

QUICK START GUIDE

neo:X+ (P8-HDBT2-U-FFMJ1210-S)



CHECK WHAT'S INSIDE THE BOX

- 1 x neo:X+ Chassis
- 1 x Power Cord
- 1 x Quick Start Guide
- 1 x Rack Mounting Kit
- 8 x Phoenix Connectors

⚠ IMPORTANT!

- Please read the instructions before attempting to install or operate this equipment.
- The "Designed for BINARY" edition of this matrix operates natively at 12V IR signal, making it compatible with Episode IR Receivers and Flashers. This matrix is not compatible with 5V IR receivers and flashers so extra precaution should be taken to avoid irreparable damage to the product.
- Only use compatible HDBaseT Receivers "Designed for Binary" by Pulse-Eight, available from Snap One: neo:Ultra Receiver (P8-HDBT2-U-RX-S) or neo:UltraSR Receiver (P8-HDBT2-L-RX-S).
- Visit the help.pulse-eight.com to download the latest firmware, document version, additional documentation, and configuration tools.

PANEL DESCRIPTIONS



- A System Health LED:** Indicates matrix health.
RED - It is powering on or fault found.
GREEN - The system is healthy.
- B Network LED:** Indicates the matrix network connection.
RED - No network cable is connected.
AMBER (Flashing) - It is discovering the IP address.
AMBER (Solid) - The network has the IP but cannot ping the router.
GREEN (Flashing) - The network cannot reach the internet.
GREEN (Solid) - The network is healthy.
- C Cloud LED:** Indicates the matrix connection to the Pulse-Eight Cloud.
RED - It is not connected to the cloud.
GREEN - It is connected to the cloud.
- D IR Receiver and Transmitter Ports:** Connect as required.
The IR Receiver port (green) can be used to accept and distribute IR signals from a controller using a P8-IR-Optocable, as well as distribute IR signals back to the matrix using a compliant Episode IR Receiver. Not required in a Control4 system.
The IR Flasher port (blue) is used to control the connected HDMI Source device (STB, Blu-Ray, etc) using compliant Episode IR Flashers.
- E RS232 Phoenix Ports:** These ports are for extending RS232 signals (transmit and receive) over HDBaseT line to the attached neoUltra Receiver.
Connector 3-pin description: Ground = zero volts.
RX = signal going into a matrix (to the remote device).
TX = signal coming out of the matrix (from the remote device). Note: 3.3V I/O signal level.



- F Audio Outputs:** Analogue, Optical, and Digital Coax options for Audio Breakouts.
- G HDMI IR Input and IR Output:** Connect as required.
The Input IR port (green) can be connected to receive and distribute IR signals from a connected compliant Episode IR Receiver.
The IR Output port (blue) is used to control the local connected HDMI Sink device (TV, AVR, etc) using compliant Episode IR Flashers.
- H Audio Inputs:** Optical and Digital Coax options to connect audio-only Source devices.
- I Power Connector:** Use with the supplied power cord to connect the power.
- J HDBaseT Outputs:** Connect the appropriate *Category cable to each output. These cables should then be connected to a neo Receiver at each sink device. (TV/Amplifier etc.).
*Category cable: Cat5e minimum requirement. Cat6 or higher category recommended.
- K HDMI Inputs:** Connect the appropriate high speed HDMI cable to each input. These cables should then be connected to the Source device. (Blu-Ray player etc.)
- L Reset:** Factory reset - Please use only when instructed by our customer service team.
- M Ethernet:** Connect to network - Required for connection to Web Interface, Third Party Control, and Cloud Remote Monitoring Portal.
- N HDMI Outputs:** Connect the appropriate high speed HDMI cable to each output. These cables should then be directly connected to each Sink device. (TV/Amplifier etc.)

INSTALLATION

01 - Installing In A Rack



1. Attach the rack ears to the front sides of the matrix using the provided screws.
2. Install into the rack and connect cabling according to the mode of operation – as described below.

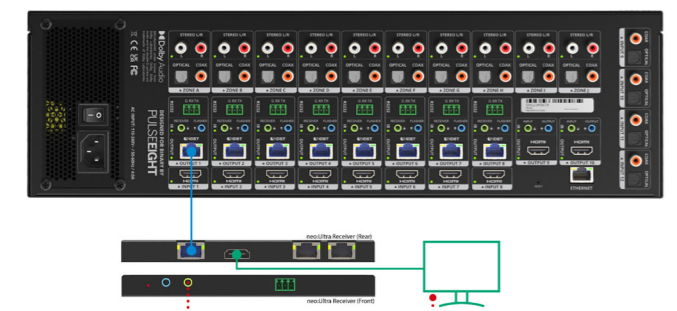
WARNING: To prevent damage, it is important to ensure adequate ventilation space on the sides of the matrix, especially on the ventilation openings on the side of the product enclosure.

02 - Connecting The Inputs



1. Connect HDMI cables from your video sources (e.g. Blu-Ray player) to the HDMI inputs of the matrix.
2. If required, connect the compatible IR Flasher (Emitter/Transmitter) cable to the 'Flasher' port (blue) on the matrix and the IR bud placed over the source device's IR window.

03 - Connecting The HDBaseT Outputs



1. Connect the appropriate category cable (Cat6 or higher recommended) to each HDBaseT output ports that you require.
2. Complete the connection by attaching the other end of the Cat cable to a supplied neo Receiver's 'HDBaseT In' port. The neo Receiver should be situated at the output end (i.e. next to the TV).
3. Connect HDMI Out on the neo Receiver to the sink device (i.e. TV) using a high-speed HDMI cable.
4. If required, connect the IR Receiver to the neo Receiver's 'IR Receiver' port (green) - and place the IR bud on the underside of the sink device (i.e. TV).
5. If required, connect the compatible IR Flasher (Emitter/Transmitter) cable to the 'IR Flasher' port (blue) on the neo Receiver with the IR bud placed over the sink device's IR window.

WARNING!

Please make sure to use a compatible 12V IR receiver/transmitter on this product.

04 - Connecting The HDMI Outputs



For Output ports 9 and 10, connect sink devices (e.g. TVs) directly via high speed HDMI cables.

05 - Connecting The Audio Inputs



The neo:X+ features 4 zones of independent audio inputs. Connect your audio source device directly to either the digital coax or optical ports (Inputs 9-12).

06 - Connecting The Audio Outputs



If you wish to use the audio outputs from the matrix, please connect cables to the relevant output. There are 10 output zones, where each zone features Analogue (stereo), Optical and Digital Coax options that can work simultaneously. The stereo outputs are able to automatically downmix multichannel audio streams based on AC-3 (up to Dolby Digital 5.1) down to 2-channel.

There are two audio modes of operation: **Source Mode** and **Sink Mode**. By default, when you first install the matrix, the unit is set to sink mode with each zone set to passive.

IMPORTANT: The matrix needs to be set to Sink mode or Source mode according to the installation's requirement, and wired accordingly. Please ensure that you set up the matrix to the correct audio mode in the Audio Control tab of the Web Interface.

Sink Mode VS Source Mode

- **Sink mode** is the preferred method when setting up the neo:X+ in an installation that does not have a dedicated audio matrix switch.

Sink mode allows for the matrix to automatically manage the audio routing from any of the inputs to the corresponding audio output zone, so that it matches the video displayed on that same output zone. The "audio always follows the video".

- **Source Mode** is generally used in larger installations where the input audio is being fed directly to one or more dedicated audio matrices (e.g. ProAudio switch).

In this mode, the audio outputs zones A to H are locked to HDMI inputs 1 to 8 respectively, and with audio output zones I and J linked to audio inputs 9 and 10.

Digital audio inputs 11 and 12 are not operational in Source mode.

07 - Connecting The Network



It is necessary to connect a standard Ethernet cable (Category 5e/6/7) from the matrix's 'Ethernet' port to your router or network switch. Crossover cables are not supported.

08 - Turning On The Matrix



1. Insert the supplied power cord and plug into the AC mains.
2. Turn ON the power switch.
3. As it powers ON, the front panel LEDs (System Health, Network, Cloud) will illuminate momentarily before it begins its initialization sequence.
4. Once initialization has been completed, the System Health, Network and Cloud LEDs should all appear ON (green).
5. Check the LED status on the attached neo Receivers to ensure correct installation and connection.

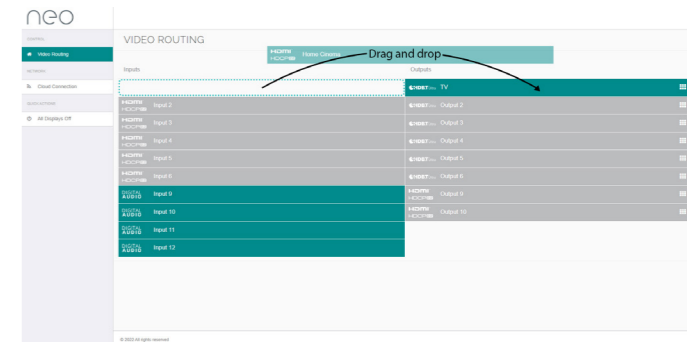


SCAN FOR HELP

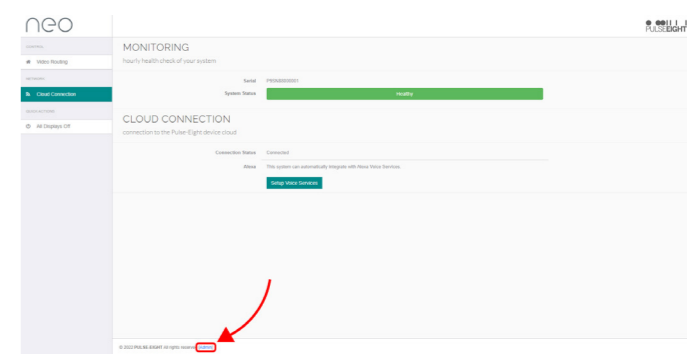
This guide helps you to install and use your neo:X+ Binary for the first time. Go to help.pulse-eight.com for additional information on this product including important technical information not provided in this document and warranty terms & conditions.

neo Web Interface

The Web Interface can be accessed using a computer connected to the same router/network as the matrix and by visiting www.gotomymatrix.com in your web browser.

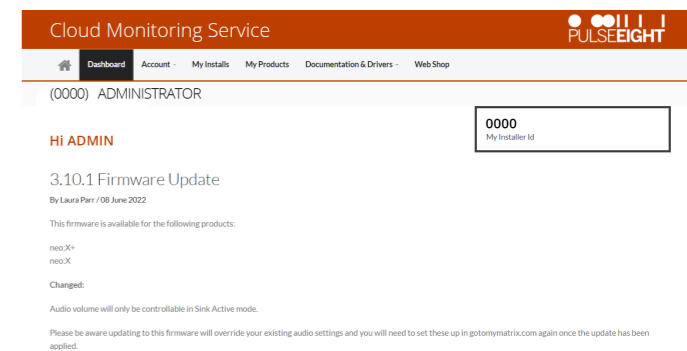


The front page of the web interface features a user-friendly drag and drop for video routing and display showing all available inputs and outputs.



When setting up the matrix, it is important that the installer can access the admin menu on the Web Interface to configure the matrix according to the installation's requirements. This is accessed by clicking the Admin hyperlink and entering 'admin' in the password on first install.

Monitoring Portal



To access the monitoring portal please visit monitoring.pulse-eight.com, click 'Login' in the top left corner, and sign in with your registered details. Once logged in, the dashboard will display your details including your Installer ID.

Note: During the installation, it is recommended to enter your Installer ID in the Web Interface. If you do not already have an Installer ID then you will need to request an account. Please contact us via email at cs@pulse-eight.com.

SAFETY PRECAUTION

Please read the full manual instructions before attempting to install or operate this equipment.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock, and injury.
- To prevent fire or shock hazards, do not expose the unit to rain, or moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Where possible, install the matrix towards the top of the rack to avoid the unit overheating.
- Only use the supplied IEC cable.
- Never push any objects into this product through any openings or empty slots in the unit as you may damage parts inside and/or cause an electrical shock.
- Do not allow anything to rest on the power cabling and avoid putting the weight of any kind on it.
- To protect the unit from overheating do not block any vents or openings in the unit housing that provides ventilation. Allow sufficient space for air to circulate around the unit.
- This product is intended for use in a clean (dust-free) residential environment.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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