Wattstopper®

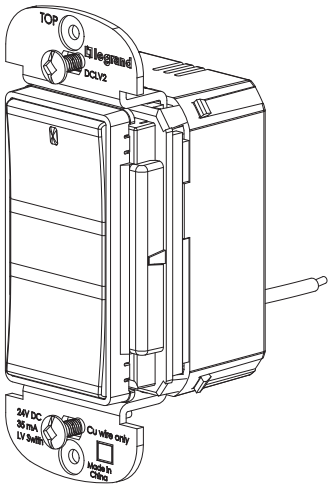
Decorator Style 0-10V Controller

No: 27465 – 06/18 rev. 2

Installation Instructions • Instructions d'Installation • Instrucciones de Instalación

Catalog Number • Numéro de Catalogue • Número de Catálogo: DCLV2

Country of Origin: Made in China • Pays d'origine: Fabriqué en Chine • País de origen: Hecho en China



SPECIFICATIONS

Power Supply ..... Wattstopper Power Pack
Rating 24VDC, 16mA
Control outputs
For 0–10V Dimming Ballasts:
Sink ..... up to 50mA
Maximum voltage 9.5VDC
Minimum voltage 0.75VDC
Operating Temperature ..... 32° to 104°F (0° to 40°C)

DESCRIPTION

The DCLV2 0–10V dimming wallbox controller includes a Manual On feature or partial Auto On.

The DCLV2 must be used with BZ Series power packs and can be combined with occupancy sensors.

Features

- Control electronic ballasts and drivers for LED systems.
- Sink up to 50mA, allowing the product to control up to 100 ballasts wired in parallel (each ballast sourcing 0.5mA).
- 0–10V output ranges at a minimum between 0.75VDC and 9.5VDC.
- Able to receive a sensor input.
- Operating supply voltage 24VDC: Class-2 device powered directly from an external source.
- Wattstopper BZ series for 0-10V ballast control.

INSTALLATION

NOTE: INSTALL IN COMPLIANCE WITH ALL APPLICABLE CODES & STANDARDS.

Failure to follow these instructions may cause personal injury or equipment damage.

The DCLV2 is a Class 2 product. A low voltage cable with the appropriate number of conductors must be installed. For ease of installation, manufacturer recommends use of a deep wall box.

1. Disconnect power to circuit by turning circuit breaker OFF before installation.
2. Remove the existing wall plate and switch, if one is present. If there is an existing line voltage switch the wiring must be converted to low voltage in order to use the original wall box location for the DCLV2. Alternatively, the existing line voltage switch may remain, however a new wall box must be installed for the DCLV2 according to NEC requirements.
3. Install power pack to control the desired lighting circuit.
4. Strip existing wires 1/4". If two wires will be connected to the same terminal, both wires must be the same gauge. Connect wires as appropriate for your application. See the wiring diagrams on the following page.
5. Attach the wall plate.
6. Switch the circuit breaker back ON.

LOAD TYPES

Use the DCLV2 for these load types:

- 0 to 10V electronic dimming ballasts (Mark 7 or equivalent) with maximum of up to 50mA.
- Compatible LED systems (verify compatibility with LED control manufacturer).

TERMINAL BLOCK

The DCLV2 has a wiring terminal block with 7 positions:

1	24VDC input
2	Common
3	0–10V Violet
4	Sensor input
5	Control Output
6	0–10V Gray
7	Common

WARNING: TURN THE POWER OFF AT THE CIRCUIT BREAKER BEFORE INSTALLING THE DEVICE OR POWER/SLAVE PACKS.

DIMMING MODE

The DCLV2 supports low-voltage DC dimming, using Class 2 wires. Multiple circuits can use the same dimming signal without additional power equipment.

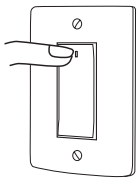
0–10V Dimming curves

To accommodate various types of ballasts, the DCLV2, executes a straight proportional relationship between the internal level and the voltage provided, 0.6VDC to 9.5VDC.

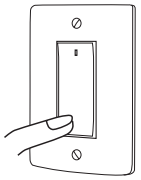
0–10V Dimming (with ON/OFF option)

- When the user ramps up, relay 1 output switches from 0V to 24VDC. This closes the power pack relay to supply line voltage to the light fixtures.
- When the user ramps down and the 0–10V output becomes 0V, relay 1 switches to 0V. This opens the power pack relay to remove power to the light fixtures. This allows the ballast to smoothly ramp down and then be turned OFF.

NOTE: An ON to OFF transition can take longer than expected (by about 2 seconds) because the DCLV2 is dimming down. The OFF to ON transition is immediate.

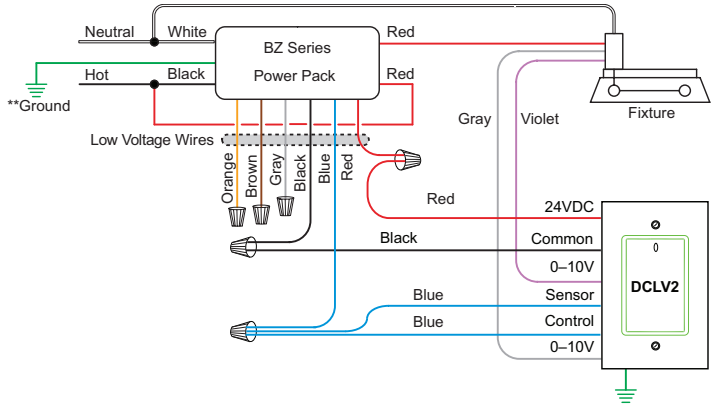


DCO DIMMER TOP FINGER

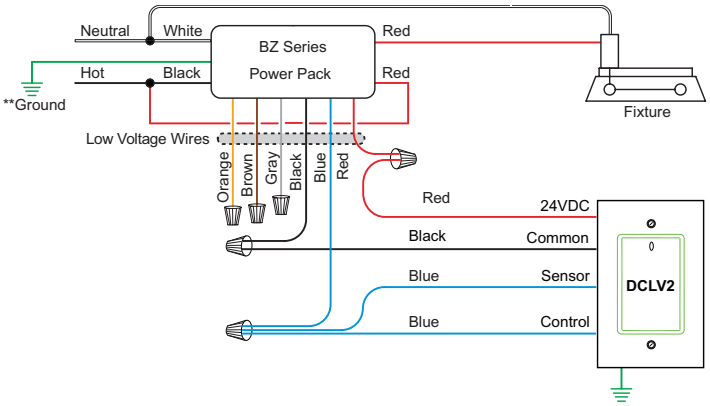


DIMMER BOTTOM FINGER

WIRING EXAMPLES, LIGHTING CONTROL

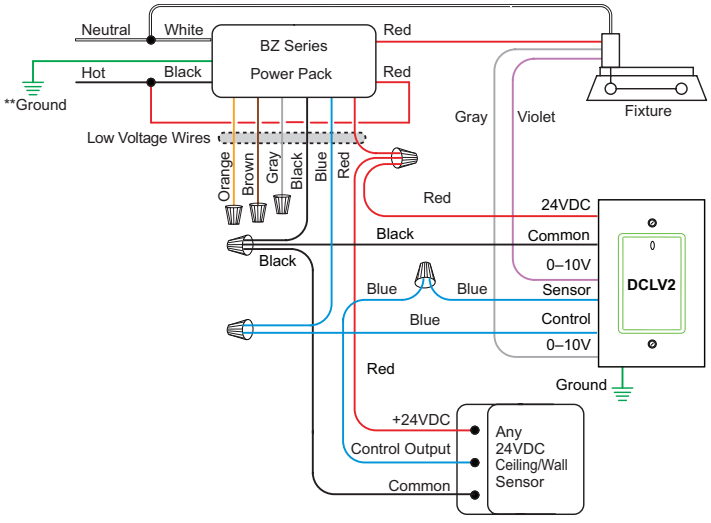


0-10V wiring diagram



Ballast ON/OFF control wiring diagram

To control a simple ON/OFF system do not connect the 0-10V output on the DCLV2.



Sensor input wiring diagram

NOTES

Any BZ series power pack will work with the DCLV2, but the following should be noted

- The Orange, Brown, and Gray wires on the BZ-150 and BZ-250 are not used and should be capped
- The Manual/Auto On switch on the BZ-150 and BZ-250 should be left in the Auto-On position. Manual functionality is handled by the DCLV2.
- The BZ-200 and BZ-250 must be grounded to ensure signal integrity,not for safety ground.

SETTING THE OPERATING MODE

By default, **Manual On** mode is enabled. **Auto On** is disabled.

To enable Auto On mode:

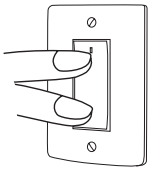
1. Press and hold the top and bottom of the paddle for two seconds to enter LEARN mode.
2. Release the paddle.
3. Press and hold RAISE for two seconds, until the device confirms the new mode by flashing its LED red, for 1.5 seconds.
4. Press and hold LEARN again (for **two** seconds) to exit the setup/binding mode and return to normal operation.

To switch back to Manual On mode:

1. Press and hold the top and bottom of the paddle for two seconds to enter LEARN mode.
2. Release the paddle.
3. Press and hold LOWER for two seconds, until the device confirms by flashing its LED green, for 1.5 seconds.
4. Press and hold LEARN again (for **two** seconds) to exit the setup/binding mode and return to normal operation.

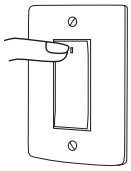
NOTE: For both Manual On and Auto On, if the top of the paddle is momentarily pressed when the load is already ON, the load will go to 100%.

LEARN



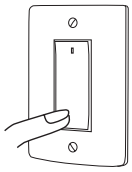
DIMMER BOTH FINGERS

RAISE
Red LED confirms
Auto On mode.



DCO DIMMER TOP FINGER

LOWER
Green LED confirms
Manual On mode.



DIMMER BOTTOM FINGER

Partial On Mode

By default, when the sensor triggers occupancy, the DCLV2 will normally set the load to the dimming level that it was at when Manual On or Auto On is enabled. This is referred to as **Partial On**. To set the fixed value for Partial On:

1. Press and hold the top and bottom of the paddle for two seconds to enter LEARN mode.
2. Release the paddle.
3. Use the paddle to set the desired dimming level for the fixed amount.
4. Press and hold LEARN again (for **four** seconds) to exit the setup/binding mode and return to normal operation.

NOTE: By default, or after a reset, Partial On is enabled with a fixed value of 50%.

To disable the Partial On feature:

1. Turn OFF the Load.
2. Press and hold the top and bottom of the paddle for two seconds to enter LEARN mode.
3. Release the paddle.
4. Press and hold LEARN again (for four seconds) to exit the setup/binding mode and return to normal operation.

Alternatively, you can use this second method to disable Partial On:

1. Press and hold the top and bottom of the paddle for two seconds to enter LEARN mode.
2. Release the paddle.
3. Press the bottom of the paddle till the load is off.
4. Press and hold LEARN again (for **four** seconds) to exit the setup/binding mode and return to normal operation.

Retrigger Mode

When in Manual On mode, and the connected sensor registers a vacancy and turns the load OFF, an automatic 30 second retrigger mode is enabled. If the sensor registers occupancy, the load will return to its previous level. After the 30 second retrigger period, when the sensor registers occupancy, the load will respond based on the Manual On or Auto On setting from the DCLV2.

Resetting to Factory Defaults

Facory default for the DCLV2 is Manual On with Partial On enabled at 50%. To reset:

1. Press and hold the top and bottom of the paddle for 10 seconds
2. The green LED will blink and the lights will turn off, inidicating the the reset is complete.

WARRANTY INFORMATION

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