

SAFETY & WARNINGS

1. This LED Driver is to be installed in accordance with the National Electrical Code or local code.
2. This product is intended to be installed and serviced by a qualified, licensed electrician.
3. Install only in dry or damp locations. Do not install in wet locations.
4. Install in a well-ventilated area free from explosive gases and vapors.
5. This LED Driver must be grounded in accordance with the NEC or local codes. This driver must be grounded to the green grounding wire.
6. Only install compatible dimmable LED fixtures.
7. Ensure applicable wire is installed between driver and fixture. When choosing wire, factor in voltage drop, amperage rating, and type (in-wall rated, wet location rated, etc.). Inadequate wire installation could overheat wires, and cause a fire.
8. See dimmer switch specifications for minimum load requirements.
9. Do not modify or disassemble this product beyond instructions or the warranty will be void.

QUICK SPECS

Input Voltage	100~130VAC, 50/60Hz
Output Voltage	See driver label
Maximum Load	Refer to 'Derating Curve' (pg. 2)
Ambient Temp	-4° ~ 122°F (-20° ~ 50°C)
Environment	Dry and Damp Locations

INCLUDED MODELS

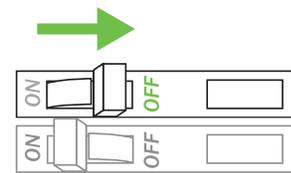
12VDC MODELS	24VDC MODELS
DI-OD2-12V24W (CLASS 2)	DI-OD2-24V24W (CLASS 2)
DI-OD2-12V60W (CLASS 2)	DI-OD2-24V60W (CLASS 2)
DI-OD2-12V120W	DI-OD2-24V96W (CLASS 2)
DI-OD2-12V200W	DI-OD2-24V120W
	DI-OD2-24V200W

INSTALLATION

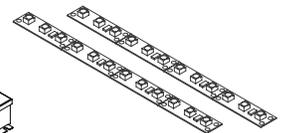
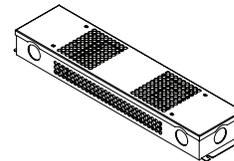
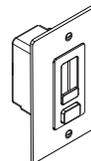
1 TURN POWER OFF AT CIRCUIT BREAKER



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'



1) Compatible Control

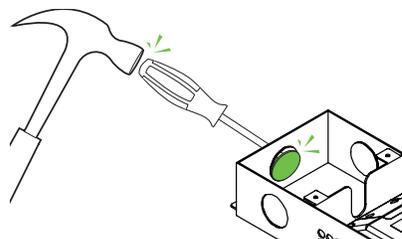
2) OMNIDRIVE 2

3) LED Fixture Control

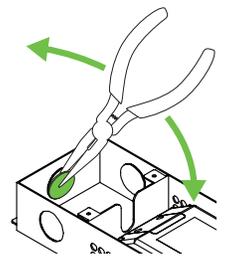
WIRE GAUGE & VOLTAGE DROP

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 PUNCH OUT KNOCKOUTS FOR CONDUIT ACCESS



a. Use punch and hammer to loosen K/O.

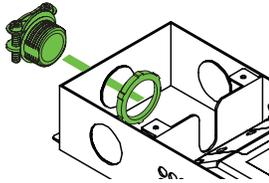


b. Grip K/O with pliers. Bend back and forth until broken off.

INSTALLATION CONT.

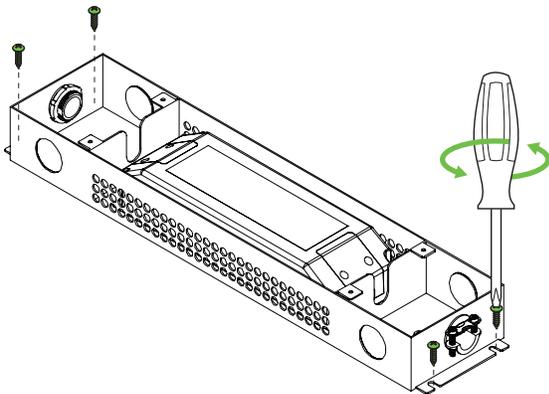
4 ATTACH 3/8" NM (NON-METTALIC)CABLE STRAIN RELIEF OR OTHER FITTING FOR CONDUIT ACCESS.

Fittings must be purchased at local hardware store.
Enclosure actual KO diameter is 0.87" and fits 3/8" fittings.



5 MOUNT DRIVER

Mount with 4x screws or appropriate hardware (not-included).
Driver may be mounted in any orientation.

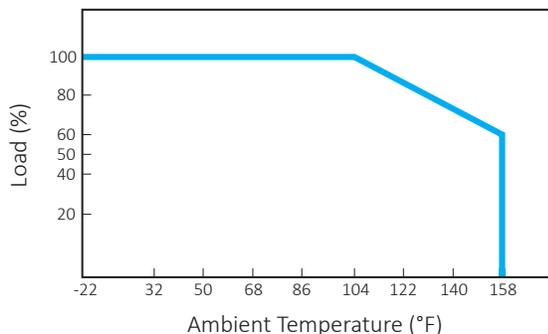


6 ATTACH LOAD AND CONTROL

Only use copper wiring. Ensure to ground driver and enclosure according to NEC or local codes. Refer to 'Wiring Connections', 'System Diagrams', and dimming control installation guides.

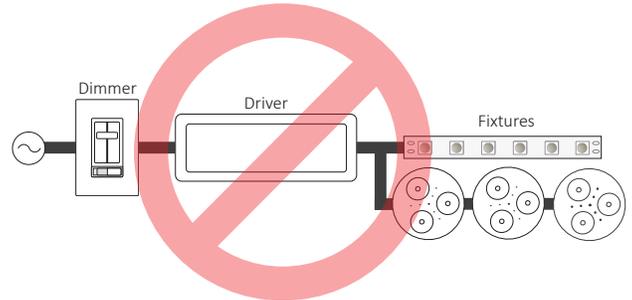
- Install a **compatible dimming control** listed on the 'OMNIDRIVE 2 Dimming Control Compatibility List' available at www.DiodeLED.com.
- When installing in ambient temperatures that may reach over 100°F, refer to the 'Derating Curve' to avoid overheating and damage to the driver.

DERATING CURVE

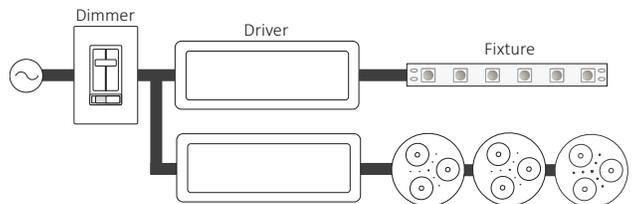


6 CONT.

- Terminal Block Driver Models** - Remove cover ports with Phillips-head screwdriver. Use a mini Phillips or flathead screwdriver for attaching wires to terminal ports. Terminals fit up to 12AWG solid-core copper wire.
- Do not install different fixture types on the same power supply** as flickering and altered dimming range may occur.



INCORRECT

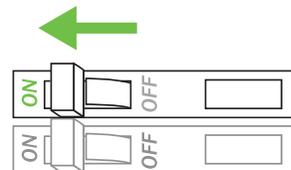


CORRECT

Different fixture types on separate drivers.

7 TURN POWER ON AT CIRCUIT BREAKER

Install Additional Components, Verify connections and turn main power ON at breaker.

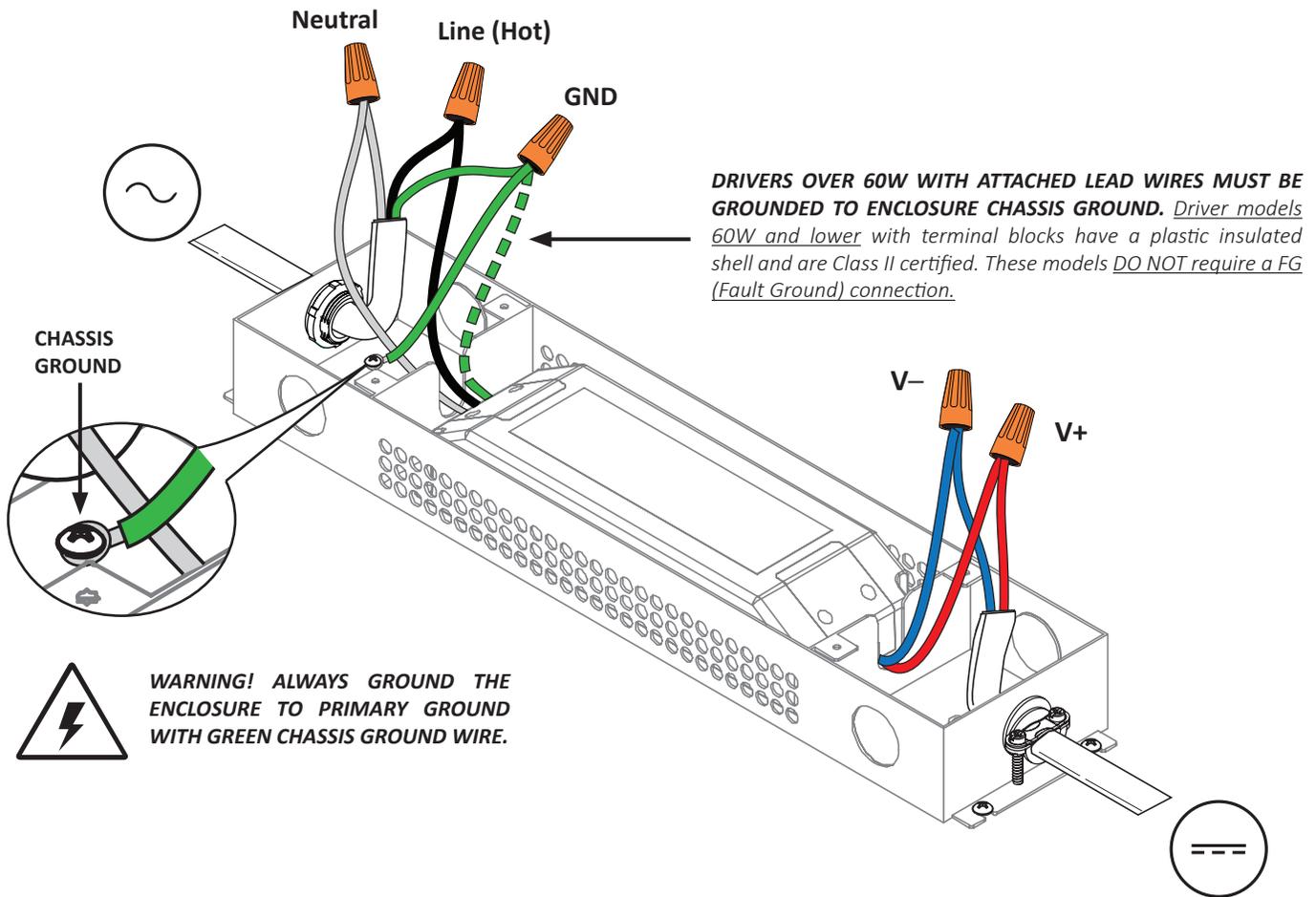


SYSTEM WORKING IMPROPERLY?

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

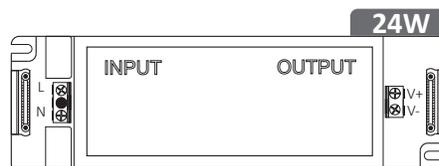
WIRING CONNECTIONS

Ensure main power is OFF before wiring.



24W and 60W models are Class II certified and do not require a FG (Fault Ground) connection.

Strip wire 1/4in. (6mm)
Copper wire only.

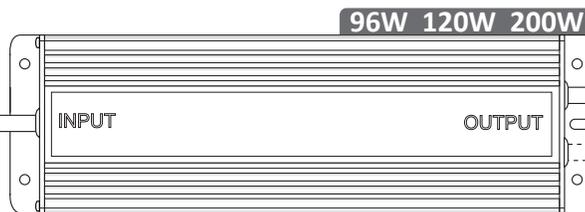


100~130VAC
~50/60 Hz



To Low Voltage LED Load

L(Black)
N(White)
Ground (Green)



V+ (Red)
V- (Black)

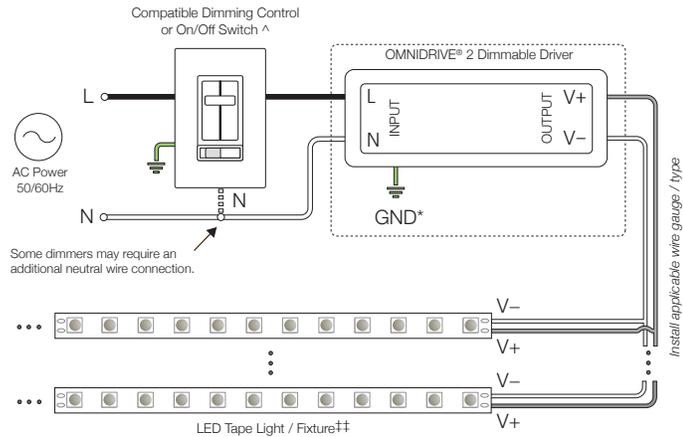
Ground 96W, 120W, and 200W models to 1) enclosure chassis ground wire and 2) Primary Ground.

200W model has 2x output leads (not isolated taps).

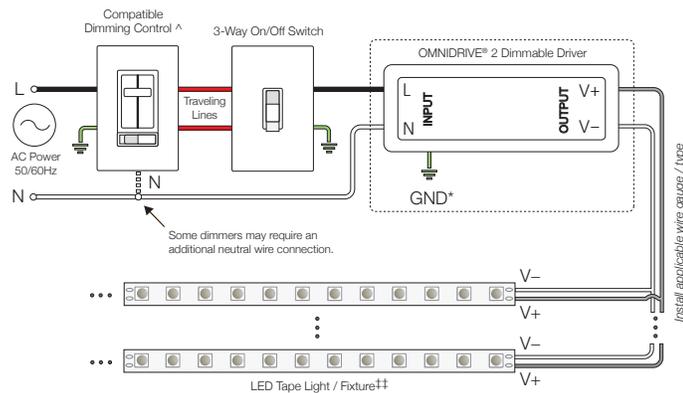
SYSTEM DIAGRAMS

The following diagrams are provided as example system designs. Install in accordance with national and local electrical code regulations.

STANDARD DRIVER/DIMMER DIAGRAM



3-WAY DRIVER/DIMMER DIAGRAM



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

^ Install a compatible dimming control or switch. See the 'OMNIDRIVE 2 Dimmer Compatibility List' for compatible dimming controls. See the dimming control manufacturer installation guide for complete wiring instructions.

‡ See fixture specifications for maximum series run limits.

TROUBLESHOOTING

Prior to troubleshooting, ensure all items are a compatible system and main power is turned ON.

<p>Fixture does not illuminate</p>	<ul style="list-style-type: none"> See 'System Diagram', 'Wiring Connections' and installation guides of all components. Ensure the system is wired correctly and polarities are correct. Ensure a compatible constant voltage <i>dimnable</i> fixture is installed. Ensure the driver and fixture have the same voltage specifications (12V & 12V, or 24V & 24V).
<p>Fixture does not dim</p>	<ul style="list-style-type: none"> Ensure a compatible constant voltage <i>dimnable</i> fixture is installed. Ensure a compatible dimming control is installed and wired correctly. See 'OMNIDRIVE 2 Dimming Control Compatibility List'.
<p>Different fixture types do not dim in sync</p>	<ul style="list-style-type: none"> Different fixture types have different circuit designs and may react differently when dimmed. Ensure each fixture type is installed on a separate driver for best performance.
<p>Fixture is quickly flashing or flickering</p>	<ul style="list-style-type: none"> Verify a compatible dimming control is installed. If flickering is apparent at low light levels install a compatible trim-adjustable dimming control. Ensure a compatible constant voltage <i>dimnable</i> fixture is installed. Ensure different fixture types are not connected to a single driver. Different fixture types must be connected to individual drivers. Ensure all connections are properly secured. Ensure fixture is receiving the correct input voltage.
<p>Fixture is slowly flashing</p>	<ul style="list-style-type: none"> Ensure driver is not overloaded. An overloaded driver will cause the internal auto-reset to trip repeatedly.
<p>Installation Trips Main Breaker</p>	<ul style="list-style-type: none"> Check wiring for short circuit. If breaker continues to trip there may be a short in the driver. Call customer support for a replacement driver.

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.	33 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.

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.	33 ft.

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.

ADDITIONAL RESOURCES

Visit the on-line product page at www.DiodeLED.com for additional product specifications & warranty information.

OMNIDRIVE 2 DIMMABLE DRIVER SPECIFICATION SHEET

For full specifications.

OMNIDRIVE 2 DIMMABLE DRIVER COMPATIBILITY LIST

For a list of compatible dimming controls.



Toll Free: 877.817.6028 | Fax: 415.592.1596 | www.DiodeLED.com | info@DiodeLED.com
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