OBSIDIAN

CONTROL SYSTEMS

NETRON
NS8
User Guide

ELATION PROFESSIONAL B.V.

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FCC STATEMENT

Please note that changes or modifications to this product that have not been expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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
05/21/2024	1.0	Initial Release

CONTENTS

GENERAL INFORMATION

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
+1(844) 999-9942 | support@obsidiancontrol.com

OVERVIEW

INTRODUCTION

The **NETRON NS8** is a powerful network switch which is optimized for use in professional entertainment and AV applications.

A simple and intuitive user interface supports a variety of integrated presets for fast configuration, with a variety of options and customizations of port properties, VLAN and IGMP settings and PoE assignments. NS8 is ideally suited for protocols like sACN, Art-Net, a variety of lighting, video and audio control networks and of course standard ethernet traffic with its low latency architecture and high switch capacity.

KEY FEATURES:
- Gigabit Network Switch optimized for data intensive entertainment applications
- Artnet and sACN support
- X-Net, HogNet, MA-Net, ETC Net3, and various other protocols
- Factory and user presets for plug and play setups
- PoE and PoE+ support
- PoE power switch
- Remote configuration via internal webpage
- Convection cooled design

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.

LIMITED WARRANTY

1. Obsidian Control Systems hereby warrants, to the original purchaser, Obsidian Control Systems products to be free of manufacturing defects in material and workmanship for a period of two years (730 days).

2. For warranty service, send the product only to the Obsidian Control Systems service center. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Obsidian Control Systems will pay return shipping charges only to a designated point within the United States. If any product is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, Obsidian Control Systems shall have no liability whatsoever for loss and/or or damage to any such accessories, nor for the safe return thereof.

3. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which Obsidian Control Systems concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Obsidian Control Systems factory unless prior written authorization was issued to purchaser by Obsidian Control Systems; if the product is damaged because not properly maintained as set forth in the product instructions, guidelines and/or user manual.

4. This is not a service contract, and this warranty does not include any maintenance, cleaning or periodic check-up. During the periods as specified above, Obsidian Control Systems will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Obsidian Control Systems under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Obsidian Control Systems. All products covered by this warranty were manufactured after January 1, 1990, and bare identifying marks to that effect.

5. Obsidian Control Systems reserves the right to make changes in design and/or performance improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

6. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with the products described above. Except to the extent prohibited by applicable law, all implied warranties made by Obsidian Control Systems in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty periods set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said periods have expired. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Obsidian Control Systems be liable for any loss and/or damage, direct and/or consequential, arising out of the use of, and/or the inability to use, this product.

7. This warranty is the only written warranty applicable to Obsidian Control Systems products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

8. Use of software and firmware: To the maximum extent permitted by applicable law, in no event shall Elation or Obsidian Control Systems or its suppliers be liable for any damages whatsoever (including, but not limited to, damages for loss of profits or data, for business interruption, for personal injury or other loss whatsoever) arising out of or in any way related to the use of or inability to use firmware or software, the provision of or failure to provide support or other services, information, firmware, software, and related content through the software or otherwise arising out of the use of any software or firmware, even in the event of the fault, tort (including negligence), misrepresentation, strict liability, breach of warranty of Elation or Obsidian Control Systems or any supplier, and even if Elation or Obsidian Control Systems or any supplier has been advised of the possibility of such damages.

WARRANTY RETURNS: All returned service items, whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Items returned without a R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain a R.A. number by contacting customer support.

CONNECTIONS

AC CONNECTIONS

⚠️ The Obsidian Control Systems Netron NS8 is rated 100-240V 50/60Hz. Do not connect it to power outside this range. Damage resulting from incorrect connection is not covered under warranty.

North America: A suitable power cable is provided for use with this device in the USA and Canada. This approved cable must be used in North America.

Rest of the world: The provided power cable is not fitted with a country-specific plug. Install only a plug that meets local and or national electrical codes and is suitable for the country's specific requirements.

ETHERNET DATA CONNECTION

⚠️ This device features eight (8) Ethernet connections - six (6) on the front, and two (2) on the rear. Although this is an Locking RJ45 Ethernet connector, and the use of Locking RJ45 Ethernet cables is recommended, any RJ45 connector is suitable.

The device also is capable of sending power to connected devices via the Ethernet connections. This function is enabled using the Power-over-Ethernet (PoE) switch on the rear of the device. Total PoE budget is 100W.

Additionally, each Ethernet connection, both front and rear, features its own set of indicator lights for PoE, ACT, Link, and VLAN, as illustrated below.
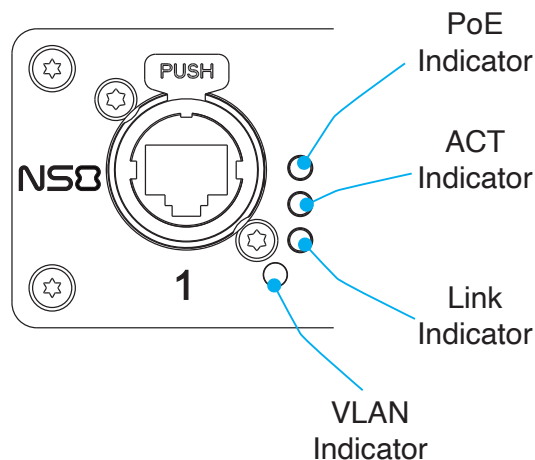
CONNECTIONS

FRONT CONNECTIONS
- (6x) Ethernet Connections

Ethernet
Connections

REAR CONNECTIONS
- Power In
- Power Out
- Fuse
- PoE Switch
- (2x) Ethernet Connections

Power
In

Power
Out

Fuse

PoE
Switch

Ethernet
Connections

Reset
Button

INSTALLATION INSTRUCTIONS
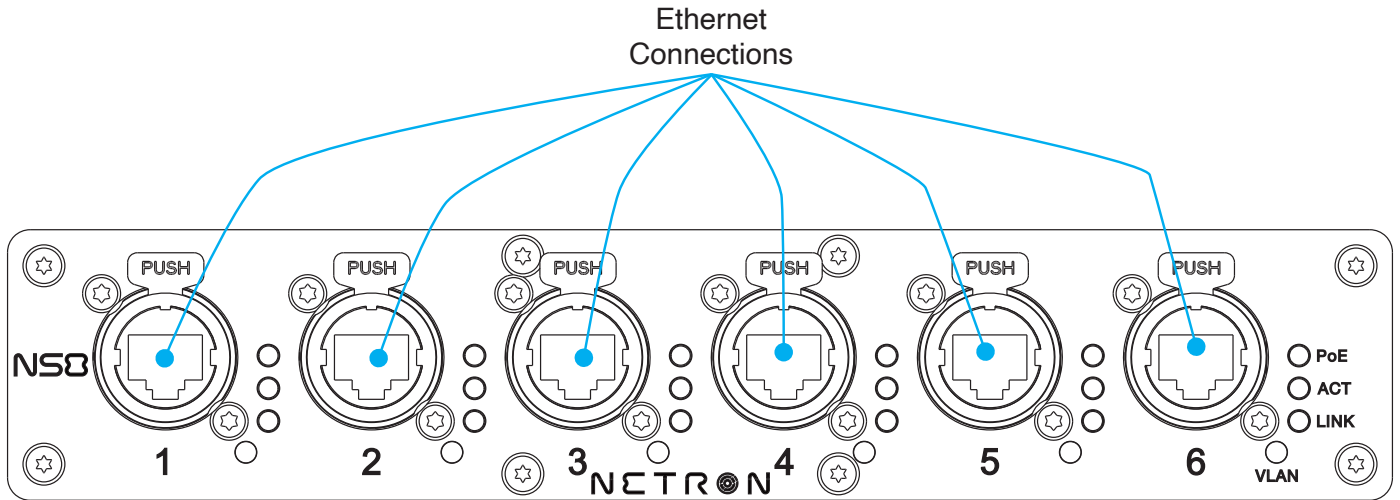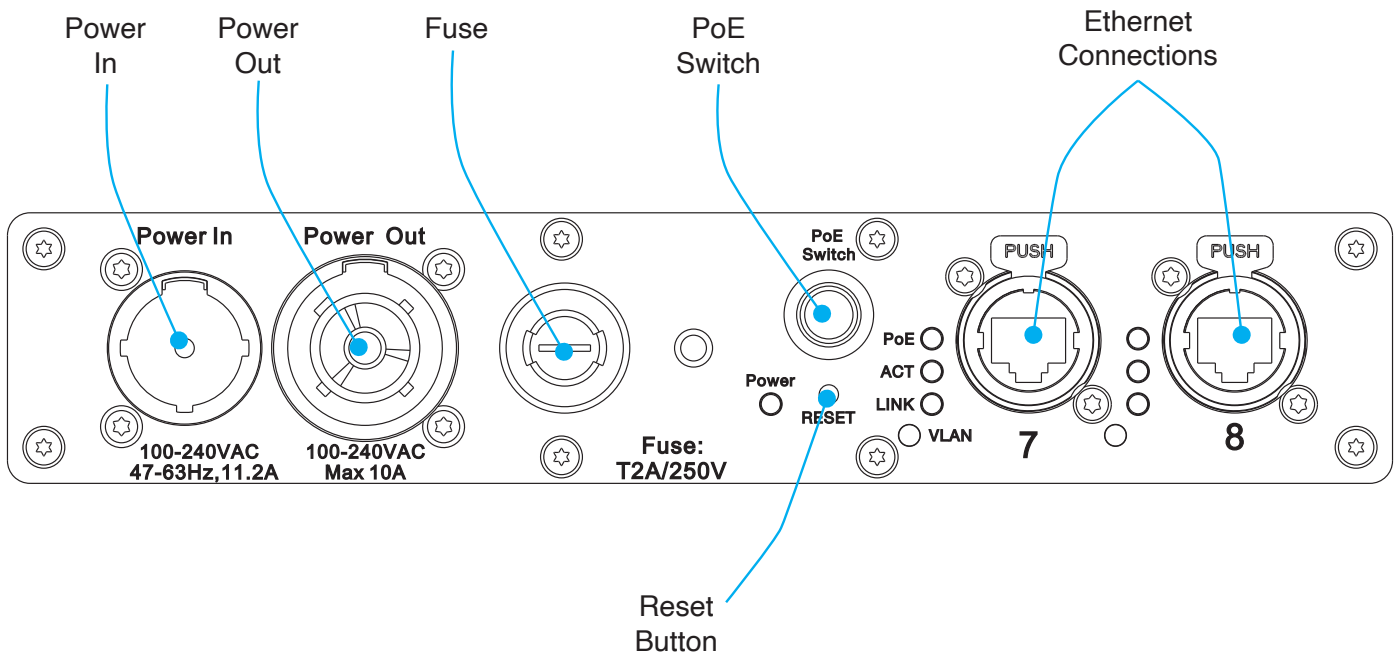
⚠ **DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!**

⚠ **ELECTRICAL CONNECTIONS**
A qualified electrician should be used for all electrical connections and/or installations.

⚠ **USE CAUTION WHEN POWER LINKING OTHER MODEL DEVICES AS THE POWER CONSUMPTION OF OTHER MODEL DEVICES MAY EXCEED THE MAXIMUM POWER OUTPUT OF THIS DEVICE. CHECK SILK SCREEN FOR MAXIMUM AMPS.**

Device MUST be installed following all local, national, and country commercial electrical and construction codes and regulations.

POWER LINKING

⚠ **USE CAUTION WHEN POWER LINKING AS THE POWER CONSUMPTION MAY EXCEED THE MAXIMUM POWER OUTPUT ON THIS DEVICE. CHECK SILK SCREEN FOR MAXIMUM AMPS.**

MOUNTING OPTIONS:
- Truss-mounted using the M10 or M12 mounting holes for use with a truss clamp or appropriate mounting hardware.
- Wall-mounted horizontally or vertically (wall mount brackets included)
- DIN Rail mounted horizontally or vertically (adapter included)
- Rack mount with Obsidian Netshelf (rack and shelf sold separately)
- Standalone, where the device sits on a stable, flat surface.

Refer to the following pages for detailed information on each installation method.

INSTALLATION INSTRUCTIONS

TRUSS MOUNTED WITH CLAMP

Insert an M10 or M12 bolt through a properly rated mounting clamp, then thread the bolt into the matching mounting hole on the side of the device and tighten securely. Please note that one side of the device has the M10 mounting hole, while the other side has the M12 mounting hole. The clamp can now be used to secure the device to a truss. Always use a clamp that has been rated to support the weight of the device and any associated accessories.

M12 Mounting Hole
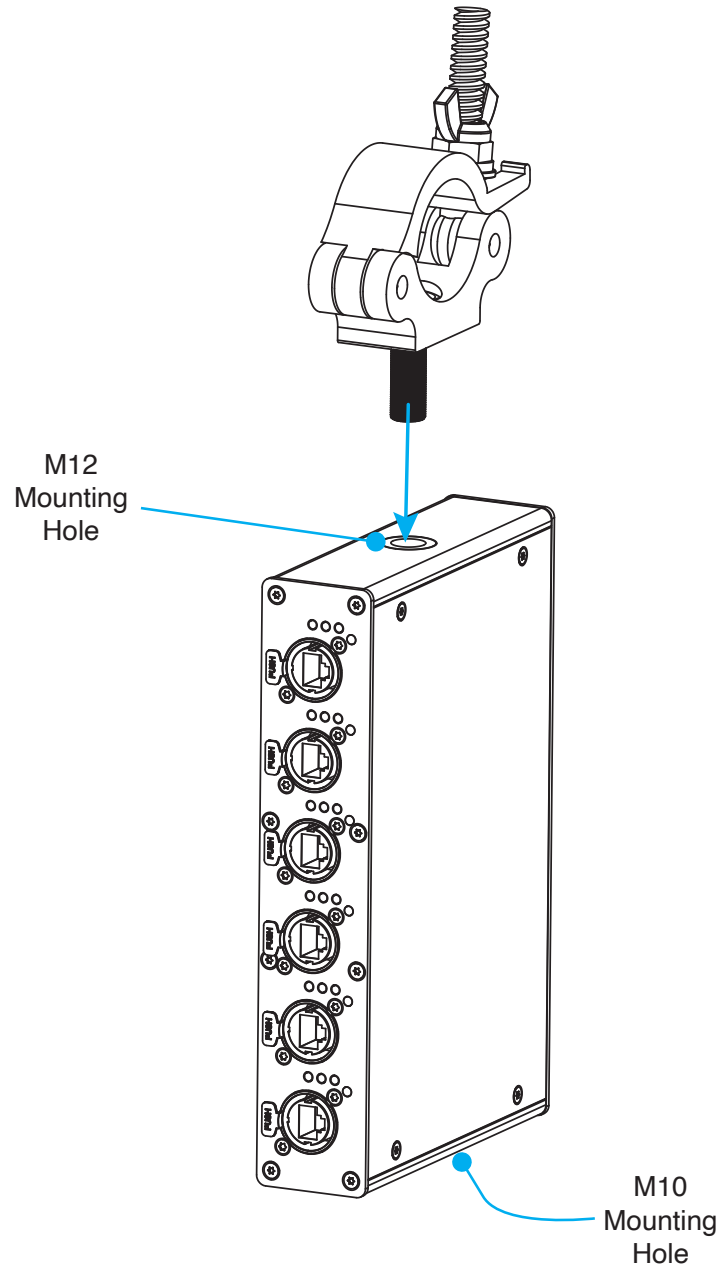
M10 Mounting Hole

INSTALLATION INSTRUCTIONS

WALL MOUNTED

Flip the device over to expose the various mounting holes on the bottom face. Align the circular holes on the included wall mount brackets to the outermost mounting holes on each side of the device (the mounting holes located closest to the edge on each side of the bottom face), then insert the included screws to secure the wall mount brackets in place. Refer to the illustration below. The elongated holes in each bracket can then be used to secure the device to a wall. Always make sure that the mounting surface is certified to support the weight of the device and any associated accessories.

For mounting
to wall

For mounting
to wall
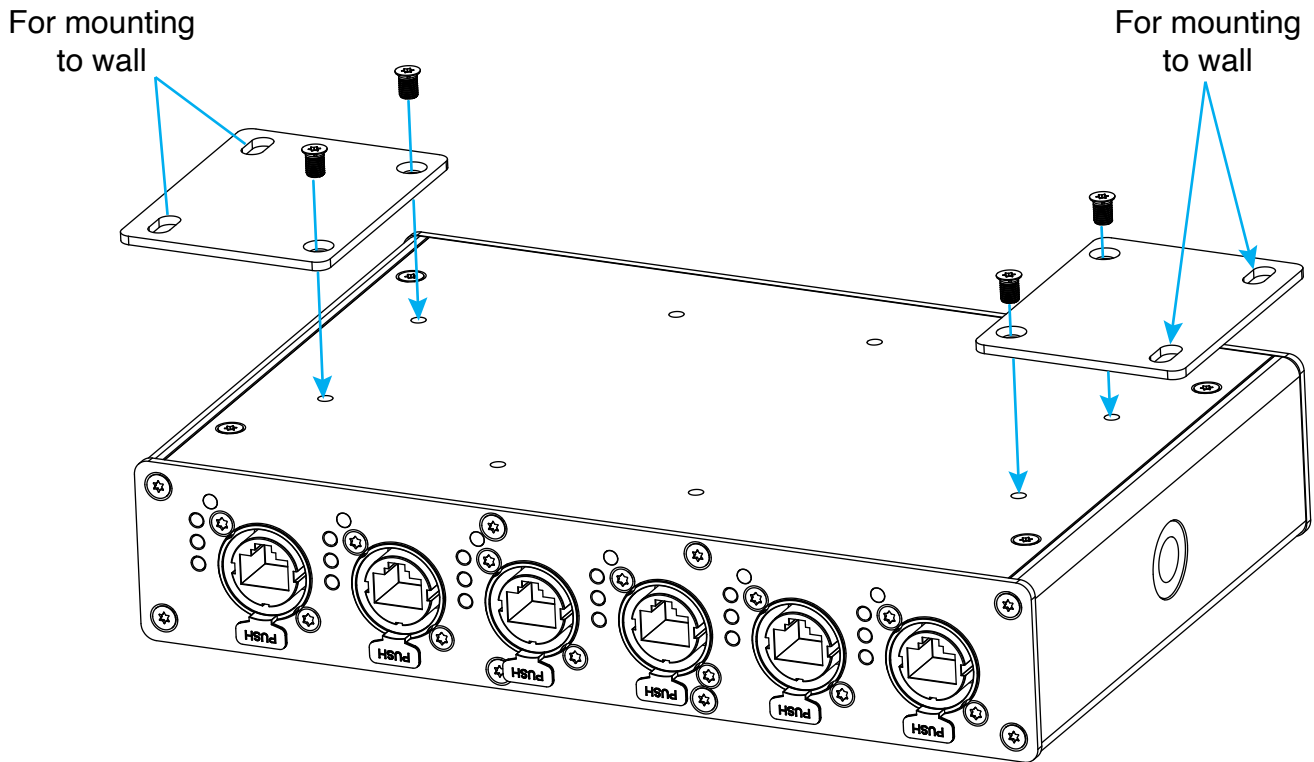
INSTALLATION INSTRUCTIONS
RAIL MOUNTING

Flip the device over to expose the various mounting holes on the bottom face. Align the holes on the included DIN rail mount brackets to the outermost mounting holes on each side of the device (the mounting holes located closest to the edge on each side of the bottom face), then insert the included screws to secure the DIN rail mount brackets in place. Refer to the illustration below. The brackets can now be used to mount the device onto a DIN rail. Always make sure that the rail is certified to support the weight of the device and any associated accessories.
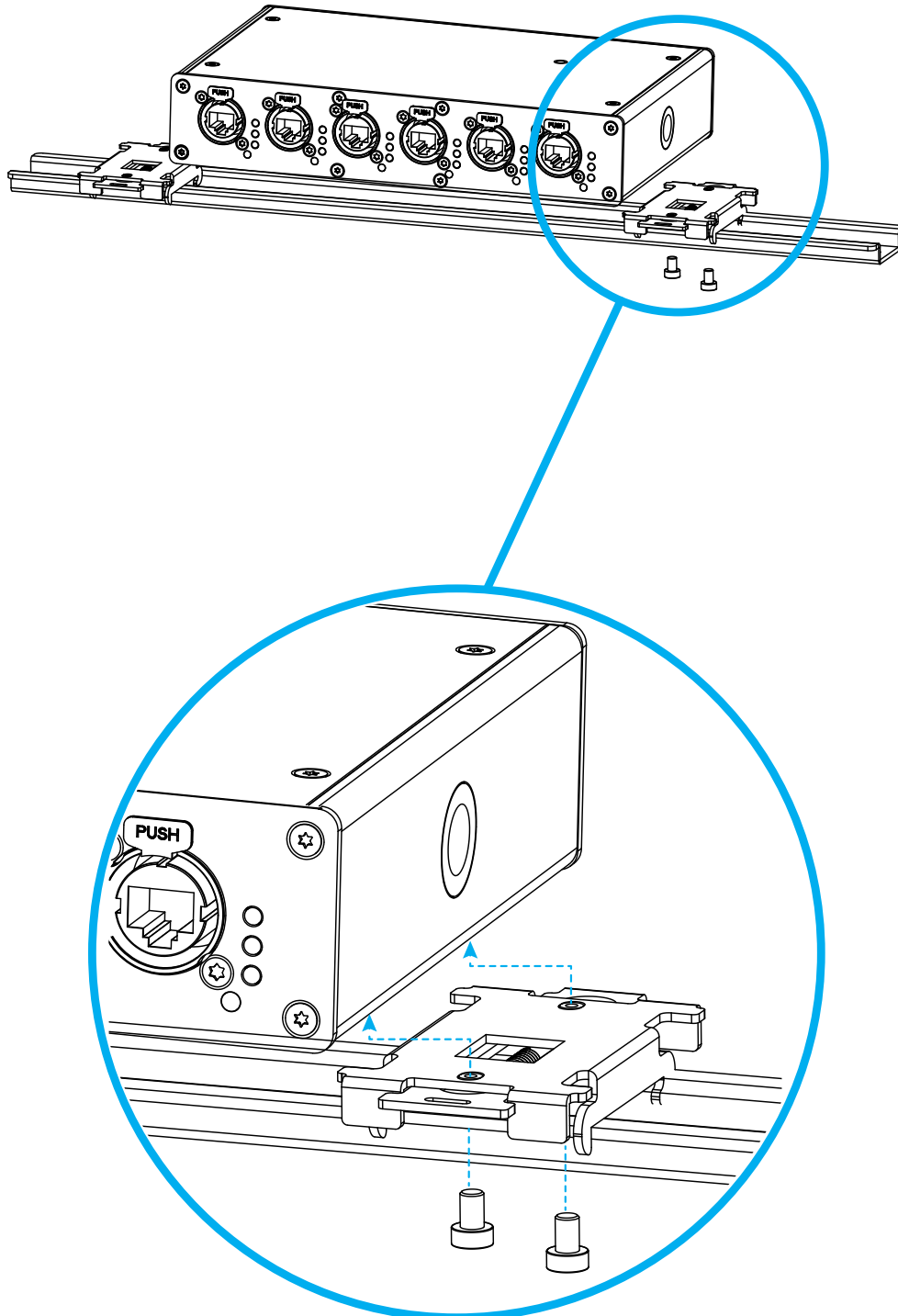
INSTALLATION INSTRUCTIONS

NETSHELF MOUNTING

Flip the device over to expose the various mounting holes on the bottom face. Align the holes on the bottom face of the device with the holes in the Netshelf, then insert the included screws to secure the device to the Netshelf. The Netshelf can now be used to mount the device in a rack or other convenient location using the integrated mounting tabs. Always make sure the mounting location is capable of supporting the weight of the device, the Netshelf, and any other associated accessories.
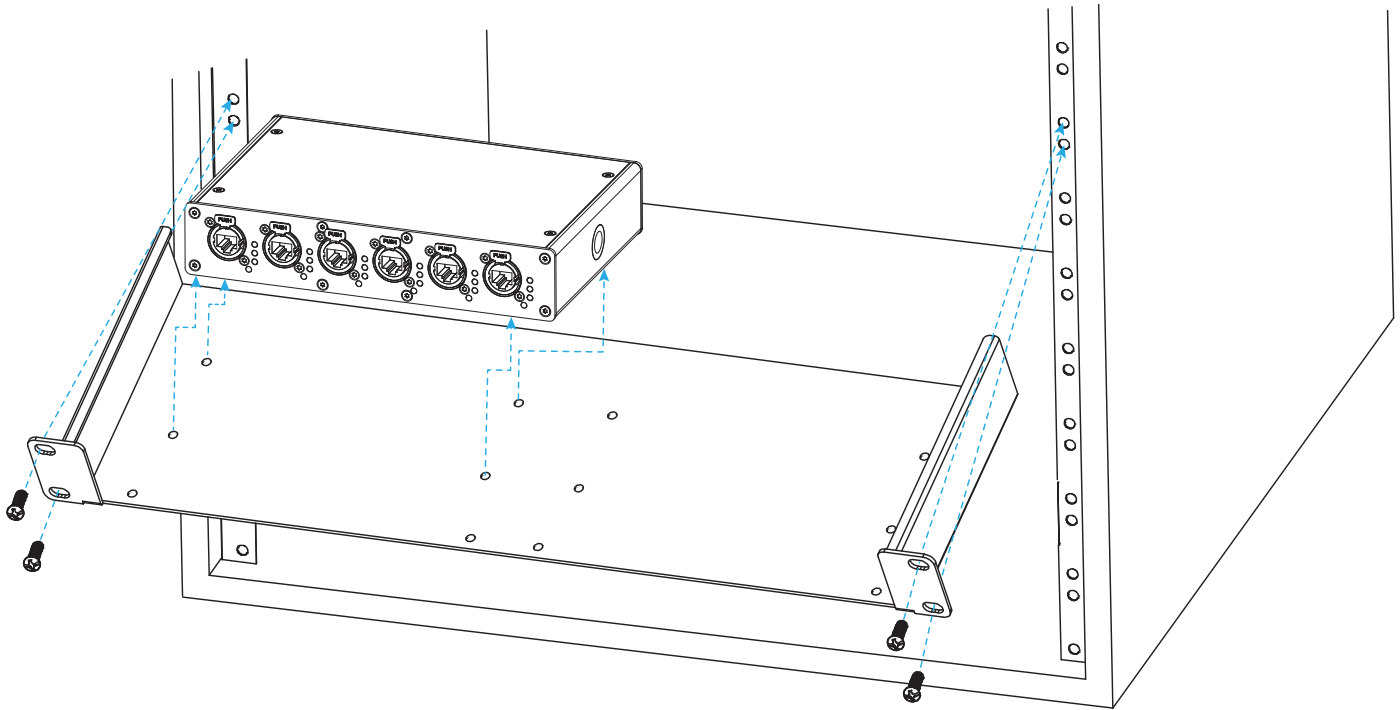
MENU: HOME SCREEN

Connect any of the Ethernet connection ports to your computer, then open your web browser and navigate to the default IP address: **2.0.0.254**. This will bring you to the default home screen, which provides information about the overall status of the device, as well as the status of each port. This screen can be accessed at any time by clicking on the Netron logo at the top left of the screen.
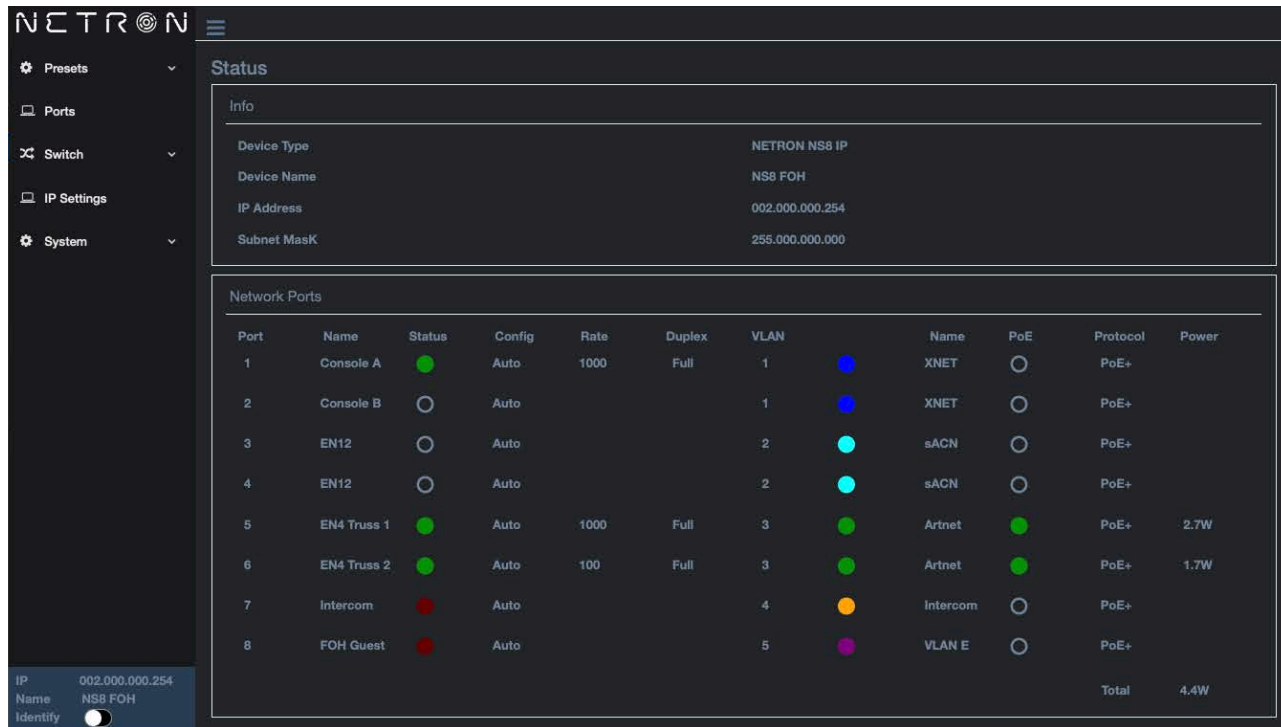
NETWORK PORTS:

- **Port:** Reference number listed above the port on the device.
- **Name:** Custom name, which can be assigned to the port in the Ports menu.
- **Status:** Displays current port status.
  - An empty circle indicates that the port is enabled, but no device is connected.
  - A green circle indicates that the ports is enabled and connected to a device.
  - A red circle indicates that the port is disabled.
- **Config:** Indicates the network speed configuration, which can be set in the Ports menu.
- **Rate / Duplex:** Indicates the current network speed type of the port. This parameter is determined by the device that is connected to the port.
- **VLAN:** Displays the VLAN ID number, along with a colored dot that matches the color defined in the The Switch > VLAN Configuration sub-menu. The color will also be displayed on the LEDs on the front of this device.
- **Name:** Custom name assigned to the VLAN, which can be set in the Switch > VLAN Configuration sub-menu.
- **PoE:** Indicates whether PoE (Power over Ethernet) is active at this port.
- **Protocol:** Indicates the version of PoE that is used at the port. This parameter can be set in the Switch > PoE sub-menu.
- **Power:** Indicates the power used at each PoE port, with total power listed at the bottom.

IDENTIFY SWITCH: Located at the very bottom left corner of the screen, this switch will cause the device to flash its LEDs in order to aid in physically locating the device.

MENU: PRESETS

The user can select from either factory provided or self supplied presets, under the **NETRON PRE-SETS** and **USER PRESETS** sub-menus, respectively.
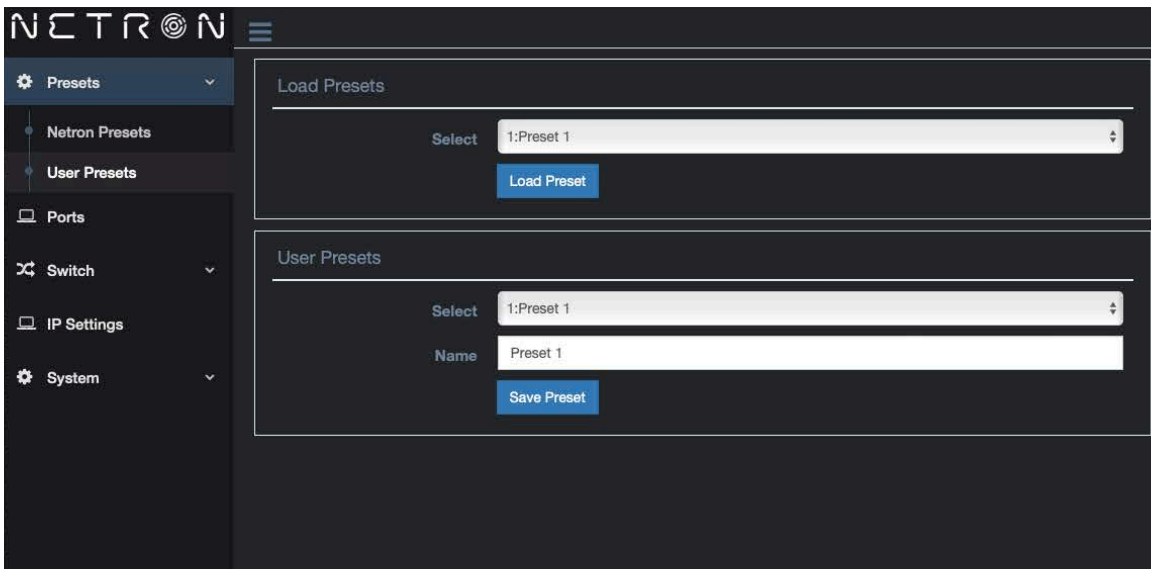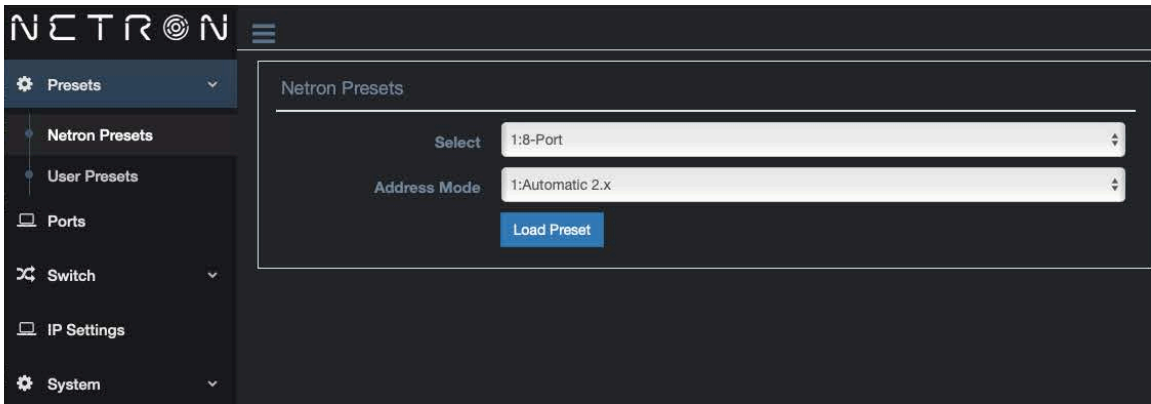
MENU: PRESETS

NETRON PRESETS TABLE

Number	Label	Option		Network Ports							
				1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	8-Port (def.)	Device IP	Port Name	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Port 7	Port 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom 2.0.0.254	Name	VLAN A	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Blue	Red	Green	Orange	Purple	Cyan	White	
			QoS	Off	Off	Off	Off	Off	Off	Off	

Number	Label	Option		Network Ports							
				1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
2	ONYX	Device IP	Port Name	ONYX 1	ONYX 2	ONYX 3	ONYX 4	ONYX 5	ONYX 6	ONYX 7	ONYX 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	ONYX	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Blue	Red	Green	Orange	Purple	Cyan	White	
			QoS	Optimized	Off	Off	Off	Off	Off	Off	

Number	Label	Option		Network Ports							
				1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
3	sACN	Device IP	Port Name	sACN 1	sACN 2	sACN 3	sACN 4	sACN 5	sACN 6	sACN 7	sACN 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	sACN	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Cyan	Red	Green	Orange	Purple	Blue	White	
			QoS	Optimized	Off	Off	Off	Off	Off	Off	

MENU: PRESETS

NETRON PRESETS TABLE

Number	Label	Option		Network Ports							
				1	2	3	4	5	6	7	8
4	Art-Net	Device IP	Port Name	Art-Net 1	Art-Net 2	Art-Net 3	Art-Net 4	Art-Net 5	Art-Net 6	Art-Net 7	Art-Net 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	Art-Net	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Green	Red	Blue	Orange	Purple	Cyan	White	
			QoS	Optimized	Off	Off	Off	Off	Off	Off	

Number	Label	Option		Network Ports							
				1	2	3	4	5	6	7	8
5	ONYX sACN	Device IP	Port Name	ONYX 1	ONYX 2	ONYX 3	ONYX 4	sACN 1	sACN 2	sACN 3	sACN 4
			VLAN	A	A	A	A	B	B	B	B
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	ONYX	sACN	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Blue	Cyan	Green	Orange	Purple	Red	White	
			QoS	Optimized	Optimized	Off	Off	Off	Off	Off	

Number	Label	Option		Network Ports							
				1	2	3	4	5	6	7	8
6	ONYX Art-Net	Device IP	Port Name	ONYX 1	ONYX 2	ONYX 3	ONYX 4	Art-Net 1	Art-Net 2	Art-Net 3	Art-Net 4
			VLAN	A	A	A	A	B	B	B	B
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	ONYX	Art-Net	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Blue	Green	Red	Orange	Purple	Cyan	White	
			QoS	Off	Off	Off	Off	Off	Off	Off	

MENU: PRESETS

NETRON PRESETS TABLE

Number	Label	Option		Network Ports							
				1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
		Device IP	Port Name	MA 1	MA 2	MA 3	MA 4	MA 5	MA 6	MA 7	MA 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
7	MA-Net	Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	MA	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Orange	Red	Green	Blue	Purple	Cyan	White	
			QoS	Opti-mized	Off	Off	Off	Off	Off	Off	

Number	Label	Option		Network Ports							
				1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
		Device IP	Port Name	ETC 1	ETC 2	ETC 3	ETC 4	ETC 5	ETC 6	ETC 7	ETC 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
8	ETC	Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	ETC	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Red	Blue	Green	Orange	Purple	Cyan	White	
			QoS	Opti-mized	Off	Off	Off	Off	Off	Off	

Number	Label	Option		Network Ports							
				1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
		Device IP	Port Name	Hog 1	Hog 2	Hog 3	Hog 4	Hog 5	Hog 6	Hog 7	Hog 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		**VLAN**							
9	Hog-Net	Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	Hog	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Purple	Red	Green	Orange	Blue	Cyan	White	
			QoS	Opti-mized	Off	Off	Off	Off	Off	Off	

MENU: PRESETS

NETRON PRESETS TABLE

Number	Label	Option		Network Ports							
				1	2	3	4	5	6	7	8
10	Avo-lites	Device IP	Port Name	Avo 1	Avo 2	Avo 3	Avo 4	Avo 5	Avo 6	Avo 7	Avo 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		VLAN							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	AVO	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Red	Blue	Green	Orange	Purple	Cyan	White	
			QoS	Optimized	Off	Off	Off	Off	Off	Off	

Number	Label	Option		Network Ports							
				1	2	3	4	5	6	7	8
11	Cham-sys	Device IP	Port Name	CHS 1	CHS 2	CHS 3	CHS 4	CHS 5	CHS 6	CHS 7	CHS 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		VLAN							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	Cham-sys	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	Blue	Red	Green	Orange	Purple	Cyan	White	
			QoS	Off	Off	Off	Off	Off	Off	Off	

Number	Label	Option		Network Ports							
				1	2	3	4	5	6	7	8
12	Dante	Device IP	Port Name	Dante 1	Dante 2	Dante 3	Dante 4	Dante 5	Dante 6	Dante 7	Dante 8
			VLAN	A	A	A	A	A	A	A	A
		Automatic 2.x									
		Automatic 10.x		VLAN							
		Automatic 192.168.x		**A**	**B**	**C**	**D**	**E**	**F**	**Trunk**	
		Automatic 197.168.x	ID	1	2	3	4	5	6		
		Custom	Name	Dante	VLAN B	VLAN C	VLAN D	VLAN E	VLAN F	Trunk	
			Color	White	Red	Green	Orange	Purple	Cyan	Blue	
			QoS	Dante	Off	Off	Off	Off	Off	Off	

MENU: PORTS

The **PORTS** menu allows the user to configure the settings for each individual port on this device.
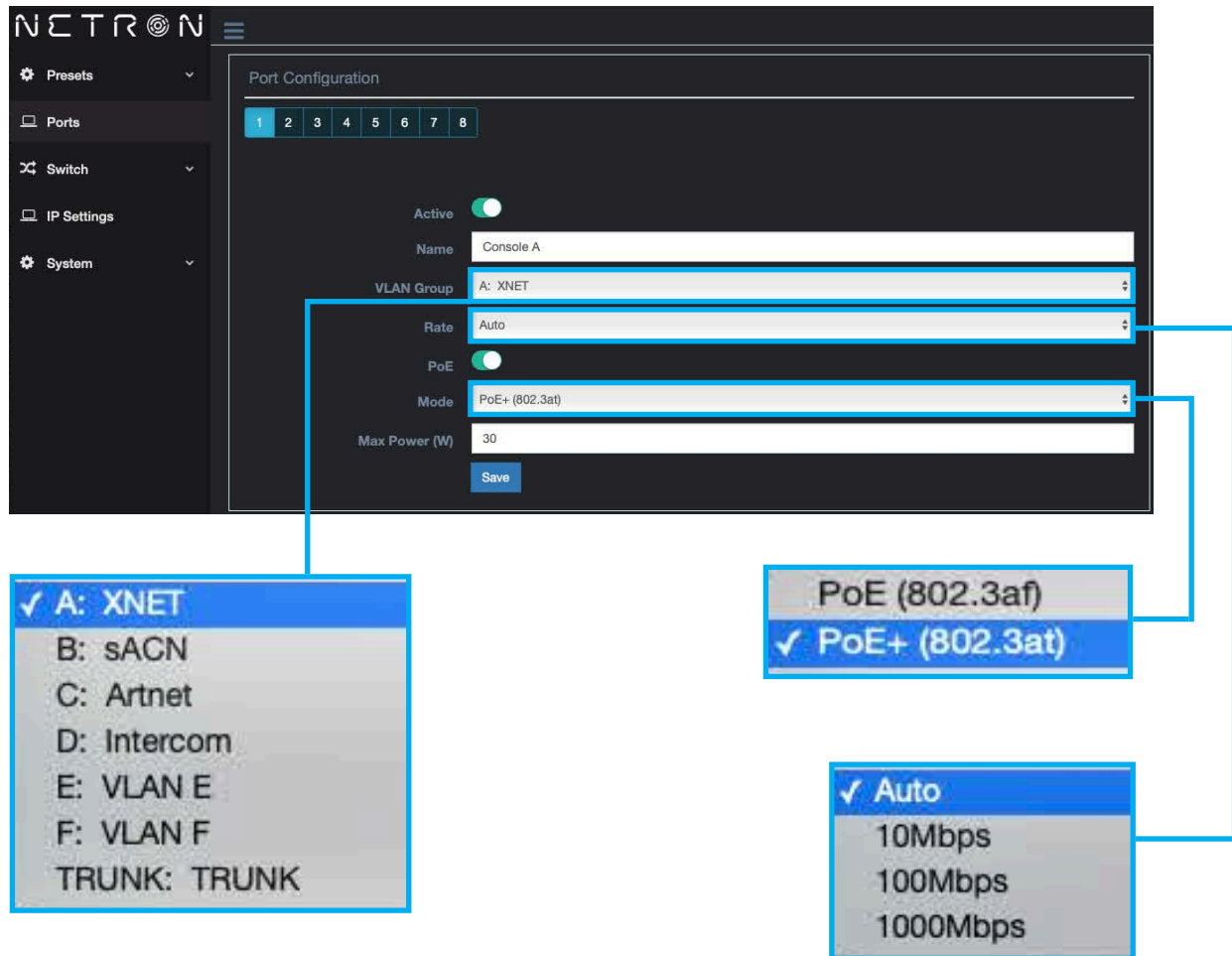
- **Port Tab Number -** Located at the top of the page, and used to select the port number that the settings will apply to.
- **Active Switch -** Enables or disables the port. Please note that when disabled, the PoE switch will automatically be disabled, the device LEDs will turn off, and all other port setting parameters will remain unchanged.
- **Name -** Custom user generated label for the port.
- **VLAN Group -** Assigns the port to a specified VLAN group. Drop down menu options will correspond to the configured settings in the Switch > VLAN Configuration menu.
- **Rate -** Select the port speed. Options include Auto, 10Mbps, 100Mbps, or 1000Mbps. Auto is typically recommended as the optimal setting.
- **PoE -** Enables or disables PoE (Power over Ethernet).
- **Mode -** Select the PoE protocol. Options include 802.3at (for up to 15W) or 802.3af (for up to 30W). The optimal choice will depend on the requirement of the device attached to this port.
- **Max Power -** Set a maximum output that the port will be permitted to deliver. Please note that the maximum PoE budget of this device is 100W.

PLEASE NOTE: Remember to save all settings before navigating to another menu or tab.

MENU: SWITCH
VLAN CONFIGURATION

- **Tab A-F, Trunk -** Select the desired VLAN group. This device can manage up to 6 groups, plus the "Trunk", which includes all VLANs and allows point to point traffic of VLANs from one switch to another.
- **ID -** Set the VLAN ID.
- **Name -** Custom user generated label for the VLAN.
- **Color -** Select the color that will be associated with the VLAN on both the Home Screen and the device LEDs. Available color choices are Blue, Red, Green, Orange, Purple, Cyan, and White.
- **DHCP Server -** Enable or disable the ability to automatically distribute IP addresses to the VLAN groups.
- **Start IP / End IP -** Manually define that range of IP addresses that can be used.
- **Subnet Mask -** Set the desired subnet mask for the DHCP addresses.
- **Gateway -** Manually define the gateway IP address.
- **IGMP Querier -** Enable or disable the ability of the VLAN to query supported devices and subscribe the port to the requested Multicast Group(s). ***Please note that only one Querier should be active on a given VLAN, and therefore the Querier should be disabled on all other switches in the VLAN group.***
- **IGMP Snooping -** This function must be enabled for Multicast support, such as with sACN networks. If disabled, the Multicast traffic will be broadcasted, potentially slowing down or otherwise reducing system performance.

MENU: SWITCH

IGMP CONFIGURATION - These settings apply to the entire device and across all VLAN groups.


- **Automatic Configuration -** It is generally recommended to leave this function enabled, as it is optimized for entertainment networking protocols. However, the below parameters may be customized as desired in the event that the user has a specific reason for doing so. ***Please note that great care should be taken when adjusting these settings, as they can drastically affect network performance.*** To return the IGMP configuration to the optimized defaults, press the RESET button or re-enable the Automatic Configuration function.
- **Query Interval -** Set the interval, measured in seconds, between IGMP queries.
- **Query Max Response Time -** Set the time, measured in seconds, that the system will wait for a response to a query.
- **Last Member Interval -** Set the time, measured in seconds, between successive group-specific query messages.
- **Last Member Query Count -** Set the number of attempts that the host will make to reach a member before the member is removed from the group.
- **Version -** Select the IGMP protocol. Available selections are v2 or v3.
- **Querier IP -** Define the IP address of the network querier.
- **Report Suppress -** Enabling this function improves the network performance by limiting the number of IGMP reports forwarded.

IGMP GROUP INFORMATION - Displays a summary of all IGMP group IDs detected.

MENU: SWITCH

QoS CONFIGURATION - The Quality of Service (QoS) configuration can be used to improve system performance by selectively prioritizing certain network traffic. For instance, in this device, video or audio streams may be given priority over web browser traffic. ***Please note that QoS settings apply across the entirety of this device and across all VLAN groups.***
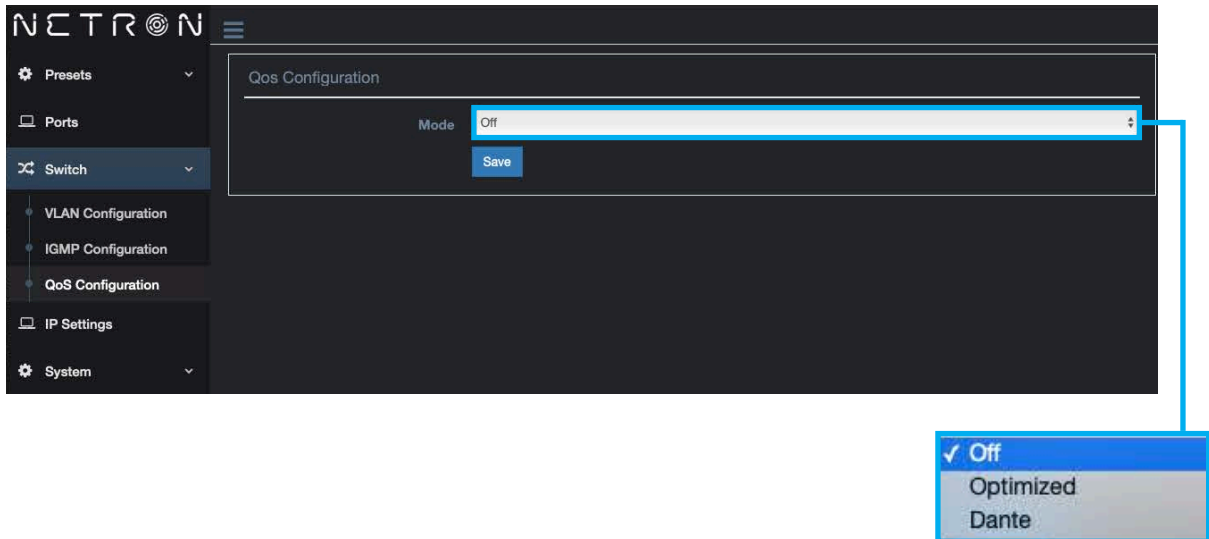
Available QoS configuration settings are described below:

- **Off -** By default, QoS is disabled, which means that all types of network traffic are handled identically.
- **Optimized -** DSCP values are used to optimize higher priority network traffic.
- **Dante -** The network traffic priority levels are adjusted to suit the requirements of Dante Audio streams.

MENU: IP SETTINGS

This menu can be used to set the IP address mode, IP address, and subnet mask. *The default IP address for this device is 2.0.0.254, Subnet 255.0.0.0.*
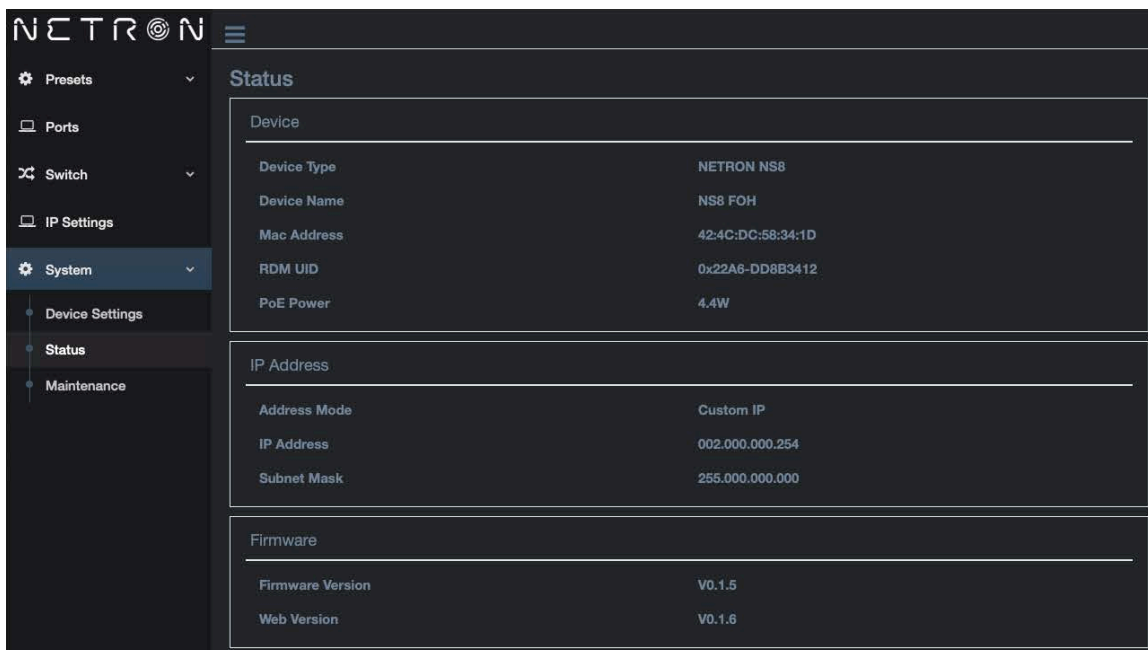
MENU: SYSTEM

DEVICE SETTINGS - This sub-menu can be used to create a user-generated name and ID for the device. Make sure to press the **SAVE** button before navigating away from this menu.
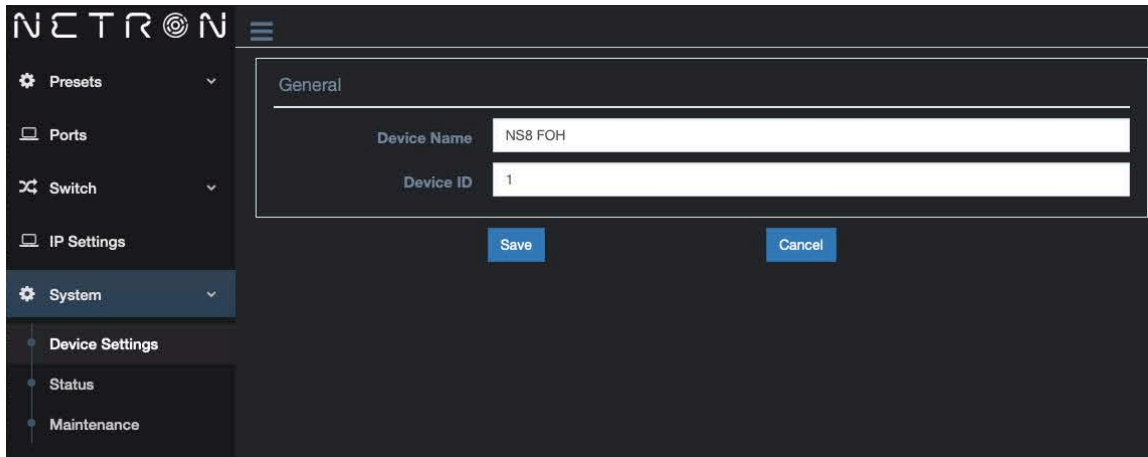

STATUS - This sub-menu displays the status of various device parameters, which are organized into the following three categories:

- **Device:** Device Type, Device Name, Mac Address, RDM UID, and PoE Power.
- **IP Address:** Address Mode, IP Address, and Net Mask.
- **Firmware:** Firmware Version and Web Version.

MENU: SYSTEM

MAINTENANCE - This sub-menu can be used to return the device to default settings, reboot the system, load setting files, or update the device firmware.
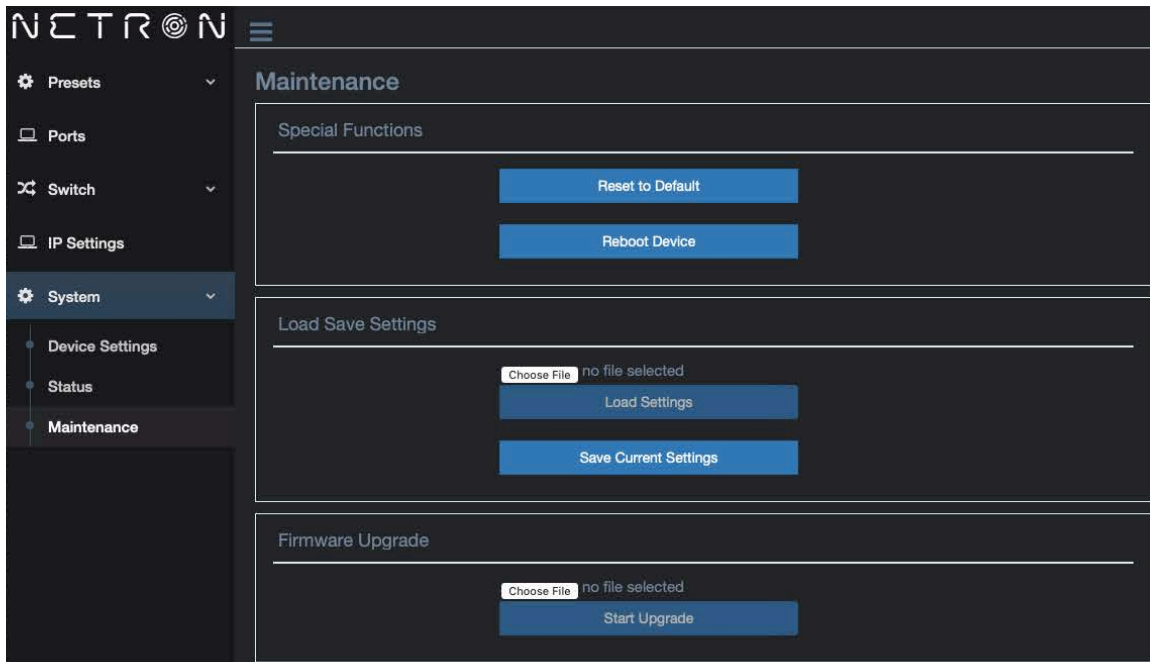
SPECIAL FUNCTION
- Reset to Default - Reset all device parameters to default factory settings. Alternately, pressing and holding the **RESET** button on the device for 10 seconds will restore the device to factory defaults.
- Reboot Device - Restart device.

LOAD SAVE SETTINGS
- **Load Settings -** Load a .bak setting file by clicking the **CHOOSE FILE** button, selecting the desired file, then clicking the **LOAD SETTINGS** button.
- **Save Current Settings -** Press this button to save the settings that are currently loaded to the device.

FIRMWARE UPDGRADE - Update the device firmware by clicking the **CHOOSE FILE** button, selected the desired file, then pressing the **START UPGRADE** button. Refer to the **FIRMWARE UPDATES** section for detailed information.

It is recommended to utilize the NETRON CLU application for firmware updates.

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FIRMWARE UPDATES

Updates for improved performance or to add additional features may be available on www.obsidian-control.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: **2.0.0.254/update.html.**
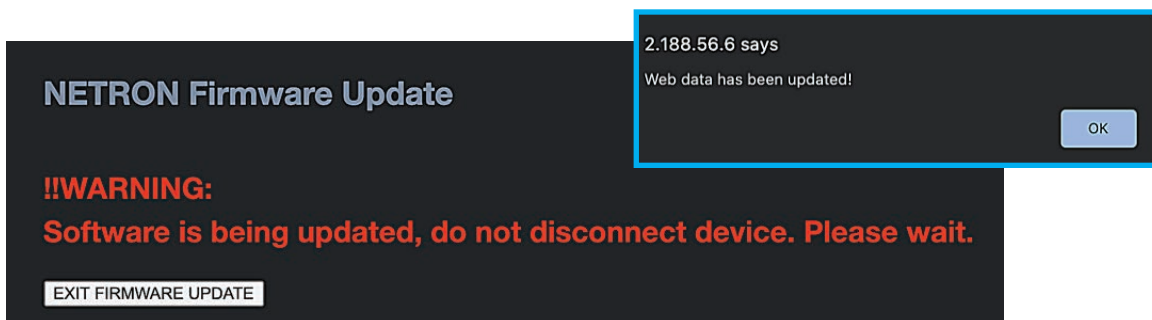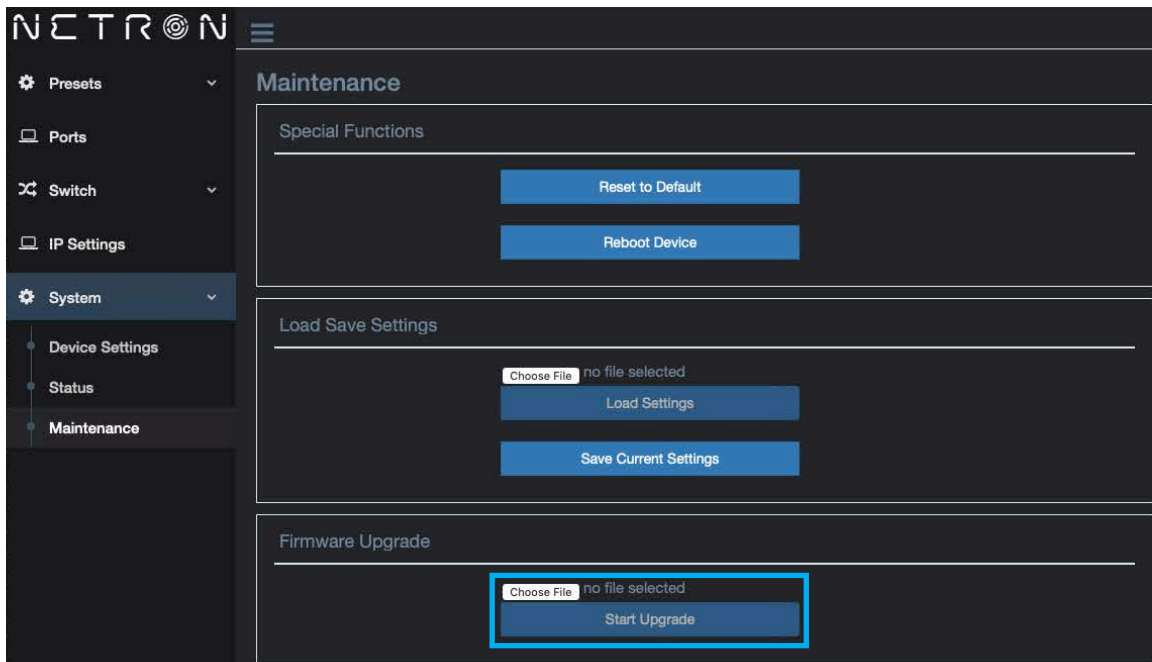
SPECIFICATIONS

Mounting
- Standalone
- Truss-mount (M10 or M12 mounting hole)
- Wall-mount horizontal or vertical (included)
- DIN Rail horizontal or vertical (included)
- 1/2 Rack-mount option (requires NET Shelf)

Connections - Front
- (6) Locking RJ45 Ethernet network connections
- LED Feedback for Activity, Link, PoE, VLAN

Connections - Back
- Locking Power In/Thru
- (2) Locking RJ45 Ethernet network connections
- LED Feedback for Activity, Link, PoE, VLAN
- PoE Power Switch

Support
- sACN, Art-Net
- ONYX X-Net, MANet2, MA-Net3, HogNet, ETC Net3
- Dante
- Broadcast, Unicast, Multicast
- IEEE 802.3, 802.3ab, 802.3x, 802.1p 802.3at, 802.3af, 802.1Q, IGMPv2,v3

Ethernet Features
- PoE (15W), PoE+ (30W), Max power per port setting
- IGMP Querier, IGMP Snooping
- VLAN (6 Groups, Trunk, Color Coding)
- DHCP Server per VLAN
- Dante compliant QoS Preset
- Total Switching Capacity: 10Gbps

Physical
- Length: 139 mm (5.47 in.)
- Width: 215 mm (8.46 in.)
- Height: 42 mm (1.65 in.)
- Weight: 1 kg (2.2 lbs)

Electrical
- 100-240 V nominal, 50/60 Hz, 109W
- PoE, PoE+
- 100W Total PoE Budget

Approvals / Ratings
- cETLus / CE / IP20 / FCC

Included Items
- 1.5m Locking IP65 Power Cable (EU or US version)
- (2) Wallmount plates
- (2) DIN-Rail clamps

SKU
- US #: NWS008
- EU #: 1330000087

DIMENSIONS

Dimension drawings not to scale

215mm (8.46in)

42mm
(1.65in)

139mm (5.47in)

147mm (5.78in)