

## Load Types

Incandescent / Halogen, or lighting supplied by Electronic Low-Voltage Transformer (such as incandescent, halogen, or LED)

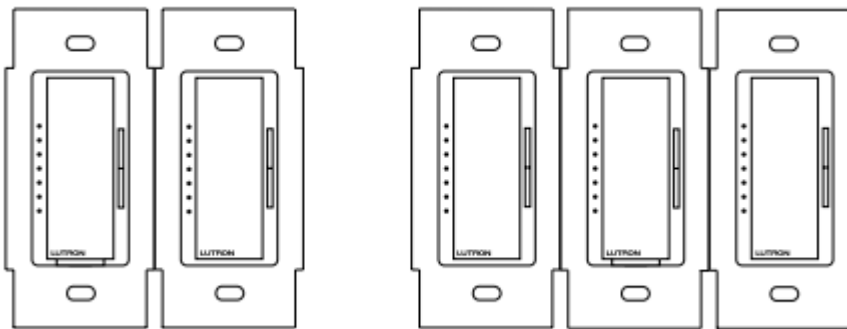
### **Important Notes. Please read before installing.**

1. CAUTION: To reduce the risk of overheating and possible damage to other equipment, DO NOT use to control receptacles, fluorescent lighting fixtures, compact fluorescent lamps, motor operated or transformer supplied appliances. Use only to control the primary side of transformer-supplied low-voltage lighting, or in combination with incandescent lamps.
2. Install in accordance with all national and local electrical codes.
3. When no “grounding means” exist within the wallbox, the NECR 2011, 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, twist a wire connector onto the green ground wire or remove the green ground wire on the dimmer and use an appropriate wallplate such as ClaroR or Satin ColorsR series wallplates by Lutron.
4. This product requires a neutral wire in the wallbox. If a neutral wire is not present, contact a licensed electrician for installation.
5. Do not paint the dimmers or the companion dimmers.
6. This dimmer is not compatible with standard 3-way or 4-way switches. Use only with LutronR companion dimmers listed above.
7. In any 3-way/4-way circuit use only one dimmer with up to 9 companion dimmers.
8. Do not use where the total load is greater than the rating indicated in the Derating Chart below.
9. Do not use where total load is less than 5 W / VA.
10. Operate between 32 °F (0 °C) and 104 °F (40 °C).
11. For indoor use only.
12. It is normal for the dimmers to feel warm to the touch during operation.
13. Recommended minimum wallbox depth is 2` in (64 mm).
14. Maximum wire length between the dimmers and the farthest companion dimmer is 250 ft (76 m).
15. Clean with a soft damp cloth only. Do not use any chemical cleaners.

16. Controls must be mounted vertically. See stamp on control for correct positioning.
17. DO NOT wire while circuit breaker is on. Permanent damage to the dimmer may result.
18. In multi-phase applications, it is recommended to use a separate neutral for each phase containing a dimmed circuit.
19. For new installations, wire a test switch before installing the dimmer.

## Multigang Installations

When installing more than one control in the same wallbox, the maximum load capacity is reduced. No derating is required for companion dimmers. Refer to the Derating Chart below.



## Derating Chart

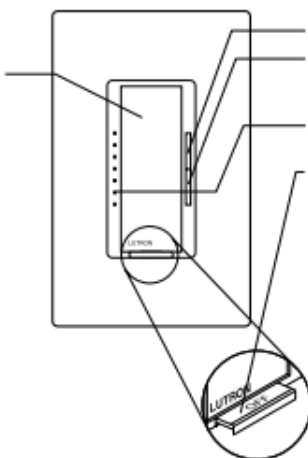
Model	Type of Load	Single Gang	End of Gang	Middle of Gang
MAELV-600	Electronic Low-Voltage	600 W	500 W	400 W
MSELV-600M	Electronic Low-Voltage	600 W	500 W	400 W

## Dimmer Operation

### Dimmer Operation

#### Tap Button Options

- **Tap once when the dimmer is OFF:** Lights brighten smoothly to preset intensity.
- **Tap once when the dimmer is ON:** Lights dim smoothly to OFF.
- **Tap twice quickly:** Lights brighten rapidly to full intensity.
- **Press and hold when the dimmer is ON:** As the top button is held, the third LED will begin to flash. This flashing LED represents 30 seconds of delay before the lights fade to OFF. Delayed Fade to OFF can be activated each time the Dimmer is turned OFF.



#### Dimming Rocker

Press to brighten.  
Press to dim.

#### LEDs

Light level indicators.

#### FASS™ - Front Accessible Service Switch

#### Important Notice:

To replace the bulb, power may be conveniently removed by pulling the FASS™ switch out on the dimmer.

**For any procedure other than routine bulb replacement, power must be disconnected at the main electrical panel.**

# Troubleshooting



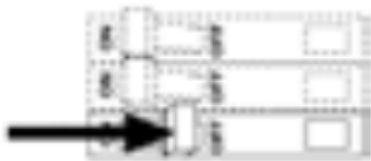
Symptoms	Cause and Action
Load is OFF and there is no indicator on the dimmer	<p>Power Not Present</p> <ul style="list-style-type: none"> <li>• Circuit breaker OFF or tripped. Perform short circuit check.</li> <li>• FASST is in the OFF position. Move FASST to the ON position by pushing it in.</li> </ul>
	<p>Wiring Error</p> <ul style="list-style-type: none"> <li>• Check wiring to be sure it matches installation instructions and wiring diagrams.</li> </ul>
	<p>Lamps Burned Out or Not Installed</p> <ul style="list-style-type: none"> <li>• Replace or install lamps.</li> </ul>
Dimmer indicator is ON but load cannot be turned ON and/or cannot be turned OFF	<p>Wiring Error</p> <ul style="list-style-type: none"> <li>• Check wiring to be sure it matches installation instructions and wiring diagrams.</li> </ul>
	<p>Lamps Burned Out or Not Installed</p> <ul style="list-style-type: none"> <li>• Replace or install lamps.</li> </ul>
Light turns ON and OFF continuously	<p>Load is Less Than Minimum Load Requirement</p> <ul style="list-style-type: none"> <li>• Make sure the connected load meets the minimum load requirement for that control. See Important Note #9.</li> </ul>
	<p>Improper Load Type</p> <ul style="list-style-type: none"> <li>• Check that the load being dimmed is dimmable.</li> </ul>
Faceplate is warm	<p>Solid-State Control Heat Dissipation</p> <ul style="list-style-type: none"> <li>• Solid-state dimmers internally dissipate about 2% of the total connected load. It is</li> </ul>

	normal for dimmers to feel warm to the touch during operation.
Middle LED flashes twice then OFF, repeat	<p>Over Temperature Condition</p> <ul style="list-style-type: none"> <li>• Ensure that the room temperature and maximum load rating are not exceeded.</li> <li>• Power cycle unit with FASST switch to clear.</li> </ul>
All LEDs flashing rapidly	<p>Over Current Protection Mode</p> <ul style="list-style-type: none"> <li>• Verify that no bulbs are blown out and/or the product is wired properly.</li> <li>• Power cycle unit with FASST switch to clear.</li> </ul>
Bottom 3 LEDs light on any button press	<p>Load Protect Mode</p> <ul style="list-style-type: none"> <li>• Power cycle unit using the FASST switch. If unit goes into same condition after reset, replace device.</li> </ul>
Middle LED flashing rapidly	<p>Noisy Power Line / Changing Frequency</p> <ul style="list-style-type: none"> <li>• Correct line frequency or noisy problem to within device specification range. Clears automatically when condition is corrected.</li> </ul>

## Installation

### 1. Turning Power OFF

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



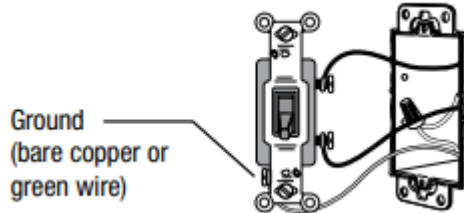
### 2. Removing Wallplate and Switch

Remove the wallplate and switch mounting screws.

Carefully remove the switch from the wall (do not remove the wires).

### 3. Identifying the Circuit Type and Tagging the Wire on the COMMON Terminal of the Switches

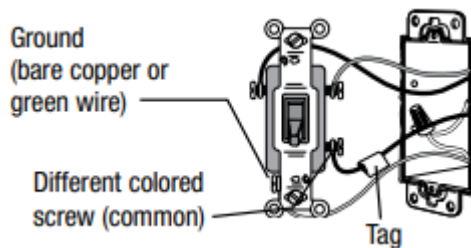
#### 3a - Single Location Control



One switch controlling a light fixture:

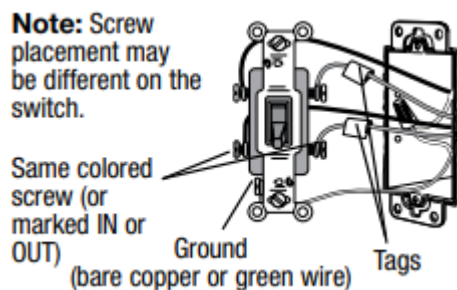
The switch will have insulated wires connected to two screws of the same color plus a green ground screw.

#### 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 rewiring.



#### 3c - Three or More-Location Control

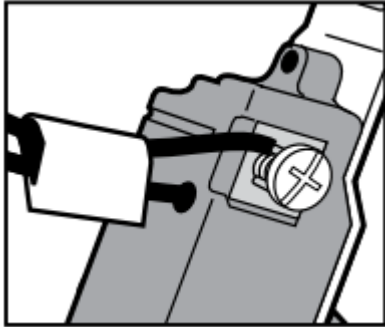
Three or more switches controlling a light fixture:

Two switches will be 3-way and any others will be 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

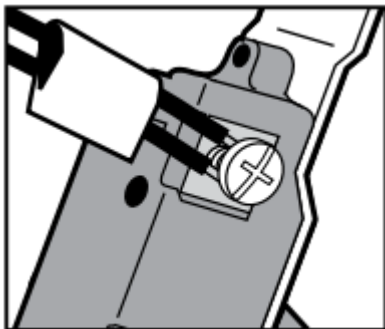
four screws plus a green ground screw. Tag the two same-color insulated wires that are connected to opposite colored screws. Follow this procedure for each 4-way switch.

#### 4. Disconnecting the Switch Wires

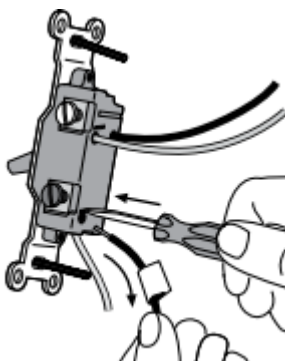
**Important Note:** The wall switch may have two wires attached to the same screw (see illustrations below for examples). Tape these two wires together before disconnecting. When rewiring, connect wires to the dimmer the same way they were connected to the switch.



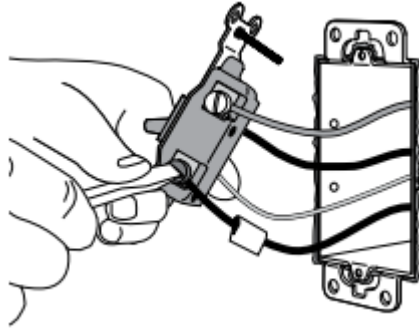
One wire in the backwired hole and one to the screw.



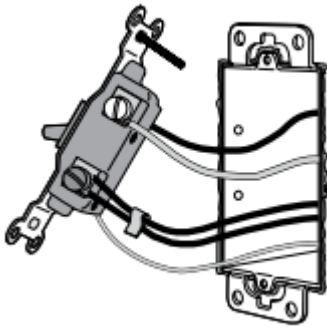
One continuous wire to the screw.



Push-In Terminals: Insert screwdriver. Pull wire out.



Screw Terminals: Turn screws to loosen.



Looped Wire: Turn screws to loosen.

## 5. Wiring

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.

Trim or strip wallbox wires to the length indicated by the strip gauge on the back of the dimmer.

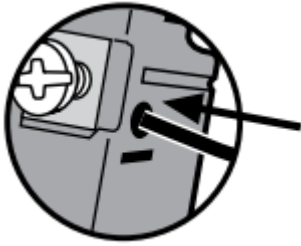
**Wire connector:** Use to join 14 AWG (1.5 mm<sup>2</sup>) or 12 AWG (2.5 mm<sup>2</sup>) ground wire to 18 AWG (0.75 mm<sup>2</sup>) dimmer ground wire.



Twist wire  
connector tight.

Push-in terminals: Insert wires fully.

**Note:** Push-in terminals are for use with 14 AWG (1.5 mm<sup>2</sup>) solid copper wire only. DO NOT use stranded or twisted wire.



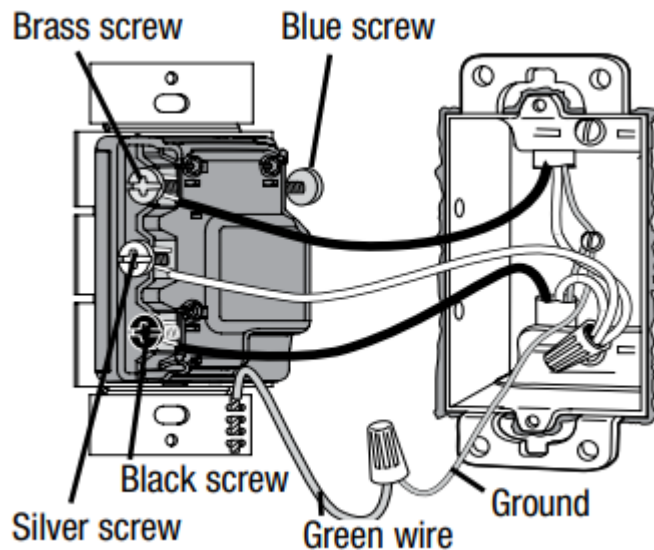
Screw terminals: Tighten securely.

**Note:** Screw terminals are for use with 12 AWG (2.5 mm<sup>2</sup>) or 14 AWG (1.5 mm<sup>2</sup>) solid copper wire only. DO NOT use stranded or twisted wire.



- 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.

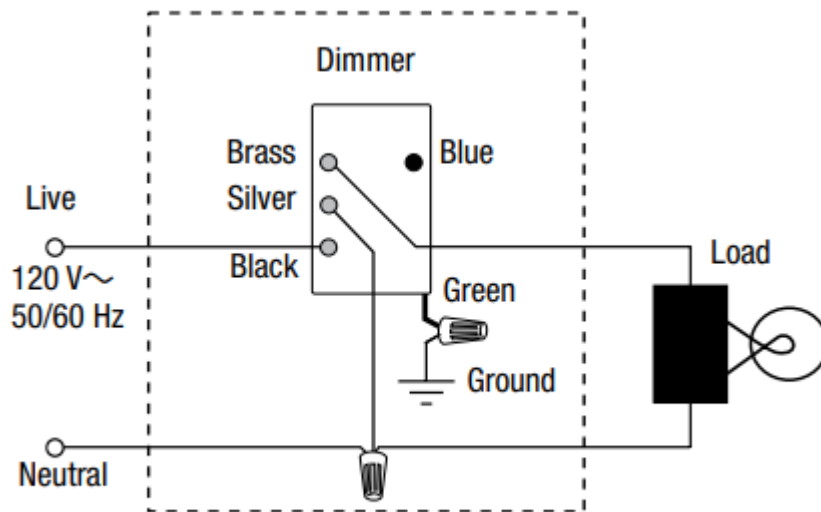
### 5a - Single-Location Control



### Wiring the Dimmer:

- Connect the green ground wire on the dimmer to the bare copper or green ground wire in the wallbox. See Important Note 3 on other side.
- Connect the neutral wire in the wallbox to the silver screw terminal on the dimmer (use LutronR supplied white wire).
- Connect either of the remaining 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.

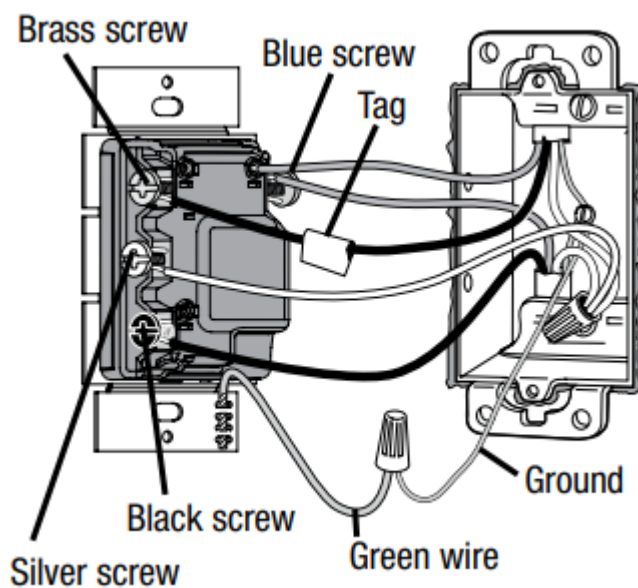
**Note:** If the wires connected to the Black and Brass screws are reversed, the unit will not operate. It may be necessary to swap the connections to ensure that the Brass screw is connected to the load.



**Single Location Wiring Diagram**

**5b - Two-Location Control**

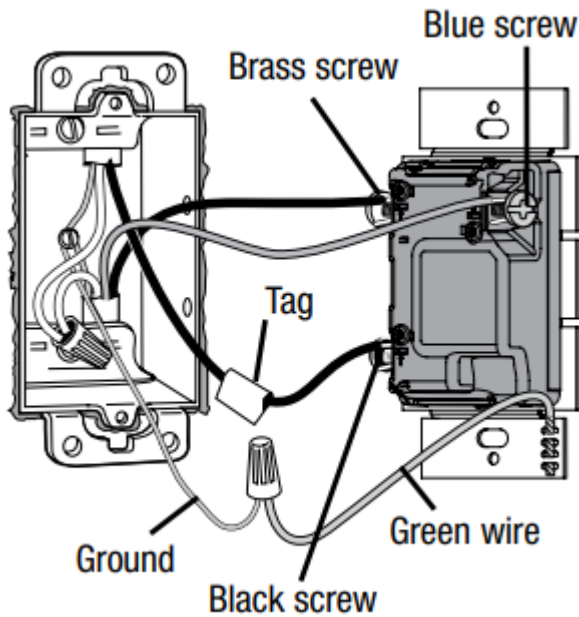
**Note:** The dimmer must be installed on the load side of multi-location wiring.



**Wiring the Dimmer on the Load Side:**

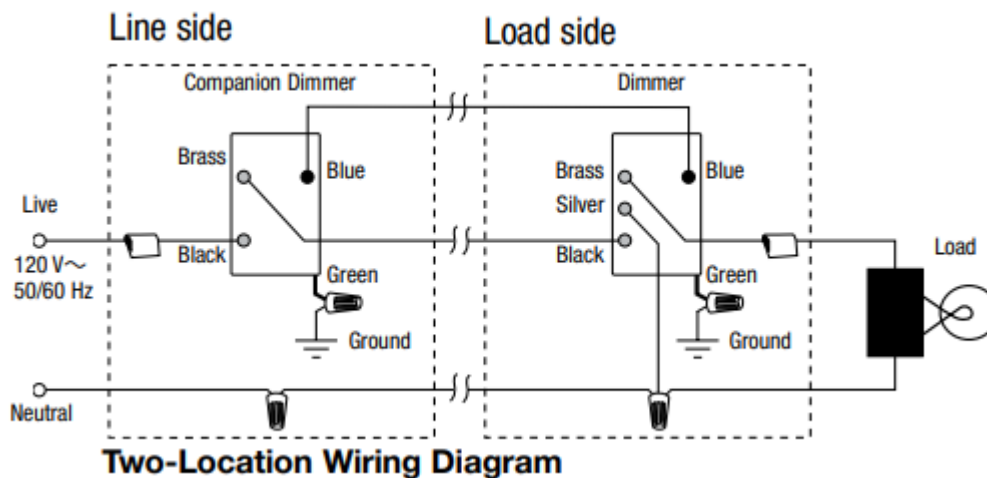
- Connect the green ground wire on the dimmer to the bare copper or green ground wire in the wallbox. See Important Note 3 on other side
- Connect the neutral wire in the wallbox to the silver screw terminal on the dimmer (use LutronR supplied white wire).
- Connect the tagged wire removed from the switch in step 3b to the brass screw terminal on the dimmer.
- Connect one of the remaining wires removed from the switch to the black 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) on the Line Side:

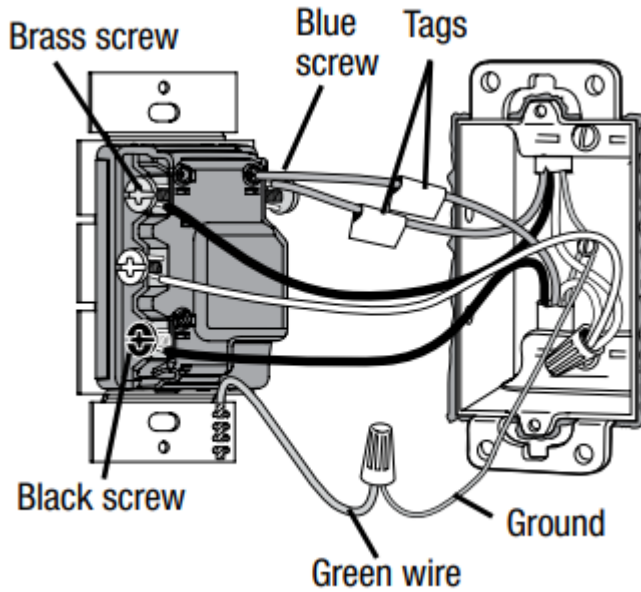
- Connect the green ground wire on the companion dimmer to the bare copper or green ground wire in the wallbox. See Important Note 3 on other side.
- Connect the wire tagged in step 3b to the black screw terminal on the dimmer or companion dimmer.
- Connect the same color wire connected to the blue screw terminal on the dimmer (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.



#### 5c - Three or more-Location Control



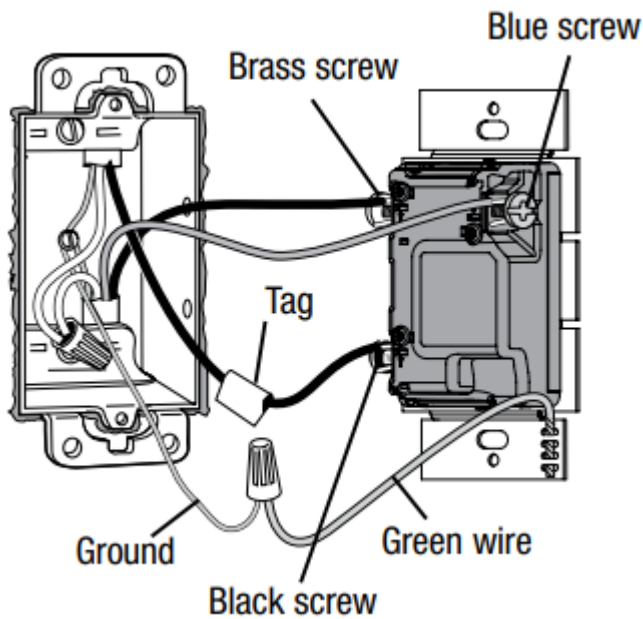
One location will be replaced with a dimmer and the others with companion dimmers. Only one dimmer can be used with up to nine companion dimmers.



#### Replace the 4-way switch(es):

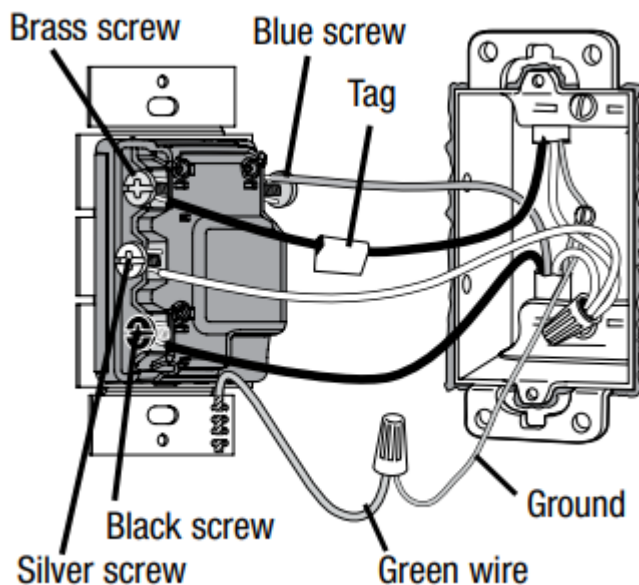
**Note:** 4-way switches must be replaced with companion dimmers.

- Connect the green ground wire on the companion dimmer to the bare copper or green ground wire in the wallbox. (See Important Note 3 on other side.)
- Connect both of the wires tagged in step 3c wires (noting their color) to the blue screw terminal on the 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 companion dimmer.
- Connect the remaining wire removed from the switch to the brass screw terminal on the companion dimmer.



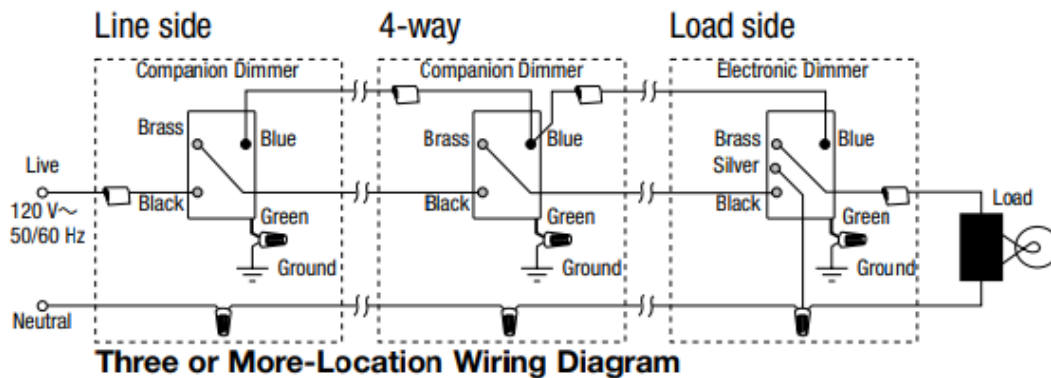
### Wiring the Companion Dimmer (MA-R) on the Line Side:

- Connect the green ground wire on the companion dimmer to the bare copper or green ground wire in the wallbox. (See Important Note 3 on other side.)
- Connect the wire tagged in step 3b 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 (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.



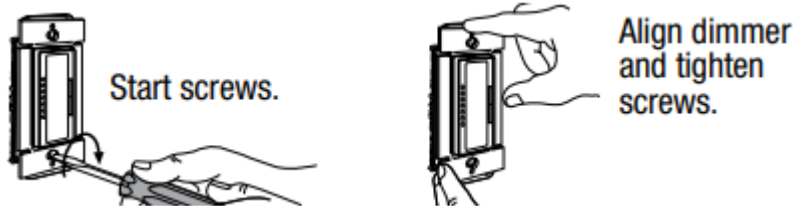
## Wiring the Dimmer on the Load Side:

- Connect the green ground wire on the dimmer to the bare copper or green ground wire in the wallbox. (See Important Note 3 on other side.)
- Connect the neutral wire in the wallbox to the silver screw terminal on the dimmer (use LutronR supplied white wire).
- Connect the wire tagged in step 3b to the brass screw terminal on the dimmer.
- Connect the same color wire connected to the blue screw terminal on the dimmer that replaced a 4-way switch (wire color noted above) to the blue screw terminal on the dimmer.
- Connect the remaining wire removed from the switch to the black screw terminal on the dimmer.



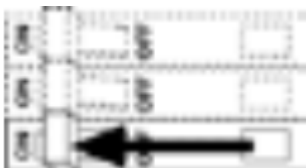
## 6. Mounting Dimmers to Wallbox

Form wires carefully into the wallbox, mount and align electronic dimmer (and companion dimmers). Attach ClaroR or Satin ColorsR Wallplate(s) (sold separately).



## 7. Turning Power ON

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



**Warning**

This content is compiled from multiple sources and is provided for reference purposes only. It may not be complete or fully applicable to all situations. If you are unable to resolve your issue, please contact the product manufacturer or an authorized service provider for official support.

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