

Control4

Lux Keypad Dimmer Switch  
Installation Guide

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- Supported model
- C4-L-KDS Control4 Lux Keypad Dimmer Switch

Introduction

The Control4® Lux Keypad Dimmer Switch acts as a dimmer, a switch, and a configurable keypad. It operates independently or as part of a Control4 home automation system. It installs in a standard wall box using typical wiring standards and communicates to the Control4 system using a wireless connection.

Box contents

- Control4 Lux Keypad Dimmer Switch
- Warranty card
- Temporary button(s)
- Control4 Lux Keypad Dimmer Switch Installation Guide (this document)

Mounting Plate required

The Control4 Lux Keypad Dimmer Switch **requires** a faceplate and mounting plate designed to fit your install (1 gang, 2 gang, etc) and are required before you install the dimmer. Part numbers for faceplates and plates:

- Lux Faceplate and Mounting Plate, 1 gang (C4-L-FP1-XX)
- Lux Faceplate and Mounting Plate, 2 gang (C4-L-FP2-XX)
- Lux Faceplate and Mounting Plate, 3 gang (C4-L-FP3-XX)
- Lux Faceplate and Mounting Plate, 4 gang (C4-L-FP4-XX)

Specifications and supported load types

Model number	C4-L-KDS				
Power requirements	120-240V AC ±10%, 50/60 Hz				
Neutral required	No				
Power consumption	120V: 1.32W all LEDs off, 1.84W all LEDs on 240V: 3.50W all LEDs off, 4.20W all LEDs on				
Load types and ratings					
Supported load types	<b>Dimmer mode:</b> Incandescent, halogen, electronic (solid state) low voltage (ELV) transformers, magnetic (iron core, inductive) low voltage (MLV) transformers*, & LEDs <b>Switch mode:</b> All Dimmer mode load types plus motors <b>No-neutral configuration:</b> Incandescent lights from 10W to 50W at 120V and 25W to 100W at 240V.				
Maximum load	Incand.	LED	ELV	MLV	Motor**
120V / 240V	600W	600W	500W	500W	1/8 HP
Environmental					
Operational temperature	0 to 40 °C (32 to 104 °F)				
Humidity	5% to 95% non-condensing				
Storage	-20 to 70 °C (-4 to 158 °F)				
Miscellaneous					
Control communications	Zigbee, IEEE 802.15.4, 2.4 GHz, 15-channel spread spectrum radio				
Lighting scenes per device	127 maximum				
Actions per device	15 maximum per lighting scene				
Wallbox volume	5.75 in³ (94 cc)				
Weight	0.05 kg (0.12 lb.)				
Shipping weight	0.08 kg (0.18 lb.)				
Compatible color kits	C4-L-CKKC-XX or C4-L-CKUDIMSWITCH-XX				

\*\*Motors are supported in Switch mode only.

Warnings and considerations

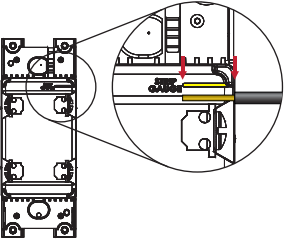
**WARNING!** Turn OFF electrical power before installing or servicing this product. Improper use or installation can cause SERIOUS INJURY, DEATH or LOSS/DAMAGE OF PROPERTY.  
**ATTENTION!** Coupez l'alimentation électrique avant d'installer ou de réparer ce produit. Une mauvaise installation ou utilisation peut entraîner des blessures graves, décès ou perte / dommages à la propriété.

**WARNING!** This device must be protected by a circuit breaker (20A max).  
**ATTENTION!** Cet appareil doit être protégé par un disjoncteur (20A max.)  
**WARNING!** Ground this device in accordance with the National Electric Code (NEC) requirements. DO NOT rely solely upon the mounting plate's contact with a metal wall box for adequate grounding. Use the mounting plate's ground wire to make a secure connection to the safety ground of the electrical system.  
**ATTENTION!** Mettez cet appareil à la terre conformément aux exigences du National Electric Code (NEC). NE PAS compter uniquement sur le contact du support de montage avec un boîtier arrière métallique pour une mise à la terre adéquate. Utilisez le fil de terre du support de montage pour établir une connexion sécurisée à la terre de sécurité du système électrique.

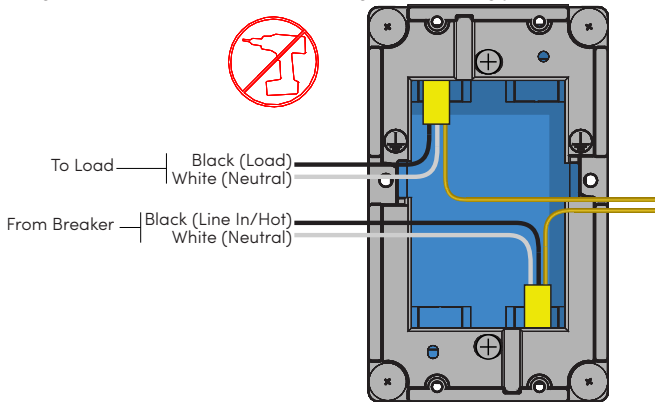

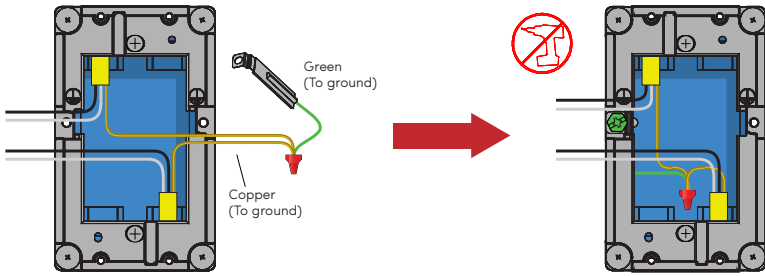
- IMPORTANT!** This device must be installed by a licensed electrician in accordance with all national and local electrical codes.
- IMPORTANT!** If you are unsure about any part of these instructions, consult a qualified electrician.
- IMPORTANT!** Use this device only with copper or copper-clad wire. Do not use aluminum wiring. This product has not been approved for use with aluminum wiring.
- IMPORTANT!** Using this product in a manner other than outlined in this document voids your warranty. Further, Snap One is not liable for any damage incurred with the misuse of this product. See "Troubleshooting."
- IMPORTANT!** Do not use a power screwdriver to install this device. If you do, you may overtighten the screws and strip them. Also, overtightening the screws may interfere with proper button operation.
- IMPORTANT!** This is an electronic device with intricate components. Handle and install with care!
- IMPORTANT!** When used in conjunction with an Auxiliary Keypad (C4-L-KA), the wire connecting the Auxiliary Keypad to the dimmer must not exceed 45 m (150 ft.) at 120V AC and 30 m (100 ft.) at 240V AC.  
**IMPORTANT!** \*When dimming magnetic (MLV) loads, each transformer must be loaded to at least 50% of its maximum load.
- IMPORTANT!** If wiring the dimmer in no-neutral configuration, do not attach to MLV loads.

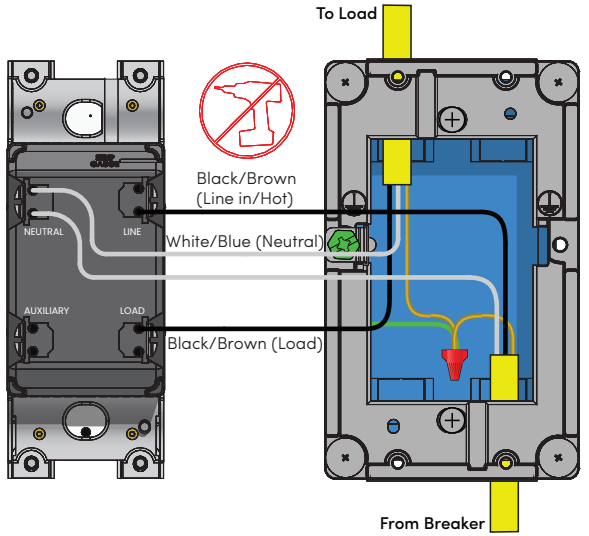
Installation instructions

- Ensure that the location and intended use meet the following criteria:
  - Do not exceed the load capacity requirements of the dimmer. Refer to the load ratings in the specifications above for details.
  - The range and performance of the Zigbee 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. To learn more about Zigbee Best Practices, see [ctrl4.co/zigbee-bp](http://ctrl4.co/zigbee-bp).
- Turn off the local electrical power by either switching off the circuit breaker or removing the fuse from the fuse box. To ensure the wires do not have power running to them, use an inductive voltage detector.
- Prepare each wire. Wire insulation should be stripped back ½" (12.7 mm) from the wire end. You can use the strip gauge on the back of the dimmer to check the proper length.

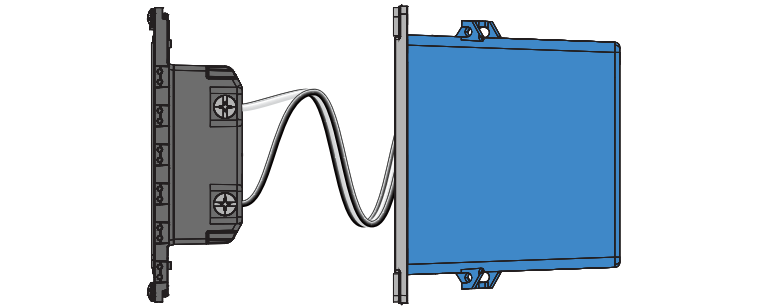


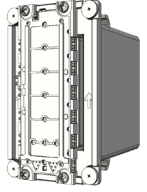
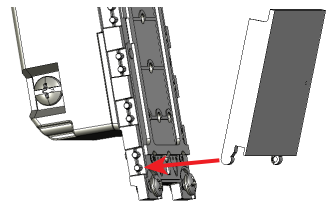
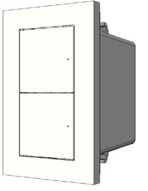
- Identify the wiring application and refer to the appropriate wiring diagram in the "Sample Wiring Configurations" section below.
  - IMPORTANT!** Grounding this device is required as described in the section "Warnings and Considerations". Do *not* rely solely upon the mounting plate's contact with a metal wall box for adequate grounding.

- Using a manual screwdriver, install the mounting plate to the wall box. Do not overtighten the screws. Pull the wires through the mounting plate.
- Connect the supplied ground wire lead to the ground wire in the wall box. Then, using the supplied hardware, fasten the ground wire lead to whichever side of the mounting plate that leaves the most space for the lighting device.
- Identify and connect the wires to the back of the dimmer. Insert the wire into the terminal and tighten the terminal screw to 15 in-lb (1.7 Nm) of torque.
  - NOTE:** You must use the same size and type of wire in each terminal for proper connection.

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- NOTE:** The faceplate and mounting plate package includes labels for international wiring standards. Make sure to label the wires to meet local electrical codes.
  - IMPORTANT!** The AUXILIARY connection is not used for a traditional traveler. It cannot directly power a lighting load. It must be used only to connect to a

- Control4 Auxiliary Keypad. See "Sample Wiring Configurations."
- TIP:** When installing this device in a multi-gang scenario, the Lux multi-gang faceplate kits come with jumpers to easily connect multiple devices (see diagram on next page).
- Fit the wires back into the wall box. Bend the wires in a zigzag pattern so that they easily fold into the wall box.



- CAUTION:** Install buttons after device is installed in the wall box. Pushing the device into the wall box with buttons installed may damage the device.
- Insert the device into the mounting plate and fasten it with screws. Overtightening can warp the device, causing mechanical malfunction and difficulty mounting the buttons and faceplate.
  - Install the temporary buttons. Start at the bottom and work your way up. Each button slot on the device has a pair of pegs on each side. Align the button's lower tabs to the device's lower pegs. Then, snap the button onto the device.
  - TIP:** This device ships with temporary buttons for basic operation until finished, engraved buttons can be ordered. Blank, unengraved buttons are also available.To remove the temporary buttons and install the engraved buttons, see the *Control4 Lux Button Installation Guide* ([ctrl4.co/lux-butn-ig](http://ctrl4.co/lux-butn-ig))
  - Install the Control4 Faceplate following the instructions in the *Control4 Lux Faceplate Installation Guide* ([ctrl4.co/lux-fp-ig](http://ctrl4.co/lux-fp-ig)).
  - Turn on power at the circuit breaker or replace the fuse from the fuse box.



Operation and configuration

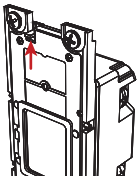
On initial power up, all status LEDs on the dimmer will illuminate green indicating that the device has power. To set up this dimmer for use with a Control4 system, refer to the *Composer Pro User Guide*.

To operate this dimmer as a stand-alone device (not programmed into a Control4 system) press any button to toggle the light on or off.

Use air gap switch when changing the bulb or fixture

With the dimmer turned off, some current still flows through the load. An Air Gap switch is located at the top of the dimmer and disconnects power to the load. Perform the following steps to change a bulb or fixture:

- 1 Turn off the load and remove the faceplate from the dimmer.
- 2 Slide the Air Gap switch upward to engage the air gap.
- 3 Change the bulb or service the fixture.
- 4 Slide the Air Gap switch downward and replace the faceplate.



Button tap sequences

The button tap sequences are defined in the table below. Button tap sequences that require a single button use the **top** button. For example, the factory reset sequence is **9 taps** on the **top**, then, **4** on the **bottom**, and then, **9** on the **top**.

Function	Button Sequence
Identify	4
Zigbee channel	7-4-7
Reboot	15
Factory reset	9-4-9
Leave mesh and reset	13-4-13

Troubleshooting

- If the 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 that the circuit breaker is not turned OFF or tripped.
  - Check for proper wiring (see “Sample Wiring Configurations”).

LED status information

—Flashing LED —Solid LED

Fault status

- ✖ 1 Mosfet fault
- ✖ 2 Short circuit fault
- ✖ 3 Over current fault
- ✖ 4 Line voltage fault
- ✖ 5 Zero cross fault
- ✖ 6 Temperature fault
- ✖ 8 Bootup power/wiring fault
- ✖ 1 Incorrect product fault
- ✖ 3 Self-test fault
- ✖ 1 Airgap actuated
- ✖ 2 Manufacturing ID fault

Zigbee status

- Not identified
- ✖ Identifying
- Found Zigbee mesh
- Did not find Zigbee mesh
- Joined Zigbee mesh

Care and cleaning

- Do NOT paint the dimmer or its faceplate.
- Do NOT use any chemical cleaners to clean the dimmer.
- Clean surface of the dimmer with a soft damp cloth as needed.

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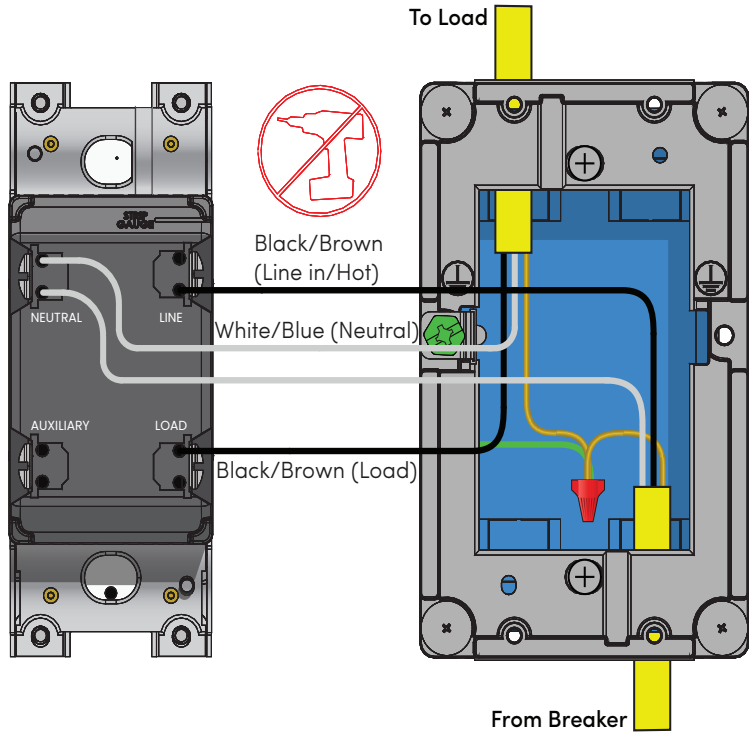
Warranty and legal information

Find details of the product’s Limited Warranty at [snapone.com/legal](https://snapone.com/legal) or request a paper copy from Customer Service at 866.424.4489.

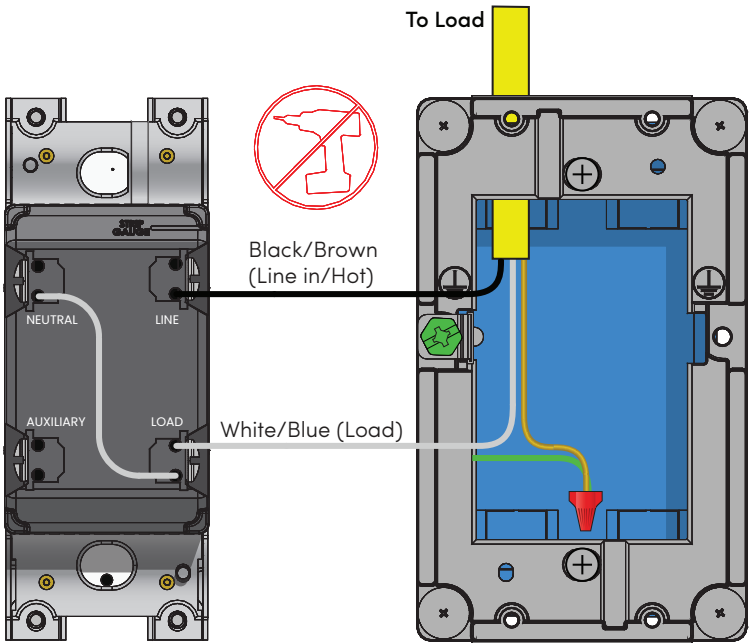
Find other legal resources, such as regulatory notices and patent information, at [snapone.com/legal](https://snapone.com/legal).

Sample wiring configurations

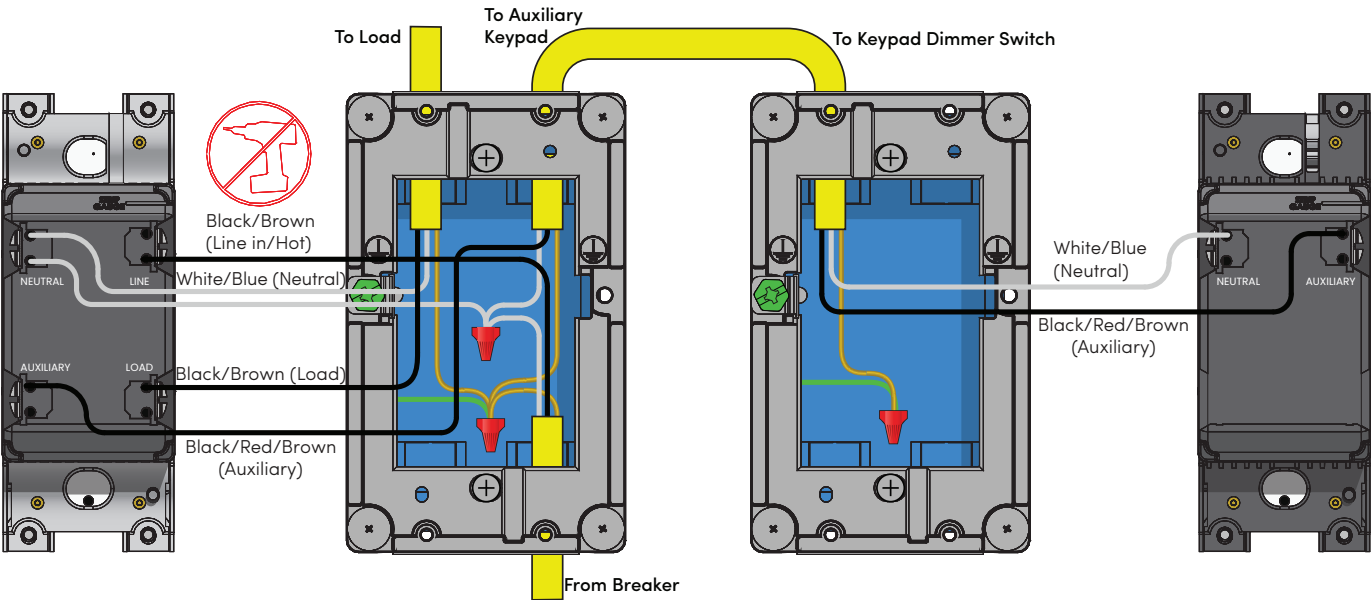
Single device location



Single device, no-neutral configuration

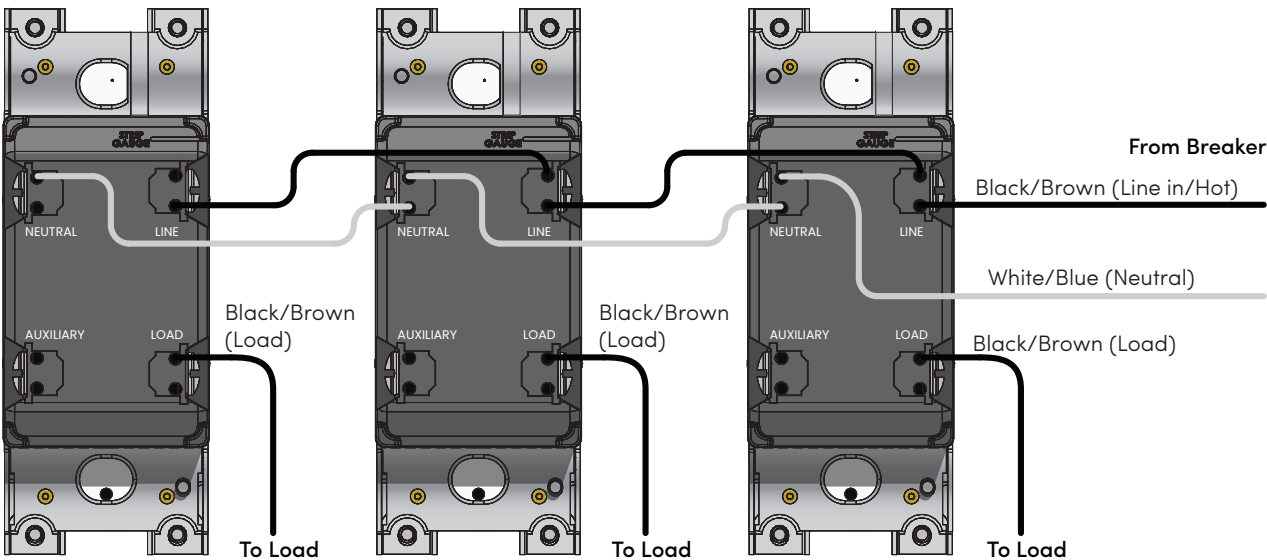


Multiple device location using Auxiliary Keypad



**IMPORTANT!** When used in conjunction with an Auxiliary Keypad (C4-L-KA), the wire connecting the Auxiliary Keypad to the dimmer must not exceed 45 m (150 ft.) at 120V AC, and 30 m (100 ft.) at 240V AC.

Multi-gang jumper connections



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