

# Electronic Low-Voltage Slide Dimmer

## Single Pole (One location) or 3-Way (Multi-location)

Cat. No. 66EV

300W Electronic Low Voltage - 120V, 60Hz

### INSTALLATION INSTRUCTIONS

#### WARNINGS:

- **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.

#### CAUTIONS:

- To avoid overheating and possible damage to this device and other equipment, **DO NOT** install to control a receptacle, a motor or transformer-operated appliance, or any other lighting sources than those specified.
- Use this device with **copper or copper clad wire only**.

- Use with electronic low voltage transformers only. **DO NOT** use to control a magnetic low voltage transformer. Use a Leviton magnetic low-voltage dimmer to control magnetic low-voltage transformers.
- This dimmer provides protection from overheating. An excessive load applied to the dimmer will cause the dimmer to overheat. The excess load must be removed to resume proper operation.

#### NOTE:

- 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.
- 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

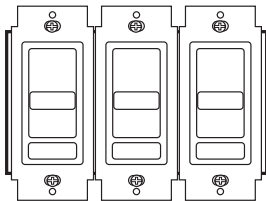
#### Installing dimmer by itself or with other devices:

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 multi-dimmer installations, the reduction of the dimmer's capacity is required. Refer to the chart for maximum load per dimmer.

MAXIMUM LOAD PER DIMMER FOR MULTI-DEVICE			
Cat. No.	Single	Two Devices	More than 2 Devices
66EV	300W	300W	250W



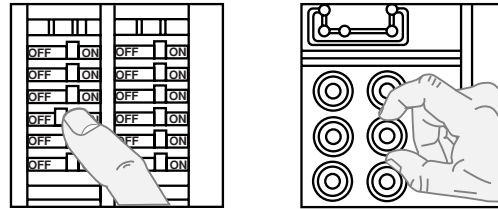
#### MAXIMUM BULB WATTAGE

The maximum bulb wattage is determined by the efficiency of the transformer in the low-voltage lighting system. Transformer efficiencies will vary from different manufacturers; consider 80% efficient as average. Use the chart to determine maximum bulb wattage for typical transformer efficiency ratings.

MAXIMUM BULB WATTAGE AT 80% EFFICIENCY			
Rating	Single	Two Gang	More than 2 Gang
300W	240W	240W	200W

#### INSTALLING YOUR DIMMER

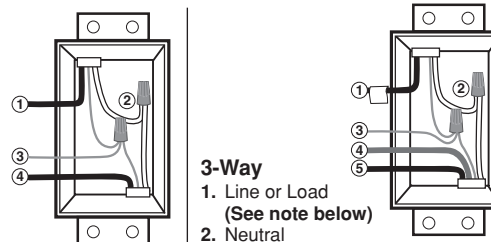
**Step 1 WARNING: TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER** at circuit breaker or fuse and test that power is off before wiring!



**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):**

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



#### Single Pole

1. Line (Hot)
2. Neutral
3. Ground
4. Load

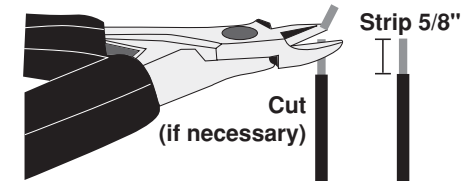
#### 3-Way

1. Line or Load (See note below)
2. Neutral
3. Ground
4. First Traveler – note color
5. Second Traveler – note color

**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.**

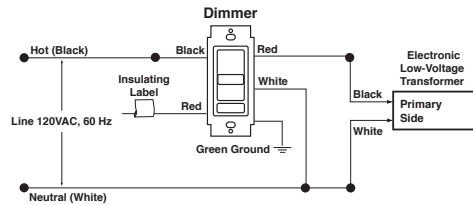
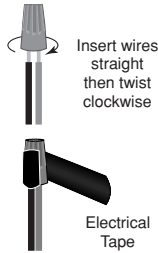
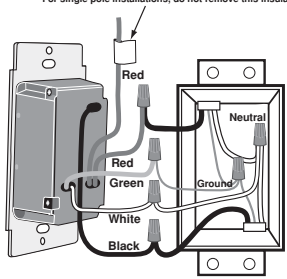


For non-standard wiring applications, refer to **Wire Connector and Conductor Size Chart**

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 using 3-Way Dimmer:

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:

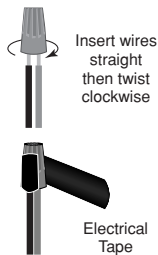
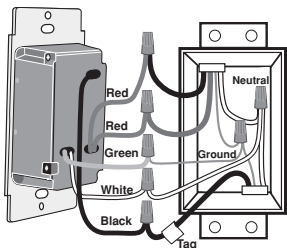
Screw wire connectors on clockwise making sure no bare conductors show below the wire connectors. Secure each connector with electrical tape.

**WARNING:** CONNECT AN ELECTRONIC LOW-VOLTAGE DIMMER ONLY TO THE PRIMARY (HIGH-VOLTAGE) SIDE OF A ELECTRONIC LOW-VOLTAGE TRANSFORMER.

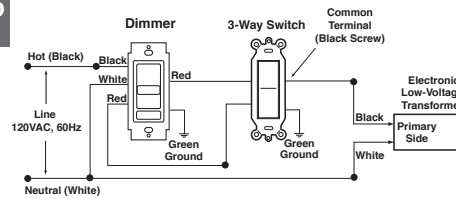
- GREEN dimmer GROUND lead to GREEN or bare copper wire in wall box.
- BLACK dimmer lead to any wall box wire removed from old switch.
- WHITE dimmer lead to WHITE Neutral wall box wire.
- RED dimmer lead without insulating label to remaining wall box wire.
- Remaining RED dimmer lead should have Red insulation label affixed. **Proceed to Step 6.**

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

## Step 5b 3-Way Wiring Application:



## Step 5b cont'd



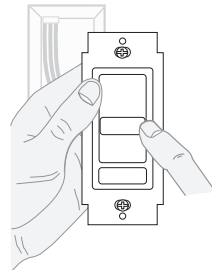
### Connect wires per WIRING DIAGRAM as follows:

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

**WARNING:** CONNECT AN ELECTRONIC LOW-VOLTAGE DIMMER ONLY TO THE PRIMARY (HIGH-VOLTAGE) SIDE OF A ELECTRONIC LOW-VOLTAGE TRANSFORMER.

- 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.
- WHITE dimmer lead to WHITE Neutral wall box wire.
- 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 Testing your dimmer prior to mounting in wall box:

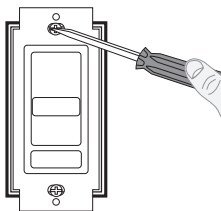


- Restore power at circuit breaker or fuse.
- Carefully holding dimmer as shown, slide control lever to highest position. If lights are not ON, press rocker. Lights should turn ON to brightest level.

**If lights do not turn ON, refer to the TROUBLESHOOTING section.**

## Step 7 Dimmer Mounting:

**TURN OFF POWER AT CIRCUIT BREAKER OR FUSE.**

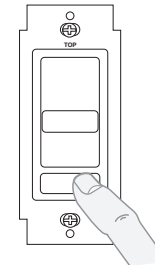


Installation may now be completed by carefully positioning all wires to provide room in wall box for dimmer. Mount dimmer into box with mounting screws supplied. Attach Decora® wallplate.

## Step 8 Restore Power: Restore power at circuit breaker or fuse. Installation is complete.

### Operation

**NOTE:** If using the dimmer in a 3-Way application, the lights will turn ON at the level the slider is set for both single pole and 3-Way applications. The lighting can be controlled from either the dimmer or the switch location.

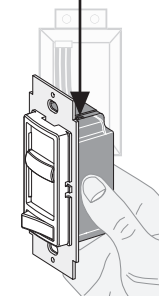


**ON:** Push rocker switch ON.  
**OFF:** Push rocker switch OFF.

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

**DIM:** Lower slider control lever to desired level of light.

### Trim Adjustment Dial



### Setting the Minimum Light Level

This dimmer features a Minimum Trim adjustment to adjust the minimum light level of the dimmer.

1. Locate the "Trim Adjustment" dial on the top of the dimmer.
2. Rotate the dial clockwise to reduce the minimum light level, or counter-clockwise to increase the minimum light level.

### Troubleshooting

- Lights Flickering
  - Lamp has a bad connection.
  - Wires not secured firmly with wire connectors.
- 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).*

### Product Information

- For technical assistance, contact us at **1-800-824-3005** (USA Only) or **1-800-405-5320** (Canada Only) [www.leviton.com](http://www.leviton.com)
- Visit our website at **[www.leviton.com](http://www.leviton.com)**

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