

# LED/Compact Fluorescent/Incandescent Slide Dimmer

Single Pole (One Location) or 3-Way (Two Location)  
 Cat. No. 6674-P – LED/CFL 150W, Incandescent 600W  
 120VAC, 60Hz

## INSTALLATION INSTRUCTIONS

### WARNINGS AND CAUTIONS:

- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER** at circuit breaker or fuse and test that power is off before wiring or servicing fixture!
- 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.
- To avoid overheating and possible damage to this device and other equipment, **DO NOT** install to control a receptacle, a motor- or a transformer-operated appliance, or any other lighting sources than those specified.
- Use this device with **copper or copper clad wire only**.

### WARNINGS AND CAUTIONS:

- Use only one (1) dimmer in a 3- or 4-way circuit. The switch(es) will turn the light on at the brightness level selected at the dimmer.
- Use with compatible **dimnable** LED, CFL bulbs, incandescent or 120V halogen fixtures only. For a complete list of compatible LED and CFL bulbs refer to [www.leviton.com](http://www.leviton.com).
- When multiple bulbs are used with one dimmer **DO NOT** mix bulb types. All bulbs shall be either LED; CFL or incandescent. Using the same make/model of each bulb will enhance dimmer performance.

### Tools needed to install your Dimmer

Slotted/Philips Screwdriver      Electrical Tape      Pliers  
 Pencil      Cutters      Ruler

### Installing Dimmer by itself or with other devices

If installing Dimmer in a single device application, proceed with the **INSTALLING YOUR DIMMER** section. If installing Dimmer in a multi-device application, proceed as follows:

### MULTI-DEVICE APPLICATION:

In incandescent multi-dimmer installations, the reduction of the dimmer's capacity is required. Refer to the chart for maximum load per dimmer. No derating is required for use in Dimmable CFL or dimmable LED multi-dimmer installations.

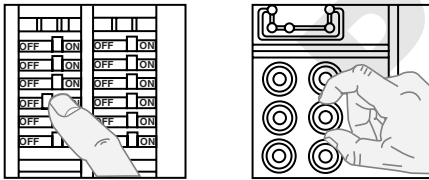
#### MAXIMUM LOAD PER DIMMER FOR MULTI-DEVICE (Incandescent)

Cat. No.	Single	Two Devices	More than 2 Devices
6674-P	600W	500W	400W

### INSTALLING YOUR DIMMER

**NOTE:** Use check boxes  when Steps are completed.

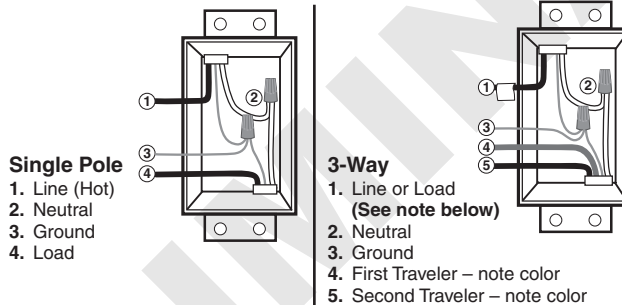
**Step 1** **WARNING:** To avoid fire, shock, or death; **TURN OFF POWER** at circuit breaker or fuse and test that power is off before wiring!



**Step 2** **Removing existing switch:** Remove existing wallplate and switch mounting screws. Carefully pull switch from wall box. **DO NOT** remove wires attached to the switch at this time.

### Step 3 Identifying your wiring application (most common):

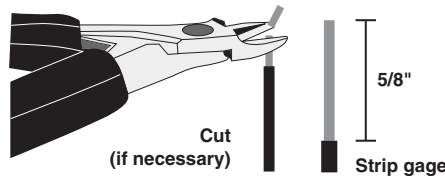
**NOTE:** If the wiring in the wall box does not resemble any of these configurations, consult an electrician.



**IMPORTANT:** For 3-Way applications, note that one of the screw terminals from the old switch being removed will usually be a different color (Black) or labeled Common. Tag that wire with electrical tape and identify as the common (Line or Load) in both the dimmer wall box and 3-way wall box.

### Step 4 Preparing and connecting wires:

- Make sure that the ends of the wires from the wall box are **straight (cut if necessary)**.
- Remove 5/8" (1.6 cm) of insulation from each wire in the wall box (shown).
- **For Single-Pole Application, go to Step 5a.**
- **For 3-Way Application, go to Step 5b.**



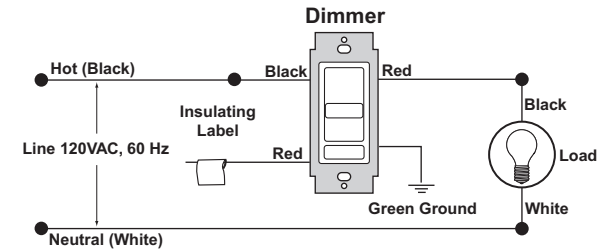
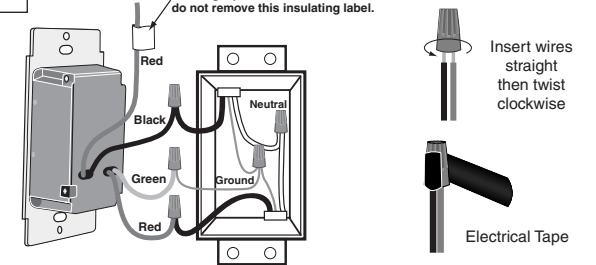
For non-standard wiring applications, refer to Wire Nut and Connector Size Chart

#### WIRE CONNECTOR / # OF COND. COMBINATION CHART

1- #12 w/ 1 to 3 #14, #16 or #18
2- #12 w/ 1 or 2 #16 or #18
1- #14 w/ 1 to 4 #16 or #18
2- #14 w/ 1 to 3 #16 or #18

### Step 5a Single-Pole Wiring Application:

This wire is used in 3-way installations only. For single pole installations, do not remove this insulating label.

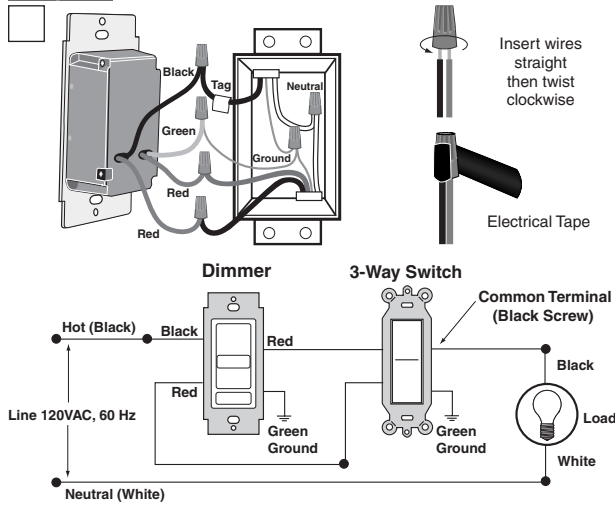


### Connect wires per WIRING DIAGRAM as follows:

- Screw wire nuts on clockwise making sure no bare conductors show below the wire connectors. Secure each connector with electrical tape.
- Green dimmer Ground lead to Green or bare copper wire in wall box.
  - Black dimmer lead to any wall box wire removed from old switch.
  - Red dimmer lead without insulating label to remaining wall box wire.
  - Remaining Red dimmer lead should have Red insulation label affixed.
- Proceed to Step 6.**

**NOTE:** If insulating label is not affixed to Red lead, use a small wire nut or electrical tape to cap off. **Proceed to Step 6.**

### Step 5b 3-Way Wiring Application:



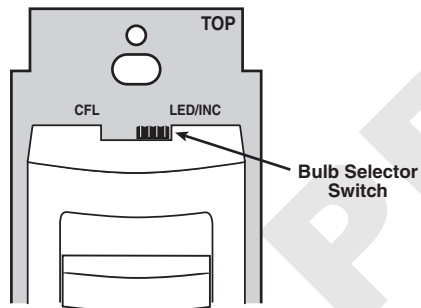
#### Connect wires per WIRING DIAGRAM as follows:

Screw wire nuts on clockwise making sure no bare conductors show below the wire connectors. Secure each connector with electrical tape.

- Green dimmer Ground lead to Green or bare copper wire in wall box.
- Black dimmer lead to tagged (common) wall box wire identified when removing old switch.
- Remove Red insulating label from Red lead.
- Any Red dimmer lead to any of the remaining wall box wires.
- Remaining Red dimmer lead to remaining wall box wire.

### Step 6 Dimmer Bulb Selector Switch:

Cat. No. 6674-P is pre-set at the factory with the bulb selector switch set to LED/Incandescent. For CFL bulb applications the switch should be moved to the position marked CFL. The lamp selector slide switch is also used to adjust the minimum light level when dimming. Information on this feature is found under **OPERATION**.

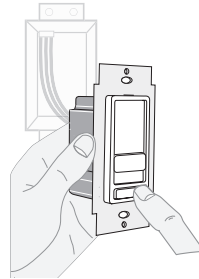


### Step 6 continued

**LED/Incandescent Mode:** The selector switch is pre-set at the factory to this mode. Use this mode for dimmable LED bulbs and incandescent/halogen bulbs. To avoid flickering at the low end of the dimming range you can pre-set the minimum light level. See **OPERATION** to manually program the minimum light level.

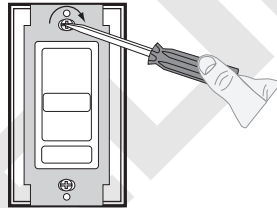
**CFL Mode:** To be used for dimmable CFL bulbs only. In this mode the dimmer provides a pre-set kick-start to aid the lamp in starting. To avoid flickering at the low end of the dimming range you can pre-set the minimum light level. See **OPERATION** to manually program the minimum light level.

### Step 7 Testing your Dimmer prior to mounting in wall box:



- Restore power at circuit breaker or fuse.
- Carefully holding Dimmer as shown proceed as follows:  
Slide control lever to highest position. If lights are not ON, press rocker. Lights should turn ON to brightest level.  
**If lights do not turn ON, refer to the TROUBLESHOOTING section.**

### Step 8 Dimmer Mounting: TURN OFF POWER AT CIRCUIT BREAKER OR FUSE.



Installation may now be completed by carefully positioning all wires to provide room in wall box for dimmer. Mount dimmer into box with mounting screws supplied. Attach Decora® wallplate.

### Step 9 Restore Power: Restore power at circuit breaker or fuse. Installation is complete.

## OPERATION

#### Setting Minimum Light Level (Programming mode)

1. Ensure the dimmer is set to the OFF position.
2. Set the bulb selector switch to the LED/Incandescent position.
3. Push rocker switch to ON position.
4. Set the bulb selector switch to the CFL position.
5. Raise or lower the slide control level to achieve the desired minimum light level.
6. Set the bulb selector switch back to LED/Incandescent position.
7. A momentary flash of the bulb will occur confirming the new setting.
8. Push rocker switch to the OFF position.
9. For dimmable CFL lamps you must return the bulb selector to the CFL position.

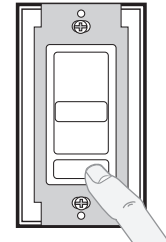
**NOTE:** If using the dimmer in a 3-way application, the lights will turn ON at brightness set on dimmer's slide control lever. The lighting level can be controlled from the dimmer location and can be switched ON/OFF from either the dimmer or switch location.

**ON:** Push rocker switch ON.

**OFF:** Push rocker switch OFF.

**BRIGHTEN:** Raise slider control lever to desired level of light.

**DIM:** Lower slider control lever.



## TROUBLESHOOTING

- **Lights Flickering**
  - Lamp has a bad connection.
  - Wires not secured firmly with wire connectors.
- **CFL and LED flickers at low end of dimming range**
  - Increase the low end of the dimming range.  
**Operation Section - setting minimum light level.**
- **CFL or LED bulb flickers throughout dimming range**
  - Please refer to recommended dimmable LED bulbs and CFL bulbs at [www.leviton.com](http://www.leviton.com).
- **Light does not turn ON**
  - Circuit breaker or fuse has tripped.
  - Lamp is burned out.
  - Lamp Neutral connection is not wired.

**NOTE:** If further information is needed in identifying the HOT wire in a 3-Way application, go to Leviton's website at [www.leviton.com](http://www.leviton.com).

#### 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, if within such five year period the product is returned prepaid, with proof of purchase date, and a description of the problem to Leviton. 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, is limited to five years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use 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.