



DALI Loop Power Pack

Cat. No. CD100

110mA output max.,
12VDC nominal

For use with DALI
Dimming/Scene Controller

INSTALLATION INSTRUCTIONS

DI-000-CD100-00A

LIMITED 2 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for two years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such two year period the product is returned prepaid, with proof of purchase date, and a description of the problem to Leviton Manufacturing Co., Inc., Att: Quality Assurance Department, 59-25 Little Neck Parkway, Little Neck, New York 11362-2591. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to two years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

For Technical Assistance Call:
1-800-824-3005 (U.S.A. Only)
www.leviton.com



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FEATURES

- A maximum of 2 Power Packs can be added in parallel as long as the total current supply on a single loop is below 250mA
- Control wiring can be Class 1 or Class 2 installed
- Polarity-independent control wiring
- Flexible 2-wire DALI loop control wiring – Daisy Chain, Point to Point, Star or Mix Method

SPECIFICATIONS

Input Voltage: 120/277VAC ± 10%

DALI Output Voltage: 12VDC nominal

DALI Output Current: 110mA

Approved for Class I or II control wiring

DESCRIPTION

Leviton's DALI Loop Power Pack, Cat. No. CD100, provides power to a DALI network. The DALI Loop Power Pack is part of Leviton's DALI compatible products and can be used with Leviton's CD250 Controller or other DALI compatible controls and ballasts. Installation and Information for the Controller is provided in the Controller Instruction Sheet.

A single Power Pack can provide 110mA of power, which would be used by a combination of DALI compatible controllers and ballasts. Use the following rule to determine the number of controllers and ballasts that can be powered by one Power Pack. For reference, a Leviton DALI Dimming/Scene Controller (CD250) consumes a maximum of 10mA of power and a DALI ballast consumes up to a maximum of 2mA.

$$\text{No. of DALI controllers} \times \text{Current Consumption (10mA for Leviton's CD250)} + \text{No. of DALI ballasts} \times 2\text{mA} \leq 110\text{mA}$$

If more current is required, one other Leviton DALI Loop Power Pack can be added in parallel to a single DALI network, which would bring the total current supply to 220mA (refer to Wiring Diagram 2 for dual Power Pack application). Please note that the total current supply on a DALI loop cannot exceed 250mA.

The Power Pack is mounted directly to a junction box (refer to Figure 1). The unit must be installed in a properly grounded metal 4" (10.16 cm) outlet box, a minimum of 2 1/8" (5.39 cm) deep. All Class 2 (low-voltage) wiring must be contained within the Class 2 compartment (the area enclosed by the isolation barrier) (refer to Figure 2). All Class 1 (high-voltage) wiring must be contained within the Class 1 compartment (refer to Figure 2). Install or rearrange circuit wiring so all high-voltage circuit and load wires enter the box from one side, and all low-voltage wires enter from the other.

INSTALLATION INSTRUCTIONS

WARNING: TO BE INSTALLED AND/OR USED IN ACCORDANCE WITH APPROPRIATE ELECTRICAL CODES AND REGULATIONS.

WARNING: THE INSTRUCTIONS WERE WRITTEN WITH THE ASSUMPTION THAT THE INSTALLER IS FAMILIAR WITH ELECTRICAL WIRING PRACTICES. IF YOU ARE NOT SURE ABOUT ANY PART OF THESE INSTRUCTIONS, CONSULT A QUALIFIED ELECTRICIAN.

CAUTION: DISCONNECT POWER WHEN SERVICING FIXTURE OR CHANGING LAMPS.

CAUTION: THE CD100 CAN BE WIRED EITHER AS A CLASS I OR CLASS II WIRING DEVICE. BE SURE TO INSTALL IN THE SAME MANNER AS THE OTHER DEVICES ON THE DALI LOOP. WHEN IN DOUBT, INSTALL AS A CLASS I WIRING DEVICE. **CONSULT LOCAL BUILDING CODES AND REGULATIONS FOR PROPER LOW-VOLTAGE INSTALLATION.**

TO INSTALL:

NOTE: Read all instructions thoroughly before proceeding.

1. **WARNING:** TO AVOID FIRE, SHOCK, OR DEATH; **TURN OFF POWER** AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING!
2. Remove junction box cover plate and save screws. The Power Pack will take the place of the junction box cover (refer to Figure 1).
3. Prepare high and low-voltage wires by stripping 3/4" (1.9 cm) of insulation to expose bare copper at the end of each wire.
4. **LINE VOLTAGE CONNECTIONS:** Identify the voltage of your lighting circuit before attempting to install the Power Pack, either 120 or 277 VAC. In accordance with local wiring codes, connect lead wires of Power Pack per appropriate WIRING DIAGRAM as follows: Line (BLACK) lead to the Hot (BLACK) circuit conductor. Connect the Power Pack Neutral (WHITE) lead to the Neutral (WHITE) circuit conductor.

Figure 1 – Mounting

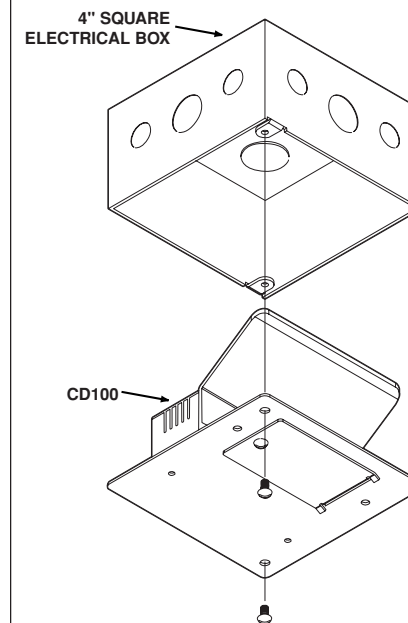
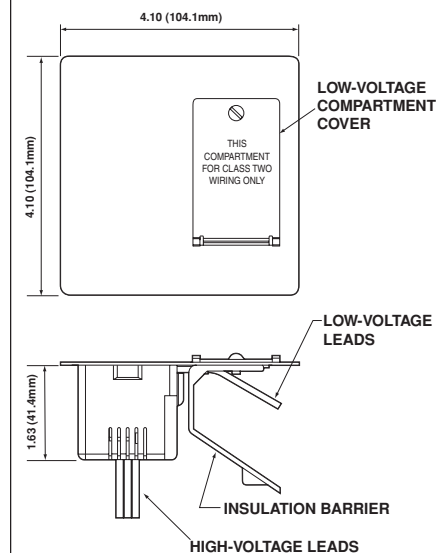


Figure 2 – Wiring Locations



Twist strands of each lead tightly and, with circuit conductors, push firmly into appropriate wire connector. Screw connectors on clockwise making sure that no bare conductor shows below the wire connectors. Secure each connector with electrical tape.

The Power Pack Line voltage wires exit through the back of the device and are designated as follows:

BLACK – 120VAC Line

ORANGE – 277VAC Line

WHITE – 120 or 277VAC Neutral

CAUTION: DO NOT CONNECT BOTH 120 AND 277 VAC WIRING TO THE POWER PACK AT THE SAME TIME, AND **DO NOT** CONNECT BOTH THE BLACK AND ORANGE HIGH VOLTAGE WIRES TO THE SAME CIRCUIT.

5. Ensure that Power Pack Cat. No. CD100 is wired properly before mounting it back to the junction box. Carefully position all high-voltage wires in the junction box and assure that all low-voltage wires are on the Class 2 side of the isolation barrier. Mount the Power Pack to the junction box using the cover plate screws.

6. **LOW-VOLTAGE CONNECTIONS:** Remove the cover plate for the low-voltage compartment. Connect the low-voltage leads of Power Pack per appropriate WIRING DIAGRAM as follows: RED (DALI) and BLACK (DALI) leads to the PURPLE (DALI) wires on the DALI Loop. Twist strands of each lead tightly and push firmly into appropriate wire connector. Screw connectors on clockwise making sure that no bare conductor shows below the wire connectors. Secure each connector with electrical tape.

The Power Pack Low-voltage leads exit through the side of the device, inside the isolation barrier and have polarity designations as follows:

RED – DALI wire (Positive)

BLACK – DALI wire (Negative)

7. Carefully position the low-voltage wires in the low-voltage compartment and replace the cover.

8. If a second CD100 DALI Loop Power Pack needs to be installed, refer to **Wiring Diagram 2** for parallel installation guidelines.

9. Restore power at the fuse or circuit breaker. **INSTALLATION IS COMPLETE.**

TROUBLESHOOTING

WHEN USING A CD250 CONTROLLER

CONTROLLER LEDs DO NOT TURN ON:

- Circuit breaker or fuse is OFF
 - Turn the circuit breaker or fuse ON. Ensure that the lights being controlled are in working order (i.e. failed bulbs).
- Verify wiring on the DALI loop
 - If more than one Power Pack is installed on the same loop, check to make sure wiring of each Power Pack is polarity matched on the DALI loop.

LIGHTS WILL NOT TURN ON:

- Circuit breaker or fuse is OFF.
 - Turn the circuit breaker or fuse ON. Ensure that the lights being controlled are in working order (i.e. failed bulbs).
- Ensure DALI ballast is functioning properly.
- Power Pack is wired incorrectly.
 - Refer to the Power Pack wiring instructions.
- Check that the Controller and ballasts have been properly programmed.
 - Refer to CD250 instructions.
- Measure voltage between output wires (+12V nominal)

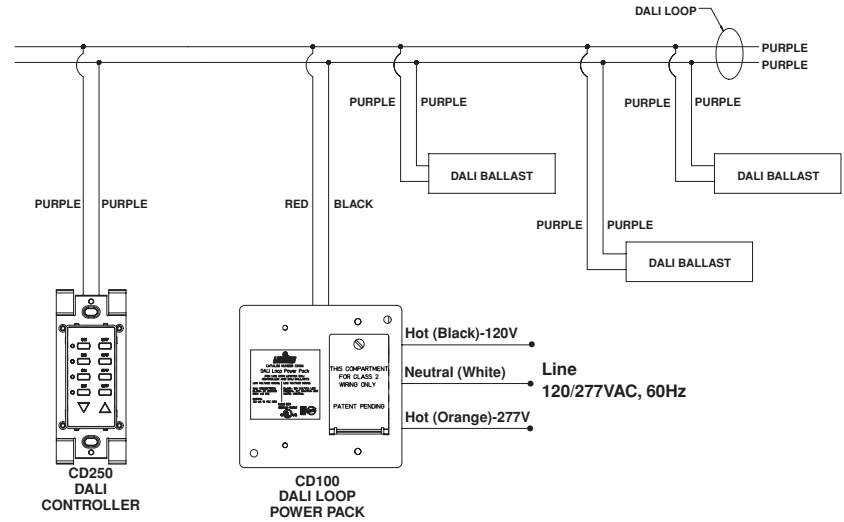
LIGHTS WILL NOT TURN OFF:

- Power Pack is wired incorrectly.
 - Check the Power Pack's wiring.
- Ensure DALI ballast is functioning properly.
- Check that the Controller and ballasts have been properly programmed. Refer to CD250 instructions.
- Check for a shorted connection on the DALI loop.

FOR ADDITIONAL INFORMATION CALL: Leviton Technical Support at 1-800-824-3005

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Wiring Diagram 1 – Single Power Pack Application



NOTES:

- DALI Loop wires are not polarity sensitive
- Controllers and Power Supply can be connected to any point on the DALI Loop

Wiring Diagram 2 – Dual Power Pack Application (Parallel Connection)

