

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. Do not modify or disassemble this product beyond instructions or the warranty will be void.
4. Only install with a Listed Class 2 DC LED driver.
5. Do not exceed maximum run recommended for Strip Light.
6. Diode LED Strip Light is designed to be cut at designated cut points only. Cutting anywhere other than the cut points will result in damage to the Strip Light.
7. Failure to follow safety warnings, and installation instructions will void the warranty for this product.



QUICK SPECS / MODELS

Input	24VDC Constant Voltage	
Power	Standard	1.22W/ft. (1.5W/cut point)
	Plus	2.44W/ft. (1.0W/cut point)
Max Run	Standard	65 ft.
	Plus	32 ft.
Ambient Temp †	-4° - 122°F (-20° - 50°C)	

† Do not install product in environment outside listed temperature.

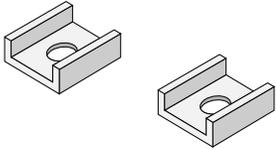
HYDROLUME® SLIM 24V LED Strip Light

INSTALLATION GUIDE

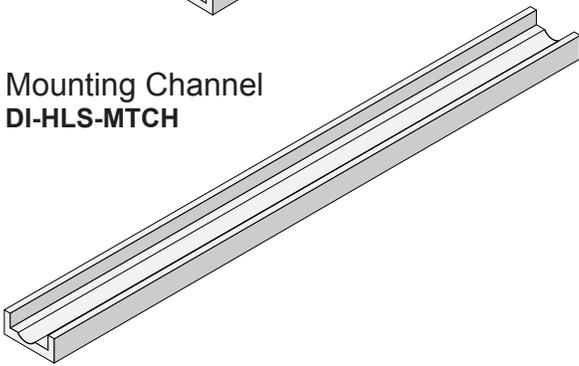
PRE-INSTALLATION

ADDITIONAL ACCESSORIES

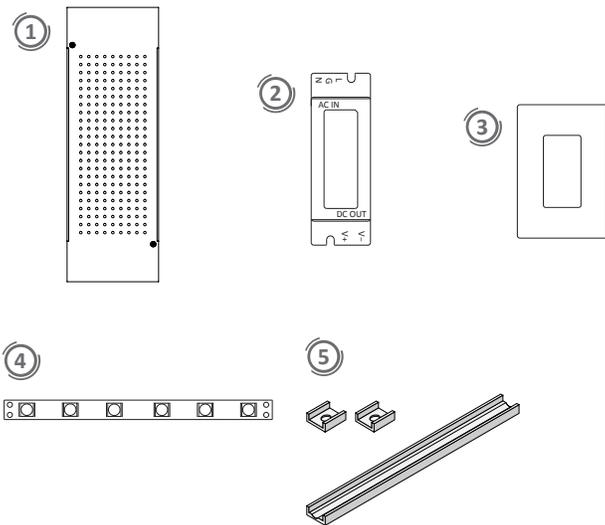
Mounting Bracket
DI-HLS-MTBR



Mounting Channel
DI-HLS-MTCH

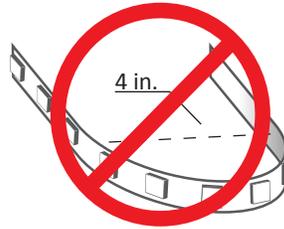


REQUIRED COMPONENTS

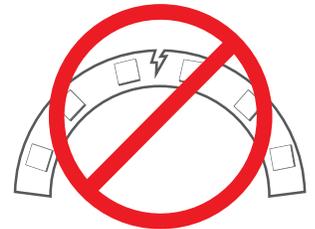


1. Appropriate Junction Box
2. Class 2 rated Driver
3. Compatible Dimmer or Switch
4. HYDROLUME® SLIM LED Strip Light
5. HYDROLUME® SLIM Mounting Brackets or Channels

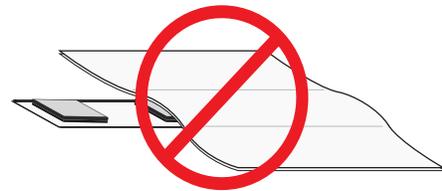
HANDLE PRODUCT WITH CARE!



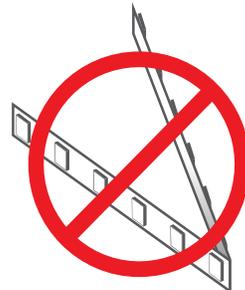
DO NOT BEND LED STRIP LIGHT TO A DIAMETER LESS THAN 4 INCHES.



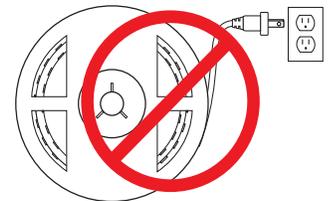
DO NOT BEND LED STRIP LIGHT ON A HORIZONTAL PLANE.



DO NOT COVER STRIP LIGHT WITH ANY MATERIALS.

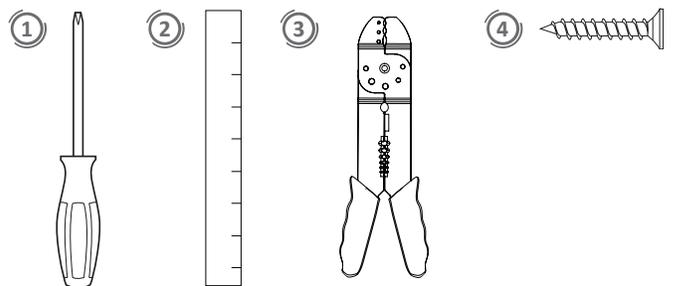


DO NOT FOLD, CREASE, OR TWIST LED STRIP LIGHT.



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

REQUIRED TOOLS



1. Phillips-head Screwdriver
2. Ruler
3. Wire Stripper
4. Wood Screws

HYDROLUME[®] SLIM 24V LED Strip Light

INSTALLATION GUIDE

INSTALLATION

UL LISTED 676 MODELS FOR UNDERWATER APPLICATIONS

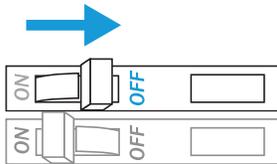
NEC 680

When installing in water, install in accordance with NEC 680. Per UL instructions It is required to mount strip light with HYDROLUME Mounting Channel (DI-HL-MTCH) for these applications.

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.

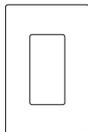


2 DETERMINE LOCATION TO INSTALL COMPONENTS

Refer to **SYSTEM DIAGRAMS**



1) Class 2 Driver



2) Control



3) Hydrolume

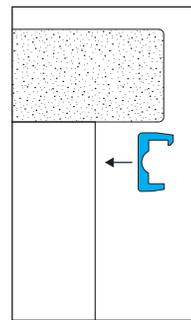
WIRE GAUGE & VOLTAGE DROP

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 ADHERE MOUNTING CHANNEL TO SURFACE

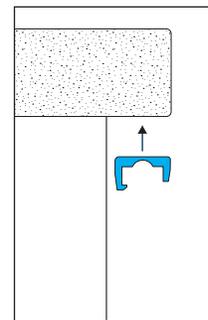
ATTENTION: FIBERGLASS & VINYL LINED POOLS

Unlike concrete pools, most fiberglass and vinyl lined pools have strict warranty guidelines that do not allow the user to deface the pool wall surface. Diode LED does not recommend mounting to fiberglass or vinyl pool walls and/or defacing the surface in any way (ex. drilling into surface to route lead wires). It is recommended to mount to a separate pool coping or lip to ensure your pool warranty is not voided. Always consult with your pool supplier and contractor for proper installation of 3rd party products.



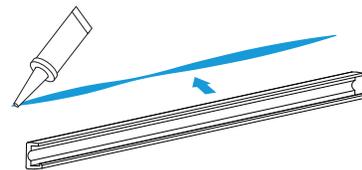
Wall Mount

Concrete Pools Only

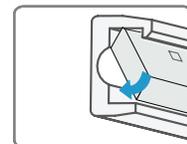
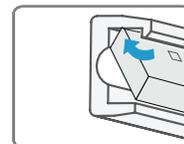


Coping Mount

Concrete Pools
Fiberglass Pools
Vinyl-Line Pools



Mount channel to dry surface using a chlorine resistant waterproof adhesive. Allow adhesive to cure/dry.



Once adhesive is dry, firmly press HYDROLUME into mounting channel working one end to the other.

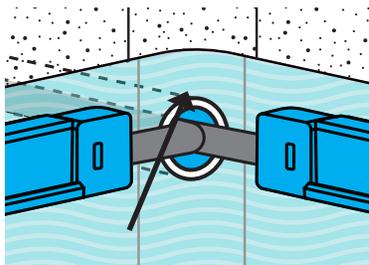
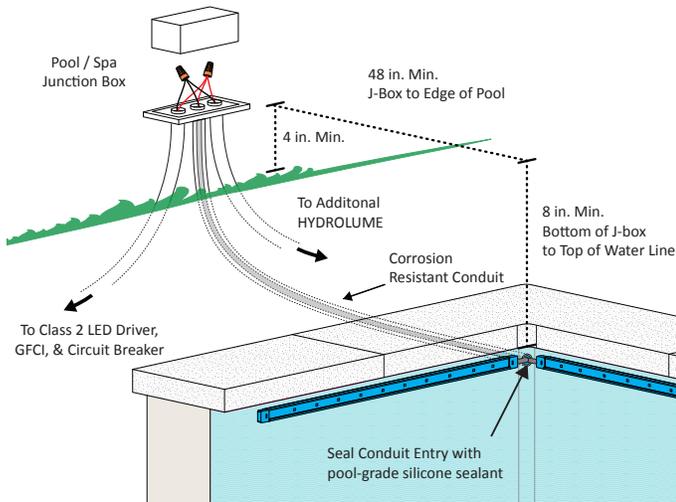
HYDROLUME[®] SLIM 24V LED Strip Light

INSTALLATION GUIDE

INSTALLATION (CONT.)

INSTALLATION: UL LISTED 676 MODELS FOR UNDERWATER APPLICATIONS

3 CONT.

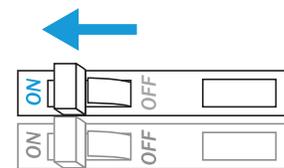


For concrete pools, seal conduit entry with pool-grade silicone sealant. **DO NOT drill holes in fiberglass pools/hot tubs or vinyl-lined pools.** An alternate method is to route the wire directly out of pool.

4 ATTACH CONTROL AND DRIVER
Verify a compatible constant voltage driver is installed. Utilize applicable wiring when installing outdoors.

5 REVIEW SYSTEM
Ensure all polarities are correct and connections are secured.

6 TURN POWER ON AT CIRCUIT BREAKER



Shift in brightness and/or kelvin	<ul style="list-style-type: none"> Ensure an appropriate gauge of wire 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. Ensure strip light has not been submerged in any liquid for any amount of time.
Lights are flickering	<ul style="list-style-type: none"> Ensure a compatible driver and/or dimming control is installed. Check for loose connections.
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.

HYDROLUME® SLIM 24V LED Strip Light

INSTALLATION GUIDE

INSTALLATION (CONT.)

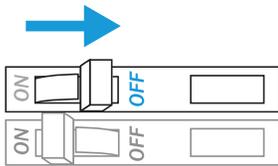
INSTALLATION: UL LISTED 2108 MODELS

FOR APPLICATIONS THAT ARE NOT UNDERWATER

1 TURN POWER OFF AT CIRCUIT BREAKER

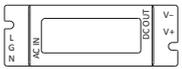


SHOCK HAZARD! May result in serious injury or death.
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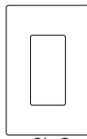


2 DETERMINE LOCATION TO INSTALL COMPONENTS

Refer to **SYSTEM DIAGRAMS**



1) Class 2 Driver



2) Control



3) Hydrolume

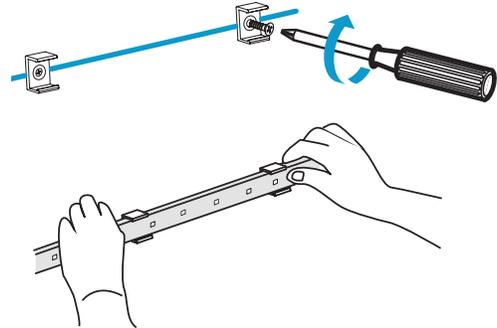
WIRE GAUGE & VOLTAGE DROP

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 MOUNT HYDROLUME TO SURFACE. See mounting options a, b & c.

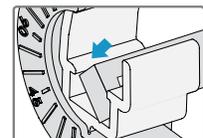
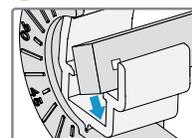
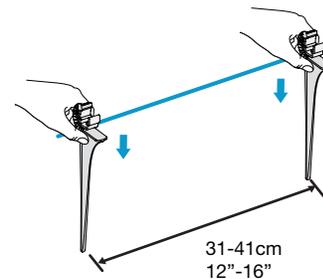
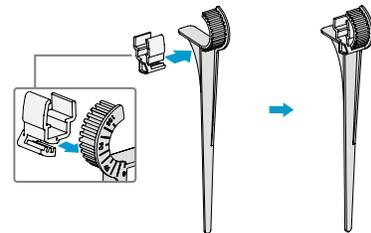
a HYDROLUME Mounting Brackets

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 light into brackets.



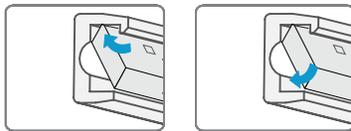
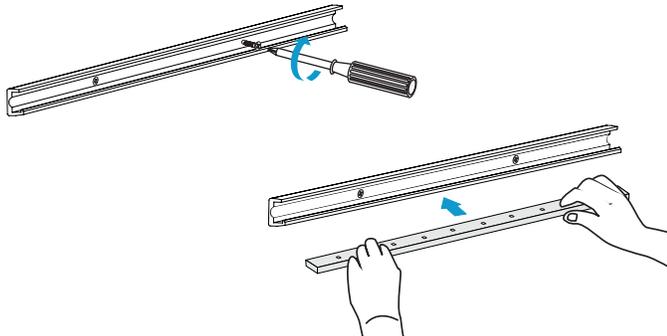
HYDROLUME[®] SLIM 24V LED Strip Light

INSTALLATION GUIDE

INSTALLATION (CONT.)

③ 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.



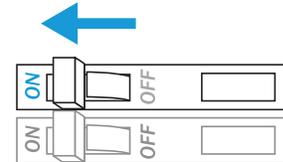
④ ATTACH CONTROL AND DRIVER

Verify a compatible constant voltage driver is installed. Utilize applicable wiring when installing outdoors.

⑤ REVIEW SYSTEM

Ensure all polarities are correct and connections are secured.

⑥ TURN POWER ON AT CIRCUIT BREAKER



Shift in brightness and/or kelvin	<ul style="list-style-type: none">• Ensure an appropriate gauge of wire 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.• Ensure strip light has not been submerged in any liquid for any amount of time.
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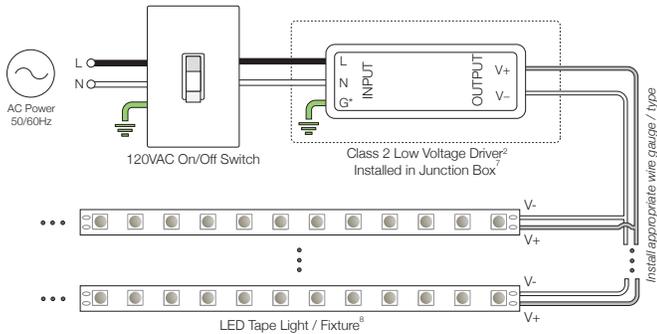
HYDROLUME[®] SLIM 24V LED Strip Light

INSTALLATION GUIDE

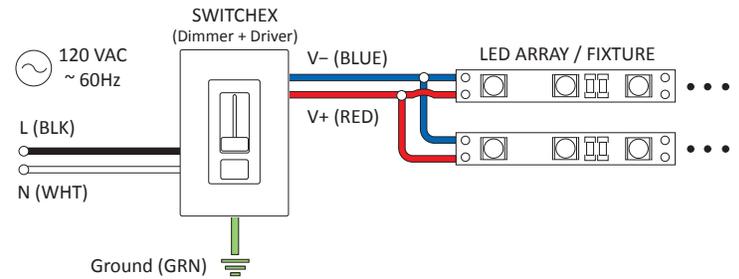
SYSTEM DIAGRAMS

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.

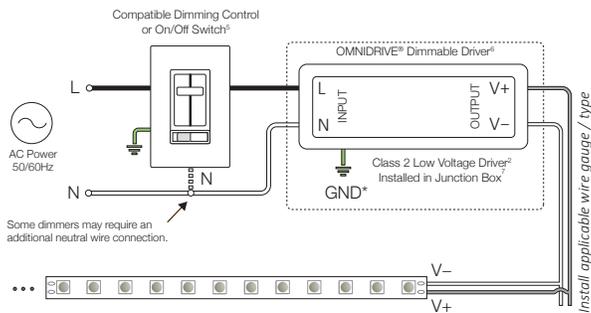
Traditional ON/OFF Switch System



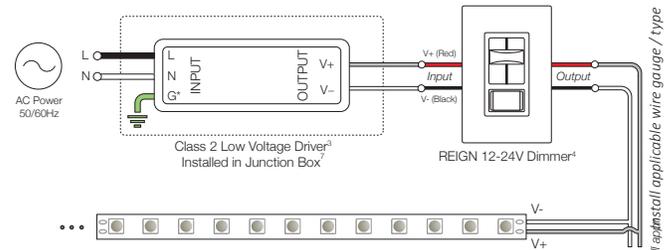
SWITCHEX[®] Dimmer/Driver System



OMNIDRIVE[®] Electronic Dimmable Driver System



REIGN[®] 24V Dimmer System



1. Driver may not require a fault ground connection. Refer to driver specifications for additional information.
2. Install a compatible Class 2 constant voltage driver. Refer to each driver specification sheet for full power ratings & load deratings.
3. 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.
4. 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.
5. 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.
6. Ensure to load the driver at least 60% of the labeled load for proper dimming performance (required for dimmable installations only).
7. Refer to driver or controller specifications for a compatible junction box.
8. See fixture specifications for maximum series run limits.

HYDROLUME[®] SLIM 24V LED Strip Light

INSTALLATION GUIDE

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: 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
18 AWG	134 ft.	68 ft.	45 ft.	33 ft.	27 ft.	22 ft.
16 AWG	215 ft.	109 ft.	72 ft.	54 ft.	43 ft.	36 ft.
14 AWG	345 ft.	174 ft.	115 ft.	86 ft.	69 ft.	57 ft.
12 AWG	539 ft.	272 ft.	181 ft.	135 ft.	108 ft.	90 ft.
10 AWG	784 ft.	397 ft.	263 ft.	197 ft.	158 ft.	131 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 90 ft.

③ It is 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.



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