Year, Labor(90) Days)which starts with the date of original purchase (“Limited Warranty period”), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warranty.

During the “Labor” Limited Warranty period there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

● **Warranty Limits And Exclusions**

- 1) This Limited Warranty **ONLY COVERS** failures due to defects in materials or workmanship, and **DOES NOT COVER** normal wear and tear or cosmetic damage. The Limited Warranty **ALSO DOES NOT COVER** damages which occurred in shipment, or failures which are caused by products not supplied by the warranty, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, maladjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service Center or other Authorized Service, or damage that is attributable to acts of God.
- 2) There are no express warranties except as listed under “limited warranty coverage”. The warranty is not liable for incidental or consequential damages resulting from the use of this product, or arising out of any breach of this warranty. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service location, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)
- 3) Parts and service, which are not covered by this limited warranty, are your responsibility.