

# ENFORCER®

## 4K HDMI 4x2 Matrix

MVM-AH42-42Q

Installation Manual



The ENFORCER 4K HDMI 4x2 Matrix can switch 4 HDMI sources to 2 HDMI displays. It supports up to 4K2K@60Hz YCbCr 4:4:4 and HDCP 2.2 and can extract HDMI source audio to optical and analog L/R output. It can downscale to 1080p for displays that cannot display 4K. It supports ARC and EDID over 18Gbps bandwidth and can be controlled by buttons on the front or with an included remote control.

- 4 HDMI inputs and 2 HDMI outputs – each output can display any of the four sources
- Supports 4K2K@50/60Hz (YCbCr 4:4:4), 4K2K@30Hz, all HDMI 3D formats and more
- Supports 18Gbps video bandwidth uncompressed
- Both outputs can downscale to 1080p if needed
- Supports HDR10+, Dolby Vision, and HLG
- Supports advanced EDID management, including AUTO, COPY, and STD
- Supports Audio Return Channel (ARC)
- Easy control via buttons on front or an included remote control

**Parts List**

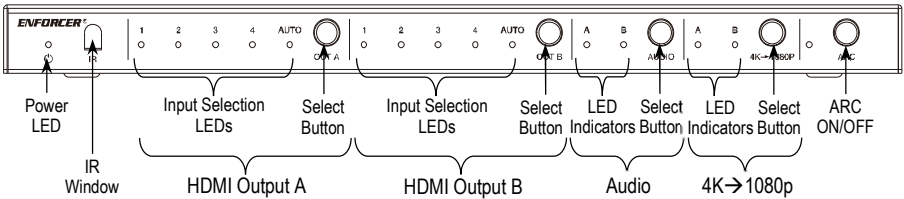
1x Matrix    1x Remote control    1x 12VDC Power adapter    2x Mounting ears    1x Manual

**Specifications**

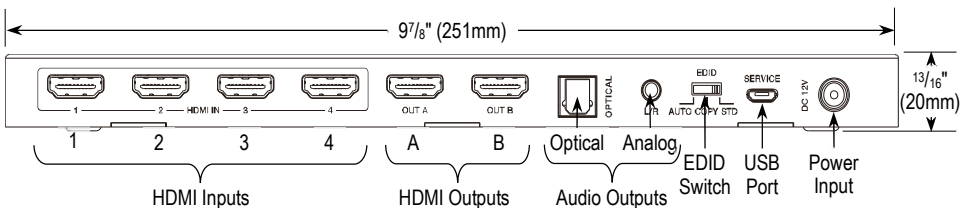
Input video signal	3.3V	
Video formats supported	HDMI 2.0, HDCP	
Audio formats supported	PCM 2.0/5.1/7.1, Dolby Digital/Plus/EX, Dolby TrueHD, DTS, DTS-EX, DTX-96/24, DTS High Res, DTS HD Master, DSD	
Output video	HDMI	
Resolutions supported	Up to 4K2K@50/60Hz (YCbCr 4:4:4), 4K2K@30Hz, all HDMI 3D, etc.	
Video amplifier bandwidth	18Gbps	
Video connector	Input	HDMI Type A 19-pin female
	Output	HDMI Type A 19-pin female
Maximum cable length	Input	26ft (8m)
	Output	9.8ft (3m)
Operating voltage	12VDC	
Power supply	1A@12VDC Power adapter	
ESD protection (human body model)	±8kV (air-gap discharge), ±4kV (contact discharge)	
Current draw	320mA@12VDC	
Operating humidity	20~90% (non-condensing)	
Operating temperature	32°~104° F (0°~40° C)	
Dimensions	9 7/8" x 13 1/16" x 4 1/8" (251x20x105 mm)	
Weight	1-lb 6-oz (620g)	

**Overview**

Front Panel – Selector Buttons



Rear Panel



## Installation

1. Determine where the HDMI Matrix will be installed in relation to the HDMI sources and displays that the unit will be switching between.
2. Plug the HDMI sources into the HDMI connector inputs on the back of the matrix.
3. Plug the HDMI displays into the HDMI connector output on the back of the matrix.
4. Connect any audio devices such as speakers or an amplifier using optical and/or analog cables.
5. Plug the supplied 12VDC power adapter into the matrix.
6. Turn on the HDMI sources and displays. Use the included remote or selection buttons on the switch to change the HDMI sources going to the corresponding HDMI displays.

## Operation

1. Press the *Out A* and *Out B* selector buttons to scroll through the 4 inputs and choose which input should be displayed on the corresponding output.
2. Alternately, press and hold either the *Out A* or *Out B* buttons for 3 seconds to turn *AUTO* for that output on (or off). With *AUTO* on, it automatically chooses the most recent input for that output.
3. The *AUDIO* button allows you to select which output's audio will be sent to the optical and analog audio outputs. If *Audio Return Channel (ARC)* has also been selected (using the *ARC* button), the audio will be directed only to the optical output and the analog port will be muted.
4. The *4K→1080p* button allows you to select one output for which the 4K input will be downscaled to 1080p for a monitor that does not support 4K.
5. The EDID switch on the back of the matrix supports *AUTO* (selects the best format), *COPY* (picks the format from the monitor), and *STD* (picks the format from the source).

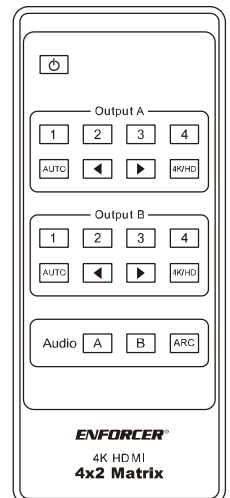
**NOTE:** For each button, corresponding blue LEDs will light to indicate the current selection.

## Remote Control

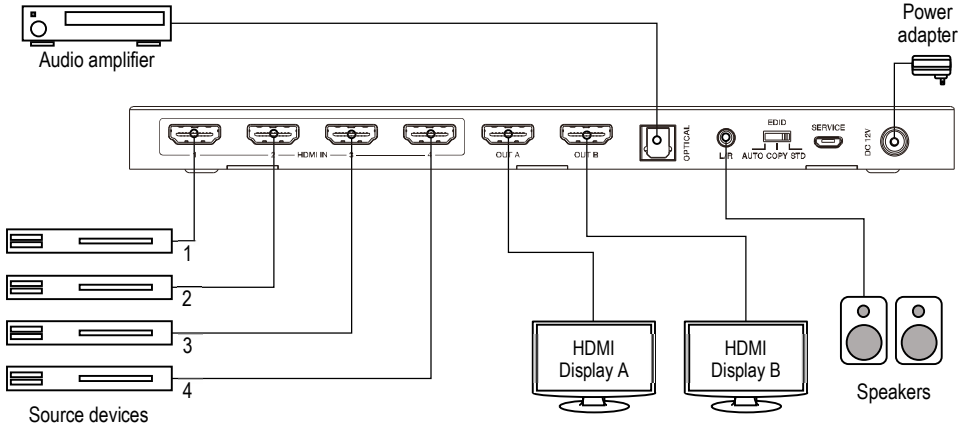
The remote control works just like the buttons on the front panel except that all buttons are grouped according to output.

1. The *Power* button turns the matrix on/off or sets it to standby mode.
2. The numbered buttons under *Output A* and *Output B* select the input source for that output.
3. The *AUTO* button turns the auto function on or off for that output (see *Operation* above).
4. The *4K/HD* button turns on the downscale function for that output.
5. In the *Audio* section, press *ARC* to turn that function on or off (see *Operation* above) and the *A* or *B* buttons to select the audio source to send to the optical port (muting the analog *L/R* port) or, if *ARC* is turned on, send the chosen source to both ports.

Fig. 1 – Remote Control



## Wiring Diagram



**NOTE:** The micro-USB port is provided for potential future firmware updates.

## Troubleshooting

HDMI device does not function correctly

- Make sure the matrix is powered
- Make sure that all sources and displays are powered
- Make sure that there are no problems with the HDMI sources, HDMI cables, or HDMI displays by plugging a source directly into the display using the HDMI cable
- Make sure that the sources and displays are plugged in to the correct connectors
- Make sure that the HDMI sources are compatible with the HDMI displays

**IMPORTANT:** Users and installers of this product are responsible for ensuring this product complies with all national, state, and local laws and statutes related to monitoring and recording audio and video signals. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or statutes.

**California Proposition 65 Warning:** These products may contain chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**WARRANTY:** This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for one (1) year from the date of sale to the original customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship. The sole obligation of SECO-LARM and the purchaser's exclusive remedy, shall be limited to the replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damage of any kind to the purchaser or anyone else.

**NOTICE:** The SECO-LARM policy is one of continual development and improvement. For that reason, SECO LARM reserves the right to change specifications without notice. SECO-LARM is also not responsible for misprints. All trademarks are the property of SECO-LARM U.S.A., Inc. or their respective owners. Copyright © 2023 SECO-LARM U.S.A., Inc. All rights reserved.

**SECO-LARM® U.S.A., Inc.**

16842 Millikan Avenue, Irvine, CA 92606  
Phone: (949) 261-2999 | (800) 662-0800

Website: [www.seco-larm.com](http://www.seco-larm.com)  
Email: [sales@seco-larm.com](mailto:sales@seco-larm.com)

 PICHN3

ML\_MVM-AH42-42Q\_230214.docx