



# Wireless Dimmer Installation Guide

## Supported Models

- C4-DIM101-Z-W Wireless Dimmer (White)
- C4-DIM101-Z-B Wireless Dimmer (Black)
- C4-DIM101-Z-A Wireless Dimmer (Almond)

## Specifications and Supported Fixtures

This Control4® Wireless Dimmer operates independently or as part of a Control4® home automation system to enable intelligent lighting control. It installs in a standard wall box using typical wiring standards and communicates with other devices through a wireless RF (radio frequency) connection.

**Power:** 120 VAC +/-10% 50/60 Hz  
490 mW

**Supported Load Types and Ratings:**

- 120 VAC 1000 W Incandescent (all types)
- 120 VAC 1000 W Halogen (all types)
- 120 VAC 1000 W Forward Phase Controlled Electronic Low Voltage (dimnable only)
- 120 VAC 1000 W Forward Phase Controlled Fluorescent Light Fixtures (dimnable only)
- 120 VAC 1000 VA Forward Phase Controlled Magnetic Low Voltage (all types with 70 percent or greater load factor)

Total minimum load must exceed 25W

This device can function with or without a neutral AC connection (see relevant wiring diagrams). However, when controlling Magnetic Low Voltage loads, a neutral wire connection is required. All load ratings are based on an ambient temperature of 25 degrees Celsius.

**Operating Temperature:**  
**Volume:** 5.0 Cubic inches

**Communications:** ZigBee, IEEE 802.15.4, 2.4 GHz, 15-channel, spread spectrum radio

## Warnings & Considerations

- WARNING!** Install in accordance with all national and local electrical codes.
- WARNING!** Improper use or installation can cause SERIOUS INJURY, DEATH or LOSS/DAMAGE OF PROPERTY.
- WARNING!** If you are unsure about any part of these instructions, consult a qualified electrician.
- WARNING!** To reduce the risk of overheating and possible damage to this device and other equipment, DO NOT install to control a receptacle, a motor, or a transformer-operated appliance.
- WARNING!** Use this device only with copper or copper clad wire. This product has NOT been approved for use with Aluminum wiring.
- WARNING!** This product generates heat during normal operation.

- IMPORTANT!** Use or modification of this product in a manner not expressly approved by Control4 voids your warranty. Further, Control4 is NOT liable for any damage incurred with the misuse of this product. See "Limited 2 Year Warranty."
- IMPORTANT!** The range and performance of the wireless control system is highly dependent on the following: (1) distance between devices; (2) layout of the home; (3) walls separating devices; and (4) electrical equipment located near devices.

## Installation Instructions

- TURN OFF POWER by switching off the circuit breaker or removing the fuse and test that power is off before wiring!
- Ensure Dimmer capacity matches the load requirements. In multi-dimmer installations, a reduction of the dimmer's capacity is required to allow the dimmers to be installed side-by-side in the same wall box. The dimmer capacity depends on the number "ganged" in the wall box as follows:

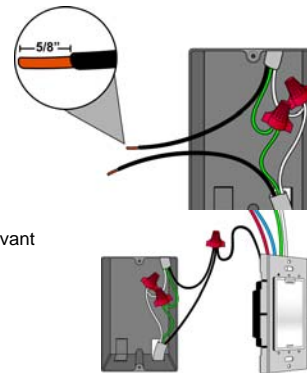
- 1 gang = 1000 W / VA maximum
- 2 gang = 800 W / VA maximum per dimmer
- 3 or more gang = 600 W / VA maximum per dimmer

If installing in multi-gang scenarios, use pliers to remove the inner-side break-away tabs: Bend each one back and forth until it breaks off. Remove the inner-side tabs ONLY on any device side that will be adjacent to another device. DO NOT remove tabs on any side that will become the outer side of a group of devices.



- Identify your wiring application (refer to the appropriate diagram in "Sample Wiring Configurations" on the back page).
  - "Single-Pole (with power source at wall box) - see Figure 1
  - "Single-Pole (with power source at light fixture) - see Figure 2
  - "3-Way (with power source at wall box) - see Figure 3
  - "3-Way (with power source at light fixture) - see Figure 4

- Prepare wires by removing pre-cut insulation from the appropriate dimmer leads. Wire insulation should be stripped back 5/8 of an inch from the wire end (as shown).



- Connect the dimmer wires to the wall box wires using wire nuts according to the relevant wiring diagram. See "Sample Wiring Configurations."

- WARNING!** The Blue wire is not a traditional traveler: It cannot directly power a lighting load. It must only be used to provide power to another Control4 keypad. If you do not intend to use this wire, leave it capped. The blue wire is a "switched hot" wire that is connected internally to the dimmer's hot wire through the air-gap switch. Power is applied to the blue wire whenever the air-gap switch is closed. Thus, the blue wire is used to provide power to downstream keypads in 3-way/4-way scenarios in order to ensure that all power to the load has been removed when the air-gap switch is open. Refer to "Sample Wiring Configurations" on the back page.

- Mount Dimmer into wall box by partially securing the wall box screws attached to the dimmer. Ensure that the word "Top" on the dimmer frame is facing up. Bend wires in a zigzag pattern so that they easily fold into the wall box.



- WARNING!** Ground the Wireless Dimmer in accordance with the National Electric Code (NEC) requirements. Although the dimmer's aluminum yoke plate and green ground wire are directly bonded together inside the dimmer, DO NOT rely solely upon the yoke plate's contact with a metal wall box for adequate grounding. Use the dimmer's ground wire to make a secure connection to the safety ground of the electrical system.

- IMPORTANT!** Not grounding this product according to the preceding Warning! may result in an installation less immune to damage caused by electrical disturbances, such as lightning, and void the warranty.

- If you are using the Control4 push-on (screw-less) wall plate that shipped with your dimmer:
  - For a single-gang scenario, attach the black plastic sub-plate using the provided sub-plate screws.
- IMPORTANT!** Tighten the screws until the back side of the metal yoke plate is even with the wall surface, but no farther. Over-tightening can damage the dimmer and cause mechanical malfunction. Do NOT use a power screw driver to install this device as this may lead to over-tightening.
  - If you are installing in a multi-gang scenario, only partially tighten the mounting screws, leaving about 1/8 of an inch gap between the wall and the yoke plates prior to attaching the black plastic sub-plate. This allows each device in a multi-gang scenario to conform to the sub-plate, creating a single assembly. Secure the multi-gang sub-plate to all devices using the provided sub-plate screws. Then secure the assembly by tightening the wall box screws the remaining 1/8 of an inch. Do not over-tighten any of the screws or you will misalign the flat plane of the multi-gang wall plate.
  - With the wall plate's removal slot facing down, push the wall plate onto the dimmer's black plastic sub-plate.

- If you are using a Decora-style screw-on wall plate:
  - Do not attach the dimmer's black plastic sub-plate
  - Align the dimmer to the wall box and fasten with screws.
  - Fasten the wall plate to the dimmer with screws.

- Turn ON power at the circuit breaker or replace fuse from fuse box.

- Test the dimmer to see if it is working properly. See "Operation and Configuration" for specific instructions.

## Optional Antenna Extension

In some installation scenarios, it may be desirable to enhance the Dimmer's wireless (RF) transmission capabilities. This may be needed to overcome issues such as local interference from other devices, range considerations due to the distance between devices or the use of metallic faceplates. The Control4 Wireless Dimmer has been designed with a wire whip antenna coiled underneath the plastic button that can be extended to accommodate such scenarios. Instructions for extending the antenna are provided below.

- WARNING!** To avoid risk of electrical shock that may cause personal injury or damage to the Dimmer, this procedure should be performed prior to connecting the dimmer at the wall box.
- WARNING!** This procedure enables advanced functionality and should only be performed by a competent trained installer.

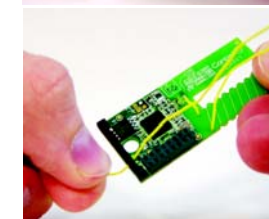
- Remove the plastic button frame by squeezing the side tabs near the top and bottom of the button and pulling outward. A small flat-head screw driver can also be used to assist in releasing the tabs.



- Once the button has been removed, detach the radio board from its connector by gently pulling away from the dimmer frame.



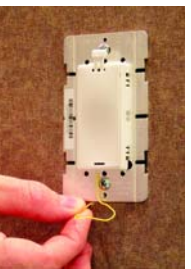
- Slip the end of the antenna out of the radio board hole and uncoil it, being careful not to exert undue tension on the wire. Once uncoiled, thread the antenna wire under the plastic spacer at the bottom of the radio board.



- Re-attach the radio card to the dimmer frame by carefully aligning the connector and pressing gently. Then re-attach the button and button frame by aligning the button frame securement tabs with the appropriate slots on the dimmer frame and pushing gently. Ensure that the antenna is routed through the small notch on the bottom left-hand side of the button frame provided for this purpose. Once the button has been re-attached, proceed with the standard installation procedure for wiring the dimmer to the light load and securing it into the wall box, as described in Step 1 through Step 6 of "Installation Instructions."



- The antenna has been designed to extend well beyond the faceplate. For optimal performance, it should be oriented in a vertical plane below the dimmer. To enable this without leaving the antenna visible to the end user, a very small hole should be made in the wall just below the dimmer frame and the antenna inserted through the hole back into the wall. Once the antenna has been routed into the wall, proceed with standard installation of the dimmer sub-plate and faceplate, as described in Step 7 and Step 8 of "Installation Instructions."



- WARNING!** The antenna must not be inserted into the junction box containing high voltage wires.
- WARNING!** Do not shorten or cut the antenna in any way as this may seriously impair transmission capabilities.

## Regulatory Compliance

### FCC

FCC ID: R33C4DIM101Z

This device 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.

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.

- IMPORTANT!** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### ETL Statement

ETL Control Number: \_\_\_\_\_

This product has been tested by ETL and was found to comply with:

- UL 1472, First Edition, "Standard for Solid State Dimming Controls"
- CSA C22.2 No. 184.1, First Edition, "Solid State Dimming Controls"

### Industry Canada

This Class B digital apparatus complies with Canada ICES-003.

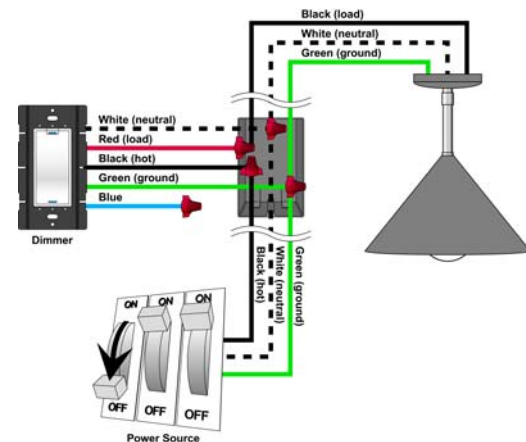
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## Sample Wiring Configurations

### Single-Location Scenario—Power Source at Wall Box

To wire the dimmer for a Control4 single-location scenario in which the power is first routed to the wallbox, connect together and cap with a wire nut the wires indicated in the following table:

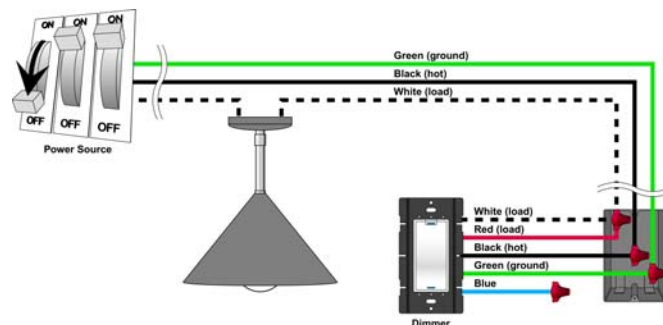
Dimmer Wires	Wires in the Wall Box	
	From Power Source	To Light Fixture
White (neutral)	White (neutral)	White (neutral)
Red (load)	None	black (load)
Black (hot)	Black (hot)	None
Green (ground)	Green (ground)	Green (ground)
Blue (switched hot)	None	None



### Single-Location Scenario—Power Source at Light Fixture

To wire the dimmer for a Control4 single-location scenario in which the power is first routed to the light fixture electrical box, connect together and cap with a wire nut the wires indicated in the following table:

Dimmer Wires	Wires in the Wall Box (from the Light Fixture)
White (load)	White (load)
Red (load)	White (load)
Black (hot)	Black (hot)
Green (ground)	Green (ground)
Blue (switched hot)	None



### Two-Location Scenario—Power Source at Wall Box

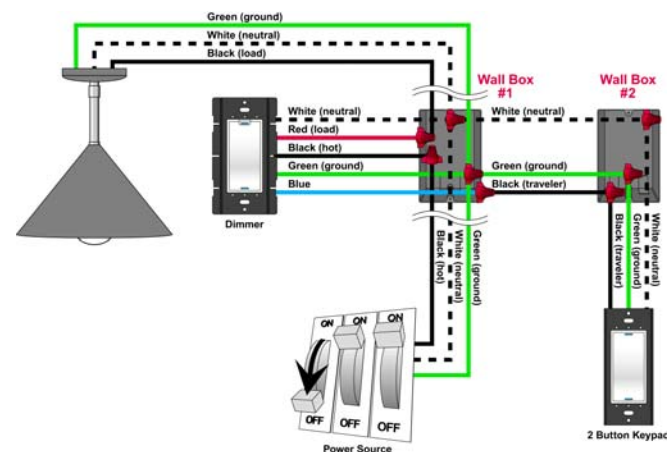
To wire the dimmer and a multi-button keypad in a two-location scenario (Control4's 3-way-switch solution) where the power is first routed to the wall box, do the following:

1. Wire the dimmer into Wall Box #1 by connecting together and capping with a wire nut the following wires:

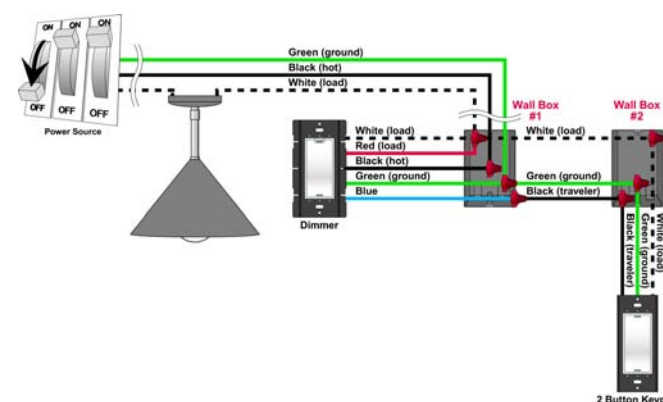
Dimmer Wires	Wires in Wall Box 1		
	From Power Source	To Light Fixture	To Wall Box 2
White (neutral)	White (neutral)	White (neutral)	White (neutral)
Red (load)	None	Black (load)	None
Black (hot)	Black (hot)	None	None
Green (ground)	Green (ground)	Green (ground)	Green (ground)
Blue (switched hot)	None	None	Black (traveler)

2. Wire the multi-button keypad into Wall Box #2 by connecting together and capping with a wire nut the following wires:

Multi-Button Keypad Wires (2, 3, or 6-Button)	Wires in Wall Box 2 (from Wall Box 1)
White (neutral)	White (neutral)
Green (ground)	Green (ground)
Black (traveler)	Black (traveler)



### Two-Location Scenario—Power Source at Light Fixture



To wire the dimmer and a multi-button keypad in a two-location scenario (Control4's 3-way-switch solution) where the power is first routed to the light fixture electrical box, do the following:

1. Wire the dimmer into Wall Box #1 by connecting together and capping with a wire nut the following wires:

Dimmer Wires	Wires in Wall Box 1	
	From Light Fixture	To Wall Box 2
White (load)	White (load)	White (load)
Red (load)	White (load)	White (load)
Black (hot)	Black (hot)	None
Green (ground)	Green (ground)	Green (ground)
Blue (switched hot)	None	Black (traveler)

2. Wire the multi-button keypad into Wall Box #2 by connecting together and capping with a wire nut these wires:

Multi-Button Keypad Wires (2, 3, or 6 Button)	Wires in Wall Box 2 (from Wall Box 1)
White (load)	White (load)
Green (ground)	Green (ground)
Black (traveler)	Black (traveler)

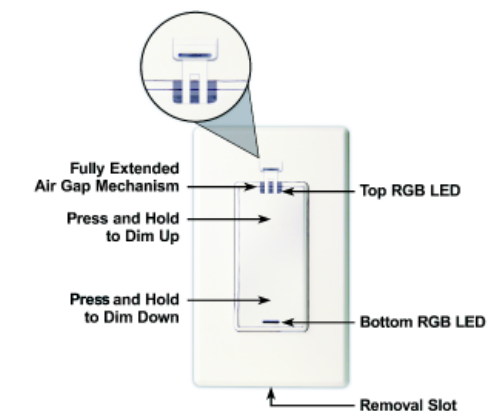
## Troubleshooting

If light does not turn on:

- Ensure at least one LED on the face of the dimmer is lit.
- Ensure the light bulb is not burned out and is screwed in tightly.
- Ensure circuit breaker is not turned OFF or tripped.
- Check for proper wiring (see the "Sample Wiring Configurations" section).
- For help on the installation or operation of this product, email or call the Control4 Technical Support Center. Please provide your exact model number. Contact support@control4.com or see the web site www.control4.com.

## Operation and Configuration

On initial power up, the unit will flash the Red/Green/Blue (RGB) LEDs, which can be programmed with different colors for different states or color preferences. To set up this dimmer for use with a Control4 system, refer to your system setup documentation.



**WARNING!** Prior to changing a light bulb or performing any other maintenance to the light fixture, pull up on the Air Gap Mechanism with your fingernail to cut power to the light fixture.

**NOTE:** Dimmer feels warm to the touch under normal conditions.

To operate and configure this dimmer as a stand-alone device, see the following table.

Change Lightbulb or Fixture	Default behavior of RGB LEDs:	
<b>To cut power to the fixture:</b>	<b>Top</b>	<b>Bottom</b>
Pull up on the Air Gap Mechanism and fully extend (about 0.3") to cut power to the light fixture.	Not lit	Not lit
<b>Operate Dimmer</b>	<b>Default behavior of RGB LEDs:</b>	
<b>To operate dimmer:</b>	<b>Top</b>	<b>Bottom</b>
Turn ON: Tap top.	Lit, full brightness	Not lit
Turn OFF: Tap bottom.	Not lit	Lit, full brightness
Set dimming level: Press and hold the top or bottom until the desired lighting level is reached, then release.	Lit, brightness indicates current level of dimming	If lit, a dimming level has been set and brightness indicates level of dimming
<b>Care and Cleaning</b>		
Do NOT paint dimmer or its wall plate.		
Do NOT use any chemical cleaners to clean the dimmer.		
Clean surface with a soft damp cloth as needed.		

## Limited 2 Year Warranty

Control4 Corporation ("Control4") warrants that at the time of first-consumer sale, this product will be free from defects in material and manufacture. Control4 further warrants that for a period of 2 years (24 months) after initial consumer sale, the product will function in accordance with its specification, provided that it is installed and maintained under normal and proper use. This warranty extends only to products purchased directly from Control4 or an Authorized Control4 Reseller. If the product proves to be defective in material or workmanship during the warranty period, it may be returned to the place of purchase and Control4 will, at its sole option, repair or replace the product with a like product. This warranty provides the consumer purchaser with specific legal rights, which may vary per state or country. For complete warranty information, including details on consumer legal rights as well as warranty exclusions, visit [www.control4.com/warranty](http://www.control4.com/warranty).

## About this Document

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