



USER MANUAL  
VERSION: V1.0.0

# PR01-0808

Precis 8x8 HDMI 4K60 with 4 HDBaseT



## IMPORTANT SAFETY INSTRUCTIONS

1. READ these instructions.
2. KEEP these instructions.
3. HEED all warnings.
4. FOLLOW all instructions.
5. DO NOT use this apparatus near water.
6. CLEAN ONLY with dry cloth.
7. DO NOT block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. DO NOT defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. PROTECT the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. ONLY USE attachments/accessories specified by the manufacturer.



12. USE ONLY with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. UNPLUG this apparatus during lightning storms or when unused for long periods of time.
14. REFER all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. DO NOT expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
16. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
17. Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
18. DO NOT overload wall outlets or extension cords beyond their rated capacity as this can cause electric shock or fire.



The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



ESD Warning: The icon to the left indicates text regarding potential danger associated with the discharge of static electricity from an outside source (such as human hands) into an integrated circuit, often resulting in damage to the circuit.

- WARNING:** To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.
- WARNING:** No naked flame sources - such as candles - should be placed on the product.
- WARNING:** Equipment shall be connected to a MAINS socket outlet with a protective earthing connection.
- WARNING:** To reduce the risk of electric shock, grounding of the center pin of this plug must be maintained.

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## ESD WARNING



To avoid ESD (Electrostatic Discharge) damage to sensitive components, make sure you are properly grounded before touching any internal materials.

When working with any equipment manufactured with electronic devices, proper ESD grounding procedures must be followed to make sure people, products, and tools are as free of static charges as possible. Grounding straps, conductive smocks, and conductive work mats are specifically designed for this purpose. These items should not be manufactured locally, since they are generally composed of highly resistive conductive materials to safely drain static discharges, without increasing an electrocution risk in the event of an accident.

Anyone performing field maintenance on AMX equipment should use an appropriate ESD field service kit complete with at least a dissipative work mat with a ground cord and a UL listed adjustable wrist strap with another ground cord.



### CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**WARNING:** Do Not Open! Risk of Electrical Shock. Voltages in this equipment are hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel.

Place the equipment near a main power supply outlet and make sure that you can easily access the power breaker switch.

**WARNING:** This product is intended to be operated ONLY from the voltages listed on the back panel or the recommended, or included, power supply of the product. Operation from other voltages other than those indicated may cause irreversible damage to the product and void the products warranty. The use of AC Plug Adapters is cautioned because it can allow the product to be plugged into voltages in which the product was not designed to operate. If the product is equipped with a detachable power cord, use only the type provided with your product or by your local distributor and/or retailer. If you are unsure of the correct operational voltage, please contact your local distributor and/or retailer.

## FCC AND CANADA EMC COMPLIANCE INFORMATION:

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. 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.

Approved under the verification provision of FCC Part 15 as a Class A Digital Device.

Caution

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device.

CAN ICES-3 (B)/NMB-3(B)

## EU COMPLIANCE INFORMATION:

Eligible to bear the CE mark; Conforms to European Union Low Voltage Directive 2006/95/EC; European Union EMC Directive 2004/108/EC; European Union Restriction of Hazardous Substances Recast (RoHS2) Directive 2011/65/EU; European Union WEEE (recast) Directive 2012/19/EU; European Union Radio and Telecommunications Terminal Equipment (R&TTE) Directive 1999/5/EC

## WEEE NOTICE:



This appliance is labeled in accordance with European Directive 2012/19/EU concerning waste of electrical and electronic equipment (WEEE). This label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

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# Overview

The PR01-0808 is an 8x8 HDMI Matrix with HDMI 2.0 and HDCP 2.2 compatibility, allowing eight sources to be switched between any of the four HDBaseT outputs connected to remote displays and any of the eight HDMI outputs connected to local displays, all simultaneously.

The PR01-0808 features 8 analog L/R outputs, and an audio matrix allowing de-embedded audio from any HDMI input to be routed to any analog audio output.

The PR01-0808 can be controlled from panel buttons, as well as IR, RS232, Web GUI and NetLinX. DIP switches are provided for manual EDID adjustment.

As a compact 1U stand-alone 8x8 HDMI matrix, the PR01-0808 offers the convenience of a future-ready Ultra HD A/V switching and distribution solution.

## Features

- HDMI Inputs and Outputs support up to 4K@60Hz 4:4:4 8bit
- HDBT Outputs support up to 4K@60Hz 4:2:0 8bit
- HDBT transmits 4K@30 4:4:4 signals up to 80m/262 ft, 1080P signal up to 100m/328ft via Shielded Cat 6a/7 cable
- Fully compliant with HDMI 2.0
- HDCP 2.2 compliant
- Supports 4K HDR
- Supports audio de-embedding for each HDMI output
- HDBT mirror HDMI OUT 1~4
- Independent DIP switch for advanced EDID management.
- Supports PoE (PSE) function for HDBT.
- Supports fast switching when working with SCL-1 and PR01-RX

## Package Contents

- 1 x PR01-0808
- 1 x US AC Power Cord
- 1 x UK AC Power Cord
- 1 x EU AC Power Cord
- 1 x IR Remote
- 4 x Broadband IR Receiver Cable (30 – 50 KHz)
- 1 x IR Receiver Cable
- 12 x Phoenix male connectors (3.5mm, 3 Pins)
- 2 x Mounting Bracket (with screws)

# Specifications

Technical	
Input	8 x HDMI IN
Input Resolution Supported	<p>1280 x 1024 @ 75 Hz            1152 x 870 @ 75 Hz            1024 x 768 @ 60 Hz, 70 Hz, 75 Hz, 87 Hz            832 x 624 @ 75 Hz            800 x 600 @ 56 Hz, 60 Hz, 72 Hz, 75 Hz            720 x 400 @ 70 Hz, 88 Hz            640 x 480 @ 60 Hz, 67 Hz, 72 Hz, 75 Hz</p> <p>CEA Video Information Code (VIC) Formats:            VIC = 1, 640 x 480p 59.94/60 Hz 4:3            VIC = 2, 720 x 480p 59.94/60 Hz 4:3            VIC = 3, 720 x 480p 59.94/60 Hz 16:9            VIC = 4, 1280 x 720p 59.94/60 Hz 16:9            VIC = 5, 1920 x 1080i 59.94/60 Hz 16:9            VIC = 6, 720(1440) x 480i 59.94/60 Hz 4:3            VIC = 7, 720(1440) x 480i 59.94/60 Hz 16:9            VIC = 14, 1440 x 480p 59.94/60 Hz 4:3            VIC = 15, 1440 x 480p 59.94/60 Hz 16:9            VIC = 16, Native 1920 x 1080p 59.94/60 Hz 16:9            VIC = 17, 720 x 576p 50 Hz 4:3            VIC = 18, 720 x 576p 50 Hz 16:9            VIC = 19, 1280 x 720p 50 Hz 16:9            VIC = 20, 1920 x 1080i 50 Hz 16:9            VIC = 21, 720(1440) x 576i 50 Hz 4:3            VIC = 22, 720(1440) x 576i 50 Hz 16:9            VIC = 29, 1440 x 576p 50 Hz 4:3            VIC = 30, 1440 x 576p 50 Hz 16:9            VIC = 31, 1920 x 1080p 50 Hz 16:9            VIC = 32, 1920 x 1080p 23.97/24 Hz 16:9            VIC = 33, 1920 x 1080p 25 Hz 16:9            VIC = 34, 1920 x 1080p 29.97/30 Hz 16:9            VIC = 39, 1920 x 1080i 50 Hz 16:9            VIC = 41, 1280 x 720p 100 Hz 16:9            VIC = 42, 720 x 576p 100 Hz 4:3            VIC = 43, 720 x 576p 100 Hz 16:9            VIC = 44, 720(1440) x 576i 100 Hz 4:3            VIC = 45, 720(1440) x 576i 100 Hz 16:9            VIC = 47, 1280 x 720p 119.88/120 Hz 16:9            VIC = 48, 720 x 480p 119.88/120 Hz 4:3            VIC = 49, 720 x 480p 119.88/120 Hz 16:9</p> <p>720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 1024x768@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1152@60Hz, 3840x2160@24Hz, 3840x2160@25Hz, 3840x2160@30Hz,</p>
Input Audio Supported	PCM 2.0
Output	8 x HDMI Out 4 x HDBT Out 8 x Audio Out

# Specifications

Technical	
Output Resolutions Supported	<p>1280 x 1024 @ 75 Hz            1152 x 870 @ 75 Hz            1024 x 768 @ 60 Hz, 70 Hz, 75 Hz, 87 Hz            832 x 624 @ 75 Hz            800 x 600 @ 56 Hz, 60 Hz, 72 Hz, 75 Hz            720 x 400 @ 70 Hz, 88 Hz            640 x 480 @ 60 Hz, 67 Hz, 72 Hz, 75 Hz</p> <p>CEA Video Information Code (VIC) Formats:            VIC = 1, 640 x 480p 59.94/60 Hz 4:3            VIC = 2, 720 x 480p 59.94/60 Hz 4:3            VIC = 3, 720 x 480p 59.94/60 Hz 16:9            VIC = 4, 1280 x 720p 59.94/60 Hz 16:9            VIC = 5, 1920 x 1080i 59.94/60 Hz 16:9            VIC = 6, 720(1440) x 480i 59.94/60 Hz 4:3            VIC = 7, 720(1440) x 480i 59.94/60 Hz 16:9            VIC = 14, 1440 x 480p 59.94/60 Hz 4:3            VIC = 15, 1440 x 480p 59.94/60 Hz 16:9            VIC = 16, Native 1920 x 1080p 59.94/60 Hz 16:9            VIC = 17, 720 x 576p 50 Hz 4:3            VIC = 18, 720 x 576p 50 Hz 16:9            VIC = 19, 1280 x 720p 50 Hz 16:9            VIC = 20, 1920 x 1080i 50 Hz 16:9            VIC = 21, 720(1440) x 576i 50 Hz 4:3            VIC = 22, 720(1440) x 576i 50 Hz 16:9            VIC = 29, 1440 x 576p 50 Hz 4:3            VIC = 30, 1440 x 576p 50 Hz 16:9            VIC = 31, 1920 x 1080p 50 Hz 16:9            VIC = 32, 1920 x 1080p 23.97/24 Hz 16:9            VIC = 33, 1920 x 1080p 25 Hz 16:9            VIC = 34, 1920 x 1080p 29.97/30 Hz 16:9            VIC = 39, 1920 x 1080i 50 Hz 16:9            VIC = 41, 1280 x 720p 100 Hz 16:9            VIC = 42, 720 x 576p 100 Hz 4:3            VIC = 43, 720 x 576p 100 Hz 16:9            VIC = 44, 720(1440) x 576i 100 Hz 4:3            VIC = 45, 720(1440) x 576i 100 Hz 16:9            VIC = 47, 1280 x 720p 119.88/120 Hz 16:9            VIC = 48, 720 x 480p 119.88/120 Hz 4:3            VIC = 49, 720 x 480p 119.88/120 Hz 16:9</p> <p>720x480@60Hz (480p), 720x576@50Hz (576p),            800x600@60Hz, 848x480@60Hz,            1024x768@60Hz,            1280x720@50Hz(720p50), 1280x720@60Hz(720p60), 1280x768@60Hz,            1280x800@60Hz,            1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1366x768@60Hz, 1440x900@60Hz,            1600x900@60Hz,            1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@50Hz (1080p50), 1920x1080@60Hz            (1080p60), 1920x1200@60Hz,            2048x1152@60Hz,            3840x2160@24Hz,            3840x2160@25Hz, 3840x2160@30Hz,</p>
Output Audio Supported	<p><b>HDMI:</b> PCM 2.0/5.1/7.1, Dolby True HD, DTS HD Master Audio  <b>Phoenix audio out:</b> PCM 2.0</p>
Maximum Data Rate	18Gbps
Control Method	Front panel, IR, RS232, Web GUI and NetLinX

# Specifications

General	
Operating Temperature	0°C to 50°C (32°F to 125.6°F)
Storage Temperature	-10°C to 60°C (14°F to 140°F)
Humidity	5% to 85%, non-condensing
Power Supply	AC 100-240V 50/60Hz
Power Consumption (Max)	97W
ESD Protection	Human-body Model: ±10kV(Air-gap discharge)/±5kV(Contact discharge)
Device Dimension (W x H x D)	440mm x 43.5mm x 320mm/ 17.32" x 1.71" x 12.60"
Product Weight	0.9kg/1.98lb
Certification	CE/FCC/ETL/PSE/RCM

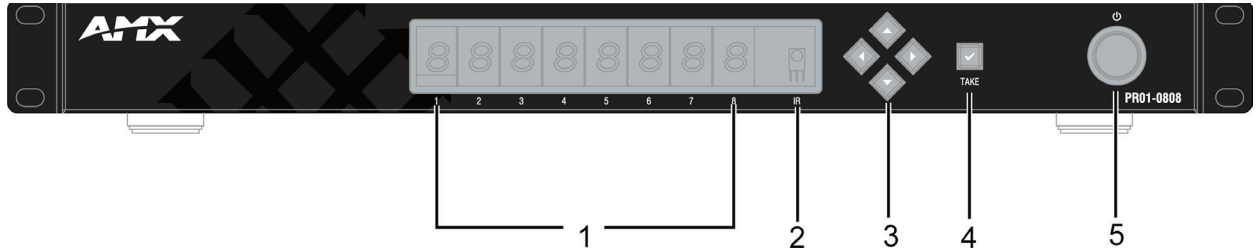
## Transmission Distance

Cable Type	Range	Supported Video
Shielded Cat 6a/7	100m / 328 ft	1080P@60Hz
	80m / 262 ft	4K@30 4:4:4
HDMI Output	15m/49ft	1080P@60Hz
	10m/33ft	4K@60Hz 4:2:0
	5m/16ft	4K@60Hz 4:4:4

**Note:** Straight-through Ethernet cable of T568B is recommended.

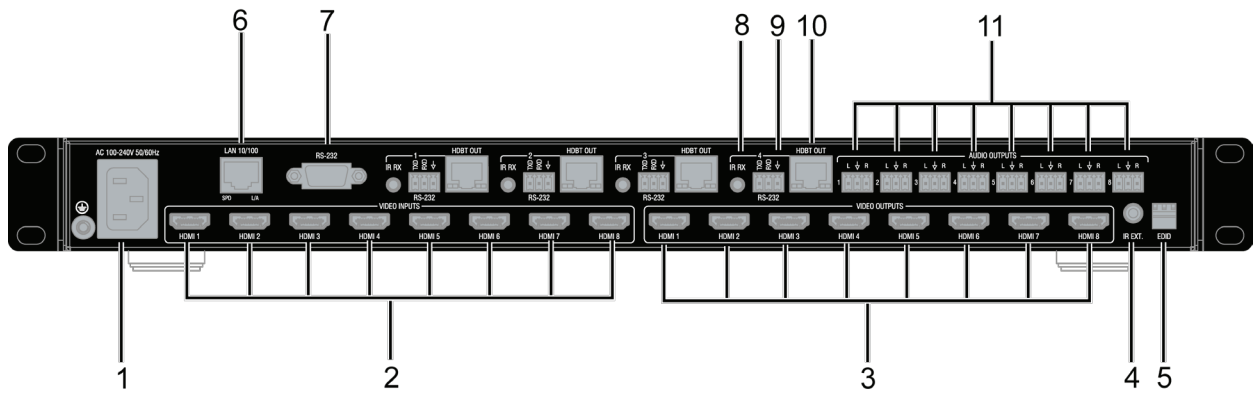


# Front Panel Description



No.	Name	Description
1	Output Channel Indicator	Indicates input for output port 1~8.
2	IR	IR receive window.
3	Select buttons with LED (White)	Selects the input and output channels. <b>Left/Right</b> buttons are used to select outputs; <b>UP/Down</b> buttons are used to select inputs
4	Enter button with LED (White)	Press Enter to initiate switching after selecting the desired inputs and outputs
5	Power Button	Turns the matrix On/Off.

# Rear Panel Description



No.	Name	Description
1	AC 100~240V 50/60Hz	AC 100~240V 50/60Hz power supply input.
2	VIDEO INPUTS (HDMI 1-8)	Connect to HDMI sources.
3	VIDEO OUTPUTS (HDMI 1-8)	Connect to HDMI display devices.
4	IR EXT	IR extension port: for IR Receiver Cable.
5	EDID	DIP Switch: for EDID management.
6	LAN 10/100	Connect to control system, used for Web UI, Telnet control, Thor commands control.
7	RS232	DB9 port.
8	IR IN	Connect to IR receiver cable.
9	RS232	Connect a RS232 device for pass through.
10	HDBT OUT	Connect to Receiver device via Cat X cable.
11	AUDIO OUTPUTS	Audio de-embedded outputs: <b>3 Pins Phoenix female port:</b> L/R analog audio output.

# Installation and Wiring

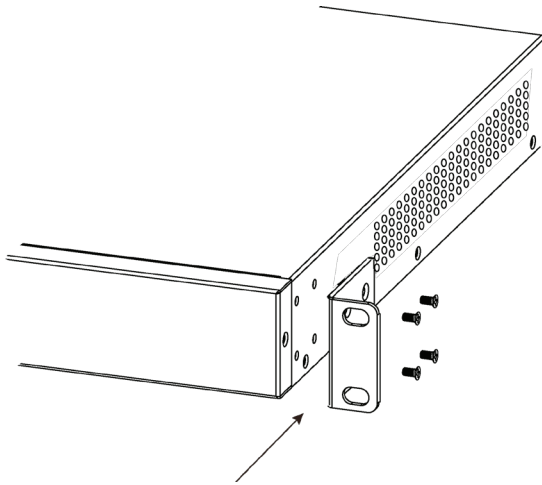
## Brackets Installation

**Warning:** Before installation, ensure the device is disconnected from the power source.

The PR01-0808 occupies 1U space and can be placed on a solid and stable surface or installed in a standard rack mount.

### Steps to install the device in a suitable location:

1. Attach the installation bracket to the enclosure using the screws provided..
2. The bracket is attached to the enclosure as shown.



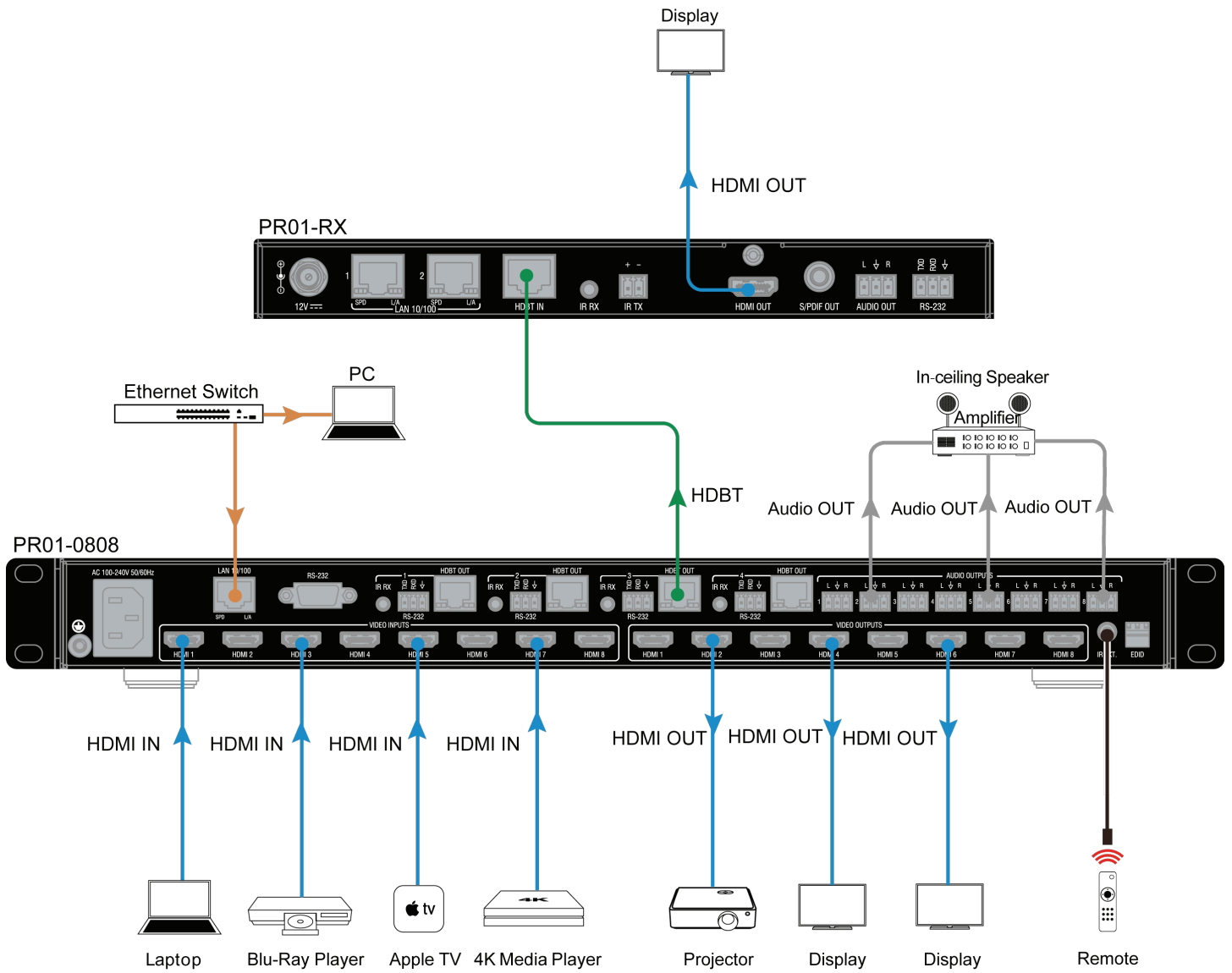
3. Repeat steps 1-2 for the other side of the unit.
4. Attach the brackets to a surface or suitable location with user supplied screws.

## Wiring

### Warning:

Before wiring, disconnect the power from all devices. Connecting or disconnecting cables while powered, may cause damage to circuitry or possible injury. Connect and disconnect the cables with care.

1. Using high quality HDMI cable, firmly connect 4K or HD source devices (such as: Blu-Ray, computer, games console, satellite/ cable, music streaming device, CCTV etc.) to the HDMI input ports 1-8 of the matrix.
2. Securely connect HDMI OUT 1-8 of the matrix to HDMI IN of 4K or HD display devices, make sure all sources and displays are compatible and correctly configured.
3. Securely connect AUDIO OUT 1-8 of the matrix to audio devices such as amplifier.
4. Connect an HDBT Receiver to the HDBT port via Shielded Cat 6a/7 cable.
5. Insert the matrix AC power cord and power ON the matrix by pressing the front panel power button. The front panel LEDs will show the matrix model name to indicate that the matrix is ready for operation.  
**Warning:** Always power off the matrix before unplugging any HDMI cables following Last On, First Off protocol.
6. Switch between sources and displays using the matrix front panel buttons, via IR remote control, through serial RS232 or LAN.
7. If IR extension is required, connect the IR Receiver Cable to the matrix IR EXT port. Make sure the IR receiver eye is placed in clear view of the remote control.

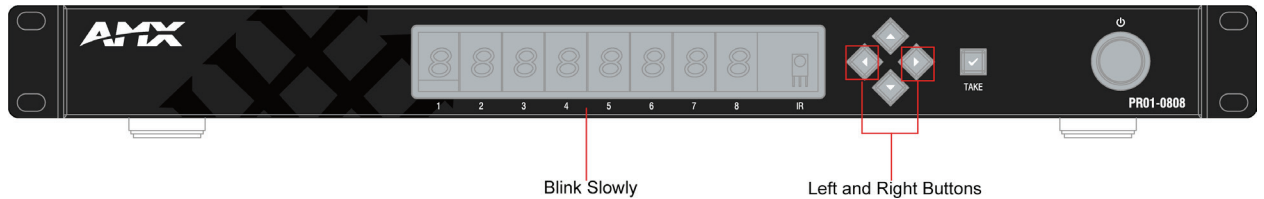


# Front Panel Control

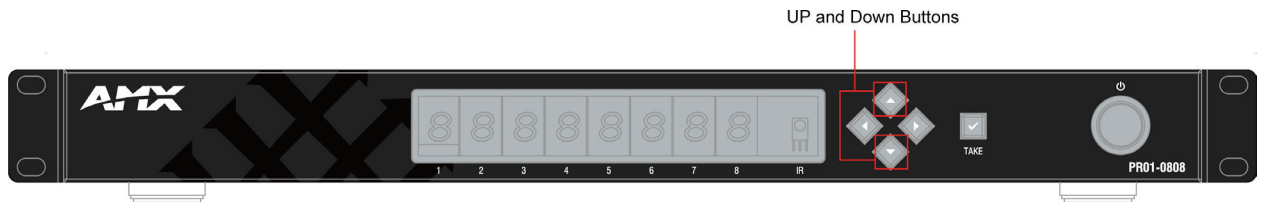
The PR01-0808 HDMI matrix is designed with ease of connection and control in mind. Basic switching of input sources to output displays can be achieved by pressing the front panel buttons with the front panel LEDs indicating the current input and output status of the matrix.

After power up, the front panel LEDs will show the matrix model name indicating the matrix is ready for operation.

**Step 1.** Press the **Left** or **Right** button to select output channel - the corresponding LED of the output channel will blink slowly.

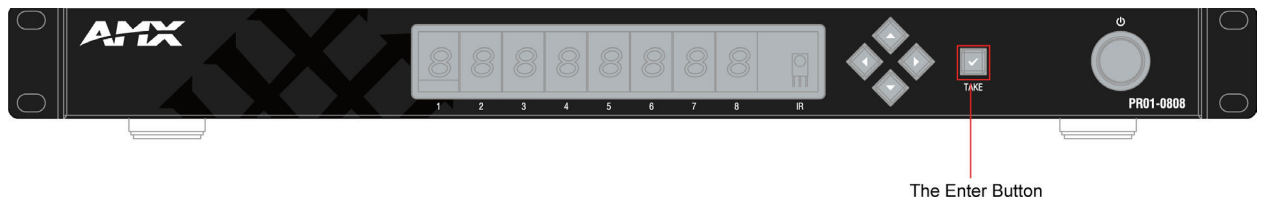


**Step 2.** Press the **Up** or **Down** button to select the desired input channel. When an output is turned Off, the corresponding LED will display "--".



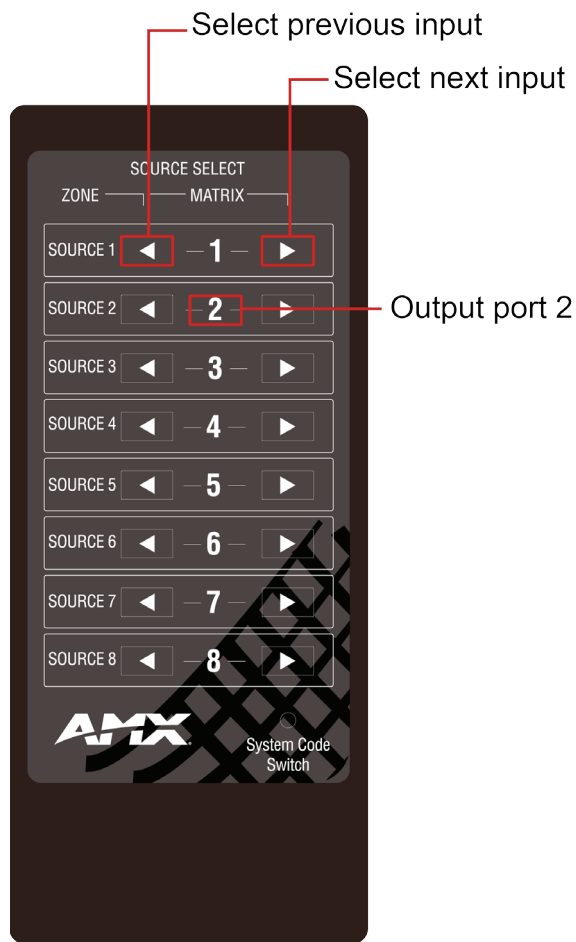
**Step 3.** Press the **Enter** button to confirm the desired selection, - the corresponding will LED stop blinking.



Note: Long pressing the ✓ button, the LED will display **V 12**, which is the LED board FW version.



# Remote Control

The HDMI matrix can also be controlled with a remote control.







Previous and Next buttons (   ):

Scrolls between the input sources.

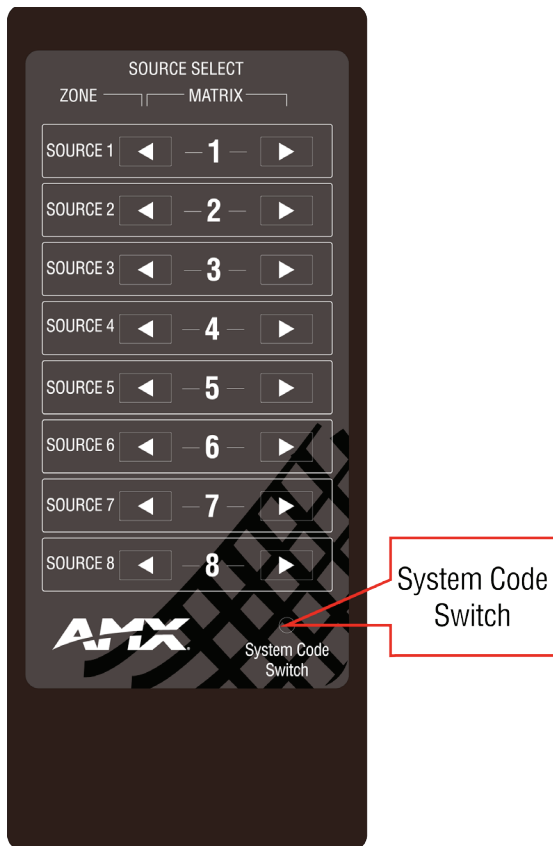
Previous button = previous input;

Next button = next input.

When using the matrix remote, point it directly at the matrix IR receiver,   are used to scroll between the input sources for each individual output display. For example, to select output display 1 to be set to input source 2, find row 1 on the matrix control and scroll   to input source 2.

## System Code Switch

In the event that the matrix remote's IR signals interfere with or are interfered with by other IR devices, such as a TV, DVD or another matrix, the matrix is capable of switching between two distinct IR system codes to isolate the matrix from interference.



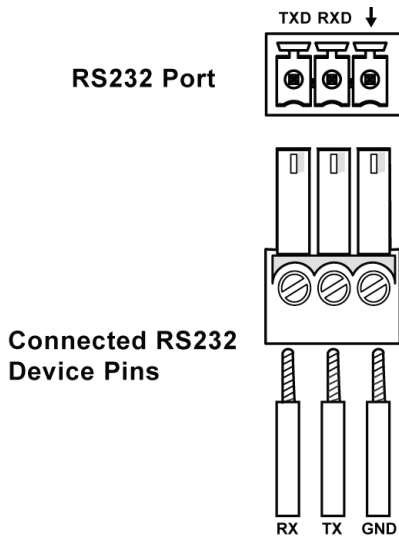
If the system codes of the matrix and remote are different, the remote cannot control the matrix. Press the **System Code Switch** button once rapidly to change the system code of the remote. This will change the remote from the default system code 00 to the alternate system code 4E.

# RS232 Operation

## RS232 Pass Through

### RS232 Pinout

The following figure shows the RS232 pinout with the corresponding HDBT Out port. Connect with the Phoenix Connectors provided.

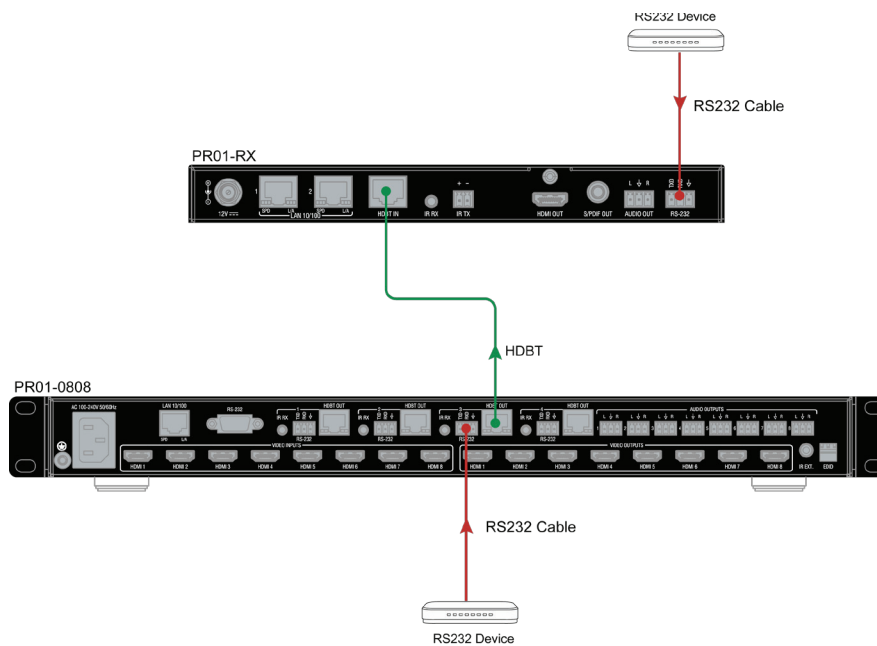


### RS232 Pass Through

The RS232 phoenix female port next to the HDBT OUT port is used for **RS232** pass through.

To start RS232 pass-through between the PR01-0808 and a Receiver (e.g. PR01-RX):

1. Connect an RS232 Device (RS232 Device 1) to the RS232 port of the PR01-0808 using an **RS232** cable;
2. Connect another RS232 Device (RS232 Device 2) to the RS232 port of a receiver (e.g. PR01-RX) using an RS232 cable;
3. Connect **HDBT OUT** of the PR01-0808 and **HDBT IN** of the Receiver using a Shielded Cat 6a/7 cable.
4. When the connections are complete, the RS232 Device 2 can be controlled from the RS232 Device 1 and vice versa.





# NetLinX Programming

Controlling the PR01-0808 through NetLinX studio via Ethernet port.

Before launching the NetLinX Studio, connect the PR01-0808 to RX, PC, and control system (e.g. NX-3200) to the same network.

## Device Number and Ports

Each Module has its own Device Number (which is assigned when the unit is bound to a Control System) and the following ports.

Port 1: HDMI In 1, HDMI/HDBT Out 1, Audio Out 1, RS-232 Out 1, IR TX 1

Port 2: HDMI In 2, HDMI/HDBT Out 2, Audio Out 2, RS-232 Out 2, IR TX 2

Port 3: HDMI In 3, HDMI/HDBT Out 3, Audio Out 3, RS-232 Out 3, IR TX 3

Port 4: HDMI In 4, HDMI/HDBT Out 4, Audio Out 4, RS-232 Out 4, IR TX 4

Port 5: HDMI In 5, HDMI Out 5, Audio Out 5

Port 6: HDMI In 6, HDMI Out 6, Audio Out 6

Port 7: HDMI In 7, HDMI Out 7, Audio Out 7

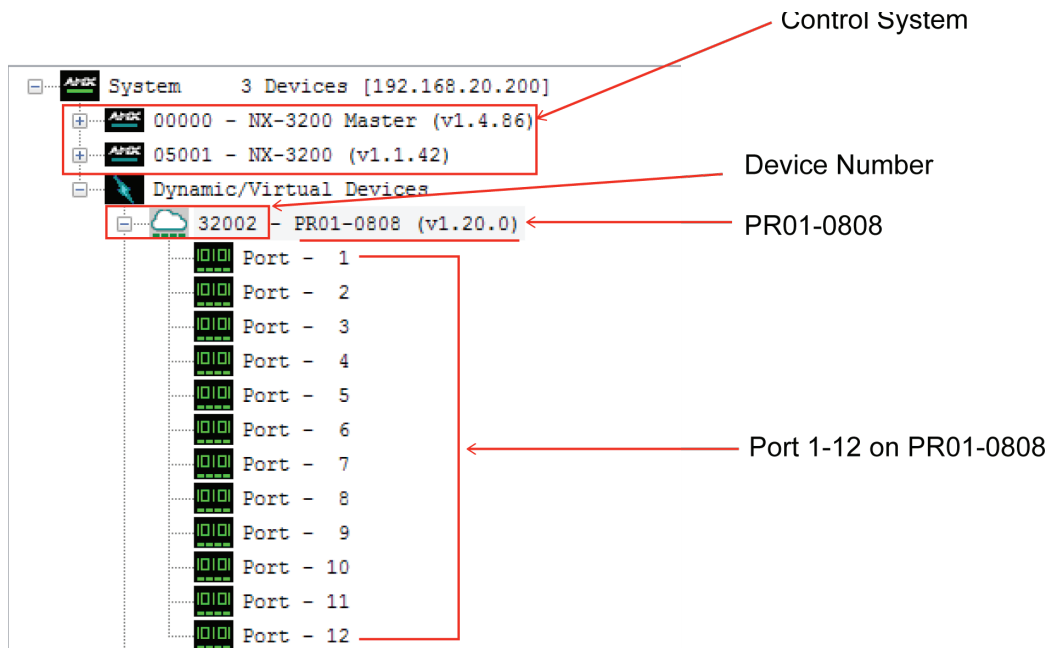
Port 8: HDMI In 8, HDMI Out 8, Audio Out 8

Port 9: RS-232 In

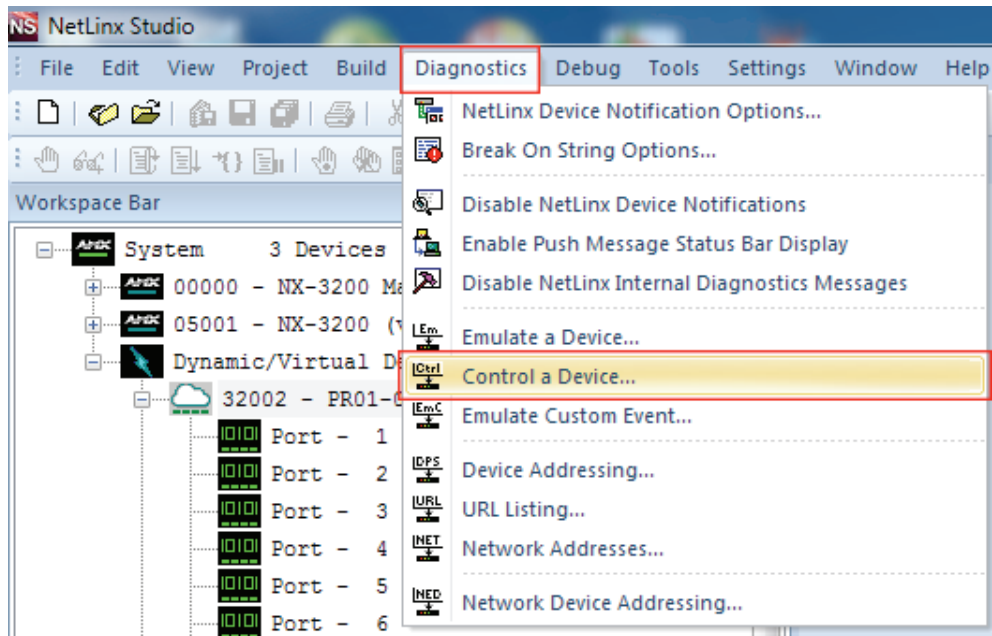
Port 10: unused

Port 11: unused

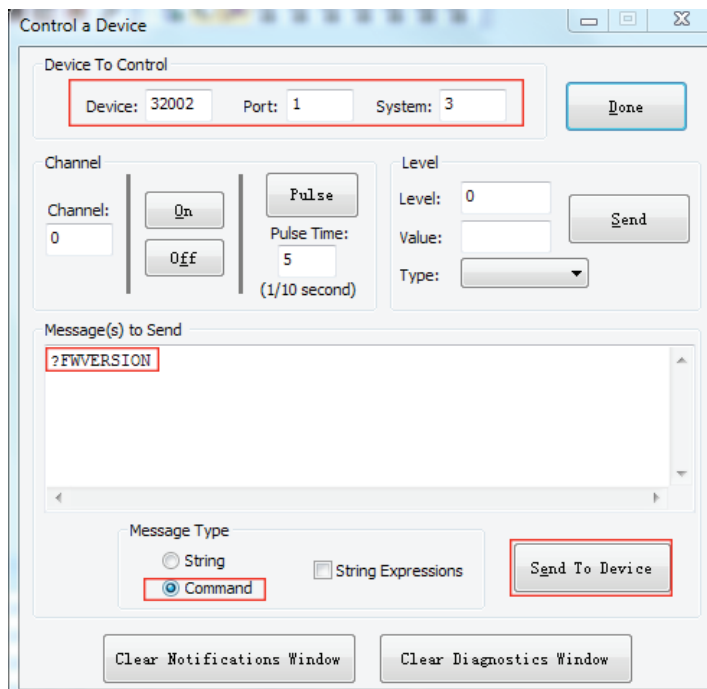
Port 12: IR RX



After configuring each port respectively, control commands can be sent to the chosen device. Click **"Diagnostics"** on the menu bar, choose **"Control a Device"**.



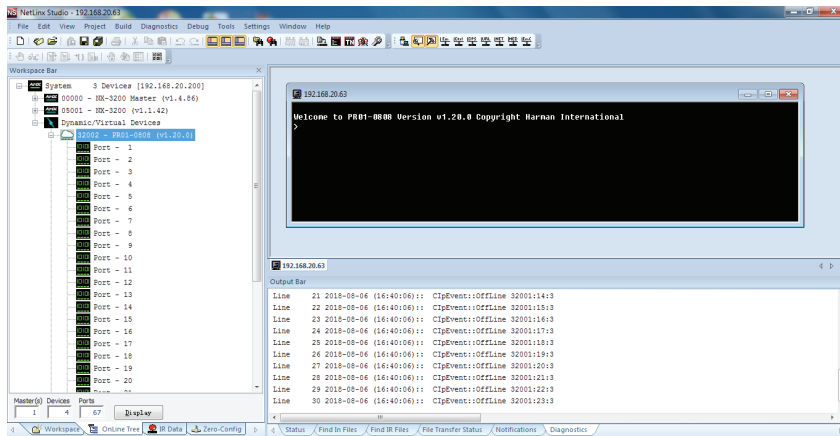
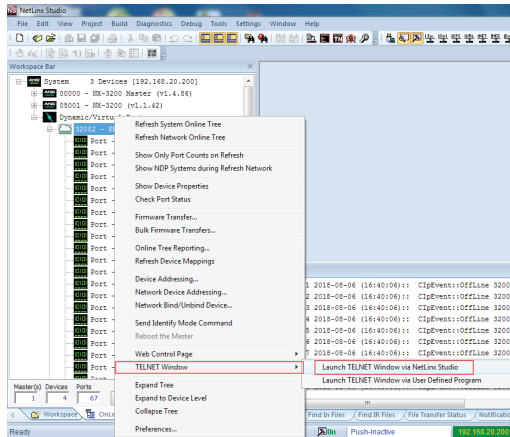
A window will display as follows, enter a command in the textbox, and click **"Send To Device"**. (For API commands, see the Section **NetLinx API Command Set**.)



## Telnet Control via NetLinx Studio

To launch Telnet Window,

1. Right click the Device Number in NetLinx Studio's Online Tree, select "TELNET Window" – "Launch TELENT Window via NetLinx Studio" (or "Launch TELENT Window via User Defined Program").\*
2. **Note:** For API commands, see the Section **Telnet API Command Set**.

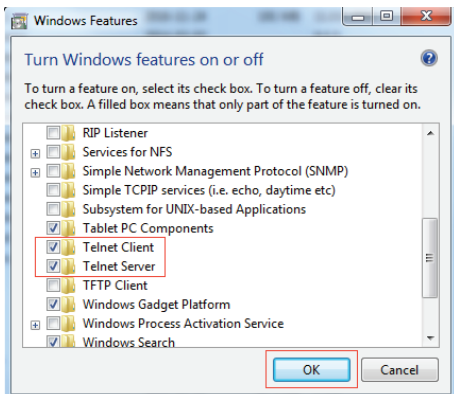


**Note:** To select "Launch TELNET Window via User Defined Program" may require additional telnet commands. Refer to the Section **Telnet API Command Set**.

3. At the prompt (>), type the Telnet command and press Enter.

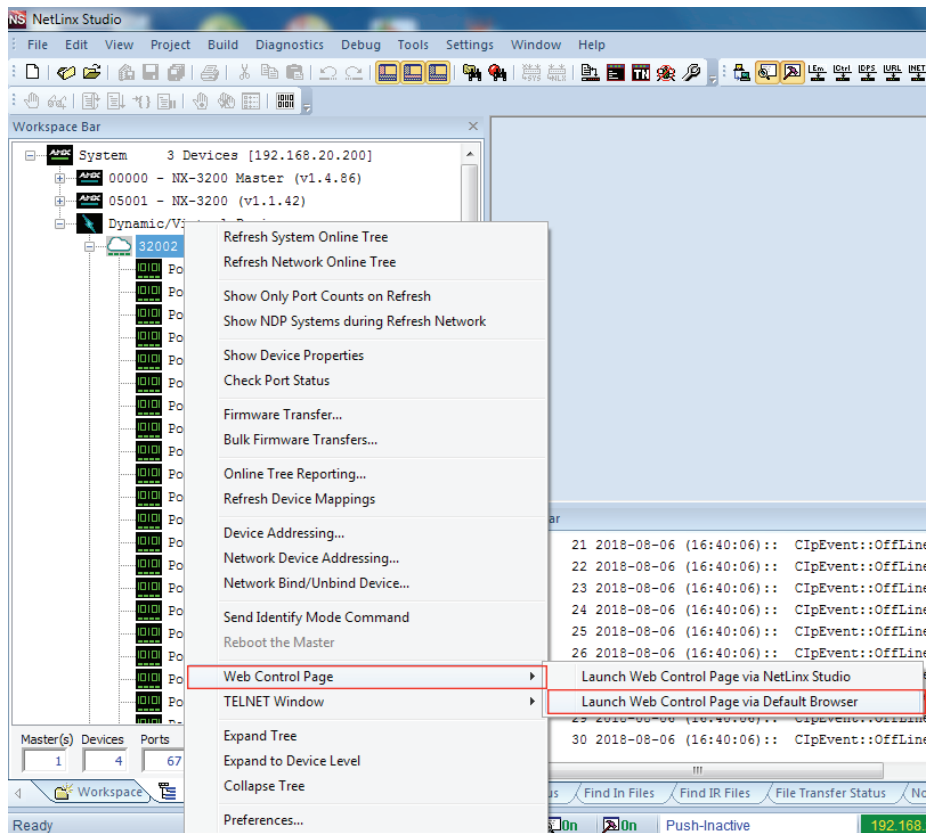
Selecting "Launch TELENT Window via User Defined Program", may require enabling Telnet by completing the following:

- (1) Go to Start/Control Panel/Programs and Features;
- (2) On the left, select "Turn Windows features on or off";
- (3) Select the check-boxes Telnet Client and Telnet Server, and click OK.



## Web UI Control via NetLinx Studio

The PR01-0808 provides a web interface for changing settings and controlling the matrix. Enter the Web UI Control Page via NetLinx Studio. Choose the device you want to control, right click, then choose **Web Control Page->Launch Web Control Page via Default Browser**, add "s" after "http", enter the Web UI Control Page.



# Web UI Control

The Web UI designed for the PR01-0808 allows basic controls and advanced settings of the device. The Web UI page can be accessed through NetLinX Studio.

## Identify the IP address of the PR01-0808

On the PR01-0808, press and hold the select button UP and DOWN for 3 seconds. The current IP address of the device will be presented on the device LED display.

## Access the Web Interface

To access the Web UI:

1. Connect your PC and the LAN port of the VPX-1701 to the same local area network.
2. In NetLinX Studio's Online Tree, select "Web Control Page" – "Launch Web Control Page via Default Browser" (or select "Launch Web Control Page via NetLinX Studio").

The following page will pop up. Enter the default password "admin" and click "Login".

## PR01-0808 Matrix control

Login

Password:

.....

Remember Password

Login

After logging in, the main screen appears. It contains two submenus:

- Matrix Control
- Admin Setting
- Logout

**Note:** Select Launch Web UI Control Page via Default Browser or type the IP address into a web browser. Chrome, Safari, Firefox, Opera and IE10+ browsers are supported. Make sure the web browser is the latest version.

ANX Matrix Control Admin Setting

Switch

Inputs/Outputs	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7	Output 8	All
Input 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Presets

Preset 1 Save Load

Preset 2 Save Load

Preset 3 Save Load

Preset 4 Save Load

Preset 5 Save Load

Preset 6 Save Load

Preset 7 Save Load

Preset 8 Save Load

## Web Interface Introduction

### Matrix Control

The Matrix Control submenu is used to perform the following tasks:

- Switch
- Preset

#### Switch

The Switch manages the connection configurations of displays and sources.

Inputs/Outputs	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7	Output 8	All
Input 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The input/output switch allows selection of output port (display) and input port (source) for specific combinations of displays and sources within the matrix.

Click the white button, it will become blue, which represents that the input and output are routed.

**All:** Route all outputs to one input.

**None:** Route output to none (turn off output)

#### Preset

Preset 1	Preset 2	Preset 3	Preset 4
<input type="checkbox"/> Save <input type="checkbox"/> Load	<input type="checkbox"/> Save <input type="checkbox"/> Load	<input type="checkbox"/> Save <input type="checkbox"/> Load	<input type="checkbox"/> Save <input type="checkbox"/> Load
Preset 5	Preset 6	Preset 7	Preset 8
<input type="checkbox"/> Save <input type="checkbox"/> Load	<input type="checkbox"/> Save <input type="checkbox"/> Load	<input type="checkbox"/> Save <input type="checkbox"/> Load	<input type="checkbox"/> Save <input type="checkbox"/> Load

Only matrix inputs/outputs selection states can be saved as presets for loading to the matrix. **Save:** Save the selection states in the Switch submenu.

**Load:** Load the preset which has been saved.

## Advanced Setting

The Admin Setting submenu is used to perform the following tasks:

- CEC Setting
- EDID Setting
- HDCP Support
- Port Naming
- Preset Name
- Network
- Change Password
- Telnet/SSH Account
- Telnet Service
- SSH Service
- ICSP Parameter
- System
- Save and Load Setting
- Update Status
- Update Web UI
- Log
- Firmware

### CEC Setting

Output: HDMI 1/HDBT 1

CEC Control	<input checked="" type="checkbox"/> Display On <input type="checkbox"/> Display Off
Auto Control (1-30 Minute)	2 <input type="checkbox"/> OFF

### EDID Setting

### HDCP Support

Input 1	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	Input 2	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	Input 3	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	Input 4	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF
Input 5	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	Input 6	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	Input 7	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	Input 8	<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF

### Port Name

Input 1	<input type="text" value="Input 1"/>	Output 1	<input type="text" value="Output 1"/>
Input 2	<input type="text" value="Input 2"/>	Output 2	<input type="text" value="Output 2"/>
Input 3	<input type="text" value="Input 3"/>	Output 3	<input type="text" value="Output 3"/>
Input 4	<input type="text" value="Input 4"/>	Output 4	<input type="text" value="Output 4"/>
Input 5	<input type="text" value="Input 5"/>	Output 5	<input type="text" value="Output 5"/>
Input 6	<input type="text" value="Input 6"/>	Output 6	<input type="text" value="Output 6"/>
Input 7	<input type="text" value="Input 7"/>	Output 7	<input type="text" value="Output 7"/>
Input 8	<input type="text" value="Input 8"/>	Output 8	<input type="text" value="Output 8"/>

**Note:** The length of name is limited to 15 characters (only letters, numbers or space, can't included punctuation) each.

### Preset Name

Preset 1	<input type="button" value="Save"/> <input type="button" value="Reset"/>	Preset 2	<input type="button" value="Save"/> <input type="button" value="Reset"/>	Preset 3	<input type="button" value="Save"/> <input type="button" value="Reset"/>	Preset 4	<input type="button" value="Save"/> <input type="button" value="Reset"/>
Preset 5	<input type="button" value="Save"/> <input type="button" value="Reset"/>	Preset 6	<input type="button" value="Save"/> <input type="button" value="Reset"/>	Preset 7	<input type="button" value="Save"/> <input type="button" value="Reset"/>	Preset 8	<input type="button" value="Save"/> <input type="button" value="Reset"/>

**Note:** The length of name is limited to 15 characters (only letters, numbers or space, can't included punctuation) each.

### Network

<input checked="" type="checkbox"/> DHCP	<b>Static IP</b> IP Hostname: <input type="text"/> IP Address: <input type="text" value="null"/> Subnet Mask: <input type="text" value="null"/> Gateway: <input type="text" value="0.0.0.0"/>	<b>DNS Address</b>	
<input type="checkbox"/> Static		DNS IP 1: <input type="text"/>	
		DNS IP 2: <input type="text"/>	

**Note:** Matrix LAN Module will automatically reboot after changing Network setting.



### Change Password

**Login Password**

Old Password

New Password

Confirm New Password

**Note:** Password may only contain 4 to 20 alphanumeric characters.

### Telnet/SSH Account

**Telnet**

Username

Password

**SSH**

Username

Password

**Note:** Username and Password may only contain 4 to 20 alphanumeric characters.

### Telnet Service

Enable

Disable

**Note:** Device must be rebooted for the setting to take effect.

### SSH Service

Enable

Disable

**Note:** Device must be rebooted for the setting to take effect.

### ICSP Parameter

Connection Mode :

Master URL :

System Number :

Device Number :

### System

### Save And Load Setting

### Update Status

**Note:** Only when you upgrade the device through Netlinc will you be able to view the upgrade status.

### Update Web UI

**Note:** LAN Module will update and reboot automatically. Please wait about 3 minutes, then refresh and login again. Do not power off the matrix when updating.

### Log

Show

Hide

### Firmware

Web UI	V1.26
MCU	

### CEC Setting

Click on the Output drop-down menu to select the output to be set.

Click **Display On** to send the CEC command to power on the display connected to the output.

Click **Display Off** to send the CEC command to power off the display connected to the output.

Choose Auto Control time to set display auto power off time. Example: With the time set to 2 minutes, the output display will be powered off automatically when there is no signal input for 2 minutes.

If you click the button **"Off"**, this function is free.

CEC Setting	
Output	HDMI 1/HDBT 1
CEC Control	<b>Display On</b> <b>Display Off</b>
Auto Control (1-30 Minute)	2 <b>OFF</b>

**Note:** This function is valid only if the display supports CEC control and the time range for Auto Control is 0-30 minutes.

### EDID Setting

The EDID Setting allows users to access and configure EDID of every input port. Click **Enter** to access **EDID Setting**.

EDID Setting	
Output	HDMI 1
<b>Read</b>	
HDMI Input 1	Fix 4K@60Hz 2.0CH Audio With HDR <b>Apply</b>
HDMI Input 2	Fix 4K@60Hz 2.0CH Audio With HDR <b>Apply</b>
HDMI Input 3	Fix 4K@60Hz 2.0CH Audio With HDR <b>Apply</b>
HDMI Input 4	Fix 4K@60Hz 2.0CH Audio With HDR <b>Apply</b>
HDMI Input 5	Fix 4K@60Hz 2.0CH Audio With HDR <b>Apply</b>
HDMI Input 6	Fix 4K@60Hz 2.0CH Audio With HDR <b>Apply</b>
HDMI Input 7	Fix 4K@60Hz 2.0CH Audio With HDR <b>Apply</b>
HDMI Input 8	Fix 4K@60Hz 2.0CH Audio With HDR <b>Apply</b>

Click **Read** to read EDID.

EDID Setting	
Output	HDMI 1
<b>Read</b>	

Change EDID settings through the input drop-down menu, and click **Apply** to make the change effective.

The screenshot shows eight individual control panels for HDMI inputs, arranged in two columns. Each panel is titled 'HDMI Input' followed by a number from 1 to 8. Inside each panel, there is a dropdown menu currently set to 'Copy From HDMI Output 1' and a blue 'Apply' button to its right.

### HDCP Support

In the HDCP Support column, HDCP support of HDMI Input 1-8 ports can be enabled/disabled.

**ON:** Input port supports HDCP.

**OFF:** Input port does not support HDCP.

The screenshot shows a section titled 'HDCP Support' with a grid of eight input controls. Each control is labeled 'Input' followed by a number from 1 to 8. Below each label are two radio buttons: 'ON' (which is selected) and 'OFF'.

### Port Naming

In the Port Naming column, User defined names can be assigned and modified for each port

The screenshot shows a section titled 'Port Name' with two columns of text input fields. The left column is labeled 'Input' and contains eight fields, each with 'Input' followed by a number from 1 to 8. The right column is labeled 'Output' and contains eight fields, each with 'Output' followed by a number from 1 to 8. At the bottom of the section, there is a red note: 'Note: The length of name is limited to 15 characters (only letters, numbers or space, can't included punctuation) each.' and two buttons: 'Save' and 'Reset'.

Click **Save** to save the changes.

Click **Reset**, to return all the port names to the default settings.

**Note:** The length of each name is limited to 15 characters (letters, numbers or spaces).

## Preset Name

In the Preset Name column, User defined names can be assigned and modified for each preset in this column.

The screenshot shows a configuration page titled "Preset Name" with a blue header. Below the header, there are eight preset configurations arranged in two rows of four. Each preset (Preset 1 through Preset 8) has a text input field for the name and two buttons: "Save" and "Reset". Below the grid, a red note states: "Note: The length of name is limited to 15 characters (only letters, numbers or space , can't included punctuation) each."

Click **Save** to save the changes.

Click **Reset**, to return all the preset names to the default settings.

**Note:** The length of each name is limited to 15 characters (letters, numbers or spaces).

## Network

In the Network Column, the device IP mode can be set:

**DHCP:** When enabled, the IP address of the PR01-0808 will be assigned automatically by the connected DHCP server.

**Static:** When the PR01-0808 fails to obtain or detect an IP address from the network to which it is connected, select "**Static**" to set up the IP address manually.

Apply: Click Apply to initiate the network setting.

The screenshot shows the "Network" configuration page with a blue header. On the left, there are two radio buttons: "DHCP" (which is selected) and "Static". To the right, there are two main sections: "Static IP" and "DNS Address". The "Static IP" section contains four input fields: "IP Hostname" (AMX-PR01-0808-807195), "IP Address" (192.168.20.77), "Subnet Mask" (255.255.255.0), and "Gateway" (192.168.20.1). The "DNS Address" section contains two input fields: "DNS IP 1" (192.168.20.1) and "DNS IP 2" (192.168.1.1). A red note at the bottom left states: "Note: Matrix LAN Module will automatically reboot after changing Network setting." An "Apply" button is located at the bottom right.

This screenshot is identical to the one above, showing the "Network" configuration page. However, the "Static" radio button is now selected, and the "DHCP" radio button is unselected. All other fields and the note remain the same.

### Change Password

In the Change Password column, modification can be made for the Login Password.

The Login Password default is **admin**.

Click the **“Save”** button to save the changes

**Note:** Passwords must be 4 to 16 characters in length (alphanumeric only).



The screenshot shows a web interface titled "Change Password". It contains three input fields: "Old Password", "New Password", and "Confirm New Password". A "Save" button is located at the bottom right of the form. Below the form, a red note states: "Note: Password may only contain 4 to 20 alphanumeric characters."

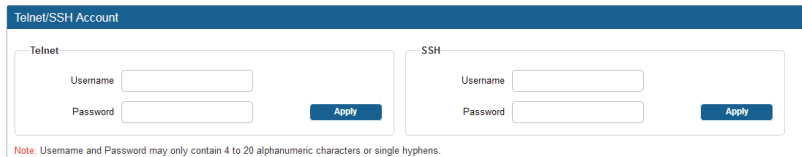
### Telnet/SSH Account

Telnet/SSH Account is used to configure the user name and password of the account.

For Telnet Account, the default user name and password are null.

For SSH Account, the default user name is **admin**, the default password is **password**.

**Note:** Reboot the device for the SSH changes to take effect.

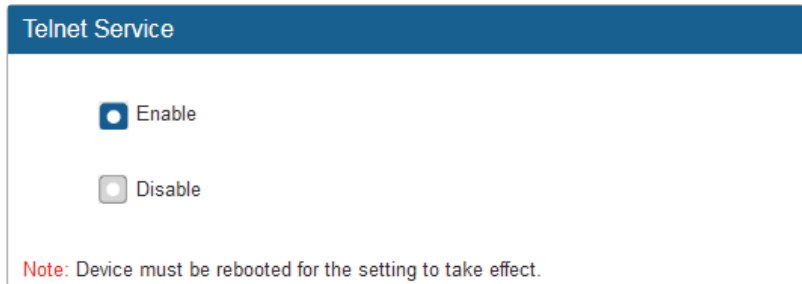


The screenshot shows a web interface titled "Telnet/SSH Account". It has two sections: "Telnet" and "SSH". Each section has "Username" and "Password" input fields and an "Apply" button. A red note at the bottom states: "Note: Username and Password may only contain 4 to 20 alphanumeric characters or single hyphens."

### Telnet Service

In the Telnet Service column, telnet Service can be **Disabled** or **Enabled**.

**“Enable”** is default.

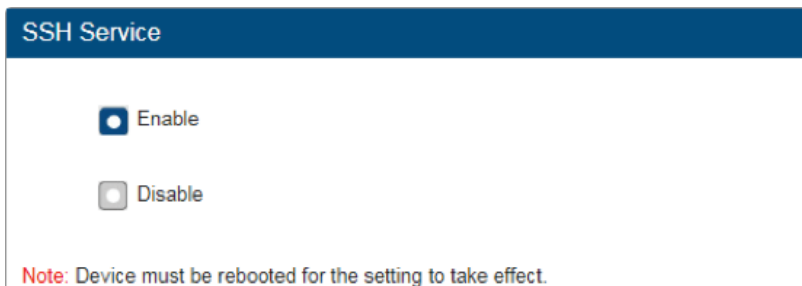


The screenshot shows a web interface titled "Telnet Service". It has two radio buttons: "Enable" (which is selected) and "Disable". A red note at the bottom states: "Note: Device must be rebooted for the setting to take effect."

### SSH Service

In the SSH Service column, selection of SSH Service can be **Disabled** or **Enabled**.

**“Enable”** is default.



The screenshot shows a web interface titled "SSH Service". It has two radio buttons: "Enable" (which is selected) and "Disable". A red note at the bottom states: "Note: Device must be rebooted for the setting to take effect."

### ICSP PARAMETER

In the ICSP Parameter column, the ICSP parameter can be set.

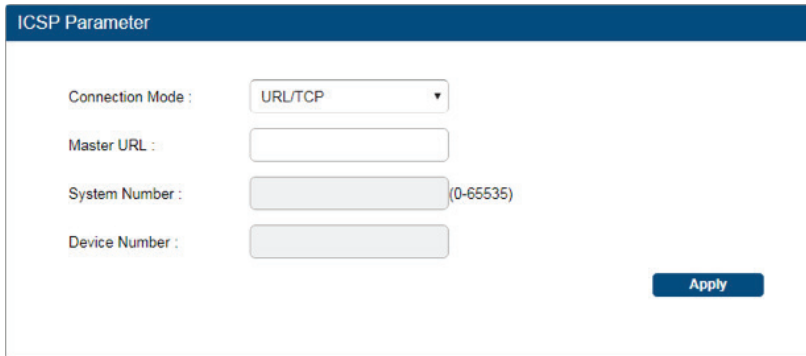
**Connection Mode:** includes four options of NDP, Auto IP, URL/TCP, URL/UDP.

**Master URL:** Input the connected master's URL.

**System Number:** Use the Online Tree to determine it. By default, it is disabled to configure.

**Device Number:** Use the Online Tree to determine it. By default, it is disabled to configure.

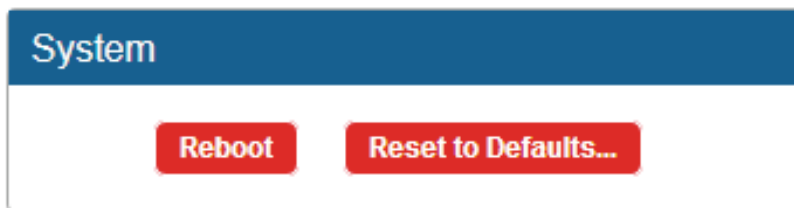
Click "**APPLY**" to initiate the change.



The screenshot shows a configuration window titled "ICSP Parameter". It contains four input fields: "Connection Mode" (a dropdown menu set to "URL/TCP"), "Master URL" (an empty text box), "System Number" (a text box with a placeholder "(0-65535)"), and "Device Number" (an empty text box). A blue "Apply" button is located at the bottom right of the form.

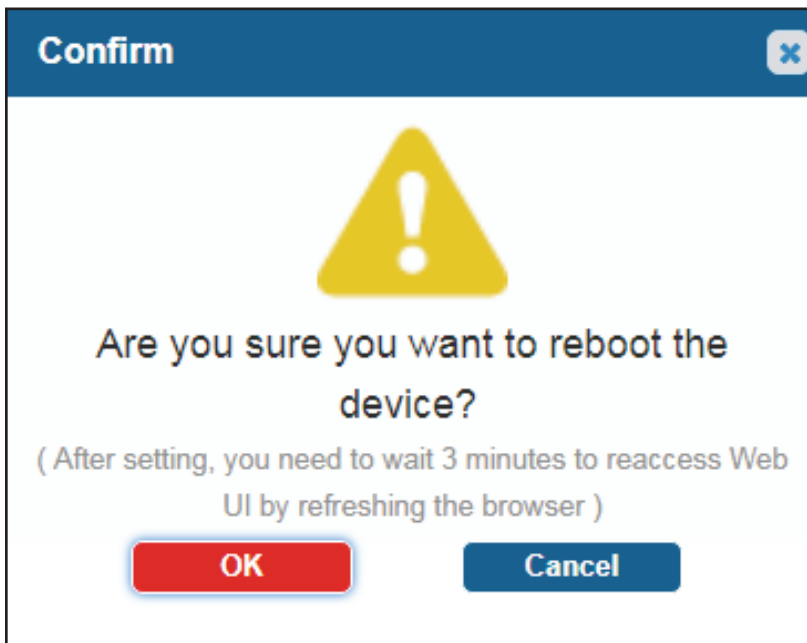
### System

In the System column, device reboot or reset to defaults can be initiated.



The screenshot shows a panel titled "System" with a blue header. Below the header are two red buttons: "Reboot" and "Reset to Defaults...".

Reboot: Click "reboot". Select "OK" of the popup box up to reboot the device.



The screenshot shows a "Confirm" dialog box with a blue header and a close button (X) in the top right corner. In the center is a yellow warning triangle with a white exclamation mark. Below the triangle, the text reads: "Are you sure you want to reboot the device?". Underneath that, in smaller text, it says: "( After setting, you need to wait 3 minutes to reaccess Web UI by refreshing the browser )". At the bottom are two buttons: a red "OK" button and a blue "Cancel" button.

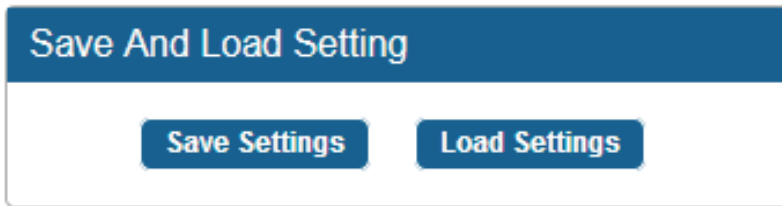
Reset to Defaults: Click "**Reset to Defaults...**", select "**OK**" in the popup box to reset the device to factory defaults.

### Save and Load Setting

In the Save and Load Setting column, settings can be saved and user saved settings can be loaded.

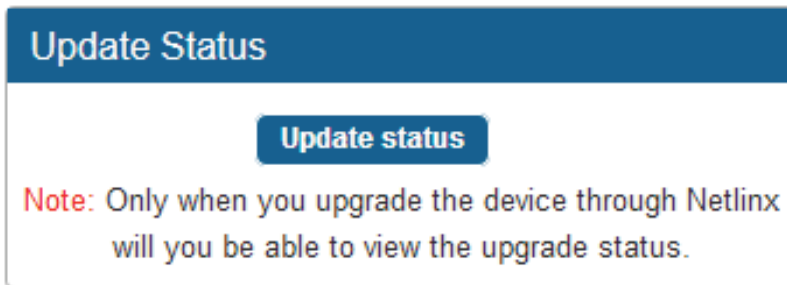
Save Settings: Save current settings as a setting file to be saved to a PC.

Load Settings: Click to load a setting file from PC to Matrix.



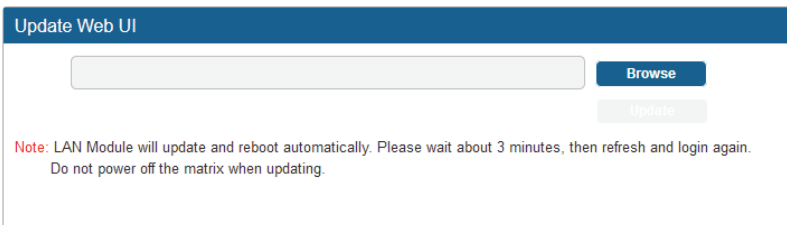
### Update Status

In the Update Status column, the upgrade status is displayed when upgrading the device firmware.



### Update Web UI

In the Update Web UI column, the Web UI can be updated.



**Step 1.** Browse for the bin file.

**Step 2.** Click the **Update** button.

**Note:** The module will update and reboot automatically. Allow time for the reboot to complete, then refresh and log in again. Do not power off the matrix while updating.

## LOG

In the Log column, choose to hide or show the log in at the bottom of the page.

Log

Show

Hide

## Firmware

In the Firmware column, the firmware version can be checked.

Firmware	
Web UI	V1.20
MCU	V1.5



# Firmware Upgrade

The PR01-0808 uses KIT files for firmware upgrade.

## Before Starting

1. Verify that you have the latest version of NetLinx Studio on your PC.
2. Download the latest firmware (KIT) file to your PC. (Place KIT files on a local drive for the fastest throughput.)
3. Verify the following:
  - a) Verify that an Ethernet/RJ-45 cable is connected from the PR01-0808 to the same network as the control system.
  - b) Verify the PR01-0808 unit is powered ON.
4. Launch NetLinx Studio and open the Online Tree.
5. Launch Web UI page before you upgrade firmware to know the status of upgrading. More information, please refer to **UPGRADE STATUS** part in **Web UI Control** section.

## Transferring KIT Files

### Important Upgrade Information:


Upgrading the firmware is a serious action in that if the upgrade fails, it can leave the system completely non-operational. Ensure interruption of power and no power-off during the upgrade process.

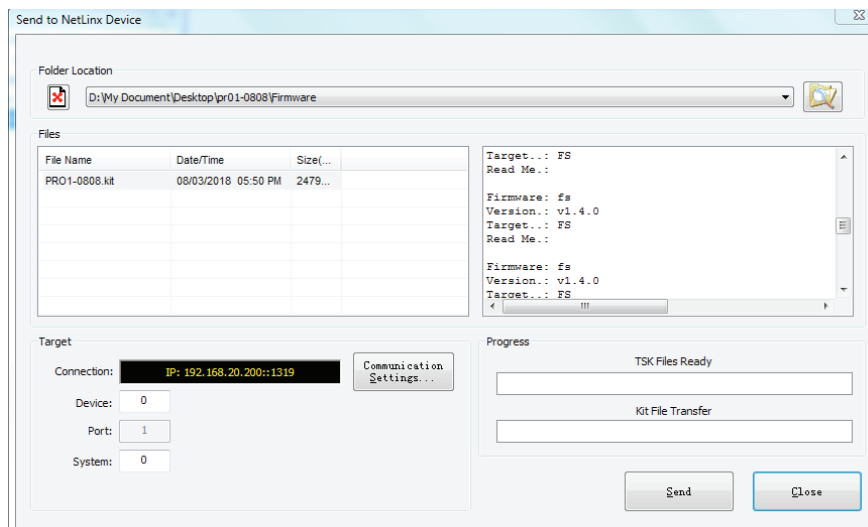
## Transferring KIT Files

The system will be non-operational during the upgrade procedure below.

1. In NetLinx Studio from the **Tools** menu, select "**Firmware Transfers > Send to NetLinx Device**", select "**Stop Communications**" in the following box, and then enter the **Send to NetLinx Device** dialog box.



2. Click  to navigate to the target directory. The selected directory path is displayed in the Location text box. KIT files in the target directory display under File Names.
3. Select the appropriate KIT file from the list.
4. Enter the Device and System numbers (see **Device Number and Ports** in the **NetLinx Programming** section) for the target module in the Device and System text boxes.
  - The number of NetLinx Master is 3.
  - The Device number assigned to the integrated control ports is 32002. (Use the Online Tree to determine the Device Number.)



5. Click **Send** to send the file to NetLinx Master and initiate the firmware upgrade on the PR01-0808.
6. Click **Update Status** in the **Update Status** column of Web UI to check status of the firmware upgrade.

NOTE: Do not power off the Device until it has been successfully upgraded.

The Device will restart two times to resume normal operation.

# Troubleshooting

1. **Power:** Ensure all devices are powered on (sources, transmitter, receiver and display).
2. **Indicator:** Please make sure all LED indicators of the receiver is normal according to the user manual.
3. **Devices:** Ensure picture can be shown normally when directly connecting a source to a display device.
4. **Cable:** Plug in and out HDMI/Cat X cable or try another HDMI/Cat X cable.
  - Ensure the cable length being used is within available transmission range according to the **Specification** Section.
  - Cat 5e/6/6a/7 cable is recommended. Do not use Cat 5 cable.
  - Ensure both connectors of each Cat X cable are the same standard (EIA/TIA 568B).
5. **Compatibility:** Test other source and display devices to determine correct compatibility.

# API Command List Instructions

## NetLinx Commands

### Device Port Name and Port Number:

Model name	Port name	Port No.
PR01-0808	HDMI In 1 HDMI/HDBT Out 1 Audio Out 1 RS-232 Out 1 IR TX 1	1
	HDMI In 2 HDMI/HDBT Out 2 Audio Out 2 RS-232 Out 2 IR TX 2	2
	HDMI In 3 HDMI/HDBT Out 3 Audio Out 3 RS-232 Out 3 IR TX 3	3
	HDMI In 4 HDMI/HDBT Out 4 Audio Out 4 RS-232 Out 4 IR TX 4	4
	HDMI In 5 HDMI Out 5 Audio Out 5	5
	HDMI In 6 HDMI Out 6 Audio Out 6	6
	HDMI In 7 HDMI Out 7 Audio Out 7	7
	HDMI In 8 HDMI Out 8 Audio Out 8	8
	RS-232 In	9
	IR RX	12

## NetLinx Command List Instructions (cont.)

No.	Function Description	Syntax	Example
<b>Volume</b>			
1	Switches both the audio and video input port to the output port	<p><b>Command</b> SEND_COMMAND &lt;DEV&gt;, "CI&lt;input&gt;O&lt;output&gt;"</p> <p>Or: <b>Command</b> SEND_COMMAND &lt;DEV&gt;, "CL&lt;Switch Level&gt;I&lt;Input&gt;O&lt;Outputs&gt;"</p> <p>Or: <b>Command</b> SEND_COMMAND &lt;DEV&gt;, "VI&lt;input&gt;O&lt;output&gt;"</p> <p><b>Return:</b> SWITCH-VIDEOI(input)O(output)</p> <p><b>Description:</b> input={1~8}, output={1-8} input 1~8: HDMI in1~8 output 1~4: HDMI out1~4/HDBT out1~4 output 5~8: HDMI out 5~8</p>	<p><b>Command:</b> SEND_COMMAND 5002:1:0, "CI201"  SEND_COMMAND 5002:1:0, "VI201"</p> <p><b>Return:</b> SWITCH-VIDEOI(2)O(1)</p> <p><b>Description:</b> Switches input 2 to output 1.</p>
2	Requests the output(s) connected to an input.	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;, "?OUTPUT-&lt;Switch Level&gt;,&lt;Input&gt;"</p> <p><b>Variables:</b> Switch Level = AUDIO or VIDEO or ALL (both Audio and Video). Input = The source input port number.</p> <p><b>Return:</b> SWITCH-L&lt;AUDIO VIDEO&gt;I&lt;Input&gt;O&lt;Output&gt;</p>	<p><b>Command:</b> SEND_COMMAND 5002:1:0, "?OUTPUT-VIDEO,1"</p> <p><b>Return:</b> SWITCH-VIDEOI10( 1 )</p>
<b>Video</b>			
3	Requests the input connected to an output.	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;, "?INPUT-&lt;Switch Level&gt;,&lt;Output&gt;"</p> <p><b>Variables:</b> Switch Level = AUDIO or VIDEO. Output = The output port number.</p> <p><b>Return:</b> SWITCH-L&lt;AUDIO VIDEO&gt;I&lt;Input&gt;O&lt;Output&gt;</p> <p><b>Description:</b> Requests the input connected to an output</p>	<p><b>Command:</b> SEND_COMMAND 5002:1:0, "?INPUT-VIDEO,1"</p> <p><b>Return:</b> SWITCH-VIDEOI10( 1 6 7 )</p> <p><b>Description:</b> Output Scale is Auto</p>
4	To Set Input HDCP support ON/OFF	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;,"VIDIN_HDCP-&lt;option&gt;"</p> <p><b>Return:</b> VIDIN_HDCP-&lt;option&gt;</p> <p><b>Variables:</b> option = ENABLE, DISABLE (default = ENABLE)</p>	<p><b>Command:</b> SEND_COMMAND VIDEO_INPUT_1,"VIDIN_HDCP-ENABLE"</p> <p><b>Return:</b> VIDIN_HDCP-ENABLE'</p> <p><b>Description:</b> Enables the HDCP compliance of video input port #1</p>
5	Requests the video input HDCP compliance setting of the specified video input port.	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;, "?VIDIN_HDCP"</p> <p><b>Return:</b> VIDIN_STATUS-&lt;ENABLE DISABLE&gt;</p>	<p><b>Command:</b> SEND_COMMAND VIDEO_INPUT_1, "?VIDIN_HDCP"</p> <p><b>Return:</b> VIDIN_STATUS-&lt;ENABLE DISABLE&gt;</p>

## NetLinx Command List Instructions (cont.)

No.	Function Description	Syntax	Example
6	Sets the EDID of a Video Input Port	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;, ""VIDIN_EDID_DATA-&lt;EDID Data&gt;""</p> <p><b>Return:</b> NULL</p>	<p><b>Command:</b> SEND_COMMAND 5002:1:1, ""VIDIN_EDID_DATA- 00FFFFFFFFF0005B800150100000001 180103800000780A14E5A3564C9D250E5 054200000D100D1E8D1FCB300810081C0 61003118DE0DD0D820902E10244813000 0000000001A011D8018711C1620582C25 00C48E2100009E000000FD0017780F661 1000A20202020202000000FC00414D58 5F48444D493576310A200139020323F067 030C002000802C4E102021221F2805142F 290403120723090707830100008F2F78D0 511A27405890340056502100001E0E1F00 8051001E3040803E01565021000018DE0D D0D820902E10244813005650210000184E 0C80C020902D102040130056502100001 E0000000000000000000000000000000 0000000008E""</p> <p><b>Return:</b> NULL</p>
7	Sets the preferred resolution for the EDID source to mirror in the specified video input port	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;,""VIDIN_PREF_EDID-&lt;resolution&gt;""</p> <p><b>Return:</b> VIDIN_PREF_EDID-&lt;resolution&gt;</p> <p><b>Description:</b> &lt;resolution&gt;: 3840x2160,60,2.0,HDR 3840x2160,30,7.1,HDR 3840x2160,30,5.1,HDR 3840x2160,30,2.0,HDR 3840x2160,30,2.0, 1920x1080,60,2.0</p>	<p><b>Command:</b> SEND_COMMAND VIDEO_INPUT_1,""VIDIN_PREF_EDID-1920x1080,60,2.0 ""</p> <p><b>Return:</b> VIDIN_PREF_EDID-1920x1080,60,2.0</p> <p><b>Description:</b> Set EDID is 1920x1080@60</p>
8	Requests the preferred resolution of the EDID source being mirrored by the specified video port	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;,""?VIDIN_PREF_EDID""</p> <p><b>Return:</b> VIDIN_PREF_EDID-&lt;resolution&gt;</p>	<p><b>Command:</b> SEND_COMMAND VIDEO_INPUT_1,""?VIDIN_PREF_EDID""</p> <p><b>Return:</b> VIDIN_PREF_EDID- 1920x1080,60,2.0</p>
9	Requests the Switcher's model type.	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;, ""?MODEL""</p> <p><b>Return:</b> version-&lt;model: version&gt;</p>	<p><b>Command:</b> SEND_COMMAND 5002:1:0, ""?MODEL""</p> <p><b>Return:</b> version-WebUI: v1.28.0 ST:V1.7 EPI1:v1.0 EPI2:v1.0 EPI4:v1.0 EPI5:v1.0 EPI6:v1.0 EPI7:v1.0 EPI8:v1.0 EPO1:v1.0 EPO2:v1.0 EPO4:v1.0 EPO5:v1.0 EPO6:v1.0 EPO7:v1.0 EPO8:v1.0</p>

## NetLinx Command List Instructions (cont.)

No.	Function Description	Syntax	Example
<b>System Info</b>			
10	To cause a warm reboot	<b>Command:</b> SEND_COMMAND <DEV>,"REBOOT"  <b>Return:</b> reboot	<b>Command:</b> SEND_COMMAND DEVICE_1,"REBOOT"  <b>Return:</b> reboot  <b>Description:</b> Cause a warm reboot
11	Requests the firmware version	<b>Command:</b> SEND_COMMAND <DEV>,"FWVERSION"  <b>Return:</b> version- <model:version>	<b>Command:</b> SEND_COMMAND dvRX,"FWVERSION"  <b>Return:</b> version-WebUI: v1.28.0 ST:V1.7 EPI1:v1.0 EPI2:v1.0 EPI4:v1.0 EPI5:v1.0 EPI6:v1.0 EPI7:v1.0 EPI8:v1.0 EPO1:v1.0 EPO2:v1.0 EPO4:v1.0 EPO5:v1.0 EPO6:v1.0 EPO7:v1.0 EPO8:v1.0
12	To execute a display control on/off	<b>Command:</b> SEND_COMMAND <DEV>,"CEC_DISP_POWER-<ON OFF>"  <b>Return:</b> CEC_DISP_POWER-<ON OFF>	<b>Command:</b> SEND_COMMAND <DEV>,"CEC_DISP_POWER-OFF"  <b>Return:</b> CEC_DISP_POWER-OFF  <b>Description:</b> Execute a display control off
13	To define the display control automatically	<b>Command:</b> SEND_COMMAND <DEV>,"CEC_DISP_AUTO-<ON OFF>"  <b>Return:</b> CEC_DISP_AUTO-<ON OFF>	<b>Command:</b> SEND_COMMAND <DEV>,"CEC_DISP_AUTO-OFF"  <b>Return:</b> CEC_DISP_AUTO-OFF  <b>Description:</b> Define the display control automatically off
14	To verify the display control Status	<b>Command:</b> SEND_COMMAND <DEV>,"?CEC_DISP_AUTO"  <b>Return:</b> CEC_DISP_AUTO-<ON OFF>	<b>Command:</b> SEND_COMMAND SWITCHER,"?CEC_DISP_AUTO"  <b>Return:</b> CEC_DISP_AUTO-ON  <b>Description:</b> Get the display control Status. The display control Status is on.
15	To define a Delay Time to control the display off when on active signal	<b>Command:</b> SEND_COMMAND <DEV>,"CEC_SLEEP_TIMEOUT-<time>"  <b>Return:</b> NULL  <b>Description:</b> time#: #={1 ~ 30}	<b>Command:</b> SEND_COMMAND <DEV>,"CEC_SLEEP_TIMEOUT-5"  <b>Return:</b> CEC_SLEEP_TIMEOUT-5  <b>Description:</b> Set Delay Time is 5 Minutes
16	To verify Delay Time to control the display off when on active signal	<b>Command:</b> SEND_COMMAND <DEV>,"?CEC_SLEEP_TIMEOUT"  <b>Return:</b> CEC_SLEEP_TIMEOUT-<time>  <b>Description:</b> time#: #={1 ~ 30}	<b>Command:</b> SEND_COMMAND SWITCHER,"?CEC_SLEEP_TIMEOUT"  <b>Return:</b> CEC_SLEEP_TIMEOUT-5  <b>Description:</b> Get Delay Time to control the display off when on active signal. The Delay Time is 5 Minutes.

## NetLinx Command List Instructions (cont.)

No.	Function Description	Syntax	Example
17	To verify Input signal status	<p><b>Command:</b> SEND_COMMAND &lt;DEV&gt;,""?VIDIN_STATUS-&lt;input&gt;"</p> <p><b>Return:</b> VIDIN_STATUS-&lt;status string&gt;</p> <p><b>Description:</b> input port = The source input port number. I#: #={1 ~ 8}</p> <p>status string // { 0: NO SIGNAL; 1: VALID SIGNAL; }</p>	<p><b>Command:</b> SEND_COMMAND VIDEO_INPUT_1,""?VIDIN_STATUS"</p> <p><b>Return:</b> VIDIN_STATUS-NO SIGNAL</p> <p><b>Description:</b> VGA IN Input no signal.</p>

## Telnet/SSH Commands

No.	Command	Description	Example
1	<b>help</b>	Displays all of the supported commands	<pre>&gt;help cpu usage      Displays the total CPU usage date           Display the current date. get ip        Show the IP configuration of this device. ... ..</pre>
2	<b>cpu usage</b>	Display the total CPU usage usage: cpu usage	<pre>&gt;cpu usage CPU usage is 25%</pre>
3	<b>date</b>	Display the current date. Usage: date	<pre>&gt;date The current date is: Thursday, January 1, 1970</pre>
4	<b>get ip</b>	Show the IP configuration of this device.	<pre>&gt;get ip --- Current IP Settings --- Hostname:      XXX IP Address:    192.168.2.201 Netmask:      255.255.240.0 Gateway:      192.168.2.1 DHCP:         false</pre>
5	<b>ping</b>	Ping an address. Address may be an IP or URL.	<pre>&gt;ping 192.16.2.203 PING 192.16.2.203 (192.16.2.203): 56 data bytes</pre>
6	<b>reset factory</b>	Reset configuration back to factory defaults.	<pre>&gt;reset factory</pre>
7	<b>set date</b>	Set the current date.	<pre>&gt;set date Usage: set date [day] [month] [year]  Arguments: day      integer of day of the week between 1 and 31 month   integer of month between 1 and 12 year    integer value of year later than 1900  Example: set date 01 11 2016</pre>
8	<b>set ip</b>	Setup the IP configuration of this device.	<pre>&gt;set ip --- Enter New Values or just hit Enter to keep current settings --- Enter Hostname      AMX-PR01-0808-faaf37 aaa Enter IP type. Type D for DHCP or S for Static IP and then Enter: DHCP                S Enter IP Address    192.168.3.21  192.168.3.21 Enter Netmask      255.255.240.0  255.255.240.0 Enter Gateway      192.168.2.1  --- New settings --- Hostname           aaa IP type            STATIC IP Address         192.168.3.21 Netmask           255.255.240.0 Gateway           192.168.2.1  Would you like to save the new settings? Y/N -&gt; N  Exiting set IP. Settings unchanged.  &gt;set ip --- Enter New Values or just hit Enter to keep current settings --- Enter Hostname      AMX-PR01-0808-faaf37 aaa Enter IP type. Type D for DHCP or S for Static IP and then Enter: DHCP                D --- New settings --- Hostname           aaa IP type            DHCP  Would you like to save the new settings? Y/N -&gt; N  Exiting set IP. Settings unchanged.</pre>



## Telnet/SSH Commands

No.	Command	Description	Example
9	<b>set time</b>	Set the current time.	<p><b>&gt;set time</b></p> <p>Usage: set time [hours] [minutes] [seconds]</p> <p>Arguments:  hours        integer value of hours between 0 and 23  minutes     integer value of minutes between 0 and 59  seconds     integer value of seconds between 0 and 59</p> <p>Example:  set time 13 30 00</p>
10	<b>show mem</b>	Displays the memory usage for all memory types.	<p><b>&gt;show mem</b></p> <p>RAM available: 349634560 bytes  RAM total: 406167552 bytes</p>
11	<b>time</b>	Display the current time.	<p><b>&gt;time</b></p> <p>The current time is: 11:57:09 PM</p>
13	<b>echo</b>	Enables/disables echo of typed characters.	<p><b>&gt;echo</b></p> <p>Usage: echo [argument]</p> <p>Arguments:  on        Enable echo of typed characters  off       Disable echo of typed characters</p> <p>Example:  echo on</p>
14	<b>exit</b>	Close this terminal session.	<p><b>&gt;exit</b></p>
15	<b>msg</b>	Enables/Disables extended diagnostic messages.	<p><b>&gt;msg</b></p> <p>Usage: msg [argument]</p> <p>This command allows system logs to be redirected to the terminal session.  There are multiple log levels, which are described below.</p> <p>Arguments:  on        Enable default [warning] system log level  debug    Enable all system debug messages  info     Enable info system log level  warning   Enable warning system log level  error    Enable error system log level  off      Disable system log output to terminal session</p> <p>Example:  msg on</p>
16	<b>reboot</b>	Reboots the device.	<p><b>&gt;reboot</b></p>
17	<b>set telnet username</b>	set telnet service login username	<p><b>&gt;set telnet username</b></p> <p>Enter Telnet new username    admin    aaa  Would you like to set this username (y/n)    n  Cancel this setting</p> <p><b>&gt;set telnet username</b></p> <p>Enter Telnet new username    admin    aaa  Would you like to set this username (y/n)    y  (please set telnet password)</p> <p>Changed &amp;&amp; Saved</p>

## Telnet/SSH Commands

No.	Command	Description	Example
18	<b>set telnet password</b>	set telnet service login password	<p><b>&gt;set telnet password</b></p> <p>Enter Telnet new password admin password            Would you like to set this password (y/n) n            Cancel this setting</p> <p><b>&gt;set telnet password</b></p> <p>Enter Telnet new password admin password            Would you like to set this password (y/n) y            Changed &amp;&amp; Saved</p>
19	<b>set ssh username</b>	set ssh service login username	<p><b>&gt;set ssh username</b></p> <p>Enter ssh new username admin aaa            Would you like to set this username (y/n) n            Cancel this setting</p> <p><b>&gt;set ssh username</b></p> <p>Enter ssh new username admin aaa            Would you like to set this username (y/n) y            Changed &amp;&amp; Saved            (you should reboot this device that make your setting active)</p>
20	<b>set ssh password</b>	set ssh service login password	<p><b>&gt;set ssh password</b></p> <p>Enter ssh new password password test            Would you like to set this password (y/n) n            Cancel this setting</p> <p><b>&gt;set ssh password</b></p> <p>Enter ssh new password password test            Would you like to set this password (y/n) y            Changed &amp;&amp; Saved            (you should reboot this device that make your setting active)</p>
21	<b>set connection</b>	set the master connection settings.	<p><b>&gt;set connection</b></p> <p>--- Enter New Values or just hit Enter to keep current settings ---</p> <p>Enter Mode            Type T for TCP/URL, U for UDP/URL, N for NDP            or A for Auto and then Enter: Icsp_URL</p> <p>...(Refer to multimode connection instruction)</p>
22	<b>reboot</b>	Reboots the device.	<b>&gt;reboot</b>
23	<b>set friendlyname</b>	set friendlyname	<p><b>&gt;set friendlyname</b></p> <p>Please input friendlyname:</p> <p>Old friendlyname: user            New friendlyname: admin            Would you like to save this setting(Y/N) N</p> <p>Cancel this setting</p> <p><b>&gt;set friendlyname</b></p> <p>Please input friendlyname:</p> <p>Old friendlyname: user            New friendlyname: admin            Would you like to save this setting(Y/N) Y</p> <p>Setting is ok , you should reboot that make it effective</p>

## Telnet/SSH Commands

No.	Command	Description	Example
24	<b>set location</b>	set location	<pre> &gt;set location  Please input location:  Old location: there New location: here Would you like to save this setting(Y/N)  N  Cancel this setting  &gt;set location  Please input location:  Old location: there New location: here Would you like to save this setting(Y/N)  Y  Setting is ok , you should reboot that make it effective </pre>
25	<b>get connection</b>	get connection	<pre> &gt;get connection  Connection Mode: Icsp_NDP System Number: 1 Master Ip/URL 192.168.2.203 Master Port: 1319 </pre>
26	<b>set dns</b>	set dns	<pre> &gt;set dns --- Enter new values or keep current settings at the prompts --- -- Current DNS #1      192.168.2.1   Change the current value? Y/N -&gt; Y   Enter DNS #1        192.168.3.1 -- Current DNS #2      192.168.3.1   Change the current value? Y/N -&gt; Y   Enter DNS #2        192.168.4.1 --- New settings --- DNS #1      192.168.3.1 DNS #2      192.168.4.1 Would you like to set the new settings? Y/N -&gt; Y New settings were saved... </pre>
27	<b>dns list</b>	Show the DNS configuration of this device.	<pre> &gt;dns list Domain Name: amx.com DNS List: DNS #1: 192.168.2.1 DNS #2: 192.168.3.1 </pre>



#### About AMX by HARMAN

Founded in 1982 and acquired by HARMAN in 2014, AMX® is dedicated to providing AV solutions for an IT World. AMX solves the complexity of managing technology with reliable, consistent and scalable systems comprising control, video switching and distribution, digital signage and technology management. AMX systems are deployed worldwide in conference rooms, classrooms, network operation/command centers, homes, hotels, entertainment venues and broadcast facilities, among others. AMX is part of the HARMAN Professional Group, the only total audio, video, lighting, and control vendor in the professional AV market. HARMAN designs, manufactures and markets premier audio, video, infotainment and integrated control solutions for the automotive, consumer and professional markets. ©2019 Harman. All rights reserved. Specifications subject to change.

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