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SL NITRO 510
LED Strobe Luminaire

www.vari-lite.com

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Document Number: **SL NITRO 510 LED STROBE Luminaires Users**
Version as of: **12 December 2013**

SL NITRO 510 LED STROBE Luminaire Installation & User's Manual

IMPORTANT INFORMATION

Warnings and Notices

When using electrical equipment, basic safety precautions should always be followed including the following:

   a. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**.

   b. Do not use outdoors.

   c. Do not mount near gas or electric heaters.

   d. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.

   e. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

   f. Do not use this equipment for other than intended use.

   g. Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.

WARNING: You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING: Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel.

WARNING: This equipment is intended for installation in accordance with the National Electric Code® and local regulations. It is also intended for installation in indoor applications only. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

Additional Resources for DMX512

For more information on installing DMX512 control systems, the following publication is available for purchase from the United States Institute for Theatre Technology (USITT), "Recommended Practice for DMX512: A Guide for Users and Installers, 2nd edition" (ISBN: 9780955703522). USITT Contact Information:

> **USITT**
> **315 South Crouse Avenue, Suite 200**
> **Syracuse, NY 13210-1844**
> **Phone: 1.800.938.7488 or 1.315.463.6463**
> **www.usitt.org**

Showline Limited Two-Year Warranty

Showline offers a two-year limited warranty of its luminaires against defects in materials or workmanship from the date of delivery. A copy of Showline two-year limited warranty containing specific terms and conditions can be obtained by contacting your local Showline office.

TABLE OF CONTENTS

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PREFACE

1.   About this Manual

The document provides installation and operation instructions for the following products:

• SL NITRO 510 LED STROBE Luminaire

Please read all instructions before installing or using this product. *Retain this manual for future reference.* Additional product information and descriptions may be found on the product specification sheet.

Note: The SL NITRO 510 LED STROBE Luminaire is universal voltage 100 to 240 VAC (auto-ranging).

2.   Included Items

Each SL NITRO 510 LED STROBE Luminaire includes the following items:

SL NITRO 510 LED Luminaire

QuickStart Guide

Neutrik PowerCon®
AC Input Connector

Yoke Plate

SLPIN2 Luminaire Connecting Back Pin
(2 each, for joining luminaires end-to-end)

SLPIN1 Luminaire Connecting Front Pin
(1 each, for joining luminaires end-to-end)

Yoke Plate Hardware
Includes:
2 Ea - Mounting Bolt (M12 x 25)
2 Ea - Flat Washer
2 Ea - Lock Washer
2 Ea - Nut (M12)
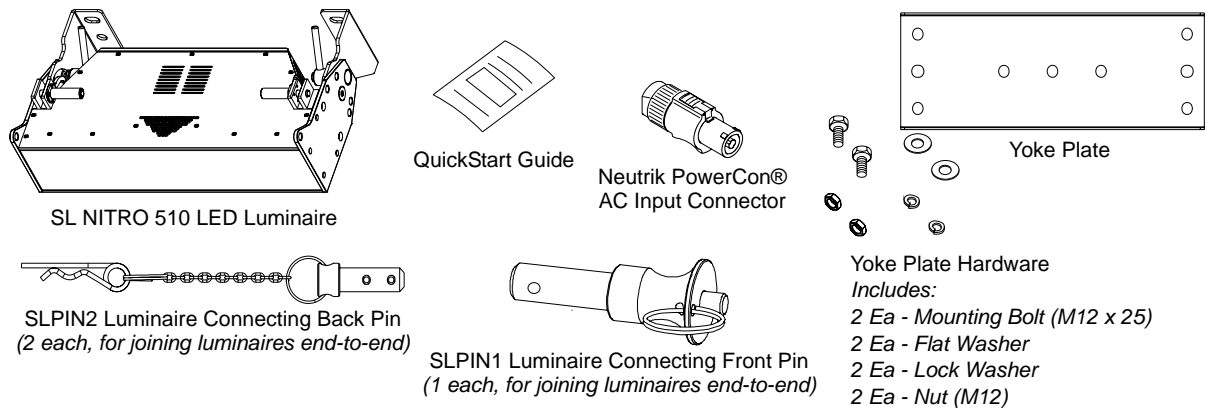
Figure 1: Included Items

3.   Accessories

SL NITRO 510 LED STROBE Luminaire Power Input Cables (North American Models Only)

Part Number	Description
PC1BE	SL NITRO 510 LED STROBE Luminaire AC Power Input Cable (39 inches / 1 meter), Powercon with Bare End* (*Note, user supplies and installs own AC input connector)
PC1GP	SL NITRO 510 LED STROBE Luminaire AC Power Input Cable (39 inches / 1 meter), Powercon with Stagepin Connector
PC1GTL	SL NITRO 510 LED STROBE Luminaire AC Power Input Cable (39 inches / 1 meter), Powercon with Twistlock Connector
PC1GR	SL NITRO 510 LED STROBE Luminaire AC Power Input Cable (39 inches / 1 meter), Powercon with Edison Connector
PC3BE	SL NITRO 510 LED STROBE Luminaire AC Power Input Cable (9.8 Feet / 3 meter), Powercon with Bare End* (*Note, user supplies and installs own AC input connector)
PC8BE	SL NITRO 510 LED STROBE Luminaire AC Power Input Cable (26 Feet / 8 meter), Powercon with Bare End* (*Note, user supplies and installs own AC input connector)
PC8GR	SL NITRO 510 LED STROBE Luminaire AC Power Input Cable (26 Feet / 8 meter), Powercon with Edison Connector

SL NITRO 510 LED STROBE Luminaire Accessories

Part Number	Description
MC	Mega Claw, Black, Anodized
SC	Molded Yoke C-Clamp
HC	Light Weight Half Coupler
82003	Safety Cable
SLPIN1	Luminaire Connecting Front Pin *(North American Models Only)*
SLPIN2	Luminaire Connecting Back Pin *(North American Models Only)*

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SL NITRO 510 LED STROBE LUMINAIRE OVERVIEW

1.   SL NITRO 510 LED STROBE Luminaire Components

Major Luminaire Components

Quick Connect
Locking Pin (x2)

Luminaire Mount Lock (x2)

Luminaire Mount (x2)

Front of Fixture

High-Intensity White LED Array (x1,350)

AC Input

AC Output

Back of Fixture

DMX512 /
RDM Input

DMX512 /
RDM Output

LCD Display / Menu System*

(*refer to "LCD Display / Menu System" on page 6 for additional information)
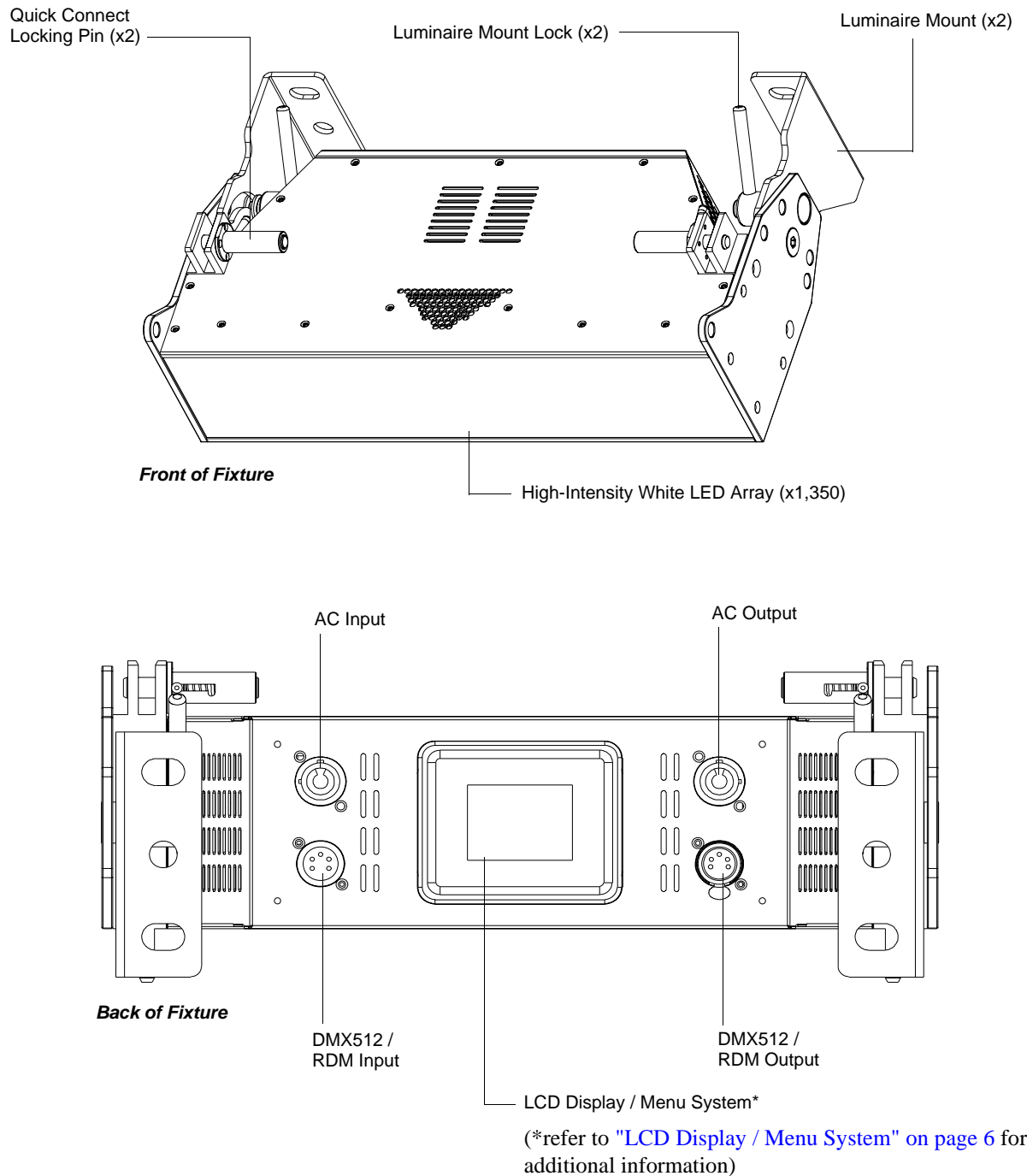
Figure 2: SL NITRO 510 LED STROBE Luminaire Components

LCD Display / Menu System

Edit a Preset

Home (menu settings)

Edit a Chase

DMX512 Addressing

Return to Main Screen

LCD Display

To rotate menu 180 degrees from current orientation, press and hold the two center buttons for 2 seconds.

DOWN Arrow Button

UP Arrow Button

LEFT Arrow Button

RIGHT Arrow Button

CHECK MARK (Accept) Button
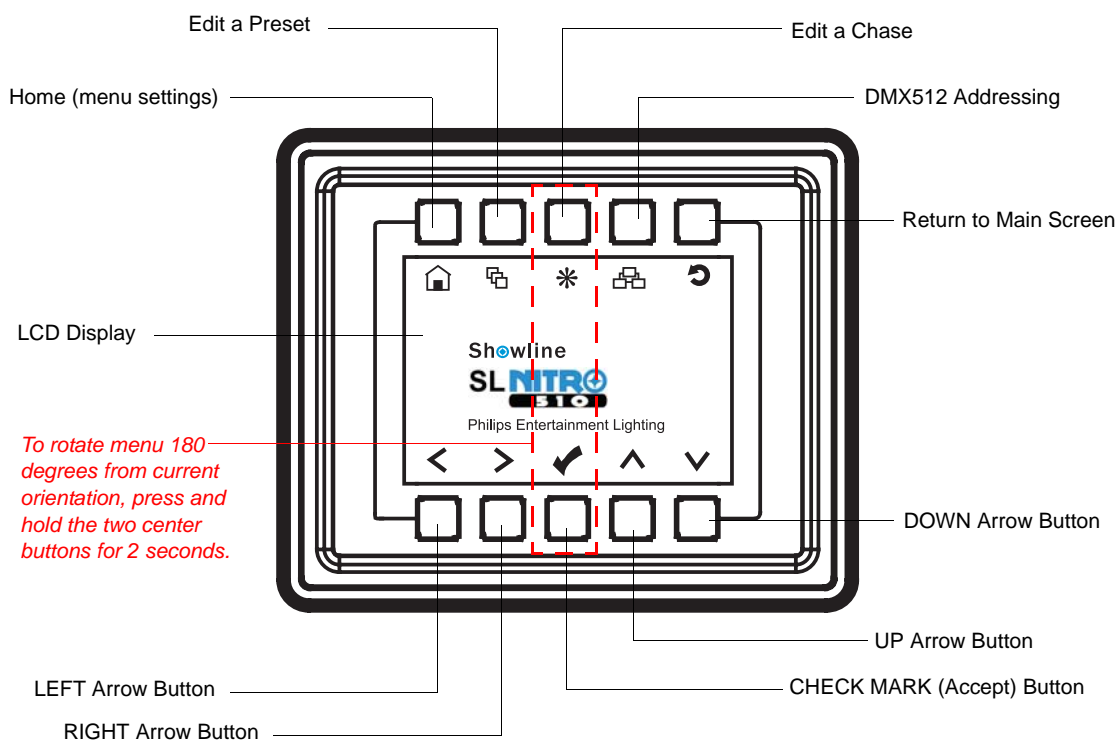
NOTE: *Menu rotates with orientation of luminaire and menu buttons are always in the same position (with rotation of menu)*

Figure 3: LCD Display & Menu System

Note: For Menu operation and programming details, refer to "LCD Display and Menu System" on page 16.

INSTALLATION AND SET UP

1. Power Requirements

The SL NITRO 510 LED STROBE Luminaire operates on AC input voltages from 100 to 240 VAC.

WARNING! This unit does not contain an ON/OFF switch. Always disconnect power input cable to completely remove power from unit when not in use.

AC Power Operation

When connected to an AC source, the unit operates on 100 to 240 volts AC (+/- 10%, auto-ranging). The luminaire contains an auto-ranging power supply. Each luminaire can draw up to 360 Watts.

WARNING! Maximum amount of units that may be daisy-chained is (A) 5 units 100VAC (20 Amps) or (B) 13 units 240VAC (20 Amps). Refer to Table 1 for detailed information at various voltages.

Note: For wiring of AC input connector, refer to "Connecting SL NITRO 510 LED STROBE Luminaires to AC Power" on page 8.

Table 1: SL NITRO 510 LED STROBE Luminaire Voltage vs. Current

Voltage (AC)	Total Current (A)	Maximum number of units that can be linked together*	Voltage (AC)	Total Current (A)	Maximum number of units that can be linked together*
100	3.60	5	180	2.00	10
110	3.27	6	190	1.89	10
120	3.00	6	200	1.80	11
130	2.77	7	210	1.72	11
140	2.57	7	220	1.64	12
150	2.40	8	230	1.57	12
160	2.25	8	240	1.50	13
170	2.12	9			

WARNING! *These figures are based on the Maximum Allowable Input Current of 20 Amps (and the maximum power supply limit of 360 Watts). *Do not overload circuits!*

IMPORTANT AC POWER CONNECTION NOTES:

a. When using the daisy-chain connection method, ONLY connect SL NITRO 510 LED STROBE Luminaires to AC Output Connection of SL NITRO 510 LED STROBE Luminaires. *DO NOT CONNECT OTHER TYPES OF LUMINAIRES OR DEVICES!*

b. Use only use approved cable types.

c. Do not overload circuits!

d. Do not connect SL NITRO 510 LED STROBE Luminaires to dimmed circuits.

e. The MAXIMUM allowable number of SL NITRO 510 LED STROBE Luminaires which can be 'daisy-chained' on one power feed are listed in Table 1, above. *DO NOT EXCEED!*

2. Connecting Power

Units can be powered in one of two ways:

- Direct connection to a AC power source using an AC input cable. For wiring of AC input connector, refer to "Connecting SL NITRO 510 LED STROBE Luminaires to AC Power" on page 8.

- Connection from the AC output of another SL NITRO 510 LED STROBE Luminaire. When using this method, it is very important not to connect any other type of equipment device.

WARNING! Only connect other SL NITRO 510 LED STROBE Luminaires to the AC Output (Thru) connector of a SL NITRO 510 LED STROBE Luminaire.

Connecting SL NITRO 510 LED STROBE Luminaires to AC Power

If the unit is supplied with an AC input cable without an input connector installed. The input connector is a user-supplied accessory.

Table 2 on page 8 describes how to connect power to your SL NITRO 510 LED STROBE Luminaire. Field wiring of the SL NITRO 510 LED STROBE Luminaire is straight forward. A total of 3 wires/conductors is supplied from the unit. The following wiring scheme is used:

Table 2: SL NITRO 510 LED STROBE Luminaire (IP20 Rated Models) AC Input Connections

Wire Color	Purpose
Brown	Main / Line (100 to 240VAC)
Blue	Neutral
Green/Yellow	Ground (Earth)

Back of Fixture

AC Input Connector (on Unit)   *AC Output Connector (on Unit)*
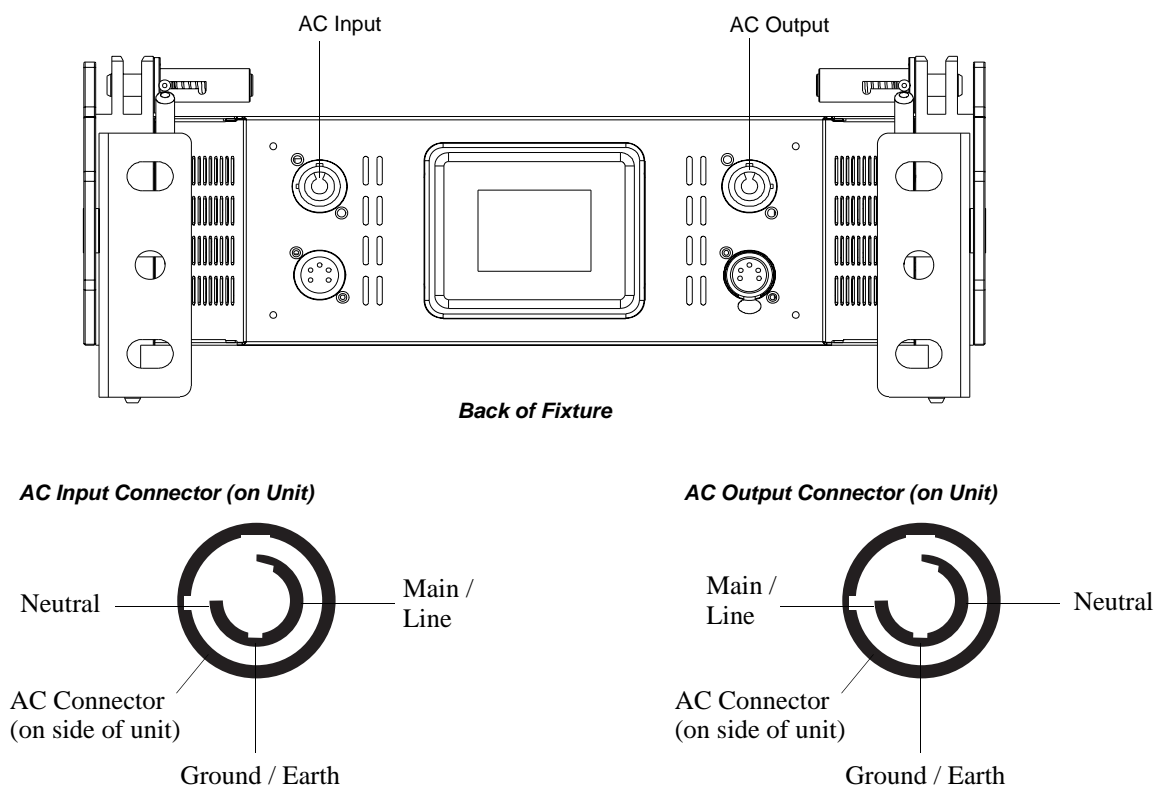
Figure 4: SL NITRO 510 LED STROBE Luminaire AC Input & Output Connections

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CAUTION: In the event the AC input cable of this luminaire is damaged, it must be replaced, by the user, with an approved cable through an Authorized Showline Dealer or Service Center.

3. Connecting to the DMX512 Network

Basic DMX512 installation consists of connecting multiple SL NITRO 510 LED STROBE Luminaires together (up to 32 luminaires) in "daisy-chain" fashion. A cable runs from the control console (or DMX512 control source) to the DMX connector on the first SL NITRO 510 LED STROBE Luminaire. Another cable runs from the other DMX connector on the first unit to a DMX connector on the next SL NITRO 510 LED STROBE Luminaire (or DMX512 device to be controlled).
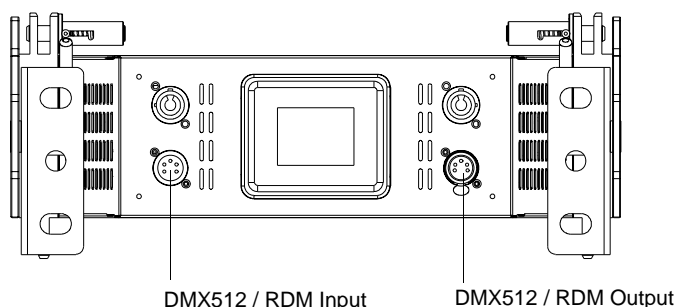
Figure 5: SL NITRO 510 LED STROBE Luminaire DMX512 Input / Output Connections

Note: For more information on DMX512 networking and systems, refer to . For SL NITRO 510 LED STROBE Luminaire DMX Mapping, refer to .

DMX512 Connections	
DMX512 Signal	**XLR Pin**
Common (Drain)	1
DMX512 -	2
DMX512 +	3

Note: Remaining pins on each connector are not used.

Figure 6: SL NITRO 510 LED STROBE Luminaire - DMX512 Connections

4.   Mounting Luminaire

SL NITRO 510 LED STROBE Luminaires are provided with the ability to hang via truss hooks, clamps, etc. (sold separately). Simply attach hook, clamp, etc. to the SL NITRO 510 LED STROBE Luminaire's mounts in the provided M9 holes. It is recommended (and may be required by local and national safety codes) to use and install a safety cable (sold separately). When hanging the fixture, be sure to leave enough space around the luminaire to allow proper, uninterrupted airflow for cooling and positioning.

SAFETY CABLE: *Is sold separately and recommended for all hanging installation and may be required by national and local codes. Use safety cable anchor points for safety cable attachment for this fixture.*

*Each SL NITRO 510 LED STROBE luminaire includes an accessory Yoke Plate. This can be added to the luminaire to allow hanging with a single clamp.

Bolt (x4)

Flat Washer (x4)

Yoke Plate

Lock Washer (x4)
Nut (x4)

Hook / Clamp
(sold separately)

Yoke Plate
Accessory

Mounted with Yoke Plate*

SAFETY CABLE: *Is sold separately and recommended for all hanging installation and may be required by national and local codes. Use safety cable anchor points for safety cable attachment for this fixture.*
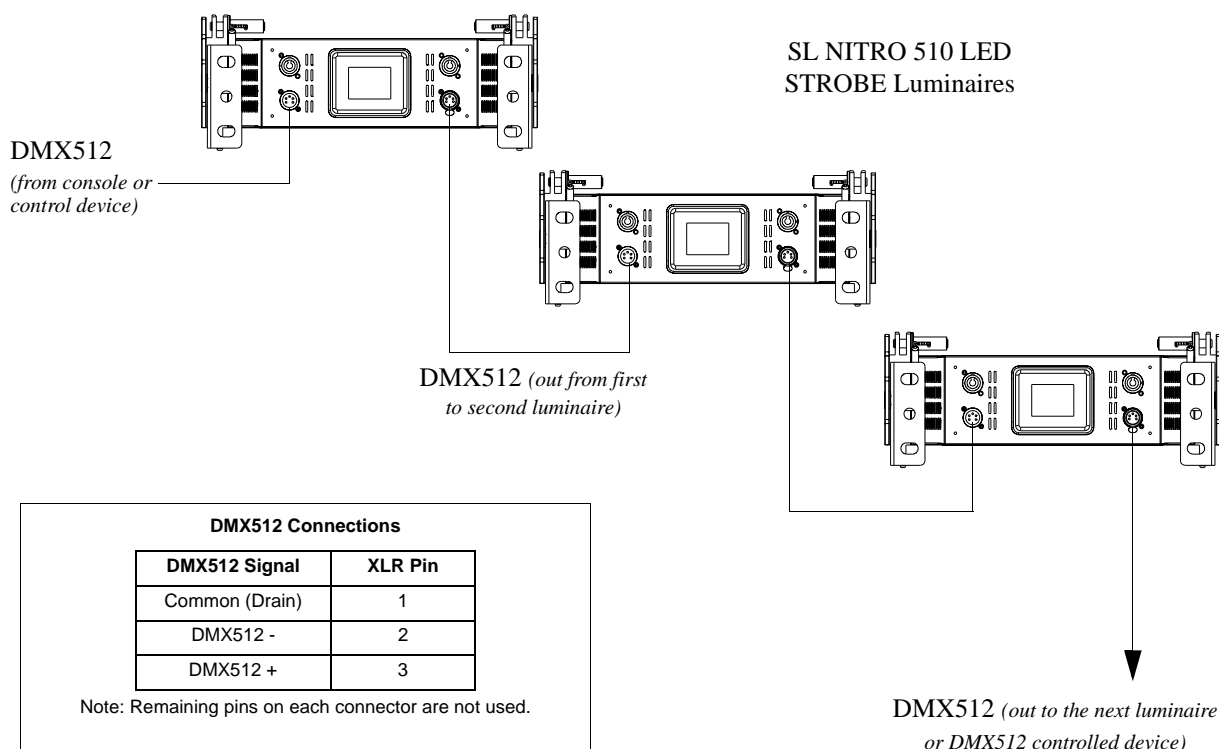
Hooks / Clamps
(sold separately)

Mounted without Yoke Plate

Mounting
Point (2 ea.)

Note:
Mounting holes are M13.

Figure 7:   Mounting Luminaire

5.   Connecting & Mounting Multiple Luminaires

SL NITRO 510 LED STROBE Luminaires include a built-in Quick Connect system that allows the luminaires to be physically connected together while retaining perfect pixel pitch. Units may be connected in top-to-bottom or side-by-side to allow for a wide range of configurations. In addition, they may be connected together with the SL BAR 520 RGBW LED luminaire.

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Connecting Luminaires Top-to-Bottom

Each SL NITRO 510 LED STROBE Luminaire includes two built-in Quick Connect slot and pin systems as illustrated in **Figure 8**. This allows a quick connection of units when stacked on top of each other. Up to twenty SL NITRO 510 LED STROBE Luminaires may be supported when connected using the Quick Connect system.

Side View

Locking Mechanism

Locking Mechanism Pin

Fixture 1

Step 1. Move locking mechanism handle so locking pin clears locking mechanism

Step 2. Lock Locking Mechanism Handle so pin does not move back to locking position.

Step 3. Carefully slide fixture to be connected into both locking mechanisms on lower fixture.

Step 4. Return locking pin to locked position on each side (securing upper fixture to lower fixture).

Fixture 2

Fixture 1

Fixture 2

Fixture 1

NOTE:
Some components not shown for clarity.

Figure 8: Connecting Luminaires Top-to-Bottom

WARNING! Your structure must be capable of properly supporting the weight of multiple connected fixtures. Each fixture must use an approved safety cable attached to a fixed object. Up to twenty SL NITRO 510 LED STROBE Luminaires may be supported when connected using the Quick Connect system. When connecting units together, ensure all Quick-Connect pins are in the "engaged" position.
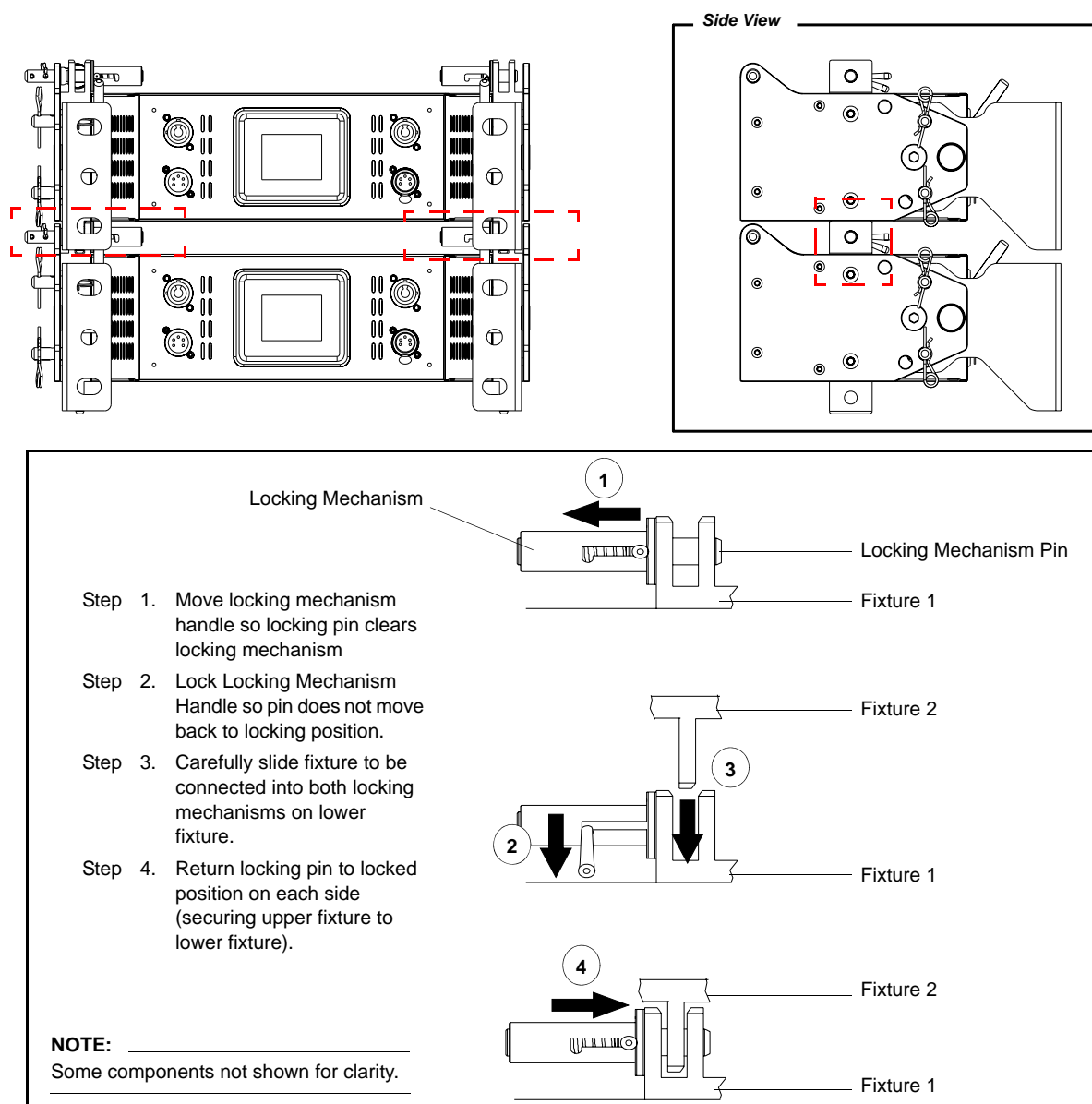
Connecting Luminaires Side-to-Side

Each SL NITRO 510 LED STROBE Luminaire ships with three Luminaire Connecting Pins as indicated in **Figure 9**. All three pins are used to connect two luminaires together linearly. Each fixture must be mounted using its own mounting hardware. The side-to-side pins are only to align the luminaires and do not provide hanging support.
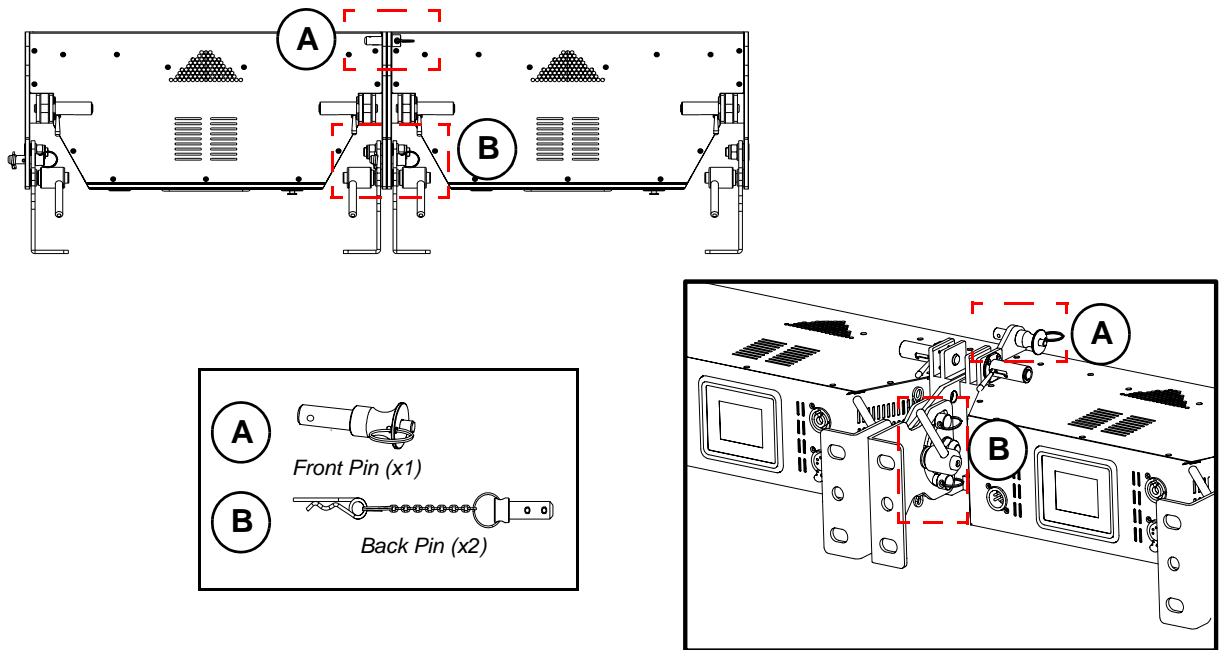
Figure 9: Connecting Luminaires Side-to-Side

WARNING! Each fixture must use an approved safety cable attached to a fixed object.

6. Mounting SL NITRO 510 LED STROBE Luminaire with Other Luminaires

The SL NITRO 510 LED STROBE Luminaire and SL BAR 520 LED Luminaire are designed to be connected together top-to-bottom and/or end-to-end using the same connecting hardware. The pixels of the SL BAR 520 LED Luminaire and the zones of the SL NITRO 510 LED STROBE Luminaire will be perfectly aligned when connected via the built-in connecting hardware.
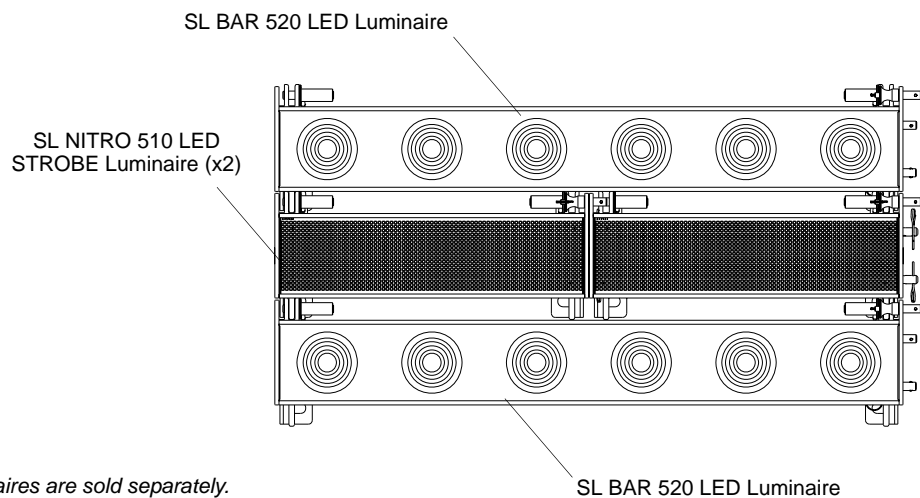
Note, all luminaires are sold separately.

Figure 10: Combining SL NITRO 510 and SL BAR 520 luminaires

Connecting Combined Luminaires Top-to-Bottom

When combining units connected top-to-bottom, two SL NITRO 510 LED STROBE Luminaires are first connected end-to-end and then connected top-to-bottom with a single SL BAR 520 luminaire.

Connecting Notes:

WARNING! Do not exceed 10 rows of combined luminaires connected together top-to-bottom with a single hanging point. If more than 10 rows are required, each ten rows must use its own connection to a fixed object.

- The two SL NITRO 510 units must have all three side-to-side pins installed (refer to **Figure 11** and "Connecting Luminaires Side-to-Side" on page 12).

OR
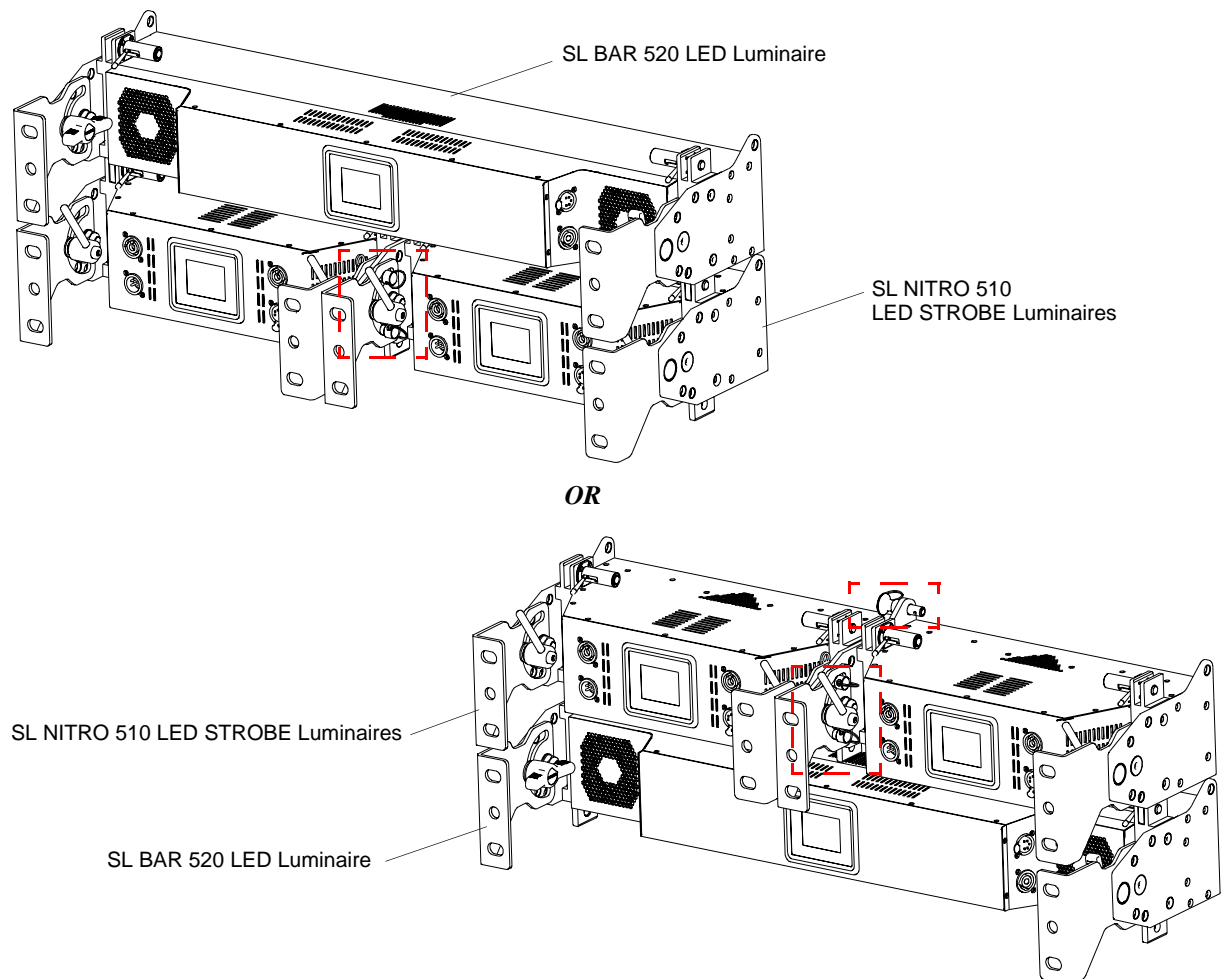
Figure 11: SL NITRO 510 LED STROBE Luminaires - Connections

- When two SL NITRO 510 LED STROBE Luminaires are combined with a SL BAR 520, there is no top-to-bottom connection available in the center.

- When a SL BAR 520 unit is mounted below the two SL NITRO 510 LED STROBE Luminaires, the top-to-bottom connections will rest on the center of the SL BAR 520, preventing the units from spreading apart in the center.

- If the bottom of a configuration has two SL NITRO 510 LED STROBE Luminaires below a single SL BAR 520, connect the bottom center top-to-bottom connections with the following hardware (available from others) to pre-

vent the spacing between the two SL NITRO 510 LED STROBE Luminaires from spreading apart at the center. Obtain and install:
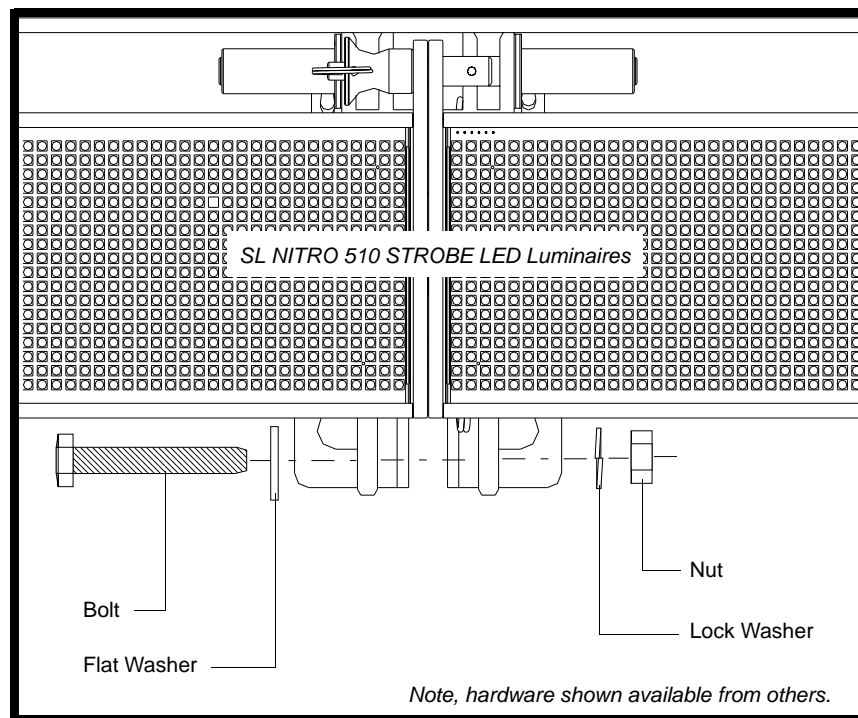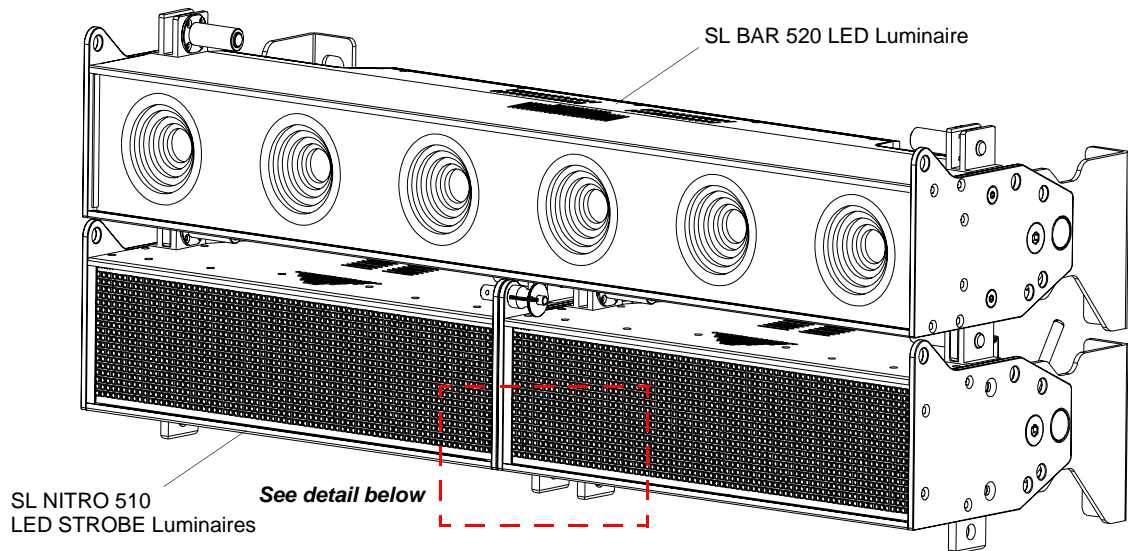
1) One M10-1.5 x 25 mm Long, Hex Head Cap Bolt
2) One 10 mm Flat Washer
3) One 10 mm Split-Lock Washer
4) One M10-1.5 (8 mm high) Hex Nut

• Installation is Flat Washer under Bolt Head, Bolt through both SL NITRO 510 LED STROBE Luminaire brackets, Lock Washer, and then Hex Nut. Hand tighten.

⚠ **WARNING!** Your structure must be capable of properly supporting the weight of multiple connected fixtures. Each fixture must use an approved safety cable attached to a fixed object. Up to ten luminaire rows may be supported when connected using the Quick Connect system.

Connecting Combined Luminaires Side-to-Side

When combining units connected side-to-side, all units connect using the same pin system and any combination can be created (refer to installation instructions and warnings contained in "Connecting Luminaires Side-to-Side" on page 12).

• Each SL NITRO 510 LED STROBE Luminaire and SL BAR 520 RGBW Luminaire ships with three Luminaire Connecting Pins as indicated in **Figure 9**.

• The three side-to-side pins must be installed per luminaire.

• All three pins are used to connect luminaires together linearly. Each fixture must be mounted using its own mounting hardware. The side-to-side pins are only to align the luminaires and do not provide hanging support.

• **Figure 12** shows an example of connecting luminaires side-by-side.
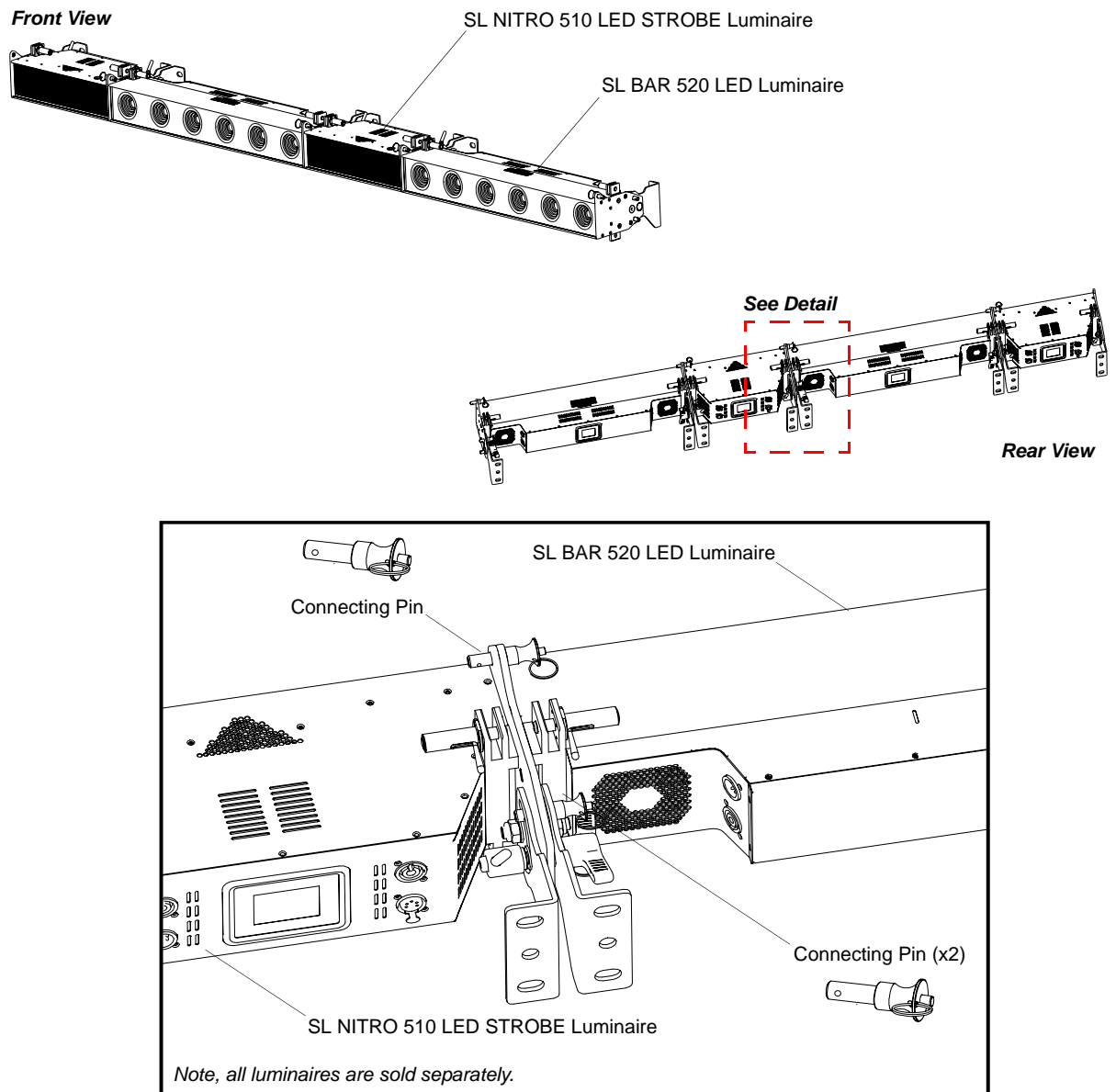
Figure 12: Connecting Combined Luminaires Side-to-Side Example

WARNING! Each fixture must use an approved safety cable attached to a fixed object.

OPERATION AND PROGRAMMING

1. LCD Display and Menu System

The SL NITRO 510 LED STROBE Luminaire's LCD Display and Menu System provides local control for accessing the following fixture's settings:

- Presets (Standard and User Defined)
- Effects (Chases - preloaded and user defined)
- Strobe / Timing
- Fixture Settings
- Fixture Lockout (to prevent changes)
- Password Setting
- Current Fixture Operational Status
- Setting the DMX512 Address

Note: If there are multiple luminaires in a system, changes would need to be made at each LCD Menu as desired. For SL NITRO 510 LED STROBE Luminaire menu structure, see "SL NITRO 510 LED STROBE Luminaire Main Menu Options" on page 17.

Upon power up, the LCD will display the main screen showing the product type/name. If DMX is enabled, the programmed address will appear after power up.

2. LCD Display and Menu System Operation

The LCD Display Menu system consists of several categories. Use the Menu Buttons to access and make changes to the menu items. When the desired menu item is reached, press the desired Menu Button to display the menu options and to navigate and configure the menu options as required.

To navigate and access menu settings/selections:

Step 1. Make sure unit is powered and turned on.

Step 2. Press the desired button (as shown in **Figure 13 on page 17**) to access menu categories.

Step 3. Use UP | DOWN | LEFT | RIGHT arrow buttons to navigate through the various options and settings.

Step 4. Make changes as desired.

Step 5. Press CHECK MARK (OK) button to accept changes.

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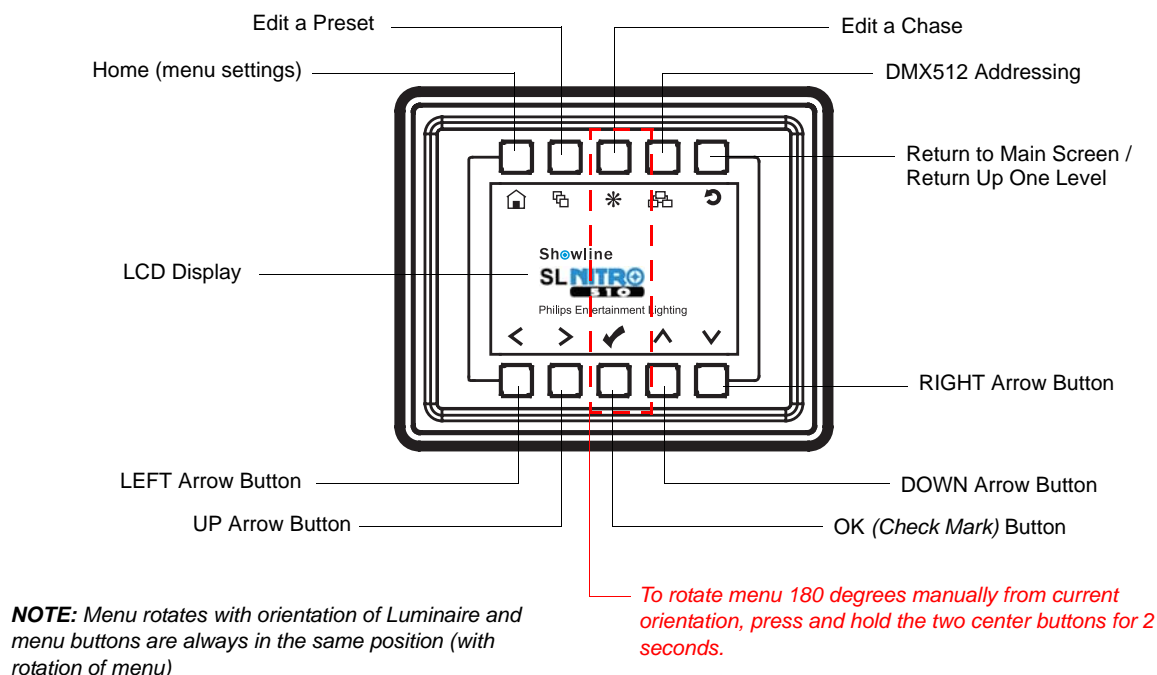
Figure 13: LCD Display and Menu System

3. SL NITRO 510 LED STROBE Luminaire Main Menu Options

Presets

Presets are stored values of the luminaire's LED settings that can be recalled via the menu system or DMX. You can customize up to 31 presets via the menu system.

Recalling or Editing Presets

To recall or edit a preset:

Step 1. Select Preset from the main menu or from the Preset shortcut key.

Step 2. The top left field indicates the current preset or Off, when this field is selected (highlighted in blue), use the left and right buttons to scroll through all presets

Step 3. If you wish to edit the preset, use the Up and Down keys to scroll through the parameters. Once a parameter is selected, use the left and right arrow buttons to make adjustments.
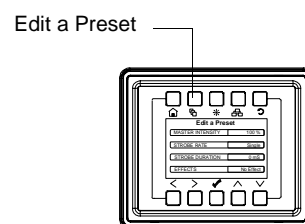
Notes:

• If security features are enabled, the Up and Down arrows will have no effect. See "Settings/Security" on page 18.

• Depending on the DMX map set assigned the DMX menu, different parameters will be available. See "DMX CONTROL" on page 24 for additional information.

Step 4. Once all values are adjusted as desired, press the Check Mark button to save the preset.

Step 5. The Save Preset Menu option will appear. Use the left and right arrow buttons to select the preset number to save to.

Note: This function allows you to save your current edits to a different preset number than you began editing. This is helpful to create copies of existing presets.

Step 6. Press the Check Mark button to save the preset. You will be asked to confirm your saving operation.

Step 7. The preset is now saved and can be recalled via the menu or DMX.

Effects

Effects are chases stored values of the luminaire's LED settings that can be recalled via the menu system or DMX. There are 10 factory defined chases and eight user adjustable chases. You can adjust the master intensity, speed, and fade values for any of the 18 chases.

Use the Up and Down buttons to select parameters and the Left and Right buttons to assign the different general fixture settings. When finished, press the Check button to exit the menu level. The adjustable parameters are described in Table 3.

Table 3: Effects Parameters

Parameter	Description
User Chase / Built-in Chase	Select from the 18 different chases.
Master Intensity	Adjust the master intensity for ALL chases.
Total Steps	Displays the total steps used by the chase. This field is not editable.
Speed	The total time each step of the chase will be recalled.
Fade	The percentage of the time assigned by the speed that is crossfaded between steps.

Editing User Chases

Eight User chases can be further customized to create different effects on the fixture. To edit a User Chase, first use the up and down arrows to scroll to the Edit User Chase field and then press the Check Mark button. The Edit User Chase window will be displayed:

Edit a Chase

Use the Up and Down buttons to select parameters and the Left and Right buttons to assign the different general fixture settings. When finished, press the Check button to exit the menu level.
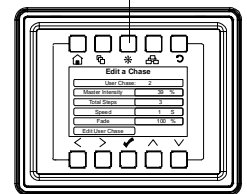
To edit and save a Step:

Step 1. Select Edit Step or New Step from the Edit User Chase menu.

Step 2. The top left field indicates the preset or color filter to be used for the step. When set to OFF no preset or color filter is to be used. Use the left and right buttons to scroll through all presets and color filters.

Step 3. Use the Up and Down keys to scroll through the output parameters. Once a parameter is selected, use the left and right arrow buttons to make adjustments.

Notes:

• If security features are enabled, the Up and Down arrows will have no effect. See "Settings/Security" on page 18.

• Depending on the DMX map set assigned the DMX menu, different parameters will be available. See "DMX CONTROL" on page 24 for additional information.

Step 4. Once all values are adjusted as desired, press the Check Mark button to return to the Edit User Chase screen.

Step 5. Continue editing steps as needed. When complete, press the Return to Main Menu button or up one level *(as shown to the right)*. to exit the Edit User Chase window.

Return to Main Menu button

Step 6. The user chase is now saved and can be recalled via the menu or DMX.

Settings/Security

All Showline fixtures have a multiple level locking feature. This allows you to configure the fixture and allow different menu access to multiple users. The menu system can be locked instantly or assigned to power on to a particular lock level. You can assign three different 4-digit PIN (personal identification number) codes to each unlock specific levels of functionality within the menu system.

Anytime the fixture is locked, each PIN code will unlock all functions except the pertaining features assigned via the security level.

Note: The Level 3 PIN will always unlock all functions.

Table 4: Security Lock Levels

Lock Level	Menu Functions Affected
Level 1	Edit Presets, Edit Chases, and Settings Menu
Level 2	Settings Menu
Level 3	All

Use the Up and Down buttons to select security PIN codes. Press the Check button and then use Left and Right and Up Down buttons to assign the pin code. Press the Check button to save the new PIN code.

The Power-Up Level parameter assigns a lock level to the fixture when power is applied. Use the Up and Down buttons to select the Power-Up Level, and then use the Left and Right buttons to select the Power-up Level option.

Table 5: PIN Level Parameters

Parameter	Description
Enter Pass PIN	Enter a PIN code matching the level codes assigned in the Settings/Security menu to toggle the current security level.
Level 1 PIN	Edit the PIN code used to toggle the Level 1 security.
Level 2 PIN	Edit the PIN code used to toggle the Level 2 security.
Level 3 PIN	Edit the PIN code used to toggle the Level 3 security.
Power-up Level	Select the security level to default to when the fixture is powered ON. • Disable PIN will disable all security functions. • Locked will lock all functions.

Settings/General

Use the Up and Down buttons to select parameters and the Left and Right buttons to assign the different general fixture settings. When finished, press the Check button to exit the menu level. The adjustable parameters are described in Table 6.

Table 6: General Level Parameters

Parameter	Description
Power-Up	Select the action of the fixture when the unit is powered ON. You can select from Off, Last Set, presets, and chases.
Mode	Select either Master/Slave (see Master / Slave Operational Mode for more information).
Dimming Curve	Select one of four dimming curve choices (see Dimming Curve Selection for more information).
Fan Control	Select Auto of Off fan operation (see DMX CONTROL for more information).

Settings/Factory Default

Factory default menu settings can be recalled through this menu option. You can select if you wish to overwrite the user edited preset and chases.

Use the Up and Down buttons to select parameters and the Left and Right buttons to assign the different settings. When finished, press the Check button to exit the menu level. The adjustable parameters are described in Table 7.

Table 7: Factory Default Parameters

Parameter	Description
Protected	• No - all menu items are able to be restored to factory defaults. • Preset & Chase - user edited Presets and Chases are not able to be restored to factory defaults.

Table 7: Factory Default Parameters

Parameter	Description
Load Factory	• No - no action. • Yes - restore to factory default menu settings.

Settings/DMX

DMX configuration options are available in the DMX menu.

Use the Up and Down buttons to select parameters and the Left and Right buttons to assign the fixture's DMX settings. When finished, press the Check button to exit the menu level. The adjustable parameters are described in Table 8.

Table 8: DMX Setting Parameters

Parameter	Description
DMX Enable	• Enable - Fixture will respond to DMX commands/signals. • Disable - Fixture will ignore DMX commands/signals.
Address	Assigns the fixture's DMX start address.
Map	Selects the DMX map for the fixture to use (see DMX CONTROL section for more information).
When no DMX	Selects the action of the fixture when the unit is powered ON and not receiving DMX. • Off - Turn off all LED output. • Last Action - restore the last menu action. • Power-up - follow the power-up value in the settings menu. • Hold - continue with the last DMX values received.

Settings/Display

Options of the fixture's LCD display can be adjusted in the Display menu.

Use the Up and Down buttons to select parameters and the Left and Right buttons to assign the fixture's DMX settings. When finished, press the Check button to exit the menu level. The adjustable parameters are described in Table 9.

Table 9: LCD Display Parameters

Parameter	Description
Flip Display	• Yes - The display will be inverted. • No - The display will not be inverted. • Auto - The display will automatically invert depending upon fixture orientation.
Off Time	Assign a time for the display to automatically turn off after the last button press. A value of ON will leave the display on indifferently.
Language Select	English is the only language currently supported.

Lock Fixture

You can lock all fixture functions, requiring a PIN code to access the menu functions. When you select this menu item, you are asked to confirm that you wish to lock the fixture. Once locked, all menu items can only be accessed by entering one of the three PIN codes assigned in the Settings/Security menu. (see "Settings/Security" on page 18 for more information). The PIN code used to unlock the fixture will only unlock the functionality assigned to that particular PIN code.

Note: When the fixture is powered off, the Lock Fixture function will be disabled. To assign fixture power-up security refer to (see "Settings/Security" on page 18 for more information).

Password (PassPIN)

The Password menu item will display an Enter PassPIN dialog box. Use the Up Down Left Right buttons to enter a PIN code matching the codes assigned in the Settings/Security menu to toggle the current security level.

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Status

The Status screen displays the current value of the master intensity and LED zone of the fixture. Use the Up Down Left Right arrows to scroll through the different zones and view their levels.

• The last Status item displayed shows the RDM UID and current Firmware Version.

• Press the Check Mark button to exit the Status screen.

Quick Selection Buttons

The Showline menu system includes four quick selection buttons on the top of the menu. These keys provide direct access to common functions and act as shortcuts to main menu items as described in Table 9.

Table 10: Quick Select Buttons

Quick Select Button	Description
⌂	Main Menu Refer to Settings/General for more information.
⧉	Edit a Preset Refer to Recalling or Editing Presets for more information.
✳	Effects / Edit a Chase Refer to Effects and Editing User Chases for more information.
🖧	DMX Start Address Refer to DMX Address for more information.
↺	Return to Main Menu / Return Up a Menu Item

DMX Address

You can display and edit the current DMX start address for the fixture by pressing the Quick Select button on the top of the menu system (as shown right). The current DMX start address will be display in large digits.

DMX Address

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To edit the DMX start address:

Step 1. Press the Check Mark button to begin the DMX start address editing. The last digit will change to a blue color.

Step 2. Use the UP and Down arrows to change the value of the currently selected digit.

Step 3. Use the Left and Right arrows to select another digit to adjust.

Step 4. Press the Check Mark button to save the new DMX Start Address.
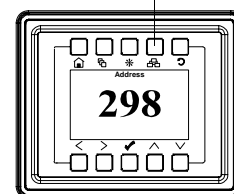
4. Dimming Curve Selection

Through the menu, you are able to select one of four dimming curves:

- Linear Curve
- PL_Curve
- S_Curve
- Square Curve
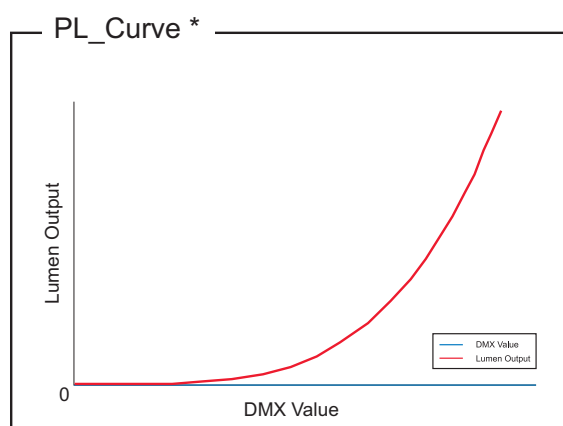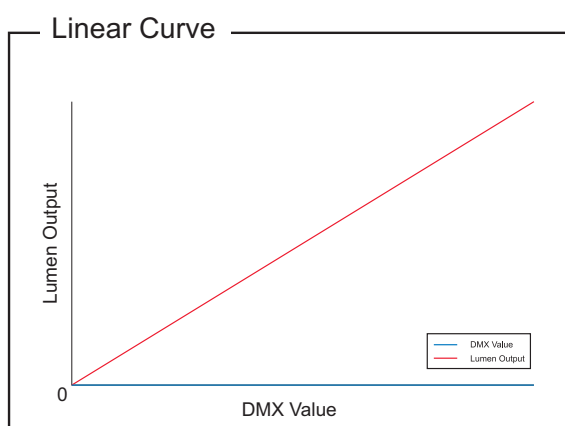
*PL Curve follows the dimming curve of Philips Selecon PL series LED luminaries.
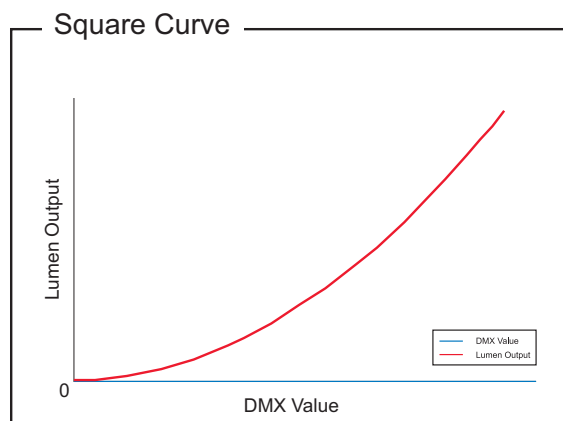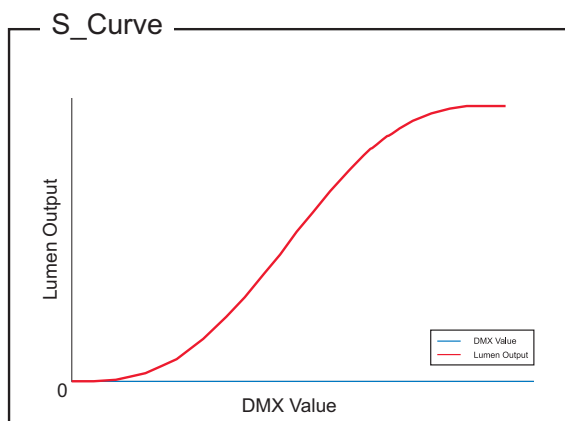
Figure 14: SL NITRO 510 LED STROBE Luminaire Dimmer Curves

Showline

5. Master / Slave Operational Mode

The Master / Slave Operational Mode allows one SL NITRO 510 LED STROBE Luminaire to act as the "Master" unit and all other connected units are controlled by this unit. When a unit is set to "Slave" mode, it will only listen to and follow any commands sent from a "Master" unit. Only one "Master" unit is allowed in this type of operation.

To setup a master / slave network:

Step 1. Set the first device in the DMX512 chain to Master Mode through the unit's menu system.

Step 2. Set all other connected units to Slave Mode.

Step 3. The master unit can be controlled via DMX512, RDM or through standalone operation (self-contained network utilizing on-board effects). The slave units will mimic the master unit's operation in all cases.

Note: For more information on DMX512 networking and systems, refer to "Additional Resources for DMX512" on page 1. For SL NITRO 510 LED STROBE Luminaire DMX Mapping, refer to "DMX CONTROL" on page 24.

Master Unit   SL NITRO 510 LED STROBE Luminaires

Optional:
DMX512 *(in - from a DMX controller)*

Slave Unit

DMX512 *(out from first to second luminaire)*

Slave Unit

DMX512 *(out from second to next luminaire)*
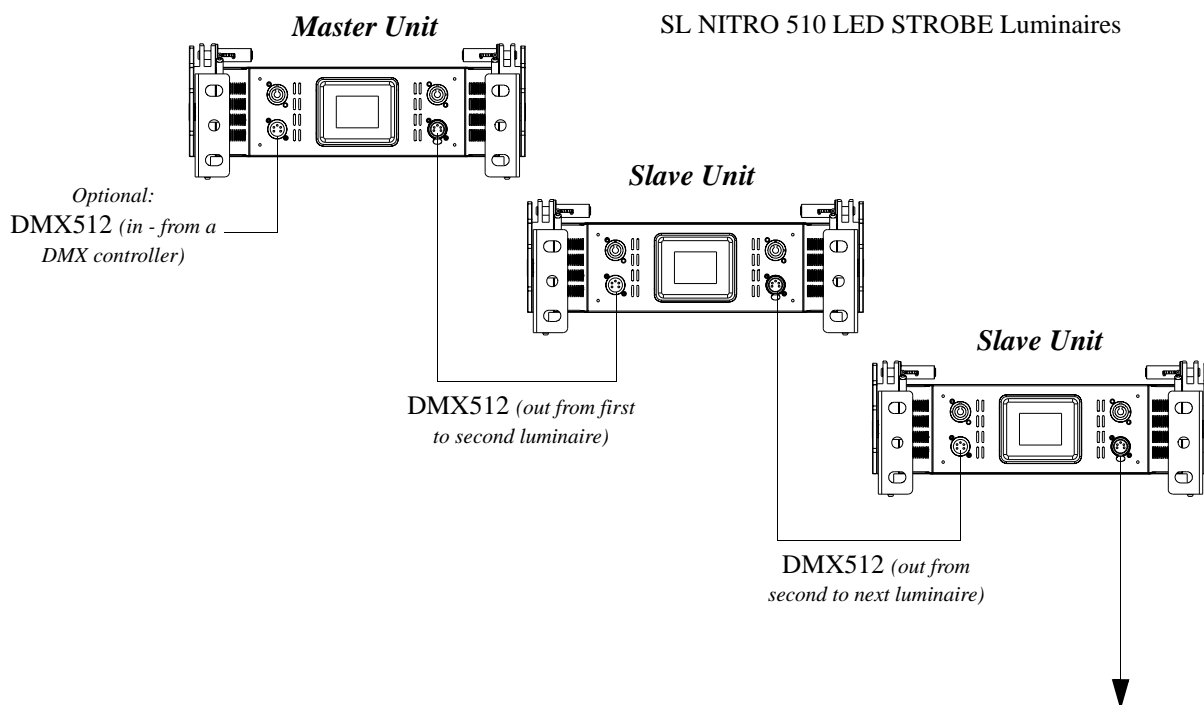
Figure 15: SL NITRO 510 LED STROBE Luminaire - Master / Slave Configuration

DMX CONTROL

This section contains information for operating the luminaire using one of the DMX control modes as set by the luminaire's menu system:

- "Single Channel Control Mode" (below)
- "Three Channel Control Mode" (below)
- "Four Channel Control Mode" on page 25
- "16-bit Control Mode" on page 25
- "Zone Mapping Mode" on page 26

For Menu options and detailed information, see "LCD Display and Menu System" on page 16.

Note: These tables assume a DMX start address of 1. When a different starting address is used, this address becomes channel 1 function and other functions follow in sequence.

1. Single Channel Control Mode

Table 11 provides DMX channel mapping of the DMX512 control values when the SL NITRO 510 LED STROBE Luminaire is in Single Channel DMX512 mode (as set by the luminaire's menu system).

Table 11: DMX Channel Mapping (Single Channel Mode)

DMX Channel	Parameter	Range DMX	Range%	Default - recommended console default values	Description
1	Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate operation. Refer to "Strobe Rate DMX Timing Detail" on page 29.

2. Three Channel Control Mode

Table 12 provides DMX channel mapping of all DMX512 control values when the SL NITRO 510 LED STROBE Luminaire is in Three Channel DMX512 mode (as set by the luminaire's menu system).

Table 12: DMX Channel Mapping (Three Channel Mode)

DMX Channel	Parameter	Range DMX	Range%	Default - recommended console default values	Description
1	Intensity	0 - 255	0 - 100%	0	8-bit control for the intensity of the LED settings - 0 to 255 (full)
2	Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration operation. Refer to "Strobe Duration DMX Timing Detail" on page 30
3	Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate operation. Refer to "Strobe Rate DMX Timing Detail" on page 29.

3. Four Channel Control Mode

Table 13 provides DMX channel mapping of all DMX512 control values when the SL NITRO 510 LED STROBE Luminaire is in Four Channel DMX512 mode (as set by the luminaire's menu system).

Table 13: DMX Channel Mapping (Four Channel Mode)

DMX Channel	Parameter	Range DMX	Range%	Default - recommended console default values	Description
1	Intensity	0 - 255	0 - 100%	0	8-bit control for the intensity of the LED settings - 0 to 255 (full)
2	Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration operation. Refer to "Strobe Duration DMX Timing Detail" on page 30.
3	Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate operation. Refer to "Strobe Rate DMX Timing Detail" on page 29.
4	Strobe Effects	0 - 255	0 - 100%	0	Controls strobe operation as follows: No Effect = DMX 0 - 5 **(default)** Ramp Up = DMX 6 - 42 Ramp Down = DMX 43 - 85 Ramp up/down = DMX 86 - 128 Random = DMX 129 - 171 Top row only = DMX 172 - 173 Bottom row only = DMX 174 - 175 Left zone only = DMX 176 - 178 Center zone only = DMX 179 - 180 Right zone only = DMX 181 - 182 Checker pattern A = DMX 183 - 184 Checker pattern B = DMX 185 - 186 Random zones = DMX 187 - 214 Circle zone chase CW = DMX 215 - 235 Circle zone chase CCW = DMX 236 - 255

4. 16-bit Control Mode

Table 14 provides DMX channel mapping of all DMX512 control values when the SL NITRO 510 LED STROBE Luminaire is in 16-bit DMX512 mode (as set by the luminaire's menu system).

Table 14: DMX Channel Mapping (16-bit Control Mode)

DMX Channel	Parameter	Range DMX	Range%	Default - recommended console default values	Description
1	Intensity - High Byte	0 - 65535	0 - 100%	0	16-bit control for the intensity of the LED settings - 0 to 65535 (full)
2	Intensity - Low Byte				
3	Strobe Effects	0 - 255	0 - 100%	0	Controls strobe operation as follows: No Effect = DMX 0 - 5 **(default)** Ramp Up = DMX 6 - 42 Ramp Down = DMX 43 - 85 Ramp up/down = DMX 86 - 128 Random = DMX 129 - 171 Top row only = DMX 172 - 173 Bottom row only = DMX 174 - 175 Left zone only = DMX 176 - 178 Center zone only = DMX 179 - 180 Right zone only = DMX 181 - 182 Checker pattern A = DMX 183 - 184 Checker pattern B = DMX 185 - 186 Random zones = DMX 187 - 214 Circle zone chase CW = DMX 215 - 235 Circle zone chase CCW = DMX 236 - 255

Table 14: DMX Channel Mapping (16-bit Control Mode)

4	Control Channel	0 - 255	0 - 100%	0	Control channel operation. Set control channel value to desired action, hold value for at least 5 seconds, then turn to 0. Set control channel value to 0 without any scaling. Default Setting on Console = DMX 0-4 Dimming Curve_linear = DMX 30 - 34 Dimming Curve_Square = DMX 35- 39 Dimming Curve_S-Curve = DMX 40 - 44 Dimming Curve_PL-Curve = DMX 45 - 49 Fan_Auto = DMX 80 - 84 Fan_Off = DMX 85 - 89 Not Used = DMX 105 - 250 *(Reserved for future use)*
5	Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration operation. Refer to "Strobe Duration DMX Timing Detail" on page 30.
6	Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate operation. Refer to "Strobe Rate DMX Timing Detail" on page 29.

5. Zone Mapping Mode

Table 15 on page 27 provides DMX channel mapping of all DMX512 control values when the SL NITRO 510 LED STROBE Luminaire is in Zone Mapping DMX512 mode (as set by the luminaire's menu system). **Figure 16** indicates each Zone in relationship to the front of the luminaire.
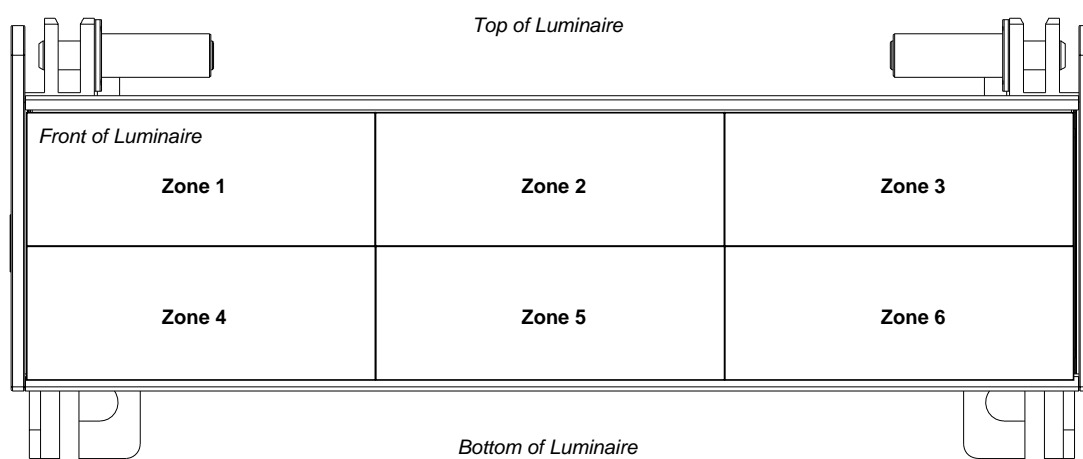
Note, this is a graphical representation for Zone identification purposes only.

Figure 16: SL NITRO 510 LED STROBE Luminaire Zones

Note: For DMX Channel Mapping (Zone Mapping Mode), refer to Table 15 on page 27.

Table 15: DMX Channel Mapping (Zone Mapping Mode)

DMX Channel	Parameter	Range DMX	Range%	Default - *recommended console default values*	Description
1	Intensity - High Byte	0 - 65535	0 - 100%	0	16-bit control for the intensity of the LED settings - 0 to 65535 (full)
2	Intensity - Low Byte				
3	Strobe Effects	0 - 255	0 - 100%	0	Controls strobe operation as follows: No Effect = DMX 0 - 5 **(default)** Ramp Up = DMX 6 - 42 Ramp Down = DMX 43 - 85 Ramp up/down = DMX 86 - 128 Random = DMX 129 - 171 Top row only = DMX 172 - 173 Bottom row only = DMX 174 - 175 Left zone only = DMX 176 - 178 Center zone only = DMX 179 - 180 Right zone only = DMX 181 - 182 Checker pattern A = DMX 183 - 184 Checker pattern B = DMX 185 - 186 Random zones = DMX 187 - 214 Circle zone chase CW = DMX 215 - 235 Circle zone chase CCW = DMX 236 - 255
4	Control Channel	0 - 255	0 - 100%	0	Control channel operation. Set control channel value to desired action, hold value for at least 5 seconds, then turn to 0. Set control channel value to 0 without any scaling. Default Setting on Console = DMX 0-4 Dimming Curve_linear = DMX 30 - 34 Dimming Curve_Square = DMX 35- 39 Dimming Curve_S-Curve = DMX 40 - 44 Dimming Curve_PL-Curve = DMX 45 - 49 Fan_Auto = DMX 80 - 84 Fan_Off = DMX 85 - 89 The following is only for "Zones Mapping" protocol. The following is instantly active and does not require the 5 second hold: Combined zone control-(all zones follow zone 1 setting) = DMX 100 - 104 Not Used = DMX 105 - 250 *(Reserved for future use)*
5	Zone 1 Intensity	0 - 255	0 - 100%	0	8-bit control of Zone 1 intensity 0 to 255 (full)
6	Zone 1 Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration for Zone 1. Refer to "Strobe Duration DMX Timing Detail" on page 30.
7	Zone 1 Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate for Zone 1. Refer to "Strobe Rate DMX Timing Detail" on page 29.
8	Zone 2 Intensity	0 - 255	0 - 100%	0	8-bit control of Zone 2 intensity 0 to 255 (full)
9	Zone 2 Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration for Zone 2. Refer to "Strobe Duration DMX Timing Detail" on page 30.
10	Zone 2 Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate for Zone 2. Refer to "Strobe Rate DMX Timing Detail" on page 29.
11	Zone 3 Intensity	0 - 255	0 - 100%	0	8-bit control of Zone 3 intensity 0 to 255 (full)
12	Zone 3 Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration for Zone 3. Refer to "Strobe Duration DMX Timing Detail" on page 30
13	Zone 3 Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate for Zone 3. Refer to "Strobe Rate DMX Timing Detail" on page 29.

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Table 15: DMX Channel Mapping (Zone Mapping Mode)

14	Zone 4 Intensity	0 - 255	0 - 100%	0	8-bit control of Zone 4 intensity 0 to 255 (full)
15	Zone 4 Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration for Zone 4. Refer to "Strobe Duration DMX Timing Detail" on page 30
16	Zone 4 Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate for Zone 4. Refer to "Strobe Rate DMX Timing Detail" on page 29.
17	Zone 5 Intensity	0 - 255	0 - 100%	0	8-bit control of Zone 5 intensity 0 to 255 (full)
18	Zone 5 Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration for Zone 5. Refer to "Strobe Duration DMX Timing Detail" on page 30
19	Zone 5 Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate for Zone 5. Refer to "Strobe Rate DMX Timing Detail" on page 29.
20	Zone 6 Intensity	0 - 255	0 - 100%	0	8-bit control of Zone 6 intensity 0 to 255 (full)
21	Zone 6 Strobe Duration	0 - 255	0 - 100%	0	Controls strobe duration for Zone 6. Refer to "Strobe Duration DMX Timing Detail" on page 30
22	Zone 6 Strobe Rate	0 - 255	0 - 100%	0	Controls strobe rate for Zone 6. Refer to "Strobe Rate DMX Timing Detail" on page 29.

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6. Strobe Rate DMX Timing Detail

The chart below describes the Strobe Rate DMX parameters of the SL NITRO 510 LED STROBE Luminaire.

DMX Value	Percent (%)	Frequency (Hz)
0	0	
1		DMX 0-5 – No
2		Flash (single flash
3	1	with value>5 on
4		intensity one time)
5	2	
6		0.500
7		0.500
8	3	0.504
9		0.504
10	4	0.508
11		0.508
12		0.512
13	5	0.512
14		0.517
15	6	0.517
16		0.521
17		0.521
18	7	0.526
19		0.526
20	8	0.530
21		0.530
22		0.535
23	9	0.535
24		0.540
25	10	0.540
26		0.544
27		0.544
28	11	0.549
29		0.549
30		0.554
31	12	0.554
32		0.554
33	13	0.559
34		0.559
35		0.565
36	14	0.565
37		0.570
38	15	0.570
39		0.575
40		0.575
41	16	0.581
42		0.581
43	17	0.586
44		0.586
45		0.592
46	18	0.592
47		0.598
48	19	0.598
49		0.604
50		0.604
51	20	0.610
52		0.610
53		0.616
54	21	0.616
55		0.622
56	22	0.622
57		0.629
58		0.629
59	23	0.635

DMX Value	Percent (%)	Frequency (Hz)
60		0.635
61	24	0.635
62		0.642
63		0.642
64	25	0.649
65		0.649
66	26	0.656
67		0.656
68		0.663
69	27	0.663
70		0.670
71	28	0.670
72		0.678
73		0.678
74	29	0.685
75		0.685
76	30	0.693
77		0.693
78		0.701
79	31	0.701
80		0.709
81		0.709
82	32	0.717
83		0.717
84	33	0.726
85		0.726
86		0.735
87	34	0.735
88		0.735
89	35	0.744
90		0.744
91		0.753
92	36	0.753
93		0.762
94	37	0.762
95		0.772
96		0.772
97	38	0.782
98		0.782
99	39	0.792
100		0.792
101		0.802
102	40	0.802
103		0.813
104		0.813
105	41	0.824
106		0.824
107	42	0.835
108		0.835
109		0.847
110	43	0.847
111		0.859
112	44	0.859
113		0.871
114		0.871
115	45	0.884
116		0.884
117	46	0.884
118		0.897
119		0.897

DMX Value	Percent (%)	Frequency (Hz)
120	47	0.910
121		0.910
122	48	0.924
123		0.924
124		0.938
125	49	0.938
126		0.953
127		0.953
128	50	0.968
129		0.968
130	51	0.983
131		0.983
132		1.000
133	52	1.000
134		1.016
135	53	1.016
136		1.033
137		1.033
138	54	1.051
139		1.051
140	55	1.070
141		1.070
142		1.089
143	56	1.089
144		1.089
145	57	1.109
146		1.109
147		1.129
148	58	1.129
149		1.150
150	59	1.150
151		1.173
152		1.173
153	60	1.196
154		1.196
155		1.220
156	61	1.220
157		1.244
158	62	1.244
159		1.270
160		1.270
161	63	1.297
162		1.297
163	64	1.326
164		1.326
165		1.355
166	65	1.355
167		1.386
168	66	1.386
169		1.418
170		1.418
171	67	1.452
172		1.452
173	68	1.452
174		1.487
175		1.487
176	69	1.524
177		1.524
178		1.563
179	70	1.563

DMX Value	Percent (%)	Frequency (Hz)
168	66	1.386
169		1.418
170		1.418
171	67	1.452
172		1.452
173	68	1.452
174		1.487
175		1.487
176	69	1.524
177		1.524
178		1.563
179	70	1.563
180		1.605
181	71	1.605
182		1.648
183		1.648
184	72	1.694
185		1.694
186	73	1.742
187		1.742
188		1.793
189	74	1.793
190		1.848
191	75	1.848
192		1.905
193		1.905
194	76	1.967
195		1.967
196	77	2.033
197		2.033
198		2.103
199	78	2.103
200		2.103
201	79	2.178
202		2.178
203		2.258
204	80	2.258
205		2.345
206	81	2.345
207		2.439
208		2.439
209	82	2.541
210		2.541
211		2.651
212	83	2.651
213		2.772
214	84	2.772
215		2.904
216		2.904
217	85	3.049
218		3.049
219	86	3.209
220		3.209
221		3.388
222	87	3.388
223		3.587
224	88	3.587
225		3.811
226		3.811
227	89	4.065

DMX Value	Percent (%)	Frequency (Hz)
228		4.065
229		4.065
230	90	4.355
231		4.355
232	91	4.690
233		4.690
234		5.081
235	92	5.081
236		5.543
237	93	5.543
238		6.098
239		6.098
240	94	6.775
241		6.775
242	95	7.622
243		7.622
244		8.711
245	96	8.711
246		10.163
247	97	10.163
248		12.195
249		12.195
250	98	15.244
251		15.244
252	99	20.325
253		20.325
254		30.488
255	100	30.488

NOTE: Continuous Mode (when strobe duration is also at 255)

Note: Continuous ON Mode illuminates all LEDs without strobing. This feature is activated when Strobe Rate and Strobe Duration are both set to DMX value 255.

7. Strobe Duration DMX Timing Detail

The chart below describes the Strobe Duration DMX parameters of the SL NITRO 510 LED STROBE Luminaire.

DMX Value	Percent (%)	Time (ms)
0	0	0
1		33
2		66
3	1	98
4		131
5	2	164
6		197
7		230
8	3	262
9		295
10	4	328
11		361
12		394
13	5	426
14		459
15	6	492
16		525
17		558
18	7	590
19		623
20	8	656
21		689
22		722
23	9	754
24		787
25	10	820
26		853
27		886
28	11	918
29		951
30		984
31	12	1017
32		1050
33	13	1082
34		1115
35		1148
36	14	1181
37		1214
38	15	1246
39		1279
40		1312
41	16	1345
42		1378
43	17	1410
44		1443
45		1476
46	18	1509
47		1542
48	19	1574
49		1607
50		1640
51	20	1673
52		1706
53		1738
54	21	1771
55		1804
56	22	1837
57		1870
58		1902
59	23	1935

DMX Value	Percent (%)	Time (ms)
60		1968
61	24	2001
62		2034
63		2066
64	25	2099
65		2132
66	26	2165
67		2198
68		2230
69	27	2263
70		2296
71	28	2329
72		2362
73		2394
74	29	2427
75		2460
76	30	2493
77		2526
78		2558
79	31	2591
80		2624
81		2657
82	32	2690
83		2722
84	33	2755
85		2788
86		2821
87	34	2854
88		2886
89	35	2919
90		2952
91		2985
92	36	3018
93		3050
94	37	3083
95		3116
96		3149
97	38	3182
98		3214
99	39	3247
100		3280
101		3313
102	40	3346
103		3378
104		3411
105	41	3444
106		3477
107	42	3510
108		3542
109		3575
110	43	3608
111		3641
112	44	3674
113		3706
114		3739
115	45	3772
116		3805
117	46	3838
118		3870
119		3903

DMX Value	Percent (%)	Time (ms)
120	47	3936
121		3969
122	48	4002
123		4034
124		4067
125	49	4100
126		4133
127		4166
128	50	4198
129		4231
130	51	4264
131		4297
132		4330
133	52	4362
134		4395
135	53	4428
136		4461
137		4494
138	54	4526
139		4559
140	55	4592
141		4625
142		4658
143	56	4690
144		4723
145	57	4756
146		4789
147		4822
148	58	4854
149		4887
150	59	4920
151		4953
152		4986
153	60	5018
154		5051
155		5084
156	61	5117
157		5150
158	62	5182
159		5215
160		5248
161	63	5281
162		5314
163	64	5346
164		5379
165		5412
166	65	5445
167		5478
168	66	5510
169		5543
170		5576
171	67	5609
172		5642
173	68	5674
174		5707
175		5740
176	69	5773
177		5806
178		5838
179	70	5871

DMX Value	Percent (%)	Time (ms)
180		5904
181	71	5937
182		5970
183		6002
184	72	6035
185		6068
186	73	6101
187		6134
188		6166
189	74	6199
190		6232
191	75	6265
192		6298
193		6330
194	76	6363
195		6396
196	77	6429
197		6462
198		6494
199	78	6527
200		6560
201	79	6593
202		6626
203		6658
204	80	6691
205		6724
206	81	6757
207		6790
208		6822
209	82	6855
210		6888
211		6921
212	83	6954
213		6986
214	84	7019
215		7052
216		7085
217	85	7118
218		7150
219	86	7183
220		7216
221		7249
222	87	7282
223		7314
224	88	7347
225		7380
226		7413
227	89	7446
228		7478
229		7511
230	90	7544
231		7577
232	91	7610
233		7642
234		7675
235	92	7708
236		7741
237	93	7774
238		7806
239		7839

DMX Value	Percent (%)	Time (ms)
240	94	7872
241		7905
242	95	7938
243		7970
244		8003
245	96	8036
246		8069
247	97	8102
248		8134
249		8167
250	98	8200
251		8233
252	99	8266
253		8298
254		8331
255	100	8364

NOTE: Cont nuous Mode (when strobe rate is also at 255)

Note: Continuous ON Mode illuminates all LEDs without strobing. This feature is activated when Strobe Rate and Strobe Duration are both set to DMX value 255.

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8. SL NITRO 510 LED STROBE Luminaire RDM Parameter IDs

The following tables outline and describe all the RDM parameters IDs associated with SL NITRO 510 LED STROBE Luminaires.

Table 16: SL NITRO 510 LED STROBE Luminaire RDM Product Parameters IDs

Model ID	Manufacturer	Model Description	Product Category
0x1180	Philips Entertain. Lighting Asia	SL NITRO 510	0x0509

Table 17: SL NITRO 510 LED STROBE Luminaire RDM UID

UID					
MSB of ESTA 50H	LSB of ESTA 41H	1st of Unique Seq.	2nd of Unique Seq.	3rd of Unique Seq.	4th of Unique Seq.

Table 18: SL NITRO 510 LED STROBE Luminaire RDM Parameters IDs

Get Allowed	Set Allowed	RDM Parameter IDs	Value	Comment	Implemented
		Category - Network Management			
		DISC_UNIQUE_BRANCH	0x0001		■
		DISC_MUTE	0x0002		■
		DISC_UN_MUTE	0x0003		■
■		PROXIED_DEVICES	0x0010		
■		PROXIED_DEVICES_COUNT	0x0011		
■	■	COMMS_STATUS	0x0015		
		Category - Status Collection			
■		QUEUED_MESSAGE	0x0020		■
■		STATUS_MESSAGES	0x0030		■
■		STATUS_ID_DESCRIPTION	0x0031		■
	■	CLEAR_STATUS_ID	0x0032		■
■	■	SUB_DEVICE_STATUS_REPORT_THRESHOLD	0x0033		
		Category - RDM Information			
■		SUPPORTED_PARAMETERS	0x0050	*Support required only if supporting Parameters beyond the minimum required set.*	■
■		PARAMETER_DESCRIPTION	0x0051	*Support required for Manufacturer-Specific PIDs exposed in SUPPORTED_ PARAMETERS message.*	■
		Category - Product Information			
■		DEVICE_INFO	0x0060		■

Table 18: SL NITRO 510 LED STROBE Luminaire RDM Parameters IDs

Get Allowed	Set Allowed	RDM Parameter IDs	Value	Comment	Implemented
■		PRODUCT_DETAIL_ID_LIST	0x0070		
■		DEVICE_MODEL_DESCRIPTION	0x0080		■
■		MANUFACTURER_LABEL	0x0081		■
■	■	DEVICE_LABEL	0x0082		■
■	■	FACTORY_DEFAULTS	0x0090		■
■		LANGUAGE_CAPABILITIES	0x00A0		
■	■	LANGUAGE	0x00B0		
■		SOFTWARE_VERSION_LABEL	0x00C0		■
■		BOOT_SOFTWARE_VERSION_ID	0x00C1		
■		BOOT_SOFTWARE_VERSION_LABEL	0x00C2		
		Category - DMX512 Setup			
■	■	DMX_PERSONALITY	0x00E0		■
■		DMX_PERSONALITY_DESCRIPTION	0x00E1		■
■	■	DMX_START_ADDRESS	0x00F0	*Required if device uses a DMX Slot*	■
■		SLOT_INFO	0x0120		■
■		SLOT_DESCRIPTION	0x0121		■
■		DEFAULT_SLOT_VALUE	0x0122		
		Category - Sensors 0x02xx			
■		SENSOR_DEFINITION	0x0200		■
■	■	SENSOR_VALUE	0x0201		■
	■	RECORD_SENSORS	0x0202		
		Category - Dimmer Settings 0x03xx - FUTURE USE			
		Category - Power / Lamp Settings 0x04xx			
■	■	DEVICE_HOURS	0x0400		
■	■	LAMP_HOURS	0x0401		
■	■	LAMP_STRIKES	0x0402		
■	■	LAMP_STATE	0x0403		
■	■	LAMP_ON_MODE	0x0404		
■	■	DEVICE_POWER_CYCLES	0x0405		
		Category - Display Settings 0x05xx			
■	■	DISPLAY_INVERT	0x0500		■
■	■	DISPLAY_LEVEL	0x0501		
		Category - Configuration 0x06xx			
■	■	PAN_INVERT	0x0600		
■	■	TILT_INVERT	0x0601		
■	■	PAN_TILT_SWAP	0x0602		
■	■	REAL_TIME_CLOCK	0x0603		
		Category - Control 0x10xx			
■	■	IDENTIFY_DEVICE	0x1000		■
	■	RESET_DEVICE	0x1001		
■	■	POWER_STATE	0x1010		
■	■	PERFORM_SELFTEST	0x1020		

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Table 18: SL NITRO 510 LED STROBE Luminaire RDM Parameters IDs

Get Allowed	Set Allowed	RDM Parameter IDs	Value	Comment	Implemented
■		SELF_TEST_DESCRIPTION	0x1021		
	■	CAPTURE_PRESET	0x1030		
■	■	PRESET_PLAYBACK	0x1031		

Table 19: SL NITRO 510 LED STROBE Luminaire RDM Manufacturer Status IDs

Manufacturer Specific messages are in the range of 0x8000 - 0xFFDF. Each Manufacturer-specific Status ID shall have a unique meaning, which shall be consistent across all products having a given Manufacturer ID. See Table B-2, ANSI E1.20-2010.				
Status ID Message	**Value**	**Data Value 1**	**Data Value 2**	**Status ID Description**
8100H		00H	00H	ALL OK

Table 20: SL NITRO 510 LED STROBE Luminaire RDM Manufacturer Specific PIDs for Root Device

Get Allowed	Set Allowed	RDM Parameter IDs	Type	Length	Unit	Prefix	Min	Max	Default	Description
Category - Manufacturer Defined PIDs - Range is 0x8000-0xffdf (See ANSI E1.20-2010 Standard, Table A-3)										
■	■	8A00H	U8	1	None	None	0	100	100	Dimmer
■	■	8AB2H	U8	1	None	None	1	18	1	Chase
■	■	8AB1H	U8	1	None	None	0	31	0	Preset
■	■	8A92H	U8	1	None	None	0	255	0	Strobe
■	■	8A94H	U8	1	None	None	0	255	0	Duration
■	■	8A40H	U8	1	None	None	0	1	0	Link Mode
■	■	8AA1H	U8	1	None	None	0	3	0	Dimming Curve
■	■	8A0CH	U8	1	None	None	0	3	0	DMX Fail Mode
■	■	8AA0H	U8	1	None	None	0	4	0	Backlight Off Time
■	■	8AA2H	U8	1	None	None	0	94	0	Power Up Setup
■	■	8A41H	U8	1	None	None	0	1	0	Lock Fixture
■	■	8A97H	U8	1	None	None	0	1	0	Fan Auto / Off Setup
■	■	8A98H	U8	1	None	None	0	255	0	Effect

CLEANING AND CARE

WARNING! All cleaning should be performed with power completely removed from the luminaire. Never remove protective covers when luminaire is powered. Wear appropriate protective eye wear and gloves when cleaning the fixture. All service and maintenance, other than described herein, should be performed by a qualified technician or Authorized Service Center.

1. Special Cleaning and Care Instructions

Being a solid-state fixture, and unlike most fixtures, the SL NITRO 510 LED STROBE Luminaire requires very little routine maintenance by the user. This section covers portions of the luminaire that can be removed for cleaning.

The SL NITRO 510 LED STROBE Luminaire special care when it comes to cleaning front lens assembly. Additional care needs to be taken with the plastic components because they are much easier to scratch or damage than glass.

The following is a list of cleaning materials required to care for your SL NITRO 510 LED STROBE Luminaire:

• Lint free lens tissue

• Lint or powder free gloves

• Reagent grade isopropyl alcohol*

• A mild soap solution.

Note: *Reagent grade isopropyl alcohol is good to use on the SL NITRO 510 LED STROBE Luminaire plastic optics with anti-reflection coatings.

If the lens is still dirty after using isopropyl alcohol, for instance if fingerprints or oil is just redistributed and not cleaned off the optic, then a mild soap and water solution can be used to gently wash the lens. Repeat the cleaning with isopropyl alcohol to eliminate streaks and soap residue.

WARNING! Under no circumstances should ammonia-based cleaners, acetone, or other harsh solvents be used on or near the SL NITRO 510 LED STROBE Luminaire. These types of cleaners or solvents can permanently damage the optics or housings of the fixture.

If you have any questions regarding the use or care of your SL NITRO 510 LED STROBE Luminaire, please contact Showline technical support or your local Authorized Dealer.

2. Front Lens Cleaning

To clean the front lens:

Step 1. Disconnect luminaire from power and allow to cool completely.

Step 2. Apply a small amount of reagent grade isopropyl alcohol to lint-free lens tissue.

Step 3. Wipe all debris, dirt, fingerprints, etc. from lens.

Step 4. Using a second lint-free lens tissue, wipe off any alcohol residue.

3. Service and Maintenance

For all other service and maintenance issues, please contact your local Showline office or an Authorized Service Center.

WARNING! Disassembly (other than as described herein), alterations, unauthorized service, etc. will void the product warranty. Contact your local Showline office or an Authorized Service Center for technical support and service.

TECHNICAL SPECIFICATIONS

1.　SL NITRO 510 LED STROBE Luminaire Operational Specifications

Source:	High Intensity White LED Array (x1350)
Beam Angle:	120 Degrees
Light Output:	> 68,000 lumens
Color Temperature:	6500K
Input Voltage (AC):	100V to 240V (+/- 10%, auto-ranging)
Current (AC):	3.6 Amps (100V) / 1.50 Amps (240V)
Frequency:	50/60Hz
Control Protocols:	DMX512 (1990) / DMX512A (RDM) / On-Board Menu
Ambient Temperature:	-20 to 40 Degrees C (-4 to 104 Degrees F)
Humidity:	5%-95% Non condensing
Cooling:	Forced Air Cooling
Weight:	15.4 lbs (7 kg) - Luminaire only (no accessories)
Housing:	Die Cast Aluminium with Powder Coating
Compliance:	cETLus marked (North American models) and CE Marked (International models)
IP Rating:	IP20

2.　SL NITRO 510 LED STROBE Luminaire Dimensions
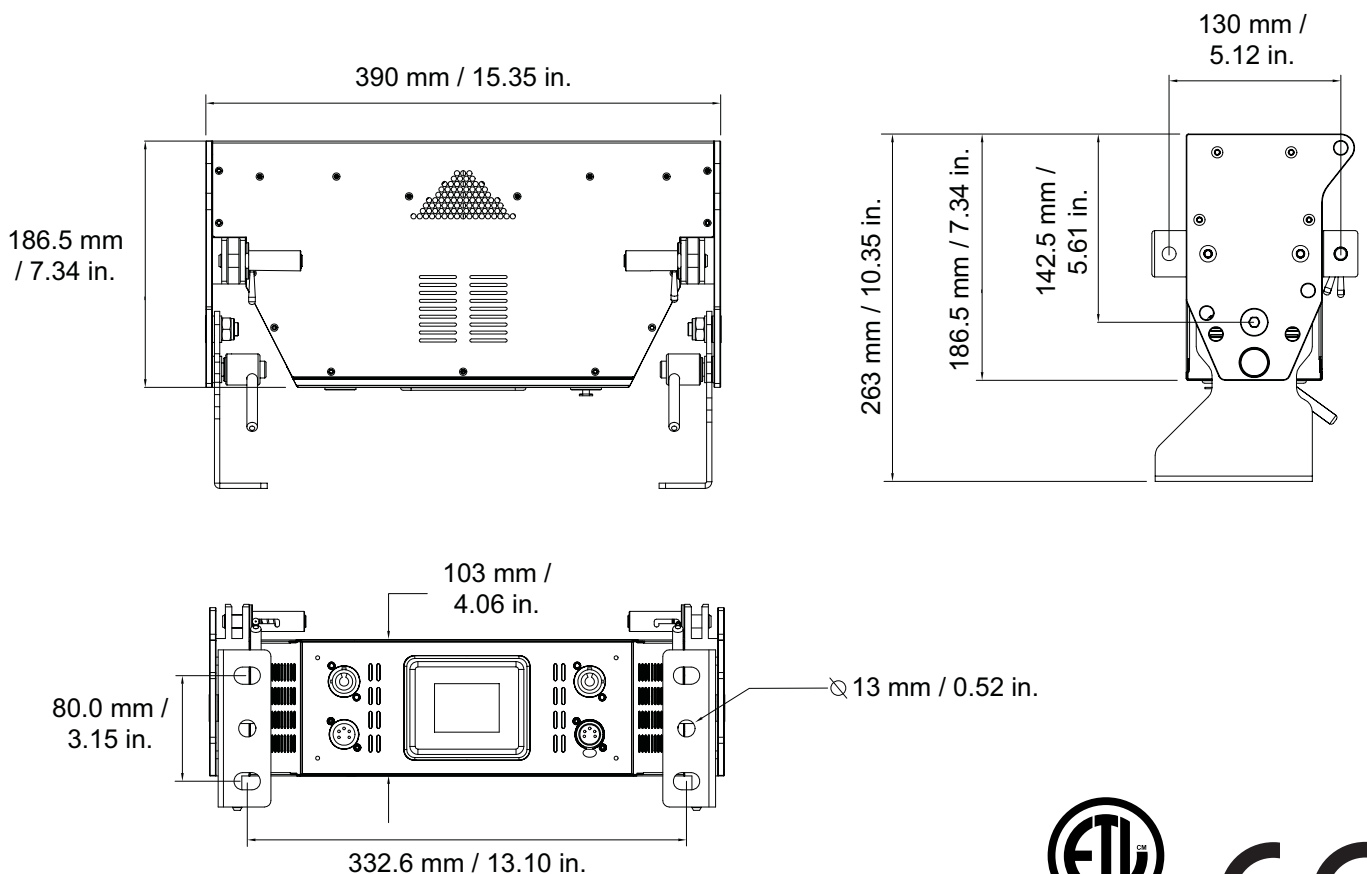
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