CALIFORNIA ACCENT LIGHTING INC

DRV150-E | INSTALLATION

Overview

READ ENTIRE GUIDE BEFORE STARTING INSTALLATION

IMPORTANT NOTICE: VERIFY CORRECT LUMINAIRE WAS RECEIVED WITH CORRECT COLOR TEMPERATURE, VOLTAGE, AND WATTAGE BEFORE CUTTING OR INSTALLING. CALI WILL NOT BE RESPONSIBLE IF INCORRECT LUMINAIRE IS INSTALLED.

GENERAL FEATURES

APPLICATIONS	Low Voltage Lighting
CONSTRUCTION	Powder Coated Steel Enclosure
FINISH	Black
KNOCKOUTS	Six 1/2 Knockouts
WEIGHT	4.78 lbs
MOUNTING	Mounting feet

DIMMING

DIMMING PROTOCOL	0-10V, Forward Phase, Reverse Phase
DIMMING RANGE	100% - 0.1%
DIMMING CURVE	Linear

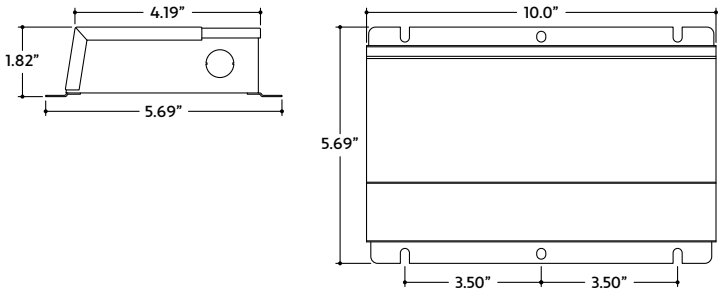
INPUT

INPUT VOLTAGE	**Universal Voltage:** 120V - 277V AC
INPUT FREQUENCY	50 / 60 Hz
MAX INPUT CURRENT	1.8 Amps @ 120V AC, 60 Hz, Fully Loaded 0.8 Amps @ 277V AC, 60 Hz, Fully Loaded

OUTPUT

OUTPUT VOLTAGE	24VDC
OUTPUT POWER	150 Watts
MAX OUTPUT CURRENT	6.25 Amps

ENCLOSURE DIMENSIONS



TECHNICAL SPECIFICATIONS

CLASS	1
RATING	Indoor or Outdoor
LISTING	UL 8750, UL 1310 Certified to CSA STD. C22.2 #223
INGRESS PROTECTION	IP64
INRUSH CURRENT	15 Amps, 1.4ms @ 120V AC, 60 Hz 30 Amps, 1.4ms @ 277V AC, 60 Hz
OPERATING TEMPERATURE	-40°C to +55°C
TCASE	105°C Maximum
ROHS	Yes
MAX THD	< 20%
POWER FACTOR	> 0.95
EFFICIENCY	> 87%
NEMA RATING	3R
PROTECTIONS	Automatic Reset Short Circuit Protection Overload Protection Thermal Protection

WARNING

- Turn off electricity before wiring.
- Only qualified personnel should install the unit.
- Installation must comply with the NEC.
- Ensure the unit has suitable input voltage, output voltage, and output wattage for your application.

PRODUCT INFORMATION

- The enclosure has six 1/2" knockouts.
- The enclosure is NEMA 1R Rated (Dry Location) or NEMA 3R Rated (Wet Location).
- The driver is UL8750 , CSA C22.2 No. 250.0-08, ENEC, TUV EN61347-1, EN61347-2-13 UL60950-1, TUV EN60950-1.

INSTALLATION TOOLS REQUIRED

- Electric Hammer Drill
- 14.4 to 28 Volt Cordless Drill
- Phillips Bits
- Utility Knife
- Electrical Cord
- Marker
- Wire Stripper
- Long Nose Pliers
- Drill Bits - Concrete or Wood
- Electrical Three Ways
- Safety Glasses
- Measuring Tape
- Laser Line or Chalk Line

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DRIVER

MOUNTING

- Drivers must be mounted with at least 10" if free flow air space for adequate ventilation
- Drivers must be mounted at least 12" away from the ground
- Drivers must be vertically mounted with knockouts facing towards ground
- Cover gasket must be installed for wet rated drivers
- All cover screws must be properly secured for wet rated drivers
- Never mount the driver on or above heat radiant objects
- The maximum ambient temperature should not exceed +55°C (131°F)
- There are two mounting feet at each end of enclosure.
- Mount enclosure to surface using appropriate screws (by others) for surface material and weight of driver
- Do not mount the driver in locations where it will be submerged in water or exposed to flowing water

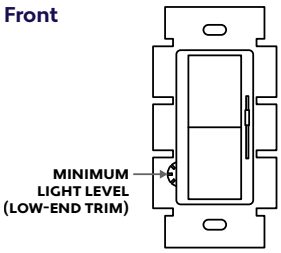
MOUNTING INSIDE AN ENCLOSURE

- Only mount drivers inside enclosures rated for your application.
- Always ground drivers to enclosure.
- Do not mount drivers without an enclosure.
- Use enclosure knockouts and water-tight conduit fittings if applicable.

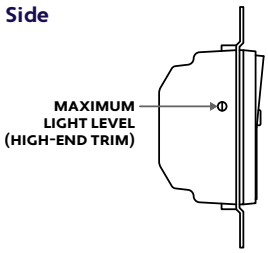
DIMMER TRIM VALUES

- Set dimmer trim value as needed to prevent flickering and irregular dimming behaviors.
- Review dimmer specifications for trim value adjustment.
- Dimmers by others.

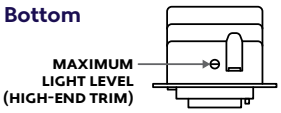
Front



Side



Bottom



WIRING CONNECTIONS

- Always refer to wiring diagrams before making wiring connections. If there is a discrepancy in the information, contact technical support.
- Remove knockouts as needed and install conduit or strain relief fittings (by others) appropriate for the installation environment. Fittings must be sized for the knockout size.
- For outdoor applications, knockouts must be facing towards bottom side and away from standing water.
- Only use UL approved wire nuts to make wiring connections.

Input Connection

Bring hot and neutral wires into the enclosure through strain relief fittings and connect to driver input lead wires using wire nuts.
Refer to wiring diagram for details.

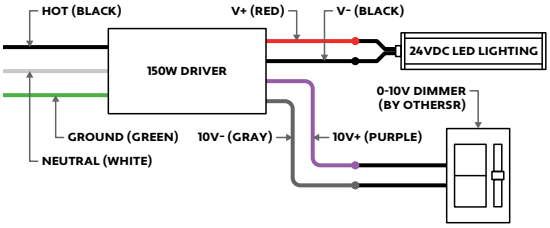
Output Connection

Bring LED lighting lead wires into the enclosure through strain relief fitting and connect to driver output lead wires using wire nuts.
Refer to wiring diagram for details.

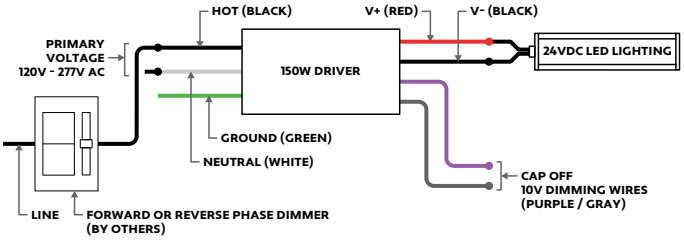
Grounding

The driver is grounded to the enclosure. The enclosure should be grounded in accordance with NEC and local code.

0-10V WIRING DIAGRAM



FORWARD / REVERSE PHASE WIRING DIAGRAM



Note: Cap off dimming wires individually for non-dimming applications.
For best dimming performance, use a minimum load of 50% and a maximum load of 80%.

MAXIMUM RUN BASED ON 80% LOAD OF ELECTRONIC DRIVER MAXIMUM WATTAGE

DRIVER WATTAGE	80% LOAD	1.5W MAX RUN	2W MAX RUN	2.5W MAX RUN	3W MAX RUN	3.6W MAX RUN	4W MAX RUN	4.5W MAX RUN	5W MAX RUN	5.5W MAX RUN	6W MAX RUN	6.5W MAX RUN
30	24W	16'	12'	9.6'	8'	6.6'	6'	5.3'	4.8'	4.36'	4'	3.69'
60	48W	32'	24'	19.2'	16'	13.3'	12'	10.6'	9.6'	8.7'	8'	7.3'
96	76.8W	51.2'	38.4'	30.7'	25.6'	21.3'	19.2'	17.1'	15.36'	13.9'	12.8'	11.8'
150	120W	80'	60'	48'	40'	33.3'	30'	26.6'	24'	21.8'	20'	18.4'

Note: Note: Maximum Run refers to the total length of lighting that can be connected to a single driver. Maximum Runs for individual products still apply.

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DRIVER

DRIVER CARE

- Do not submerge drivers in any liquid
- Do not leave any exposed wires
- Do not cover driver without proper ventilation
- Do not install damaged driver
- Do not exceed maximum load

MAXIMUM WIRING DISTANCE OF DRIVER TO LIGHTING

The maximum wiring distance of driver to LED Lighting refers to the wire used between the driver and first LED of the luminaire. If the wire gauge is inadequate for the wiring distance, the luminaire will receive decreased voltage, insufficient to power the LEDs. Refer to the table to determine appropriate wiring distances based on wire gauge and the LED load.

TROUBLESHOOTING TIPS

- Do not reset the breaker multiple times.
- If the unit is overloaded, the breaker will trip, shutting off the driver and lighting.
- If the breaker reset button has been held down by hand or any type of pressure such as tape, or if the breaker has been reset multiple times without troubleshooting, the unit will:
  - Burn the input or output wires due to high amperage from overload.
  - Damage the lighting.

Check Load

To calculate driver size, follow the steps below.

- Determine Watts per Foot of LED Lighting.

Example: 4 Watts per Foot (4W)

- Determine Length in Feet of LED Lighting. If product is field cut, it must be measured to determine length.

Example: 5'

- Calculate load by multiplying Watts per Foot by Length in Feet.

Example: 4W x 5' = 20 Watts

- If load exceeds maximum wattage, divide the power to another driver or order a larger wattage driver.
- **Note:** For best dimming performance, load drivers to a minimum of 50% and a maximum of 80% capacity.
  See Maximum Run table for details.

MAXIMUM WIRE LENGTH TO PREVENT EXCESS VOLTAGE DROP

WIRE SIZE	LOAD WATTAGE (W)									
	15	24	30	40	48	60	76	96	120	150
20 AWG	78'	49'	39'	31'	24'	19'	15'	12'	9'	7'
18 AWG	125'	78'	62'	49'	39'	31'	24'	19'	15'	12'
16 AWG	199'	124'	99'	78'	62'	49'	39'	31'	24'	19'
14 AWG	316'	197'	158'	125'	98'	79'	62'	49'	39'	31'
12 AWG	503'	314'	251'	199'	157'	125'	99'	78'	62'	50'
10 AWG	800'	500'	400'	316'	250'	200'	158'	125'	100'	80'
8 AWG	1273'	795'	636'	503'	397'	318'	251'	198'	159'	127'

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