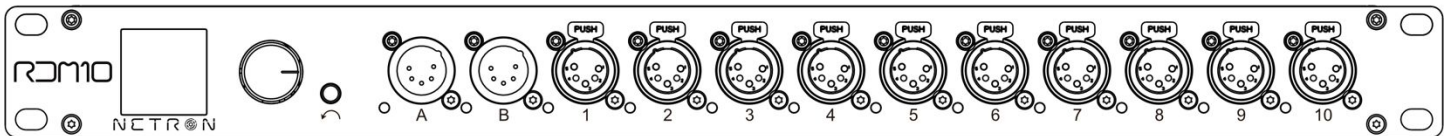


OBSIDIAN™

CONTROL SYSTEMS



RCM10

NETRON

User Guide

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Art-Net

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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
01/29/20	1.0	Initial Release
10/12/20	1.5	Updated Firmware to V2.4

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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 forums.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

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OVERVIEW

KEY FEATURES

The NETRON RDM10 is a first of its kind hybrid splitter. Dual DMX input, 10 port RDM Splitter, Merger and EthernetDMX Gateway are unified into the RDM10, with an advanced feature set to cover a wide variety of applications. 99 internal cues, factory and user presets, plus external contact closures provide a unique combination of multiple devices to solve many required tasks in one powerful unit.

- 2x Input, 10x Output ports
- RDM Splitter, HTP / LTP DMX Merge
- 2 Universe sACN and Artnet to DMX conversion
- Premade NETRON presets for instant setup
- 10 User Presets
- 99 Cues with Fade Time, Hold Time and Cue linking
- External contact closures to trigger cues and preset recall
- DMX Monitor
- DMX and Ethernet Test Generator

ETHERNET CONNECTION

The RDM10 provides two Gigabit RJ45 connections for data input. One port supports POE 802.3af power input and is marked with POE on the back of the device. Both ports are connected to an internal highspeed network switch, allowing daisy chaining of multiple devices. To avoid synchronization delays it is not recommended to chain more than 10 devices together. The ports are auto-crossing, eliminating the need for RJ45 crossover cables.

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

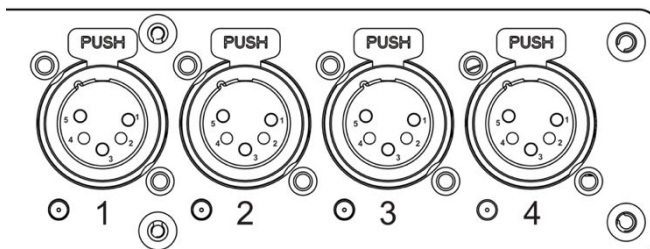
DMX CONNECTIONS

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.

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



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.

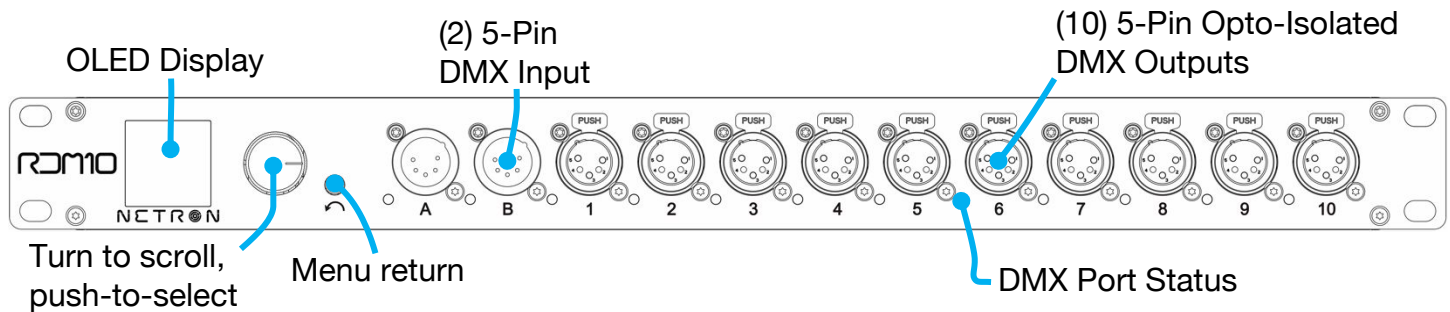
To connect multiple devices to an EtherDMX Source, an Ethernet switch is required to split the data into the desired number of streams.

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: FRONT & REAR PANELS

FRONT CONNECTIONS

- (10) 5pin DMX/RDM optically isolated ports
- Full color OLED display
- Encoder with Push-to-Select / Exit Button



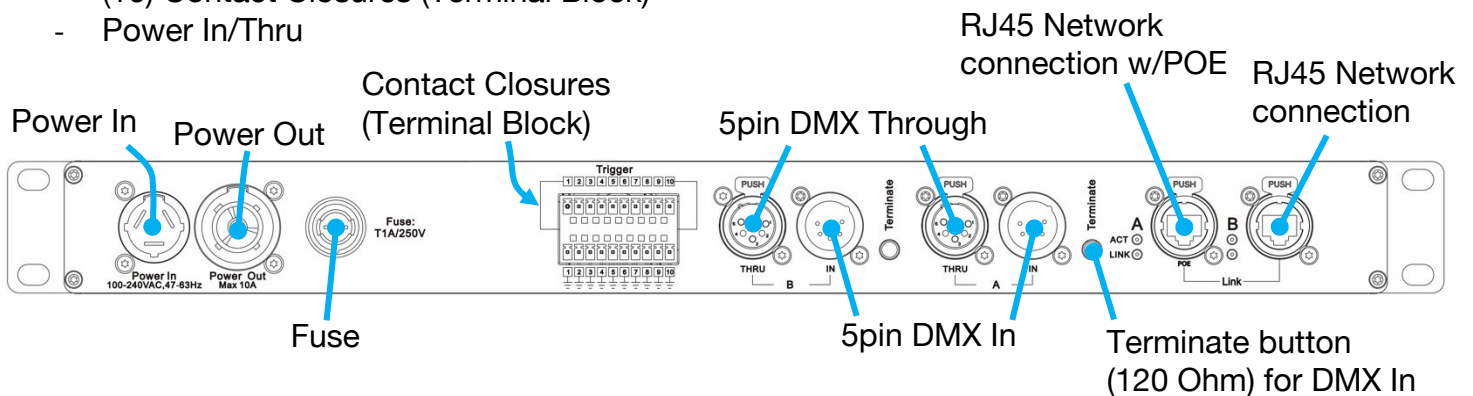
DMX PORTS STATUS INDICATOR LEDs

Ports	LED Color	Solid	Slow Blink	Flashing/Strobing
DMX	Red	Error		
DMX	White			active RDM communication
DMX	Blue	Assigned to A	No DMX Signal	
DMX	Amber	Assigned to B	No DMX Signal	
DMX	Cyan	Assigned to Merger	No DMX Signal	
DMX	Purple	Set to Send Static DMX Value		

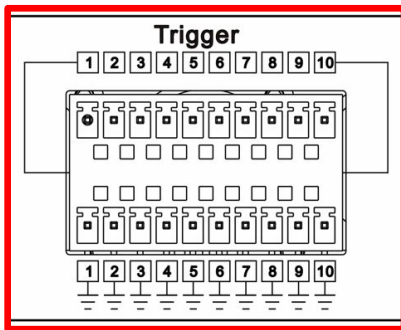
The LEDs are dimmable from the System – Display menu, and can be turned off completely if desired.

REAR CONNECTIONS

- (2) 5pin DMX Input
- (2) 5pin DMX Through
- (2) RJ45 network connections (1x POE)
- (10) Contact Closures (Terminal Block)
- Power In/Thru



CONNECTIONS: CONTACT CLOSURES



10 Inputs are provided that can be mapped to various functions of the RDM10. The inputs are simple dry contact closures and are provided in ten pairs of trigger and ground connections.

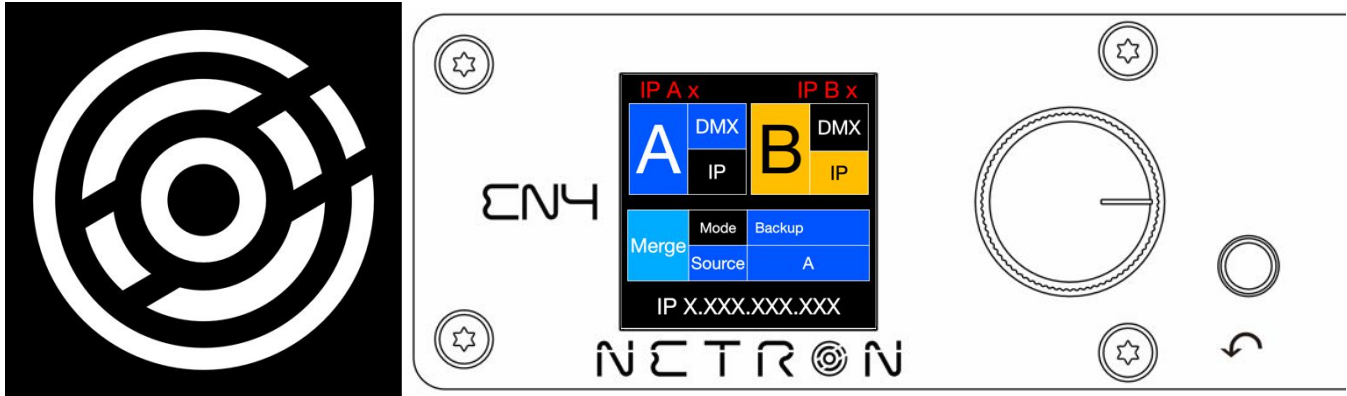


DO NOT APPLY VOLTAGE TO THE CONTACT! DOING SO WILL DAMAGE THE INPUT AND IS NOT COVERED UNDER WARRANTY.

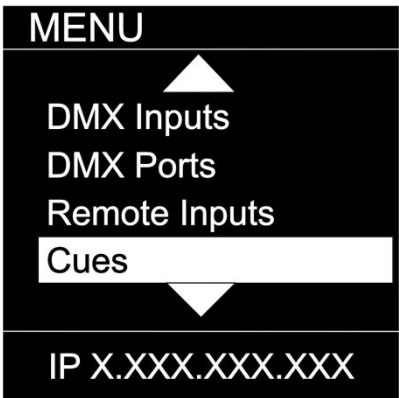
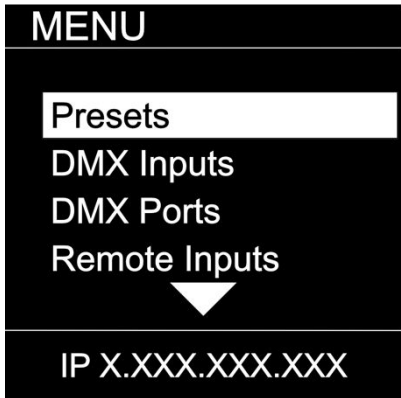
The RDM10 is shipped with two terminal blocks that connect to the back ports. Lost or missing blocks can be purchased from authorized Obsidian Dealers.

MENU: NAVIGATION

The Netron RDM10 uses 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.

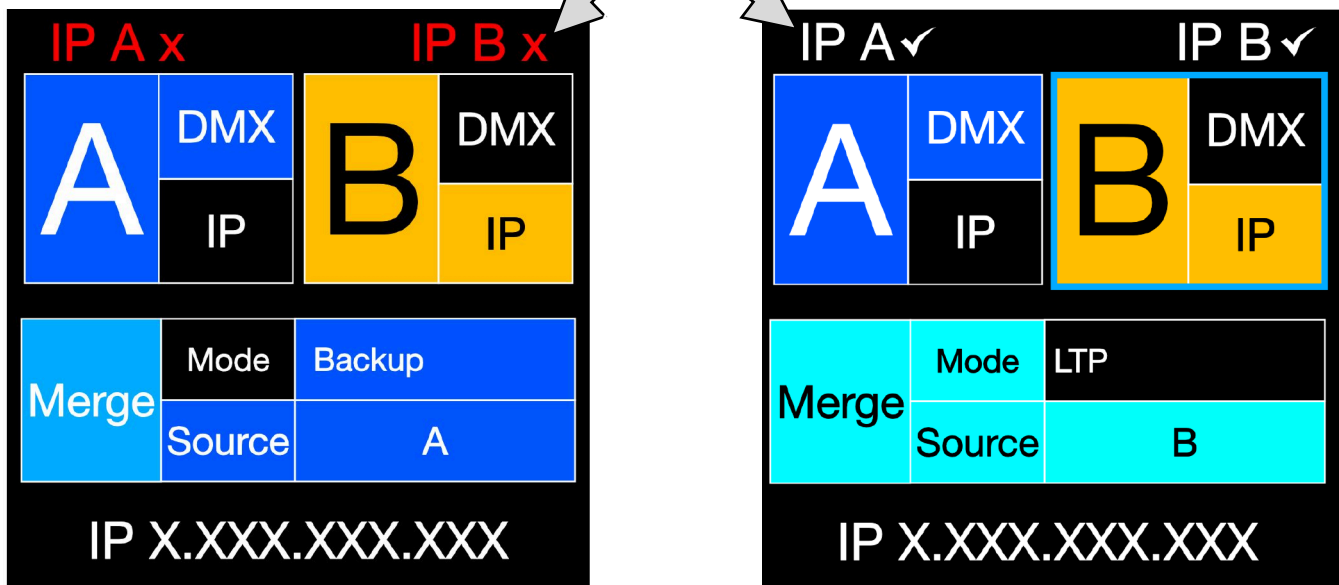
MENU: HOME SCREEN

This is the default screen, which provides quick status feedback and indicates IP and DMX traffic. Turn the encoder wheel to the right to show **Page 2** (clockwise), or turn it left to show **Page 1** (counterclockwise). The page defaults to **Page 1** after a timeout (the same timeout duration as with the menu).

Page 1

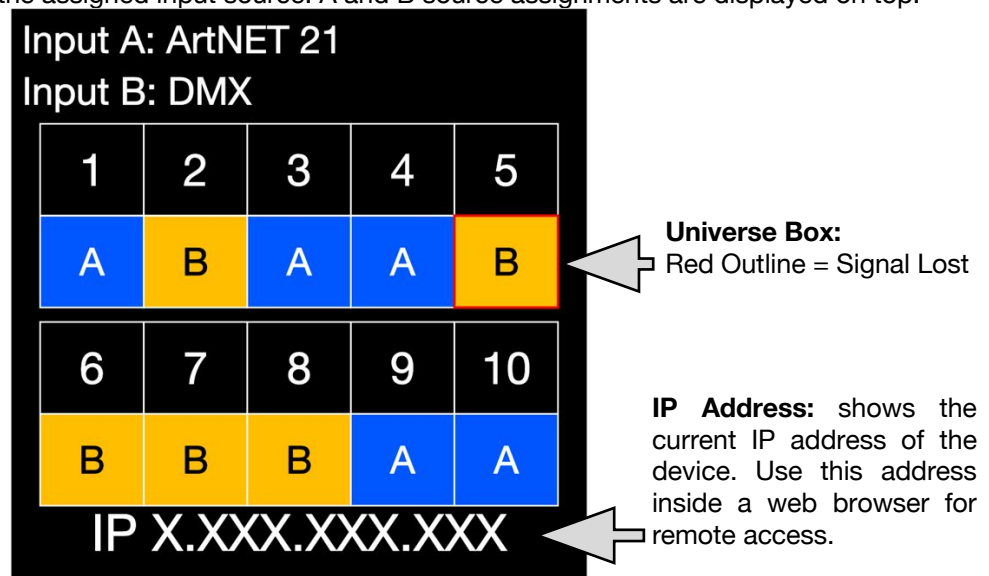
The home page shows the A and B input status. Valid traffic and the source are indicated with a full colored box. The current merge mode and active source are displayed in the bottom half for immediate overview of the merge activity. Certain Merge statuses like an active Backup will yield a red background, indicating that the unit triggered its backup source.

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

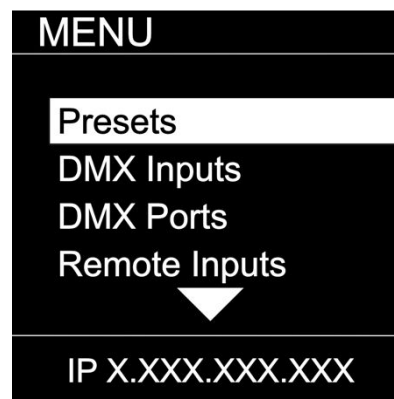


Page 2

Ports: The port numbers show the assigned input source. A and B source assignments are displayed on top.



Several simple presets are preprogrammed into the RDM10 for fast setup. Some presets require additional input like a start Universe. In addition, the RDM10 can store 10 User Presets for fast recall of favorite setups. Select the desired preset slot and save/load or rename it.



SUB MENU		OPTION / VALUES		DESCRIPTION
Presets NETRON Presets User Presets IP X.XXX.XXX.XXX	1 :Splitter AB		See NETRON Presets	
	2 :Splitter A			
	3 :HTP Merge			
	4 :LTP Merge			
	5 :Backup			
	6 :Toggle			
	7 :ArtNet 2.x	InputA Univ		Universe 1 – 32767
		InputB Univ		Universe 1 – 32767
	8 :Dual ArtNet 2.x	Universe 1 – 32767		
	9 :sACN DHCP	Universe 1 – 32767		
	10: Dual sACN DHCP	InputA Univ		Universe 1 – 32767
		InputB Univ		Universe 1 – 32767
	11: sACN 2.x	Universe 1 – 32767		
	12: Dual sACN 2.x	InputA Univ		Universe 1 – 32767
InputB Univ		Universe 1 – 32767		
13: sACN 10.x		Universe 1 – 32767		
14: Dual sACN 10.x		InputA Univ	Universe 1 – 32767	
		InputB Univ	Universe 1 – 32767	
Presets NETRON Presets User Presets IP X.XXX.XXX.XXX				
	1 :MyPreset 1	Save Preset	Preset Saved	
		Load Preset	Preset Loaded	
		...		
		10 :MyPreset 10	Rename Preset	

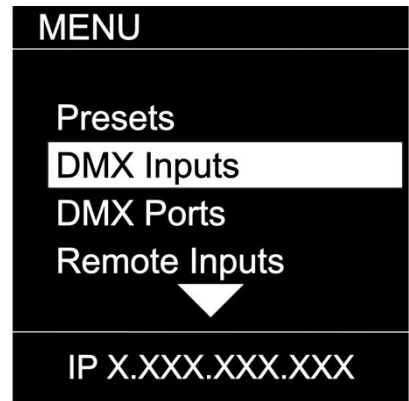
MENU: NETRON PRESETS

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

Label	Ethernet		Protocol	Source	DMX Ports									
	IP Address	Subnet			1	2	3	4	5	6	7	8	9	10
1: Splitter AB	-	-	-	Input A DMX	A	A	A	A	A					
				Input B DMX						B	B	B	B	B
2: Splitter AB	-	-	-	Input A DMX	A	A	A	A	A	A	A	A	A	A
				Input B DMX										
3: HTP Merge	-	-	-	Input A DMX	Merger HTP	Merger HTP	Merger HTP	Merger HTP	Merger HTP	Merger HTP	Merger HTP	Merger HTP	Merger HTP	Merger HTP
No RDM Support				Input B DMX										
4: LTP Merge	-	-	-	Input A DMX	Merger LTP	Merger LTP	Merger LTP	Merger LTP	Merger LTP	Merger LTP	Merger LTP	Merger LTP	Merger LTP	Merger LTP
No RDM Support				Input B DMX										
5: Backup	-	-	-	Input A DMX	Merger Backup	Merger Backup	Merger Backup	Merger Backup	Merger Backup	Merger Backup	Merger Backup	Merger Backup	Merger Backup	Merger Backup
No RDM Support				Input B DMX										
6: Toggle	-	-	-	Input A DMX	Merger Toggle	Merger Toggle	Merger Toggle	Merger Toggle	Merger Toggle	Merger Toggle	Merger Toggle	Merger Toggle	Merger Toggle	Merger Toggle
No RDM Support				Input B DMX										
7: Artnet 2.x	Automatic 2.x	255.0.0.0	Artnet	Input A Universe	A	A	A	A	A	A	A	A	A	A
8: Dual Artnet 2.x	Automatic 2.x	255.0.0.0		Input A Universe	A	A	A	A	A					
				Input B Universe						B	B	B	B	B
9: sACN DHCP	DHCP	DHCP	sACN	Input A Universe	A	A	A	A	A	A	A	A	A	A
No RDM Support														
10: Dual sACN DHCP	DHCP	DHCP	sACN	Input A Universe	A	A	A	A	A					
No RDM Support				Input B Universe						B	B	B	B	B
11: sACN 2.x	Automatic 2.x	255.0.0.0	sACN	Input A Universe	A	A	A	A	A	A	A	A	A	A
No RDM Support														
12: Dual sACN 2.x	Automatic 2.x	255.0.0.0	sACN	Input A Universe	A	A	A	A	A					
No RDM Support				Input B Universe						B	B	B	B	B
13: sACN 10.x	Automatic 10.x	255.0.0.0	sACN	Input A Universe	A	A	A	A	A	A	A	A	A	A
No RDM Support														
14: Dual sACN 10.x	Automatic 10.x	255.0.0.0	sACN	Input A Universe	A	A	A	A	A					
No RDM Support				Input B Universe						B	B	B	B	B

MENU: DMX INPUTS – A & B

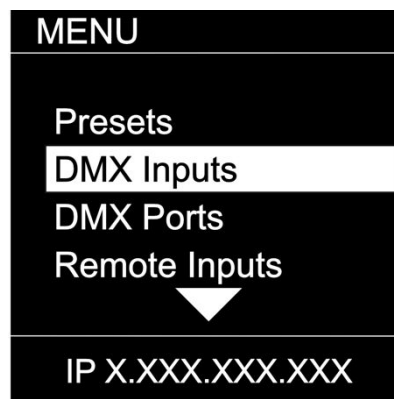
The RDM10 processes two DMX Inputs. The source can either be the DMX ports on the unit, or a network Universe via the RJ45 ports. For a network source, two Universes can be merged into the Input.



SUB MENU	OPTIONS / VALUES		DESCRIPTION
DMX Inputs Input A Input B Merger IP X.XXX.XXX.XXX	Source	DMX, Network, SendValue	Select the source protocol
	DMX	Source	DMX
		RDM	Disable, Enable
	Network	Source	Network
		Universe	1 – 32767
		Protocol	ArtNet, sACN
		FrameRate	10Hz, 15Hz, 20Hz, 25Hz, 30Hz, 35Hz , 40Hz
		RDM	Disable, Enable
		Merge	OFF , HTP, LTP, Toggle
		Range	From: 1 – 512
			To: 1 – 512
		Offset Addr	OFF , 2-512
	SendValue	Source	SendValue
		Value	0 - 255
		FrameRate	10Hz, 15Hz, 20Hz, 25Hz, 30Hz, 35Hz , 40Hz
		Range	From: 1 – 512
			To: 1 – 512

MENU: DMX INPUTS – MERGER

This menu defines how Inputs A and B are combined. The results can be mapped onto a DMX port by choosing “Merger” as the source.



SUB MENU	OPTIONS / VALUES		DESCRIPTION
DMX Inputs Input A Input B Merger IP X.XXX.XXX.XXX	OFF , HTP, LTP, Backup, toggle		
	OFF		The inputs are not combined
	HTP		A and B are merged by Highest Takes Precedence
	LTP		A and B are merged by Last Takes Precedence
	Backup		Source A is used until no valid traffic is received, then Source B is activated. Once traffic resumes on Source A, it restores back to Source A
	Toggle		The complete source Universe is switched over without delay as soon as a single DMX value changes
	Backup Time	0s (0-88)	This delays the backup switching from A to B
	Restore Time	0s (0-88)	This delays before the source is restored from B to A
	Framerate	10Hz, 15Hz, 20Hz, 25Hz, 30Hz, 35Hz , 40Hz	Select the desired frame rate
	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 , 2-512	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: DMX PORTS

Select a port number to assign the source. Input and Merger settings and rules are defined in other menus.

MENU

Presets

DMX Inputs

DMX Ports

Remote Inputs

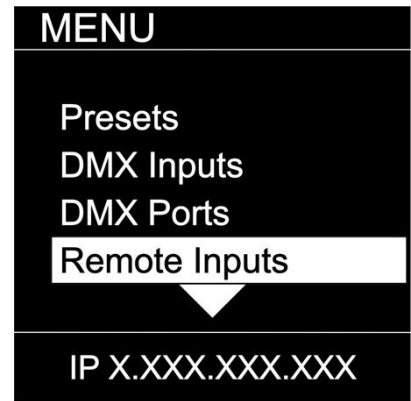
▼

IP X.XXX.XXX.XXX

SUB MENU	OPTIONS / VALUES	DESCRIPTION
DMX Ports	Input A	Send values defined for Input A
	Input B	Send values defined for Input B
	Merger	Send values defined by the merger
	Disable	Port is disabled
Port 1		
Port 2		
Port 3		
Port 4		
▼		
IP X.XXX.XXX.XXX		
DMX Ports		
▲		
Port 7		
Port 8		
Port 9		
Port 10		
IP X.XXX.XXX.XXX		

MENU: REMOTE INPUTS

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	
Remote Inputs Input 1 Input 2 Input 3 Input 4 IP X.XXX.XXX.XXX	ACT	Disable DMX		Stops all DMX output for as long as contact is closed	
		Cue	Cue	1-99	Recall a specific cue number
			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 as long as the contact is closed.
		Netron Preset	1. Splitter AB 2. Splitter A 3. HTP Merge 4. LTP Merge 5. Backup 6. Toggle 7. ArtNet 2.x 8. Dual ArtNet 2, 9. sACN DHCP 10. Dual sACN DHC 11. sACN 2.x 12. Dual sACN 2.x 13. sACN 10.x 14. Dual sACN 10.x		Recalls this Netron preset when the contact is closed
		User Preset	1-10	Recalls this user preset when contact is closed	
		Send Value	0-255	Sends specific DMX value on all ports for as long as contact is closed	
	Source	Disable		Input is disabled	
		Contact		Use local contact closure on the back of the device	
		DMX Port	Port A	Use DMX Input Values	
Port B					
ArtNet		Art-Net Trigger			
sACN		sACN Trigger			

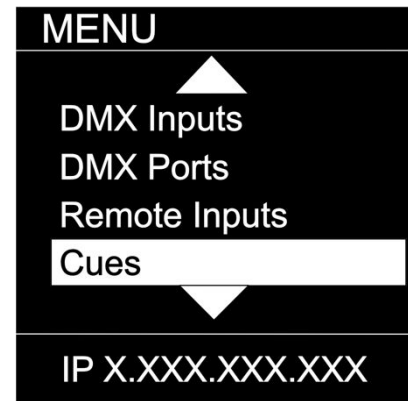
DMX Map for Remote Trigger

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: 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 must 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 devices.

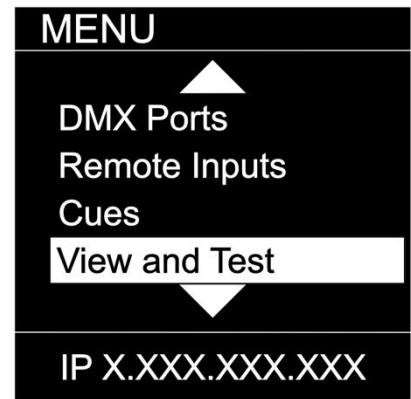


Run Cue	1-99	Select the desired cue
Save Cue	1-99	Save all values on all ports to a cue slot
Rename Cue		Edit name of cue
Link Cue	Fade Time	Set the fade time of the cue
	Hold Time	Set the time to hold the cue until the next cue is started
	Link to Cue	Set the next Cue
Resend Ethernet	Disable	Cue data is not sent over Ethernet
	Enable	Cue data is sent on the Universe number and protocol assigned to the ports.

SUB MENU		OPTIONS / VALUES			DESCRIPTION
Cues Run Cue Save Cues Rename Cue Link Cues ▼ IP X.XXX.XXX.XXX	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 – 60min	Set the fade time of the cue
			Hold Time	0s – 60min	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: 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
View and Test DMX View Art-Net View sACN View DMX Port Test IP X.XXX.XXX.XXX	DMX View	View Input A, Input B Port 1 - 10	View the DMX values of a specific port
		Range From: 1 – 512 To: 1 – 512	default 1 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)
	ArtNet View	Universe 1 – 32767	View a specific Art-Net Universe
		Range From: 1 – 512 To: 1 – 512	default 1 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 To: 1 – 512	default 1 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)
View and Test sACN View DMX Port Test Art-Net Test sACN Test IP X.XXX.XXX.XXX	DMX Port Test	Output Port 1 – 10 All Ports	Send generator values on specific port Send generator values on all ports
		Range From: 1 – 512 To: 1 – 512	default 1 default 512
		Speed 1 – 10, Manual	Select the speed of generator
	ArtNet Test	Universe 1 – 32767	Select Art-Net Universe
		Range From: 1 – 512 To: 1 – 512	default 1 default 512
		Speed 1 – 10, Manual	Select the speed of generator
	sACN Test	Universe 1 – 32767	Select sACN Universe
		Range From: 1 – 512 To: 1 – 512	default 1 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 then 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)

Input A				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					

Input A		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						

Input A		502 - 512			
502	0	0	0	56	12
507	1	255	255	128	60
512	123	0			
IP X.XXX.XXX.XXX					

DMX Test Display – Line

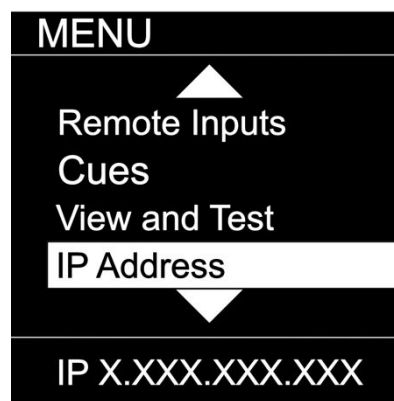
Input A		1 - 5	
		Min	Max
1	0	0	12
2	1	0	60
3	121	5	123
4	12	98	255
5	88	8	88
IP X.XXX.XXX.XXX			

DMX Test Display – Address

Input A	
Address	Value
1	127
	50%
Min	0
Max	255
IP X.XXX.XXX.XXX	

MENU: IP ADDRESS

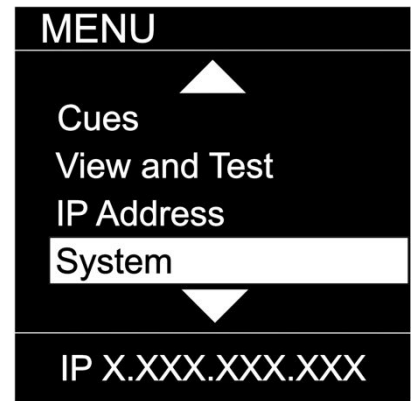
Set the desired device IP address in this menu. Every Netron device is set to a unique 2.x.x.x address at the factory, and after every reset to this default. For Art-Net systems, it should never be necessary to adjust this IP. Any custom address and subnet can be assigned so the node can operate within any network environment.



SUB MENU		OPTIONS / VALUES		Description
IP Address 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			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	

MENU: SYSTEM

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



SUB MENU	OPTIONS / VALUES		Description
	Device Name	12 Character Label (i.e. NETRON RDM10)	Set a device name
	Device ID	0 – 999	Set an optional device ID
System Device Name Device ID Display Art-Net Offset	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
IP X.XXX.XXX.XXX System	Art-Net Offset	Universe 1: 0-0	
		Universe 1: 0-1	
Lock Device Startup Signal Loss Backup Config	Lock Device	PIN: 000 (000)	Lock Disable The device does not require a pin
			Manual Lock: 000 (000) Lock / Unlock The device asks for a pin after the display times out Lock the device immediately
IP X.XXX.XXX.XXX System	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 Backup Config RDM Processing Factory Reset	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	1-99 Start Cue X
	Backup Config	Disable DMX	DMX traffic is turned off on all ports
		Save Config	Config Saved Save current configuration including all cue data
IP X.XXX.XXX.XXX	RDM Processing	Load Config	Config Loaded Reload configuration. Backups can be exported and imported from the web interface
		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.

MENU: INFORMATION

This menu provides information about the device.

MENU

▲

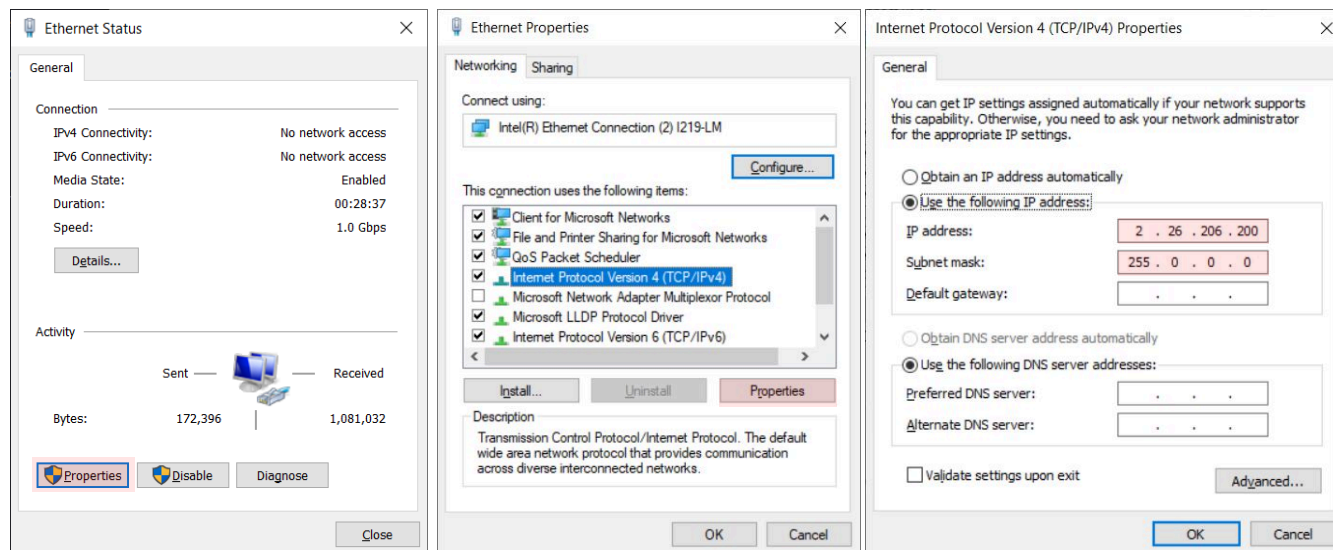
View and Test
IP Address
System
Information

IP X.XXX.XXX.XXX

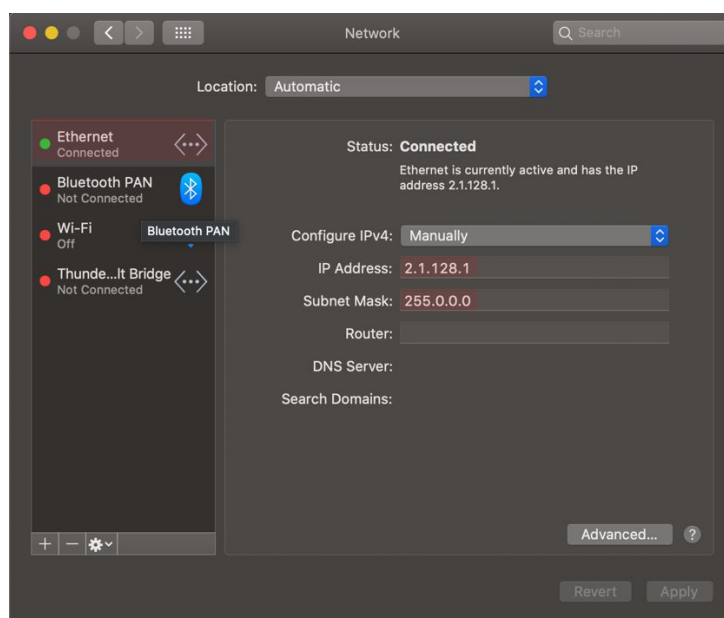
SUB MENU		OPTIONS / VALUES	DESCRIPTION
Information Software Version Product On Time MAC Address RDM UID IP X.XXX.XXX.XXX	Software Version	Boot SW V# Fw Ver: V# Web Ver: V#	Display the current software version
	Product On Time	Time: XXXXX(H)	Total time the device has been powered on.
	MAC Address	x:x:x:x:x:x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

WEB REMOTE CONFIGURATION

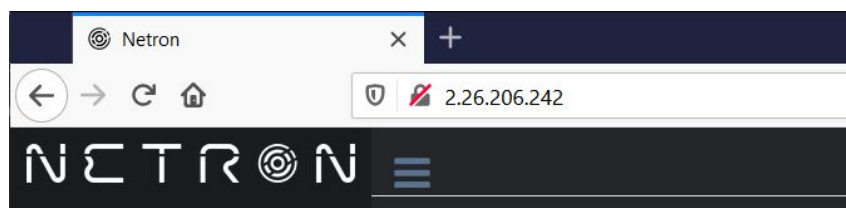
Ensure the device and a computer are in the same IP address range and connected.



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

NETRON RDM10

Not Secure | 2.103.49.127

NETRON

- Presets
- DMX Inputs
- DMX Ports
- Cues
- IP Settings
- Inputs
- System

Status

Info

Device Type	NETRON RDM10
Device Name	NETRON RDM10
IP Address	002.103.049.127
Net Mask	255.000.000.000

DMX Input

Port#	Mode	Protocol	Universe	Frame Rate	RDM
A	DMX	-----	-----	35Hz	Enable
B	DMX	-----	-----	35Hz	Enable

DMX Merge

Port#	Mode	Frame Rate
Merge	OFF	35Hz

DMX Ports

Port#	Mode
1	A
2	A
3	A
4	A
5	A
6	B
7	B
8	B
9	B
10	B

IP:002.103.049.127
Name:NETRON RDM10
Identify ☐

IP:002.103.049.127
Name:NETRON RDM10
Identify ☒

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

WEB REMOTE MENU: PRESETS – NETRON PRESETS

The screenshot displays the NETRON RDM10 web interface. The browser address bar shows the URL `2.103.49.127/Preset_Netron.html`. The interface features a sidebar with navigation options: Presets, Netron Presets, User Presets, DMX Inputs, DMX Ports, Cues, IP Settings, Inputs, and System. The main content area shows the 'Netron Presets' menu, which includes a dropdown list of 14 presets and a 'Load Preset' button. The list of presets is as follows:

- ✓ 1:Splitter AB
- 2:Splitter A
- 3:HTP Merge
- 4:LTP Merge
- 5:Backup
- 6:Toggle
- 7:ArtNet 2.x
- 8:Dual ArtNet 2.x
- 9:sACN DHCP
- 10:Dual sACN DHCP
- 11:sACN 2.x
- 12:Dual sACN 2.x
- 13:sACN 10.x
- 14:Dual sACN 10.x

Several preset configuration panels are also visible, showing fields for 'Select', 'Universe A', and 'Universe B'. The panels are arranged in a grid-like fashion, with some overlapping. The bottom status bar displays the IP address `IP:002.103.049.127`, the name `Name:NETRON RDM10`, and an 'Identify' button.

WEB REMOTE MENU: PRESETS – USER PRESETS

The screenshot displays the NETRON RDM10 web interface. The browser address bar shows the URL `2.103.49.127/Preset_User.html`. The sidebar on the left contains the following menu items: Presets, Netron Presets, User Presets, DMX Inputs, DMX Ports, Cues, IP Settings, Inputs, and System. The main content area is divided into two sections: 'Load Presets' and 'User Presets'. Both sections have a 'Select' dropdown menu with a list of 10 presets, where '1:Preset 1' is selected. The 'User Presets' section also includes a 'Name' input field with the text 'Preset 1' and a 'Save Preset' button. The bottom status bar displays the IP address 'IP:002.103.049.127', the name 'Name:NETRON RDM10', and an 'Identify' button with a circular indicator.

NETRON RDM10

Not Secure | 2.103.49.127/Preset_User.html

NETRON

Presets

Netron Presets

User Presets

DMX Inputs

DMX Ports

Cues

IP Settings

Inputs

System

Load Presets

Select 1:Preset 1

Load Preset

User Presets

Select 1:Preset 1

Name Preset 1

Save Preset

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

IP:002.103.049.127
Name:NETRON RDM10
Identify

WEB REMOTE MENU: DMX INPUTS – A & B DMX

The screenshot displays the NETRON RDM10 web interface in a browser window. The address bar shows the URL `2.103.49.127/DMX_Inputs.html`. The interface features a sidebar with navigation options: Presets, DMX Inputs, DMX Ports, Cues, IP Settings, Inputs, and System. The main content area is titled "DMX Inputs Configuration" and includes tabs for A, B, and M. The "A" tab is selected, and the "RDM" toggle switch is turned on. The configuration fields for Input Source (DMX), Framerate (35 Hz), DMX Range From (1), DMX Range To (512), and Offset Address (1) are visible. A "Save" button is located at the bottom of the configuration panel. To the right of the configuration panel, two dropdown menus are shown: the first menu is for "Input Source" with options "DMX", "Network", and "Send Value"; the second menu is for "Framerate" with options "10 Hz", "15 Hz", "20 Hz", "25 Hz", "30 Hz", "35 Hz", and "40 Hz". The "35 Hz" option is selected in the second menu. Below the main configuration panel, a smaller version of the "DMX Inputs Configuration" panel is shown, which is a simplified view of the main panel. At the bottom left, the IP address "IP:002.103.049.127" and the device name "Name:NETRON RDM10" are displayed, along with an "Identify" button and a toggle switch.

NETRON RDM10

Not Secure | 2.103.49.127/DMX_Inputs.html

DMX Inputs Configuration

A B M

Input Source: DMX

RDM: ☒

Framerate: 35 Hz

DMX Range From: 1

DMX Range To: 512

Offset Address: 1

Save

Input Source: DMX

Network

Send Value

10 Hz

15 Hz

20 Hz

25 Hz

30 Hz

35 Hz

40 Hz

RDM: ☒

DMX Inputs Configuration

A B M

Input Source: DMX

RDM: ☒

Save

IP:002.103.049.127

Name:NETRON RDM10

Identify ☐

WEB REMOTE MENU: DMX INPUTS – A & B NETWORK

The screenshot displays the NETRON RDM10 web interface for DMX Inputs Configuration. The interface is divided into a left sidebar with navigation options (Presets, DMX Inputs, DMX Ports, Cues, IP Settings, Inputs, System) and a main configuration area. The main area is titled "DMX Inputs Configuration" and features tabs for A, B, and M. The configuration is organized into sections for Input Source, RDM, Protocol, Start Universe, Merge, Framerate, DMX Range, and Offset Address. Each section has a dropdown menu or input field, and a "Save" button is located at the bottom of the configuration area.

DMX Inputs Configuration

Input Source: Network (selected)

RDM: OFF (selected)

Protocol: ArtNet (selected)

Start Universe: 1

Merge: OFF (selected)

Framerate: 35 Hz (selected)

DMX Range: From 1 To 512

Offset Address: 1

Save

DMX Inputs Configuration (Expanded)

DMX: Network (selected), Send Value

ArtNet: sACN (selected)

HTP: OFF (selected), HTP, LTP, Toggle

Framerate: 10 Hz, 15 Hz, 20 Hz, 25 Hz, 30 Hz, 35 Hz (selected), 40 Hz

HTP: OFF, HTP (selected), LTP, Toggle

DMX Inputs Configuration (Expanded - HTP)

Merge: HTP (selected)

Merge Protocol: ArtNet (selected)

Merge Universe: 4

Framerate: 35 Hz (selected)

DMX Range: From 1 To 512

Offset Address: 1

Save

DMX Inputs Configuration (Expanded - LTP)

Merge: LTP (selected)

Merge Protocol: ArtNet (selected)

Merge Universe: 4

Framerate: 35 Hz (selected)

DMX Range: From 1 To 512

Offset Address: 1

Save

DMX Inputs Configuration (Expanded - Toggle)

Merge: Toggle (selected)

Merge Protocol: ArtNet (selected)

Merge Universe: 4

Framerate: 35 Hz (selected)

DMX Range: From 1 To 512

Offset Address: 1

Save

WEB REMOTE MENU: DMX INPUTS – A & B SEND VALUE

NETRON RDM10

Not Secure | 2.103.49.127/DMX_Inputs.html

DMX Inputs Configuration

A B M

Input Source: Send Value

Send Value: 0

Framerate: 35 Hz

DMX Range From: 1

DMX Range To: 512

Save

DMX Network

- ✓ Send Value

- 10 Hz
- 15 Hz
- 20 Hz
- 25 Hz
- 30 Hz
- ✓ 35 Hz
- 40 Hz

IP:002.103.049.127
Name:NETRON RDM10
Identify

WEB REMOTE MENU: DMX INPUTS – M (MERGER)

DMX Inputs Configuration

A B M

Merge OFF

Save

DMX Inputs Configuration

A B M

Merge HTP

Merge Framerate 35 Hz

DMX Range From 1

DMX Range To 512

Offset Address 1

Save

DMX Inputs Configuration

A B M

Merge LTP

Merge Framerate 35 Hz

DMX Range From 1

DMX Range To 512

Offset Address 1

Save

DMX Inputs Configuration

A B M

Merge Toggle

Merge Framerate 35 Hz

DMX Range From 1

DMX Range To 512

Offset Address 1

Save

DMX Inputs Configuration

A B M

Merge Backup

Backup Time (s) 0

Restore Time (s) 0

Merge Framerate 35 Hz

DMX Range From 1

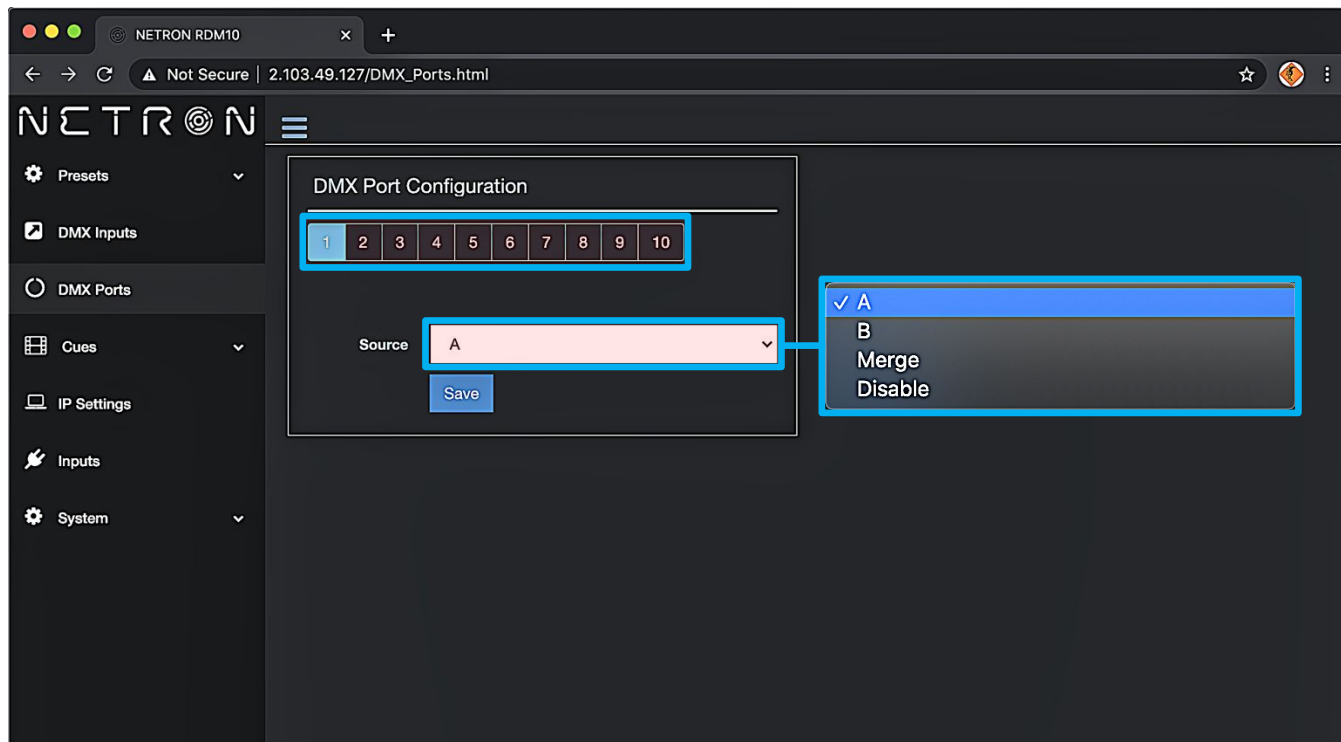
DMX Range To 512

Offset Address 1

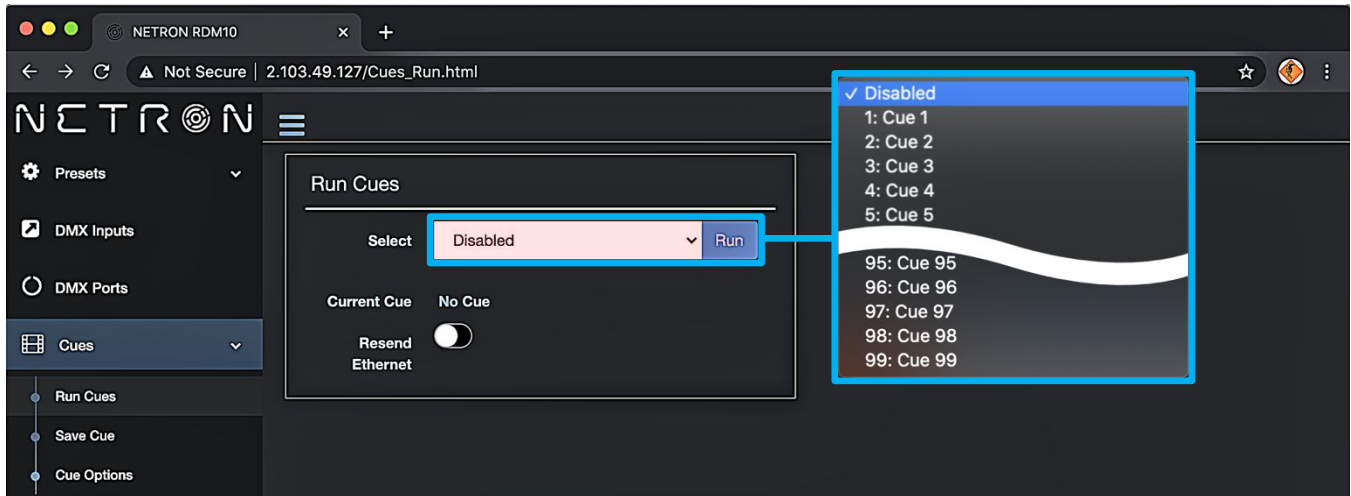
Save

IP:002.103.049.127
Name:NETRON RDM10
Identify

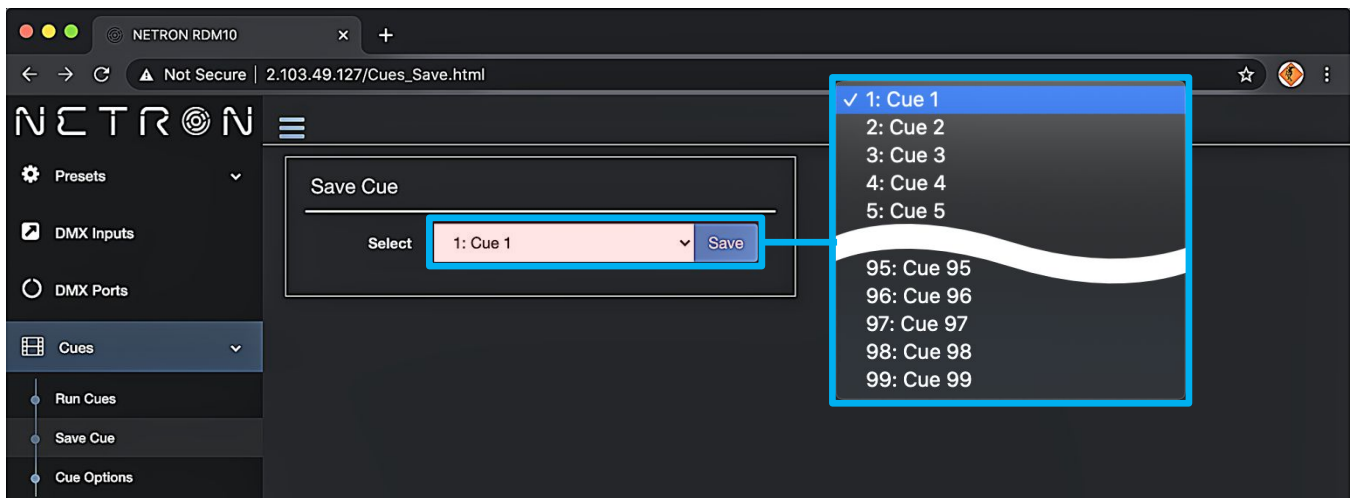
WEB REMOTE MENU: DMX PORTS



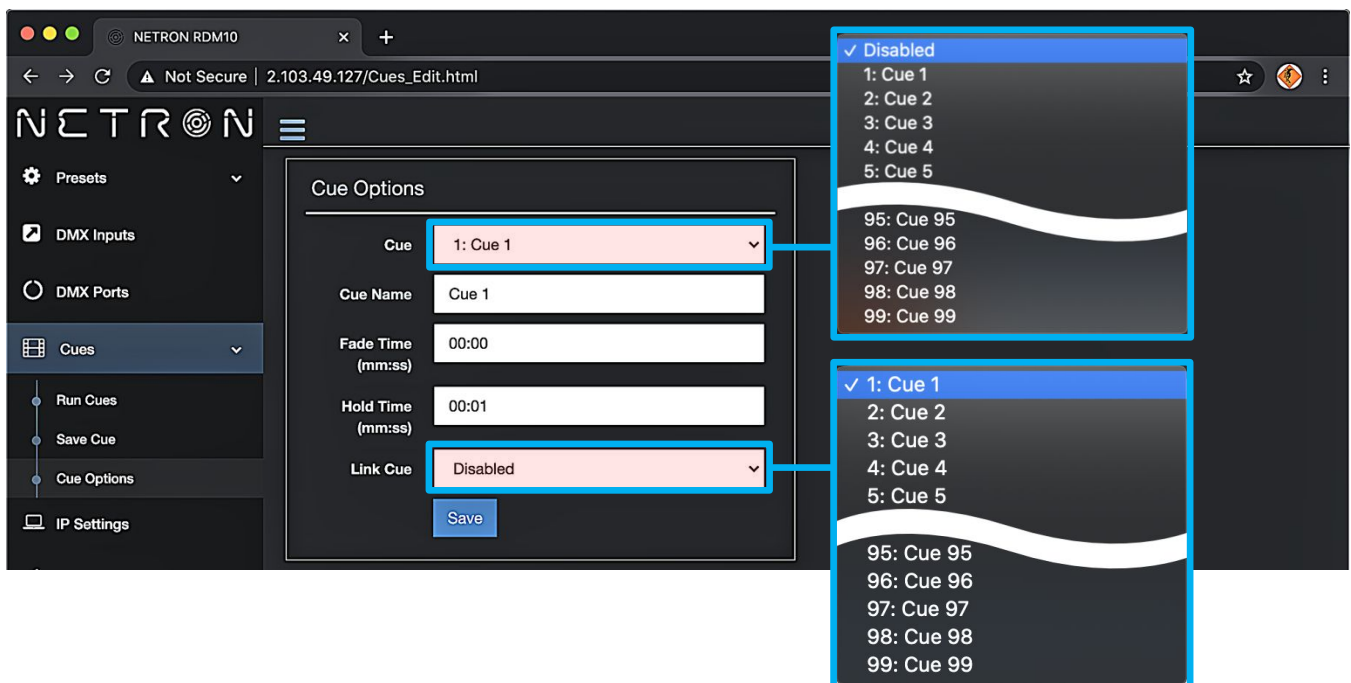
WEB REMOTE MENU: CUES – RUN CUES



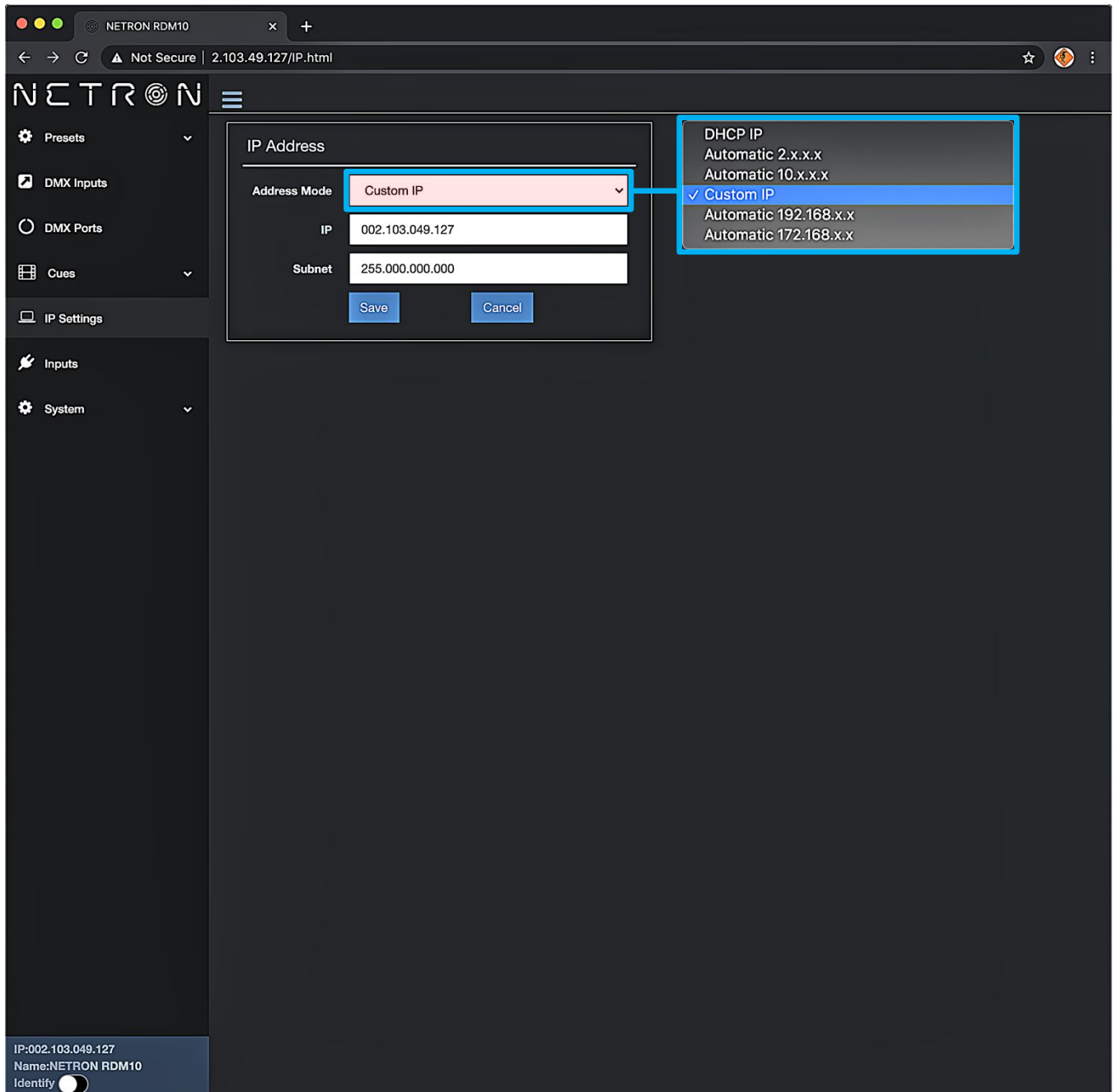
WEB REMOTE MENU: CUES – SAVE CUES



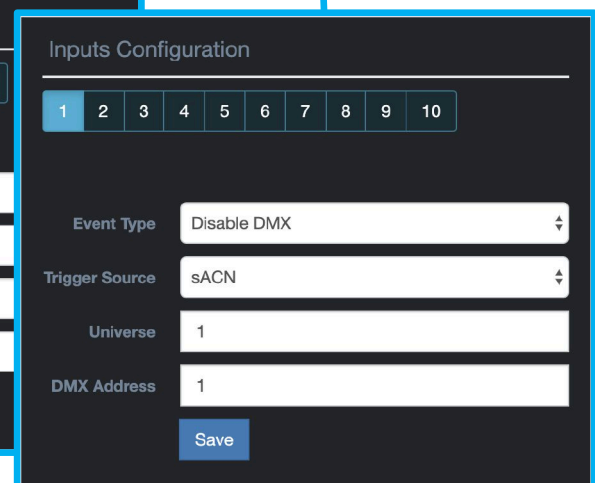
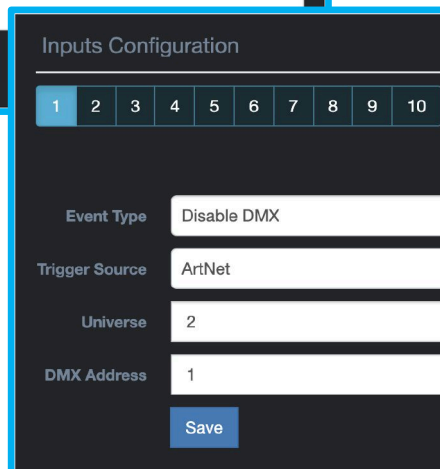
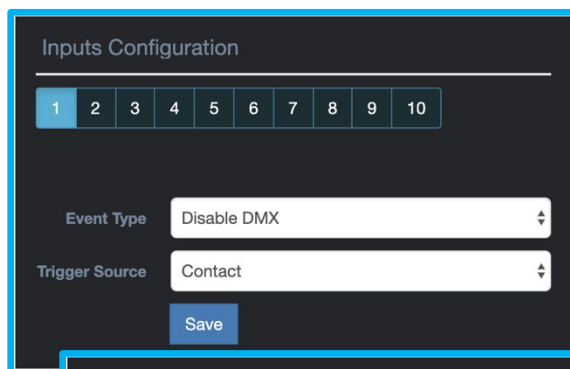
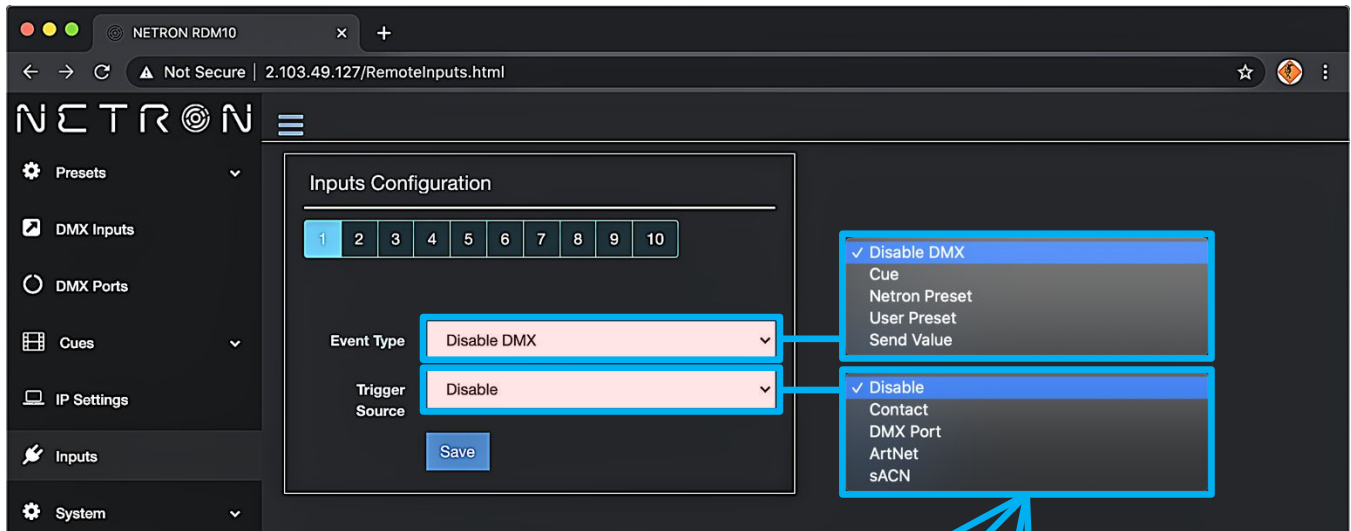
WEB REMOTE MENU: CUES – CUE OPTIONS



WEB REMOTE MENU: IP SETTINGS



WEB REMOTE MENU: INPUTS – DISABLE DMX



WEB REMOTE MENU: INPUTS – CUE

The main screenshot shows the 'Inputs Configuration' menu for input 1. The configuration is as follows:

- Event Type: Cue
- Cue Number: 0:No Cue
- Cue Mode: Trigger
- Trigger Source: Disable

The dropdown menus for 'Cue Number', 'Cue Mode', and 'Trigger Source' are shown with their respective options:

- Cue Number: 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
- Cue Mode: Trigger, Toggle
- Trigger Source: Disable, Contact, DMX Port, ArtNet, sACN

The subsequent four screenshots show the configuration for different input types:

- Trigger Configuration:** Event Type: Disable DMX, Trigger Source: DMX Port, DMX Port: Port 1, DMX Address: 1.
- ArtNet Configuration:** Event Type: Disable DMX, Trigger Source: ArtNet, Universe: 2, DMX Address: 1.
- sACN Configuration:** Event Type: Disable DMX, Trigger Source: sACN, Universe: 1, DMX Address: 1.

WEB REMOTE MENU: INPUTS – NETRON PRESET

The image displays a sequence of screenshots from the NETRON web interface, illustrating the configuration of inputs for a Netron Preset. The main interface shows a sidebar with navigation options: Presets, DMX Inputs, DMX Ports, Cues, IP Settings, Inputs, and System. The 'Inputs Configuration' panel is active, showing a list of 10 inputs. The 'Event Type' is set to 'Netron Preset', the 'Netron Preset' is set to '1:Splitter AB', and the 'Trigger Source' is set to 'Disable'. A 'Save' button is visible.

Two dropdown menus are shown, detailing the available options for the 'Netron Preset' and 'Trigger Source' fields:

- Netron Preset Options:**
 - ✓ 1:Splitter AB
 - 2:Splitter A
 - 3:HTP Merge
 - 4:LTP Merge
 - 5:Backup
 - 6:Toggle
 - 7:ArtNet 2.x
 - 8:Dual ArtNet 2.x
 - 9:sACN DHCP
 - 10:Dual sACN DHCP
 - 11:sACN 2.x
 - 12:Dual sACN 2.x
 - 13:sACN 10.x
 - 14:Dual sACN 10.x
- Trigger Source Options:**
 - ✓ Disable
 - Contact
 - DMX Port
 - ArtNet
 - sACN

Four smaller screenshots show the configuration for different trigger sources:

- Contact:** Event Type: Netron Preset, Netron Preset: 1:Splitter AB, Trigger Source: Contact.
- DMX Port:** Event Type: Netron Preset, Netron Preset: 1:Splitter AB, Trigger Source: DMX Port, DMX Port: Port 1, DMX Address: 1.
- ArtNet:** Event Type: Netron Preset, Netron Preset: 1:Splitter AB, Trigger Source: ArtNet, Universe: 2, DMX Address: 1.
- sACN:** Event Type: Netron Preset, Netron Preset: 1:Splitter AB, Trigger Source: sACN, Universe: 1, DMX Address: 1.

WEB REMOTE MENU: INPUTS – USER PRESETS

The image displays the 'Inputs Configuration' web interface for the NETRON RDM10 device. The interface is shown in a browser window with the URL `2.103.49.127/RemoteInputs.html`. The main configuration area includes a row of 10 input buttons (1-10) and three dropdown menus: Event Type, User Preset, and Trigger Source. A 'Save' button is located below the dropdowns.

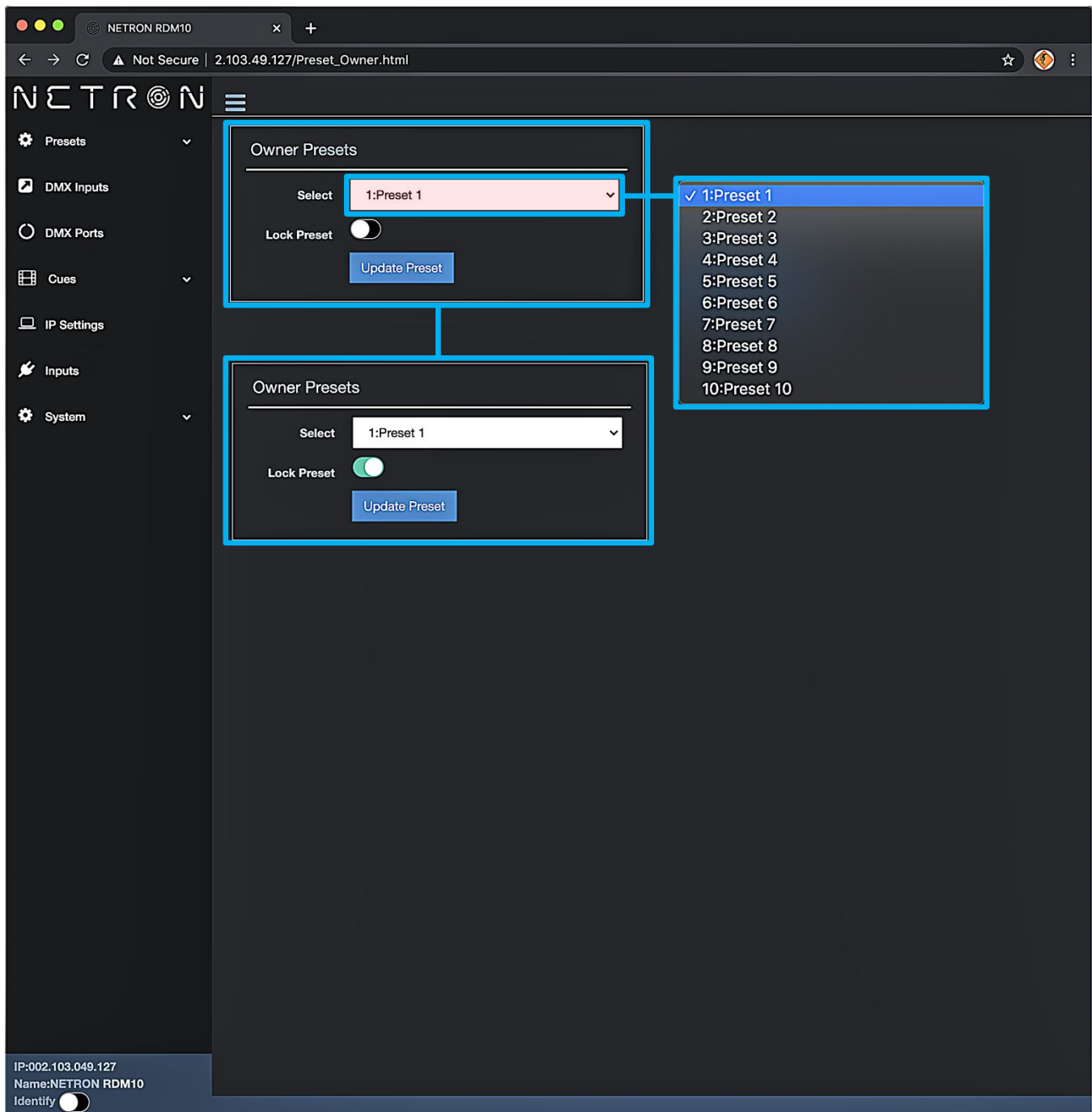
The sequence of screenshots illustrates the configuration process:

- Initial State:** Event Type is set to 'User Preset', User Preset is '1:Preset 1', and Trigger Source is 'Disable'.
- Trigger Source Expansion:** The 'Trigger Source' dropdown is expanded, showing options: 'Disable' (selected), 'Contact', 'DMX Port', 'ArtNet', and 'sACN'.
- DMX Port Selection:** The 'Trigger Source' is changed to 'DMX Port'. The 'DMX Port' dropdown is expanded, showing 'Port 1' (selected) and 'Port 2'.
- ArtNet Configuration:** The 'Trigger Source' is changed to 'ArtNet'. The 'Universe' field is set to '1'.
- sACN Configuration:** The 'Trigger Source' is changed to 'sACN'. The 'Universe' field is set to '1' and the 'DMX Address' field is set to '1'.

WEB REMOTE MENU: INPUTS – OWNER PRESETS

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 RDM10

Not Secure | 2.103.49.127/RemoteInputs.html

NETRON

Presets

DMX Inputs

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
- Contact
- DMX Port
- ArtNet
- sACN

Inputs Configuration

1 2 3 4 5 6

Event Type: Send Value

Send Value: 0

Trigger Source: Contact

Save

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 1

DMX Address: 1

Save

- ✓ Port 1
- Port 2

Inputs Configuration

1 2 3 4 5 6

Event Type: Send Value

Send Value: 0

Trigger Source: ArtNet

Universe: 2

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: 1

DMX Address: 1

Save

The screenshot shows the 'Settings.html' interface for a 'NETRON RDM10' device. The interface is divided into several sections:

- General:** Includes fields for 'Device Name' (NETRON RDM10), 'Device ID' (0), 'Display Timeout' (5 Min), 'Display Brightness' (10), 'LED Brightness' (10), 'Art-Net Offset' (Netron Universe 1: 0-0), 'Home Screen' (Device Info), 'RDM Processing' (toggle), 'Use PIN' (toggle), and 'PIN Number' (0).
- Startup:** Includes 'Startup Mode' (Cue), 'Startup Cue' (0:No Cue), 'Hold Timeout' (0 Sec), 'Loss Mode' (Cue), 'Loss Cue' (0:No Cue), and 'Fade Out (s)' (30).
- Signal Loss:** Includes 'Hold Timeout' (0 Sec), 'Loss Mode' (Cue), 'Loss Cue' (0:No Cue), and 'Fade Out (s)' (30).

Red dashed boxes and arrows highlight specific areas and interactions:

- A red dashed box around the 'Display Timeout' and 'Display Brightness' controls, with an arrow pointing to the 'Display Brightness' knob.
- A red dashed box around the 'LED Brightness' knob.
- A red dashed box around the 'Art-Net Offset' dropdown menu, which is open showing 'Netron Universe 1: 0-0' and 'Netron Universe 1: 0-1'.
- A red dashed box around the 'Home Screen' dropdown menu, which is open showing 'Device Info' and 'Cue Browser'.
- A red dashed box around the 'Startup Mode' dropdown menu, which is open showing 'Cue', 'Wait For Data', and 'Send 0'.
- A red dashed box around the 'Startup Cue' dropdown menu, which is open showing '0:No Cue'.
- A red dashed box around the 'Hold Timeout' dropdown menu, which is open showing '0 Sec', '10 Sec', '30 Sec', '1 Min', '5 Min', '10 Min', and '60 Min'.
- A red dashed box around the 'Loss Mode' dropdown menu, which is open showing 'Disable DMX', 'Fade to 0', and 'Cue'.
- A red dashed box around the 'Loss Cue' dropdown menu, which is open showing '0:No Cue'.
- A red dashed box around the 'Fade Out (s)' knob.

At the bottom, there is a red dashed box around the 'Display Brightness' and 'LED Brightness' knobs, with an arrow pointing to the 'Display Brightness' knob.

Use cursor to click and drag around to desired time.

WEB REMOTE MENU: SYSTEM – STATUS

The screenshot shows the NETRON RDM10 web interface. The browser address bar indicates the URL is 2.103.49.127/Status.html. The sidebar on the left contains the following menu items: Presets, DMX Inputs, DMX Ports, Cues, IP Settings, Inputs, System (selected), Device Settings, Status, and Maintenance. The main content area is titled 'Status' and contains three sections:

Device

Device Type	NETRON RDM10
Device Name	NETRON RDM10
Mac Address	42:4C:EC:1F:31:7F
RDM UID A	RDM UID A
RDM UID B	0x22A6-DDDC1071
On Time	33h

IP Address

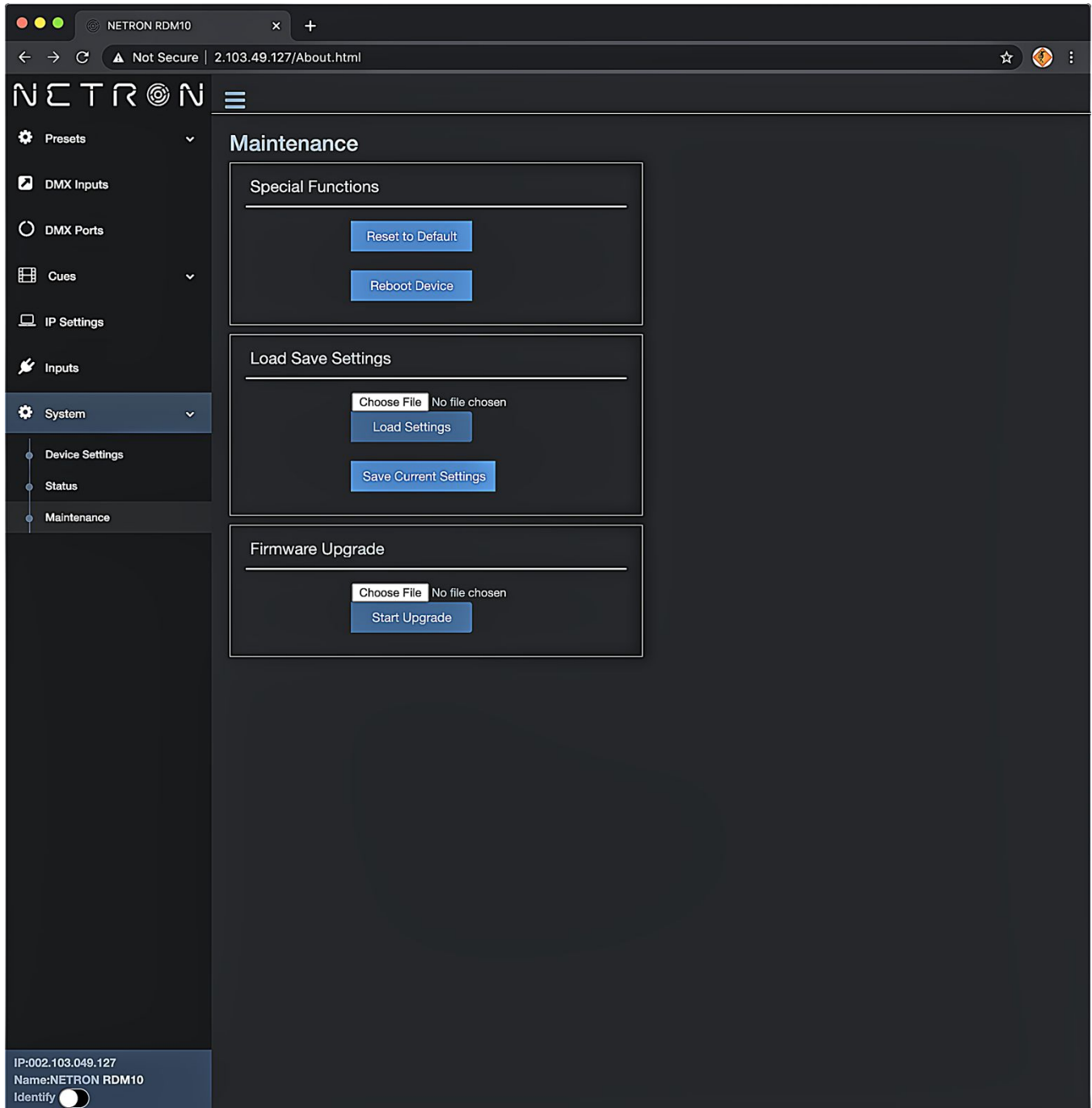
Address Mode	Custom IP
IP Address	002.103.049.127
Net Mask	255.000.000.000

Firmware

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

At the bottom left, a status bar displays: IP:002.103.049.127, Name:NETRON RDM10, and an Identify button with a circular indicator.

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.

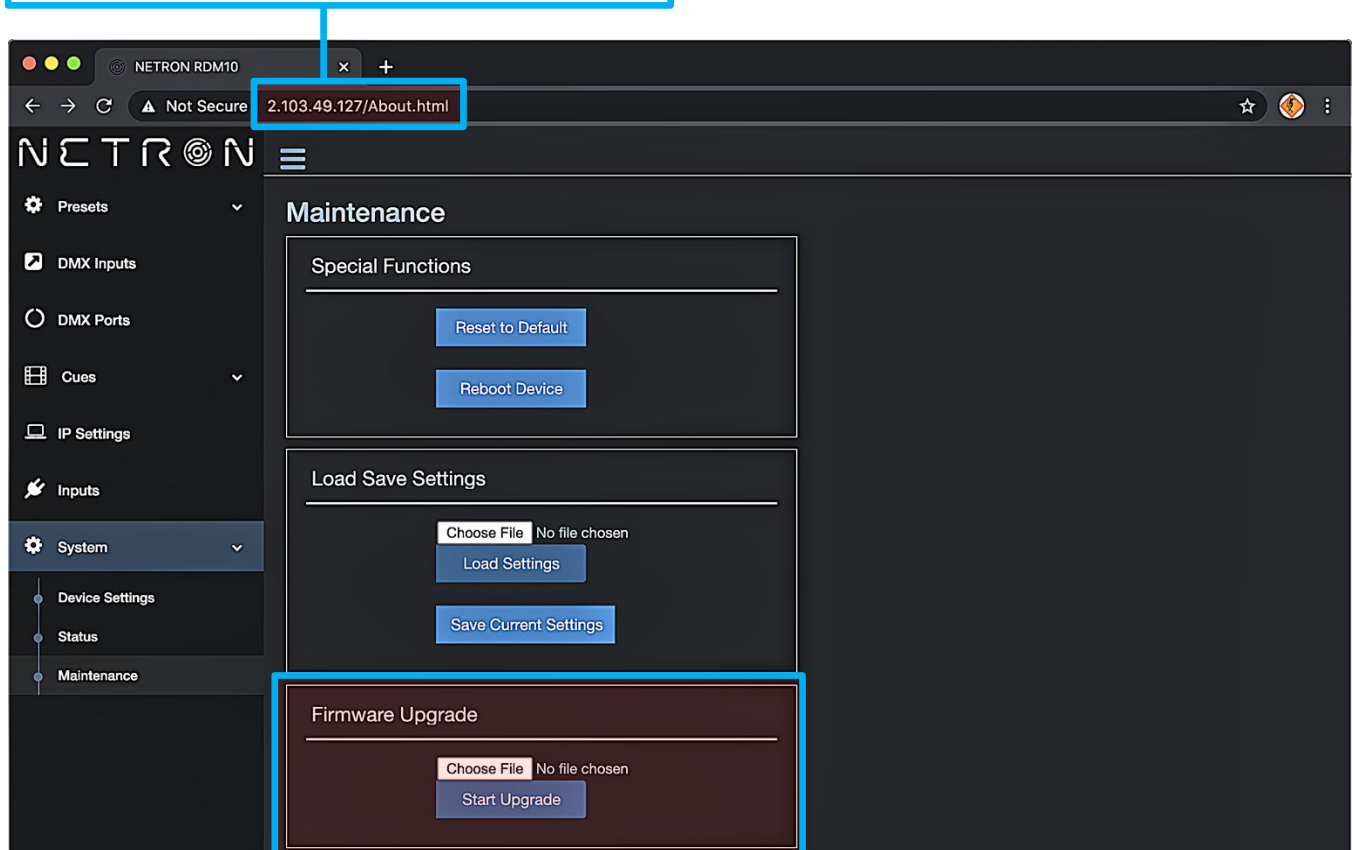
Always back up the configuration first. Export to a file using the web interface.

- 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.

