

# ARTNET CONTROLLER 8



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**KEEP THIS MANUAL FOR FUTURE NEEDS**



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Before You Begin

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# 1. Before You Begin

## What Is Included

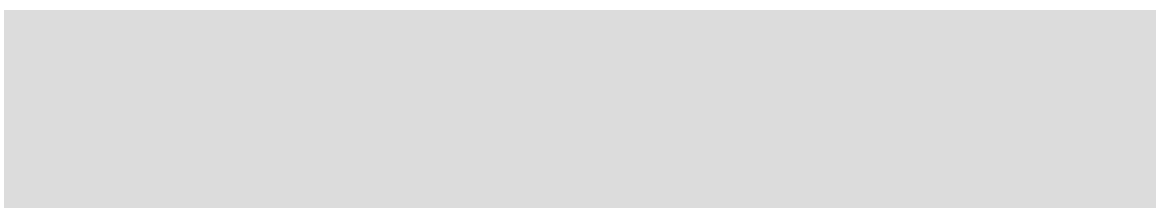
AC-8 Converter 1pcs

PowerConCable 1pcs

User Manual 1pcs

## Safety Notes

Please read the following Safety Notes carefully before starting to work with the product. These notes provide important safety information about the installation, usage, and maintenance.



Make sure the power cord is not crimped or damaged.

Always connect this product to a power source with the proper voltage as listed on the product sticker.

Do not operate the product if there is damage to the housing.

This product is for indoor use only! It is rated IP20. Do not expose the product to rain or moisture.

Always disconnect this product from power before cleaning it or changing the fuse.

Never disconnect the product from the power source by pulling or tugging on the cord.

If mounting the product overhead, always secure it using a safety cable.

Make sure there are no flammable materials close to the product when it is operating.

This product is not intended for permanent installation.

Never connect the product to a dimmer or a rheostat.

Always install the product in a location with adequate ventilation.



## 2. Introduction

### Product Description

AC-8 is a reliable and versatile rack-mountable Art-Net™-to-DMX adapter with an integrated optical DMX splitter and Art-Net™ hub capability. It has two 5-pin DMX In ports and eight 5-pin DMX Out ports, all optically isolated. It takes up to 8 Art-Net™ universes simultaneously. The eight 5-pin DMX Out ports can be assigned to either of the DMX In ports or to one of the Art-Net™ Neutrik® etherCON® ports. Neutrik® etherCON® ports are through ports that allow daisy chaining of AC-8 units.

AC-8 provides a reliable, highly customizable network infrastructure for complex control systems.

### Product Features

Rack mountable

Both an Art-Net™ node and an optical splitter

Eight optically isolated output ports

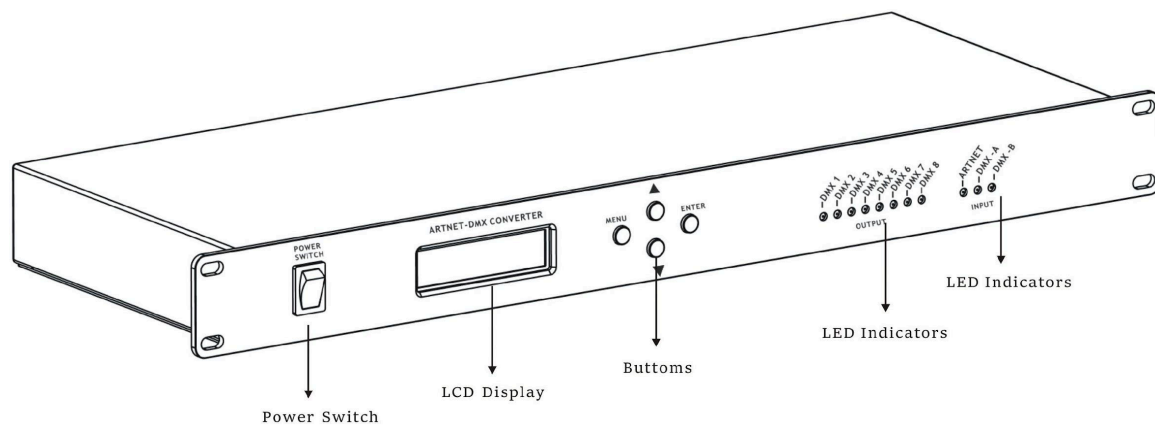
Variable operating modes for all DMX outputs

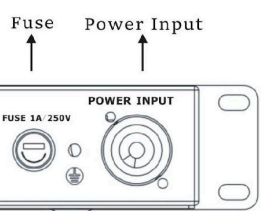
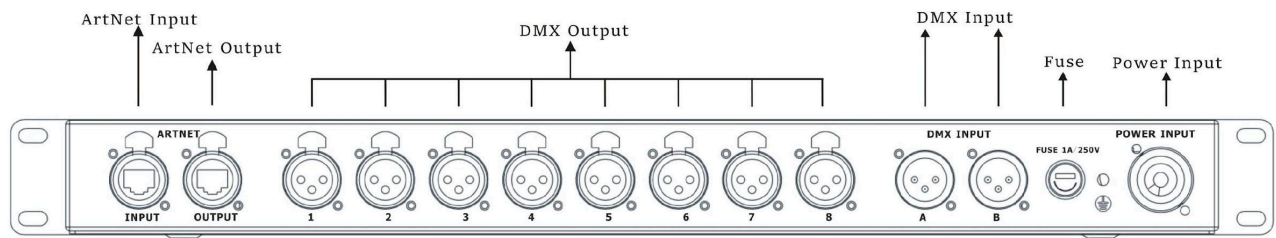
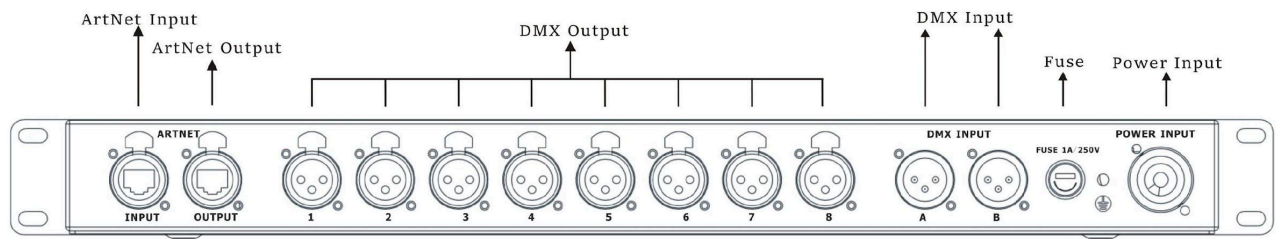
Two Neutrik® etherCON® in/through ports

### Additional Products

The AC-8 is an adapter and hub combined that works as part of a control system. Its has a line of video products and lighting products that work with the AC-8. For more information about compatible our products, see the our website .

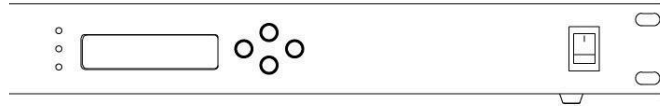
### Product Overview



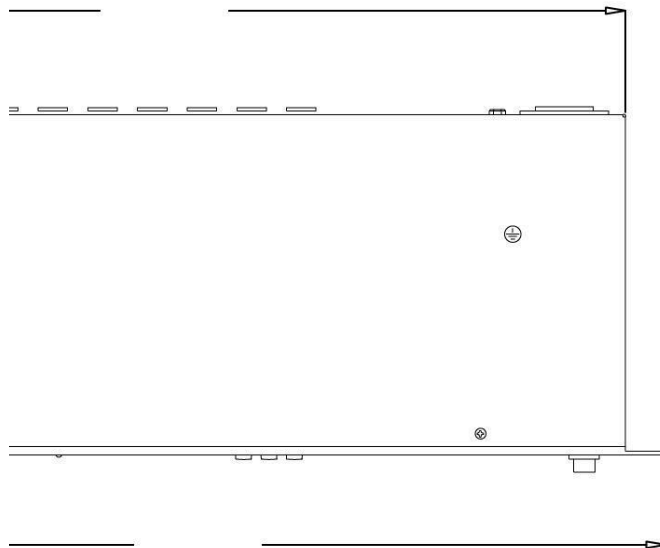


## Product Dimensions

in  
mm



6.6 in  
167.9 mm



19 in  
mm





## 3. Setup And Installation

### AC Power

AC-8 has an internal auto- ranging power supply that works with an input voltage range of 100–240 VAC, 50/60 Hz. To determine the power requirements for the AC-8 refer to the label affixed to the product or [Technical Specifications](#).

The listed rating indicates the maximum current draw during normal operation. For more information, download Sizing Circuit Breakers from the our website.

**Always connect this product to a properly grounded and protected circuit.**



**Never connect this product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.**

### Fuse Replacement

Disconnect the product from power.

Wedge the tip of a flat-head screwdriver into the slot of the fuse holder.

Pry the fuse holder out of the housing.

Remove the blown fuse from the holder.

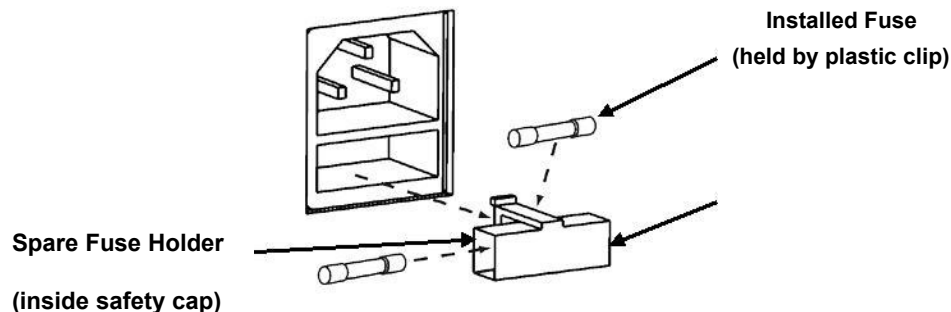
Replace with a fuse of the exact same type and rating.

Insert the fuse holder back in place and reconnect power.



**Disconnect the product from power before replacing the fuse.**

### Fuse Replacement Diagram



**Always replace a blown fuse with another of the same type and rating.**



**A spare fuse is not included; however, the safety cap has room for a spare.**



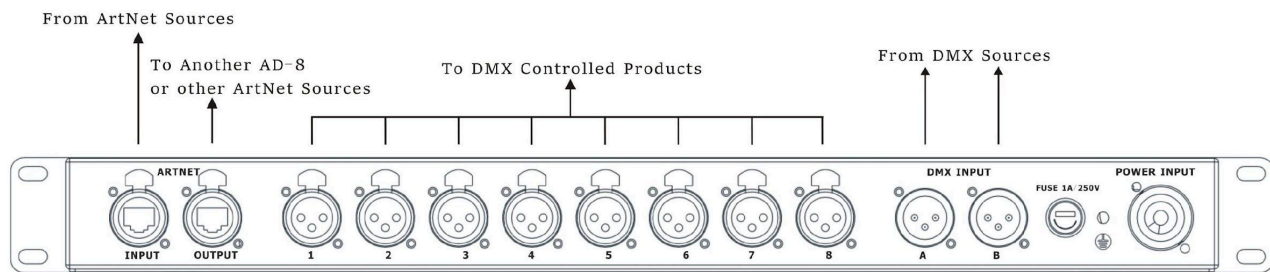
## Mounting

The AC-8 fits nicely in a standard 19" rack, or sits on a flat surface. The Net-X™ should be placed where the menu and the ports are accessible, and where there is adequate ventilation.

## Signal Connection

The AC-8 receives signal through 2 DMX In ports and one of 2 Neutrik® etherCON® ports. It sends signal out through 8 DMX Out ports and the other Neutrik® etherCON® port.

## Signal Connection Diagram



**The Neutrik® etherCON® ports are through ports. Each port can be either an input or an output port.**

**The DMX ports can only be input or output ports. There are 2 DMX In ports and 8 DMX Out ports.**

## Installation Guidelines

The AC-8 is used as part of a control system for operating various lighting and multi-media products. The physical and digital construction of the control network is determined by the location and signal needs of the products.

When designing a control system that uses the AC-8, consider the following:

Placing the AC-8 so the menu and ports can be accessed

Running the cables so there is no tension or pull on the cables or plugs

Planning a large control system carefully before configuring the components, so IP address, DMX address, and other identifiers are not duplicated

## 4. Configuration And Operation

The AC-8 is configured through the control panel, using the control panel buttons. Once the AC-8 is properly configured it operates without user intervention.

The AC-8 can be used as a DMX splitter only, in which case the DMX In ports must be assigned to the DMX Out ports, but the Net, Subnet, and IP address settings do not need configuration.

The AC-8 can be used as an Art-Net™ hub, in which case the AC-8 universes must be assigned to the DMX Out ports, and the Net, Subnet, and IP address settings must be configured.

The AC-8 can be used as both a DMX splitter and an AC-8 hub simultaneously, in which case both the DMX assignments and the AC-8 settings must be configured. For more information, see [Configuration Examples](#).



**DMX In ports and AC-8 universes can be assigned to multiple DMX Out ports.**

### Control Panel

The control panel is the mechanism for configuring the AC-8 settings. It has a small LCD screen and four buttons, which are described below.

Button	Function
<MENU>	Scrolls through the first level of options, or exits from the current menu or function
<UP>	Navigates upward through the menu list or increases the numeric value when in a function
<DOWN>	Navigates downward through the menu list or decreases the numeric value when in a function
<ENTER>	Enables the currently displayed menu or sets the currently selected value in to the current function



## Menu Map

The menu map shows the organization of the configuration settings. Use it for reference when configuring the AC-8.

Main Function	Programming Levels	Description
<Net>	0–127	Sets the Net address
<Subnet>	0–127	Sets the Subnet address
<Universe #1> to <Universe #8>	0–15	Sets the Art-Net™ universe for the corresponding DMX Out port (only necessary if the DMX port is set to Art-Net™)
<DMX Output #1> to <DMX Output #8>	ArtNet Input	Input source for each DMX Out port is Art-Net™
	DMX #1 Input	Input source for each DMX Out port is DMX In port 1
	DMX #2 Input	Input source for each DMX Out port is DMX In port 2
	Without Input	DMX Out port is turned off
<IP Address #1>	x.xxx.xxx.xxx	Sets the two IP addresses for the Net-X™
<IP Address #2>		Note: The addresses cannot be the same.
<Device ID>	xxxxxxxx	Shows the Net-X™ device ID

## Using The Menu

The menu is used by pressing the 4 control buttons as described in the next sections.

### Configuring Net Address

The Net is the address of the network on which the AC-8 is operating. The Net address must be configured if the AC-8 is being used as an AC-8 hub.

To configure the Net setting, do the following:

Press **<MENU>** repeatedly until **<Net>** shows in the display.

Press **<ENTER>**. The number in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until the desired Net shows.

Press **<ENTER>**.

### Configuring Subnet Address

The Subnet is the address of the subnet of the network on which the AC-8 is operating. The Subnet address must be configured if the AC-8 is being used as an Art-Net™ hub.

To configure the Subnet setting, do the following:

Press **<MENU>** repeatedly until **<Subnet>** shows in the display.

Press **<ENTER>**. The number in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until the desired Subnet shows.

Press **<ENTER>**.





## Configuring Universes

Universes are assigned to DMX Out ports when the AC-8 is used as an AC-8-to-DMX adapter. The universes are part of the process by which the Net-X™ takes the Art-Net™ protocol and converts it to DMX. There are 16 AC-8 universes (0–15) that can be assigned to the DMX Out ports. Any one universe can be assigned to more than one DMX Out port.

The menu structure presents each DMX Out port as **<Universe #X>**, where **X** is the DMX Out port. The AC-8 universes are assigned by selecting a value from **0** to **16**.

To assign an AC-8 universe to a DMX Out port, do the following:

Select the DMX Out port to assign an AC-8 universe to by pressing **<MENU>** repeatedly until **<Universe #X>** shows in the display.

Press **<ENTER>**. The number in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until the desired Art-Net™ universe shows.

Press **<ENTER>**.

## Configuring DMX Outputs

The DMX Out ports must be configured to accept signal from either one of the DMX In ports, or from the AC-8 source. If the DMX port is not being used it should be turned off.

The menu structure presents each DMX Out port as a **<DMX Output #X>**, where **X** is the DMX Out port.

To configure the DMX Out ports, do the following:

1. Select the DMX Out port to configure by pressing **<MENU>** repeatedly until **<DMX Output #X>** shows in the display.

Press **<ENTER>**. The phrase in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until the desired DMX input source or state of the port shows.

Press **<ENTER>**.

## Configuring IP Addresses

The IP address is the address of the AC-8 on the network. It must be configured if the AC-8 is being used as an AC-8 hub.

To configure the IP Address, do the following:

Press **<MENU>** repeatedly until **<IP Address #1>** shows in the display.

Press **<ENTER>**. The left-most set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** to change that set of numbers.

Press **<ENTER>**. The next set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** to change that set of numbers.

Press **<ENTER>**. The right-most set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** to change that set of numbers.

Press **<MENU>**.

## Configuration Examples

AC-8 is extremely versatile, with DMX source capabilities and AC-8 source capabilities which can be combined so that the AC-8 is acting as a DMX splitter, an Art-Net™ adapter, and an AC-8 hub.

### DMX Source (DMX Splitter)

DMX source-only configuration uses the AC-8 as a DMX splitter. The DMX signal comes in from one or both of the DMX In ports and goes out through one or more of the DMX Out ports.

To configure the AC-8 as a DMX splitter with the input and output assignments listed here

DMX In port 1 goes to DMX Out ports 4 and 5

DMX In port 2 goes to DMX Out ports 7 and 8

Do the following:

Disable unused DMX Out ports by doing the following for DMX Out ports 1, 2, 3, and 6:

Press **<MENU>** repeatedly until **<DMX Output Port #X>** shows on the display.

Press **<ENTER>**. The phrase in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **<Without Input>** shows in the lower right-hand corner.

Press **<ENTER>**. **<Without Input>** stops flashing.

Configure the DMX Out ports that will receive from DMX In port 1 by doing the following for DMX Out ports 4 and 5:

Press **<MENU>** repeatedly until **<DMX Output Port #X>** shows on the display.

Press **<ENTER>**. The phrase in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **<DMX #1 Input>** shows in the lower right-hand corner.

Press **<ENTER>**. **<DMX #1 Input>** stops flashing.

Configure the DMX Out ports that will receive from DMX In port 2 by doing the following for DMX Out ports 7 and 8:

Press **<MENU>** repeatedly until **<DMX Output Port #X>** shows on the display.

Press **<ENTER>**. The phrase in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **<DMX #2 Input>** shows in the lower right-hand corner.

Press **<ENTER>**. **<DMX #2 Input>** stops flashing.

## AC-8 Source (AC-8 adapter)

AC-8 source-only configuration uses the AC-8 as an AC-8-to-DMX adapter. The signal comes in from the AC-8 source to the Neutrik® etherCON® port and goes out through one or more of the DMX Out ports.

To configure the AC-8 as an AC-8-to-DMX adapter with the addresses and DMX Out port assignments listed here:

Net setting of 3

Subnet setting of 7

IP addresses of 10.255.255.009 and 10.255.255.011

AC-8 universe 4 going to DMX Out port 1

AC-8 universe 8 going to DMX Out port 2

Do the following:

Set the Net address to 3 by doing the following:

Press **<MENU>** repeatedly until **<Net>** shows in the display.

Press **<ENTER>**. The number in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **3** shows.

Press **<ENTER>**.

Set the Subnet address to 7 by doing the following:

Press **<MENU>** repeatedly until **<Subnet>** shows in the display.

Press **<ENTER>**. The number in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **7** shows.

Press **<ENTER>**.

Set the IP addresses by doing the following:

Press **<MENU>** repeatedly until **<IP Address #1>** shows in the display.

Press **<ENTER>**. The left-most set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** until those numbers show **255**.

Press **<ENTER>**. The next set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** until those numbers show **255**.

Press **<ENTER>**. The right-most set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** until those numbers show **009**.

Press **<ENTER>**.

Press **<MENU>** repeatedly until **<IP Address #2>** shows in the display.

Press **<ENTER>**. The left-most set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** until those numbers show **255**.

Press **<ENTER>**. The next set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** until those numbers show **255**.

Press **<ENTER>**. The right-most set of 3 digits on the display flashes.

Press **<UP>** or **<DOWN>** until those numbers show **011**.

Press **<MENU>**.

Disable the unused DMX Out ports by doing the following for DMX Out ports 3 to 8:

Press **<MENU>** repeatedly until **<DMX Output Port #X>** shows on the display.

Press **<ENTER>**. The phrase in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **<Without Input>** shows in the lower right-hand corner.

Press **<ENTER>**. **<Without Input>** stops flashing.

Configure the DMX ports that will receive AC-8 signals by doing the following for DMX Out ports 1 and 2:

Press **<MENU>** repeatedly until **<DMX Output Port #X>** shows on the display.

Press **<ENTER>**. The phrase in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **<ArtNet Input>** shows in the lower right-hand corner.

Press **<ENTER>**. **<ArtNet Input>** stops flashing.

Configure AC-8 universe for the DMX ports that will receive AC-8 by doing the following:

**<MENU>** repeatedly until **<Universe #1>** shows in the display.

Press **<ENTER>**. The number in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **4** shows on the display.

Press **<ENTER>**. **4** stops flashing.

**<MENU>** repeatedly until **<Universe #2>** shows in the display.

Press **<ENTER>**. The number in the lower right-hand corner of the display flashes.

Press **<UP>** or **<DOWN>** until **8** shows on the display.

Press **<ENTER>**. **8** stops flashing.

## AC-8 And DMX Sources

AC-8 and DMX sources configuration uses the AC-8 as both a DMX splitter and Art-Net™ adapter. Configure this operating mode by combining the configurations for the DMX source and the Art-Net™ source, which are described in detail in [DMX Source](#) and [Art-Net™ Source](#).

Keep the following in mind when configuring the AC-8 for use as a combination optical DMX splitter and Art-Net adapter.

Disable any unused DMX Out ports.

DMX Out ports can output only DMX or Art-Net™, not both.

## Indicators

The three LED indicator lights on the front of the AC-8, next to the menu display, indicate when there is power, DMX, or Art-Net™. The table below shows the behavior of the lights and what it means.

Indicator	Behavior	Meaning
POWER	Solid red	Power is getting to the Net-X™
	Off	Power is not getting to the Net-X™
SIGNAL	Blinks red	Art-Net™ signal is getting to the Net-X™
	Off	Art-Net™ signal is not getting to the Net-X™
DMX	Blinks red	DMX signal is getting to the Net-X™

Off

DMX signal is not getting to the Net-X™

## 5. Technical Information

### Maintenance

To maintain optimum performance and minimize wear, the user should clean this product regularly. Usage and environment are contributing factors in determining the cleaning frequency.

As a rule, clean this product at least twice a month. Dust build-up reduces light output performance and can cause overheating. This can lead to reduced light source life and increased mechanical wear.

To clean the Net-X™, do the following:

Unplug the panel from power.

Wait until the unit is at room temperature.

Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external vents.

Clean all external surfaces with a mild solution of non-ammonia cleaner or isopropyl alcohol.

Apply the solution directly to a soft, lint-free cotton cloth or a lens cleaning tissue.

Make sure all connections are thoroughly dry before reconnecting power and signal cables.

Keep the environment around the Net-X™ free of dust, dirt, water, and extreme temperatures.

Insert and remove DMX and Neutrik® etherCON® cables slowly and gently.

Put the Net-X™ on the top of any stacks of equipment, or rack mount it.

Turn the Net-X™ off when it is not in use.



**Always dry the external surfaces carefully after cleaning them.**





## 6. Technical Specifications

### Dimensions And Weight

Length	Width	Height	Weight
19 in (483 mm)	6.6 in (168 mm)	1.8 in (45 mm)	4.4 lb (2.0 kg)

### Power

Power Supply	Range		Voltage Selection
Switching (internal)	100 to 240 VAC, 50/60 Hz		Auto-ranging
Parameter	120 V, 60 Hz	208 V, 60 Hz	230 V, 50 Hz
Consumption	30 W	30 W	30 W
Operating Current	0.25 A	0.14 A	0.13 A
Power Connection		Power Input	
POWERCON NEUTRIK		POWERCON	

### Data Connections

I/O	Type
Data Inputs	Neutrik® etherCON® (2 total)
	5-pin XLR (2 total)
Data Outputs	5-pin XLR (8 total)
Data Throughputs	Neutrik® etherCON® (2 total)

RoHS

