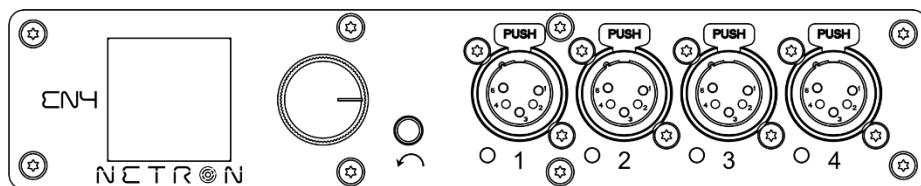
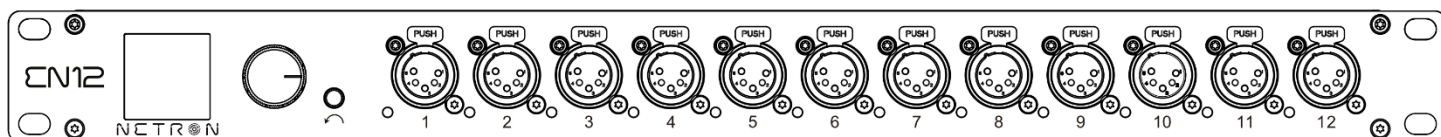


OBSESSION™

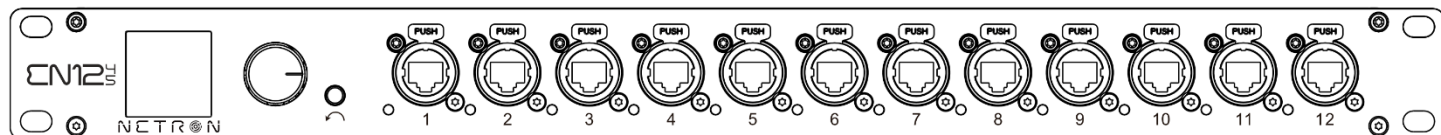
CONTROL SYSTEMS



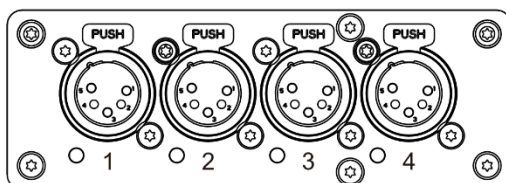
EN4



EN12



EN12UL



EP4

NETRON

User Guide

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ELATION PROFESSIONAL B.V.

Junostraat 2 | 6468 EW Kerkrade, The Netherlands
+31 45 546 85 66

Art-Net

This device incorporates Art-Net™, Designed by and Copyright Artistic License Holdings Ltd

FCC STATEMENT

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.

FCC RADIO FREQUENCY INTERFERENCE WARNINGS & INSTRUCTIONS

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

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



Energy Saving Matters (EuP 2009/125/EC)

Saving electric energy is a key to help protecting the environment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!

Document Version: An updated version of this document may be available online. Please check www.obsidiancontrol.com for the latest revision/update of this document before beginning installation and use.

Date	Document Version	Note
12/17/19	1.0	INITIAL RELEASE
12/27/19	1.5	Added Art-Net copyright
01/06/20	2.0	DateUpdated software
01/21/20	2.5	Updated Menu Options
09/21/20	3.0	Updated Firmware to V2.4
02/02/21	3.5	Updated Firmware to V2.6 for EN4, EN12, EP4; & updated silkscreens for EN4 & EN12
03/29/21	4.0	Added EN12-45
05/25/22	4.5	Updated FCC Statement

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GENERAL INFORMATION

INTRODUCTION

Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this device. These instructions contain important safety and use information.

CUSTOMER SUPPORT

Contact your local Obsidian Controls Systems dealer or distributor for any product related service and support needs. Also visit forum.obsidiancontrol.com with questions, comments or suggestions.

OBSIDIAN CONTROL SERVICE EUROPE – Monday – Friday 08:30 to 17:00 CET
+31 45 546 85 63 | support@obsidiancontrol.com

OBSIDIAN CONTROL SERVICE USA – Monday – Friday 08:30 to 17:00 PST
(866) 245 – 6726 | support@obsidiancontrol.com

OVERVIEW

INTRODUCTION

The Netron devices offer unique and powerful DMX management features. Most settings can be accessed from the intuitive display and menu system.

All settings are available from the integrated web page, which allows remote access to this device from any web-browser. The multi-purpose EN4, EP4, EN12, and EN12-45 EtherDMX Gateways essentially package Art-Net and sACN conversion, Merger, DMX patch-bay, and a DMX scene recorder into one device.

KEY FEATURES

- sACN and Art-Net to DMX conversion
- Factory defined NETRON presets
- 10 User Presets
- 99 Cues with Fade Time, Hold Time and Cue linking
- External contact closures to trigger cues and preset recall (EN12 only)
- DMX Monitor
- DMX and Ethernet Test Generator

SOFTWARE AND OPERATION

This document provides safety information and mechanical installation instructions.

For setup and operation of all software features, please update the devices to the latest release. Download and study the full user guides from <http://obsidiancontrol.com/netron>.

The NETRON Ether-DMX devices offer a comprehensive and easy to use feature set, and are continuously improving. It is advised to periodically check for updates on the Obsidian product pages.

CONNECTIONS

DMX CONNECTIONS (EN12)

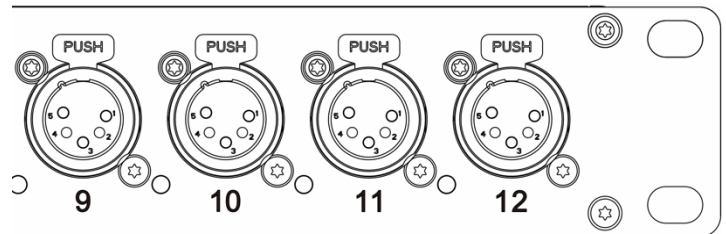
All DMX Output connections are 5pin female XLR; however, the pin – out on all sockets is pin 1 to shield, pin 2 to cold (–), and pin 3 to hot (+). Pins 4 and 5 are not used.

Carefully connect DMX cables to the respective ports.

To prevent damaging the DMX ports, provide strain relief and support. Avoid connecting FOH Snakes to the ports directly.

Certain functions may require adapters (purchased separately), such as a 5 pole XLR male to 5 pole XLR male.

Pin	Connection
1	Com
2	Data –
3	Data +
4	Not connected
5	Not connected



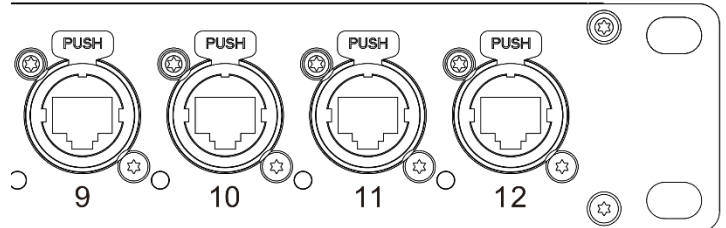
DMX CONNECTIONS (EN12-45)

All DMX Output connections are RJ45; Pin1: DATA+, Pin2: DATA – , Pin7+8; Ground (ESTA Compliant)

Carefully connect RJ45 cables to the respective ports.

To prevent damaging the ports, provide strain relief and support. Avoid connecting FOH Snakes to the ports directly.

L	Connection
1	Data +
2	Data -
3	Not connected
4	Not connected
5	Not connected
6	Not connected
7	Com
8	Com
Shield	Earth



ETHERNET DATA CONNECTION

The Ethernet cable is connected on the back of the gateway into the port labeled A or B. Devices can be daisy chained, but it is recommended not to exceed 10 Netron devices in one chain. Because these devices use locking RJ45 connectors, and the use of locking RJ45 ethernet cables is recommended, any RJ45 connector is suitable.

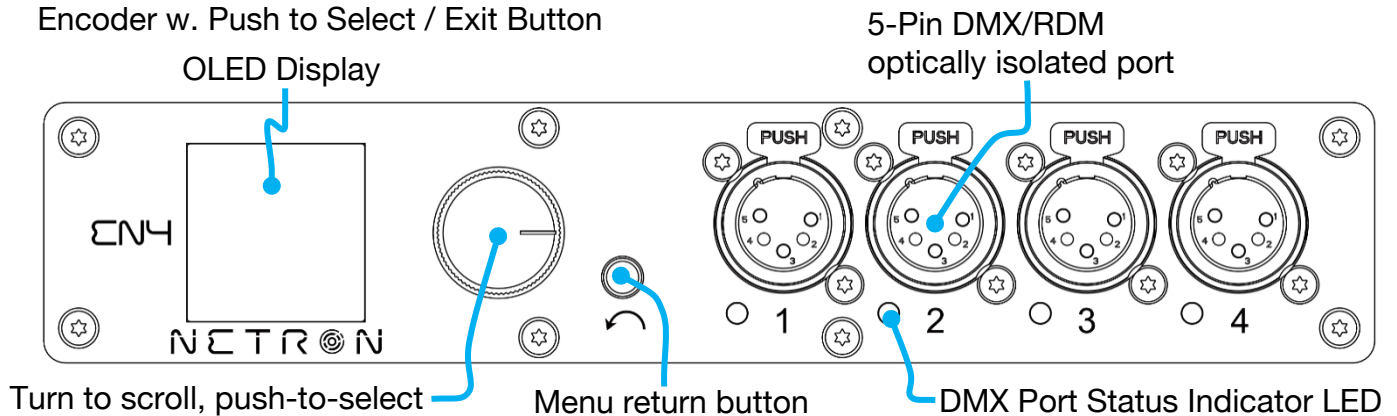
To connect multiple devices to an EtherDMX Source, an Ethernet switch is required to split the data into the desired number of streams.

The Ethernet connection is also used to connect a computer to the Netron device for remote configuration via a web browser. To access the web interface, simply enter the IP address shown in the display in any web browser connected to the device. Information about the web access can be found in the manual.

CONNECTIONS: EN4 (FRONT & REAR PANELS)

FRONT CONNECTIONS

- (4) 5pin DMX/RDM optically isolated ports
- Ports are bidirectional for DMX In and Output
- Full color OLED display
- Encoder w. Push to Select / Exit Button



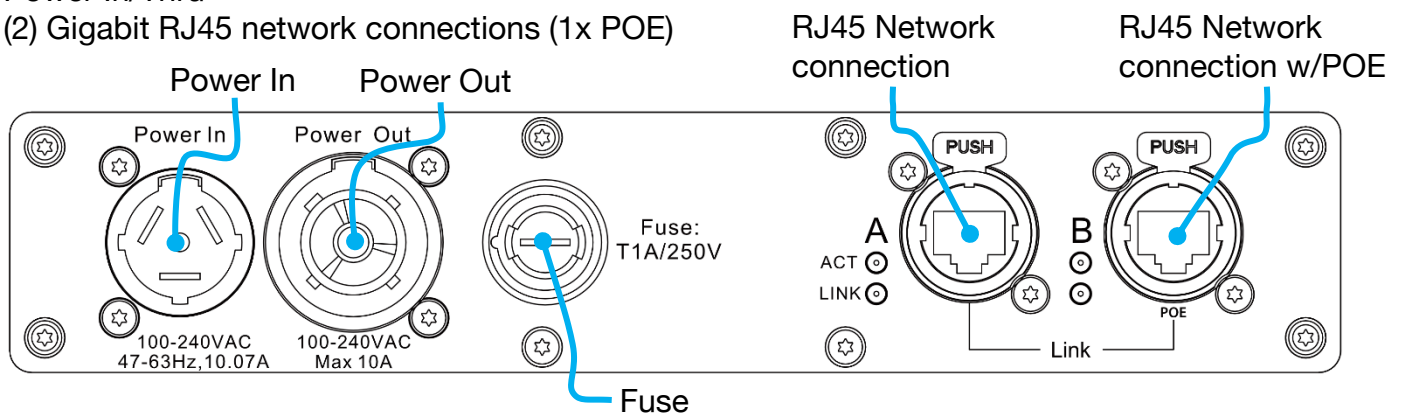
DMX PORTS STATUS INDICATOR LEDs

LED Color	Solid	Blink	Flashing/Strobing
DMX PORTS RED	Error		
DMX PORTS GREEN	DMX In	DMX Lost	
DMX PORTS BLUE	DMX Out Stable	DMX Lost	
DMX PORTS WHITE			Flash on RDM packets

All LEDs are dimmable and can be turned off via the Menu/System/Display menu.

REAR CONNECTIONS

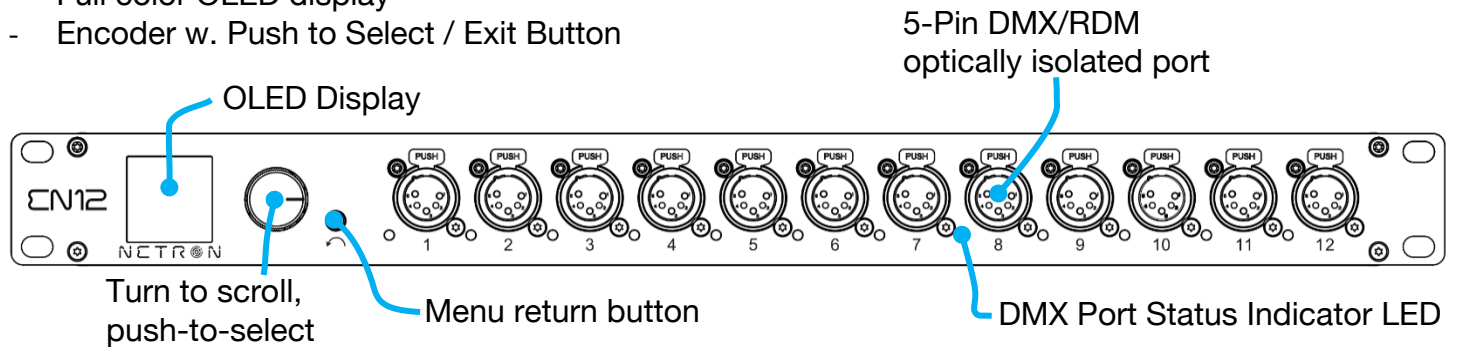
- Power In/Thru
- (2) Gigabit RJ45 network connections (1x POE)



CONNECTIONS: EN12 (FRONT & REAR PANELS)

FRONT CONNECTIONS

- (12) 5pin DMX/RDM optically isolated ports
- Ports are bidirectional for DMX In and Output
- Full color OLED display
- Encoder w. Push to Select / Exit Button



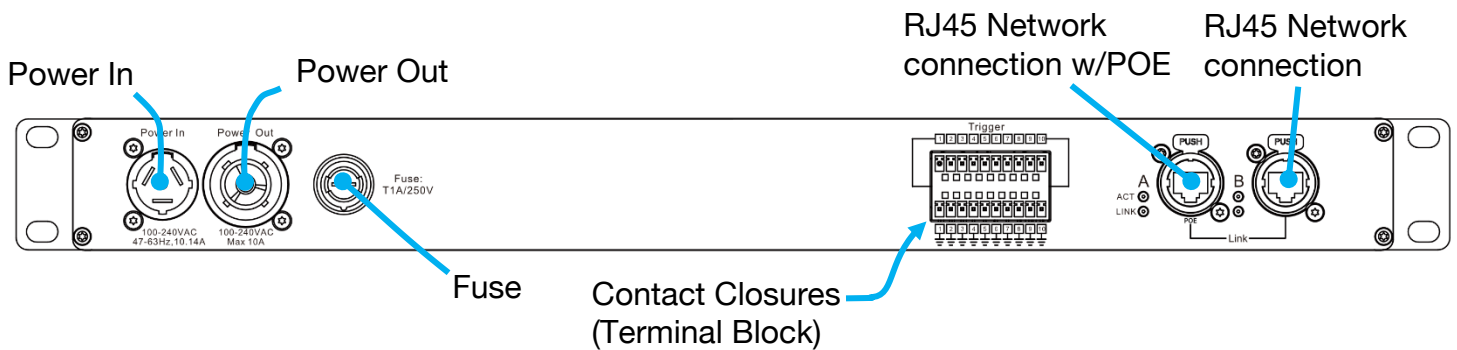
DMX PORTS STATUS INDICATOR LEDs

LED Color	Solid	Blink	Flashing/Strobing
DMX PORTS RED	Error		
DMX PORTS GREEN	DMX In	DMX Lost	
DMX PORTS BLUE	DMX Out	DMX Lost	
DMX PORTS WHITE			Flash on RDM packets

All LEDs are dimmable and can be turned off via the Menu/System/Display menu.

REAR CONNECTIONS

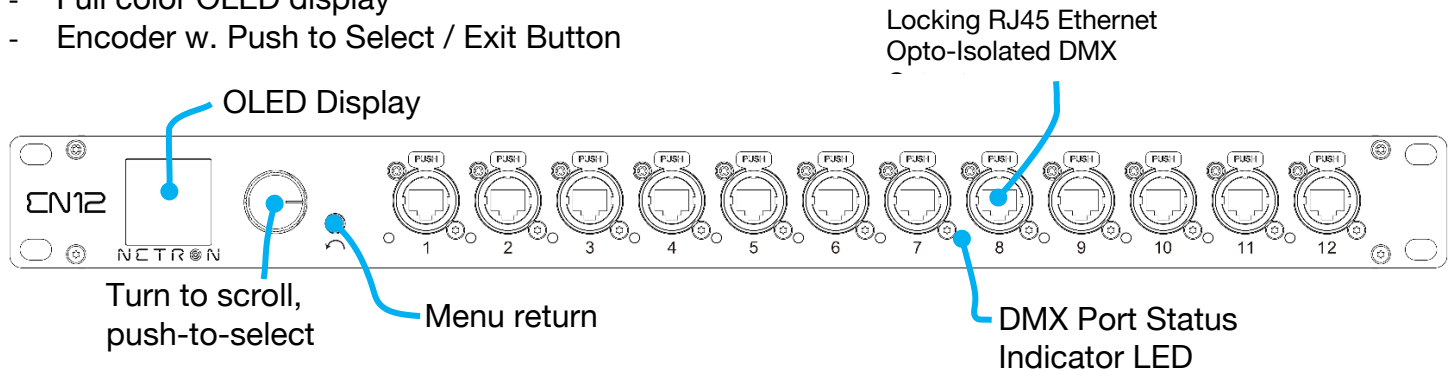
- (2) Gigabit RJ45 network connections (1x POE)
- (10) Contact Closures (Terminal Block)



CONNECTIONS: FRONT & REAR PANELS EN12-45

FRONT CONNECTIONS

- (12) RJ45 DMX/RDM optically isolated ports
- Ports are bidirectional for DMX In and Output
- Full color OLED display
- Encoder w. Push to Select / Exit Button



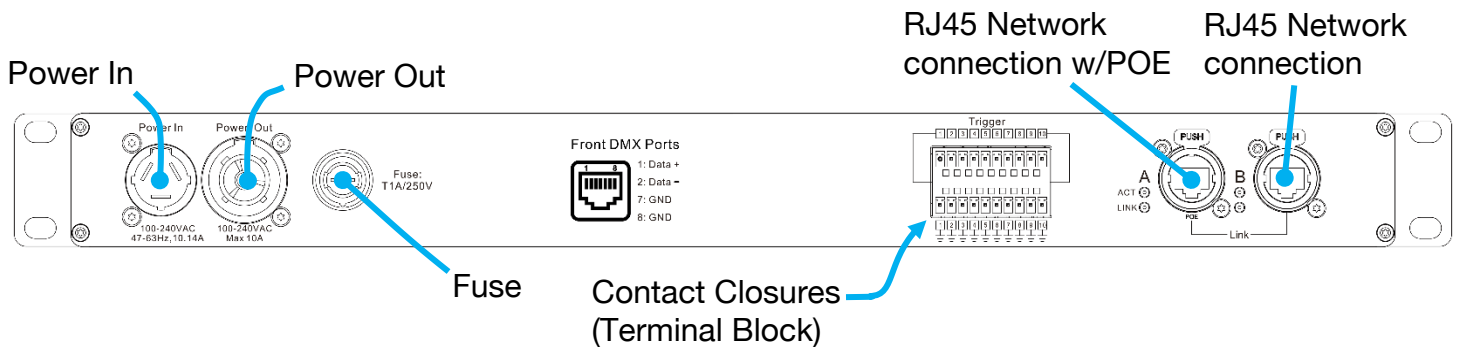
RJ45 PORTS STATUS INDICATOR LEDs

LED Color	Solid	Blink	Flashing/Strobing
DMX PORTS RGB	Error		
DMX PORTS RGB	DMX In	DMX Lost	
DMX PORTS RGB	DMX Out	DMX Lost	
DMX PORTS WHITE			Flash on RDM packets

All LEDs are dimmable and can be turned off via the Menu/System/Display menu.

REAR CONNECTIONS

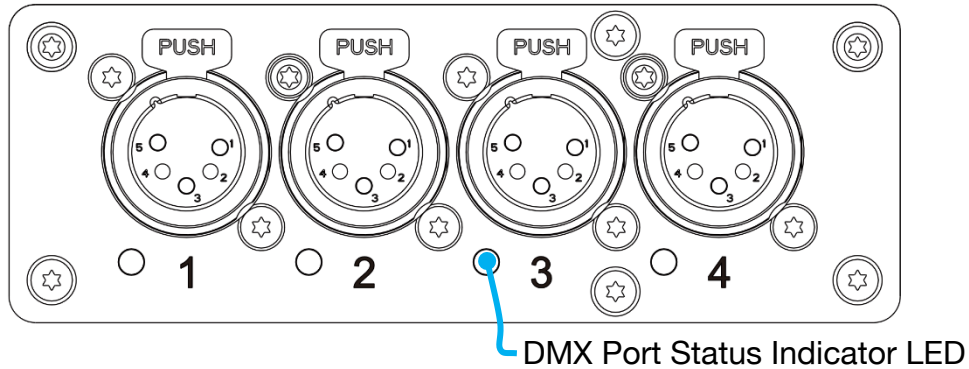
- (2) RJ45 network connections (1x POE)
- (10) Contact Closures (Terminal Block)



CONNECTIONS: EP4 (FRONT & REAR PANELS)

FRONT CONNECTIONS

- (4) 5pin DMX/RDM optically isolated ports
- Ports are bidirectional for DMX In and Output



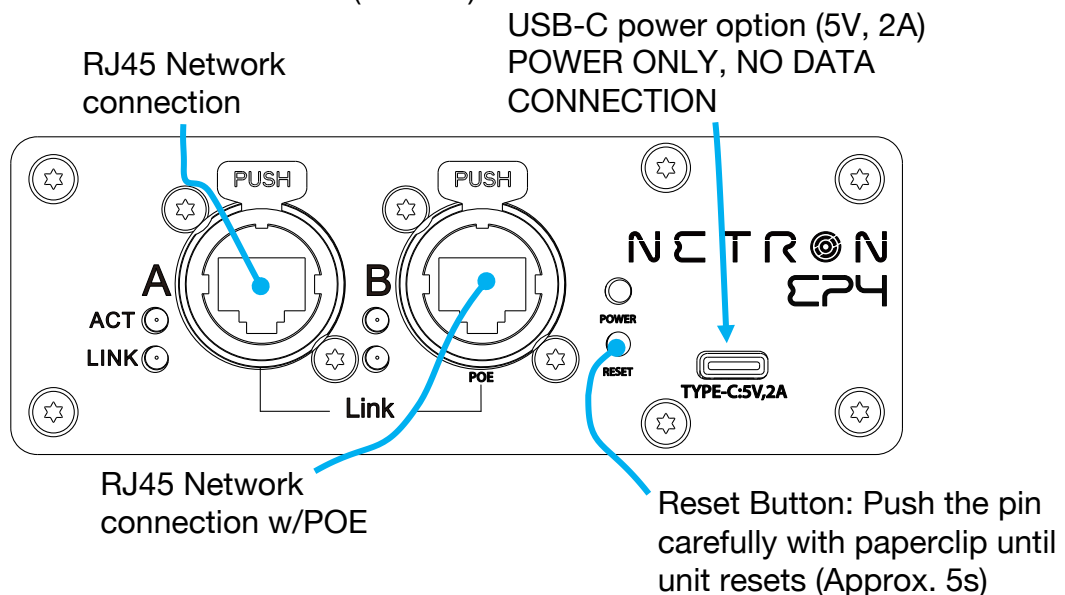
DMX PORTS STATUS INDICATOR LEDs

Ports	LED Color	Solid	Blink	Flashing/Strobing
DMX	RED	Error		
DMX	GREEN	DMX In	DMX Lost	
DMX	BLUE	DMX Out Stable	DMX Lost	
DMX	WHITE			Flash on RDM packets

The LEDs are dimmable from the System – Display menu and can be turned off completely if desired.

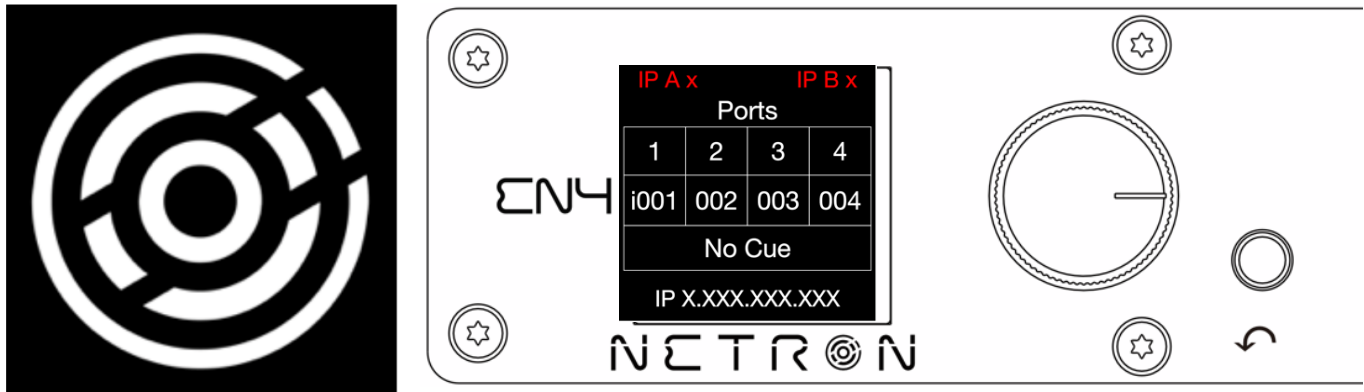
REAR CONNECTIONS

- USB-C power option (5V, 2A). **POWER ONLY, NO DATA CONNECTION**
- (2) Gigabit RJ45 network connections (1x POE)

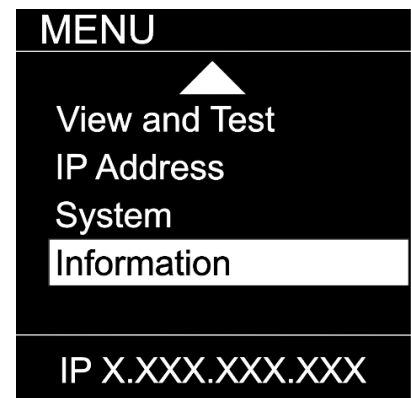
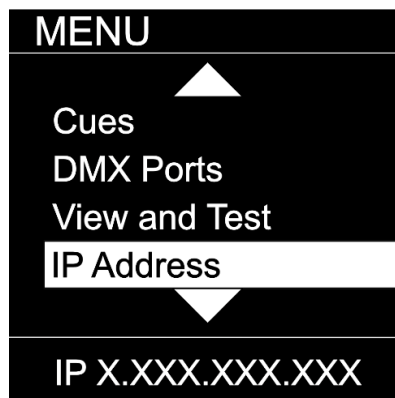
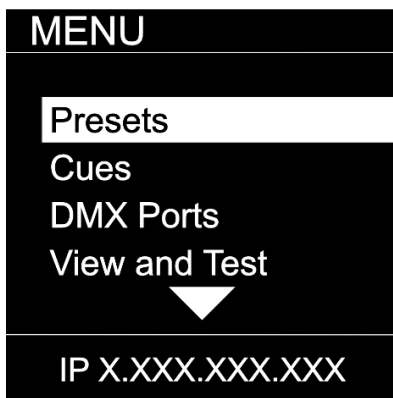


MENU: NAVIGATION

The Netron devices use a small OLED display for feedback and setup. The encoder dials up and down through the menu, a push of the encoder selects an item or saves an entry. Revert to a previous menu or cancel an entry with a single push of the back arrow.



Wheel Right	Scroll down in menu list / increase values
Wheel Left	Scroll up in menu list / decrease values
Wheel Push	Enter Menu, Select menu item, go down one level in menu, confirm values.
Back Arrow	Go up one level in menu tree, cancel change of values, hold for 2 seconds to return to home screen



As you scroll up or down the menu, the arrows indicate that more items are available above or below that which is displayed, and only show when needed.

MENU: HOME SCREEN

This is the default screen providing quick status feedback and indicates IP and DMX traffic.

IP A / B: White text with a check mark indicates if a network port is connected. Red indicated the port is not connected.

This Device Label is configured by user, with the **Node 15** shown strictly as an example of a user defined label: the numbers shown correlate with their assigned Universe below in the Universe Box, which itself is colored following the LED feedback.

IP Address: shows the current IP address of the device. Use this address inside a web browser for remote access.

Universe Box:

Green = DMX In

Blue = DMX Out

White = RDM Traffic

Red = Error

i005 = DMX Input Universe 5

Purple v201 = sent value 201

Universe Box:

Red Outline = Signal Lost

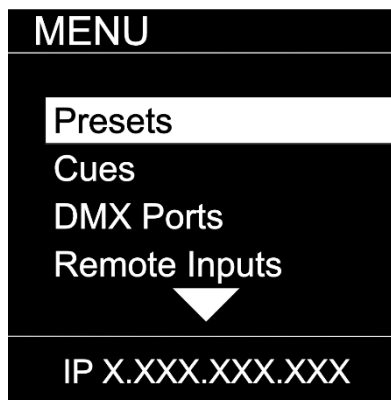
IP A x		IP B x	
Node 15			
1	2	3	4
i001	002	003	004
No Cue			
IP X.XXX.XXX.XXX			

IP A ✓		IP B ✓	
Node 15			
1	2	3	4
i005	005	X	v201
No Cue			
IP X.XXX.XXX.XXX			

IP A✓		IP B✓	
Node 15			
1	2	3	4
001	002	003	004
No Cue			
IP X.XXX.XXX.XXX			

MENU: PRESETS

Several simple presets are preprogrammed into the device for fast setup. Some presets require additional input like a start Universe.



SUB MENU	OPTION / VALUES		DESCRIPTION
MENU NETRON Presets USER PRESETS IP X.XXX.XXX.XXX	1 :ArtNet 2.x	Universe 1 – 32767	See NETRON Presets
	2 :ArtNet 10.x	Universe 1 – 32767	
	3 :ArtNet 192.x	Universe 1 – 32767	
	4. ArtNet 172.x	Universe 1 – 32767	
	5. ArtNet DHCP	Universe 1 – 32767	
	6. ArtNet In	Universe 1 – 32767	
	7. :ArtNet In/Thru	Universe 1 – 32767	
	8. sCAN 2.x	Universe 1 – 32767	
	9. sCAN 10.x	Universe 1 – 32767	
	10. sACN 192.x	Universe 1 – 32767	
	11. :sACN 172.x	Universe 1 – 32767	
	12. sACN DHCP	Universe 1 – 32767	
	13. sACN DHCP In	Universe 1 – 32767	
	14. :Splitter Port1		
MENU NETRON Presets USER PRESETS IP X.XXX.XXX.XXX		Save Preset	Preset Saved
		Load Preset	Preset Loaded
	1 :MyPreset 1 ... 10 :MyPreset 10	Rename Preset	12 Character Label

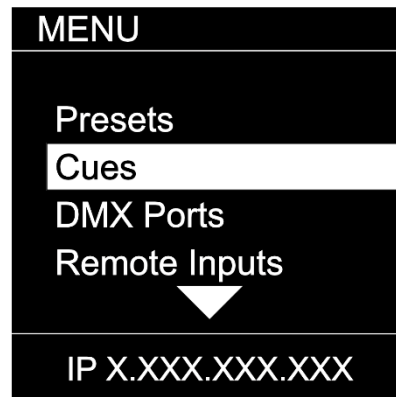
MENU: NETRON PRESETS

These simple presets are preprogrammed into the device for fast setup. Some presets require additional input like a start Universe. Note that DMX Ports 1-12 apply to model EN12, and that greyed DMX Ports 1-4 apply to EN4/EP4 models.

Label	Ethernet				DMX Ports											
	IP Address	Subnet	Protocol	Option	1	2	3	4	5	6	7	8	9	10	11	12
Artnet 2.x	Automatic 2.x	255.0.0.0	Artnet	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Artnet 10.x	Automatic 10.x	255.0.0.0	Artnet	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Artnet 192.x	Automatic 192.x	255.0.0.0	Artnet	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Artnet 172.x	Automatic 172.x	255.0.0.0	Artnet	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Artnet DHCP	DHCP	DHCP	Artnet	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Artnet In	Automatic 2.x	255.0.0.0	Artnet	Universe #	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
Artnet In / Thru	Automatic 2.x	255.0.0.0	Artnet	Universe #	Input	Input	Input	Input	Input	Input	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	Clone 1	Clone 2	Clone 3	Clone 4	Clone 5	Clone 6
sACN 2.x	Automatic 2.x	255.0.0.0	sACN	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM	not supported												
sACN 10.x	Automatic 10.x	255.0.0.0	sACN	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM	not supported												
sACN 192.x	Automatic 192.x	255.0.0.0	sACN	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM	not supported												
sACN 172.x	Automatic 172.x	255.0.0.0	sACN	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM	not supported												
sACN DHCP	DHCP	DHCP	sACN	Universe #	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM	not supported												
sACN DHCP In	DHCP	DHCP	sACN	Universe #	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input	Input
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
Splitter Port 1	Automatic 2.x	255.0.0.0	Artnet		Input	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
					X	Clone 1	Clone 1	Clone 1	Clone 1	Clone 1	Clone 1	Clone 1	Clone 1	Clone 1	Clone 1	Clone 1

MENU: CUES

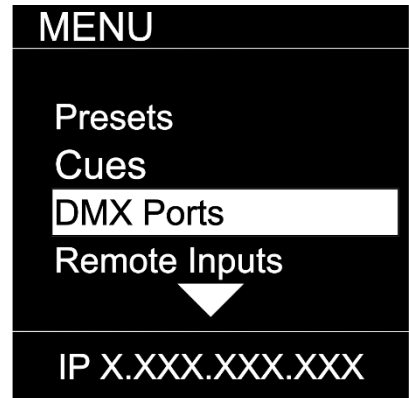
A cue is a full static snapshot of all DMX values of all ports. The device supports 99 cues with fade and hold times, plus a link option to loop multiple cues together. This allows small “mini” cuelists to be created. Cues are used for standalone operation, as a backup for signal loss or can be assigned to one of the switch inputs. This is often used for fire alarm situations where a system has to go to a defined state and stop all console playback. Cues can be sent as Ethernet Universes so one device can drive many other Netron nodes.



SUB MENU		OPTIONS / VALUES		DESCRIPTION
MENU	Run Cue	1 – 99	Go/Off	Select the desired cue
Run Cue Save Cues Rename Cue Link Cues ▼	Save Cue	1:Cue 1 ... 99:Cue 99	Save Cue? Yes/ No	Save all values on all ports to a cue slot
IP X.XXX.XXX.XXX	Rename Cue	1 – 99	12 Character Label	Edit name of cue
MENU ▲ Save Cues Rename Cue Link Cues Resend Ethernet	Link Cues	1 – 99	Fade Time 0s – 99.59min Hold Time 0s – 99.59min Link to Cue Disable, 1 – 99	Set the fade time of the cue Set the time to hold the cue until the next cue is started Set the next Cue
IP X.XXX.XXX.XXX	Resend Ethernet	Disable		Cue data is not sent over Ethernet
		Enable		Cue data is sent on the Universe number and protocol assigned to the ports.

MENU: DMX PORTS

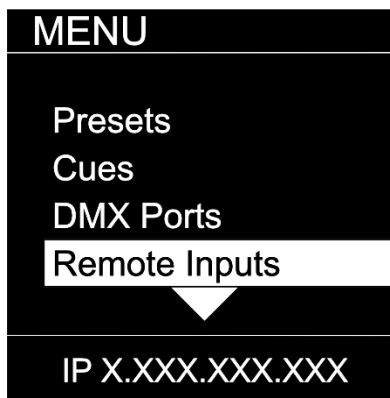
Select a port number to adjust its settings. Depending on the Mode, certain options are not relevant and hidden from the display or web interface.



SUB MENU		OPTIONS / VALUES		DESCRIPTION	
MENU	Mode	Disable		The port is disabled.	
		Input		The port receives DMX values and assigns them to the selected Universe.	
		Output		The port sends out DMX Values on the selected Universe	
		Send Value	0 – 255	Send a static DMX value	
	Universe	1 – 32767		Select the EtherDMX Universe	
	Protocol	Art-Net, sACN, None		Select the EtherDMX protocol per port	
	FrameRate	10, 15, 20, 25, 30, 35 , 40		Select the desired frame rate.	
	RDM	Disable, Enable		Disable / Enable RDM traffic for this port	
	Port 1	Merge	OFF		The merger is disabled
			HTP		The sources are merged by Highest Takes Precedence
LTP			The sources are merged by Last Takes Precedence		
Toggle			The complete source Universe is switched as soon as a single value changes		
Backup			The merge universe is activated if the main universe has no valid traffic		
Port 2	Clone	None , Port 2, Port 3, Port 4		Replicates the identical DMX data from another port	
	Range	From: 1 – 512		To limit the DMX range, set the first address of the DMX port	
		To: 1 – 512		To limit the DMX range, set the last address of the DMX port	
	Port 3	Offset Addr	Off, 2 - 511		Offset start address, incoming channel X value is sent on this port as channel X+Offset, Channels are cut off if they exceed 512
		IP X.XXX.XXX.XXX			

MENU: REMOTE INPUT

The device supports ten remote assignments that can trigger specific actions like recalling a cue or preset. These events are recalled using local contact closures, DMX In, or a specific EtherDMX Universe / Address.



SUB MENU	OPTIONS / VALUES		DESCRIPTION
MENU Input 1 Input 2 Input 3 Input 4 ▼ IP X.XXX.XXX.XXX	Cue	1 – 99	Recall a specific cue number
	Cue Mode	Trigger	The cue is activated, and all times and links are processed even if the contact is opened again
		Toggle	The cue is activated, and all times and links are processed only if the contact is closed. Once toggle is opened, device will assume DMX traffic or No DMX status. This allows to alternate between two cues for example with the toggle switch.
	Netron Preset	a,b,c,...	Recalls this Netron preset when the contact is closed
MENU Input 1 Input 2 Input 3 Input 4 ▼ IP X.XXX.XXX.XXX	User Preset	1 – 10	Recalls this user preset when contact is closed
	Disable DMX		Stops all DMX output for as long as contact is closed
	Send Value	0 – 255	Sends specific DMX value on all ports for as long as contact is closed
	Source	disabled	Input is disabled
		DMX Port 1 – xx	Use DMX Port. Port must be set as Input
		Art-Net	Art-Net Trigger
		sACN	sACN Trigger
		Universe	Set Universe for remote trigger
		Address	Set DMX Address for remote trigger

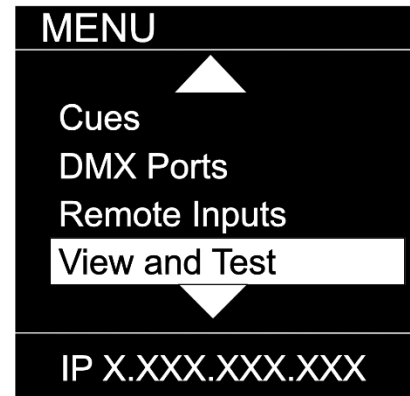
DMX Map for Remote Trigger

Inputs can be remotely activated over DMX, Art-Net, or sACN. The input is activated if the DMX value is at the value shown below.

Value	Action
0 – 10	Idle
11 – 20	Input 1
21 – 30	Input 2
31 – 40	Input 3
41 – 50	Input 4
51 – 60	Input 5
61 – 70	Input 6
71 – 80	Input 7
81 – 90	Input 8
91 – 100	Input 9
101 – 110	Input 10
111 – 255	Idle

MENU: VIEW AND TEST

This Netron device provides a variety of tools right from the front display to monitor and test the system. Colors indicate changing values.



SUB MENU		OPTIONS / VALUE		Description
MENU DMX View Art-Net View sACN View DMX Port Test IP X.XXX.XXX.XXX MENU sACN View DMX Port Test Art-Net Test sACN Test IP X.XXX.XXX.XXX	DMX View	View	Port 1 – 4	View the DMX values of a specific port
		Range	From: 1 – 512	default 1
			To: 1 – 512	default 512
		Start Monitor		Start Monitoring Values. Use Encoder to dial to the desired DMX address. Push Encoder to change display readout style (Grid, List, Address)
	Art-Net View	Universe	1 – 32767	View a specific Art-Net Universe
		Range	From: 1 – 512	default 1
			To: 1 – 512	default 512
		Start Monitor		Start Monitoring Values. Use Encoder to dial to the desired DMX address. Push Encoder to change display readout style (Grid, List, Address)
	sACN View	Universe	1 – 32767	View a specific sACN Universe
		Range	From: 1 – 512	default 1
			To: 1 – 512	default 512
		Start Monitor		Start Monitoring Values. Use Encoder to dial to the desired DMX address. Push Encoder to change display readout style (Grid, List, Address)
	DMX Port Test	Output	Port 1 – 4	Send generator values on specific port
			All Ports	Send generator values on all ports
		Range	From: 1 – 512	default 1
			To: 1 – 512	default 512
		Speed	1 – 10, Manual	Select the speed of generator
	Art-Net Test	Universe	1 – 32767	Select Art-Net Universe
		Range	From: 1 – 512	default 1
			To: 1 – 512	default 512
		Speed	1 – 10, Manual	Select the speed of generator
	sACN Test	Universe	1 – 32767	Select sACN Universe
		Range	From: 1 – 512	default 1
			To: 1 – 512	default 512
		Speed	1 – 10, Manual	Select the speed of generator

MENU: VIEW AND TEST (continued)

Monitor (DMX View, Art-Net View, sACN View)

The monitoring options are helpful to find faults, or simply watch incoming traffic. Three styles are available by clicking the encoder wheel. Dial the wheel to change the display to the desired address, and exit the monitor with the back button.

DMX Test Display – Grid

The color coding helps to quickly identify changing DMX values.

- Cyan: DMX Address
- Green: Value Decreased
- Red: Value Increased
- White: Value stable (after 10 seconds)

DMX View Address 1-20						
1	0	0	0	56	12	
6	1	255	255	128	60	
11	123	231	5	55	88	
16	12	67	255	255	98	
IP X.XXX.XXX.XXX						

DMX View Address 8-28						
8	0	0	0	56	12	
13	1	255	255	128	60	
18	123	231	5	55	88	
24	12	67	255	255	98	
IP X.XXX.XXX.XXX						

DMX View Address 8-28						
501	0	0	0	56	12	
506	1	255	255	128	60	
511	123	0				
IP X.XXX.XXX.XXX						

DMX Test Display – Line

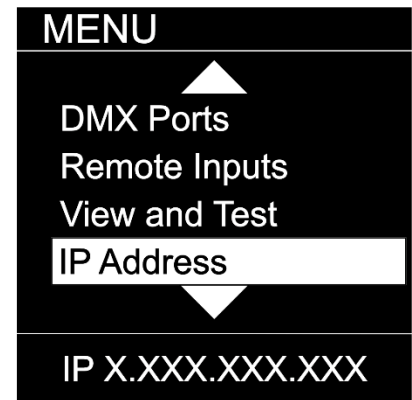
DMX View Address 1-5			
		Min	Max
1	0	0	12
2	1	0	60
3	121	5	123
4	12	98	255
5	88	8	88
IP X.XXX.XXX.XXX			

DMX Test Display – Address

DMX View	
Address	Value
1	127
	50%
Min	0
Max	255
IP X.XXX.XXX.XXX	

MENU: IP ADDRESS

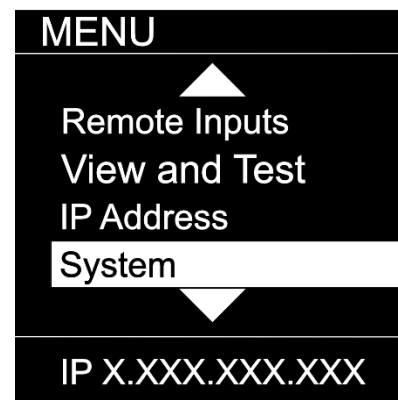
Set the desired device IP address in this menu. Every Netron device is set to a unique 2.x.x.x address at the factory, and after every reset to this default. For Art-Net systems, it should never be necessary to adjust this IP. Any custom address and subnet can be assigned so the node can operate within any network environment. EP4 devices default to 2.0.0.1 as they contain no display. Configure each EP4 to a unique IP using the web remote access.



SUB MENU		OPTIONS / VALUES		Description
MENU DHCP IP Automatic 2.X Automatic 10.x Custom IP IP X.XXX.XXX.XXX	DHCP IP			The device waits for a DHCP server address After 30s it assigns itself a unique 169.254.x.x address but continues to monitor DHCP server requests.
	Automatic 2.x			The device is set to a unique 2.x.x.x Address, Subnet 255.0.0.0
	Automatic 10.x.x			The device is set to a unique 10.x.x.x Address, Subnet 255.0.0.0
	Custom IP	IP Address	x.x.x.x	Assign any desired numbers. The device does not check the validity of address and subnet values.
		Subnet Mask	x.x.x.x	
	Automatic 192.x			The device is set to a unique 192.x.x.x Address, Subnet 255.0.0.0
	Automatic 172.x			The device is set to a unique 172.x.x.x Address, Subnet 255.0.0.0

MENU: SYSTEM

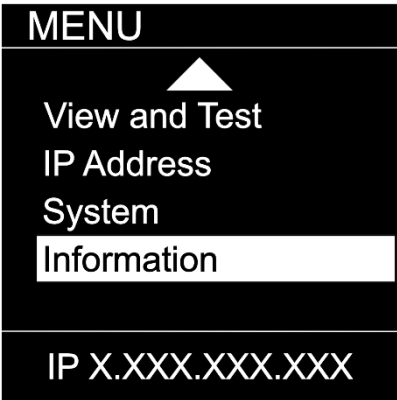
This menu contains all the settings to configure and manage the device.



SUB MENU		OPTIONS / VALUES		Description
MENU Device Name Device ID Display ArtNet Start IP X.XXX.XXX.XXX MENU Lock Device Startup Signal Loss Backup Config IP X.XXX.XXX.XXX MENU Signal Loss Backup Config RDM Processing Factory Reset IP X.XXX.XXX.XXX	Device Name	12 Character Label		Set a device name
	Device ID	0 – 999		Set an optional device ID
	Display	Display Timeout	Disable 10s, 30s, 1m, 5m, 10m	Display stays on indefinitely Display goes dark after this time
		Screen Brightness	1-10	Adjust the brightness of the internal display
		LED Brightness	0-10	Adjust the brightness of the front LEDs. Set to 0 to disable them.
		Home Screen	Device Info	The display shows port and connectivity information
			Cue Browser	The display shows a list of stored cues which can easily be browsed and started by the encoder wheel
	ArtNet Start	Universe 0 Universe 1		Universe 1 is sent to Art-Net 0-0 Universe 1 is sent to Art-Net 0-1
	Lock Device	PIN: 000 (011)	Lock Timeout	The device does not require a pin The device asks for a pin after the display times out
			Manual Lock: 000 (011) Lock / Unlock	Lock the device immediately
	Startup	Cue		Run a specific Cue at startup
		Wait for Data		No DMX is sent until valid data is received for the ports. The last incoming values continue to be sent on the ports until the time is expired. Once timeout has completed the device will perform one of the below actions
		Send 0		
	Signal Loss	Hold Last Look	Forever, 0s, 10s, 30s, 1m, 5m, 10m, 60m	The last incoming values continue to be sent on the ports until the time is expired. Once timeout has completed the device will perform one of the below actions.
		Fade to 0	0-60s (30s)	Crossfade to DMX 0. Set to 0s for instant out.
		Cue	No Cue	Start Cue X
		Disable DMX		DMX traffic is turned off on all ports
	Backup Config	Save Config	Config Saved	Save current configuration including all cue data
		Load Config	Config Loaded	Reload configuration. Backups can be exported and imported from the web interface
	RDM Processing	All Disable		Disables RDM processing on the device
		All Enable		Enables all RDM processing on the device
	Factory Reset	Pin: 000 (011)	Confirm Device will be reset to factory defaults. Yes/No	Reset the device to factory default. It will reload NETRON Preset 1. All cues are deleted, and all settings are set to default.
		Pin: 000 (007)	Confirm Device will be reset to User Preset 1. Yes/No	Reset the device to User Preset 1.

MENU: INFORMATION

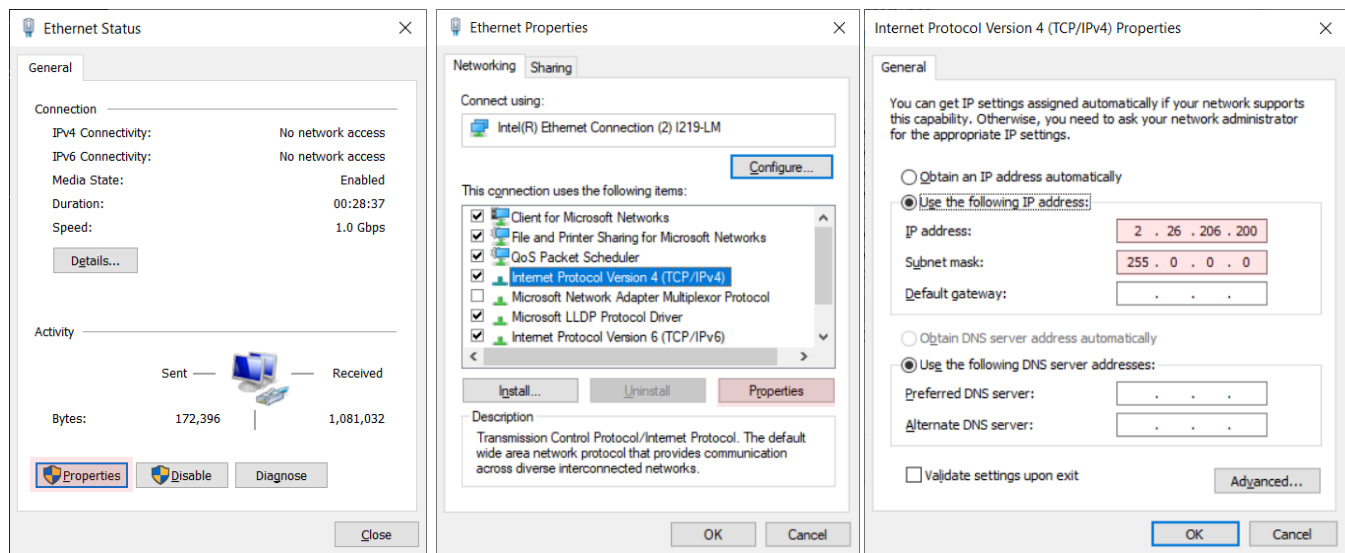
This menu provides information about the device.



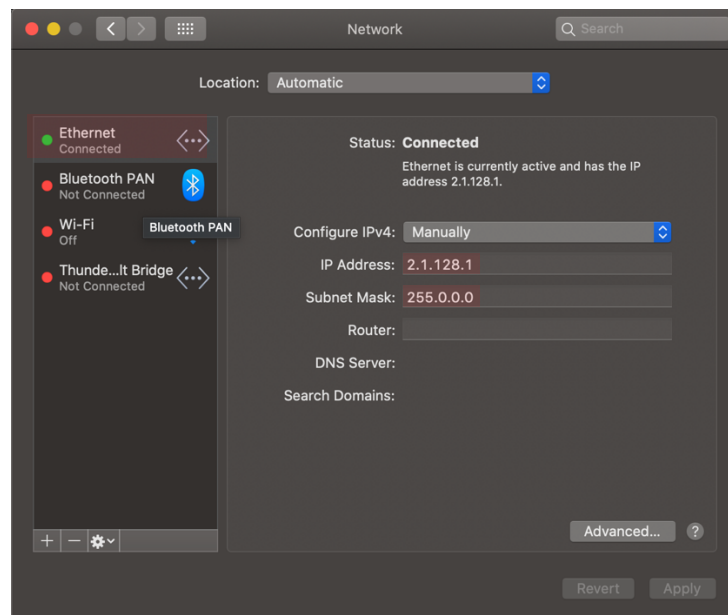
SUB MENU		OPTIONS / VALUES	DESCRIPTION
MENU Software Version Product On Time MAC Address RDM UID IP X.XXX.XXX.XXX	Software Version	Boot SW V# Firmware: V#	Display the current software version
	Product On Time	Time: XXXXX(H)	Total time the device has been powered on.
	MAC Address	x:x:x:x:x:x	Displays MAC address
	RDM UID	UID1: xxxx	Displays product RDM UID.

WEB REMOTE CONFIGURATION

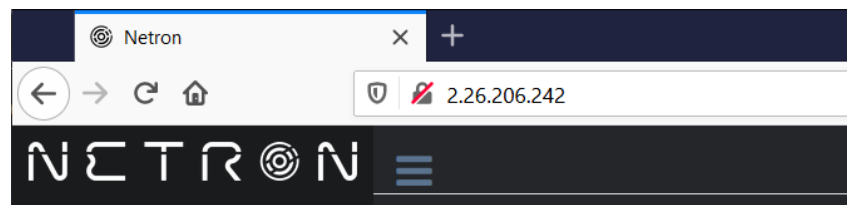
Ensure the device and a computer are do not share IP address, but are in the same IP address range and connected.



PC Configuration Sample: Please note your PC configuration results may vary.



MAC OS Configuration Sample: Please note your MAC OS configuration results may vary.



Browser Sample: Enter the device IP address into a web browser to access the device page.

WEB REMOTE MENU: HOMEPAGE

Please note that Netron devices are not compatible with Microsoft Internet Explorer. Also, the antivirus software AVAST is known to block important communication with NETRON, and must be disabled for the web interface and firmware updates to function.

The screenshot shows the NETRON web interface with two browser tabs open: NETRON EN4 (IP: 2.188.56.6) and NETRON EN12 (IP: 2.85.24.68). The NETRON EN4 tab is active, displaying the Status page. The Status page includes an Info section with the following details:

Device Type	NETRON EN4
Device Name	NETRON EN4
IP Address	002.188.056.006
Net Mask	255.000.000.000

Below the Info section is the DMX Ports section, which contains a table with 4 ports:

Port#	Mode	Protocol	Universe	Frame Rate	RDM	Merge
1	Output	Artnet	1	35Hz	Enable	OFF
2	Output	Artnet	2	35Hz	Enable	OFF
3	Output					
4	Output					

A blue line indicates the transition from the NETRON EN4 status view to the NETRON EN12 status view. The NETRON EN12 status view is shown in a separate window, displaying the following details:

Device Type	NETRON EN12
Device Name	NETRON EN12
IP Address	002.085.024.068
Net Mask	255.000.000.000

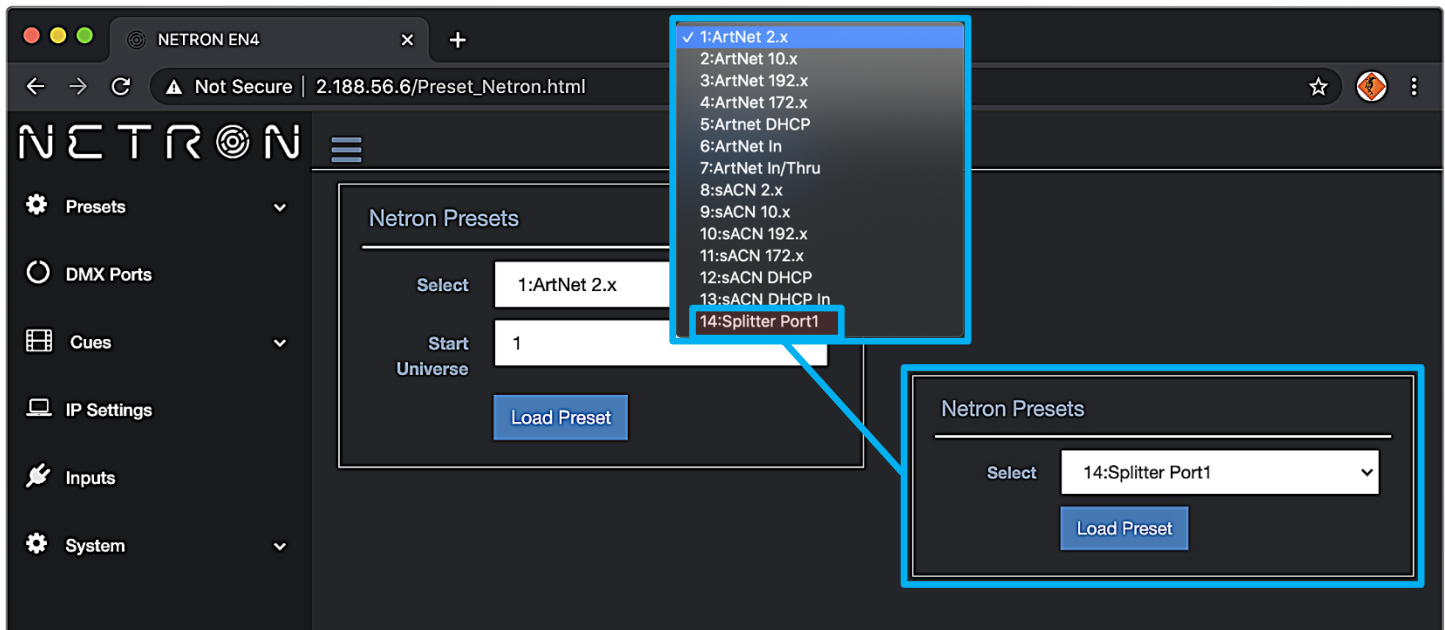
Below the Info section is the DMX Ports section, which contains a table with 12 ports:

Port#	Mode	Protocol	Universe	Frame Rate	RDM	Merge
1	Output	Artnet	1	35Hz	Enable	OFF
2	Output	Artnet	2	35Hz	Enable	OFF
3	Output	Artnet	3	35Hz	Enable	OFF
4	Output	Artnet	4	35Hz	Enable	OFF
5	Output	Artnet	5	35Hz	Enable	OFF
6	Output	Artnet	6	35Hz	Enable	OFF
7	Output	Artnet	7	35Hz	Enable	OFF
8	Output	Artnet	8	35Hz	Enable	OFF
9	Output	Artnet	9	35Hz	Enable	OFF
10	Output	Artnet	10	35Hz	Enable	OFF
11	Output	Artnet	11	35Hz	Enable	OFF
12	Output	Artnet	12	35Hz	Enable	OFF

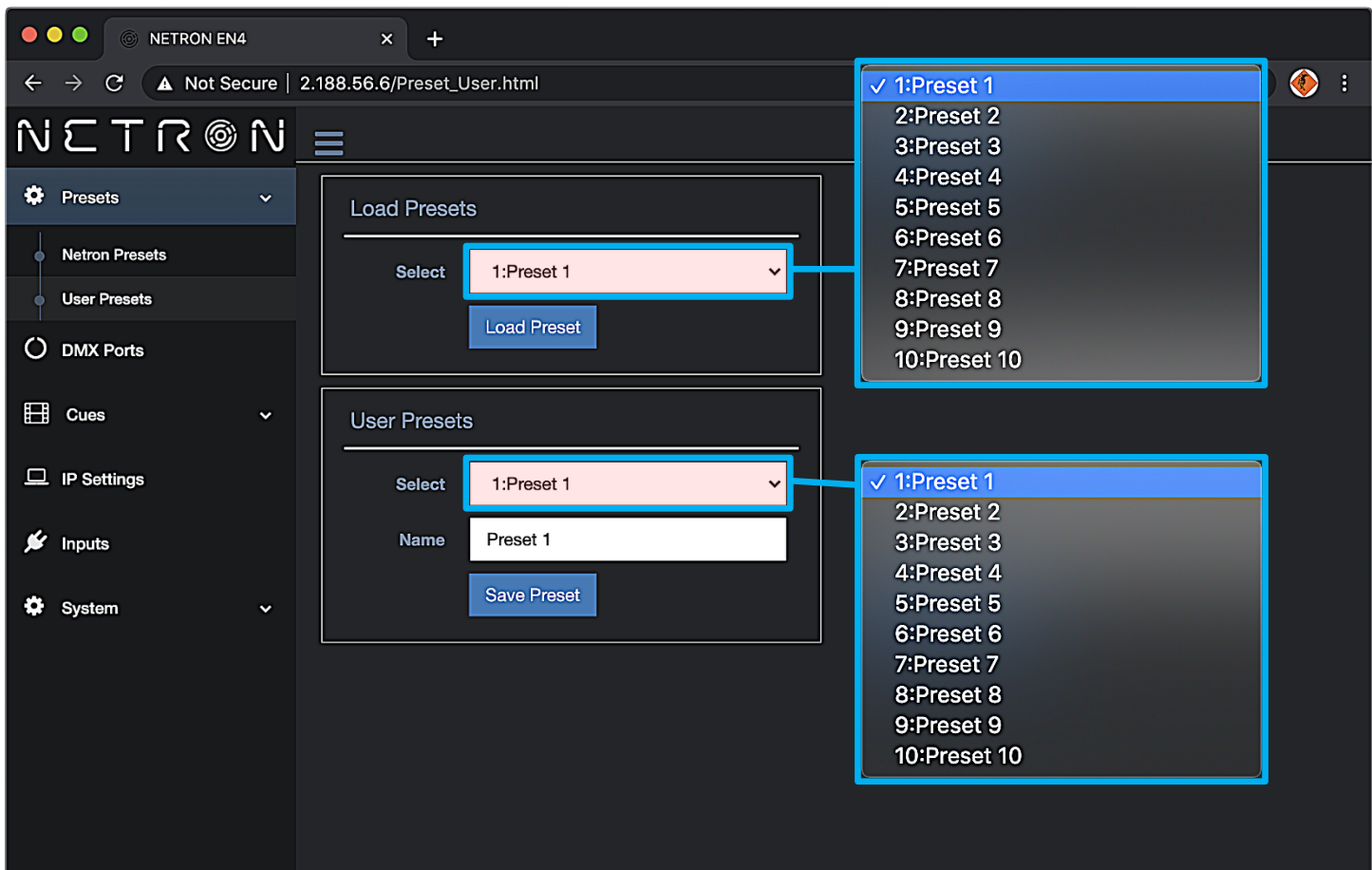
At the bottom of the NETRON EN4 status view, there is an Identify button. The Identify button is a toggle switch that can be turned on or off. The Identify button is currently turned on, as indicated by the green dot.

Identify Button:
Identify sets device into blinking Red/White LEDs and a blinking display to find Netron devices.

WEB REMOTE MENU: PRESETS – NETRON PRESETS



WEB REMOTE MENU: PRESETS – USER PRESETS



WEB REMOTE MENU: DMX PORTS – OUTPUT

The screenshot shows the NETRON EN4 web interface in a browser window. The address bar displays "2.188.56.6/DMX_Ports.html". The left sidebar contains navigation options: Presets, DMX Ports, Cues, IP Settings, Inputs, and System. The main content area is titled "DMX Port Configuration" and features a tabbed interface with tabs 1, 2, 3, and 4. The configuration fields include:

- Mode:** A dropdown menu with "Output" selected. A callout shows the options: "Disable", "Input", "Output" (checked), and "Send Value".
- Universe:** A text input field containing "1".
- Protocol:** A dropdown menu with "ArtNet" selected. A callout shows the options: "ArtNet" (checked), "sACN", and "None".
- Framerate:** A dropdown menu with "35 Hz" selected. A callout shows the options: "10 Hz", "15 Hz", "20 Hz", "25 Hz", "30 Hz", "35 Hz" (checked), and "40 Hz".
- RDM:** A toggle switch that is currently turned on.
- Merge:** A dropdown menu with "OFF" selected. A callout shows the options: "OFF" (checked), "HTP", "LTP", "Toggle", and "Backup".
- Resend Protocol:** A dropdown menu with "ArtNet" selected. A callout shows the options: "ArtNet" (checked), "sACN", and "None".
- DMX Range From:** A text input field containing "1".
- DMX Range To:** A text input field containing "512".
- Offset Address:** A text input field containing "1".
- Clone Port:** A dropdown menu with "None" selected. A callout shows the options: "None" (checked), "Port 2", "Port 3", and "Port 4".

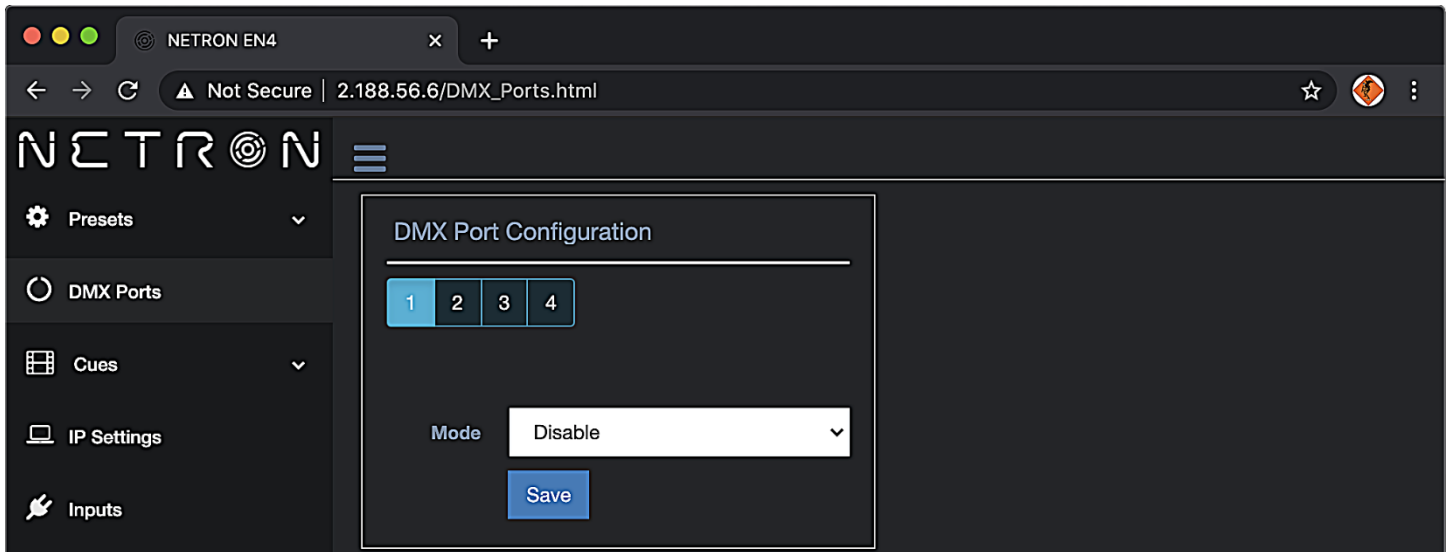
A "Save" button is located at the bottom of the configuration panel.

This close-up view highlights three specific dropdown menus from the DMX Port Configuration interface:

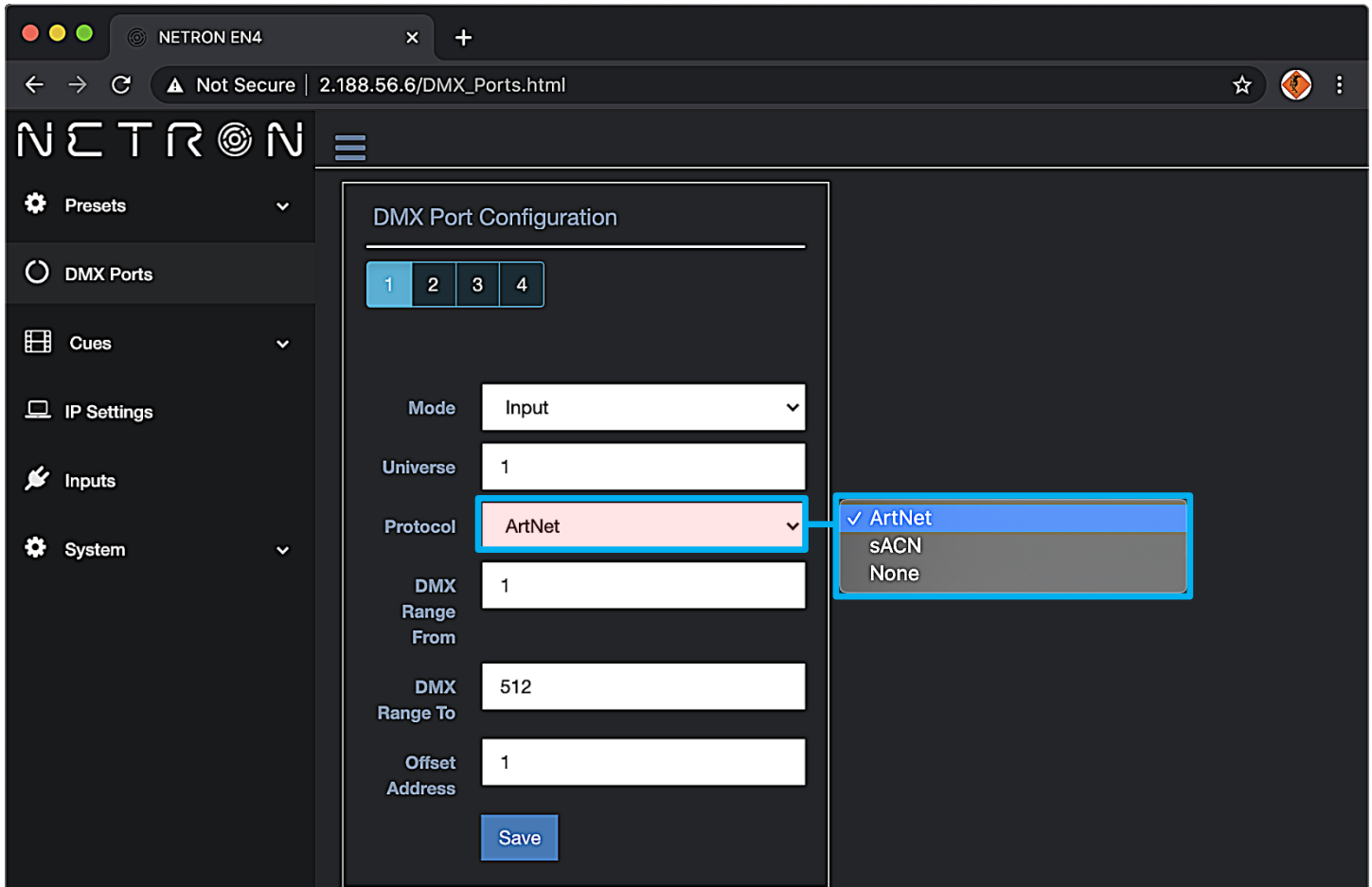
- Merge:** The dropdown is open, showing "HTP" as the selected option. Other visible options are "5", "ArtNet", "9", "Merge Universe", "DMX Range From", "DMX Range To", "Offset Address", and "Clone Port".
- Resend Protocol:** The dropdown is open, showing "ArtNet" as the selected option. Other visible options are "sACN" and "None".
- Clone Port:** The dropdown is open, showing "None" as the selected option. Other visible options are "Port 2", "Port 3", and "Port 4".

A "Save" button is visible at the bottom of the configuration panel.

WEB REMOTE MENU: DMX PORTS – DISABLE



WEB REMOTE MENU: DMX PORTS – INPUT



WEB REMOTE MENU: DMX PORTS – SEND VALUE

The screenshot shows the NETRON EN4 web interface in a browser. The address bar displays "2.188.56.6/DMX_Ports.html". The left sidebar contains navigation options: Presets, DMX Ports, Cues, IP Settings, Inputs, and System. The main content area is titled "DMX Port Configuration" and features four tabs labeled 1, 2, 3, and 4. Tab 1 is selected. The configuration fields include:

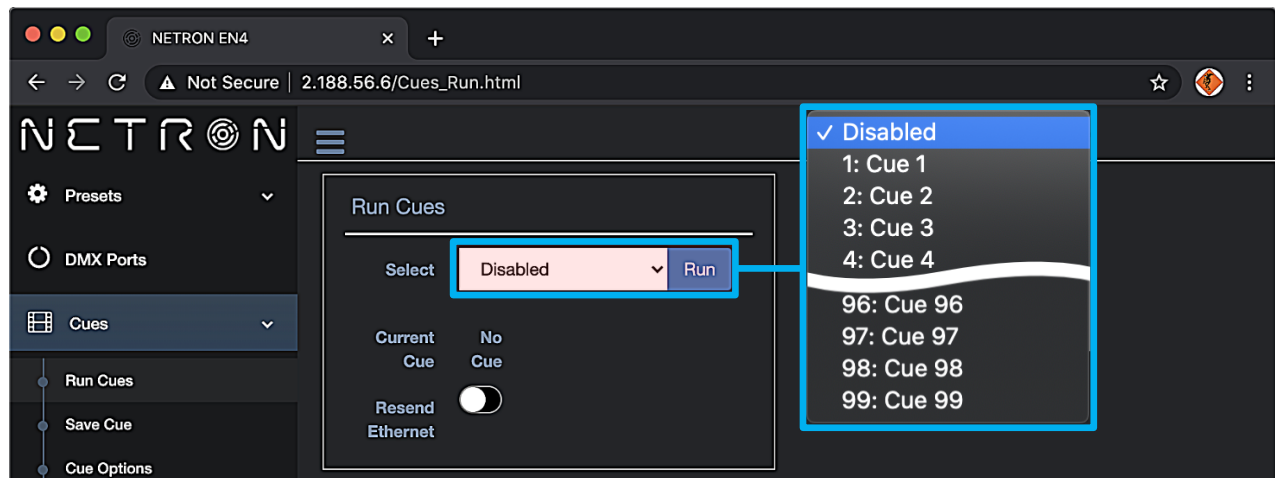
- Mode: Send Value (dropdown)
- Send Value: 0 (text input)
- Framerate: 35 Hz (dropdown, highlighted with a red box)
- DMX Range From: 1 (text input)
- DMX Range To: 512 (text input)
- Save (button)

The Framerate dropdown menu is open, showing a list of options: 10 Hz, 15 Hz, 20 Hz, 25 Hz, 30 Hz, 35 Hz (selected with a checkmark and highlighted with a blue box), and 40 Hz.

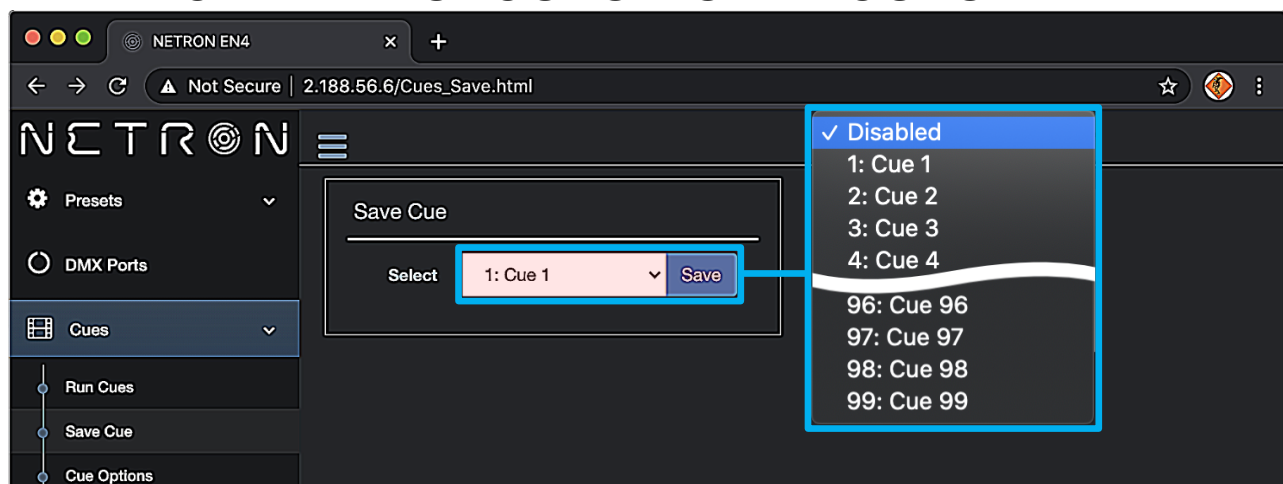
At the bottom left, the status bar displays:

- IP:002.188.056.006
- Name:NETRON EN4
- Identify (toggle switch)

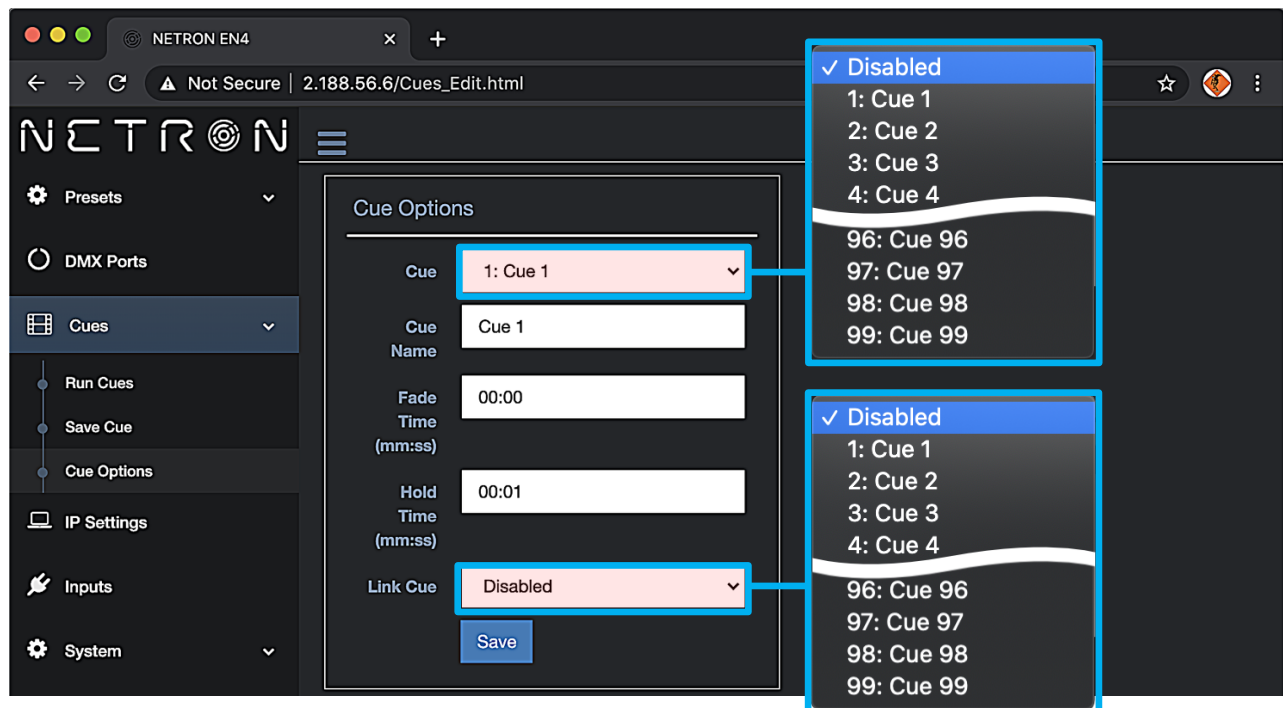
WEB REMOTE MENU: CUES – RUN CUES



WEB REMOTE MENU: CUES – SAVE CUES



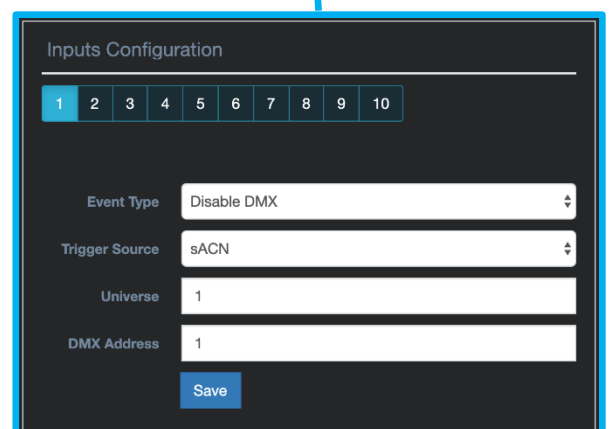
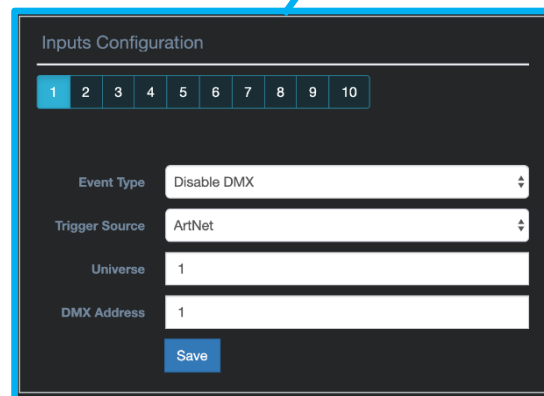
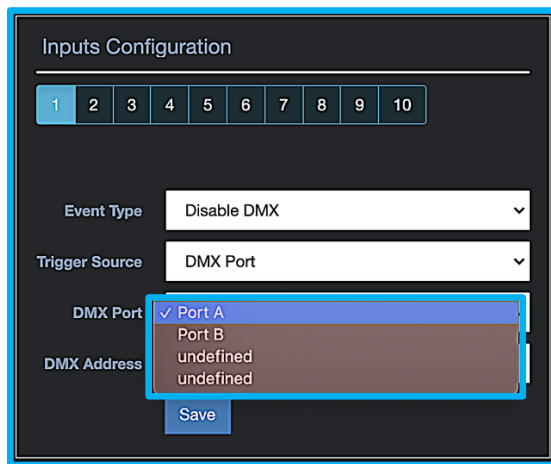
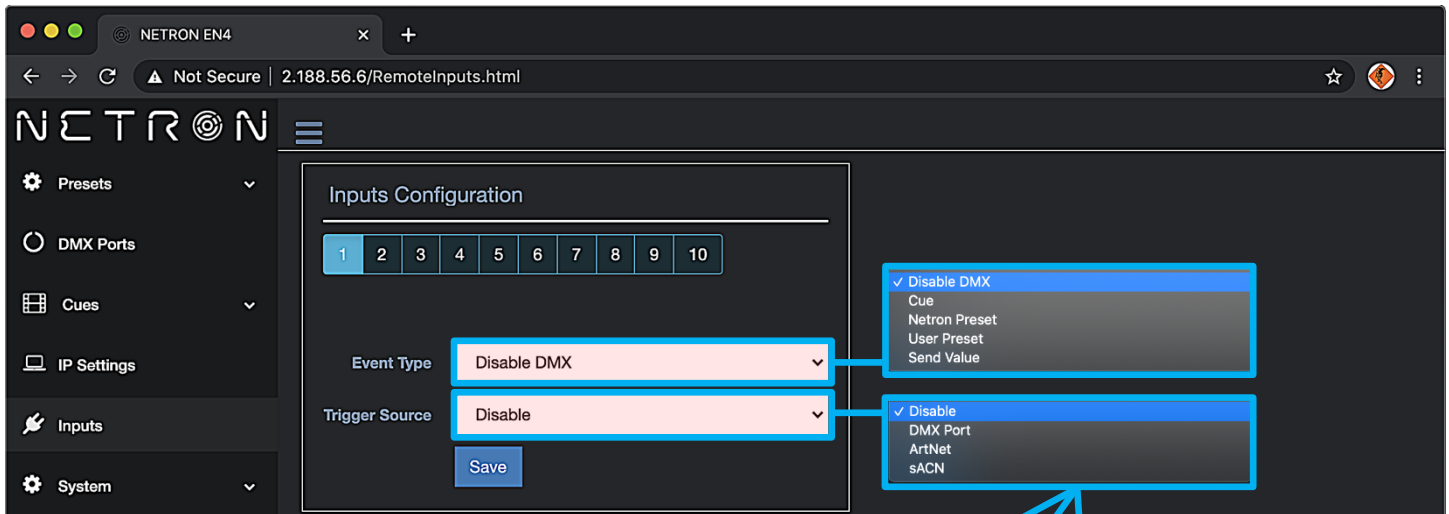
WEB REMOTE MENU: CUES – CUE OPTIONS



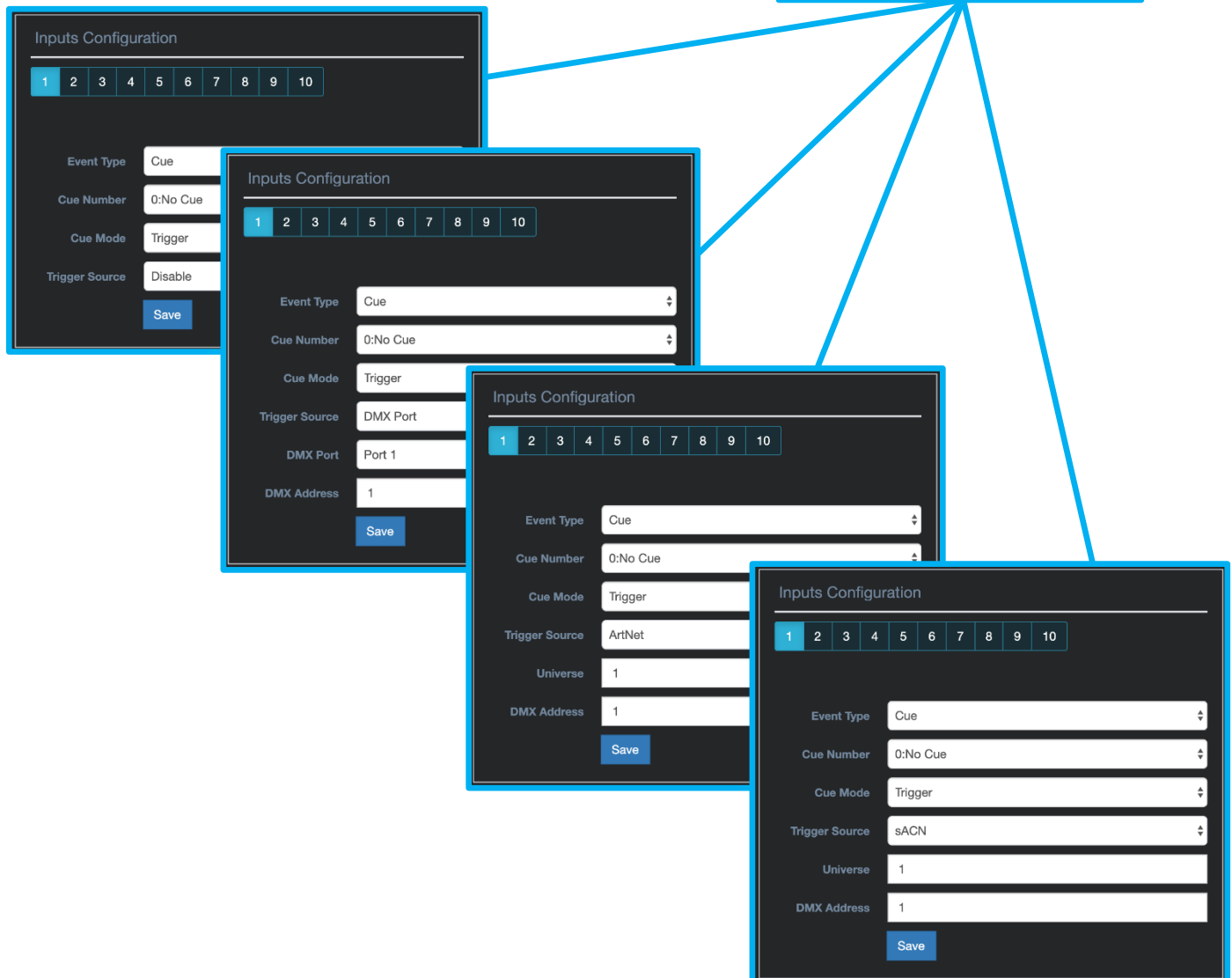
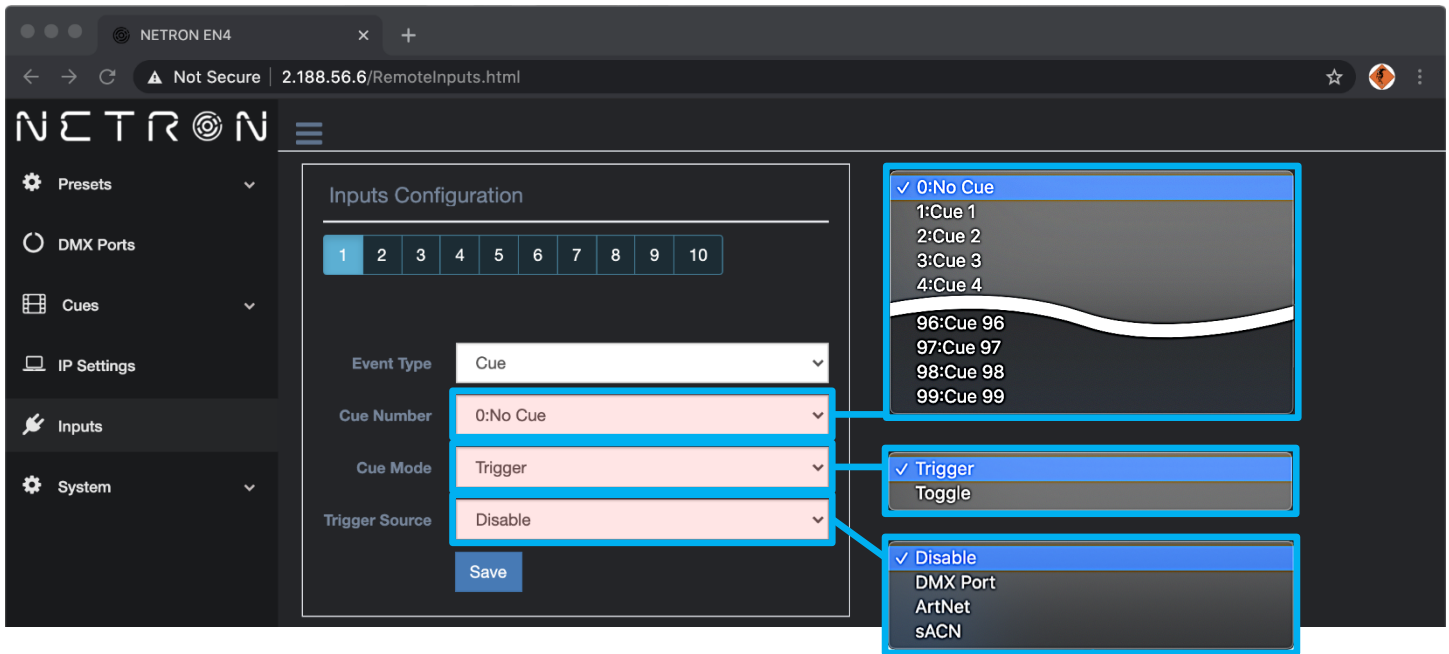
WEB REMOTE MENU: IP SETTINGS

The screenshot displays the NETRON EN4 web interface in a browser window. The browser's address bar shows the URL `2.188.56.6/IP.html`. The interface features a dark theme with a sidebar on the left containing navigation options: Presets, DMX Ports, Cues, IP Settings (highlighted), Inputs, and System. The main content area is titled "IP Address" and includes a dropdown menu for "Address Mode" currently set to "Automatic 2.x.x.x". A blue-bordered dropdown menu is open, showing options: "DHCP IP", "Automatic 2.x.x.x" (selected with a checkmark), "Automatic 10.x.x.x", "Custom IP", "Automatic 192.168.x.x", and "Automatic 172.168.x.x". Below the dropdown are input fields for "IP" (002.188.056.006) and "Subnet" (255.000.000.000), along with "Save" and "Cancel" buttons. At the bottom left, a status bar displays "IP:002.188.056.006", "Name:NETRON EN4", and an "Identify" button with a toggle switch.

WEB REMOTE MENU: INPUTS – DISABLE DMX



WEB REMOTE MENU: INPUTS – CUE



WEB REMOTE MENU: INPUTS – NETRON PRESETS

NETRON EN4

Not Secure | 2.188.56.6/RemoteInputs.html

NETRON

Presets

DMX Ports

Cues

IP Settings

Inputs

System

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: Netron Preset

Netron Preset: 1:ArtNet 2.x

Trigger Source: Disable

Save

1:ArtNet 2.x
2:ArtNet 10.x
3:ArtNet 192.x
4:ArtNet 172.x
5:ArtNet DHCP
6:ArtNet In
7:ArtNet In/Thru
8:sACN 2.x
9:sACN 10.x
10:sACN 192.x
11:sACN 172.x
12:sACN DHCP
13:sACN DHCP In
14:Splitter Port1

✓ Disable
DMX Port
ArtNet
sACN

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: Netron Preset

Netron Preset: 1:ArtNet 2.x

Trigger Source: DMX Port

DMX Port: ✓ Port A
Port B
undefined
undefined

DMX Address

Save

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: Netron Preset

Netron Preset: 1:ArtNet 2.x

Trigger Source: ArtNet

Universe: 1

DMX Address: 1

Save

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: Netron Preset

Netron Preset: 1:ArtNet 2.x

Trigger Source: sACN

Universe: 0

DMX Address: 1

Save

WEB REMOTE MENU: INPUTS – USER PRESETS

NETRON EN4

Not Secure | 2.188.56.6/RemoteInputs.html

NETRON

Presets

DMX Ports

Cues

IP Settings

Inputs

System

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: User Preset

User Preset: 1:Preset 1

Trigger Source: Disable

Save

1:Preset 1
2:Preset 2
3:Preset 3
4:Preset 4
5:Preset 5
6:Preset 6
7:Preset 7
8:Preset 8
9:Preset 9
10:Preset 10

Disable
DMX Port
ArtNet
sACN

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: User Preset

User Preset: 1:Preset 1

Trigger Source: DMX Port

DMX Port: Port A

DMX Address: undefined

Save

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: User Preset

User Preset: 1:Preset 1

Trigger Source: ArtNet

Universe: 1

DMX Address: 1

Save

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: User Preset

User Preset: 1:Preset 1

Trigger Source: sACN

Universe: 0

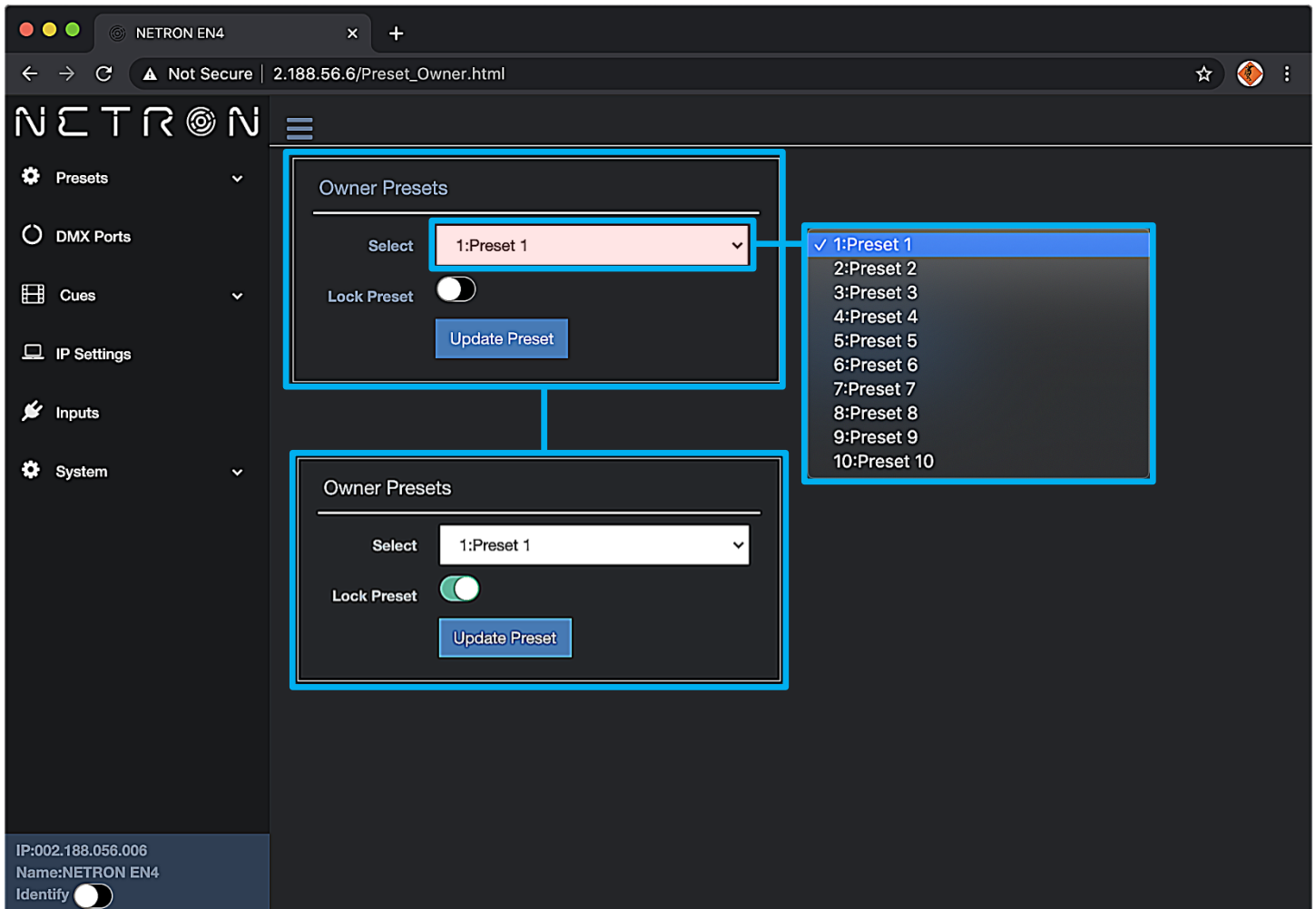
DMX Address: 1

Save

WEB REMOTE MENU: INPUTS – OWNER PRESET

Device owners can lock any of the user presets so they cannot be overwritten. This is especially useful for rental equipment to ensure a company specific preset can be reloaded and is not edited by any user.

To access this function, use the specific URL IP_Address/Preset_Owner.htm, which is not part of the main interface. Select the desired preset, activate the lock, and Update to confirm. Owner presets are indicated with a lock symbol in the display.



WEB REMOTE MENU: INPUTS – SEND VALUE

NETRON EN4

Not Secure | 2.188.56.6/RemoteInputs.html

NETRON

Presets

DMX Ports

Cues

IP Settings

Inputs

System

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: Send Value

Send Value: 0

Trigger Source: Disable

Save

- ✓ Disable
- DMX Port
- ArtNet
- sACN

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: Send Value

Send Value: 0

Trigger Source: DMX Port

DMX Port: Port A

DMX Address: undefined

Save

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: Send Value

Send Value: 0

Trigger Source: ArtNet

Universe: 1

DMX Address: 1

Save

Inputs Configuration

1 2 3 4 5 6 7 8 9 10

Event Type: Send Value

Send Value: 0

Trigger Source: sACN

Universe: 0

DMX Address: 1

Save

WEB REMOTE MENU: SYSTEM – DEVICE SETTINGS

The screenshot displays the 'NETRON EN4' web interface for system settings. The left sidebar contains navigation options: Presets, DMX Ports, Cues, IP Settings, Inputs, System, Device Settings, Status, and Maintenance. The main content area is divided into sections: General, Startup, Signal Loss, and a bottom summary bar.

General Section:

- Device Name:** NETRON EN4
- Device ID:** 0
- Display Timeout:** 5 Min (dropdown menu open showing: Disable, 10 Sec, 30 Sec, 1 Min, 5 Min, 10 Min)
- Display Brightness:** 10 (slider)
- LED Brightness:** 10 (slider)
- Art-Net Offset:** Netron Universe 1: 0-0 (dropdown menu open showing: Netron Universe 1: 0-0, Netron Universe 1: 0-1)
- Home Screen:** Device Info (dropdown menu open showing: Device Info, Cue Browser)
- RDM Processing:** ☒
- Use PIN:** ☐
- PIN Number:** 0

Startup Section:

- Startup Mode:** Wait For Data (dropdown menu open showing: Cue, Wait For Data, Send 0)

Signal Loss Section:

- Hold Timeout:** Forever (dropdown menu open showing: Forever, 0 Sec, 10 Sec, 30 Sec, 1 Min, 5 Min, 10 Min, 60 Min)
- Loss Mode:** Disable DMX (dropdown menu open showing: Disable DMX, Fade to 0, Cue, Disable DMX)
- Fade Out (s):** 30 (slider)

Bottom Summary Bar:

- Display Brightness:** 4 (slider)
- LED Brightness:** 6 (slider)
- Hold Timeout:** Forever
- Loss Mode:** Fade to 0
- Fade Out (s):** 45 (slider)

Signal Loss Detail View (Bottom Right):

- Hold Timeout:** Forever
- Loss Mode:** Cue
- Loss Cue:** 0:No Cue
- Fade Out (s):** 30
- Dropdown Menu:** 0:No Cue, 1:Cue 1, 2:Cue 2, 3:Cue 3, 4:Cue 4, 96:Cue 96, 97:Cue 97, 98:Cue 98, 99:Cue 99

Blue dashed lines and arrows indicate the flow of configuration from the main settings to the detailed views.

Use cursor to click and drag around to desired time.

WEB REMOTE MENU: SYSTEM – STATUS

NETRON

Presets

DMX Ports

Cues

IP Settings

Inputs

System

Device Settings

Status

Maintenance

Status

Device

Device Type	NETRON EN4
Device Name	NETRON EN4
Mac Address	42:4C:93:72:38:06
RDM UID	0x22A6-DDA87E09
On Time	34h

IP Address

Address Mode	2.X.X.X
IP Address	002.188.056.006
Net Mask	255.000.000.000

Firmware

Bootware Version	V1.4
Firmware Version	V2.4
Web Version	V2.4

IP:002.188.056.006

Name:NETRON EN4

Identify

WEB REMOTE MENU: SYSTEM – MAINTENANCE

The screenshot displays the NETRON EN4 web interface in a browser window. The browser's address bar shows the URL `2.188.56.6/About.html` with a 'Not Secure' warning. The interface has a dark theme. On the left is a sidebar menu with the following items: Presets, DMX Ports, Cues, IP Settings, Inputs, System (selected), Device Settings, Status, and Maintenance. The main content area is titled 'Maintenance' and contains three sections: 'Special Functions' with 'Reset to Default' and 'Reboot Device' buttons; 'Load Save Settings' with a file selection area (showing 'Choose File' and 'No file chosen'), 'Load Settings', and 'Save Current Settings' buttons; and 'Firmware Upgrade' with a file selection area (showing 'Choose File' and 'No file chosen') and a 'Start Upgrade' button. At the bottom left, a status bar displays 'IP:002.188.056.006', 'Name:NETRON EN4', and an 'Identify' button with a circular indicator.

NETRON EN4

Not Secure | 2.188.56.6/About.html

NETRON

Presets

DMX Ports

Cues

IP Settings

Inputs

System

Device Settings

Status

Maintenance

IP:002.188.056.006
Name:NETRON EN4
Identify

Maintenance

Special Functions

Reset to Default

Reboot Device

Load Save Settings

Choose File No file chosen

Load Settings

Save Current Settings

Firmware Upgrade

Choose File No file chosen

Start Upgrade

FIRMWARE UPDATES

Updates for improved performance or to add additional features may be available on www.obsidiancontrol.com.

To install a firmware upgrade, connect to the device through a web browser and open the System – Maintenance menu.

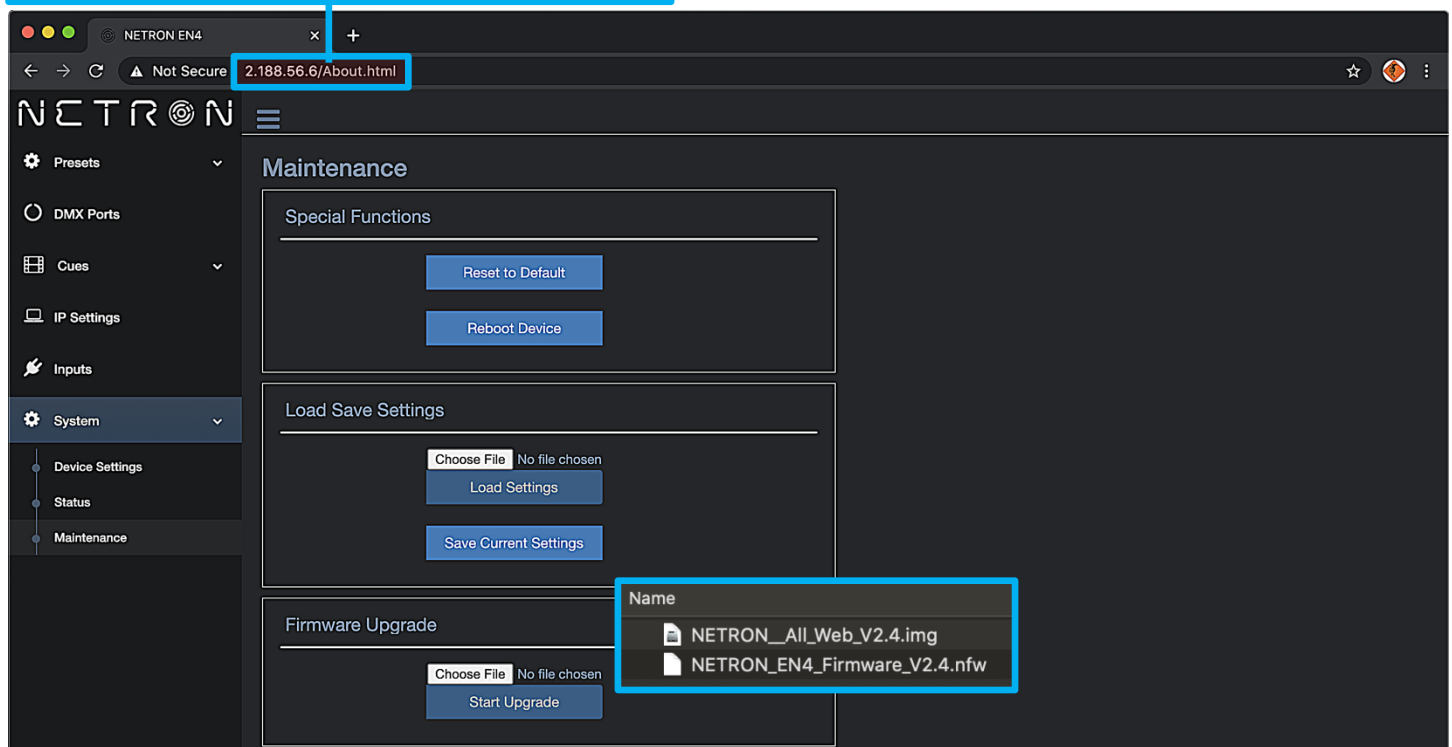
Always back up the configuration first. Export to a file using the web interface.

- Upload the firmware file, then update the device. Do not power cycle during the update process. **The update is provided in two files, Display NFW and Web IMG. Both need to be installed for a full upgrade.**
- Reset to factory defaults.
- Reload the configuration file from the web interface.

Confirm the upgrade is installed from the Information/Software Version Display.

If the system menu is corrupt and or cannot be opened, then the Netron device can be updated from an IP address e.g. 2.26.206.242/update.html.

Each device has a unique Device IP Address; the one shown is only an example.



Each device has a unique Device IP Address; the one shown is only an example.

