MAESTRO MS-A202 Dual Circuit Dual Technology Sensor Switch Installation Guide

MAESTRO
LUTRON

Dual Circuit Dual Technology
Sensor Switch
Installation Guide
MS-A202 WMS-A202
Occupancy

Two circuits, each rated at:
Lighting
120 – 277 V~ 50 / 60 Hz 6 A
Fan
120 V~ 50 / 60 Hz 4.4 A 1/6 HP
Combined lighting and fan load
120 V~ 50 / 60 Hz 4.4 A
Major motion coverage:
30 ft × 30 ft (9 m × 9 m) [900 ft2(81 m 2)]
Minor motion coverage:
20 ft × 20 ft (6 m × 6 m) [400 ft 2 (36 m 2)]

Contents

Important Notes

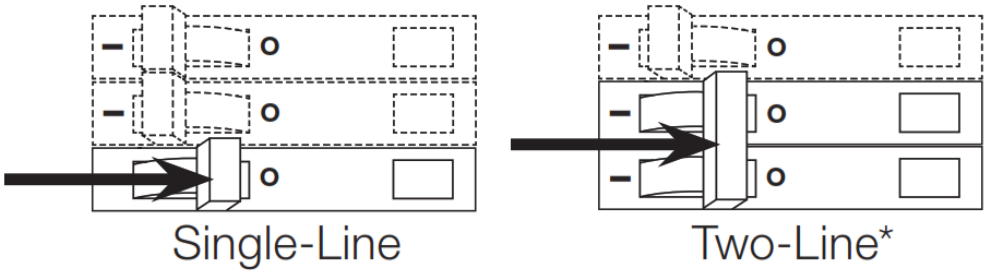
Please read before installing.

1. A ground connection is required for the product to function.
   Connect a green-sleeved wire to the ground only in retrofit and replacement applications. When the neutral connection is available, remove green sleeve and connect to neutral. If neither wire is present, consult a licensed electrician.
2. The device will not function if the black wire and red wire (Circuit 1/Line 1) are not wired.
3. This product is rated to control 6 A per circuit. Circuits may NOT be wired in parallel to control loads greater than 6 A.
4. When power is applied, the sensor switch can be manually turned on or off after the first 10 seconds and will automatically control the load after 2 minutes.
5. **CAUTION: Risk of Electric Shock** — More than one disconnect switch may be required to de-energize the equipment before installing the unit, rewiring, or replacing bulbs.
6. The sensor switch requires an unobstructed view of the room and line-of-sight to detect motion.
7. Hot objects or moving air currents can affect the performance of the sensor switch and may cause the sensor to turn on unexpectedly or maintain its current state longer than desired.
8. **CAUTION**: To reduce the risk of overheating and possible damage to other equipment, DO NOT use to control receptacles.
9. Install in accordance with all national and local electrical codes.
10. For indoor use only. Operate between 32 °F and 104 °F (0 °C and 40 °C).
11. Clean with a soft damp cloth only. DO NOT use any chemical cleaners.

Wiring

Turn power OFF

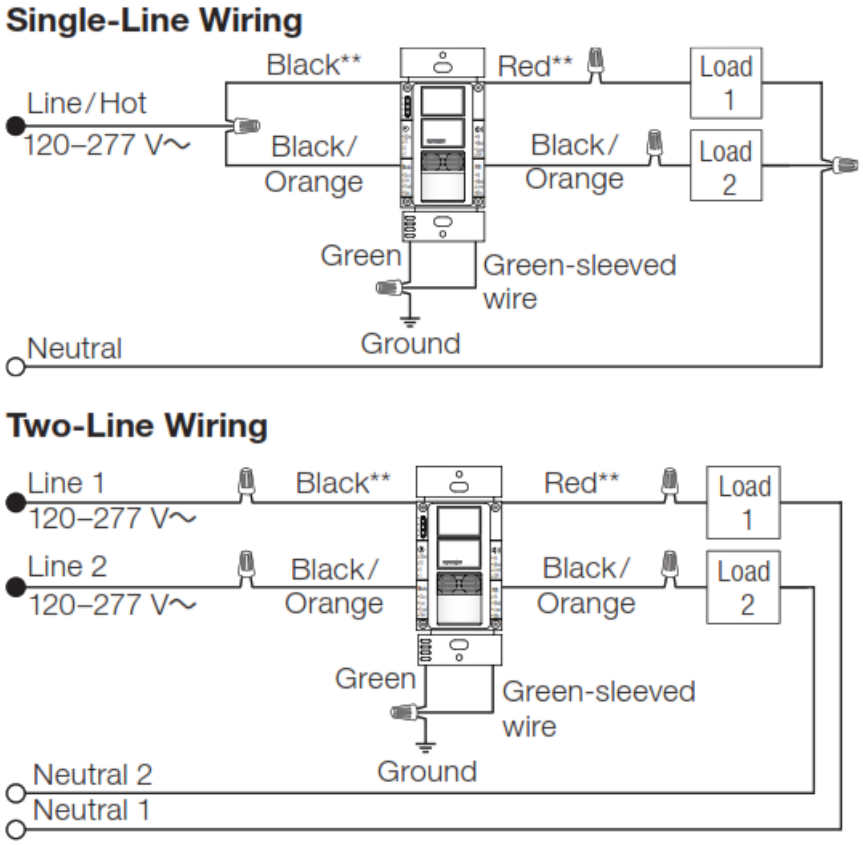
WARNING! Shock Hazard. May result in serious injury or death. Turn power OFF at circuit breakers before installing the unit.



* **Two Line Wiring.** Wiring must comply with NECR code for wiring multiple branch circuits: Where two or more branch circuits supply devices or equipment on the same yoke, a means to simultaneously disconnect the ungrounded conductors supplying those devices shall be provided at the point at which the branch circuits originate.

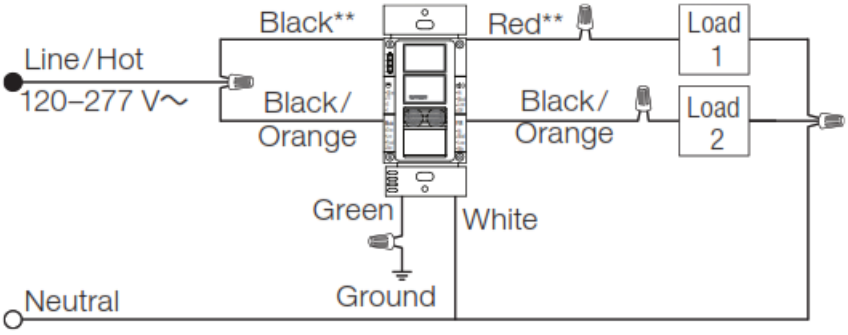
Connect sensor switch

A. When neutral is present in the outlet box: remove the green sleeve, connect the white wire to neutral.

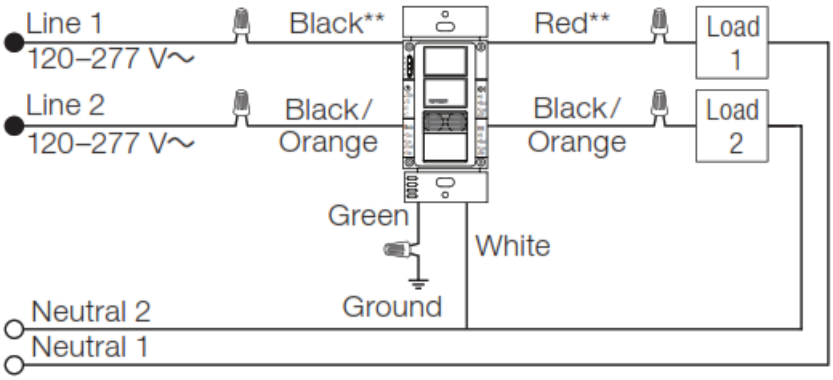


B. If no neutral is present, connect the green-sleeved wire to the ground.

Single-Line Wiring



Two-Line Wiring

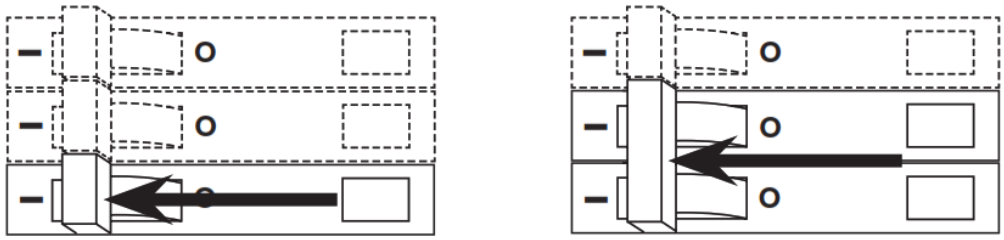


** Device will not function if the black wire and red wire are not wired.

- Before installing the wallplate, program all desired settings. See back for programming instructions.
- For additional wiring instructions, please visit **www.lutron.com/DTMaestroInstall**

Turn Power ON

CAUTION! Risk of Electric Shock. Leakage current present. The earth connection is required before connecting power.



Wait for 2 minutes

- The sensor switch will manually control the load after the first 10 seconds.
- Once power has been restored, the sensor switch will automatically control the load after the first 2 minutes.

Select Custom Settings

To display current settings, tap the Timeout ( ), Sensor Mode (M), Ultrasonic Sensitivity ( ), or PIR Sensitivity (P) button. The indicator LED (IL) that corresponds to the current setting will illuminate.

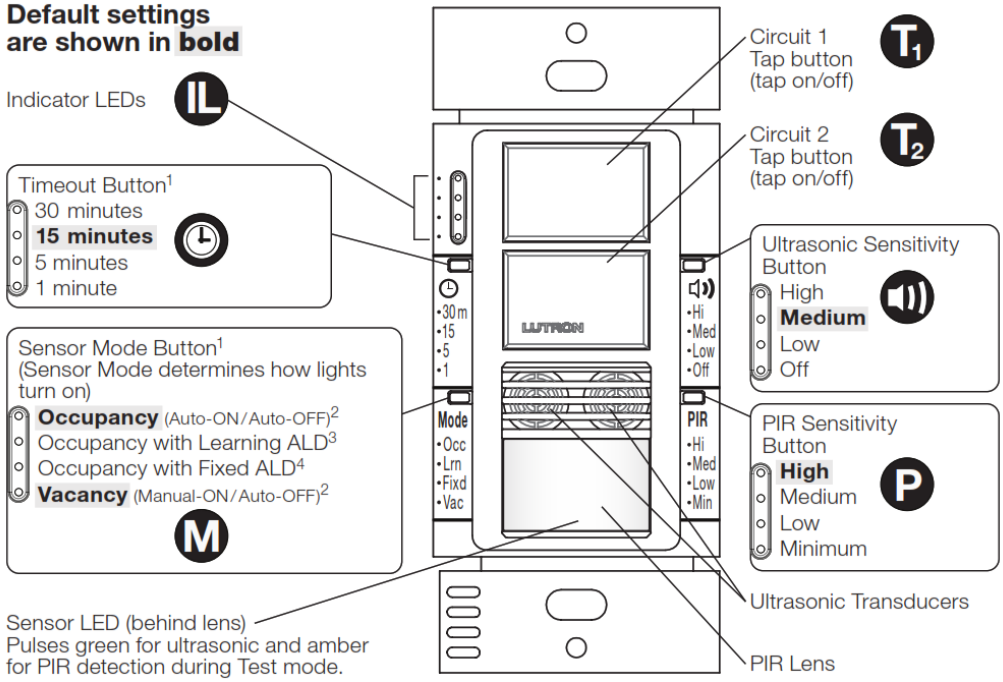
- Timeout and Sensor Mode settings may have different settings for each circuit. In this case, the LED for Circuit 1 settings will illuminate, followed by the LED for Circuit 2 settings.

Change Settings

1. Press and hold the desired programming button (, M , , or P) until an IL begins to flash(about 3 seconds). This will change settings for BOTH circuits.

   • Timeout ( ) and Sensor Mode (M) may be adjusted independently for EACH circuit. Holding or M AND T1 or T2 simultaneously will program settings for that specific circuit.
2. Tap the same programming button to cycle to your desired setting.

   Press and hold the same programming button until the IL goes solid to lock your selection (about 3 seconds).



1. Using ONLY the or M to enter programming mode will set BOTH circuits to the new setting. Holding or M and T1 or T2 simultaneously will program settings for that specific circuit.
2. Circuit 1 Default: Occupancy; Circuit 2 Default: Vacancy.
3. Learning ALD (Ambient Light Detection) mode: Lights remain off if enough natural light is present.

   If the lights turn on and the user doesn't want that much light, the user can tap the button within 5 seconds of entering the room. Similarly, if the lights don't turn on when entering a space and the user wants more light, the user can tap the button within 5 seconds of entering the room. Over time, the sensor will learn the user's preferred light level.
4. Fixed ALD mode: Lights turn on only when there is less than a set amount of natural light available. The set level can be adjusted in the "Fixed ALD Level" settings.

Additional Settings

Note Additional product information, including "Circuit Swapping", and other programming options and wiring diagrams are available at www.lutron.com/DTMaestroInstall

Test Mode

Test Mode is a short timeout (less than 15 seconds) that will test the coverage of the sensor at the current settings.

To Enable Test Mode:

1. Wait 2 minutes after the initial power-up.
2. Press and hold either T1 or T2 until the PIR lens flashes (about 7 seconds).
3. The device will exit Test Mode automatically after 5 minutes of inactivity, or when any button is pressed.

Note: An amber LED flashes to indicate PIR detection, a green LED flashes to indicate ultrasonic detection. You may hold P or for 2 seconds while in test mode to test the current sensitivity of that specific technology.

Restore Default Settings

Press and hold and P until all IL blink slowly (about 7 seconds). This will restore ALL of the sensor's settings back to their defaults.

Off-While-Occupied

When Off-While-Occupied is Enabled: After manual shutoff, the sensor will keep lights off as long as the space is occupied and the timeout has not expired. This setting is best for rooms where presentations are given and lights may be kept off during occupancy. This is the default setting.

When Off-While-Occupied is Disabled: After manual shutoff, the sensor will keep lights off for 25 seconds before looking for motion. If the motion is detected, the lights will turn back on. This setting is best for high-traffic areas like bathrooms and hallways.

Change Setting:

1. Press and hold and P at the same time until an IL begins to flash (about 3 seconds).
2. Tap P to cycle to your desired setting.
3. Press and hold P until the IL goes solid to lock your selection.

Setting Fixed ALD Level

1. a. For Circuit 1: Press and hold M and until the IL begins to flash (about 3 seconds).
b. For Circuit 2: Press and hold M and P until the IL begins to flash (about 3 seconds).

Off-While-Occupied Disabled
Off-While-Occupied Enabled

2. The Ambient Light Detect light level will now be displayed on the IL. Tap M to cycle to your desired setting.
3. Press and hold M until the IL goes solid to lock your selection.

Light Level
High: turns lights ON unless the room is very bright
Medium
Low (Default when in ALD Fixed mode)
Minimum: turns lights ON only when the room is dark

Troubleshooting

Symptoms	Possible Causes / Solutions
After installation: • Sensor switch does not respond to button presses OR • Sensor switch worked only once or d oesn't work at all	• Black wire is not connected to Line / Hot. Swap black and red wires. • Check wiring; ground wire must be connected for product to function. • Wait 10 seconds.
Lights do not turn ON when space is o ccupied	• Off-While-Occupied mode is Enabled and the timeout has not expire d. • Sensor mode is set to Vacancy. • Sensor is set to one of the Ambient Light Detection (ALD) settings a nd the room is too bright for the current light level setting. • Sensor does not have full view of the room. Move objects blocking li ne-of-sight.

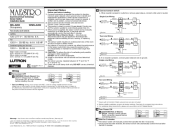
For additional features, wiring help, troubleshooting, and product information please visit:
www.lutron.com/DTMaestroInstall

Warranty: **http://www.lutron.com/TechnicalDocumentLibrary/Sensor_Warranty.pdf**

Lutron Electronics Co., Inc. | 7200 Suter Road | Coopersburg, PA 18036-1299 | **www.lutron.com/support**

LUTRON Customer Assistance: **www.lutron.com/support** | U.S.A., Canada, Caribbean: 1.844.LUTRON1 | Mexico: +1.888.235.2910 | Others: +1.610.282.3800

Documents / Resources

	**MAESTRO MS-A202 Dual Circuit Dual Technology Sensor Switch** [pdf] Installation Guide MS-A202, WMS-A202, Dual Circuit Dual Technology Sensor Switch

References

- **lutron.com/DTMaestroInstall**
- **Lutron Support Center | Lutron**