

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

# Magnetic Low-Voltage Dimmer 120VAC, 60Hz

Cat. No. TTM10-1, 1000VA

For use w/ Cat. No. TTØØR-1 True Touch™ Remote

# INSTALLATION INSTRUCTIONS



# **WARNINGS AND CAUTIONS:**

- 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 a qualified electrician.
- To avoid overheating and possible damage to this device and other equipment, do not install to control a receptacle, fluorescent lighting, a motor- or a transformer-operated appliance.
- Use with magnetic low-voltage transformers, incandescent, or 120V halogen fixtures only. Use a Leviton electronic low-voltage dimmer to control electronic (solid state) low-voltage transformers.
- Total minimum wattage must exceed 40VA.

### **WARNINGS AND CAUTIONS:**

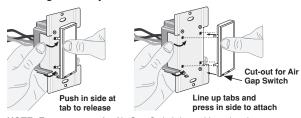
- When a magnetic low-voltage circuit is operated at a dim level, with all lamps inoperative, excess current may flow through the transformer. To avoid possible transformer failure due to overcurrent, use a transformer that incorporates thermal protection or a fuse at the primary windings.
- Use only one (1) dimmer per load. For remote operation, use Leviton Remote, Cat. No. TTØØR-1. Do not use a 3-way switch.
- Disconnect power at circuit breaker or fuse when servicing fixture.
- Use this device only with copper or copper clad wire. With aluminum wire use only devices marked CO/ALR or CU/AL.

# **Tools needed to install your Dimmer**

Slotted/Phillips Screwdriver **Electrical Tape** Pliers Pencil Cutters Ruler

# Changing the color of your Dimmer

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



NOTE: Ensure cut-out for Air-Gap Switch is positioned on bottom.

# Installing Dimmer by itself or with other devices

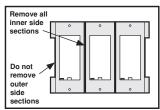
If installing Dimmer in a single device application, proceed with the INSTALLING YOUR DIMMER section. If installing Dimmer in a multidevice application, proceed as follows:

# **MULTI-DEVICE APPLICATION:**

NOTE: You only need to remove side sections if installing with other dimmers or if it does not fit in wall box - not when installing with mechanical switches.

When installing more than one dimmer in the same location, the side sections of the mounting strap must be removed. Use pliers to carefully bend side sections back and forth until they break off. The side sections dissipate heat, so removing them requires a derating of the dimmer's capacity (refer to chart).





MAXIMUM LOAD PER DIMMER FOR MULTI-DEVICE				
Cat. No.	Single	Two Devices	More than 2 Devices	
TTM1Ø-1	1000VA	800VA	700VA	

### **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 lowvoltage lighting system. Transformer efficiencies will vary from different manufacturers; consider 75% efficient as average. Use the chart to determine maximum bulb wattage for typical transformer efficiency ratings.

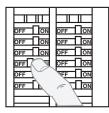
MAXIMUM BULB WATTAGE AT 75% EFFICIENCY				
Rating	Single	Two Devices	More than 2 Devices	
1000VA	750VA	600VA	525VA	

### **INSTALLING YOUR DIMMER**

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



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





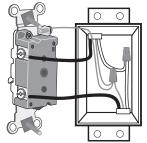


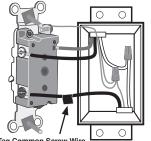
Removing existing switch: Remove existing wallplate and switch mounting screws. Carefully pull switch from wall box. DO NOT remove wires attached to the switch at this time.



Identifying your wiring application (most common): NOTE: If the wiring in the wall box does not resemble any of these configurations, consult a qualified electrician.

# Step 3 cont'd





Tag Common Screw Wire (screw is usually black and/or marked "common")

## Single-Pole:

Look at the back of your switch. If there are 2 wires connected to two screw terminals (not including a green or bare copper wire used for grounding), you have a Single-Pole switch.

## 3-Way:

Look at the back of your switch. If there are 3 wires connected to three screw terminals (not including a green or bare copper wire used for grounding), you have a 3-Way switch. DO NOT add a single-pole switch in this location.

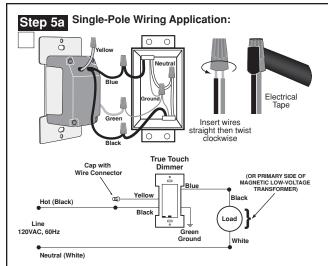
#### Disconnecting switch wires and preparing wires: Step 4

- · Disconnect wires from screw terminals or Quickwire™ slots (shown).
- · Pull off pre-cut insulation from Dimmer leads. · 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.





Press in slot and pull out wire

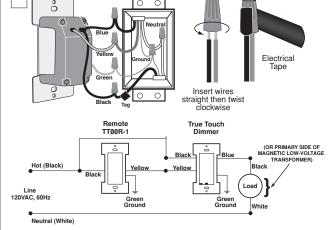


### Connect wires per WIRING DIAGRAM as follows:

WARNING: Connect a magnetic low-voltage dimmer only to the primary (high-voltage) side of a magnetic low-voltage transformer. 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 Line (Hot) wall box wire removed from old switch.
- Blue dimmer lead to remaining wall box wire (Load).
- Cap Yellow dimmer lead with appropriate size wire nut.
- · Proceed to Step 6.

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



# Step 5b cont'd

Connect wires per WIRING DIAGRAM as follows: WARNING: Connect a magnetic low-voltage dimmer only to the primary (high-voltage) side of a magnetic lowvoltage transformer. Screw wire nuts on clockwise making sure no bare conductors show below the wire connectors.

- Green dimmer Ground lead to Green or bare copper wire in
- Black dimmer lead to tagged Line (Hot) wall box wire identified when removing old switch.
- Blue dimmer lead to Load wall box wire.

Secure each connector with electrical tape.

· Yellow 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.
- Ensure that the Air Gap Switch is pushed in fully.
- Carefully holding Dimmer as shown, turn Dimmer ON by pressing touch plate. Lights should turn ON.

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

Air Gap Switch

# 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 wallplate.



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



NOTE: Ensure that the Air Gap Switch is pushed in fully.

# OPERATION

NOTE: The Green indicator light will illuminate when the Load is OFF to facilitate access in the dark.

**NOTE:** If using the dimmer in a 3-way application, the lights will turn ON at brightness set on dimmer's touch plate. The lighting can be controlled from either the dimmer or the remote location.



Air Gap Indicator Switch Light

**ON:** Tap the touch plate of the dimmer. The lights will fade ON at the brightness level last used (LED OFF)

**OFF:** Tap the touch plate of the dimmer. The lights will fade OFF (LED ON).

BRIGHTEN & DIM: Press and hold the touch plate of the dimmer to the desired light level. Each time the touch plate is touched, the state of the dimmer toggles between BRIGHT and DIM. AIR GAP SWITCH: On the lower left corner of the switch plate, there is an Air Gap Switch. When servicing light fixture, pull lever out (OFF position). This will cut the power to the fixture.

way in (ON position) to restore power. **CLEANING:** To clean touch plate, wipe it with a clean damp cloth using clean water only, dry thoroughly.

After servicing is complete, push the lever all the

# TROUBLESHOOTING

- · Lights Flickering
  - Lamp has a bad connection.
  - Wires not secured firmly with wire connectors.
- Lamp power is less than the 40VA.
- Light does not turn ON and ON/OFF LED does not turn ON
- Circuit breaker or fuse has tripped.
- Lamp is burned out.
- Lamp Neutral connection is not wired.
- Air gap switch is open.
- · Dimmer does not operate
  - Dimmer BLACK wire miswired to lamp and Dimmer BLUE wire miswired to LINE Hot. Reverse BLACK and BLUE wires.

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

# WIRE NUT / # 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

# **Product Information**

- For technical assistance contact us at 1-800-824-3005.
- Visit our website at 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 Manufacturing Co., Inc., Att: Quality Assurance Department, 59-25 Little Neck Parkway, Little Neck, New York 11362-2591. 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. DI-000-TTM10-02A