OBSIDIAN CONTROL SYSTEMS Netron EP4 Cool 4 Port Node User Guide

Contents

1 OBSIDIAN CONTROL SYSTEMS Netron EP4 Cool 4 Port Node
2 Product Information
3 Product Usage Instructions
4 FCC STATEMENT
5 GENERAL INFORMATION
6 OVERVIEW
7 CONNECTIONS
8 WEB REMOTE CONFIGURATION
9 Documents / Resources
9.1 References
10 Related Posts

OBSIDIAN™
CONTROL SYSTEMS

OBSIDIAN CONTROL SYSTEMS Netron EP4 Cool 4 Port Node

Product Information

- **Manufacturer:** OBSIDIAN CONTROL SYSTEMS
- **Affiliated companies:** ELATION PROFESSIONAL B.V.
- **Address:** Junostraat 2, 6468 EW Kerkrade, The Netherlands
- **Contact:** +31 45 546 85 66

Disclaimer

OBSIDIAN CONTROL SYSTEMS and all affiliated companies disclaim all liabilities for property, equipment, building, and electrical damages, injuries to any persons, and direct or indirect economic loss associated with the use or reliance of any information contained within this document, and/or because of the improper, unsafe, insufficient, and negligent assembly, installation, rigging, and operation of this product.

Art-Net

This device incorporates Art-NetTM, Designed by and Copyright Artistic License Holdings Ltd.

FCC Compliance

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.

Energy Saving

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.

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.

Product Usage Instructions

Overview

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 Updates

For setup and operation of all software features, it is recommended to update the devices to the latest release. Download and study the full user guides from **http://obsidiancontrol.com/netron**.Periodically check for updates on the Obsidian product pages to ensure you have the latest features and improvements.

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 deter- mined 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 EN 4 & EN12
03/29/21	4.0	Added EN12-45
05/25/22	4.5	Updated FCC Statement

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

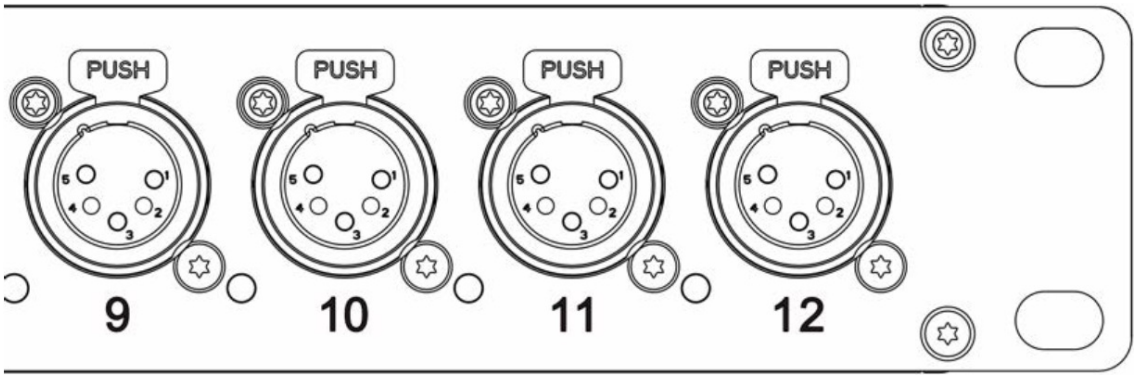
SOFTWARE AND OPERATION

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

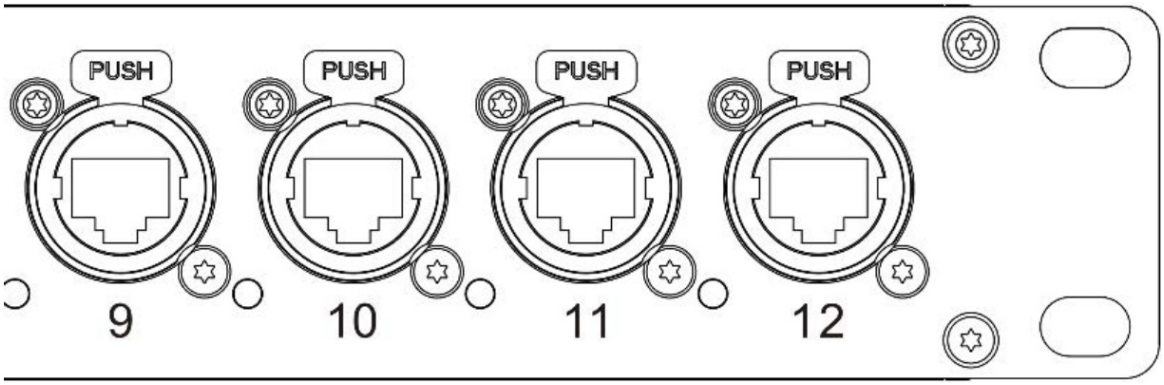
DM X CONNECTIONS (EN 12)

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

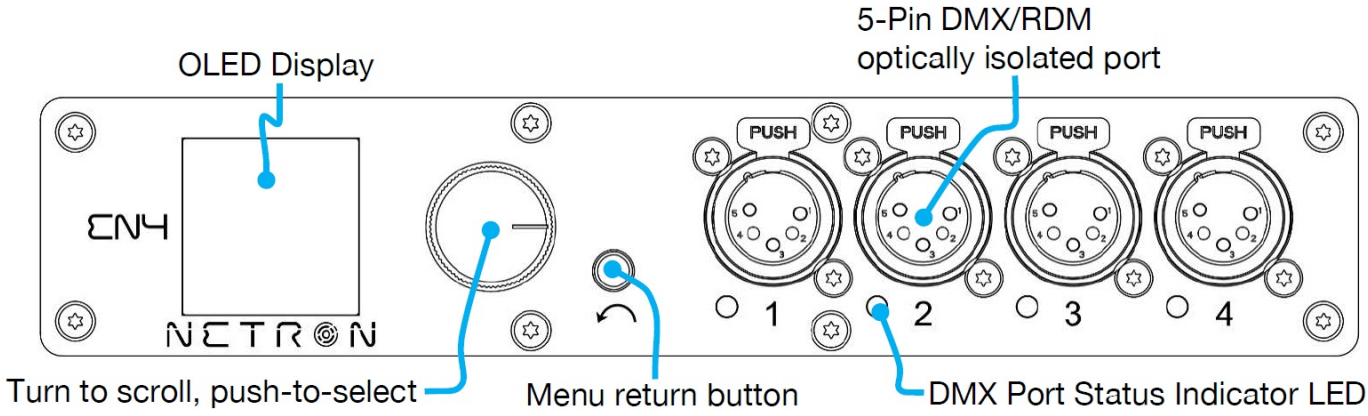
ETHERNET DATA CONNECTION

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



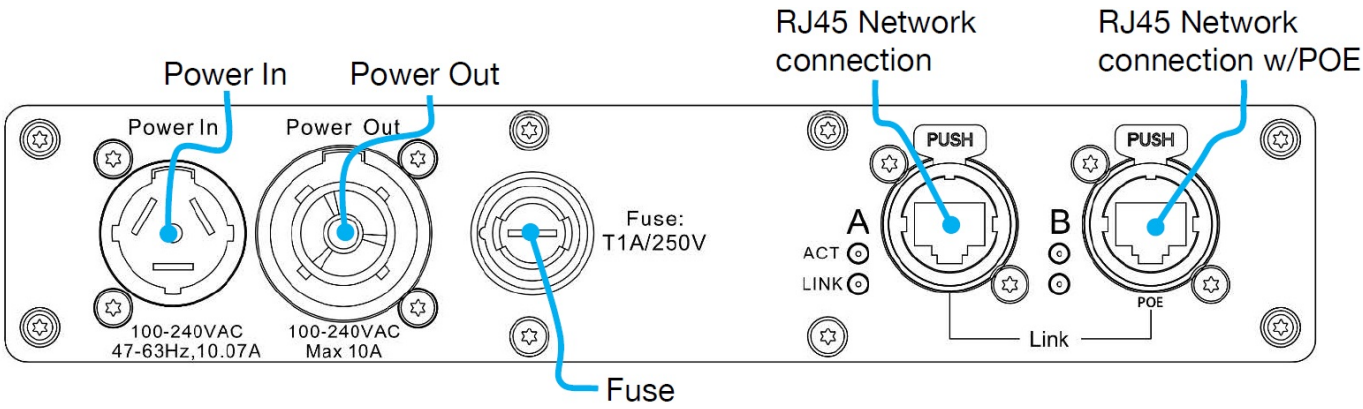
DMX PORTS STATUS INDICATOR LEDs

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.

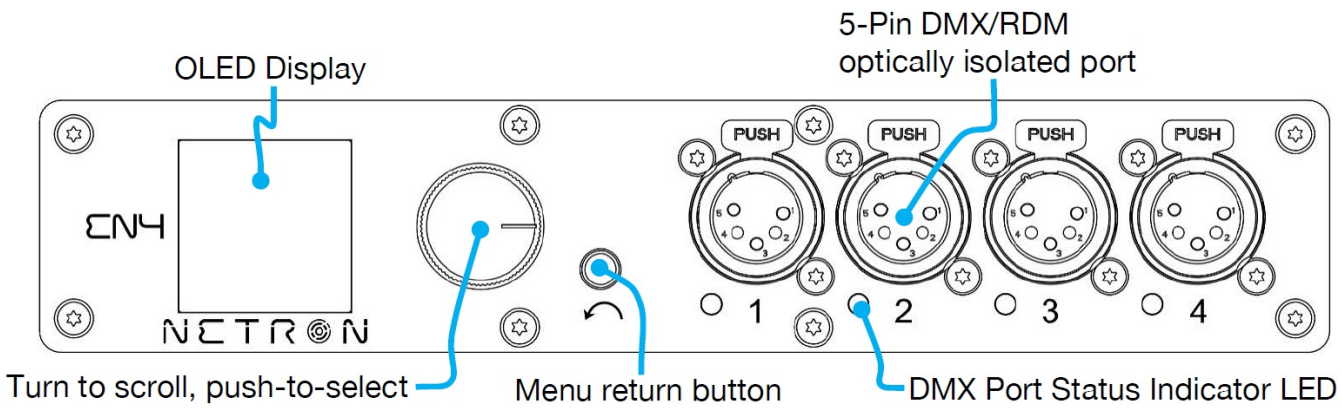
REAR CONNECTIONS

- 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

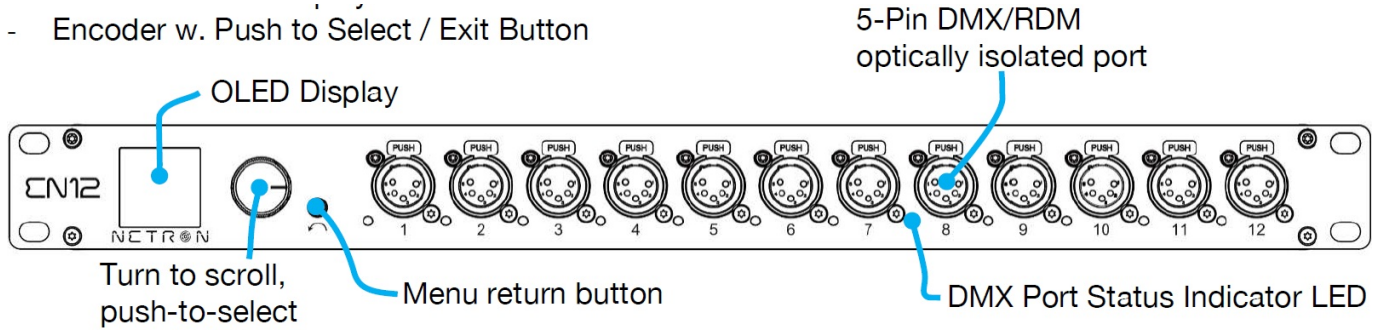
All LEDs are dimmable and can be turned off via the Menu/System/Display menu.

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



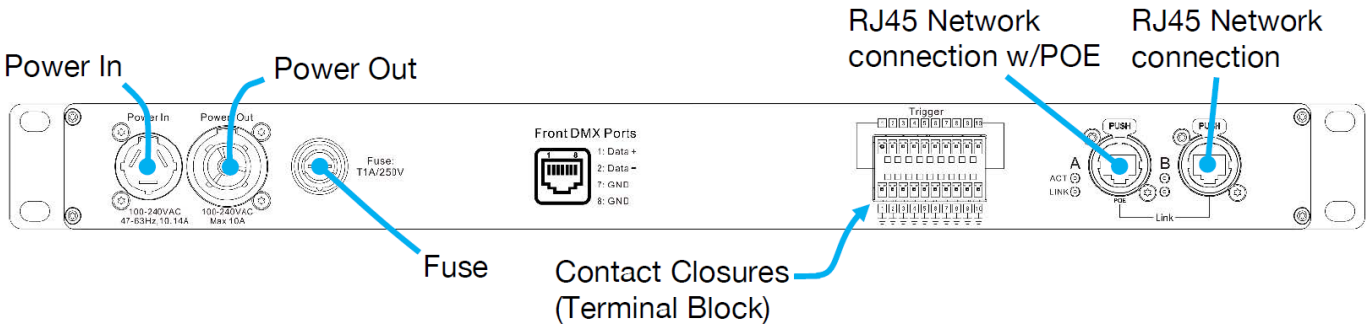
RJ45 PORTS STATUS INDICATOR LEDs

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.

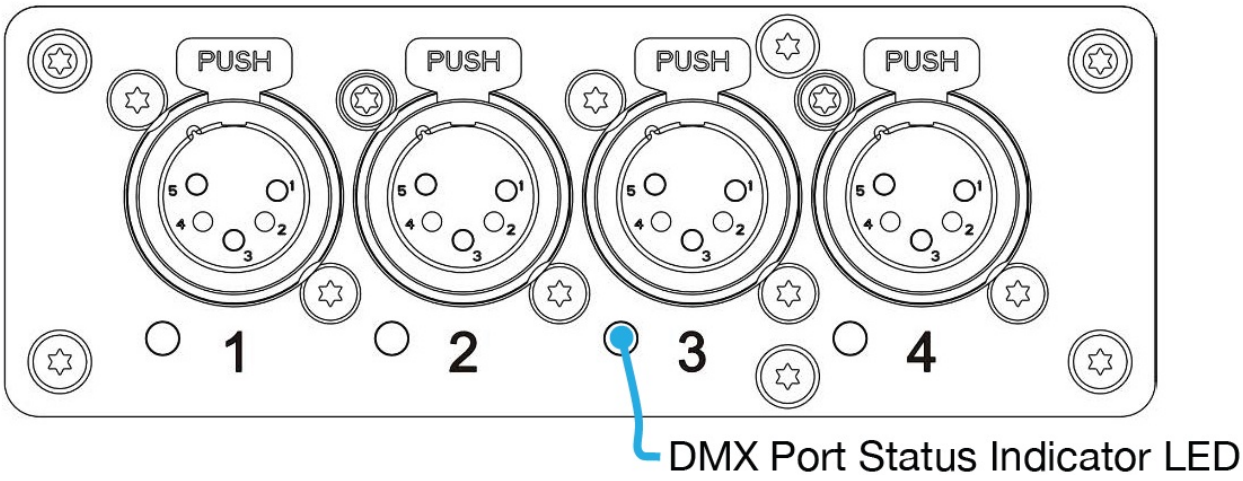
REAR CONNECTIONS

- (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

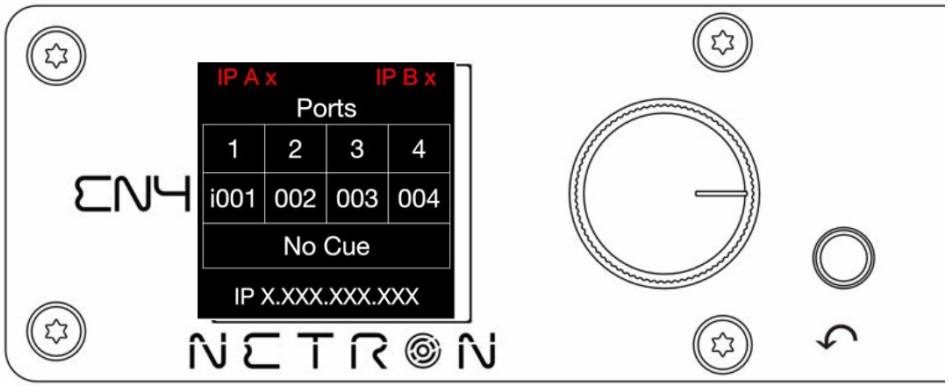


Ports	LED Color	Solid	Blink	Flashing/Strobing
DMX	RED	Error		
DMX	GREEN	DMX In	DMX Lost	
DMX	BLUE	DMX Out Stable	DMX Lost	
DMX	WHITE			Flash on RDM packets

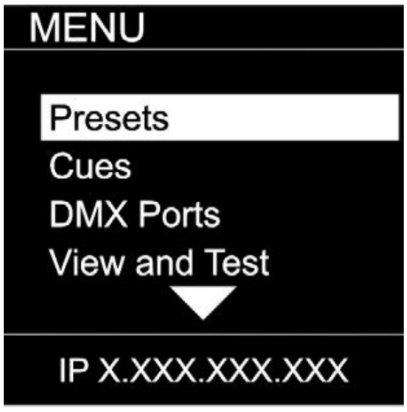
DMX PORTS STATUS INDICATOR LEDs

- USB-C power option (5V, 2A). POWER ONLY, NO DATA CONNECTION
- (2) Gigbabit 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.

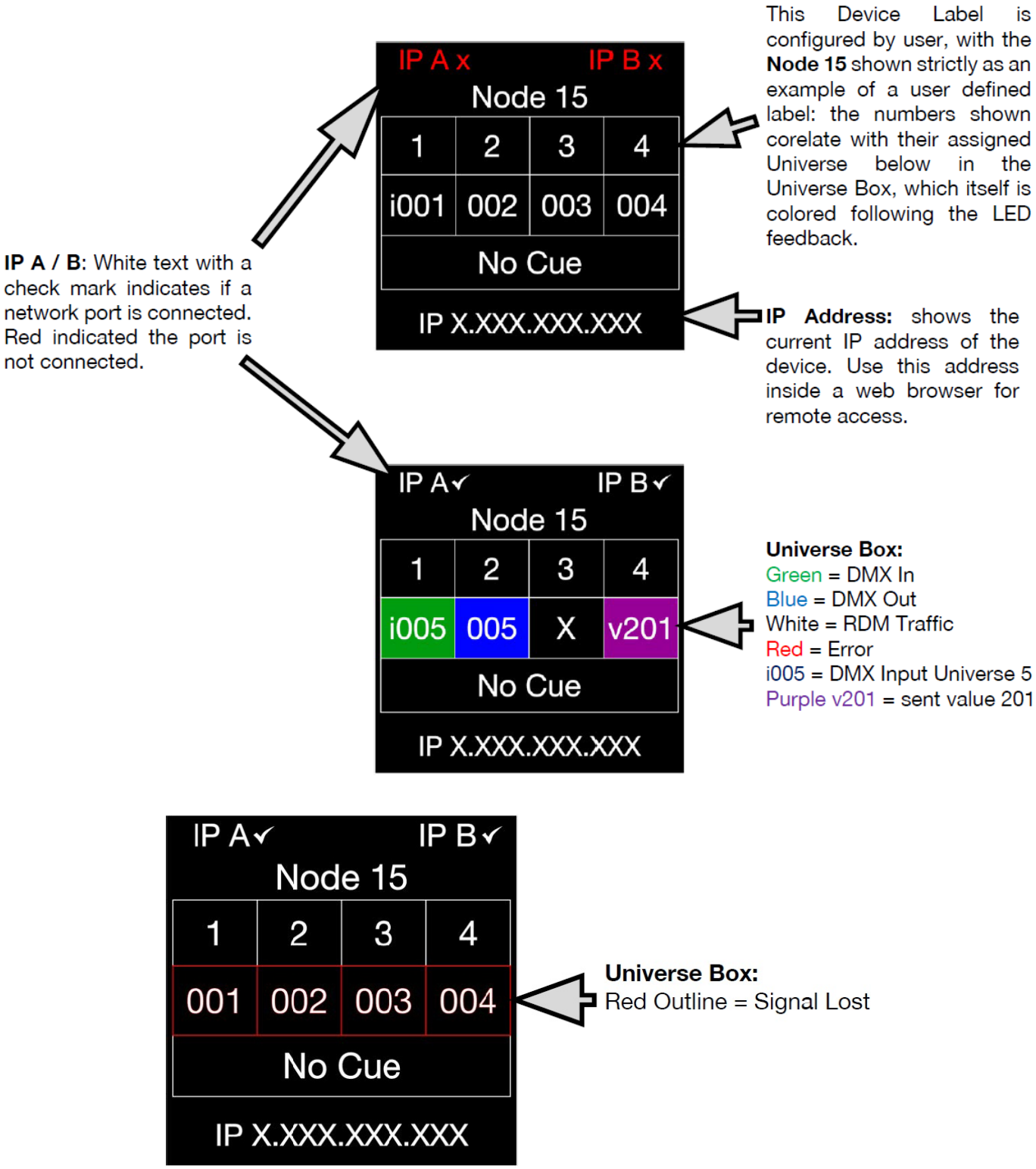


Wheel Right	Scroll down in menu list / increase values
Wheel Left	Scroll up in menu list / decrease values
Wheel Push	Enter Menu, Select menu item, go down one level in menu, confirm values.
Back Arrow	Go up one level in menu tree, cancel change of values, hold for 2 seconds to r eturn to home screen



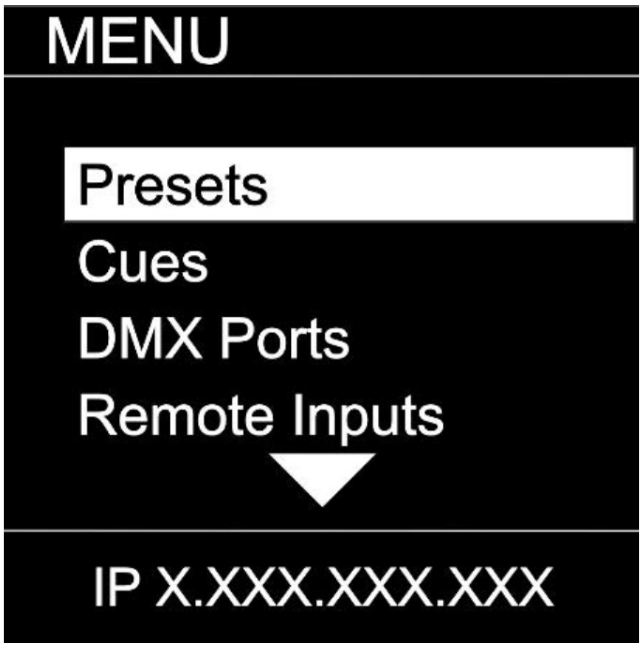
As you scroll up or down the menu, the arrows indicate that more items are available above or below that which is displayed, and only show when needed.

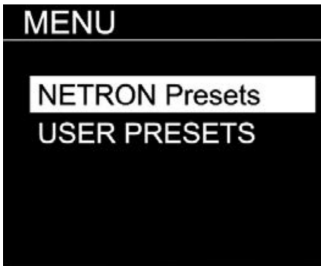
MENU: HOME SCREEN
This is the default screen providing quick status feedback and indicates IP and DMX traffic.



MENU: PRESETS

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


MENU
Presets
Cues
DMX Ports
Remote Inputs
IP X.XXX.XXX.XXX

SUB MENU	OPTION / VALUES			DESCRIPTION
	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 DH CP	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 19 2.x	Universe 1 – 32767		
	11. :sACN 17 2.x	Universe 1 – 32767		
	12. sACN DH CP	Universe 1 – 32767		
	13. sACN DH CP In	Universe 1 – 32767		
	14. :Splitter P ort1			
	1 :MyPreset 1 10 :MyPreset 10	Save Pres et	Preset Saved	
		Load Pres et	Preset Loade d	
		Rename P reset	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

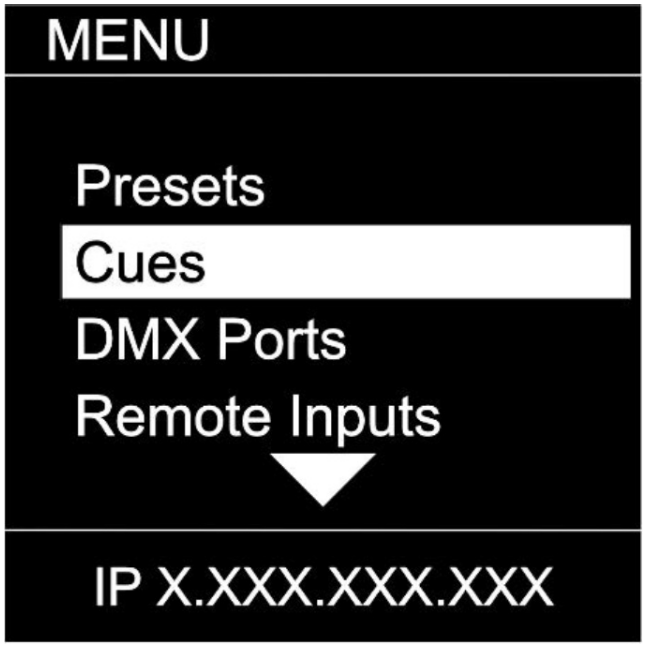
Artnet 2.x	Automatic 2.x	255.0.0.0	Artnet	**Universe #**	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
			RDM		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Artnet 10.x	Automatic 10.x	255.0.0.0	Artnet	**Universe #**	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

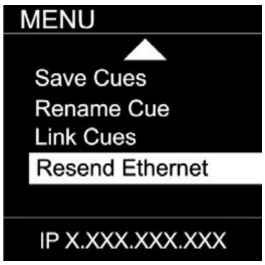
				X	X	X+1	X+2	X+3	X+4	X+5	X+6	X+7	X+9	X+10	X+11	X+12
Artnet In / Thru	Automatic 2.x	255.0.0.0	Artnet	**Universe #**	Input	Input	Input	Input	Input	Input	Output	Output	Output	Output	Output	Output
				X	X	X+1	X+2	X+3	X+4	X+5	Clone 1	Clone 2	Clone 3	Clone 4	Clone 5	Clone 6
sACN 2.x	Automatic 2.x	255.0.0.0	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
				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

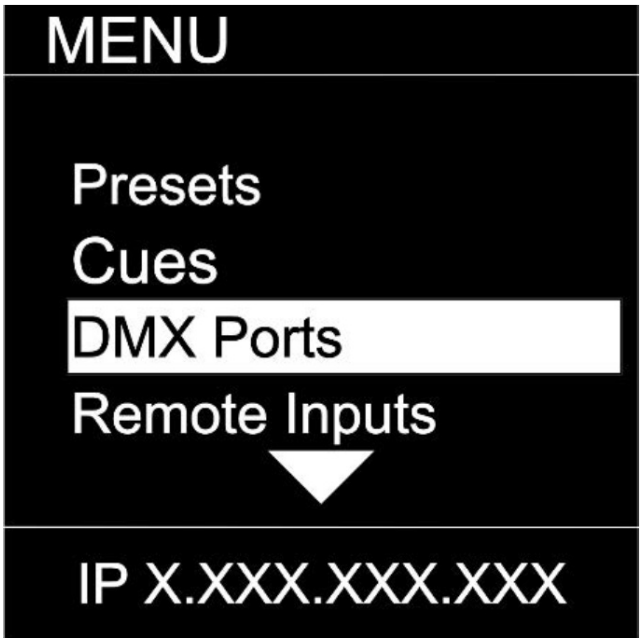
A cue is a full static snapshot of all DMX values of all ports. The device supports 99 cues with fade and hold times, plus a link option to loop multiple cues together. This allows small “mini” cuelists to be created. Cues are used for standalone operation, as a backup for signal loss or can be assigned 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.

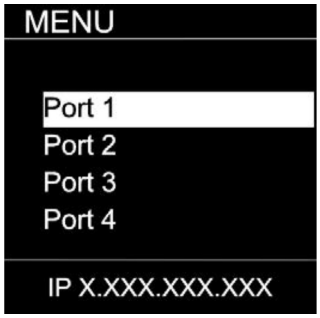


SUB MENU		OPTIONS / VALUES			DESCRIPTION
 	Run Cue	1 – 99	Go/Off		Select the desired cue
	Save Cue	1:Cue 1 99:Cue 99	Save Cue?	Yes/**No**	Save all values on all ports to a cue slot
	Rename Cue	1 – 99	12 Character Label		Edit name of cue
	Link Cues	1 – 99	Fade Time	0s – 99.59min	Set the fade time of the cue
			Hold Time	0s – 99.59min	Set the time to hold the cue until the next cue is started
			Link to Cue	Disable, 1 – 99	Set the next Cue
	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

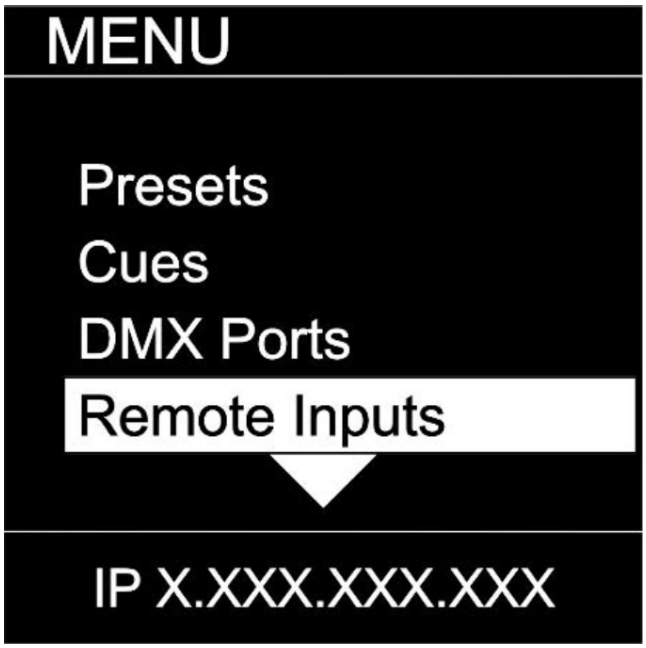
Select a port number to adjust its settings. Depending on the Mode, certain options are not relevant and hidden from the display or web interface.

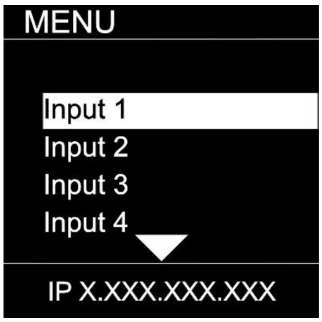
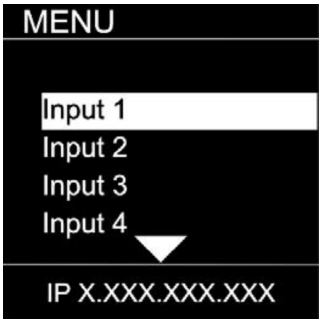


SUB MENU	OPTIONS / VALUES		DESCRIPTION
	Mode	Disable	The port is disabled.
		Input	The port receives DMX values and assigns them to the selected Universe.
		Output	The port sends out DMX Values on the selected Universe
		Send Value 0 – 255	Send a static DMX value
	Universe	1 – 32767	Select the EtherDMX 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
	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
	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
	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

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.


MENU
Presets
Cues
DMX Ports
Remote Inputs
IP X.XXX.XXX.XXX

SUB MENU	OPTIONS / VALUES		DESCRIPTION
	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
	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

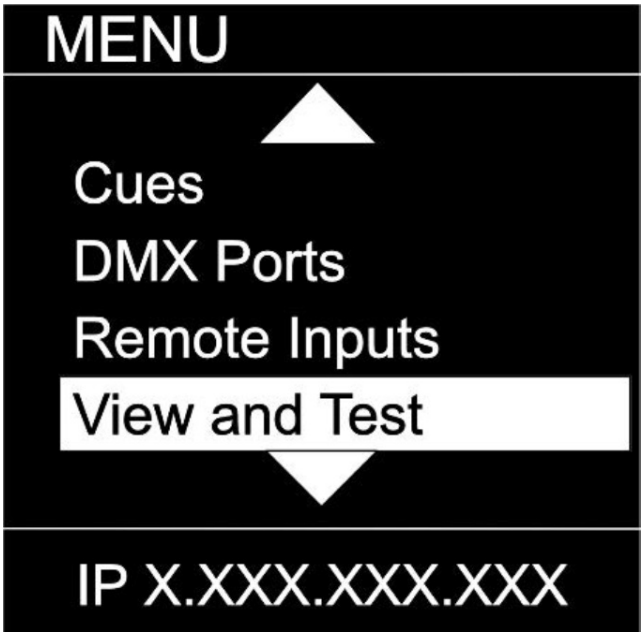
DMX Map for Remote Trigger

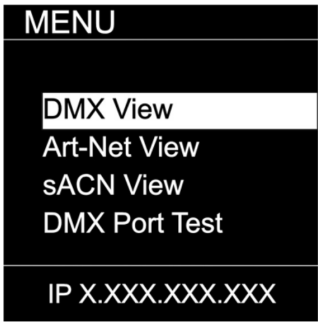
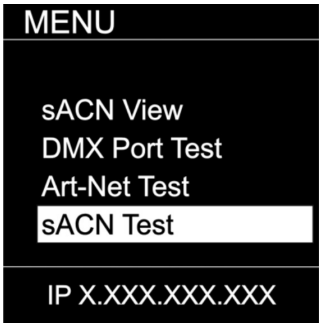
Inputs can be remotely activated over DMX, Art-Net, or sACN. The input is activated if the DMX value is at the value shown below.

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.



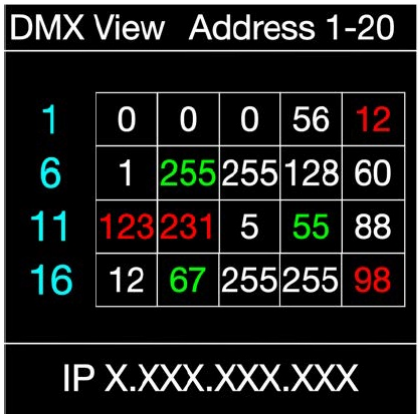
SUB MENU		OPTIONS / VALUE		Description
 	DMX View	View	Port 1 – 4	View the DMX values of a specific port
		Range	From: 1 – 512	default 1
			To: 1 – 512	default 512
		Start Monitor		Start Monitoring Values. Use Encoder to dial to the desired DMX address. Push Encoder to change display readout style (Grid, 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

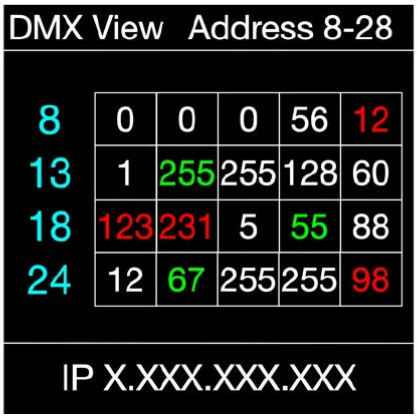
MENU: VIEW AND TEST (continued)

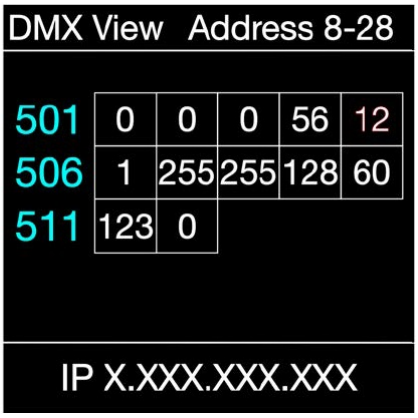
Monitor (DMX View, Art – Net View, sACN View)
The monitoring options are helpful to find faults, or simply watch incoming traffic. Three styles are available by clicking the encoder wheel. Dial the wheel to change the display to the desired address, and exit the monitor with the back button.

DMX Test Display – Grid
The color coding helps to quickly identify changing DMX values.

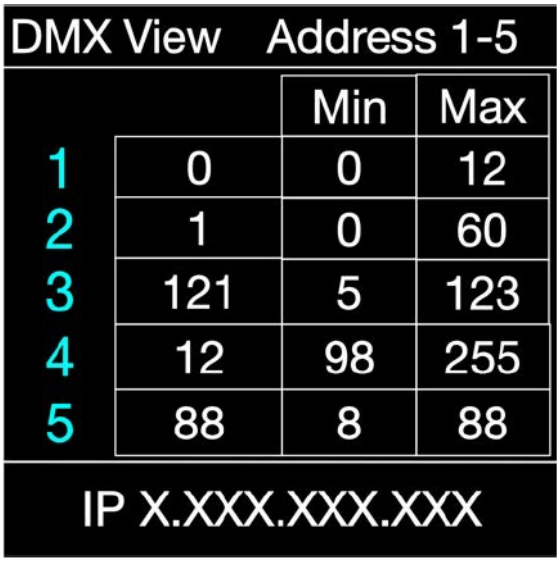
- **Cyan:** DMX Address
- **Green:** Value Decreased
- **Red:** Value Increased
- **White:** Value stable (after 10 seconds)



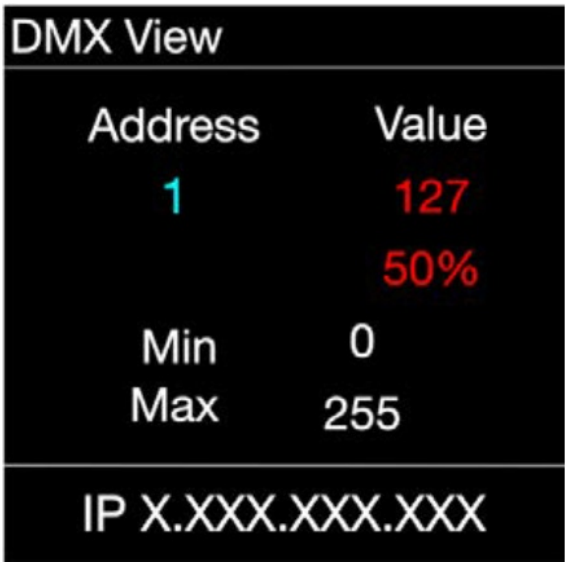




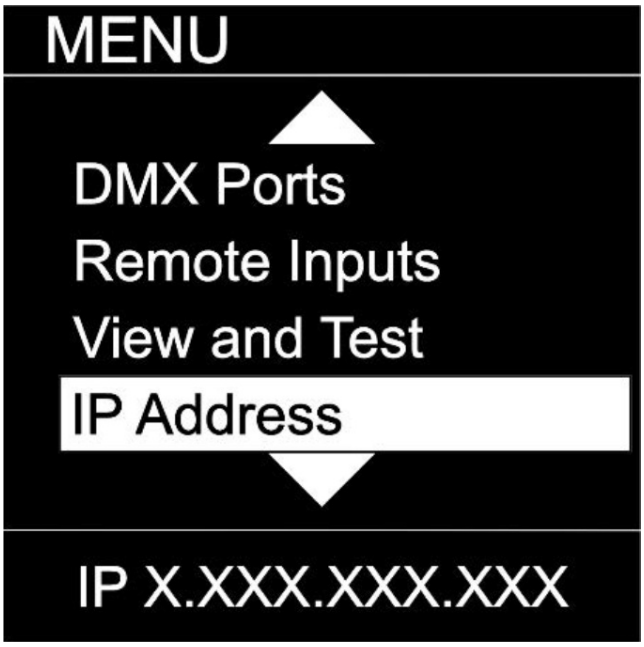
DMX Test Display – Line



DMX Test Display – Address

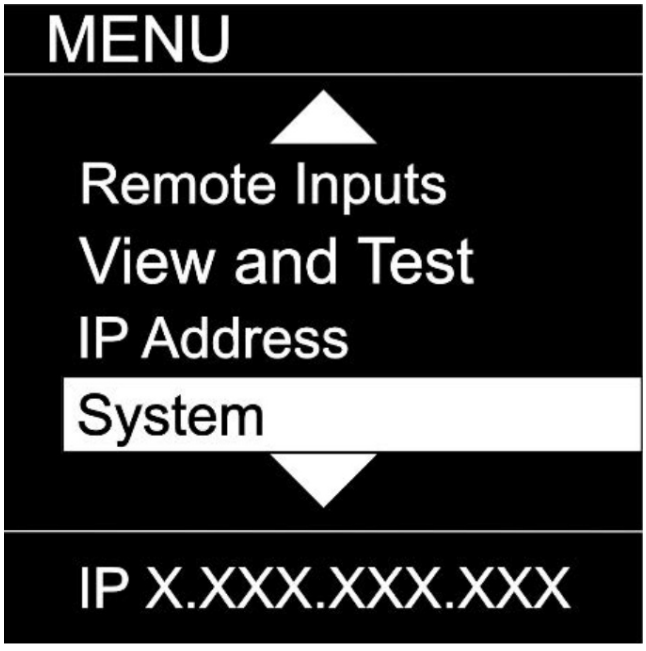


MENU: IP ADDRESS
Set the desired device IP address in this menu. Every Netron device is set to a unique 2.x.x.x address at the factory, and after every reset to this default. For Art-Net systems, it should never be necessary to adjust this IP. Any custom address and subnet can be assigned so the node 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
	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
	Device Name	12 Character Label		Set a device name
	Device ID	0 – 999		Set an optional device ID

Display	Display Timeout	Disable		Display stays on indefinitely
		10s, 30s, 1m, 5m, 10m		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	Disable	The device does not require a pin
			Timeout	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 C	Save Config	Config Saved		Save current configuration including all cue data

	onfig	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.

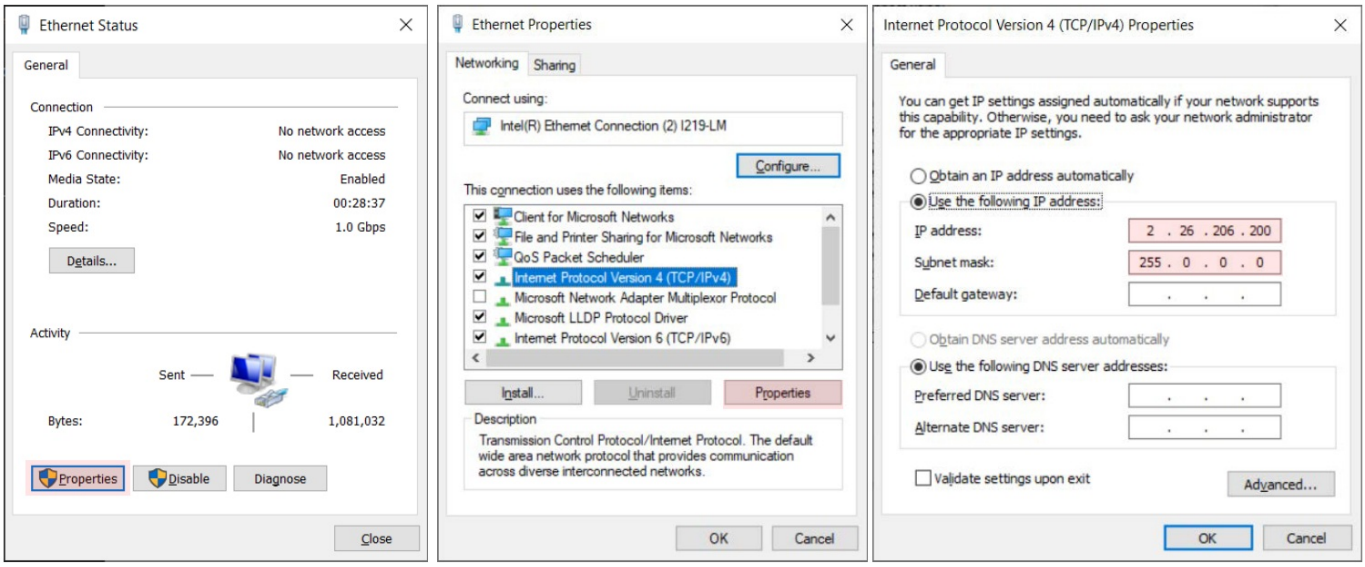
MENU: INFORMATION

This menu provides information about the device.

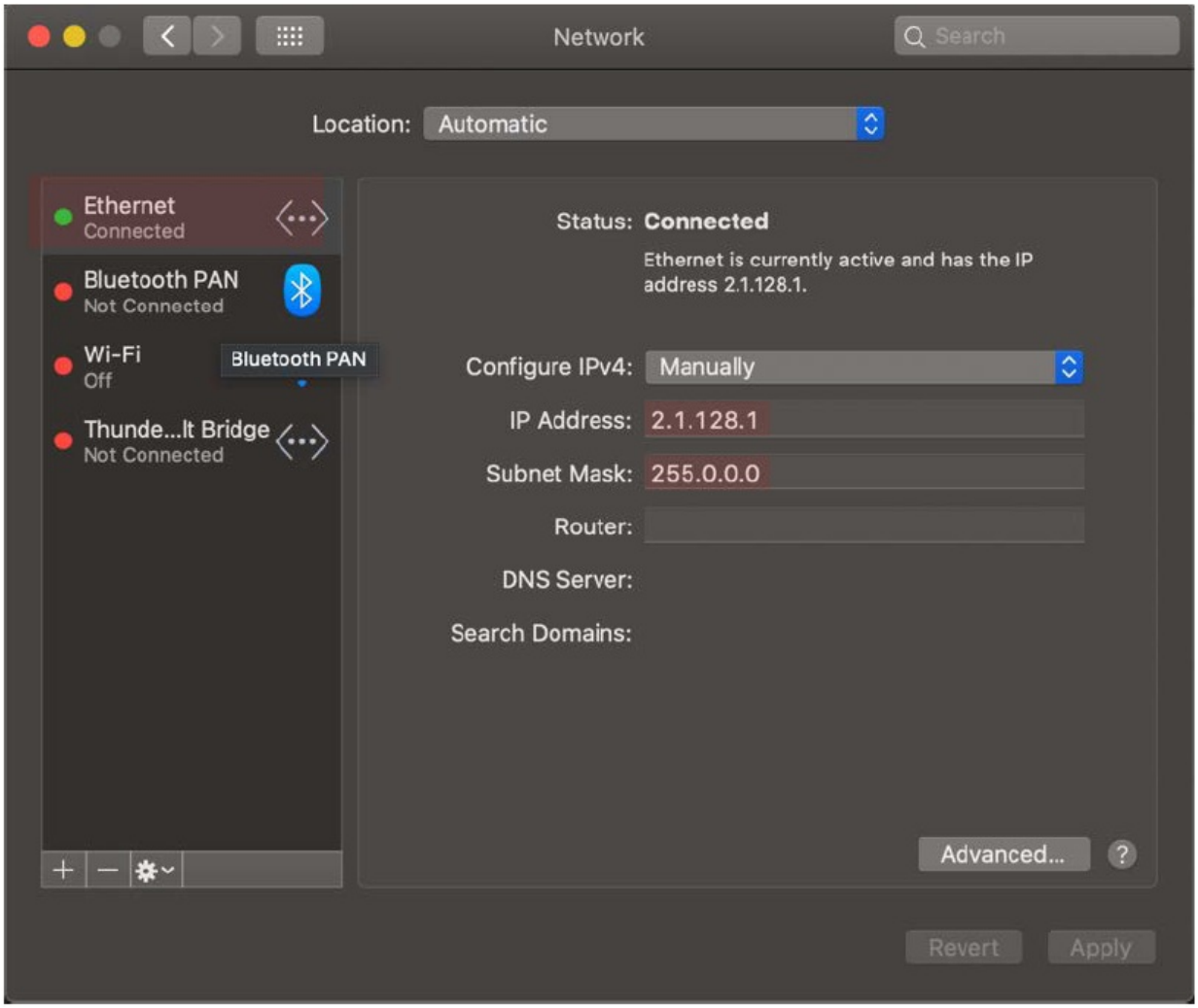
SUB MENU		OPTIONS / VALUES	DESCRIPTION
	Software Version	Boot SW V# Firmware: V#	Display the current software version
	Product On Time	Time: XXXXX(H)	Total time the device has been powered on.
	MAC Address	x:x:x:x:x:x	Displays MAC address
	RDM UID	UID1: xxxx	Displays product RDM UID.

WEB REMOTE CONFIGURATION

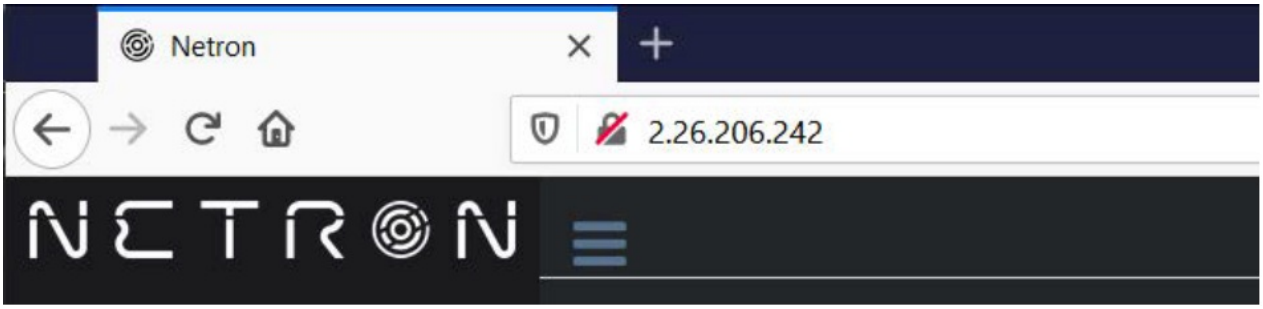
Ensure the device and a computer are do not share IP address, but are in the same IP address range and connected.



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



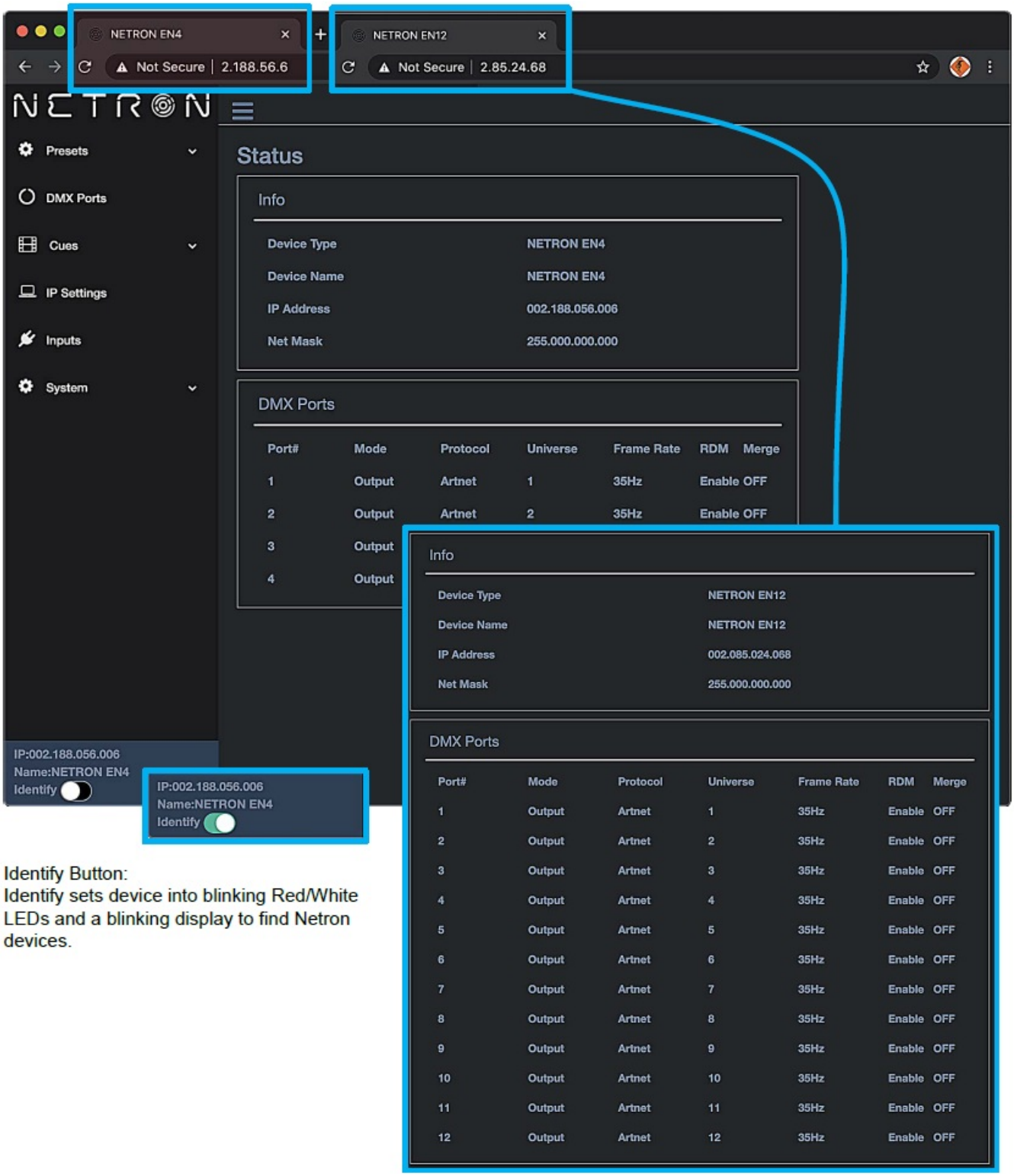
MAC OS Configuration Sample: Please note your MAC OS configuration results may vary.



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

WEB REMOTE MENU: HOMEPAGE

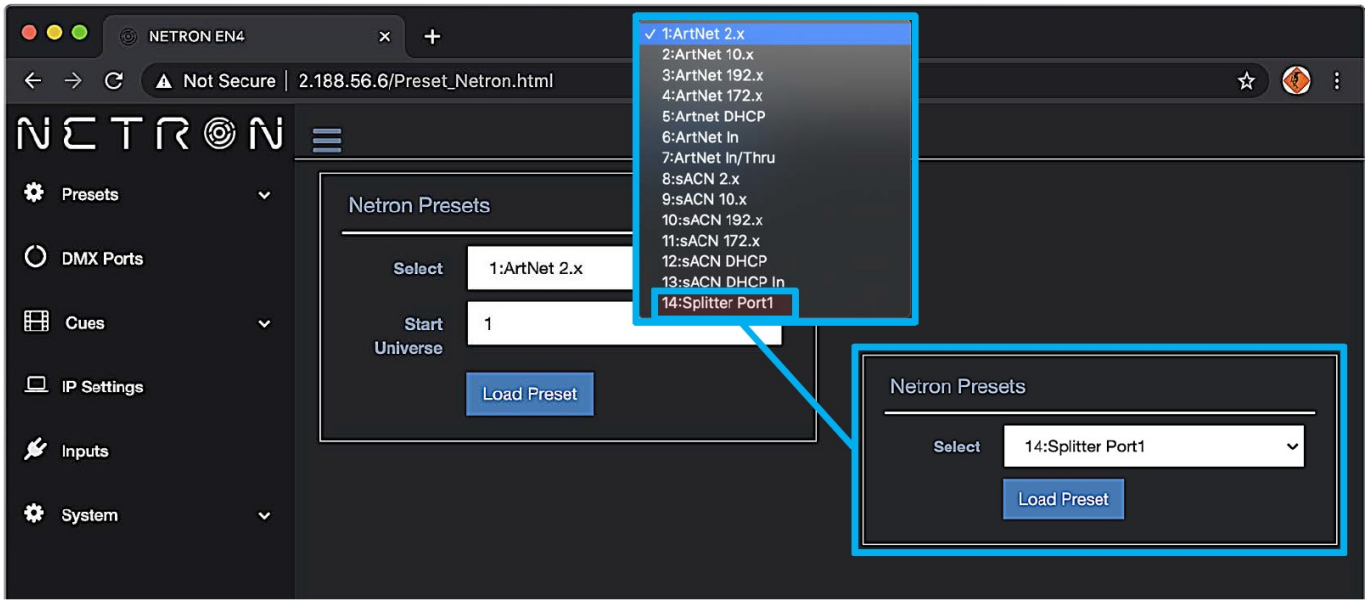
Please note that Netron devices are not compatible with Microsoft Internet Explorer. Also, the antivirus software AVAST is known to block important communication with NETRON, and must be disabled for the web interface and firmware updates to function.



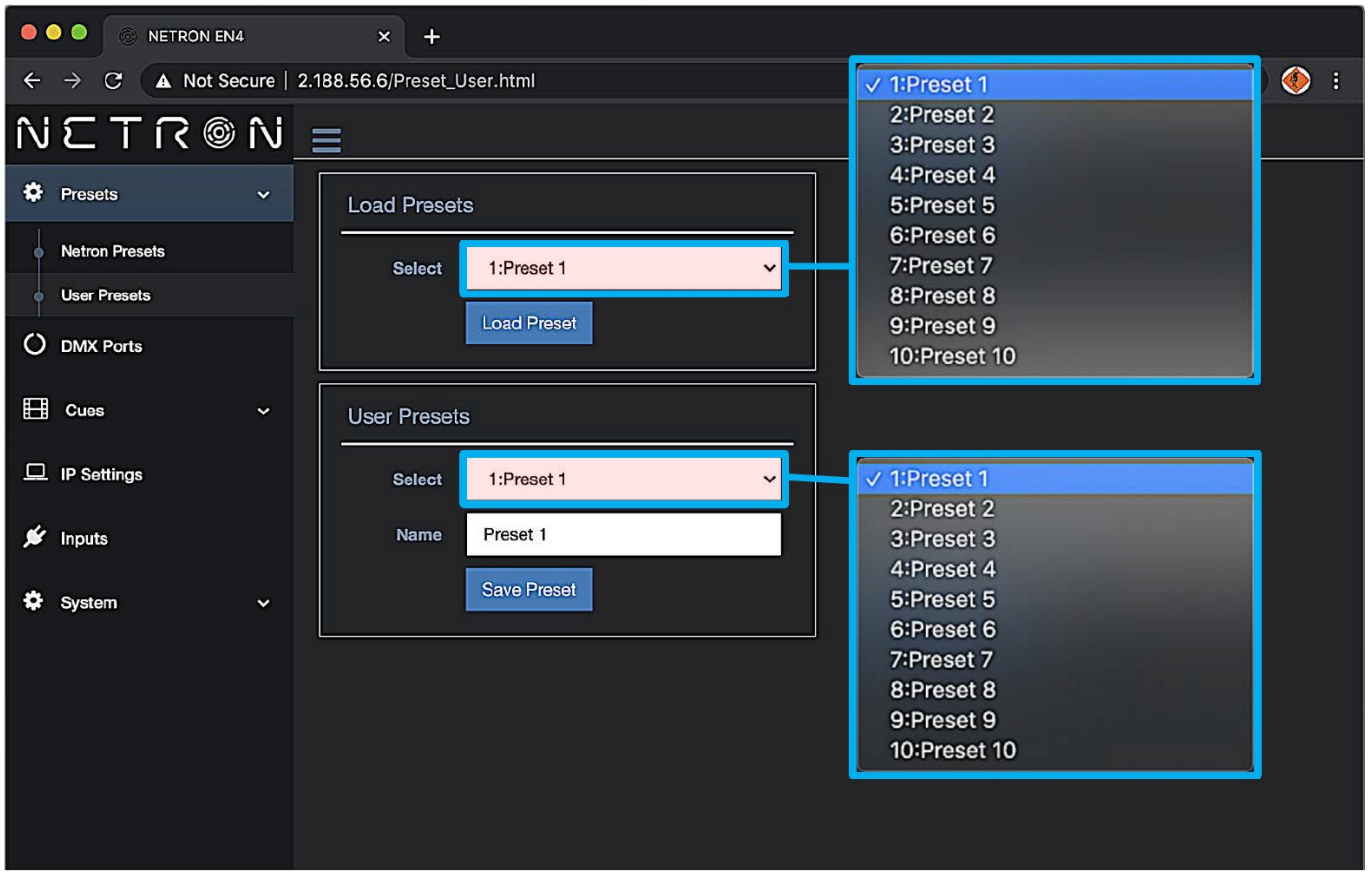
Identify Button:
Identify sets device into blinking Red/White LEDs and a blinking display to find Netron devices.

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

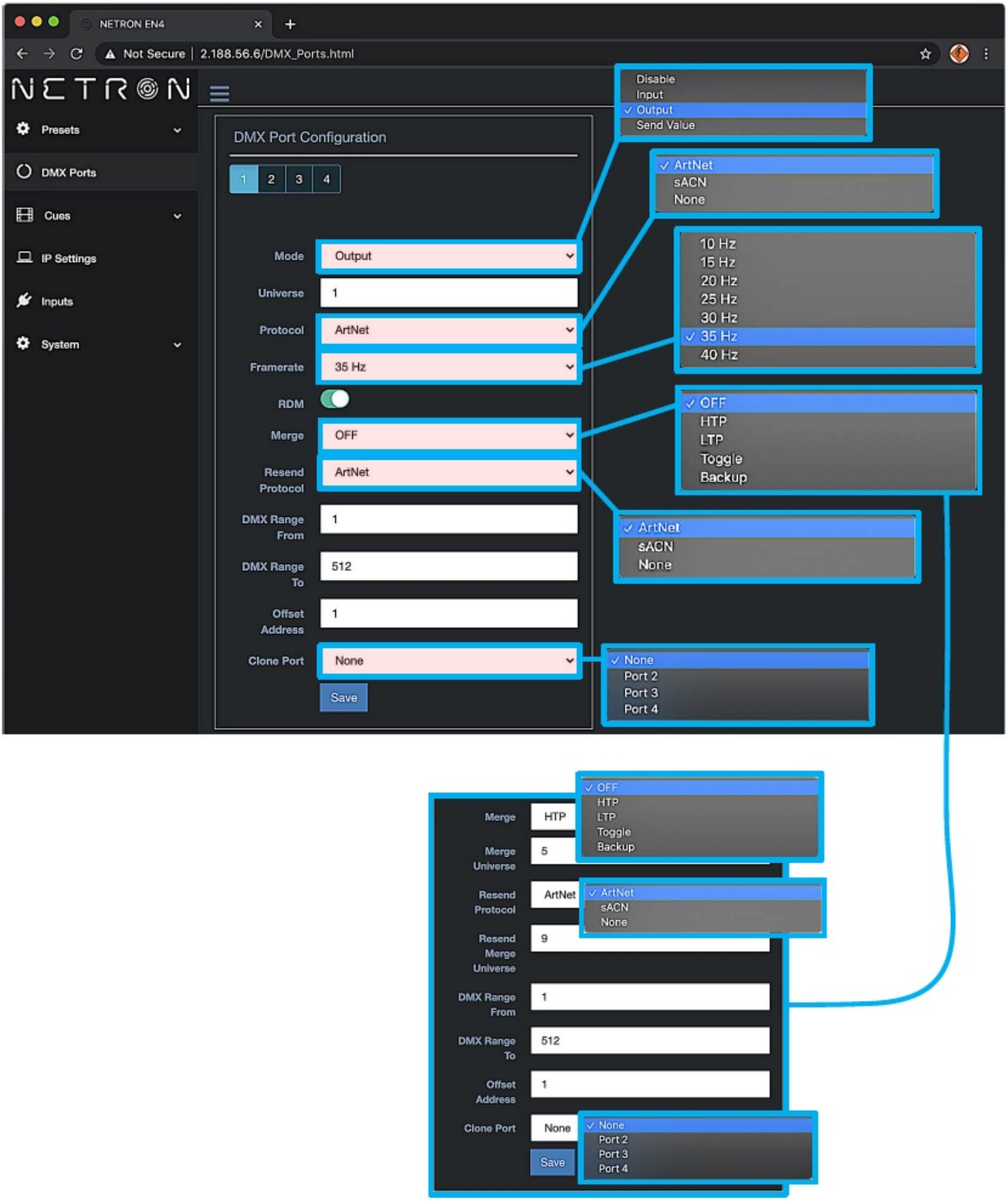
WEB REMOTE MENU: PRESETS – NETRON PRESETS



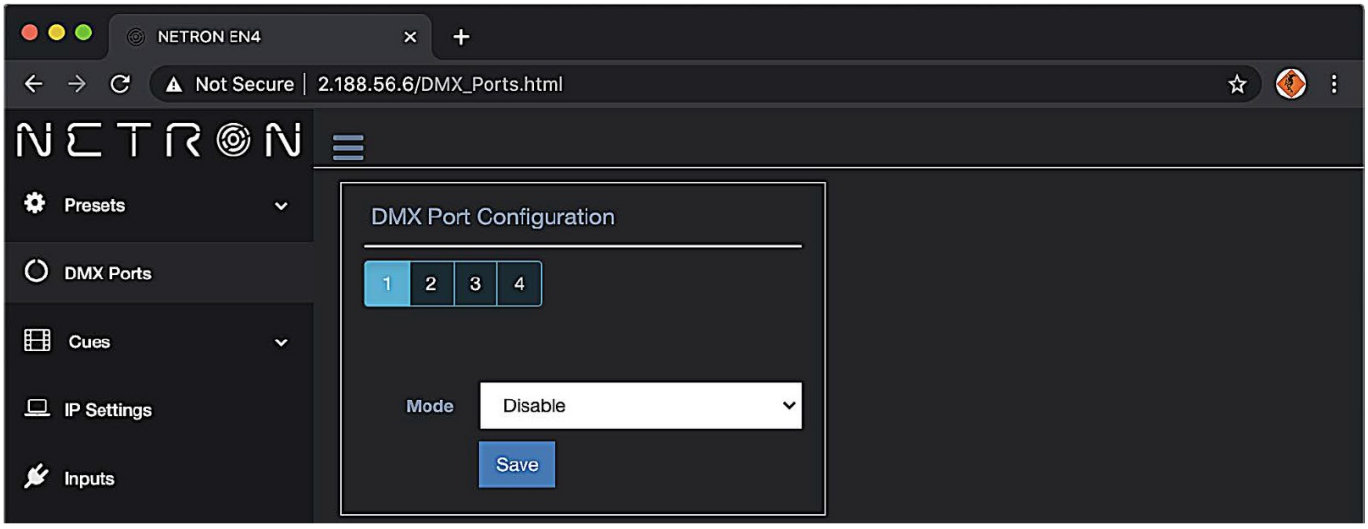
WEB REMOTE MENU: PRESETS – USER PRESETS



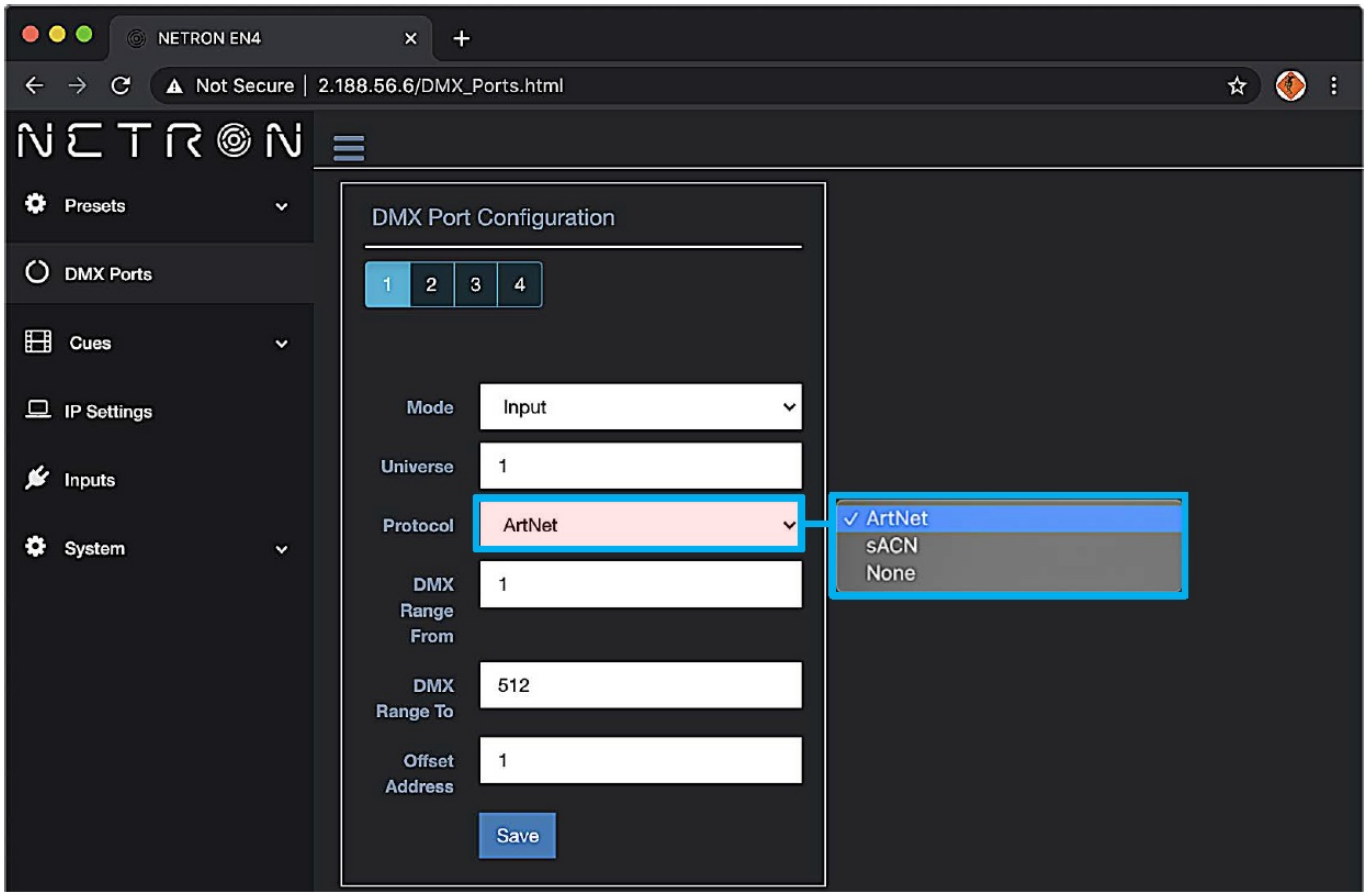
WEB REMOTE MENU: DMX PORTS – OUTPUT



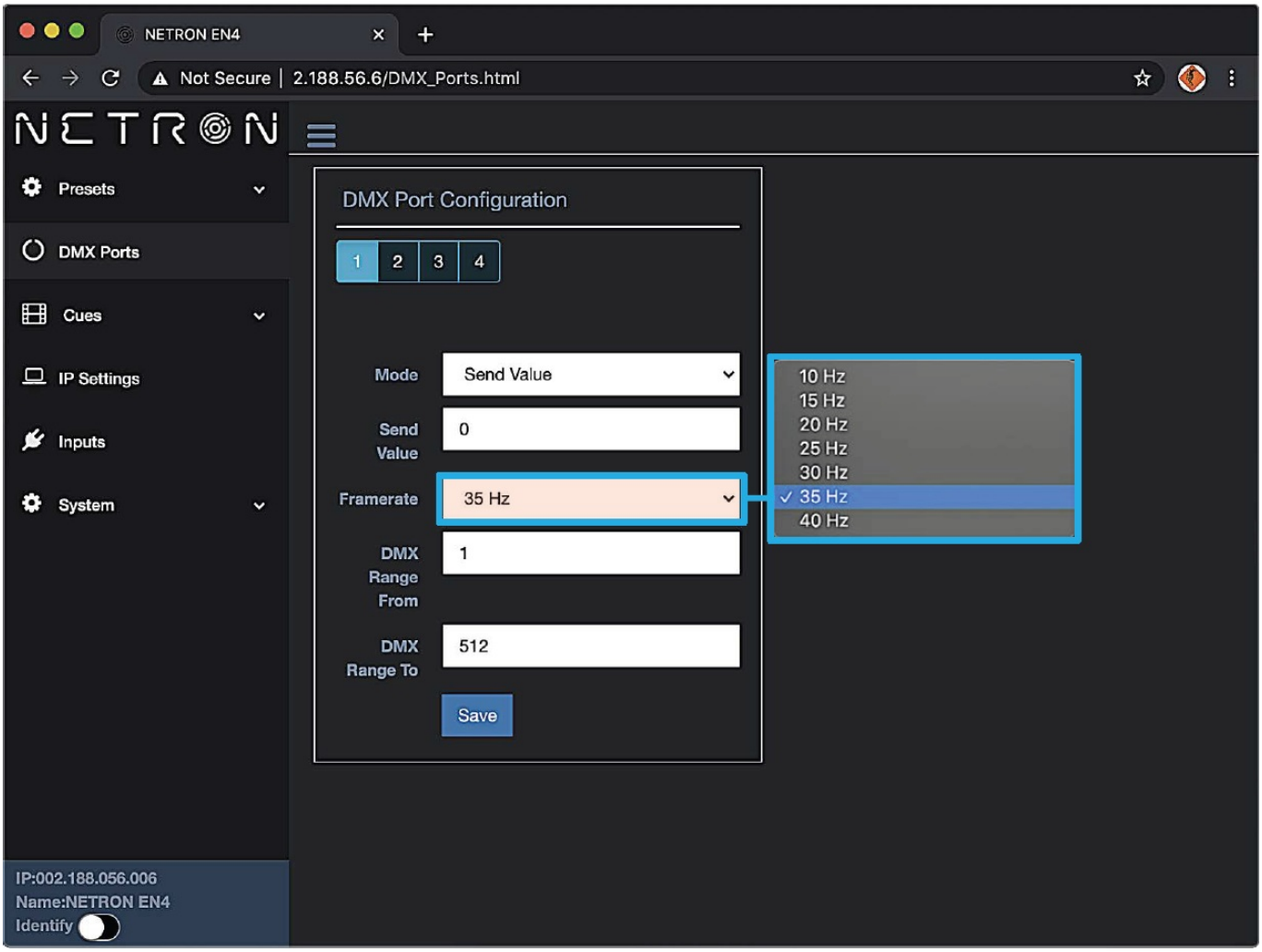
WEB REMOTE MENU: DMX PORTS – DISABLE



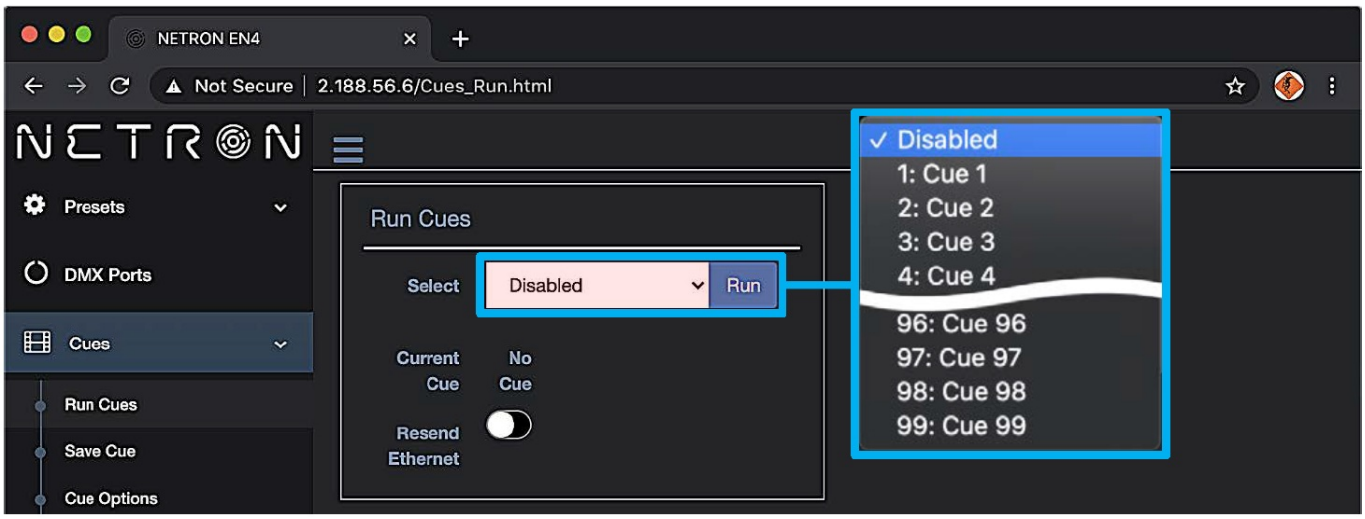
WEB REMOTE MENU: DMX PORTS – INPUT



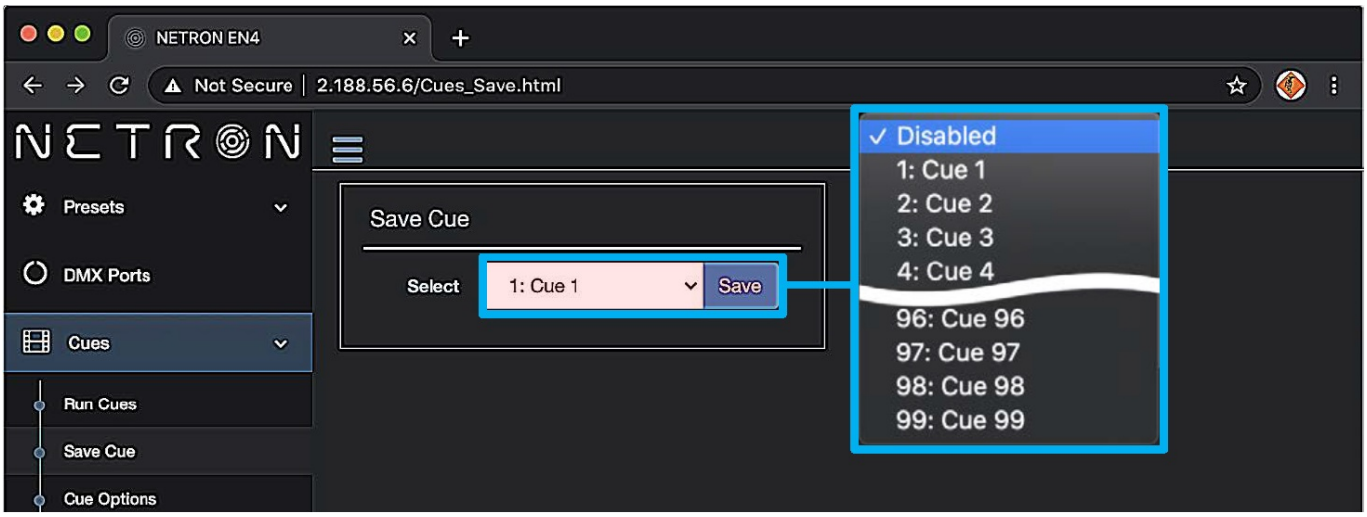
WEB REMOTE MENU: DMX PORTS – SEND VALUE



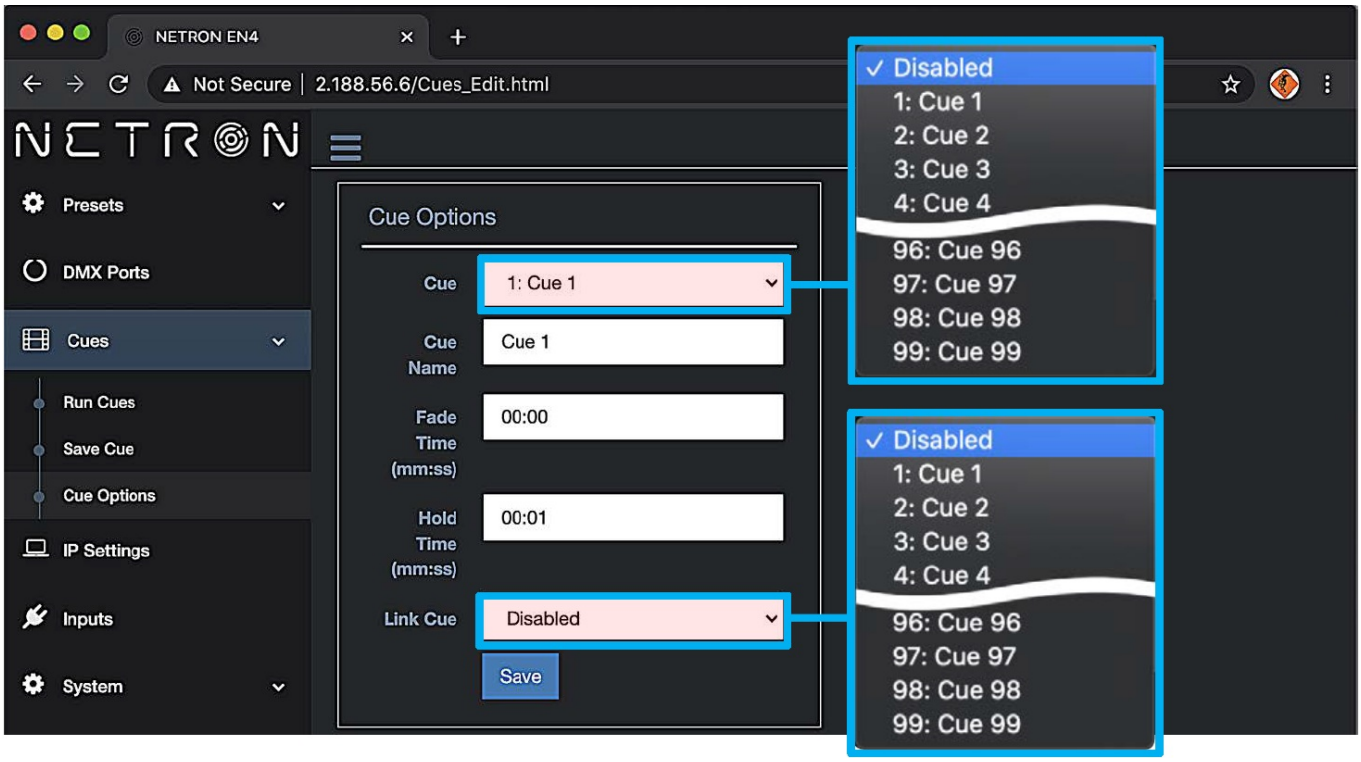
WEB REMOTE MENU: CUES – RUN CUES



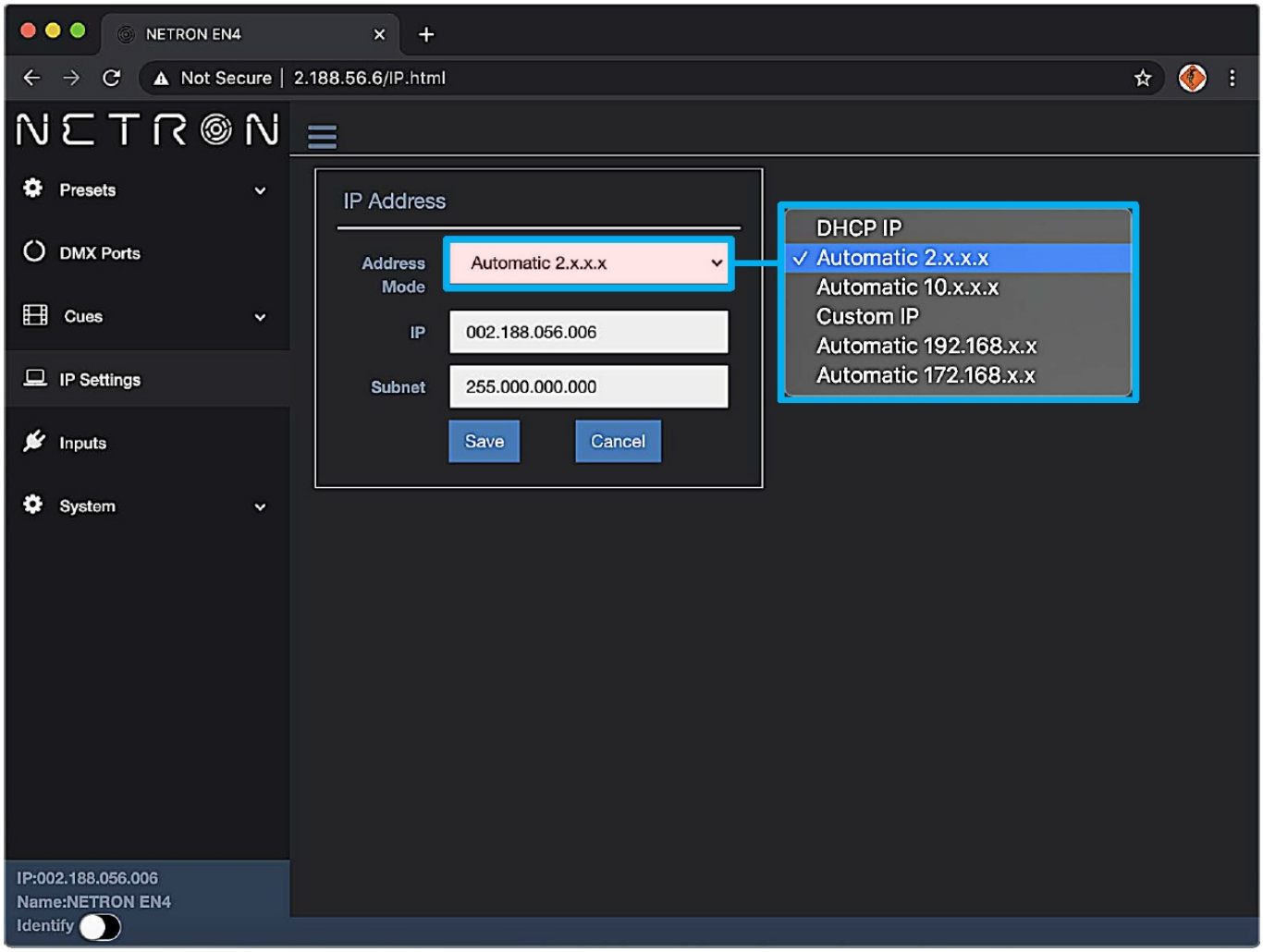
WEB REMOTE MENU: CUES – SAVE CUES



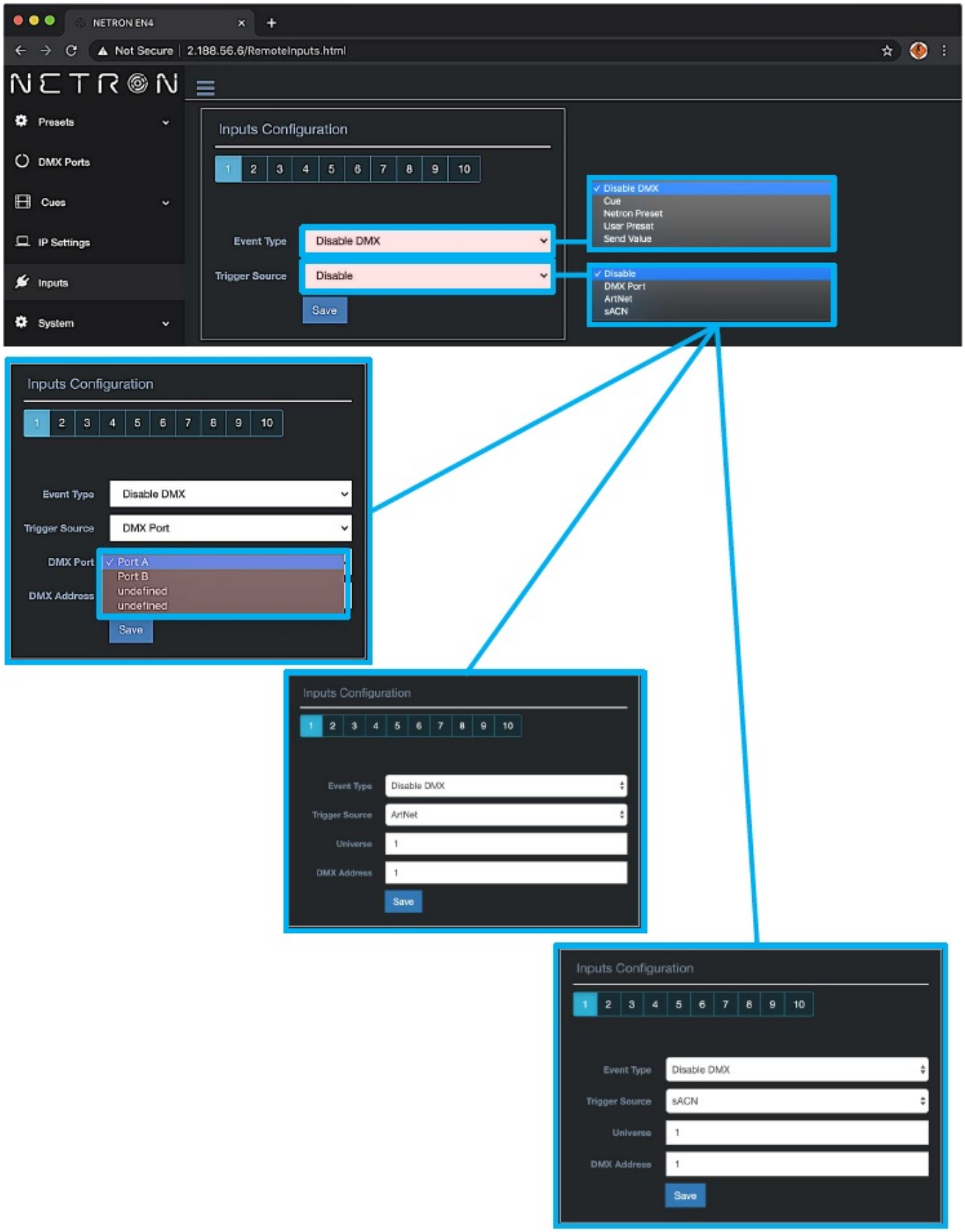
WEB REMOTE MENU: CUES – CUE OPTIONS



WEB REMOTE MENU: IP SETTINGS

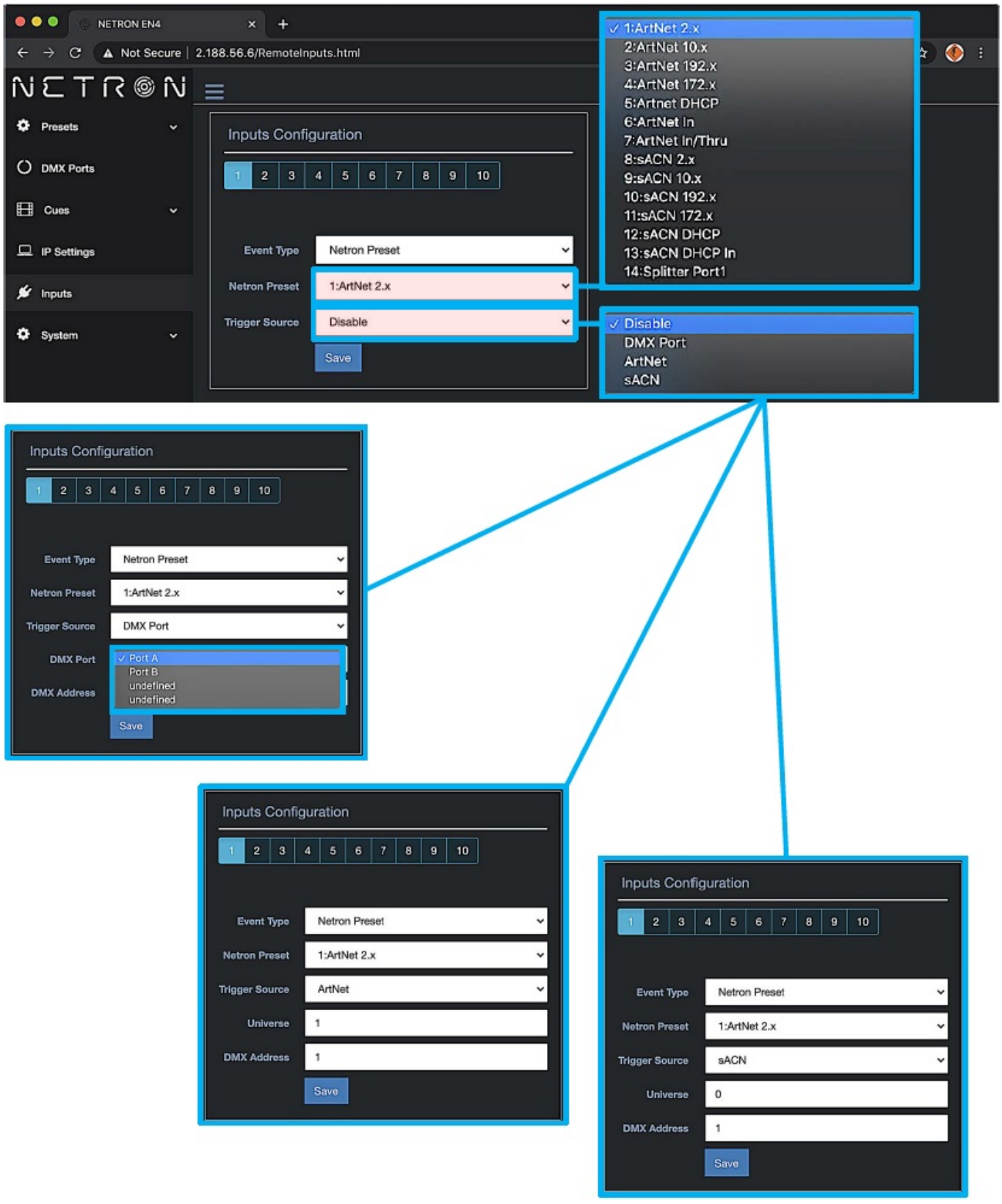


WEB REMOTE MENU: INPUTS – DISABLE DMX

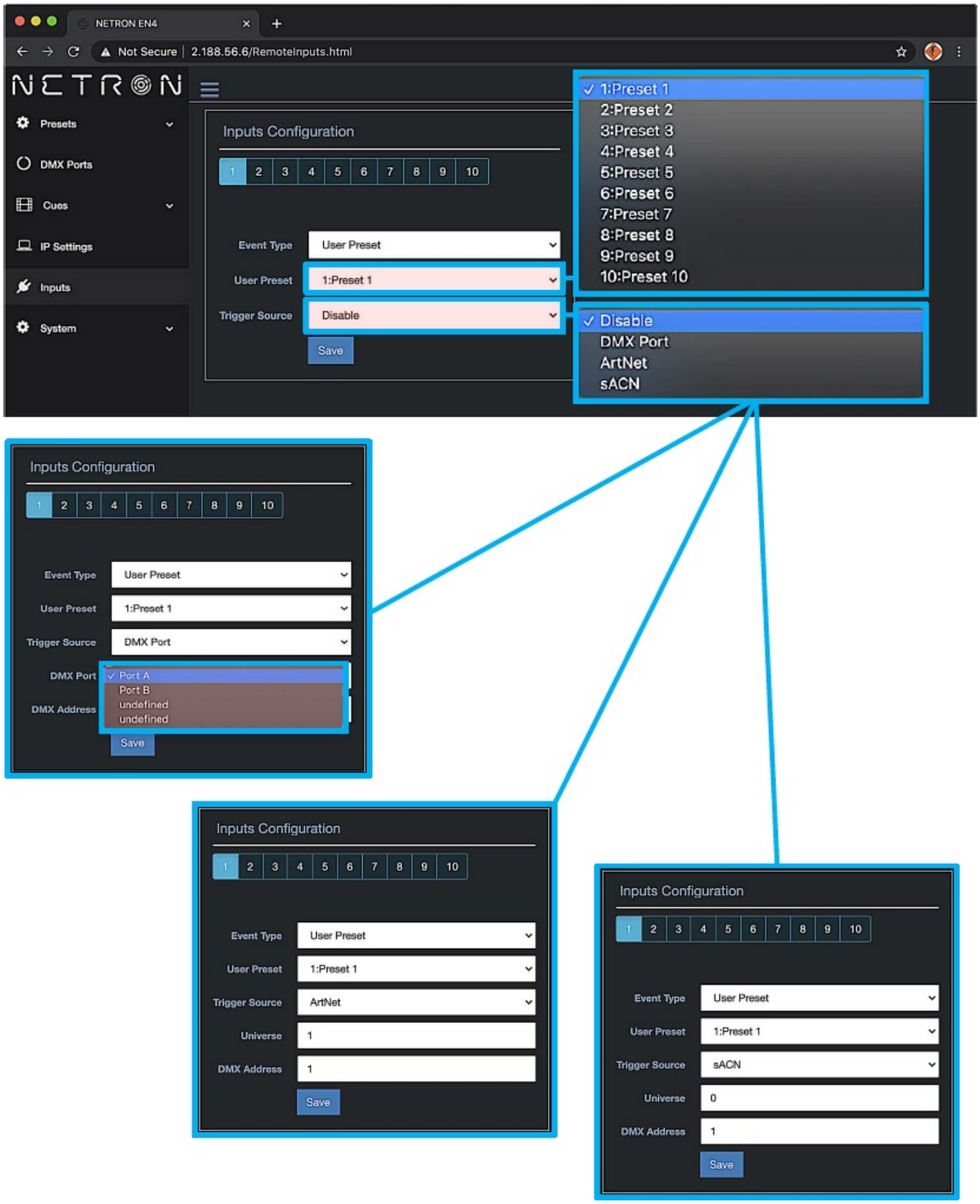


WEB REMOTE MENU: INPUTS – CUE

WEB REMOTE MENU: INPUTS – NETRON PRESETS



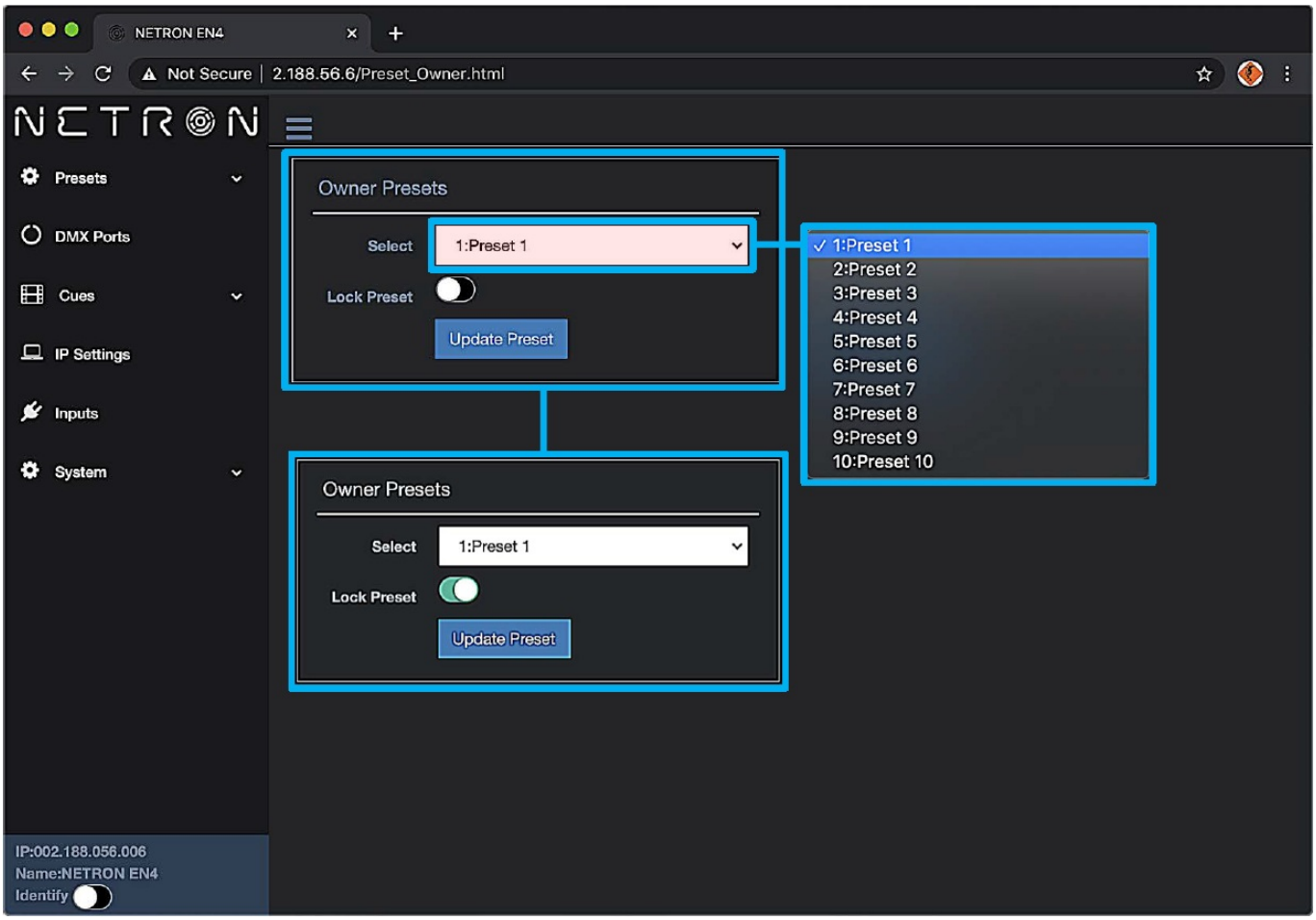
WEB REMOTE MENU: INPUTS – USER PRESETS



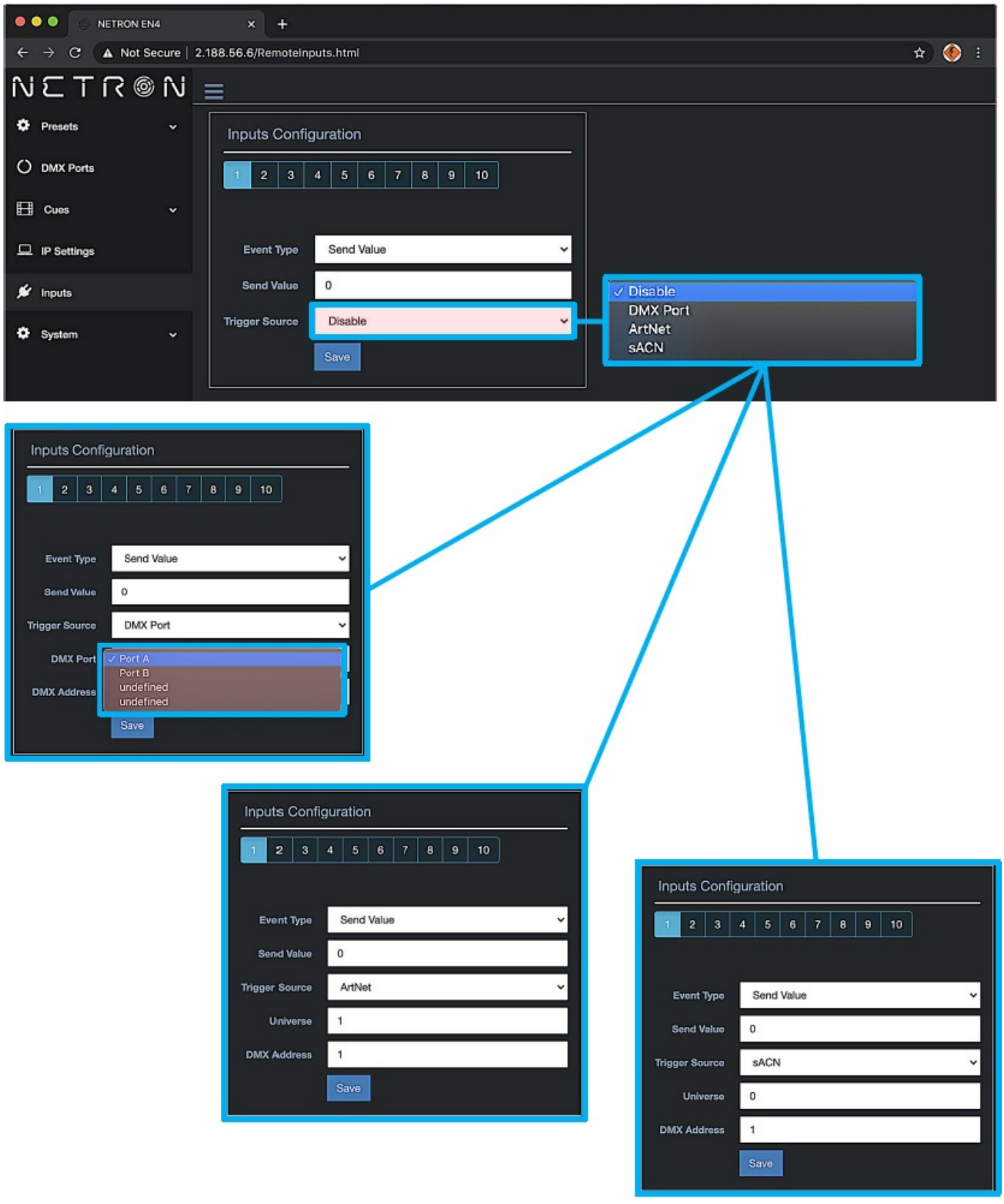
WEB REMOTE MENU: INPUTS – OWNER PRESET

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.

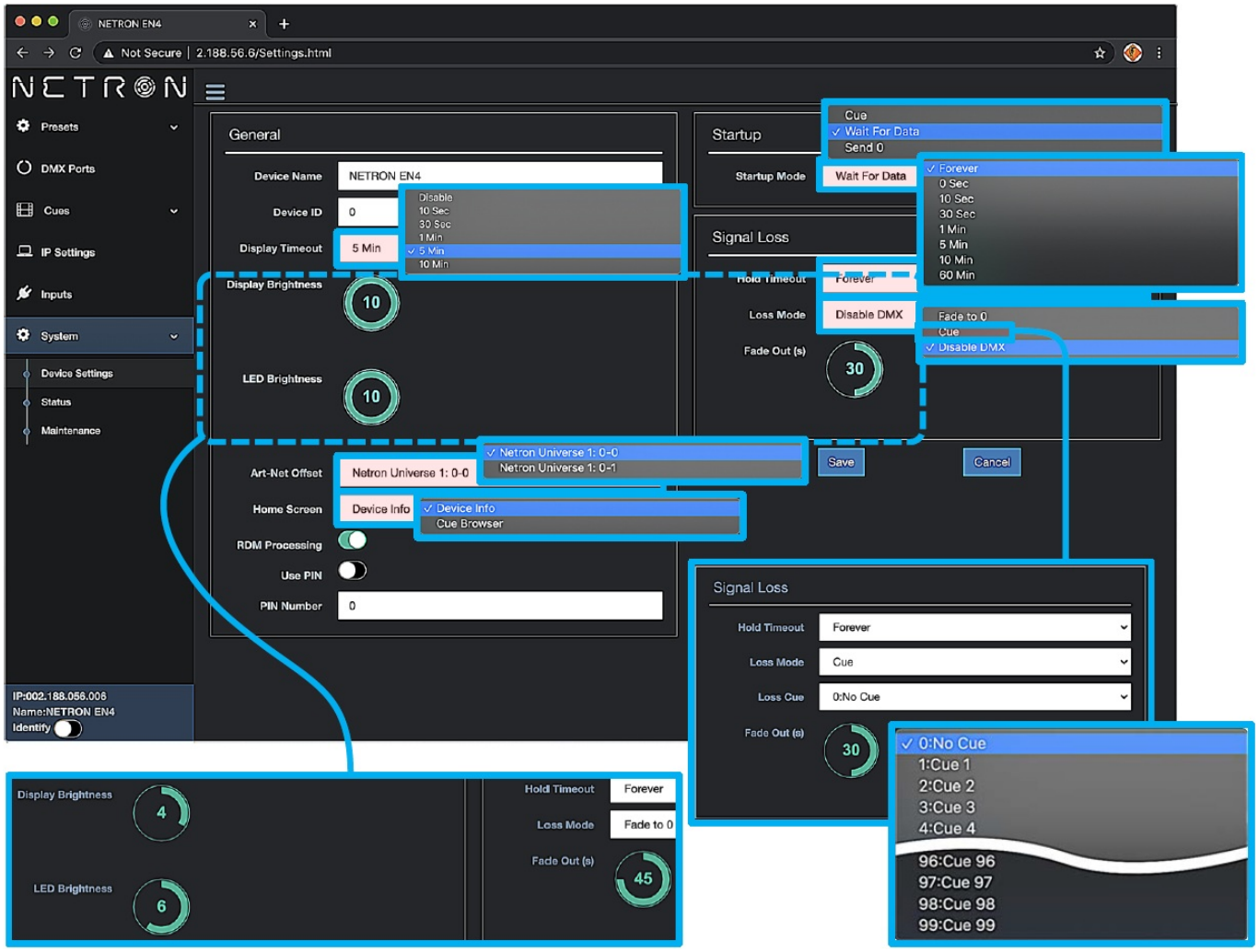
To access this function, use the specific URL IP_Address/Preset_Owner.htm, which is not part of the main interface. Select the desired preset, activate the lock, and Update to confirm. Owner presets are indicated with a lock symbol in the display.



WEB REMOTE MENU: INPUTS – SEND VALUE

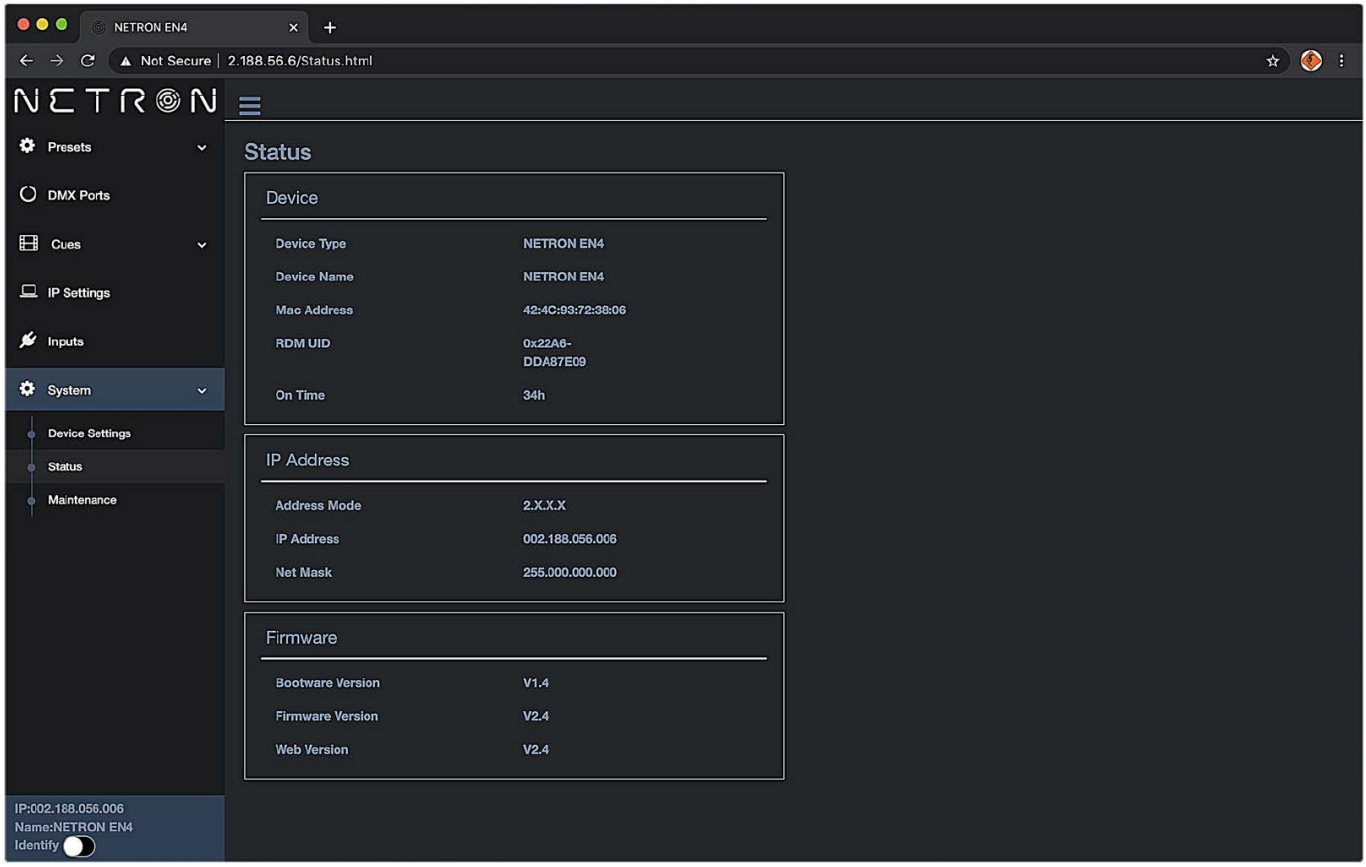


WEB REMOTE MENU: SYSTEM – DEVICE SETTINGS

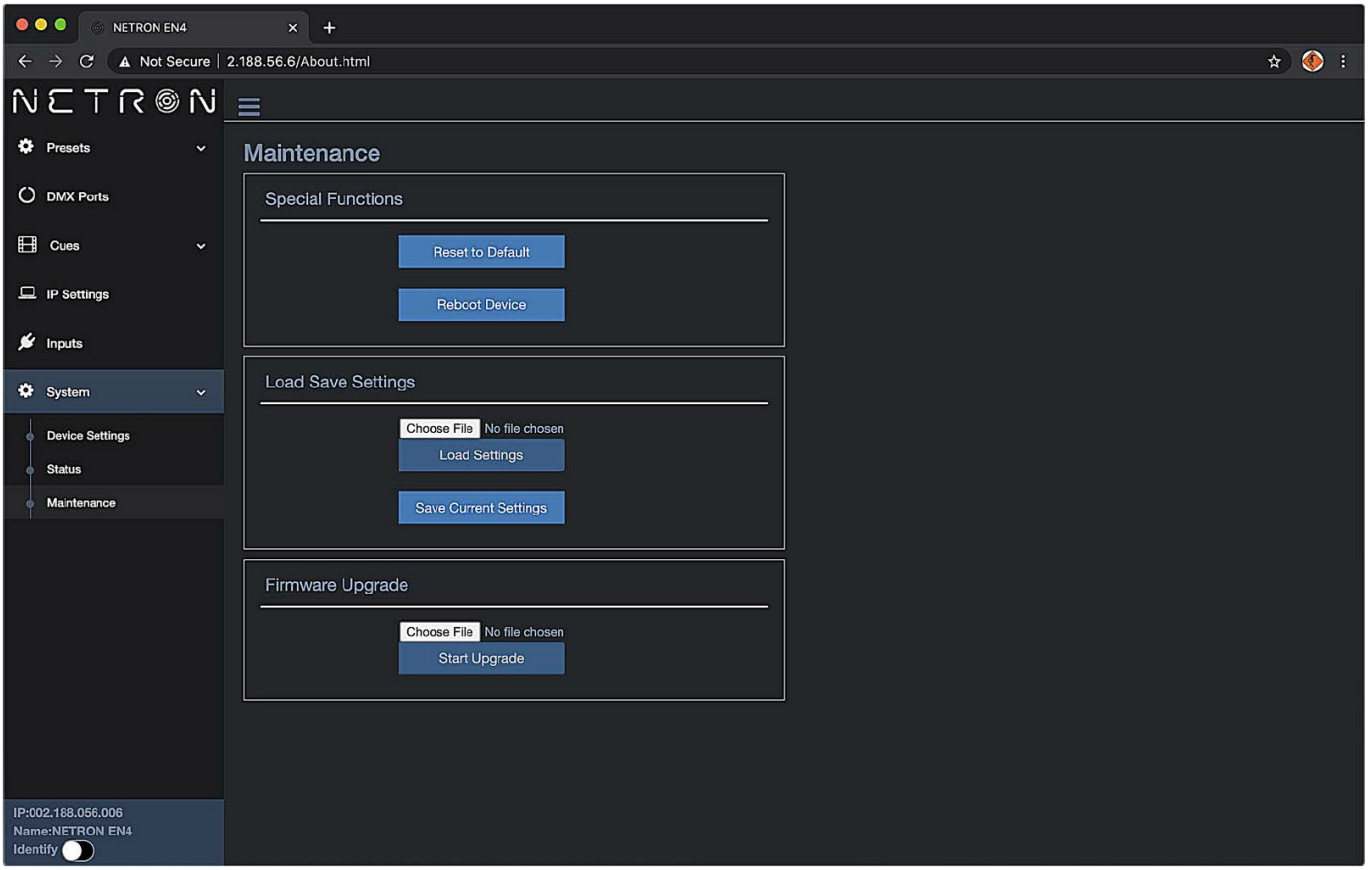


Use cursor to click and drag around to desired time.

WEB REMOTE MENU: SYSTEM – STATUS



WEB REMOTE MENU: SYSTEM – MAINTENANCE

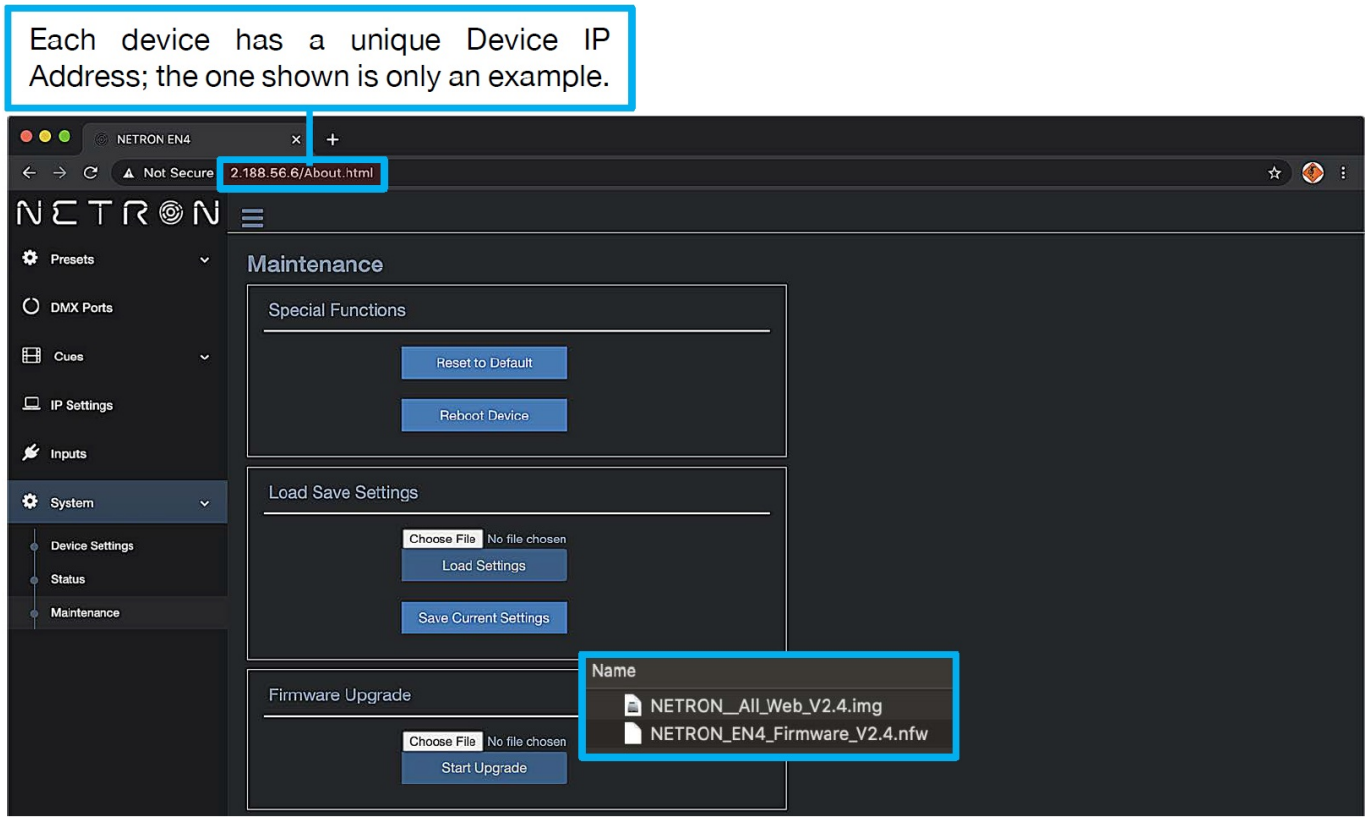


FIRMWARE UPDATES

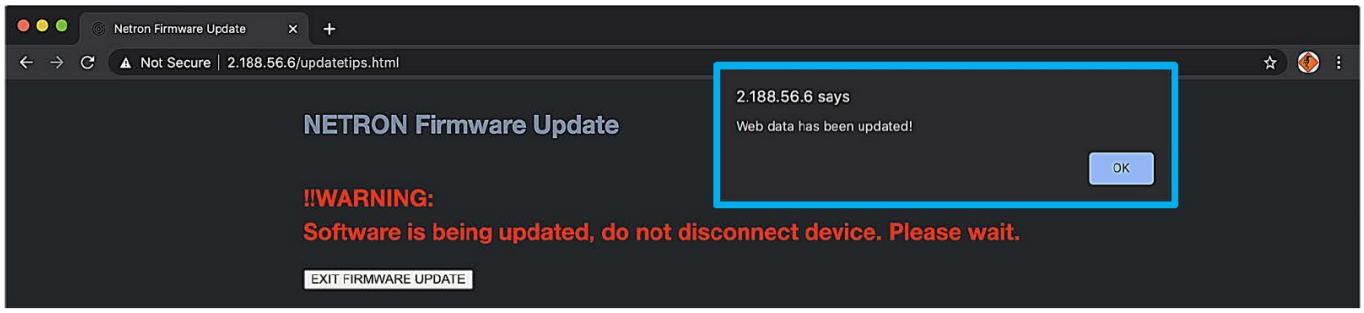
Updates for improved performance or to add additional features may be available on www.obsidiancontrol.com.
To install a firmware upgrade, connect to the device through a web browser and open the System – Maintenance menu.
Always back up the configuration first. Export to a file using the web interface.

- 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.

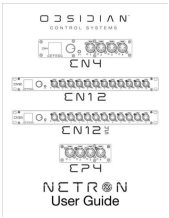
Confirm the upgrade is installed from the Information/Software Version Display.
If the system menu is corrupt and or cannot be opened, then the Netron device can be updated from an IP address e.g. 2.26.206.242/update.html.
Each device has a unique Device IP Address; the one shown is only an example.



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



Documents / Resources

	**OBSIDIAN CONTROL SYSTEMS Netron EP4 Cool 4 Port Node** [pdf] User Guide Netron EP4 Cool 4 Port Node, Netron EP4, Cool 4 Port Node, Port Node

References

- Obsidian Control Systems
- Obsidian Control Systems
- User Manual