

**For Halogen / Incandescent Lighting use a Halogen / Incandescent Dimmer.**

MA-600, MA-600G, MA-600I, MSC-600, MSC-600M, MSC-600MG  
120 V~ 60 Hz 600 W

MA-1000, MSC-1000, MSC-1000M  
120 V~ 60 Hz 1000 W

**For Magnetic Low-Voltage Lighting use a Magnetic Low-Voltage Dimmer ONLY.**

MALV-600, MSCLV-600, MSCLV-600M 120 V~ 60 Hz 600 VA / 450 W  
MALV-1000, MSCLV-1000, MSCLV-1000M 120 V~ 60 Hz 1000 VA / 800 W

**Companion Dimmer**

MA-R, MSC-AD 120 V~ 60 Hz 8.3 A

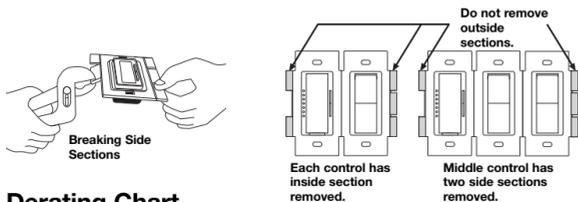
**Important Notes**

Please read before installing.

- CAUTION!** When installing Halogen/Incandescent Dimmers—To reduce the risk of overheating and possible damage to other equipment, **DO NOT** use to control receptacles, motor-operated appliances, fluorescent lighting fixtures, low-voltage fixtures, compact fluorescent (Energy Saver) lamps, or transformer-supplied appliances.
- CAUTION!** When installing Halogen/Incandescent/Magnetic Low-voltage Dimmers To reduce the risk of overheating and possible damage to other equipment, **DO NOT** use to control receptacles, motor-operated appliances, fluorescent lighting fixtures, compact fluorescent (Energy Saver) lamps, or electronic low-voltage fixtures.
- CAUTION!** Operating a dimmed magnetic low-voltage circuit with all lamps inoperative or removed may result in current flow in excess of normal levels. To avoid possible transformer overheating or failure, Lutron® strongly recommends the following:
  - Do not operate without operative lamps in place.
  - Replace burned out lamps as soon as possible.
  - To prevent premature failure due to overcurrent, use transformers with thermal protection or fused primary transformer windings.
- Install in accordance with all national and local electrical codes.
- DO NOT** use Maestro® dimmers for compact fluorescent (Energy Saver) lamps.
- When no "grounding means" exist within the wallbox then the NEC® 2008, Article 404.9 allows a dimmer without a grounding connection to be installed as a replacement, as long as a plastic, noncombustible wallplate is used. For this type of installation, cap or remove the green ground wire on the dimmer and use an appropriate wallplate such as Claro® or Satin Colors® series wallplates by Lutron.
- Do not paint Dimmers or Maestro Companion Dimmers (MA-R, MSC-AD).
- Maestro Dimmers are not compatible with standard 3-way/4-way switches, for use only with Maestro Companion Dimmers (MA-R, MSC-AD).
- Maestro Companion Dimmers (MA-R, MSC-AD) can not be used individually and must be used in conjunction with a Maestro Dimmer in a 3-way/4-way application.
- In any 3-way/4-way circuit use only one Dimmer with up to 9 Maestro Companion Dimmers (MA-R, MSC-AD).
- Do not use where total lamp wattage is less than 40 W /VA or greater than wattage indicated on unit label.
- Operate between 32 °F (0 °C) and 104 °F (40 °C).
- Maestro Dimmers may feel warm to the touch during normal operation.
- Recommended wallbox depth is 2.5 in (64 mm) minimum.
- Maximum wire length between the Dimmer and the last Maestro Companion Dimmer (MA-R, MSC-AD) is 250 feet (76 m).
- Clean dimmers with a *soft damp cloth only*. Do not use any chemical cleaners.
- DO NOT** use Incandescent/Halogen or Electronic Low-Voltage dimmers for Magnetic Low-Voltage lighting.
- The eco-minder™ Maestro Dimmer lets you know when you are saving 15% or more energy as compared to a switch. As you dim your lights, the eco-minder LED moves from red to green, indicating the 15% energy savings. The more you dim - the further down the green LED moves - the more energy you are saving.

**Multigang Installations**

When installing more than one control in the same wallbox, it may be necessary to remove all inner side sections prior to wiring (see below). Using pliers, bend side sections up and down until they break off. Repeat for each side section to be removed. Removal of Dimmer side sections reduces maximum load capacity. Refer to chart below for maximum Dimmer capacity.



**Derating Chart**

Dimmer Rating	Maximum Load		
	No Sides Removed	1 Side Removed	2 Sides Removed
Incandescent/Halogen 600 W 1000 W	600 W 1000 W	500 W 800 W	400 W 650 W
Magnetic Low-Voltage 600 VA / 450 W* 1000 VA / 800 W*	600 VA / 450 W* 1000 VA / 800 W*	500 VA / 400 W* 800 VA / 650 W*	400 VA / 300 W* 650 VA / 500 W*

\* The maximum lamp wattage is determined by the efficiency of the transformer, with 70%–85% as typical. For actual transformer efficiency, contact either the fixture or transformer manufacturer. The total VA rating of the transformer(s) shall not exceed the VA rating of the dimmer.

**Technical Assistance**

If you have questions concerning the installation or operation of this product, call the Lutron Technical Support Center. Please provide exact model number when calling.

U.S.A. and Canada (24 hrs/7days)  
1.800.523.9466

Fax +1.610.282.6311

Mexico  
+1.888.235.2910

http://www.lutron.com

Other countries 8am – 8pm ET  
+1.610.282.3800

**Limited Warranty**

(Valid only in U.S.A., Canada, Puerto Rico, and the Caribbean.)

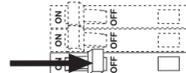
Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within one year after purchase. For warranty service, return unit to place of purchase or mail to Lutron at 7200 Suter Rd., Coopersburg, PA 18036-1299, postage pre-paid.  
THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES, AND THE IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED TO ONE YEAR FROM PURCHASE. THIS WARRANTY DOES NOT COVER THE COST OF INSTALLATION, REMOVAL OR REINSTALLATION, OR DAMAGE RESULTING FROM MISUSE, ABUSE, OR DAMAGE FROM IMPROPER WIRING OR INSTALLATION. THIS WARRANTY DOES NOT COVER INCIDENTAL OR CONSEQUENTIAL DAMAGES. LUTRON'S LIABILITY ON ANY CLAIM FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, SALE, INSTALLATION, DELIVERY, OR USE OF THE UNIT SHALL NEVER EXCEED THE PURCHASE PRICE OF THE UNIT.  
This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitation on how long an implied warranty may last, so the above limitations may not apply to you.  
This product is covered under one or more of the following U.S. patents: 5,248,919; 5,399,940; 5,637,930; 5,798,581; 6,169,377; 7,190,125; 7,365,282; 7,546,473 and corresponding foreign patents. U.S. and foreign patents pending. Lutron, Claro, Satin Colors, and Maestro are registered trademarks and FASS and eco-minder are trademarks of Lutron Electronics Co., Inc. NEC is a registered trademark of National Fire Protection Association, Quincy, Massachusetts.  
© 2009 Lutron Electronics Co., Inc.

Lutron Electronics Co., Inc.  
7200 Suter Road  
Coopersburg, PA 18036-1299, U.S.A.  
Made and printed in the U.S.A. 6/09 P/N 030-1073 Rev. B

**Installation**

**1 Turning OFF power.**

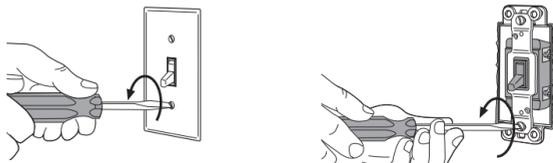
- Turn power OFF at circuit breaker (or remove fuse).



**WARNING** Shock Hazard. May result in serious injury or death. Turn off power at circuit breaker before installing the unit.

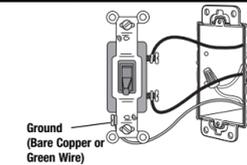
**2 Removing wallplates and switches.**

- Remove the wallplate and switch mounting screws.
- Carefully remove switch from wall (do not remove wires).



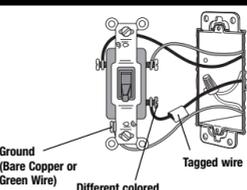
**3 Identifying the circuit type.**

**3a - Single-Location control**



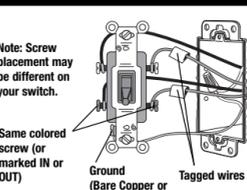
**One switch controlling a light fixture.**  
This switch will be a single-pole. The switch will have insulated wires connected to two screws of the same color plus a green ground screw.

**3b - Two-Location control**



**Two switches controlling a light fixture.**  
Both switches will be 3-way. Each switch will have insulated wires connected to three screws plus a green ground screw. One of these wires is connected to a screw of a different color (not green) or labeled COMMON. TAG this wire on both switches to identify when wiring.

**3c - Three-Location control**



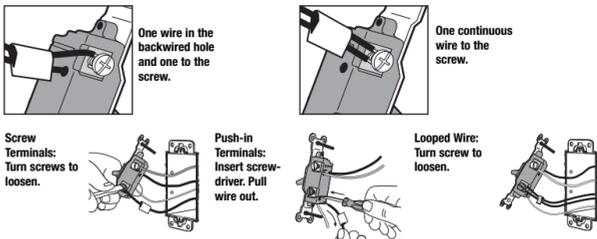
**Note:** Screw placement may be different on your switch.

Same colored screw (or marked IN or OUT)  
Ground (Bare Copper or Green Wire)  
Tagged wires

**Three switches controlling a light fixture.**  
Two switches will be 3-way and one will be a 4-way. TAG the two 3-way switches as in the Two-Location diagram above. The 4-way switch will have insulated wires connected to four screws plus a green ground screw. TAG the two same color insulated wires which are connected to opposite colored screws.

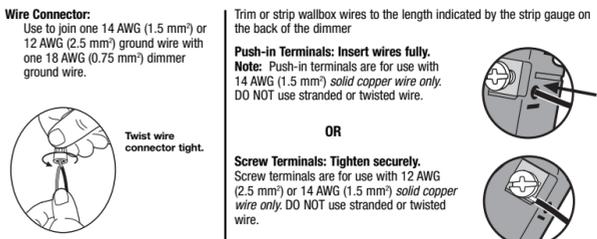
**4 Disconnecting switch wires.**

**Important Note:** Your wall switch may have two wires attached to the same screw (see illustrations below for examples). Tape these two wires together before disconnecting. When wiring, connect wires to the Dimmer the same way they were connected to the switch.



**Important Wiring Information**

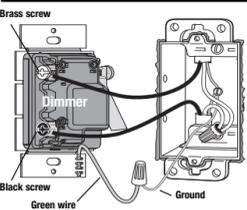
When making wire connections, follow the recommended strip lengths and combinations for the supplied wire connector. **Note:** All wire connectors provided are suitable for *copper wire only*. For aluminum wire, consult an electrician.



**5 Wiring.**

- For installations involving more than one control in a wallbox, refer to Multigang Installations before beginning.
- Use the screw or push-in terminals when making connections on the Dimmer or Companion Dimmer.
- Wire all controls before mounting.

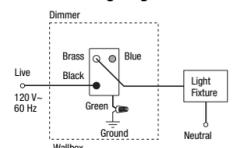
**5a - Single-Location control**



**Wiring the Dimmer:**

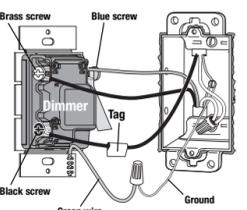
- Connect the **green** ground wire on the Dimmer to the **bare copper** or **green** ground wire in the wallbox.
- Connect either of the wires removed from the switch to the **black** screw terminal on the Dimmer.
- Connect the remaining wire removed from the switch to the **brass** screw terminal on the Dimmer.
- Tighten the **blue** screw terminal on the Dimmer. It is not used in a single-pole circuit.

**Reference Wiring Diagram**



**5b - Two-Location control**

One location will be replaced with a Dimmer and the other with a Companion Dimmer.



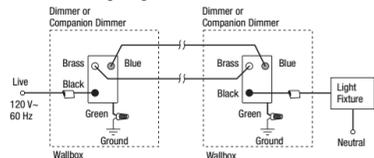
**Wiring the Dimmer:**

- Connect the **green** ground wire on the Dimmer to the **bare copper** or **green** ground wire in the wallbox.
- Connect the tagged wire removed from the switch to the **black** screw terminal on the Dimmer.
- Connect one of the remaining wires removed from the switch to the **brass** screw terminal on the Dimmer.
- Connect the remaining wire removed from the switch (note wire color) to the **blue** screw terminal on the Dimmer.

**Wiring the Companion Dimmer (MA-R, MSC-AD):**

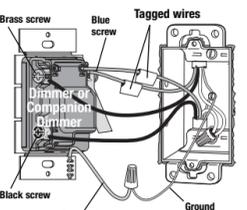
- Connect the **green** ground wire on the Companion Dimmer to the **bare copper** or **green** ground wire in the wallbox.
- Connect the tagged wire removed from the switch to the **black** screw terminal on the Companion Dimmer.
- Connect the same color wire connected to the **blue** screw terminal on the Dimmer (wire color noted above) to the **blue** screw terminal on the Companion Dimmer.
- Connect the remaining wire removed from the switch to the **brass** screw terminal on the Companion Dimmer.

**Reference Wiring Diagram**



**5c - Three-Location control or more**

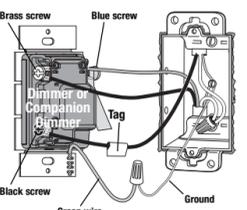
One location will be replaced with a Dimmer and the others with Companion Dimmers. **Only one Dimmer** can be used with up to 9 Companion Dimmers.



**Replace the 4-way switch(es)**

**Note:** 4-way switches may be replaced with either a Dimmer or an Companion Dimmers

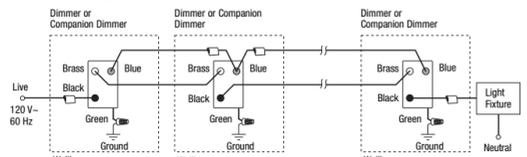
- Connect the **green** ground wire on the Dimmer or Companion Dimmer to the **bare copper** or **green** ground wire in the wallbox.
- Connect both of the tagged wires (noting their color) removed from the 4-way switch to the **blue** screw terminal on the Dimmer or Companion Dimmer (one wire to the screw and the other to the push-in terminal).
- Connect one of the remaining wires removed from the switch to the **black** screw terminal on the Dimmer or Companion Dimmer.
- Connect the remaining wire removed from the switch to the **brass** screw terminal on the Dimmer or Companion Dimmer.



**Replace the 3-way switches**

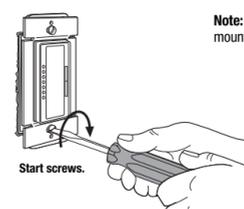
- Connect the **green** ground wire on the Dimmer or Companion Dimmer to the **bare copper** or **green** ground wire in the wallbox.
- Connect the tagged wire removed from the switch to the **black** screw terminal on the Dimmer or Companion Dimmer.
- Connect the same color wire connected to the **blue** screw terminal on the Dimmer or Companion Dimmer that replaced a 4-way switch (wire color noted above) to the **blue** screw terminal on the Dimmer or Companion Dimmer.
- Connect the remaining wire removed from the switch to the **brass** screw terminal on the Dimmer or Companion Dimmer.

**Reference Wiring Diagram**

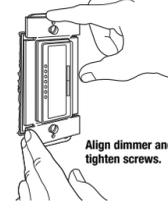


**6 Mounting dimmer and companion Dimmer(s) to wallbox.**

- Form wires carefully into the wallbox, mount and align Dimmer (and Companion Dimmers).
- Install wallplate(s).

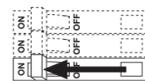


**Note:** Do not overtighten mounting screws.



**7 Turning ON power.**

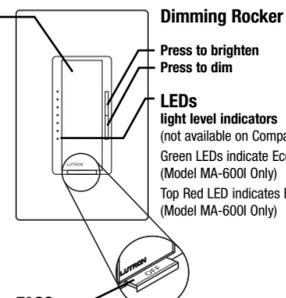
- Turn power ON at circuit breaker (or replace fuse).



**Operation**

**Tap Button Options**

- Tap once when unit is off** - Lights brighten smoothly to preset intensity.
- Tap once when unit is on** - Lights dim smoothly to off.
- Tap twice quickly** - Lights brighten rapidly to full intensity.
- Press and hold when unit is on** - Each time dimmer is turned off delayed fade to OFF can be activated. As the tap button is held, the LEDs will begin to flash. The first flashing LED represents a 10 second fade to OFF. Each additional flashing LED represents an additional 10 seconds of delay before lights fade to OFF (up to 60 seconds of delay).



**FASS™ - Front Accessible Service Switch**

**IMPORTANT NOTICE:** To replace bulb, power may be conveniently removed by pulling the FASS switch out on both the Dimmer and any Companion Dimmers. For any procedure other than routine bulb replacement, power must be disconnected at the main electrical panel.

To learn about the **Advanced Features** of Maestro Dimmers including locked preset and adjustable fade times, please visit: <http://www.lutron.com/maestro/advfeatures> or call the **Lutron Technical Support Center**.

- Easy-to-follow Instructions**
- Instrucciones Fáciles de Seguir**



030-1073

**Troubleshooting**

Symptom	Possible Cause
Light does not turn On or no LEDs turn On.	<ul style="list-style-type: none"> <li>Front Accessible Service Switch (FASS) on Dimmer or Companion Dimmer is pulled out to the OFF position.</li> <li>Light bulb(s) burned out.</li> <li>Breaker is OFF or tripped.</li> <li>Wiring error. Call <b>Lutron Technical Support Center</b>.</li> </ul>
Light turns On and Dimmer works, but Companion Dimmer does not work.	<ul style="list-style-type: none"> <li>Wire connected to the blue screw terminal on Dimmer is not the same wire connected to the blue screw terminal on Companion Dimmer.</li> </ul>
Light does not remain On, LEDs glow dimly or blink.	<ul style="list-style-type: none"> <li>Blue screw terminal is miswired to neutral wire or touching ground.</li> </ul>
Tap switch on Companion Dimmer does not work at brightest level.	<ul style="list-style-type: none"> <li>Load is less than 40 W.</li> </ul>

