# GreenConnect™

## Wireless Forward Phase Dimmer

Cat. No. ZBM00
Ratings: 120VAC, 60Hz.

LEVITON®

**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.**

DI-000-ZBM00-02B-**W**

## INSTALLATION INSTRUCTIONS — ENGLISH

### Product Description

GreenConnect dimmers deliver simple wireless lighting control. Designed for use with incandescent, dimmable LED, or CFL bulbs, GreenConnect dimmers offer a scalable and flexible wireless solution to meet the control needs of any space. Ideal for new construction or retrofits with no new control wiring, room controller, hub, or gateway required.

| SPECIFICATIONS | | | |
|---|---|---|---|
| **Catalog No.** | ZBM00-10W | | |
| **Input Voltage/Frequency** | 120VAC, 60Hz. | | |
| **Input Current** | | | |
| 120V | Standby: 0.2W<br>Max: 0.5W+Load Power | | |
| **Load Ratings** | **Single** | **Two Devices** | **More than 2 Devices** |
| LED, CFL, Electronic Ballast @ 120V | 1000W | 675W | 625W |
| Magnetic Ballast @ 120V | | | |
| Resistive, Tungsten @ 120V | | | |
| Motor @ 120V | Not rated for use | | |
| **IP Rating** | IP10 | | |
| **Network Connections** | IEEE 802.15.4, 2.4Ghz wireless mesh network up to 75' range between devices | | |
| **Operating Temperature** | 32°F - 104°F (0°C - 40°C) | | |
| **Storage Temperature** | -40°F - 185°F (-40°C to 85°C) | | |
| **UL Impulse Voltage** | 2500V<120V> | | |
| **UL Pollution Degree** | 2 | | |
| **UL Disconnection Type** | Micro | | |

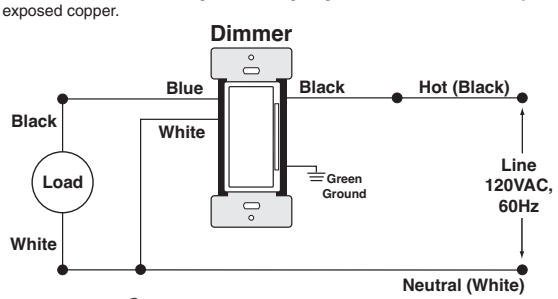
### Before Installation

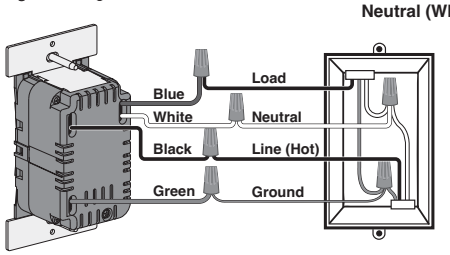
- Ensure location is within network range.
- Requires single gang device back-box.
- Supports multi-gang installations.
- Requires Decora® faceplate, sold separately.

### 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 precut insulation from the dimmer wires and connect according to the wiring diagram. Ensure wires are firmly connected with no exposed copper.



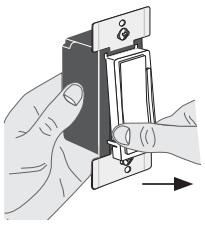




**2.** Gently place the wires and your device into the wall box and attach with screws provided.

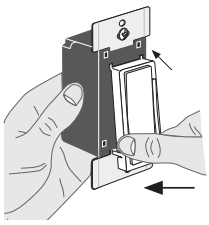
**3.** Restore power and test ON/OFF operation. LED locator light should be ON when load is OFF.

**4.** If desired, change switch color.

**5.** Install Decora faceplate.

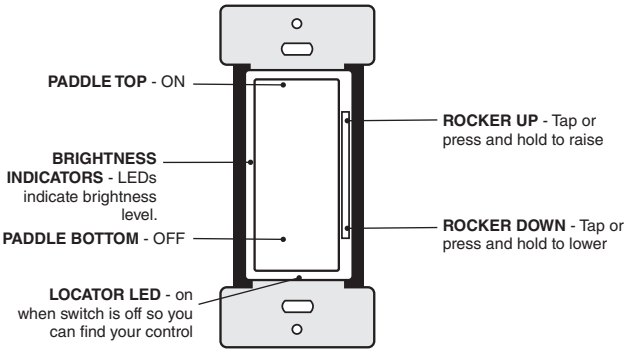


To release, push sides.



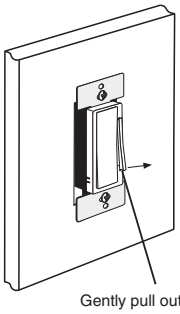
Line up and press in to attach.

**6.** Enroll device and configure your system.




### Replacing Lamps or Bulbs

Engage the air-gap switch by gently pulling out from the bottom of the dimming rocker until the bottom of the rocker lifts completely out of the frame and a click is heard (refer to Figure). LED's will turn OFF. This will stop power to the fixture to replace the bulb. After servicing is complete, press the rocker back into place for normal operation.



Gently pull out from bottom

### System Programming

**1.** Required devices

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

**2.** Creating a GreenConnect network with your dimmer or switch

**a.** Press and hold the top paddle. After about four seconds, the LED will blink back the device diagnostic. Continue to hold for seven seconds until the LED blinks amber once, then release. The LED will start blinking amber rapidly, meaning you are at the main menu.

**b.** To create a new network, tap the top paddle twice. The LED will blink red while the device resets as the network manager. The LED will blink green slowly once the GreenConnect network is created. The load will toggle OFF and ON twice as a visual indicator that the network was opened and ready for devices to join.

**c.** Every 60 seconds while the network is open, the LED of the network manager blink red once for each device enrolled in the network. This helps you keep track of how many devices the network manager has in the network.

**d.** To close the network, tap the top paddle once. All devices in the network will toggle their load OFF and ON twice to confirm the network was closed.

**e.** The network will automatically close after 10 minutes of inactivity.

**f.** To open the network again, return to the main menu on the network manager and tap once. All connected devices will toggle their loads OFF and ON twice when the network opens.

WEB VERSION

**3.** Connecting your switch or dimmer to a GreenConnect or GreenMAX DRC Wireless network.

**a.** Ensure only the network you want to join is open. If more than one network within range is open, your device may join the wrong network.

**b.** Go to the main menu by pressing and holding the top paddle for seven seconds until the LED blinks amber once, then release. The LED will then begin blinking amber rapidly.

**c.** Tap the top paddle once. The LED will blink green slowly while your device searches for a network to join. When it connects, the load will toggle OFF and ON twice with all connected devices in the network.

**d.** To join 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.

**e.** If after 60 seconds a network is not found, the LED will stop blinking and the device will exit the menu.

**4.** Resetting your dimmer switch

To remove your device from a network, or to restore it to default settings, press and hold the top paddle for 12 seconds until the LED blinks amber twice, then release. The LED will blink red while the device leaves the network and resets to factory defaults. If the device was a network manager, the reset will break the network and any enrolled devices will no longer be connected.

**5.** System features

- System settings are saved in the network manager.
- GreenConnect is a single zone system.
- All lighting loads respond together as a single lighting zone.
- All sensors form a single occupancy zone.
- Daylight values are aggregated across all sensors in a single daylight zone.
- The default settings are:
  - i. Occupancy Mode: Auto-ON/Auto-OFF
  - ii. Auto-ON level: 50%
  - iii. Sensitivity: High
  - iv. Occupancy time-out: 15 minutes
  - v. Partial Off: Disabled
  - vi. Photocell: Disabled

**6.** Changing system features

**a.** Go to the main menu on the network manager by pressing and holding the top paddle for seven seconds until the LED blinks amber once, then release. The LED will begin blinking amber rapidly.

**b.** Tap the number of times that corresponds to the feature menu you want to access. The LED will blink the feature menu number in green, pause, then blink the menu setting number currently saved in amber. For example, to access feature menu #3 (Occupancy Auto-ON level) from the main menu, tap three times. The LED will blink green three times, then blink amber five times for the default setting #5. This blink back pattern will repeat every 60 seconds.

**c.** Once within the feature menu, tap the number of times that corresponds with the new setting you want to select. For example, to change the default Auto-ON value from setting #5 to setting #1, tap once. The LED will blink the number of times corresponding with the selected option in amber. Watch the new blink back patten to ensure the setting is what you selected. If it isn't, just enter you selection again.

**d.** Return to the main menu by pressing and holding the top paddle for seven seconds until the LED blink amber once, then release. The LED will then begin blinking amber rapidly.

**e.** To exit the main menu, press and hold again for seven seconds until the LED stops blinking amber, then release.

**7.** Feature Menus

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

| Feature #4: Occupancy Sensitivity | |
|---|---|
| **Setting #** | **Value** |
| 1 | Medium |
| 2 | Low |
| 3 | High (default) |

| Feature #5: Primary 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 |

| Feature #6: Partial-OFF Level | |
|---|---|
| **Setting #** | **Value** |
| 1 | Disabled (default) |
| 2 | 50% |
| 3 | 25% |

| Feature #7: Secondary Time-out | |
|---|---|
| **Setting #** | **Value** |
| 1 | 5 minutes |
| 2 | 15 minutes (default) |
| 3 | 30 minutes |
| 4 | 60 minutes |

| Feature #8: Daylighting Target | |
|---|---|
| **Setting #** | **Value** |
| 1 | Disabled (default) |
| 2 | 25 footcandles |
| 3 | 35 footcandles |
| 4 | 45 footcandles |

| Feature #9: Secondary Level | |
|---|---|
| **Setting #** | **Value** |
| 1 | 0% (default) |
| 2 | 50% |
| 3 | 25% |

| Menus and LED Feedback | | | | |
|---|---|---|---|---|
| **Action** | | **LED color** | **Blink Rate** | **Status** |
| Press and hold: 4 seconds | Device Diagnostic | Red | 3 times | Not enrolled in a network. |
| | | Green | 3 times | Enrolled in active network. |
| | | | 2 times | Enrollment incomplete. |
| | | | 1 time | Enrolled, no communication from the network. |
| Press and hold: 5-9 seconds | Main Menu | Amber | 1 times | Release after first amber blink to enter the main menu. The LED will begin blinking amber rapidly. |
| | | | Rapid | |
| Tap | 1 time | Green | Slow | Enter pairing mode and search for network to join. If already paired, open the network. |
| | 2 times | | Slow | Designate as network manager and open network |
| | 3 times | | 3 times | Occupancy Auto-ON level |
| | 4 times | | 4 times | Occupancy Sensitivity |
| | 5 times | | 5 times | Primary Time-out |
| | 6 times | | 6 times | Partial-OFF Level |
| | 7 times | | 7 times | Secondary Time-out |
| | 8 times | | 8 times | Daylighting Target |
| | 9 times | | 9 times | Secondary Level |
| | Press and hold | Amber | 1 time | Return or exit main menu |
| Press and hold: 10-14 seconds | Reset | Amber | 2 times | Release after the second amber blink to reset to factory default settings. |
| Press and hold: 15-19 seconds | Exit | | 3 times | Release after the third amber blink to take no action and exit. |
| Press and hold: 20-25 seconds | Local Control | Green | 1 time | Change default operational control of dimmer or switch load. |

## What to do if...

- Load does not turn ON or status LED does not light up.
  - Air gap switch is engaged. Press rocker to disengage.
  - Breaker is OFF or tripped. Confirm breaker is ON.
  - Confirm device is being supplied power.
  - Light bulb(s) burned out, not installed, or not dimmable. Replace and install as needed.
  - Confirm load wiring is correct.
  - Ensure switched output wiring is correct.
- Lights flicker or do not dim as expected.
  - 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.

— Increase the separation between the equipment and receiver.

— Connect the equipment into an outlet on a circuit different from that to which the receiver is 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 your 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.

Patents covering this product, if any, can be found on www.leviton.com/patents.

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**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**

For Leviton's limited 5 year product warranty, go to www.leviton.com. For a printed copy of the warranty, call 1-800-824-3005.

**For Technical Assistance Call: 1-800-824-3005 (USA Only) or 1-800-405-5320 (Canada Only)**
**www.leviton.com**