

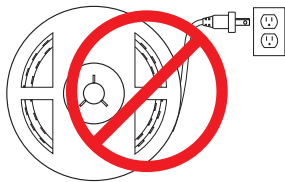
HYDROLUME[®] LED STRIP LIGHT

INSTALLATION GUIDE

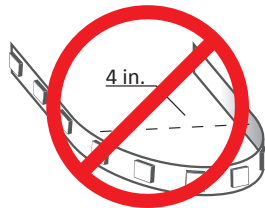
SAFETY & WARNINGS

1. Install in accordance with national and local electrical code regulations.
2. This product is intended to be installed and serviced by a qualified, licensed electrician.
3. Only install with a Listed Class 2 DC LED driver.
4. Do not submerge, or install within 5 feet of a swimming pool.
5. Do not modify or disassemble this product beyond instructions or this warranty will be void.
6. Not for use in submersible applications.

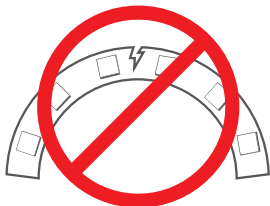
HANDLE PRODUCT WITH CARE!



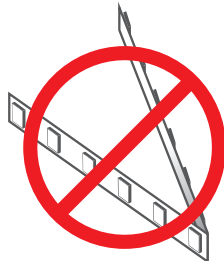
DO NOT POWER STRIP LIGHT WHILE ATTACHED TO SPOOL OR TIGHTLY COILED.



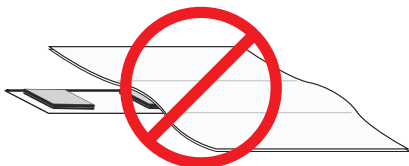
DO NOT BEND LED STRIP LIGHT TO A DIAMETER LESS THAN 4 INCHES.



DO NOT BEND LED STRIP LIGHT ON A HORIZONTAL PLANE.



DO NOT FOLD, CREASE, OR TWIST LED STRIP LIGHT.



DO NOT COVER STRIP LIGHT WITH ANY MATERIALS.

QUICK SPECS / MODELS

DI-24V-HL**

DI-24V-HLP**

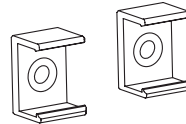
Input	24VDC Constant Voltage	
Power	Standard	1.13W/ft. (0.65W/cut point)
	Plus	2.04W/ft. (1.2W/cut point)
Max Run	Standard	81.5 ft.
	Plus	32.6 ft.
Ambient Temp †	-4° ~ 122°F (-20° ~ 50°C)	

** Indicates model and CCT

† Do not install product in environment outside listed temperature.

ADDITIONAL ACCESSORIES

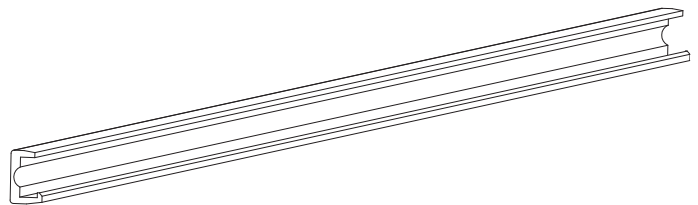
Mounting Bracket
DI-HL-MTBR



Stake Bracket
DI-HL-STBR

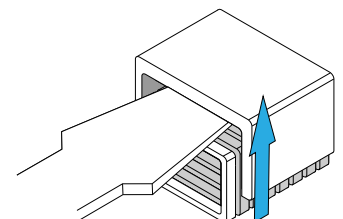
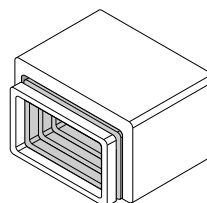


Mounting Channel
DI-HL-MTCH



CONNECTOR COMPRESSION

HYDROLUME Connectors may become compressed during shipping. To decompress, insert flathead screwdriver under top of connector and apply upward pressure until pins are completely removed from opening.

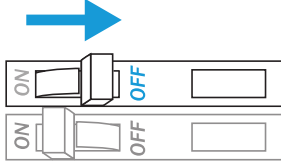


INSTALLATION

1 TURN POWER OFF AT CIRCUIT BREAKER



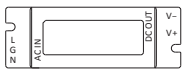
SHOCK HAZARD! May result in serious injury or death.
Turn power OFF at circuit breaker prior to installation.



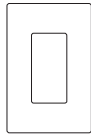
2 DETERMINE LOCATION TO INSTALL COMPONENTS

Refer to **SYSTEM DIAGRAMS**

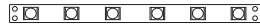
**NOT FOR USE IN SUBMERSIBLE APPLICATIONS, OR WITHIN 5 FEET OF A SWIMMING POOL.*



1) Class 2 Driver



2) Control



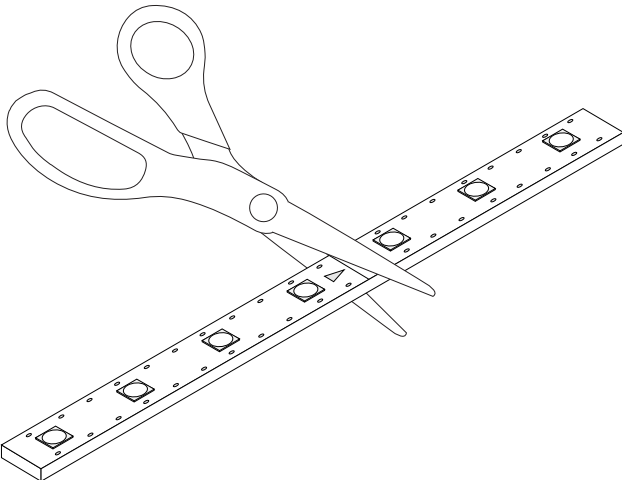
3) Hydrolume

WIRE GAUGE & VOLTAGE DROP

Ensure applicable wire is installed between driver, fixture, and any controls in between. When choosing wire, factor in voltage drop, amperage rating, and type (in-wall rated, wet location rated, etc.)

3 CREATE LENGTHS OF HYDROLUME STRIP LIGHT

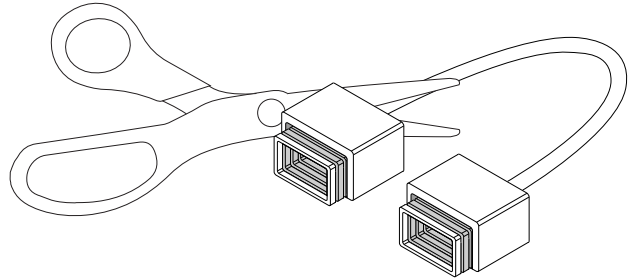
Using a pair of scissors, cut HYDROLUME LED Strip Light at cut point between arrows.



4 CREATE HYDROLUME STRIP LIGHT SPLICE CONNECTORS

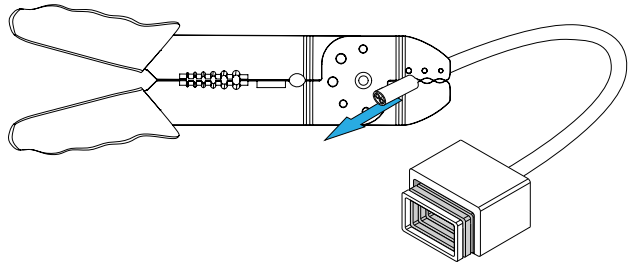
a CUT END OFF OF FLEXIBLE EXTENSION

Using a pair of scissors, cut one end off a Hydrolume Flexible Extension Cable.



b STRIP WIRES FROM END OF CONNECTOR

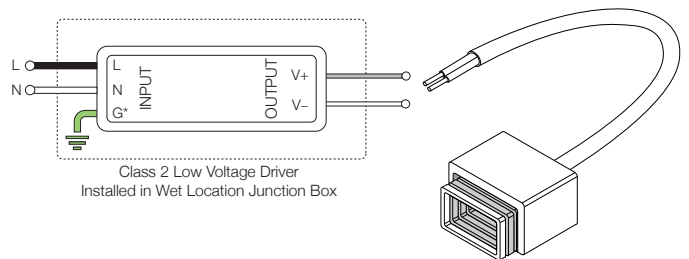
Using a pair of wire strippers, remove outer insulation and strip back wires inside HYDROLUME Flexible Extension Cable.



c CONNECT TO A POWER SUPPLY

Using the newly created Splice Connector, wire power supply to end of HYDROLUME LED Strip Light.

Note: For detailed installation information, refer to the System Diagrams on page 4. (Use of wet location rated junction box recommended)



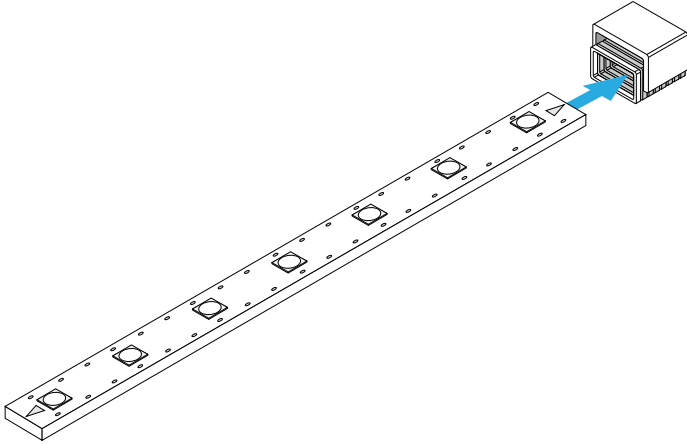
INSTALLATION (CONT.)

5 CREATE HYDROLUME SLIM STRIP LIGHT CONNECTIONS

a INSERT HYDROLUME LED STRIP LIGHT INTO CONNECTOR

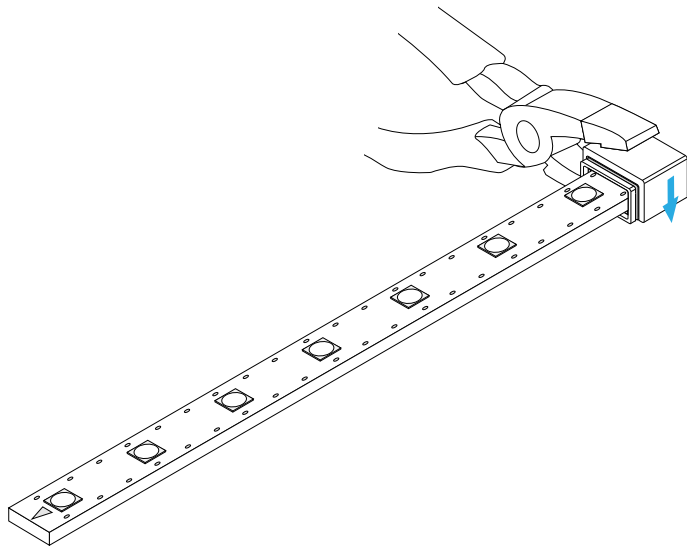
**For use with Cable Jumper, Splice, I, L, T, and X-Connectors.*

Note: HYDROLUME LED Strip Light may be connected from either end with compatible accessories.



b CRIMP CONNECTOR TO TAPE LIGHT

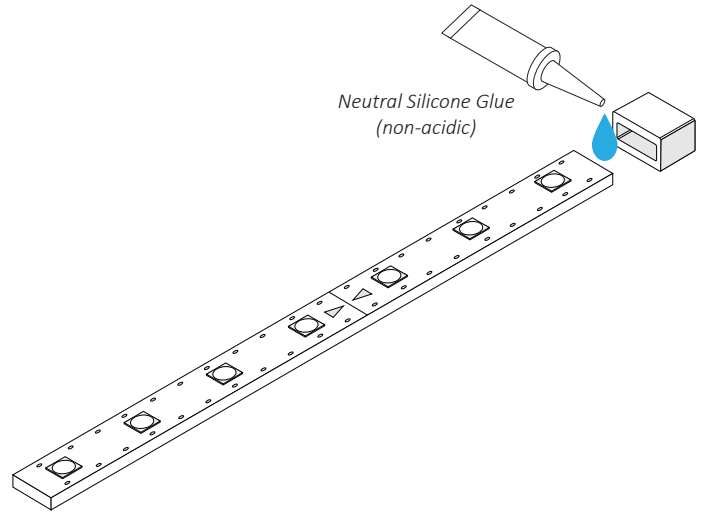
Using a pair of pliers, apply even pressure to top and bottom of connector until it is securely fastened to strip light.



6 SEAL END OF HYDROLUME LED STRIP LIGHT

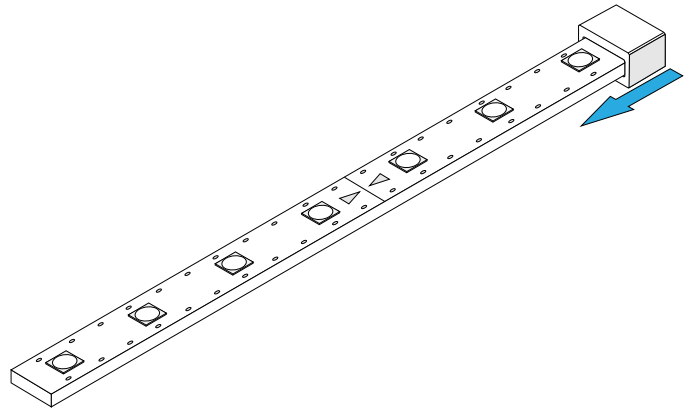
a ADD NON-ACIDIC NEUTRAL SILICONE ADHESIVE TO END CAP

All ends of HYDROLUME LED Strip Light must be sealed with **non-acidic neutral silicone adhesive** (Diode SKU: DI-WPSL not included) and HYDROLUME end caps. Acidic adhesive may damage the phosphor of LED Chips



b SECURE END CAP ONTO HYDROLUME LED STRIP LIGHT

Slide end cap onto HYDROLUME Strip Light.

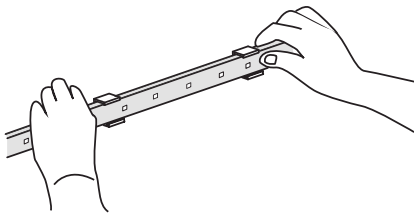
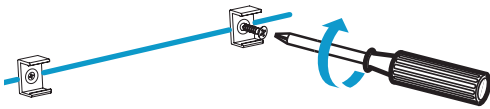


INSTALLATION (CONT.)

7 MOUNT HYDROLUME TO SURFACE. See mounting options a, b & c (below).

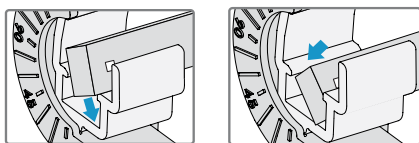
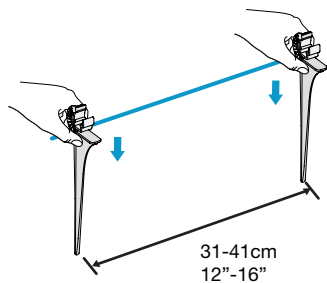
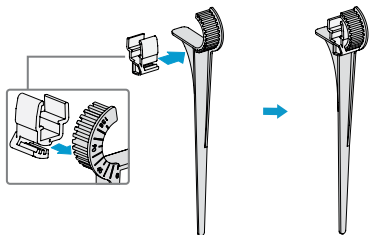
a) HYDROLUME Mounting Brackets

Mark placement for HYDROLUME Mounting Brackets -- roughly 12 inches apart. Fasten brackets with M2.9 (#4) screw or similar size (not provided). Once mounted, fasten HYDROLUME to brackets.



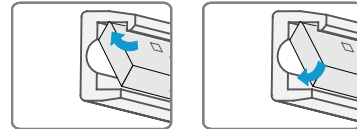
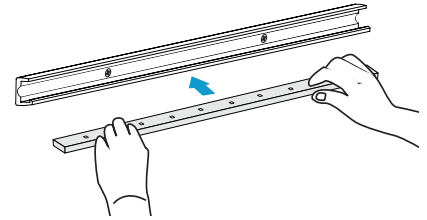
b) HYDROLUME Stake Brackets

Slide bracket into stake at desired angle to position HYDROLUME strip. Press stakes into ground roughly 12 - 16 inches apart. Once stakes are planted into ground, firmly press HYDROLUME strip into brackets.



c) HYDROLUME Mounting Channel

Mount channel to desired surface using minimum 2x M2.9 (#4) screws or a similar size (not provided). Once channel is mounted, firmly press HYDROLUME into channel pressing one end to the other.



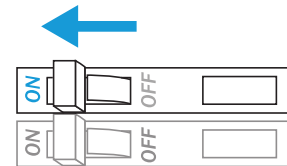
8 ATTACH CONTROL AND DRIVER

Verify a compatible driver is installed (refer to Specification Sheet). Utilize applicable wiring when installing outdoors. (Use of wet location rated junction box recommended)

9 REVIEW SYSTEM

Ensure all polarities are correct and connections are secured.

10 TURN POWER ON AT CIRCUIT BREAKER

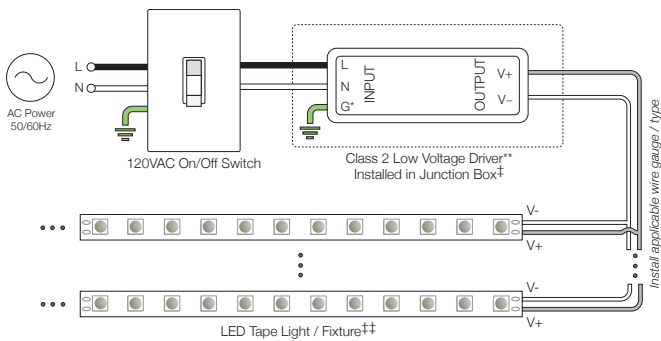


Shift in brightness and/or kelvin	<ul style="list-style-type: none"> Ensure applicable AWG (gauge) is installed between strip light and LED driver. See VOLTAGE DROP CHARTS.
Some LEDs are not functional	<ul style="list-style-type: none"> Ensure strip light has not been bent excessively, which could damage circuitry.
Lights are flickering	<ul style="list-style-type: none"> Ensure strip light has not been bent excessively, which could damage circuitry. Ensure strip light has not been submerged in any liquid for any amount of time.
Lights are turning on/off repeatedly	<ul style="list-style-type: none"> Ensure driver is not overloaded. An overloaded driver will trip the internal auto-reset (of driver) repeatedly, turning the system on/off.

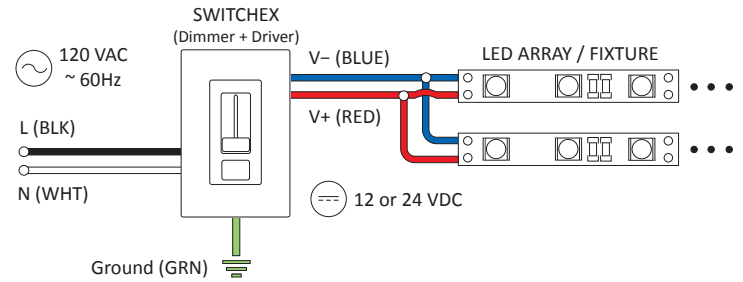
SYSTEM DIAGRAMS

The following diagrams are provided as example system designs. For information regarding larger systems or systems not pictured below, please see our web page or contact technical support. Always review each component installation guide for detailed and up-to-date wiring instructions. Install in accordance with national and local electrical codes.

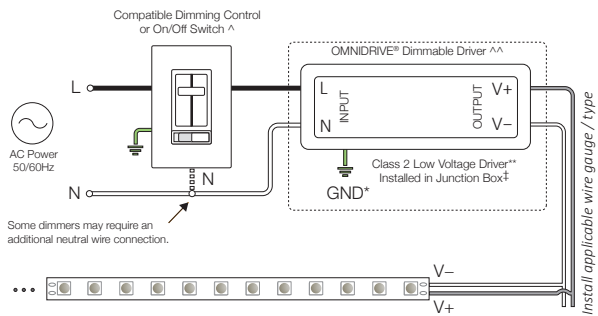
Traditional ON/OFF Switch System



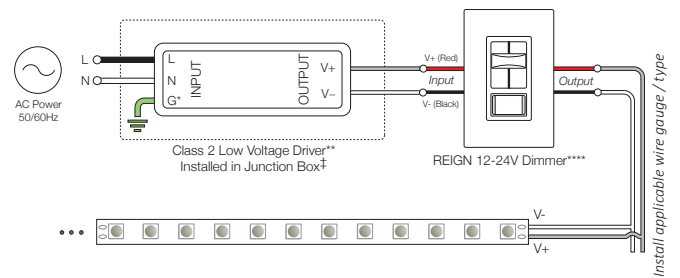
SWITCHEX® Dimmer/Driver System



OMNIDRIVE® Electronic Dimmable Driver System



REIGN® 12-24V Dimmer System



* Driver may not require a fault ground connection. Refer to driver specifications for additional information.

** Install a compatible Class 2 constant voltage driver. Refer to each driver specification sheet for full power ratings & load deratings.

*** Install a Class 2 constant voltage driver compatible with a low voltage PWM controller/dimmer switch. Refer to each driver specification sheet for full power ratings & load deratings.

**** Determine the number of low voltage outputs of the driver when installing multiple PWM controllers/dimmer switches. No more than one PWM controller/dimmer switch can be attached to a single output of the driver.

^ Install a compatible dimming control or switch. See the 'Electronic Dimmable Driver / Dimmer Compatibility List' for compatible dimming controls. See the dimming control manufacturer installation guide for complete wiring instructions.

^^ Ensure to load the driver at least 60% the labeled load for proper dimming performance (required for dimmable installations only).

‡ Refer to driver or controller specifications for a compatible junction box.

‡‡ See fixture specifications for maximum series run limits.

VOLTAGE DROP CHARTS

For best performance and lumen output, ensure proper wire gauge is installed to compensate for voltage drop of low voltage circuits.

Example: 12V Voltage Drop & Wire Length Distance Chart

Wire Gauge	10 W .83 A	20 W 1.7 A	30 W 2.5 A	40 W 3.3 A	50 W 2.1 A	60 W 4.2 A
18 AWG	34 ft.	17 ft.	11 ft.	8 ft.	6 ft.	5 ft.
16 AWG	54 ft.	27 ft.	18 ft.	13 ft.	10 ft.	9 ft.
14 AWG	86 ft.	43 ft.	29 ft.	21 ft.	17 ft.	14 ft.
12 AWG	134 ft.	68 ft.	45 ft.	34 ft.	27 ft.	22 ft.
10 AWG	199 ft.	99 ft.	66 ft.	49 ft.	39 ft.	32 ft.



1 Determine load size. Let's assume load is 55 W. Round up to nearest load.



2 Determine distance from driver to load. Let's assume the distance is 20 ft.



3 It's recommended to install 12 AWG to eliminate excess voltage drop.

24V Voltage Drop & Wire Length Distance Chart

Wire Gauge	10 W .42 A	20 W .83 A	30 W 1.3 A	40 W 1.7 A	50 W 2.1 A	60 W 2.5 A	70 W 2.9 A	80 W 3.3 A	100 W 4.2 A
18 AWG	134 ft.	68 ft.	45 ft.	33 ft.	27 ft.	22 ft.	19 ft.	17 ft.	14 ft.
16 AWG	215 ft.	109 ft.	72 ft.	54 ft.	43 ft.	36 ft.	31 ft.	27 ft.	22 ft.
14 AWG	345 ft.	174 ft.	115 ft.	86 ft.	69 ft.	57 ft.	49 ft.	43 ft.	36 ft.
12 AWG	539 ft.	272 ft.	181 ft.	135 ft.	108 ft.	90 ft.	77 ft.	68 ft.	56 ft.
10 AWG	784 ft.	397 ft.	263 ft.	197 ft.	158 ft.	131 ft.	112 ft.	98 ft.	82 ft.