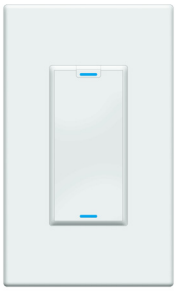


Wireless Dimmer Installation and User Guide

Supported Models and Fixtures

This installation and user guide covers these dimmer models:

LDZ-101-W	Wireless Dimmer (802.15.4)
LDZ-101-B	Wireless Dimmer (802.15.4)
LDZ-101-A	Wireless Dimmer (802.15.4)

This dimmer can operate independently or as a device you can control with your Control4 system. The dimmer installs in a standard wall box using typical wiring standards and it communicates to the Control4 system using a wireless connection.

The dimmer supports:

- 120 Volt incandescent (all types)
- 120 Volt halogen (all types)
- 120 Volt magnetic low voltage (all types with 70 percent or greater load factor)
- 120 Volt electronic low voltage (dimmable only)
- 120 Volt fluorescent light fixtures (dimmable only)

WARNING! **To reduce the risk of serious injury or death, turn all power OFF before installing this product. Using this product in a manner other than outlined in this document voids your warranty. Further, Control4 is NOT liable for any damage incurred with the misuse of this product. See "Limited 1 Year Warranty" on page 6. This product generates heat. The room must have adequate ventilation or heat dissipation ability. Do NOT use this device to control a device with a non-dimmable load. You should only use it with devices that have dimmable feature support.**

Installation Instructions

1 **Ensure that the location and intended use meet the following criteria:**

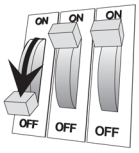
DO (OK, Normal)

- Install in accordance with all national and local electrical codes.
- Wall box size required depends on your wiring. The dimmer alone needs a depth of 2.5 inches. To calculate the total depth required, add 2.5 inches to the amount of space recommended in the NEC (National Electric Code) for your configuration.
- The range and performance of the control system is highly dependent on the following:
  - Distance between devices
  - Layout of the home
  - Walls separating devices
  - Electrical equipment located near devices

DON'T

- If installing a multi-unit dimmer, Do NOT continue until you have read "Multi-Unit Installations" on page 2.
- Do NOT use where total wattage is under 25 watts.
- Do NOT exceed maximum load rating of dimmer (which is 1000W for a single unit, if both side tabs are in tact).

2 **To avoid injury or death, turn OFF local electrical power.** To turn off the power, either switch off the circuit breaker or remove the fuse from fuse box. To ensure the wires do NOT have power running to them, use an inductive voltage detector.

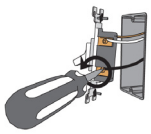


3 **Use screwdriver to remove wall plate and existing switch from wall.**

4 **Detach existing dimmer or switch.**

WARNING! **As with any appliances, improper use or installation can cause SERIOUS INJURY or DEATH. Do NOT attempt the installation if you are NOT sure which wires are the hot and load wires in the wall box. Instead, have a trained electrician do the installation.**

The existing dimmer or switch is wired in one of three ways: terminal screws, backwire, or wire nuts.



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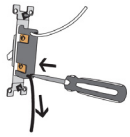

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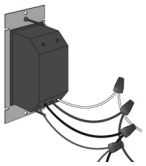


Terminal Screws:

Use a screwdriver to unscrew the screws to release the wire.

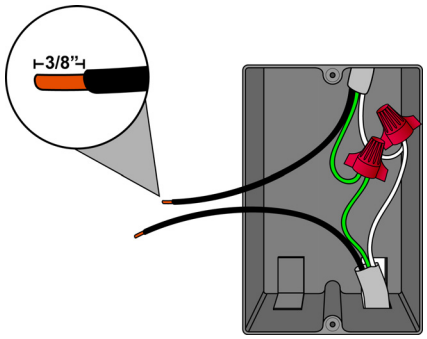
Backwire:

Insert screwdriver in Wire Release slot and pull out wire. If this does not work, use a wire cutter to cut the wire.

Wire Nuts:

Turn to remove wire nuts from existing wiring.

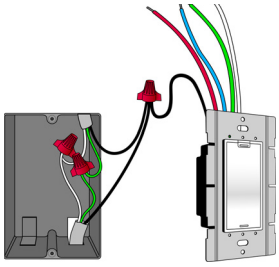
5 **Prepare and identify all wires.** Identify the wires in your wall box. Straighten the wire ends. With a wire cutter, cut off the bare wire just below the plastic insulation on all wires. Use a wire stripper to strip off about 3/8-inch of the insulation.



IMPORTANT:	**The National Electric Code (NEC) requires 6 inches of extended wire from the wall box. If your wiring does not meet this requirement, you will not meet code. Do NOT cut wire shorter than 6 inches.**

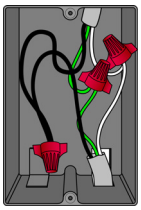
IMPORTANT:	**When installing this product in a commercial application or metal wall box, you might need to ground it to the wall box.**

6 **Connect the dimmer wires to the wall box wires using wire nuts.** Wall box wires can differ depending upon how the box was wired by your electrician and where the power source comes from—the light fixture or the wall box. Refer to the following four sections (beginning on page 3):

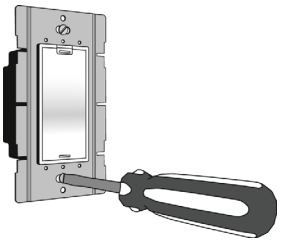


- "Single-Switch Environment—Power Source at Wall Box"
- "Single-Switch Environment—Power Source at Light Fixture"
- "3-Way-Switch Environment—Power Source at Wall Box"
- "3-Way-Switch Environment—Power Source at Light Fixture"

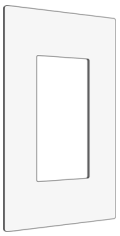
7 **Fit wires back into the wall box.** Bend the wires in a zigzag pattern so that they easily fold into the wall box. Push the dimmer into place. Adjust the dimmer so that it is perpendicular to the floor. Tighten the two screws that hold it in position in the wall box.



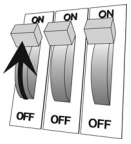
8 **Align dimmer to wall box and fasten with screws, unless you are using a Decora screw-on-style wall plate.** If you are using a screw-on-style wall plate, before fastening with screws, you must first align the wall plate with the dimmer and the wall box.



9 **If you are using the Control4 snap-on- style wall plate, snap it over the dimmer now.**



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



11 **Test the dimmer to see if it is working properly.** For details, see "Operation and Configuration" on page 5.

Troubleshooting

If light does not turn on:

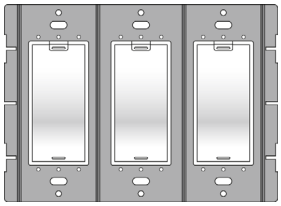
- Ensure light bulb is not burned out.
- Ensure light bulb is screwed in tightly.
- Ensure circuit breaker is not turned OFF or tripped.
- Check for proper wiring (see the subsections beginning on page 3).

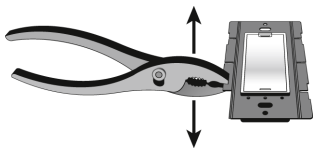
Multi-Unit Installations

Multi-unit installations allow you to install one stand-alone dimmer next to another in the same wall box.

Remove Inner Sides

When using multiple units in a wall box, you must r**emove the inner sides, leaving the outer sides in place.** Use pliers to bend a tab back and forth until it comes off. Remove only the sides that will touch another dimmer. Do not remove sides that will become outer sides.





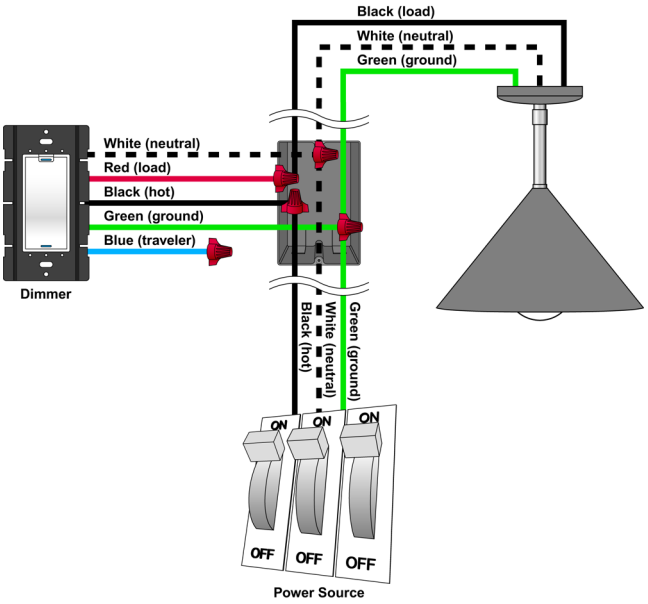
Resulting Capacity

- With both sides intact (single unit), the capacity is 1000W maximum.
- If you remove one side, the capacity is reduced to 800W maximum.
- If you remove two sides, the capacity is reduced to 600W maximum.

Single-Switch Environment—Power Source at Wall Box

To wire the dimmer for a Control4 single-switch environment when the power is coming from the wallbox, connect together and cap with a wire nut the wires indicated in the following table:

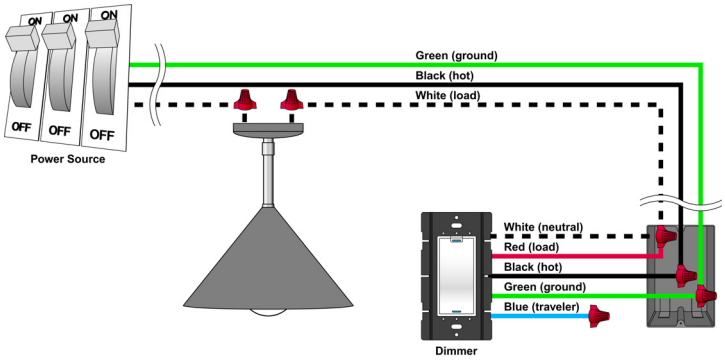
Wires from dimmer	Wires from Wall Box	
	Light Fixture	**Power Source**
White (neutral)	White (neutral)	White (neutral)
Red (load)	black (load)	None
Black (hot)	None	Black (hot)
Green (ground)	Green (ground)	Green (ground)
Blue (3-way traveller)	None	None



Single-Switch Environment—Power Source at Light Fixture

To wire the dimmer for a Control4 single-switch environment when the power is coming from the light fixture (switched-leg mode), connect together and cap with a wire nut the wires indicated in the following table:

Wires from dimmer	Wires from the Wall Box (coming from the power source at light)
White (neutral)	White (load)
Red (load)	White (load)
Black (hot)	Black (hot)
Green (ground)	Green (ground)
Blue (3-way traveller)	None



3-Way-Switch Environment—Power Source at Wall Box

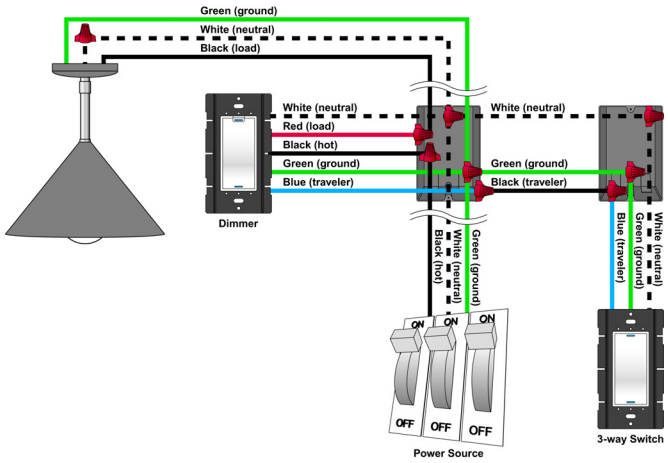
To wire the dimmer for a Control4 3-way-switch environment when the power is coming from the wall box, do the following:

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

Wires from dimmer	Wires from Wall Box 1		Wires from Wall Box 2
	Light Fixture	Power Source	
White (neutral)	White (neutral)	White (neutral)	White (neutral)
Red (load)	black (load)	None	None
Black (hot)	None	Black (hot)	
Green (ground)	Green (ground)	Green (ground)	Green (ground)
Blue (3-way traveller)	None	None	Black (3-way traveller)

2. Wire the 3-way keypad to Wall Box 2 by connecting together and capping with a wire nut the following wires:

Wires from 3-way Keypad	Wires from Wall Box 2
White (neutral)	White (neutral)
Green (ground)	Green (ground)
Blue (3-way traveller)	Black (3-way traveller)



3-Way-Switch Environment—Power Source at Light Fixture

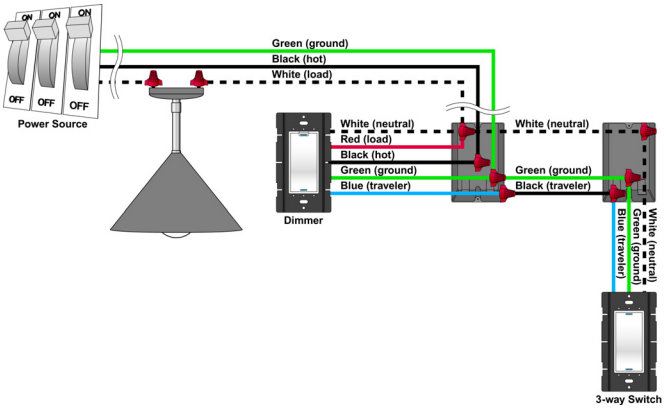
To wire the dimmer for a Control4 3-way-switch environment when the power is coming from the light fixture (switched-leg mode), do the following:

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

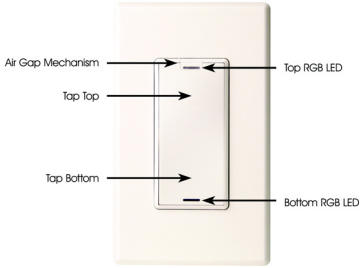
Wires from dimmer	Wires from Wall Box 1		Wires from Wall Box 2
	Light Fixture	Power Source	
White (neutral)	White (load)	None	White (neutral)
Red (load)	White (load)	None	None
Black (hot)	None	Black (hot)	None
Green (ground)	None	Green (ground)	Green (ground)
Blue (3-way traveller)	None	None	Black (3-way traveller)

2. Wire the 3-way keypad to Wall Box 2 by connecting together and capping with a wire nut the following wires:

Wires from 3-way Keypad	Wires from Wall Box 2
White (neutral)	White (neutral)
Green (ground)	Green (ground)
Blue (3-way traveller)	Black (3-way traveller)



Operation and Configuration



To configure this dimmer for use with a Control4 system, refer to the documentation that shipped with your controller.

To operate and configure this dimmer as a stand-alone device, refer to the following tables.

NOTE: RGB LEDs are small lights that can be programmed with different colors to reflect different states.

Operate Dimmer	**Expected behavior of RGB LEDs:**	
To operate dimmer:	***Top***	***Bottom***
Turn ON: Tap top for ON.	Lit, full brightness	Not lit
Turn OFF: Tap bottom for OFF.	Not lit	Lit, full brightness
Set dimming level: Press and hold top for higher level or press and hold bottom for lower level.	Lit, brightness indicates current level of dimming	If lit, then a dimming level has been set and brightness indicates level of dimming
Cut power to light fixture: Pull up on the air gap mechanism for maintenance to the light bulb or light fixture.	Not lit	Not lit
Toggle to Dimmer or Switch Mode	**Status indicated by RGB LEDs**	
To toggle between dimmer and switch:	***Top***	***Bottom***
1. Tap bottom 5 times to enter into *Dimmer/Switch Mode Select*.	Green = Dimmer	Purple = Dimmer/Switch Mode Select mode
2. Tap top 1 time to toggle to *Dimmer* or *Switch* modes.	Green = Dimmer Blue = Switch	Purple = Dimmer/Switch Mode Select mode
3. Tap bottom 1 time to save selected mode and exit *Dimmer/ Switch Mode Select*.	(Returns to default or previous value)	(Returns to default or previous value)
Bind 3-Way	**Status indicated by RGB LEDs**	
To bind devices for a 3-Way dimmer:	***Top***	***Bottom***
1. Tap bottom 6 times on each device in the 3-Way group to enter into 3-Way Binding mode.	Red = Ready to receive and build an address table	Amber = 3-Way Binding mode
2. Tap top 1 time on each device in the 3-Way group to advertise its address.	Green = Device address has been advertised	Amber = 3-Way Binding mode
3. Tap bottom 1 time to save all advertised addresses and exit 3-Way Binding mode.	(Returns to default or previous value)	(Returns to default or previous value)
Select Channel	**Status indicated by RGB LEDs**	
To select a channel:	***Top***	***Bottom***
1. Tap bottom 7 times to enter into *Channel Select* mode.	Red = Channel A	Aqua = Channel Select mode
2. Tap top 1 time to toggle to next available channel.	Red = Channel A Blue = Channel B Green = Channel C (Other user defined color) = Custom Channel	Aqua = Channel Select mode
3. Tap bottom 1 time to save selected channel and exit *Channel Select* mode.	(Returns to default or previous value)	(Returns to default or previous value)
Restore Defaults	**Status indicated by RGB LEDs**	
To restore default settings:	***Top***	***Bottom***
1. Tap bottom 10 times to enter into *Restore Default* mode.	Red = No action	White = Restore Default mode
2. Tap top 1 time to toggle to *No Action* or *Restore Default* modes.	Red = No action Green = Restore Default	White = Restore Default mode
3. Tap bottom 1 time to execute the selected command and exit *Restore Default* mode.	(Returns to default or previous value)	(Returns to default or previous value)
Dimmer Surface DOs	**Dimmer Surface DON'Ts**	
Dimmer might feel warm to the touch under normal operation. Clean surface with a soft damp cloth as needed.	Do NOT paint dimmer or wall plate. It is not recommended. Do NOT use any chemical cleaners to clean the dimmer.	

FCC and UL Information

FCC ID = R33LDZ1011

CAUTION!	**Changes or modifications not expressly approved by Control4 could void the user's authority to operate the equipment.**

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 interfence, and (2) this device must accept any interference received, including interference that may cause undesired operation.

UL information: Control number 20MC

CAUTION!	**To Reduce the Risk of Overheating and Possible Damage to Other Equipment, Do Not Install To Control A Receptacle, A Motor-Operated Appliance, A Flouorescent Lighting Fixture, or A Transformer-Supplied Appliance.**

Limited 1 Year Warranty

This device has a limited one (1) year warranty on parts from the date of installation. Control4 will replace or repair any defective unit. Return unit to the place of purchase for replacement. For any damages incurred, the warranty will never exceed the purchase price of the device. This warranty does not cover installation, removal, or reinstallation cost. The warranty is not valid in cases where damage incurred due to misuse, abuse, incorrect repair, or improper wiring or installation. It does not cover incidental or consequential damage. This warranty gives you specific legal rights, and you might also be entitled to other rights that vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or conseqential damages. In these cases, the above mentioned limitations might not apply to you. To automatically receive notification of upgrades, register your device by returning the enclosed registration card or by going to the MyControl4.com web site.

Control4 Technical Support

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.

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