8x8 4K/UHD HDMI to HDMI Matrix Switcher

AT-UHD-H2H-88M Installation Guide

Please check http://www.atlona.com/product/AT-UHD-H2H-88M for the most recent **firmware update** or **manual**.

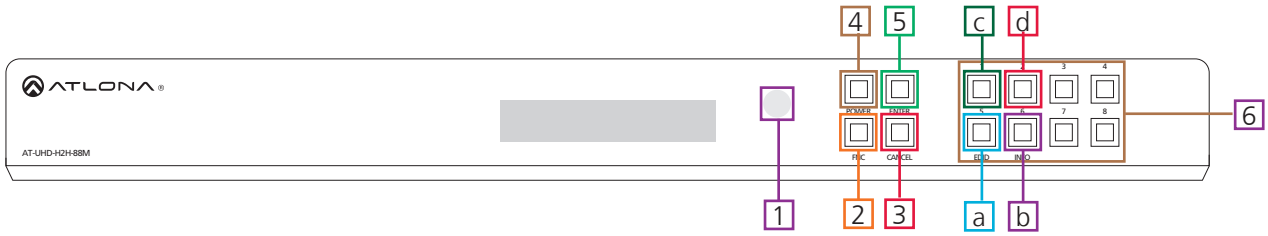
The Atlona 8x8 4K/UHD HDMI to HDMI Matrix Switcher is designed for the best audio, video, and control experience. Pass through of video up to 4K/UHD or 2560x2048, audio up to Dolby® TrueHD, DTS-HD Master Audio™, or Dolby Atmos™, and multiple control options (such as TCP/IP, RS-232, IR, front panel, and WebGUI) enables the UHD-H2H-88M to provide the highest quality experience no matter if playing a movie, giving a presentation, and more.

Package Contents

- 1 x AT-UHD-H2H-88M
- 1 x 5 pin captive screw female connector
  IR: 2 pin, RS-232: 3 pin
- 1 x 12V DC power supply
- 1 x IEC C13 power cable
- 1 x IR Remote control
- 1 x Pair of rack mount ears
- 1 x Installation Guide

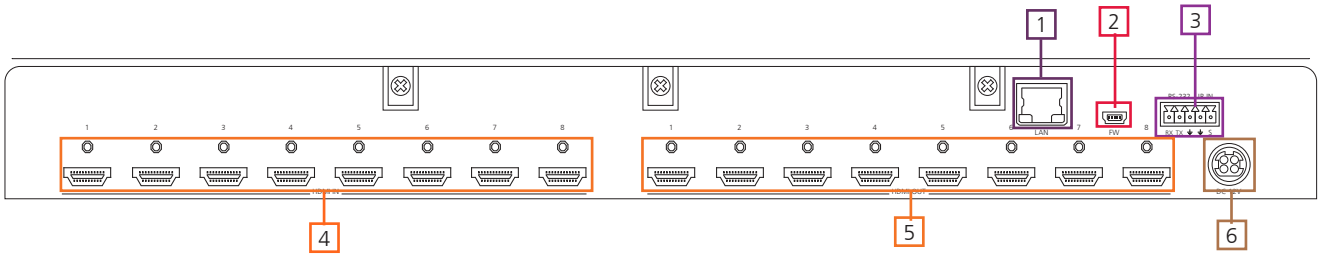
Panel Description

Front Panel



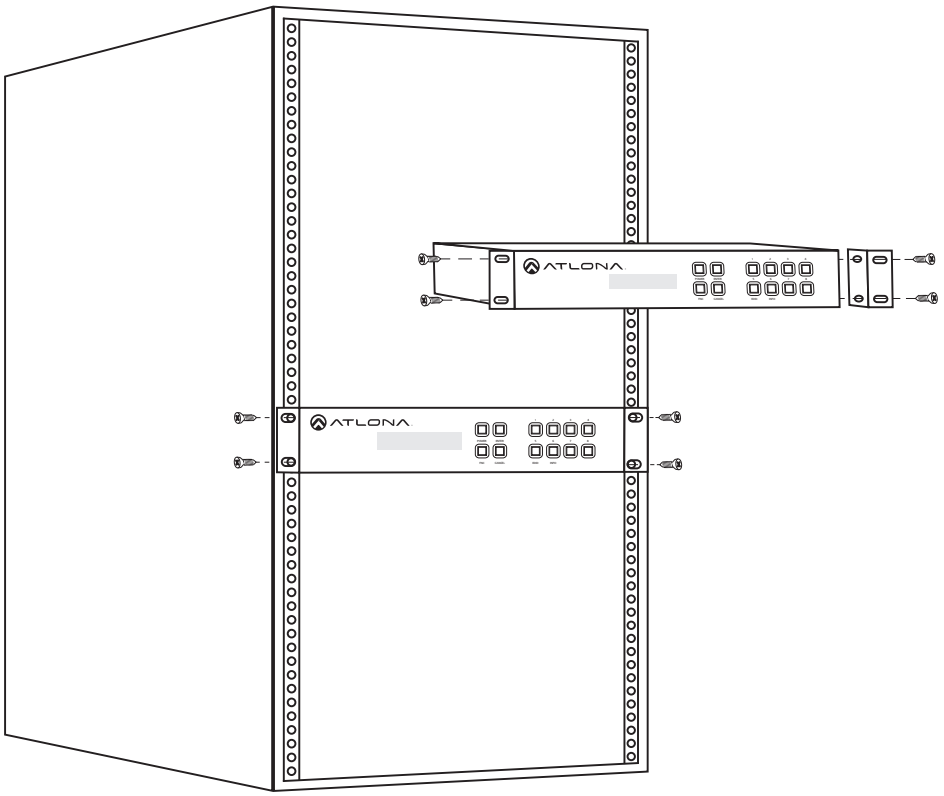
1. IR Receiver Window - Receives the signal from the included IR Hand Held Remote Control or 3rd party controller
2. Function (FNC) Button - Select for command options. (blue backlight when selected)
   - **a.** *EDID Button:* Save/Load EDIDs to individual inputs
   - **b.** *INFO Button:* Displays the firmware, IP, and MAC address
   - **c.** *1 Button:* Save a single input to all the outputs with this function
   - **d.** *2 Button:* View additional matrix RS-232 baud information
3. Cancel Button - Within the function menu use this button to go back one screen or to return to the home screen
   Note: You cannot power off or change functions unless you return to the home screen
4. Power Button - Cycles the power between On (blue backlight) or Standby (red backlight) mode
5. Enter Button - Use to view current status for inputs and outputs or to confirm a command
6. Number buttons - Use these buttons to select input and output paths or use with the function button to change matrix settings

Back Panel



1. LAN port - Connect to a network for TCP/IP, WebGUI and firmware updates
2. FW port - USB not enabled at this time for future functionality
3. Main control - Connect IR or RS-232 control system to the matrix
4. HDMI Input - Connect HDMI sources to these ports
   Ex. DVD players, Blu-ray players, computers, game consoles, etc
5. HDMI outputs - Connect to HDMI displays or HDBaseT extender sets (for extended zone support)
   Ex. AT-UHD-EX-100CE-KIT, AT-UHD-EX-70C-KIT, or AT-UHD-EX-70-KIT
6. Internal power supply - Connect included 12V power supply from here to a power outlet.

Rack Mounting



To rack mount the UHD-H2H-88M unit: use the rack mount ears, the 4 screws from the sides of the UHD-H2H-88M, and 4 rack screws.

To affix the rack mount ears, remove the two screws on each side of the UHD-H2H-88M and affix the rack ears to the UHD-H2H-88M (as shown in the picture above).

Place the UHD-H2H-88M in the rack, lining the holes in the rack ears with the holes in the rack. Once placed, use the rack screws to keep the unit in place. (as shown in the picture to the left).

Note: Increase the air flow as needed to maintain the recommended temperature inside the rack.
Note: Do not exceed maximum weight loads for the rack. Install heavier equipment in the lower part of the rack for stability.

Category Cable and Connector

For the category cables used in the installation of these products, please be sure to use a 568B termination as pictured below:

Important! 4K (UHD) signals are sensitive to cable quality and installation technique. It is recommended to use CAT6a/7 solid core cables for best results.

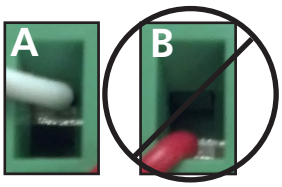
Connector type and size is very important to ensure extenders work correctly. Please use the matching cable type with the correct RJ45 connector. (**e.g.** CAT 7 cable should use a CAT 7 connector)

Captive Screw

The captive screw connectors allow you to cut cables to a suitable length, reducing cable clutter while providing a more reliable connection.

Connecting

When connecting the cables to the female captive screw connector it is important that the wires be terminated correctly. The female captive screw connector has a contact plate at the top and must have the wires touching it for signal to pass. When wired correctly (see picture A) the signal will pass, incorrectly (see picture B) no signal will pass.



The captive screw connectors have a contact bar that is adjusted to compress the wire against the top contact plate. Use the screws at the top of the connector to compress the wire against the contact plate.

Clockwise

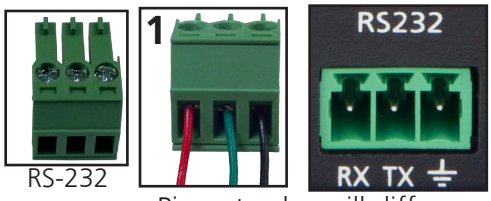
Turn the screws clockwise to raise the contact bar to the upper contact plate and hold the wires in place.

Counter Clockwise

Turn the screws counter clockwise to lower the contact bar to release the wires.

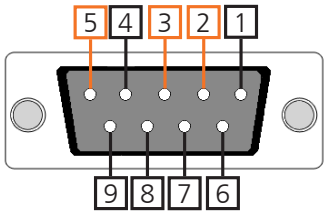
RS-232

RS-232 captive screw connector is included. RS-232 pin out will be determined by the RS-232 cable and will connect as Rx (receiver), Tx (transmitter), and ⏚ (ground). (See picture 1)



RS-232

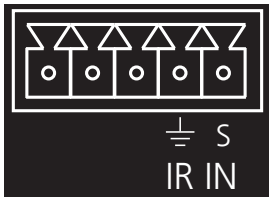
Pin out color will differ per RS-232 cable.

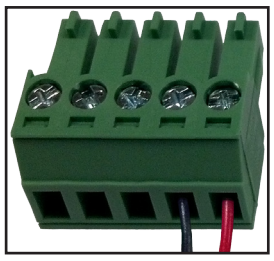


Typical pin out:
2 - TX - Transmitter
3 - RX - Receiver
5 - GND - Ground

IR

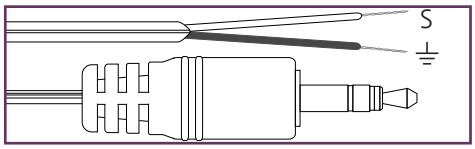
IR pin out will be determined by the IR cable and will connect as ⏚ (ground), and S (signal)





There are two wires on the optional IR captive screw ready cable (AT-LC-CS-IR-2M sold separately): signal and ground. The signal wire is red and ground wire is black. The IR cable will plug into the IR IN ports and connect to third party control systems.

One side of the optional IR cable is marked to differenciate pin outs.



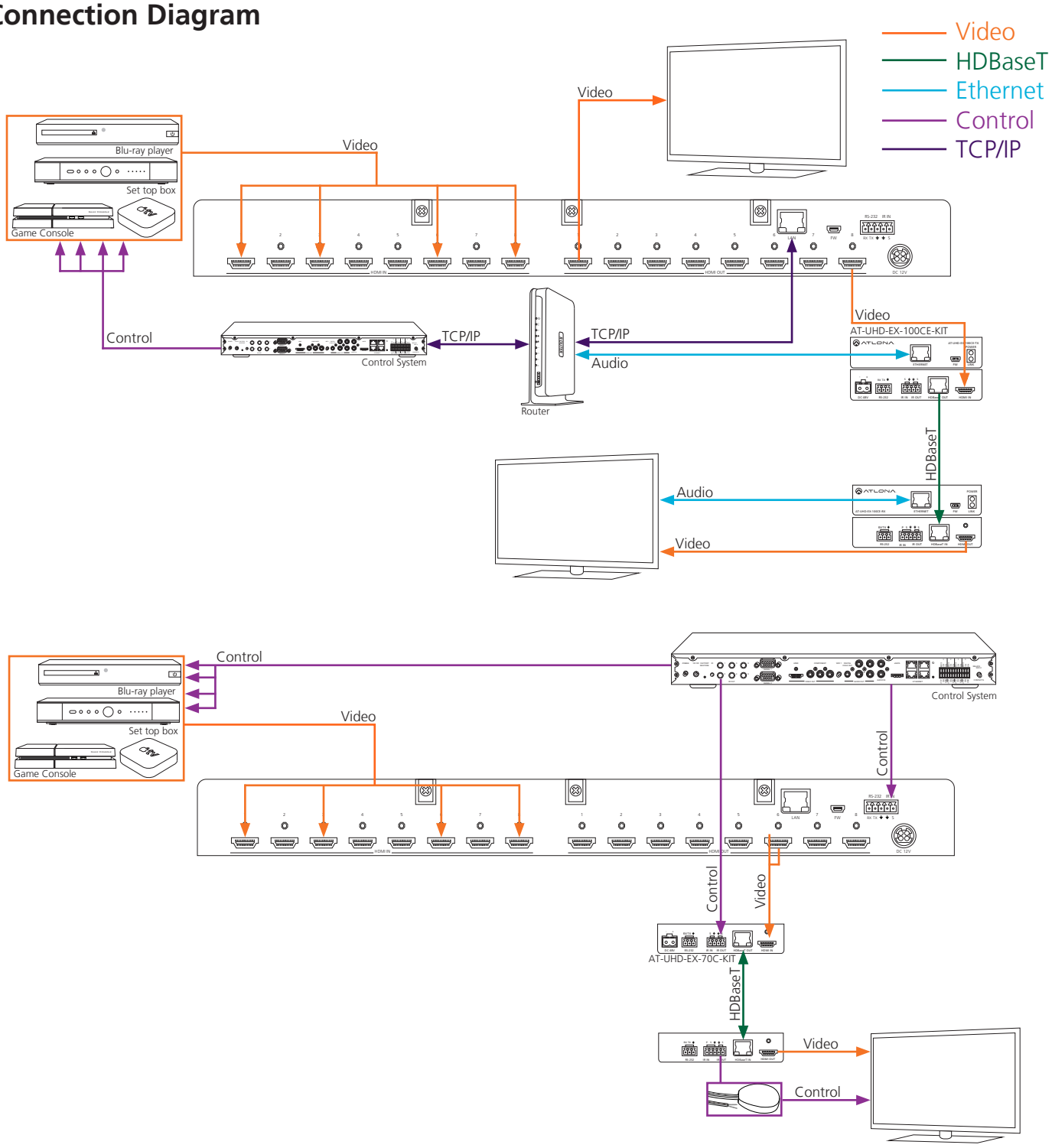
Signal (S)
Ground (⏚)

Ethernet

For convenience, the UHD-H2H-88M comes with DHCP on. This enables the matrix to be connected to a network without knowing available IP addresses. If your network does not allow dynamic IP addresses or if you are using the matrix with a TCP/IP control system, this feature may be turned off and the IP address set using RS-232 commands or AMS.

To disable DHCP, use the following command: IPDHCP off. Once disabled, set the IP address using the IPStatic command (e.g. IPStatic 192.168.1.56).

Connection Diagram



Troubleshooting

1. After I installed the matrix, some of the ports weren't working. Why does power-cycling fix the ports?

   During the installation process, electrostatic build-up can occur. By power-cycling the matrix, it allows the built up to be discharged and the ports reset.

2. Why am I not getting multichannel audio or 3D?

   By default, multichannel audio and 3D will not pass unless all connected devices support these features.

3. How do I check the firmware version, IP address, or MAC address?

   Locate the FNC and INFO buttons on the front panel. Press the FNC button. Press the INFO button once to display the firmware version. Press the INFO button two times to display the IP address. Press the INFO button four times to display the MAC address.

4. How do I check the baud rate setting of the matrix?

   On the front panel, press the following buttons in sequence: FNC, INFO, 2.

5. How do I reset the matrix to factory-default settings?

   On the front panel, simultaneously press and hold both the EDID and INFO buttons for five seconds.

6. When watching blu-rays, the color doesn't look right. My other device look alright.

   Make sure that Deep Color is set to OFF on the blu-ray player.

7. What is the default IP address of the matrix?

   192.168.0.150

8. Can I update the matrix firmware through the USB port?

   The FW mini-USB port is reserved for future use. To update the matrix firmware, connect to the webGUI or AMS.