MAESTRO MS-B202 Dual Circuit Dual Technology Sensor Switch Installation Guide

MAESTRO

Dual Circuit
Dual Technology Sensor
Switch Installation Guide
MS-B202
WMS-B202
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 m²)]
Minor motion coverage: 20 ft × 20 ft (6 m × 6 m) [400 ft² (36 m²)]

LUTRON

P/N 032568 Rev. A
10/2020
For additional features, wiring help, troubleshooting, and product information please visit:
www.lutron.com/DTMaestroInstall

Contents

Important Notes

Please read before installing.

1. Neutral wire required.
2. Device will not function if Black wires (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 deenergize 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.

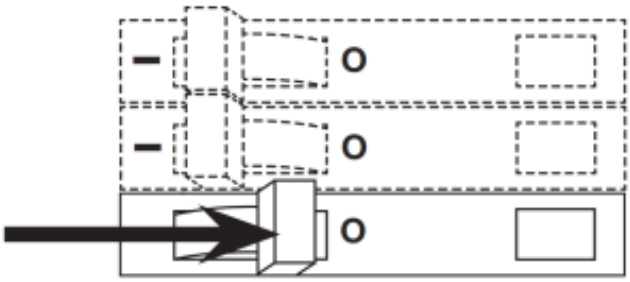
Troubleshooting

Symptoms	Possible Solutions
Sensor switch is unpowered, or is powered, but does not turn lights ON.	• If installed in a 3-way with another mechanical switch, be sure to rewire the mechanical switch using Wiring step 2B.
Power can't be switched ON or OFF with newly installed sensor switch.	• Check wiring; neutral wire must be connected for product to function.
Lights do not turn ON when space is occupied.	• Off-While-Occupied mode is Enabled and the timeout has not expired. • Sensor mode is set to vacancy. • Sensor is set to one of the Ambient Light Detection (ALD) settings and the room is too bright for the current light level setting. • Sensor does not have full view of the room. Move objects blocking sensor's line-of-sight.

Wiring

1. **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:

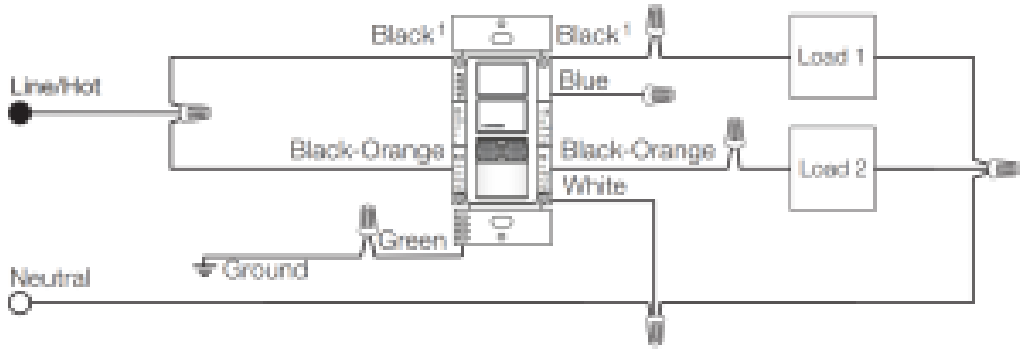
   Wiring must comply with NEC code for wiring Multiple Branch Circuits: Where two or more branch circuits supply devices or equipment on the same yoke, a means to simultaneously disconnect the ungrounded conductors supplying those devices shall be provided at the point at which the branch circuits originate.

2. **Connect sensor switch**

   ♦ Before installing wallplate, program all desired settings. See back for programming instructions.

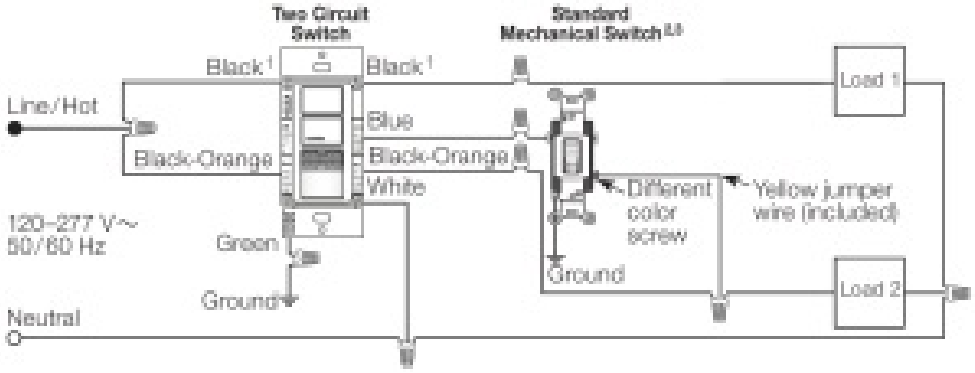
   ♦ For additional wiring instructions, including wiring for two separate breaker feeds, please visit www.lutron.com/DTMaestroInstall

   A. Single Line Wiring



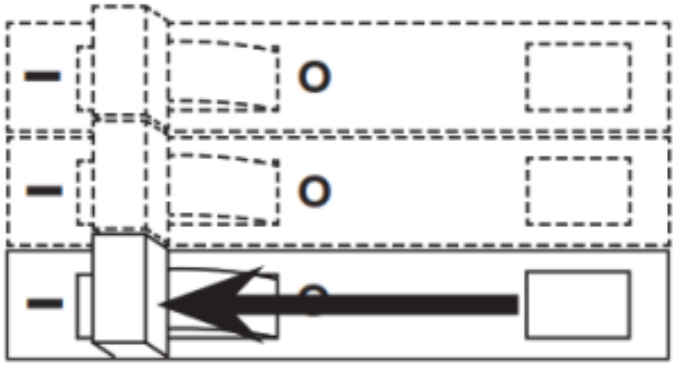
   B. 3-Way with Mechanical Switch

   ♦ Rewire your mechanical switch in a 3-way. 3-way wiring for sensor switch is different than traditional 3-way wiring.



1. Device will not function if Black wires are not wired.
2. Mechanical switch may be wired to either circuit, and will control both. Do NOT wire mechanical switch to both circuits.
3. You may use no more than one mechanical switch with a Dual circuit Dual Tech sensor switch.

3. **Turn Power ON**



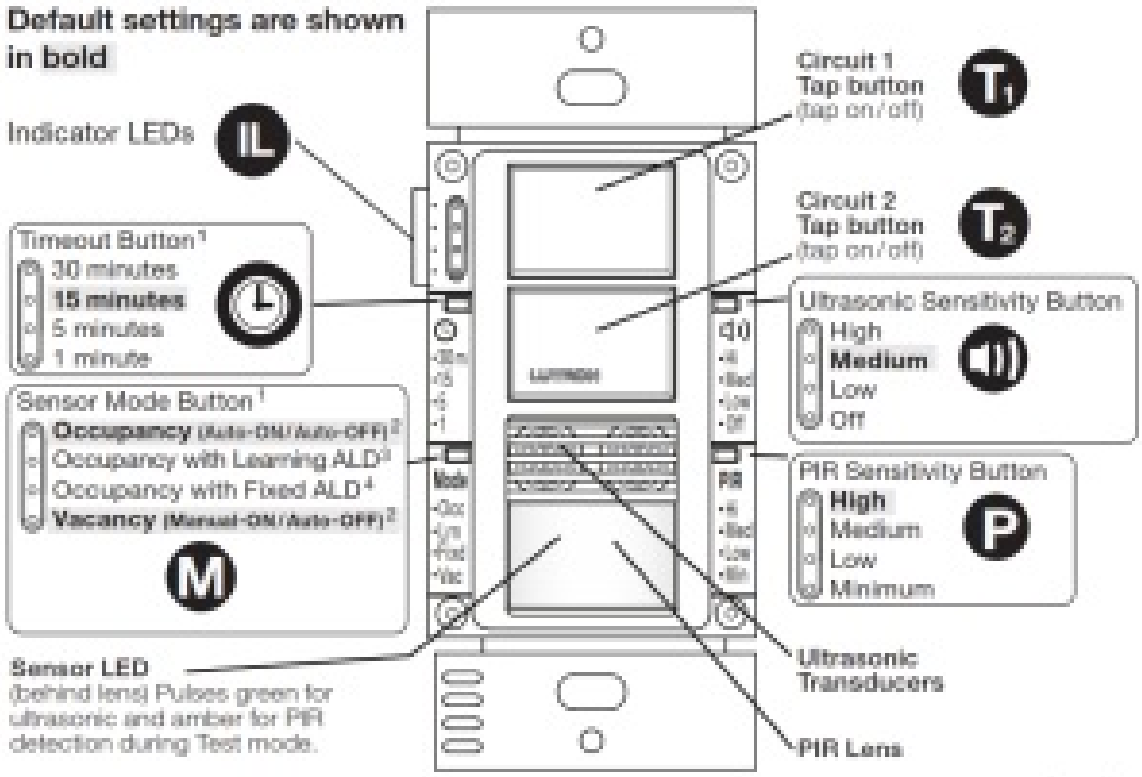
4. **Wait for 2 minutes**
   - ♦ The sensor switch will manually control the load after the first 10 seconds.
   - ♦ Once power has been restored, the sensor switch will automatically control the load after the first 2 minutes.

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 T_1 or T_2 simultaneously will program settings for that specific circuit.
2. Tap the same programming button to cycle to your desired setting.
3. Press and hold the same programming button until the IL goes solid to lock your selection (about 3 seconds).



1. Using ONLY the or to enter programming mode will set BOTH circuits to the new setting. Holding or and or simultaneously will program settings for that specific circuit.
2. Circuit 1 Default : Occupancy ;Circuit 2 Default : Vacancy
3. ALD (Ambient Light Detection) Learn mode will turn lights on only if natural light in room is low. If switch turns on when there is enough natural light, or if switch does not turn on when there is not enough natural light, press the tap button within 5 seconds of entering the room. Over time, the switch will learn your preferred setting. If both circuits are set to Occ with Learning ALD mode, they will learn the SAME threshold.
4. ALD (Ambient Light Detection) Fixed mode will turn the lights on only if natural light in room is low. The light level at which lights will automatically turn on (or stay off) can be adjusted through the “Set ALD Fixed Level” setting in “Additional Settings” section.

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 sensor’s coverage with the current settings. To enable Test Mode:

1. Press and hold either or until the PIR lens flashes (about 7 seconds).
2. 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 or for 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.

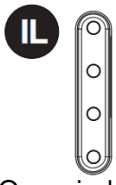
Off-While-Occupied

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 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.



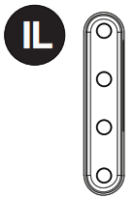
Off-While-Occupied Disabled 2

Off-While-Occupied Enabled (Default)

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).
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 room is very bright Medium

Low (Default when in ALD Fixed mode)

Minimum – turns lights ON only when room is dark

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 five years 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 FIVE years 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.

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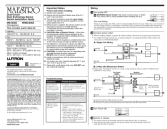
Documents / Resources

	MAESTRO MS-B202 Dual Circuit Dual Technology Sensor Switch [pdf] Installation Guide MS-B202, WMS-B202, MS-B202 Dual Circuit Dual Technology Sensor Switch, Dual Circuit Dual Technology Sensor, Dual Technology Sensor Switch, Sensor