

Troubleshooting guide for LaMar Lighting Occu-Smart fixtures

Although Occu-Smart fixtures have proven to be energy efficient as well as reliable there are those rare occasions when you need to troubleshoot a fixture. Most issues can be resolved using this guide.

Note: We recommend using name brand lamps. “Off brand” lamps are often of questionable quality and may not meet ANSI standards. (These standards ensure that the characteristics and performance of products are consistent, that people use the same definitions and terms, and that products are tested the same way.) Many field issues are a result of poor quality lamps. Although component failures do occasionally occur, we recommend replacing all lamps in the fixture with new ones as a first measure of troubleshooting.

Lamp Conditioning: Although some lamp and ballast companies do not require lamp conditioning when lamps are operated with dimming ballasts, Occusmart units are equipped with a 100-hour lamp-conditioning feature. To ensure proper lamp life and to minimize end blackening, we highly recommend that all new lamps should be conditioned prior to low light level operation. (This applies to bi-level units, not 2C (two circuit) or full on/off).

To initiate the lamp-conditioning feature, simply press and hold the small black button on the motion sensor (under red LED) for 5 seconds. The red LED should start slowly flashing, and the lamps will stay at full brightness for 100 hours. After completion of lamp conditioning, unit will resume normal operation.

Input Power and Grounding: Make sure that the fixture is receiving the necessary power observing proper polarity, (motion sensor will not work if polarity is reversed) and that the lamps are installed correctly and turned in socket. All lamp pins should be completely seated in the sockets. Most Occusmart units are universal voltage (120-277 volt). Voltage variances greater than +/- 10% may cause units to fail. Ensure positive ground connections. *Units may not function properly unless grounded.* It is important the wire-way cover be installed prior to testing operation to ensure proper ground field for the lamps. Lamps may not light without the steel cover fully installed.

Internal Connections: Check all connections at the Power pack. Wires are secured with small screw clamps. Check that the wires are properly installed in the clamp and that wire insulation is not interfering with proper connection. **DO NOT OVER-TIGHTEN CLAMP SCREW**, it may strip the threads and voids the component warranty. If the green LED is lit, the power pack is receiving power.

Lamp Life: If you are experiencing a problem with shortened lamp life or severe end blackening (and have completed lamp conditioning as described above), check the socket wires to make sure that they are secure and have not come loose. Push wire into socket (do not push past wire insulation) and pull gently to ensure proper contact. If wire does not stay in socket, contact factory for replacement.

Sensor Issues: Sensor Failure - If the red LED on the face of the fixture does not light up, motion is not being detected. Open the fixture to expose wiring compartment and confirm that the sensor is plugged into the power pack. If the green led on the internal power pack is pulsing or swirling, this may indicate a bad sensor. Remove the plug from the power pack and re-insert. If green light is still pulsing – replace sensor. If the green light is pulsing while sensor is not plugged in, replace power pack.

Sensitivity adjustments are best made with the sensor in ‘walk-test’ mode. Press the black button under the red LED once briefly. The walk test mode will last for 5 minutes with a 10 second delay time after sensing motion. Every time the red LED flashes, motion is being sensed. This allows for adjustments and testing during the 5-minute period. If more time is needed, simply push the button again.

If the lamps are dimming or turning off during occupancy (depending on model) the sensitivity setting on the sensor may be set too low. Gradually turn the adjusting trim pot turn clockwise to increase sensitivity, and counter clockwise to reduce sensitivity. The adjusting trim pot is very sensitive and can damage easily if over-turned. Use a small screwdriver, and do not force the adjusting screw past the stops.

If the unit is not dimming or turning off (based on model) the sensitivity may be set too high. Put the unit in walk test mode (as described above) and stand perfectly still a few feet away from the fixture while observing the red LED. If the LED does not turn off, and the lights do not dim (or turn off) adjust the sensitivity trim pot but gently turning it with a small screwdriver counter-clockwise 1/8 turn at a time. **DO NOT TURN SCREW PAST STOP OR PERMANENT DAMAGE WILL RESULT, VOIDING WARRANTY.**

Mounting Considerations: Units should be mounted with the sensor facing the detection space, and should not be directly facing a wall or obstruction within approximately two feet. Since ultra sonic sensors will detect airflow, mounting the unit facing a stairwell will still pick up the door opening even though the sensor is not facing the door.

Note: Ultra-sonic motion sensors are sensitive to strong drafts or airflow. Occusmart units should not be mounted in front of ventilation ducts, open window, doors, or other areas exposed to high airflow.

If you need further assistance, please email ‘tech@lamarlighting.com’ or call 631-777-7700 and ask for the technical department.

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