# LED / CFL / MAGNETIC LOW VOLTAGE / INCANDESCENT SLIDE DIMMER

Single Pole or 3-Way

Cat. No. DSM1Ø - LED/CFL 450W (3.75A), MLV 1000VA, Incandescent 1000W

120VAC, 60Hz

## **INSTALLATION INSTRUCTIONS**

## WARNINGS AND CAUTIONS:

decora®

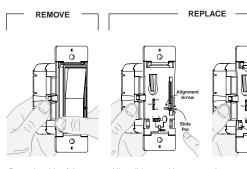
- TO AVOID FIRE, SHOCK, OR DEATH: TURN OFF POWER at circuit breaker or fuse and test that power is off before wiring or servicing fixture!
- TO AVOID FIRE, SHOCK, OR DEATH: use with compatible dimmable LED and CFL bulbs, incandescent or 120V halogen fixtures only. For a complete list of compatible LED and CFL bulbs refer to www.leviton.com/universal.
- 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.

## Tools needed to install your Dimmer

Slotted/Philips Screwdriver Ruler Electrical Tape Pliers Pencil Cutters

## Changing the color of your Dimmer

If a color change kit is provided with your device, proceed with the following step if you need to change the color. Otherwise, proceed with the "Installing Dimmer by itself or with other devices" section.





Align slide pot with alignment arrow as shown. Move the slide bar of the color kit to the bottom

Insert top tabs of the color kit into the slots on the top of the dimmer. Then press the bottom of the color kit in until it snaps into place.

## Installing Dimmer by itself or with other devices

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					
Cat. No.	Load	Single	Two Devices	More than 2 Devices	
DSM1Ø	INC	1000W	800W	700W	
DSM10	MLV	1000VA	800VA	700VA	
DSM1Ø	LED/CFL	450W (3.75A)	450W (3.75A)	450W (3.75A)	

## MAXIMUM BULB WATTAGE

Low-voltage dimmers are rated in Volt-Amps (VA). 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			
1000VA	800W	640W	560W			

## Installing your Dimmer

**NOTE:** Use check boxes  $\sqrt{}$  when Steps are completed.





Identifying your wiring application Step 2 (most common):





## Single Pole

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



3-Wav

2. Neutral

3. Ground

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NOTE: If the wiring in the wall box does not resemble any of these

- 4. First Traveler note color 5. Second Traveler - note color

1. Line or Load (See note below)

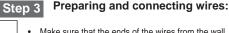
NOTE: For 3-Way applications, note that one of the screw terminals from the old switch being removed will usually be a different color (Black) or labeled Common. Tag that wire with electrical tape and identify as the common (Line or Load) in both the dimmer wall box and 3-way wall box.



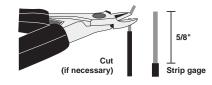


### WARNINGS AND CAUTIONS: · Use this device with copper or copper clad wire only.

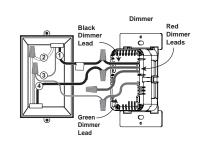
- Use only one (1) dimmer in a 3 or 4-way circuit. The switch(es) will turn the light on at the brightness level selected at the dimmer.
- When multiple bulbs are used with one dimmer **DO NOT** mix bulb types. All bulbs shall be either LED: CFL or incandescent. Using the same make/model of each bulb will enhance performance.

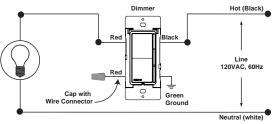


- Make sure that the ends of the wires from the wall box are straight (cut if necessary).
- Remove 5/8" (1.6 cm) of insulation from each wire in the wall box (shown).
- · For Single-Pole Application, go to Step 4a.
- For 3-Way Application, go to Step 4b.



#### **Single-Pole Wiring Application:** Step 4a



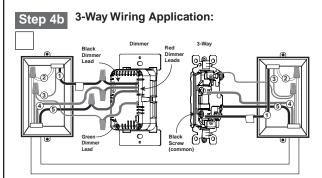


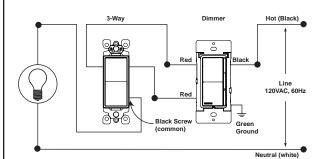
## Step 4a cont'd

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

- · Green or bare copper wall box wire to GREEN dimmer lead.
- · Line Hot wall box wire to BLACK dimmer lead.
- · Load wall box wire to RED dimmer lead.
- Remaining RED Dimmer lead should have a label affixed. DO NOT REMOVE this label in a single pole application. NOTE: If the insulating label is not affixed to the second RED lead use electrical tape or a wire connector to cover.

Proceed to Step 5.





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

- · Green or bare copper wall box wire to GREEN dimmer lead.
- Common (Line hot or Load) wire to BLACK dimmer lead.
- Remove insulating label and connect the first traveler wire to the RED dimmer lead
- · Connect the second traveler wire to the remaining RED dimmer lead.

#### Proceed to Step 5.

#### **Dimmer Bulb Selector Switch:** Step 5

Cat. No. DSM1Ø is pre-set at the factory with the bulb selector switch set to Mode A (LED/MLV/Incandescent). For CFL bulb applications the switch should be moved to Mode B (CFL). The lamp selector slide switch also allows the user to adjust the minimum light level when dimming. Information on this feature is found under PROGRAMMING.

NOTE: See illustration for location of bulb selector switch.

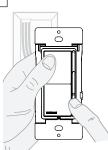
Locator Light Switch Bulb Selecto Switch

LED/Incandescent (Mode A): 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 **PROGRAMMING** to manually program the minimum light level.

CFL (Mode B): 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 PROGRAMMING to manually program the minimum light level.

Locator Light Switch (LOC): The LED Locator Light will illuminate when the load is OFF. To disable the Locator Light move the Locator Light Switch to the OFF position.

Testing your Dimmer prior to mounting in the Step 6 wall box:

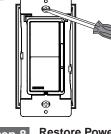


- Restore power at circuit breaker or fuse.
- Carefully holding dimmer, move slider control lever to highest position and press the top of the Decora rocker. Lights should turn ON to brightest level.

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

#### **Dimmer Mounting:** Step 7

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 wallplate.

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

## Programming

### Setting Minimum Light Level

- 1. Press bottom of Rocker to turn the dimmer OFF and move the slide bar to the bottom.
- 2. Remove color kit (see Changing the color of your Dimmer section on page 1).
- 3. Set the bulb selector switch to the LED/ Incandescent position (Mode A).
- 4. Press on/off actuator to turn load ON.
- 5. Set the bulb selector switch to the CFL
- position (Mode B). 6. Raise or lower the slide control level to
- achieve the desired minimum light level. 7. Set the bulb selector switch back to LED/
- Incandescent position (Mode A). 8. A momentary flash of the bulb will occur
- confirming the new setting.
- 9. Press on/off actuator to turn load OFF. 10.Replace color kit (see Changing the color of
- your Dimmer section on page 1).

NOTE: For dimmable CFL lamps you must return the bulb selector to the CFL position (Mode B).

Push

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Move Slide bar to Brighter

& Dim

LED Locato

Liaht

## OPERATION

## ON/OFF:

Press top of Decora Rocker - Lights will turn ON. Press bottom of Decora Rocker - Lights will turn OFF.

### **BRIGHTEN & DIM:**

Move slide bar - Lights will BRIGHTEN or DIM.

## Troubleshooting

#### Lights flickering

- Lamp has 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.
- PROGRAMMING Section setting minimum light level CFL or LED bulb flickers throughout dimming range
  - Ensure the bulbs are marked dimmable.
  - Please refer to recommended dimmable LED and CFL bulbs at www.leviton.com/universal.

#### 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.

> For Technical Assistance Call: 1-800-824-3005 (U.S.A. Only) www.leviton.com

#### FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at Leviton Manufacturing of Canada Ltd to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1 800 405-5320.

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