**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**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input Voltage</strong></td>
<td>100~130VAC, 50/60Hz</td>
</tr>
<tr>
<td><strong>Output Voltage</strong></td>
<td>See driver label</td>
</tr>
<tr>
<td><strong>Maximum Load</strong></td>
<td>Refer to ‘Derating Curve’ (pg. 2)</td>
</tr>
<tr>
<td><strong>Ambient Temp</strong></td>
<td>-4° ~ 122°F (-20° ~ 50°C)</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Dry and Damp Locations</td>
</tr>
</tbody>
</table>

**INCLUDED MODELS**

<table>
<thead>
<tr>
<th>12VDC MODELS</th>
<th>24VDC MODELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DI-OD2-12V24W (CLASS 2)</td>
<td>DI-OD2-24V24W (CLASS 2)</td>
</tr>
<tr>
<td>DI-OD2-12V60W (CLASS 2)</td>
<td>DI-OD2-24V60W (CLASS 2)</td>
</tr>
<tr>
<td>DI-OD2-12V120W</td>
<td>DI-OD2-24V96W (CLASS 2)</td>
</tr>
<tr>
<td>DI-OD2-12V200W</td>
<td>DI-OD2-24V120W</td>
</tr>
<tr>
<td></td>
<td>DI-OD2-24V-200W</td>
</tr>
</tbody>
</table>

**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

3. **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.)

4. **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.
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.

MOUNT DRIVER

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

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.


b. 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

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.

**WARNING! ALWAYS GROUND THE ENCLOSURE TO PRIMARY GROUND WITH GREEN CHASSIS GROUND WIRE.**

Drivers over 60W with attached lead wires must be grounded to enclosure chassis ground. Driver models 60W and lower with terminal blocks have a plastic insulated shell and are Class II certified. These models DO NOT require a FG (Fault Ground) connection.

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.

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

Compatible Dimming Control or On/Off Switch

OMNIDRIVE® 2 Dimmable Driver

N

L

V−

V+

GND*

N

V−

V+

LED Tape Light / Fixture‡‡

V−

V+

INPUT

OUTPUT

3-WAY DRIVER/DIMMER DIAGRAM

Compatible Dimming Control

3-Way On/Off Switch

OMNIDRIVE® 2 Dimmable Driver

N

L

V−

V+

GND*

V−

V+

LED Tape Light / Fixture‡‡

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.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Solution</th>
</tr>
</thead>
</table>
| Fixture does not illuminate | • 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 dimmable fixture is installed.  
• Ensure the driver and fixture have the same voltage specifications (12V & 12V, or 24V & 24V). |
| Fixture does not dim | • Ensure a compatible constant voltage dimmable fixture is installed.  
• Ensure a compatible dimming control is installed and wired correctly. See ‘OMNIDRIVE 2 Dimming Control Compatibility List’. |
| Different fixture types do not dim in sync | • 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. |
| Fixture is quickly flashing or flickering | • 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 dimmable 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. |
| Fixture is slowly flashing | • Ensure driver is not overloaded. An overloaded driver will cause the internal auto-reset to trip repeatedly. |
| Installation Trips Main Breaker | • 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**

<table>
<thead>
<tr>
<th>Wire Gauge</th>
<th>10 W .83 A</th>
<th>20 W 1.7 A</th>
<th>30 W 2.5 A</th>
<th>40 W 3.3 A</th>
<th>50 W 2.1 A</th>
<th>60 W 4.2 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 AWG</td>
<td>34 ft.</td>
<td>17 ft.</td>
<td>11 ft.</td>
<td>8 ft.</td>
<td>6 ft.</td>
<td>5 ft.</td>
</tr>
<tr>
<td>16 AWG</td>
<td>54 ft.</td>
<td>27 ft.</td>
<td>18 ft.</td>
<td>13 ft.</td>
<td>10 ft.</td>
<td>9 ft.</td>
</tr>
<tr>
<td>14 AWG</td>
<td>86 ft.</td>
<td>43 ft.</td>
<td>29 ft.</td>
<td>21 ft.</td>
<td>17 ft.</td>
<td>14 ft.</td>
</tr>
<tr>
<td>12 AWG</td>
<td>134 ft.</td>
<td>68 ft.</td>
<td>45 ft.</td>
<td>34 ft.</td>
<td>27 ft.</td>
<td>22 ft.</td>
</tr>
<tr>
<td>10 AWG</td>
<td>199 ft.</td>
<td>99 ft.</td>
<td>66 ft.</td>
<td>49 ft.</td>
<td>39 ft.</td>
<td>33 ft.</td>
</tr>
</tbody>
</table>

**12V Voltage Drop & Wire Length Distance Chart**

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**

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

**ADDITIONAL RESOURCES**


**OMNIDRIVE 2 DIMMABLE DRIVER SPECIFICATION SHEET**

For full specifications.

**OMNIDRIVE 2 DIMMABLE DRIVER COMPATIBILITY LIST**

For a list of compatible dimming controls.