

4K HDR 4x4 HDMI to HDMI Matrix Switcher

AT-HDR-H2H-44MA



The Atлона AT-HDR-H2H-44MA is a 4x4 HDMI matrix switcher for high dynamic range (HDR) formats. It is HDCP 2.2 compliant and supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. The HDR-H2H-44MA is ideal for residential applications with the latest as well as emerging 4K/UHD and HDR sources and displays. It is compatible with all video resolutions, audio formats, and color space formats supported in the HDMI 2.0b specification, plus the ability to pass metadata for HDR content. The HDR-H2H-44MA includes EDID and HDCP management features, and can send CEC display control independently to each output. An unbalanced analog audio output is paired with each HDMI input for sending de-embedded HDMI audio to a whole-house audio system. The HDR-H2H-44MA can be controlled via Ethernet, RS-232, and IR. A hand-held IR remote control is included.

Package Contents

- 1 x AT-HDR-H2H-44MA
- 1 x Captive screw connector, 5-pin
- 4 x Captive screw connector, 4-pin
- 1 x 24V DC power supply
- 1 x Pair mounting ears w/screws
- 4 x Feet w/screws
- 1 x IR remote control
- 1 x Installation Guide



IMPORTANT: Visit <http://www.atlona.com/product/AT-HDR-H2H-44MA> for the latest firmware updates and User Manual.



Panel Descriptions



1 Function Buttons

- Power** - Sets the unit in and out of standby.
- Enter** - Used for making selection within the front panel OSD.
- FNC** - Use to switch number buttons to their secondary function.
- CANCEL** - Navigates back one step in the front panel OSD.

2 Number Buttons

- Use for selection of inputs and outputs.
- 1 - Press FNC + 1 to route selected input to all outputs.
- 2 - Press FNC + 2 to turn the IR receiver window on and off.
- 3 - Press FNC + 3 to open the EDID menu.
- 4 - Press FNC + 4 to display the device firmware. Press 4 again to view IP, IP port, and MAC.

3 HDMI IN

Connect HDMI cables to these ports from HDMI sources.

4 HDMI OUT

Connect an HDMI cable from these ports to an HDMI display, extender, or switcher.

5 AUDIO OUT

This port provides source audio 2CH de-embedding. The audio of the HDMI inputs will be directly de-embedded to an audio DSP, amplifier, or player device.

6 LAN

Connect an Ethernet cable from this port to a Local Area Network (LAN). This port provides access to the webGUI or TCP/IP control.

7 FW

Connect a mini USB cable to this port to update the firmware.

8 Control Port

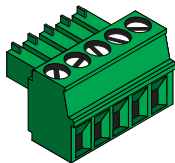
Connect a third party controller or PC to control the matrix through either IR or RS-232

9 DC 24V

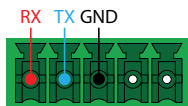
Connect the included 24V DC power supply to this power receptacle.

Control

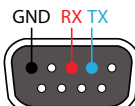
A 5-pin captive screw connector for control has been included. The first three terminals are RS-232 control, the last two terminals are for IR.



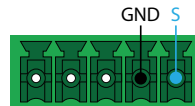
RS-232



Pin out will be determined by the RS-232 cable and connect as RX (receive), TX (transmit) and GND (Ground).



IR

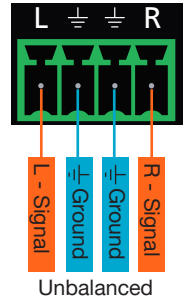
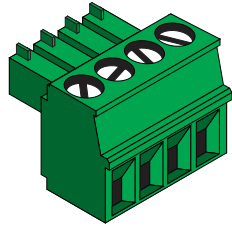


IR IN is connected by a ground and signal wire. Use with 3rd party control systems. For easy termination, Atlona recommends using the 2 meter IR cable AT-LC-CS-IR-2M.

Audio

Connect to an audio DSP, amplifier, or other audio distribution or player devices. Only unbalanced connections may be used.

NOTE: Audio is directly de-embedded from the HDMI IN ports and are **not** zone output audio ports.

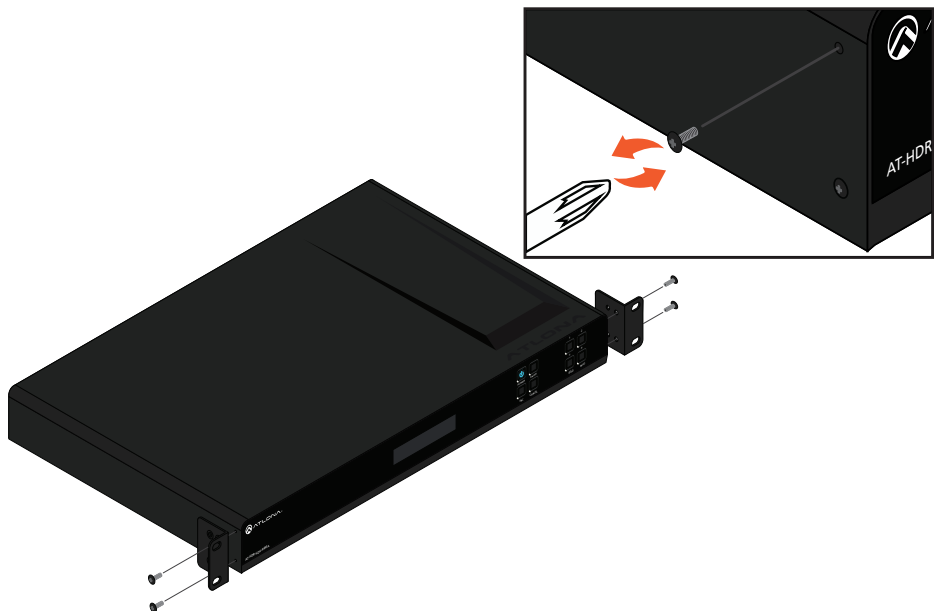


Mounting Instructions


The AT-HDR-H2H-44MA can be mounted in a standard 19-inch rack or placed freestanding on top of a desk or table.


Rack installation

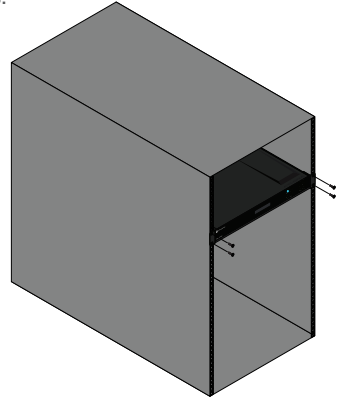
1. Remove the front two case screws from the sides of the case.
2. Attach the included rack ears to each side of the AT-HDR-H2H-44MA using the case screws.



3. Install the HDR-H2H into a rack, using four rack screws.

 **NOTE:** Increase the air flow as needed to maintain the recommended temperature inside the rack.

 **NOTE:** Do not exceed the maximum weight loads for the rack. Install heavier equipment in the lower part of the rack for stability.



Surface mounting

The AT-HDR-H2H-44MA can be placed freestanding on top of a desk, a table, or in a cabinet. To prevent damage to the surfaces or unnecessary movement of the matrix, four feet have been included.

1. Turn the unit upside down.
2. Install each foot using the included feet screws, the rubber grips of the feet should be facing up during installation.
3. Turn the unit right-side up and place it in the desired location.





Installation

1. Connect up to 4 HDMI sources to the HDMI IN ports.
2. Connect up to 4 HDMI displays to the HDMI OUT ports.
3. For control, connect to the captive screw port for IR and RS-232, or the LAN port for TCP/IP and webGUI.
4. Connect the included 24V power supply to the DC 24V port.
5. Connect the power supply to an AC outlet.

WebGUI

The AT-HDR-H2H-44MA includes a built-in webGUI, which allows easy management and control of all features. Follow the instructions below to access the webGUI.

1. View the IP address of the unit using the front panel OSD.
 - Press the FNC button.
 - Press button 4 (INFO). The firmware version will display on the front panel screen.
 - Press button 4 again to bring up the IP address.



NOTE: If there is no IP address or the unit is not connected to a DHCP network, press and hold buttons 1 + 2 for 5 seconds to switch the unit to a static IP address. The default static IP address and netmask is 192.168.1.254 255.255.0.0.

2. Launch a web browser and enter the IP address of the unit.
3. The AT-HDR-H2H-44MA **Login** page will be displayed.
4. Enter the following information on the **Login** page.

Login: **root**
Password: **Atlona**

5. Click the **Login** button.

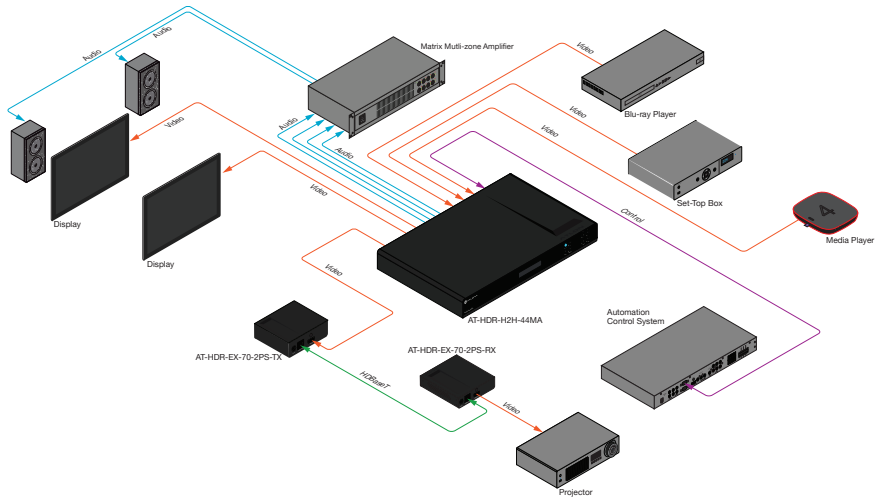
AMS 2.0

For full configuration of the HDR-H2H-44MA, AMS 2.0 is available from <https://atlona.com/AMS> for free. Two options can be used for installation: The free Linux based software download or the easy to install server hardware (AT-AMS-HW).

Once AMS has been set up:

1. Open a browser on the same network as AMS 2.0 and go to the IP of AMS 2.0.
 - a. View the AMS 2.0 installation instructions on how to find the IP of the software.
2. Enter the login information on the AMS 2.0 web page, then click the **Login** button.
3. View the AT-HDR-H2H-44MA manual for routing and configuration.

Connection Diagram





Troubleshooting

Problem	Solution
I am not receiving multichannel audio or 3D video.	<ul style="list-style-type: none">By default, multichannel audio and 3D will not pass unless all devices support those features. Set each port's EDID through the front panel, webGUI, or RS-232.
What firmware am I on?	<ul style="list-style-type: none">To view the device firmware version, press the FNC button, followed by button 4 (INFO). The firmware will appear on the front panel OSD.
What's my baud rate?	<ul style="list-style-type: none">To view the baud rate of the RS-232 port, press the FNC button, followed by button 4, then press button 2. The baud rate will appear on the front panel OSD.
What's my IP?	<ul style="list-style-type: none">To view the IP address of the unit, press the FNC button, followed by the 4 button twice.If the unit is connected to a non-DHCP network, press and hold the 1 + 2 button for 5 seconds to switch to a static IP address. The default static IP address is 192.168.1.254.



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