

Halogen/Incandescent Dimmer with Radio Frequency Receiver

MRF2-600M 120 V~ 60 Hz 600 W
(Single-Pole or Multi-Location)

030-1126
Rev. A

Important Notes:
Please read before installing.

1. Install in accordance with all national and local electrical codes.
2. 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, 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 Claro® or Satin Colors® series wallplates by Lutron®.
3. Do not paint the Dimmers or the Companion Dimmers.
4. The Dimmers are not compatible with standard 3-way or 4-way switches. Use only with *Lutron* Companion Dimmers.
5. In any 3-way/4-way circuit use only one Dimmer with up to 9 Companion Dimmers.
6. Do not use where the total load is greater than the rating indicated in the Derating Chart below.
7. Do not use where total load is less than 50 W/VA.
8. Operate between 32 °F (0 °C) and 104 °F (40 °C).
9. For indoor use only.
10. It is normal for the Dimmers to feel warm to the touch during operation.
11. Recommended minimum wallbox depth is 2.5 in (64 mm).
12. Maximum wire length between the Dimmers and the furthest Companion Dimmer is 250 ft (76 m).
13. Clean with a **soft damp cloth only**. Do not use any chemical cleaners.
14. **DO NOT** mix MRF and MRF2 lighting controls products within the same system. Products are **NOT compatible**, contact *Lutron Technical Support Center*.
15. Controls must be mounted vertically. See stamp on control for correct positioning.
16. **DO NOT** wire while circuit breaker is on. Permanent damage to the Dimmer may result.
17. **DO NOT** use Incandescent/Halogen or Electronic Low-voltage Dimmers for Magnetic Low-voltage lighting.
18. Up to 10 *Maestro Wireless* controls can be configured to work together.

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.

Model	Type of Load	Single Gang	End of Gang	Middle of Gang
MRF2-600M	Halogen/Incandescent	600 W	500 W	400 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.

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:** Each time the Dimmer is turned off, delayed fade to OFF can be activated. As the Tap Button is held, the current LED will begin to flash. This flashing LED represents 20 seconds of delay before the lights fade to 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.

Multiple Dimmer Applications

If multiple *Maestro Wireless* Dimmers are set up to the same Wireless Controller, they will perform as follows:

- Pressing the On Button on the Wireless Dimmers Controller will cause all Dimmers to turn on fully.
- Pressing the Off Button on the Wireless Controller will cause all Dimmers to turn off completely.
- Pressing the Raise Button on a Wireless Controller will cause the Dimmer to turn on and gradually increase the light level.
- Pressing the Lower Button on a Wireless Controller will cause the Dimmer to gradually decrease light level.

Set-Up

Important: Set up Wireless Controller to a Dimmer/Switch before use.

- 1 Press and hold the Dimmer/Switch's Tap Button (Figure 1) for approximately 6 seconds. Once the LED(s) start to blink slowly, release the Tap Button.
- 2 Press and hold the Off Button on the Wireless Controller (Figure 2) for approximately 6 seconds.
- 3 Once the Dimmer/Switch learns the Wireless Controller, the Dimmer/Switch's LED(s) and load will flash 3 times and it will exit Set-Up mode.
- 4 Repeat steps 1–3 to set up multiple Wireless Controllers to a single Dimmer or Switch. Repeat steps 1–3 to set up a single Wireless Controller to multiple Dimmers/Switches.

- 5 Pressing the Preset Button will cause each Dimmer/Switch to return to it's favorite light setting. To save a favorite light setting, adjust all the Dimmers/Switches controlled by a Wireless Controller to the desired light setting. Then press and hold the Preset Button on the Wireless Controller for approximately 6 seconds until all LEDs on the Dimmers/Switches stop blinking.

Removing Wireless Controller

To remove a previously set up Wireless Controller tap the Wireless Controller's On button three times, on the third tap hold for 3 seconds and then tap 3 more times. This will remove all Dimmers/Switches it was previously setup with.

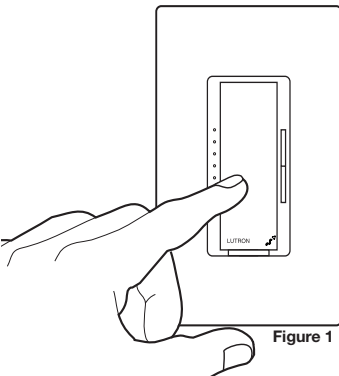


Figure 1

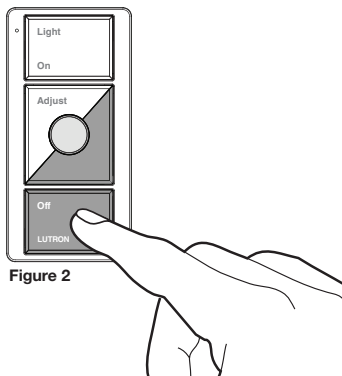


Figure 2

FCC Information:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception, which can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Changes or modifications not expressly approved by Lutron Electronics Co. could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

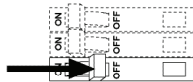
- (1) This device may not cause harmful interference and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Trouble Shooting

Symptoms	Possible Causes
Load does not turn on or LED(s) on Dimmer/Switch do not light up.	• FASS™ switch on the Dimmer/Switch (or Companion Dimmer/Switch) is in the Off position. • Light bulb(s) burned out. • Breaker is OFF or tripped. • Load not properly installed. • Wiring error. Call Lutron Technical Support Center.
Light does not respond to Wireless Controller	• The Dimmer/Switch failed to learn Wireless Controller; see <i>Set-Up</i>. • The Dimmer/Switch has already received and responded to a command or is already at the Light Setting the Wireless Controller is requesting. • The Wireless Controller is outside the 30 ft (9 m) operating range. • The Wireless Controller's battery is low. • The Wireless Controller's battery is installed incorrectly.
When in set-up mode the LEDs flash when trying to setup with the Wireless Controller or Sensor.	• The maximum number of Wireless Controllers have been set up to the Dimmer/Switch, You cannot add any more Wireless Controllers or Sensors. See <i>Removing Wireless Controllers</i> in <i>Set-Up</i>.

Installation

- 1 **Turning Power OFF**
Turn power OFF at circuit breaker (or remove fuse).



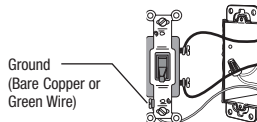
- 2 **Removing Wallplate and Switch**
Remove the wallplate and switch mounting screws. Carefully remove the switch from the wall (**do not remove the wires**).

WARNING

Shock Hazard. May result in serious injury or death. Turn off power at circuit breaker before installing Dimmer.

- 3 **Identifying the Circuit Type and Tagging the Wire on the COMMON Terminal of the Switches**

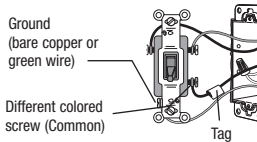
3a – Single Location Control



One switch controlling a light fixture:

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.

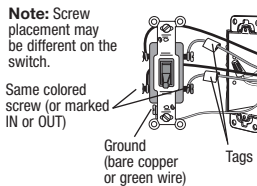
3b – Two-Location Control



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 rewiring.

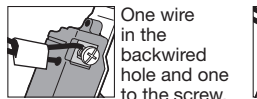
3c – Three or More-Location Control



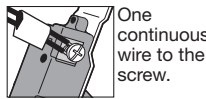
Three or more switches controlling a light fixture:

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.



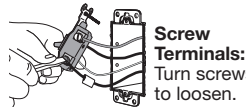
One wire in the backwired hole and one to the screw.



One continuous wire to the screw.



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



Screw Terminals: Turn screws to loosen.



Looped Wire: Turn screw to loosen.

- 5 **Wiring**

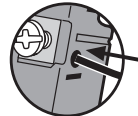
When making wire connections, follow the recommended strip lengths and combinations for the supplied wire connector.

Note: All wire connectors provided are suitable for **copper wire only**. For aluminum wire, consult an electrician.



Twist wire connector tight.

Wire connector: Use to join 14 AWG (1.5 mm²) or 12 AWG (2.5 mm²) ground wire(s) to 18 AWG (0.75 mm²) Dimmer ground wire.



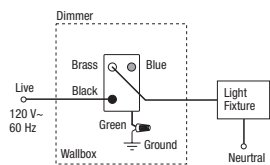
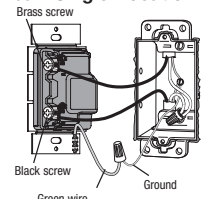
Push-in terminals: Insert wires fully.

Note: Push-in terminals are for use with 14 AWG (1.5 mm²) **solid copper wire only**. DO NOT use stranded or twisted wire.



Screw terminals: Tighten securely.

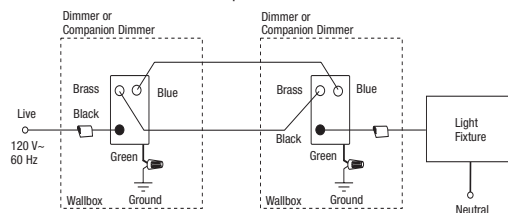
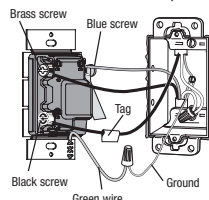
Note: Screw terminals are for use with 12 AWG (2.5 mm²) or 14 AWG (1.5 mm²) **solid copper wire only**. DO NOT use stranded or twisted wire.

5a – Single-Location Control**Single Location Wiring Diagram****Wiring the Dimmer:**

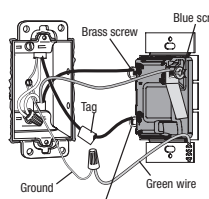
- Connect the **green** ground wire on the Dimmer to the **bare copper** or **green** ground wire in the wallbox. (See Important Note 2 on other side.)
- Connect either of the wires removed from the switch to the **black** screw terminal on the Dimmer.
- Connect the remaining wire removed from the switch 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.

5b – Two-Location Control

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

**Two Location Wiring Diagram****Wiring the Dimmer:**

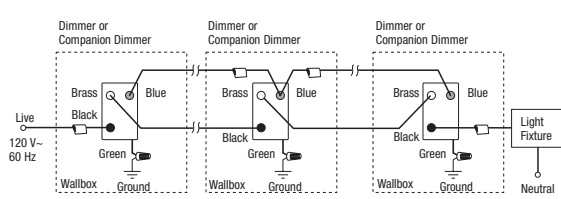
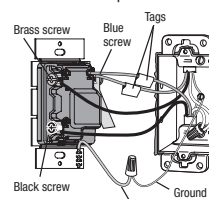
- Connect the **green** ground wire on the Dimmer to the **bare copper** or **green** ground wire in the wallbox. (See Important Note 2 on other side.)
- Connect the tagged wire removed from the switch in step 3b to the **black** screw terminal on the Dimmer.
- Connect one of the remaining wires removed 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):**

- Connect the **green** ground wire on the Companion Dimmer to the **bare copper** or **green** ground wire in the wallbox. (See Important Note 2 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.

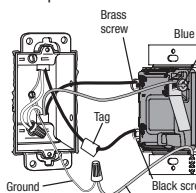
5c – Three or More-Location Control

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.

**Three or More Location Wiring Diagram****Replace the 4-way Switch(es):**

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

- Connect the **green** ground wire on the Dimmer or Companion Dimmer to the **bare copper** or **green** ground wire in the wallbox. (See Important Note 2 on other side.)
- Connect both of the wires tagged in step 3c wires (noting their color) 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. (See Important Note 2 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 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.

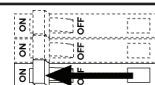
6**Mounting Switches to Wallbox**

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

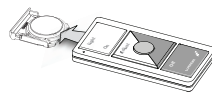
Attach *Claro* or *Satin Colors*® Wallplate(s) (Sold separately).

**7****Turning Power ON**

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

**Replacing the Battery in a Wireless Controller****1**

Remove the battery cover screw, then gently slide the battery holder out of the back of the Wireless Controller.

**2**

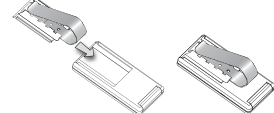
Remove the existing battery and replace with a new CR 2032. The positive (+) side should be down. Slide battery holder back into the Wireless Controller unit until it snaps into place. Replace screw.

**Using the Wireless Controller on a Car Visor****1**

Slide the metal Visor clip into the Visor Backplate.

**2**

Slide the Visor Backplate into the back of the Wireless Controller.

**3**

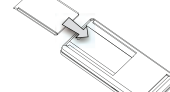
Mount the Wireless Controller to a vehicle's visor.



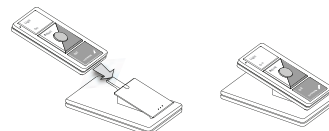
Note: The visor clip may need to be manually opened depending on visor thickness.

Using the Wireless Controller as a Handheld Remote

Slide the Blank Backplate into the back of the Controller.

**Using the Wireless Controller as a Tabletop Remote**

Slide the Wireless Controller onto the Tabletop Pedestal. (L-PED 1 Sold separately)

**Mounting a Wireless Controller Directly to a Wall Without a Wallplate****1**

Carefully cut out the Template below along the outer dashed line and temporarily attach it to the wall at the desired mounting location.

Note: To match location of existing wall controls, remove existing wallplate and measure height of top screw.

2

Mark and drill the two 3/16 in (35 mm) screw hole locations indicated within the Wall Mount Backplate section (A) of the template.

3

Insert a Screw Anchor into each of the holes drilled in step 2, making sure they are flush with the wall.

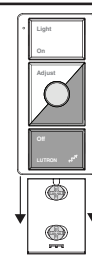
Note: Template should be removed from wall before inserting anchors.

4

Loosely mount the Wall Mount Backplate to the wall with screws. Check to make sure the Backplate is level. Once level, tighten the screws fully.

5

Slide Wireless Controller down onto the Wall Mount Backplate. (Figure 3)

**Figure 3****Mounting a Wireless Controller in a 1-Gang Wallplate****1**

Carefully cut out the Template below along the outer dashed line and temporarily attach it to the wall at the desired mounting location.

Note: To match location of existing wall controls, remove existing wallplate and measure height of top screw.

2

Mark and drill the four 3/16 in (35 mm) screw hole locations indicated on the Template.

3

Insert a Screw Anchor into each of the holes drilled in step 2, making sure they are flush with the wall.

Note: Template should be removed from wall before inserting anchors.

4

Loosely mount the Wall Mount Backplate to the wall with screws. Check to make sure the Backplate is level. Once level, tighten the screws fully.

5

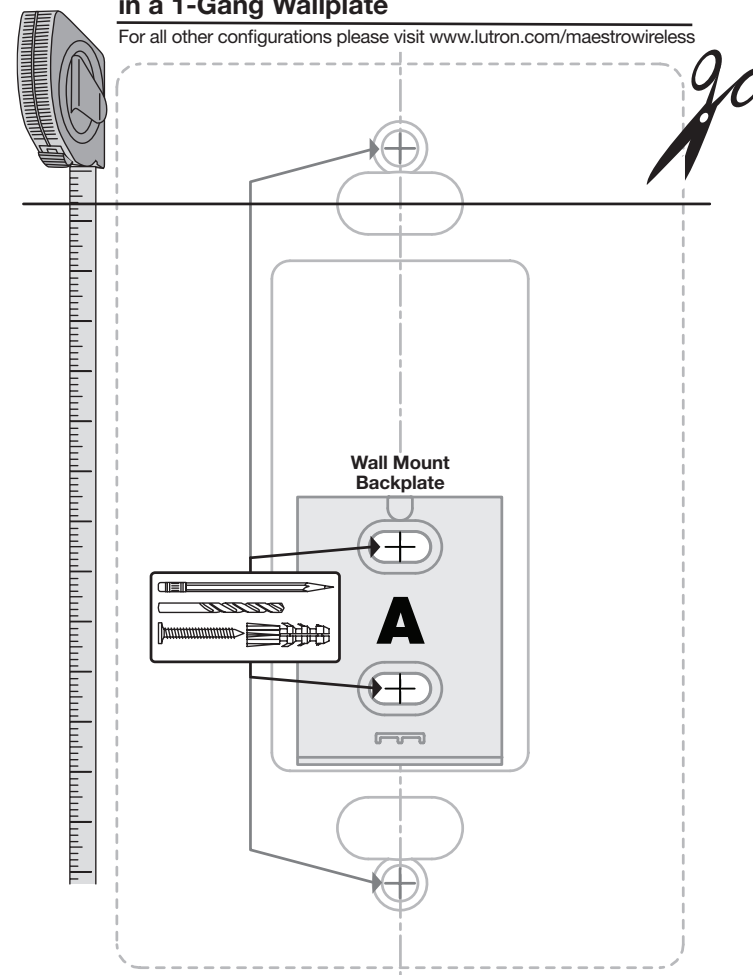
Slide Wireless Controller down onto the Wall Mount Backplate. (Figure 3)

6

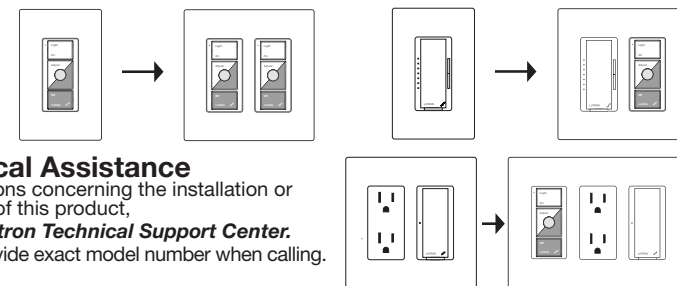
Mount the 1-gang wallplate with screws provided. Wallplate must be mounted after the Wireless Controller is installed, not before.

Template: For Mounting Directly to a Wall or in a 1-Gang Wallplate

For all other configurations please visit www.lutron.com/maestrowireless

**Using the Wireless Controller on a Wall**

The Wireless Controller can also be mounted to the left or right of existing lighting controls, outlets, or other Wireless Controllers. For these configurations please visit www.lutron.com/maestrowireless.

**Technical Assistance**

For 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 / 7 days)

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México +1.888.235.2910

Other Countries 8am – 8pm ET

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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.**

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