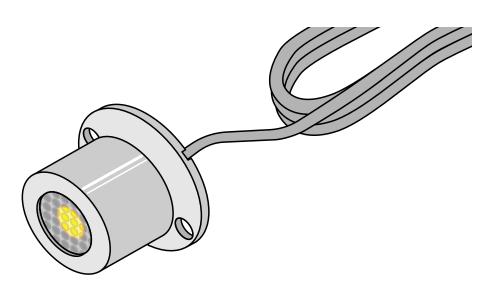


INSTALLATION GUIDE



diode led®



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. Do not submerge, or install within 5 feet of a swimming pool.
- 5. Only install with a Listed Class 2 DC LED driver.
- 6. To avoid Voltage Drop, ensure wire gauge used with LED fixture is sufficient to keep under 3% voltage drop.
- 7.Failure to follow safety warnings, and installation instructions will void the warranty for this product.



QUICK SPECS

Input Voltage	12VDC
Power Consumption	2.1W
Environment	Outdoor/Wet Location/IP65

Included Models ¹	DI-SPOT-SP2-30-**
Ambient Temperature ²	-4° ~ 122°F (-20° ~ 50°C)

Note ¹ ** Indicates beam angle.

Note ² Do not install product in an environment outside the listed ambient temperature.

A WARNING!

DO NOT CONNECT DIRECTLY TO HIGH VOLTAGE POWER!

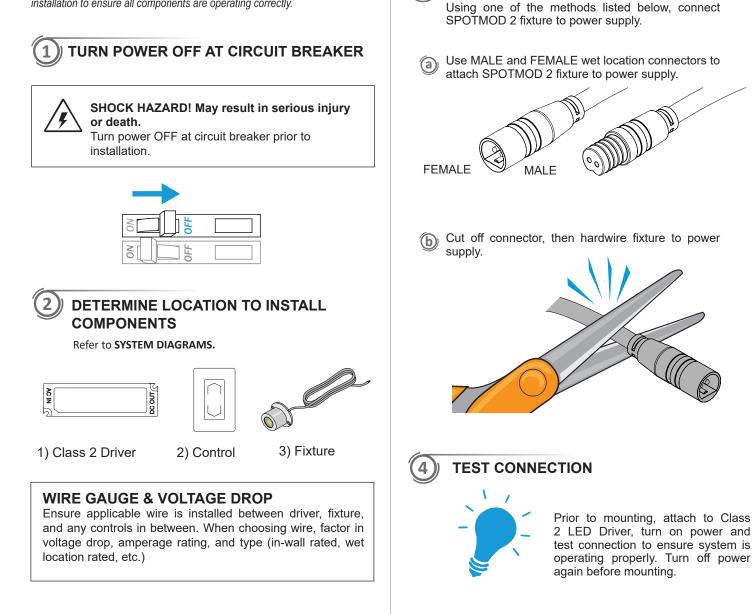
Read all warnings and installation instructions thoroughly.

CONNECT SPOTMOD 2

INSTALLATION GUIDE

INSTALLATION

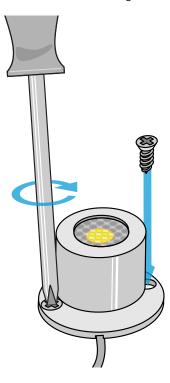
Prior to installation, verify all components (LED Fixture, Driver, Control, & Accessories) are compatible. Configure and pre-test your LED system prior to installation to ensure all components are operating correctly.



INSTALLATION (CONT.)

MOUNT FIXTURE

Secure fixture to surface using screws.

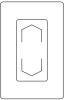


6

ATTACH DRIVER AND LIGHTING CONTROL

ONLY USE COPPER WIRING. See **SYSTEM DIAGRAMS**. Verify a compatible driver and control are installed.

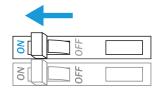




REVIEW FULL SYSTEM and ensure all polarities are correct and connections are secure.

TURN POWER ON AT CIRCUIT BREAKER

INSTALLATION GUIDE



SYSTEM WORKING IMPROPERLY?

Turn power OFF at circuit breaker and verify all connections. Review SYSTEM DIAGRAMS and TROUBLESHOOTING or call Diode LED Technical Support at 877.817.6028.

ADDITIONAL RESOURCES

7

Visit the on-line product page at <u>www.DiodeLED.com</u> for individual LED Tape Light product specifications & warranty information.

INSTALLATION GUIDE

TROUBLESHOOTING

Symptom	Common Cause					
Tape Light does not illuminate	Circuit breaker is OFF or tripped.					
	 Incorrect wiring. Polarity of Low Voltage V+ and V- are reversed. Check connection at every connection point to ensure polarity is not reversed. 					
	• Incorrect voltage pairing of LED driver and fixture. 12V driver models will not power a fixture with a higher voltage rating.					
Tape Light Overheats	 Incorrect voltage pairing of LED driver and fixture. Ensure 12V tape light models are not paired with a driver with higher voltage. 					
	 Incorrect ambient temperature. Ensure tape light is installed in environment -4° ~ 122°F (-20° ~ 50°C). 					
Fixture flickers randomly, may shut off	Connection is not secure. Check connection at CLICKTIGHT and ensure metal prongs of CLICKTIGHT are directly on t of Tape Light Solder pads.					
Shift in brightness and/ or color	• Review Tape Light maximum series run limit. Exceeding will cause voltage drop, decreasing brightness and/or color shift.					
	 Review Voltage Drop Charts on pg. 8. Incorrect wire gauge may cause voltage drop and noticeable shift in brightness and/or color. 					
Tape Light turns on/off repeatedly	Driver is overloaded or overheated. An overloaded/overheated driver will trip the internal auto-reset (of driver) repeatedly, turning the system on/off.					
CLICKTIGHT Connectors	• Ensure compatible CLICKTIGHT models are attached. Tape lights vary in width and require specific connectors. Contact your supplier for additional information.					
	 Tape Light is polarity sensitive. Ensure V+ of power is attached to V+ of tape light. Ensure V- of power is attached to V- of tape light. 					

VOLTAGE DROP CHARTS

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

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			
20 AWG	18 ft.	9 ft.	6 ft.	5 ft.	4 ft.	3 ft.			
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.	33 ft.			

12V Voltage Drop & Wire Length Distance Chart

Voltage Drop Chart Guide

1

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

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

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

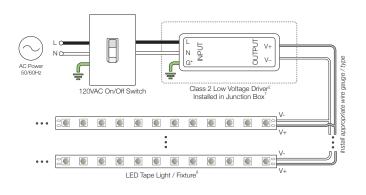
INSTALLATION GUIDE

SYSTEM DIAGRAMS

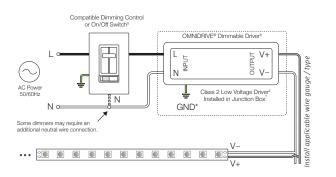
The following diagrams are provided as example system designs. For information regarding larger systems or systems not pictured below, please see our web page or contact technical support. Always review each component installation guide for detailed and up-to-date wiring instructions. Install in accordance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

SINGLE COLOR CONTROL SYSTEMS

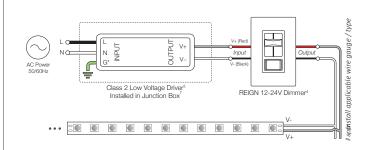
Traditional ON/OFF Switch System



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.



Toll Free: 877.817.6028 | Fax: 415.592.1596 | www.DiodeLED.com | info@DiodeLED.com © 2020 Elemental LED, Inc. All rights reserved. Specifications are subject to change without notice.