GreenConnect™

Wireless 0-10VDC Dimmer

Cat. No. ZB700-D0Z, Ratings: 120-277VAC, 50/60Hz. Cat. No. ZB700-30Z, Ratings: 347VAC, 50/60Hz.

INSTALLATION INSTRUCTIONS

WARNINGS

- TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING!
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult an electrician.

CAUTIONS

- Use this device with copper or copper clad wire only.
- For indoor applications only. · Save these instructions.
- To avoid damage to the product, DO NOT use disinfecting products, including foggers, sprays or other types of atomized cleaning agents. DO NOT spray liquid onto the product. To clean use a damp cloth with mild soap.

DI-000-ZB700-02A-W ENGLISH

Before Installation

- Ensure location is within network range.
- Requires single gang device back box.
- Supports multi-gang installations.
 Requires Decora[®] faceplate, sold separately.
- Devices use 0-10VDC low voltage control wires which may be installed as Class 1 or Class 2.

IMPORTANT NOTE: If installed as Class 2, all devices in the circuit must be Class 2 rated and this switch must be wired per instructions below.

Class 2 Installation:

As required under NEC code NFPA 70, paragraph 725.136 (d) and under Canadian Electrical Code, section 16-202, the Class 2 0-10V (pink and violet) control wires must be mechanically separated from Class 1 wiring (line, neutral and ground power lines) when located within the same electrical box. This is accomplished by installing a mechanical barrier such as silicone tubing or other non-conducting sleeve over the length of 0-10V control wires.

When product is used with **120VAC** power source and the 0-10V control wires are connected to CL3, CL3R or CL3P rated control cables (or permitted substitute), then silicone tubing or other non-conducting sleeve is required over the control wires for the entire wire length from the device to the location where the wires exit the box. Tubing is not required on the CL3, CL3R or CL3P between the wire connector and extending out of the electrical box.

When used with **277VAC** power source and the 0-10V control wires are connected to CL3, CL3R or CL3P rated control cables (or permitted substitute), then silicone tubing or other non-conducting sleeve is required over the control wires for the entire wire length from the device to the location where the wires exit the box. Tubing **is also** required on the CL3, CL3R or CL3P between the wire connector and extending out of the electrical box. NOTE:

- Silicone tubing should be NRTL (UL/CSA/ETL) recognized or equivalent to provide mechanical separation equal to .25 in. in air.
- Connectors joining 0-10V control wires should be approved LISTED CONNECTORS. • Wire connectors and wire tubing should be provided by the installation contractor.

Installation

WARNING: TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER at circuit breaker or fuse and test that power is off before wiring!

1. Remove 0.75 in. of insulation from the line and load wires. Remove the precut insulation from load controller wires and connect according to the wiring diagram. Ensure wires are firmly connected with no exposed copper.



Class 1 installation shown (for Class 2, refer to notes)



- 2. Gently place the wires and your device into the wall box and attach with screws provided.
- 3. Restore power and test ON/OFF operation. LED locator light should be ON when load is OFF
- 4. If desired, change switch color.





Line up and press in to attach.

6. Enroll Device and configure your system.



| | SPECIFICATIONS | |
|--|--|---------------------|
| Catalog Nos. | ZB700-D0Z | ZB700-30Z |
| Input Voltage/Frequency | 120-277VAC, 50/60Hz. | 347VAC, 50/60Hz. |
| Input Current | | |
| 120V | Standby: 0.2W Max: 0.5W+Load Current | Not rated for use |
| 277V | Standby: 0.3W Max: 0.6W+Load Current | Not rated for use |
| 347V | Not rated for use | 0.5W + Load Current |
| Load Ratings | | |
| LED, CFL, Electronic Ballast @ 120V | 8A | Not rated for use |
| LED, CFL, Electronic Ballast @ 277V | 5A | Not rated for use |
| LED, CFL, Electronic Ballast @ 347V | Not rated for use | 4A, 1388VA |
| Magnetic Ballast @ 120V | 10A | Not rated for use |
| Magnetic Ballast @ 277V | 10A | Not rated for use |
| Magnetic Ballast @ 347V | Not rated for use | 3.45A, 1200VA |
| Resistive, Tungsten @ 120V | 6.67A | Not rated for use |
| Resistive, Tungsten @ 277V | 6.67A | Not rated for use |
| Resistive, Tungsten @ 347V | Not rated for use | 6.67A |
| Motor @ 120V | 1/4Hp (FLA 5.8A) | Not rated for use |
| Motor @ 277V | 1/3Hp (FLA 3.0A) | Not rated for use |
| Motor @ 347V | Not rated for use | 1/4Hp |
| UL Impulse Voltage | 4000V | 6000V |
| UL Pollution Degree | 2 | |
| Operating Temperature | 32°F - 104°F (0°C - 40°C) | |
| Storage Temperature | -40°F - 185°F (-40°C to 85° | C) |
| IP Rating | IP10 | |
| Network Connections | IEEE 802.15.4, 2.4Ghz, wireless, mesh network up to 75' range between device | |



System Programming

1. Required components

- a. GreenConnect systems require one load controller to create a wireless network and function as the network manager. This can be a wireless power pack or line voltage wall station. Receptacles and battery-powered devices cannot create a network.
- b. A maximum combination of 16 load controllers, wall stations, or sensors can be enrolled into the network
- c. GreenConnect devices are also compatible with GreenMAX DRC Wireless for systems that require more than 16 devices.

2. Creating a GreenConnect network

- a. Ensure no other networks within the building are open before proceeding.
- **b.** Enter programming mode by pressing and holding the test button on the load controller or the top paddle of the wall station until the LED blinks amber once, then release (approximately seven seconds). The LED will begin blinking amber rapidly
- **c.** Tap the test button or top paddle twice to create a new network and designate the device as the network manager. The load will toggle ON and OFF twice and the LED will begin to blink green slowly once the network has been created and is open for enrollment
- d. Proceed to device enrollment.
- 3. Enrolling devices to a GreenConnect or GreenMAX DRC Wireless network.
 - Enter programming mode on the device
 - b. Tap the test button or top paddle once to enter enrollment mode. The LED will begin blinking green slowly while searching for a network to join. Upon successful enrollment into a GreenConnect network, the LED will blink green rapidly three times and all enrolled devices will toggle their load ON and OFF twice.
 - C. To enroll the device into a GreenMAX DRC network, use the GreenMAX DRC App to scan the QR code and follow the instructions included with the GreenMAX DRC room controller.
 - d. While the network is open, the LED on all connected devices will blink green slowly. Every 60 seconds the LED of the network manager will pause and blink red once for each device enrolled in the network.
 - e. If after two minutes the device does not find a network to join, the LED will blink red three times and exit enrollment mode.
 - f. To end enrollment and close the network, tap the test button or top paddle once on the network manager. The LED will stop blinking green, blink red three times and all devices will toggle their load ON and OFF.
 - g. The network will automatically close if after 10 minutes no new devices have been enrolled.

4. Adding a device to an existing network

- a. Enter programming mode on any line voltage device within the network.
- b. Tap the test button or top paddle once to open the network. Batterypowered devices cannot open a network.
- c. Proceed to device enrollment.

5. Resetting device

To remove a device from a network, press and hold the test button on the load controller, or sensor, or top paddle of the wall station until the LED blinks amber twice (approximately 12 seconds) then release. The LED will blink red rapidly while the device leaves the network and resets to factory default settings. If the device was a network manager, the network is also deleted.

6. Sensor settings

a. Device settings are saved in the load controller managing the network.

- b. Default settings
 - i. Mode: Auto-ON/Auto-OFF
 - ii. Sensitivity: High
 - iii. Occupancy time-out: 15 minutes
 - iv Partial Off Disabled
 - v. Auto-ON level: 50%
 - vi. Photocell: Disabled

7. Adjusting sensor settings

a. Enter programming mode on the network manager.

- b. Tap the test button or top paddle the number of times that corresponds to the menu number you want to access. The LED will pause, blinking amber and blink back green the menu number selected, pause, then blink amber the menu option currently saved.
- C. Once within the menu, tap the test button or top paddle again the number of times that corresponds with the option you want to select. The LED will blink amber according to the option that is selected.
- **d.** To return to programming mode, press and hold the test button or top paddle for seven seconds then release. The LED will resume blinking amber once in programming mode.

8. Sensor Menus

| Menu #3: Auto-ON level | | |
|------------------------|--------------------|--|
| Setting # | Value | |
| 1 | 100% | |
| 2 | 50% (default) | |
| 3 | 25% | |
| 4 | Manual-ON | |
| 5 | Restore last level | |
| | | |

| Menu #6: Partial-OFF level | |
|----------------------------|--------------------|
| Setting # | Value |
| 1 | Disabled (default) |
| 2 | 50% |
| 3 | 25% |

Menu#7: Partial-OFF time-out

5 minutes

30 minutes

15 minutes (default)

Setting # Value

2

3

4

| Menu #4: Sensitivity | |
|----------------------|--|
| Value | |
| Medium | |
| Low | |
| High (default) | |
| | |

| 4 | 60 minutes | |
|-----------|--------------------|--|
| | | |
| Menu #8: | Daylighting Target | |
| Setting # | Value | |
| 1 | Disabled (default) | |
| 2 | 25 footcandles | |
| 3 | 35 footcandles | |

45 footcandles

| Menu #5: Occupancy time-out | | |
|-----------------------------|---|--|
| Setting # | Value | |
| 1 | Test mode (30 seconds for five minutes then reverts to prior setting) | |
| 2 | 60 minutes | |
| 3 | 30 minutes | |
| 4 | 15 minutes (default) | |
| 5 | 5 minutes | |
| 6 | Disabled | |

| | diagnostics | |
|--|-------------|--|
| | | |
| | | |

To check device status, press and hold the test button on the load controller, or sensor, or top paddle of the wall station for approximately four seconds then release Observe LED and see table below.

| LED color | Blink Rate | Status |
|-----------|------------|---|
| Green | 1 time | Enrolled, no communication from the network |
| Green | 2 times | Enrollment incomplete |
| Green | 3 times | Enrolled in active network |
| Red | 3 times | Not enrolled in a network |

10. What to do if...

· Load does not turn ON or status LED does not light up.

- Breaker is OFF or tripped. Confirm breaker is ON.
- Confirm device is being supplied power.
- Confirm load wiring is correct.
- Ensure switched output wiring is correct.
- · Lights flicker or do not dim as expected.
 - Ensure 0-10V wiring is correct.
 - Confirm load complies with minimum and maximum requirements.
 - Lamp has a bad connection. - Wire connectors not firmly secured.
- Device cannot be enrolled.
 - Maximum number of devices have been enrolled to the network. - Device is out of range.
- FCC CAUTION:

Changes or modifications not expressly approved by Leviton Manufacturing Co., could void the user's authority to operate the equipment.

FCC STATEMENT:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: - Reorient or relocate the receiving antenna.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
 Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
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 Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
 Connected
 -- Consult the dealer or an experienced radio/TV technician for help.

IC STATEMENT:

This equipment complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

RF EXPOSURE AND CO-LOCATION:

To comply with FCC and ISED RF exposure limits for general population/uncontrolled exposure this device should be installed and operated with a minimum distance of 7.9 inches (20 cm) between the radiator and you body. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC SUPPLIERS DECLARATION OF CONFORMITY:

This equipment manufactured by Leviton Manufacturing, Inc., 201 N Service Road, Melville, NY, www.leviton.com. This equipment complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at Leviton Manufacturing of Canada ULC to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1-800-405-5320.

LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

LIMITED 5 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 five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option. For details visit www.leviton.com or call 1-800-824-3005. 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, but if any implied process 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.