

LCX Series

Models: LCX-OCC

Microwave Motion Sensor

Safety Precautions

Read all safety precautions and installation instructions carefully before installing or servicing this motion sensor. Failure to comply with these instructions could result in potentially fatal electric shock and/or property damage.

It is recommended that a qualified electrician perform all wiring. This motion sensor must be wired in accordance with all national and local electrical codes.

Do not handle any energized appliance or attempt to energize any appliance with wet hands or while standing on a wet or damp surface or in water.

This motion sensor is designed for use in a 110-120VAC, 60Hz fused circuit.

Make sure that the power source conforms to the requirements of the sensor (see labels on sensor housing).

To reduce the risk of electrical shock, and to assure proper operation, this motion sensor must be adequately grounded. To accomplish proper grounding, there must be a separate ground wire (yellow) or bare metal contact (metal conduit) between this motion sensor and the ground connection of your main power supply panel.

This motion sensor is intended to be used for general indoor lighting in dry or damp locations.

Assembly Instructions

1. Preparing for installation

- Disconnect electrical power before installing or servicing any part of this appliance.
- Remove all parts and parts bags from carton.
- Separate motion sensor unit, remove cover (1), jumper cable (2), and hardware BX conduit connector (3).

2. Wiring. All wiring must take place inside motion sensor.

Caution: Make sure power is off at fuse or circuit breaker box. Check power wires for damage or scrapes. If power supply wires are within three inches of driver use wire suitable for at least 90°C (194°F). **Note:** Most dwellings built before 1985 have supply wire rated to 60°C. Consult a qualified electrician before installing.

- This unit will not operate properly unless connected to a "grounded" electrical circuit. Electrical shock, overheating, low or no light output, and shortened lamp life can result if proper grounding is not done. Refer to step B for proper grounding if hardwire. Optional three prong power cable (5) (not provided) has proper grounding center contacts.
- For hardwire installation: Using BX conduit connector (3) (provided), remove one of two convenient plastic knockouts and install BX connector firmly to the housing. Feed three solid conductor wires (14-18AWG) (not provided) 3 inches inside the unit. Strip back 5/8" to expose bare wire before inserting into wire connectors. Connect ground supply wire to unit yellow wire with orange connector. Connect white (common) supply wire to white unit wire with orange connector. Connect black (hot) supply wire to black unit wire with orange connector. **Do not mix wires.** Pull on each wire lead to make sure connections are secure. Make certain no bare wires are exposed outside of wire connectors.
- For power cord installation: Connect power cord (5) (not provided) to INPUT port keyed mated pair connection.

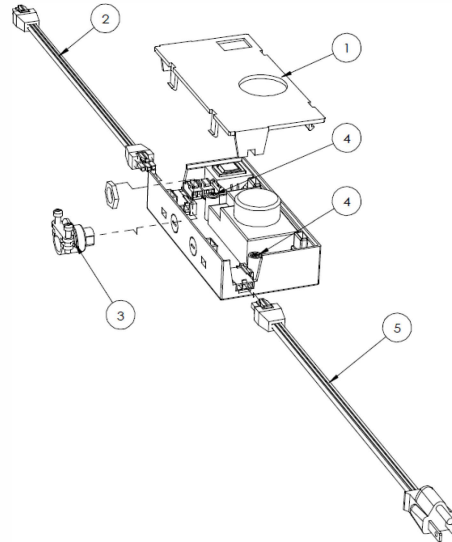
3. Unit mounting

Locate housing inside or above the cabinet then mark and drill 1/16" pilot holes for 2 captive screws (4) (provided) to secure to cabinet. **Note:** Motion sensor can be hidden away without sacrificing detection range.

4. Installing cover

Align cover (1) to housing making certain four plastic tabs and slots are engaged before pressing to close.

5. Restore power at fuse or circuit breaker box.



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Technical Specifications:

Power supply: 100-130VAC

Suggested indoor mounting: wall, ceiling

HF system: 5.8GHz CW radar, ISM band

Distance range: 3-100ft (radius), adjustable

Duration: 10sec to 12min

Light sensitivity detection: 2-2000LUX

Power frequency: 50/60Hz

Transmission power: <10mW

Detection angle: 360°

Rated load: 500W Max. (Incandescent lamps)

300W Max. (LED or CFL lamps)

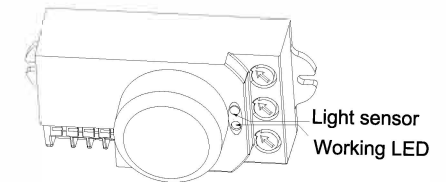
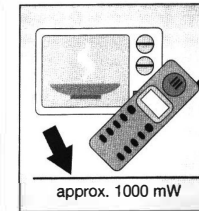
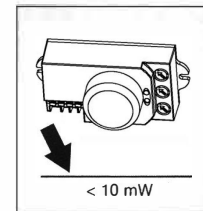
power consumption: 0.9W approx.

6. Microwave motion sensor specification.

The sensor is an active motion detector, it emits high-frequency electro-magnetic wave (5.8GHz) and receives their echo. The sensor detects the change in echo from even the slightest movement in its detection zone. A microprocessor then triggers the "switch light ON" command. Detection is possible through doors, panes of glass or thin walls.

Important: persons or objects moving towards the sensor are detected best!

NOTE: the high-frequency output of this sensor is <10mW- that is just one 100th of the transmission power of a mobile phone or the output of a microwave oven.



7. ON / OFF power switch



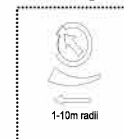
All lightings connected to motion sensor are operated by this rocker switch. The rocker switch has three settings **O**, **I** and **II** mode by depressing rocker to any desire positions.

a) **O** position = This setting will turn **OFF** all power to motion sensor and all functionality of the unit will be disabled. Lights will be off in this setting.

b) **I** position = This setting will turn **ON** motion sensor (normal setting). Sensitivity adjustments and motion detection is in full operational mode. **Continue to step 8 for testing**

c) **II** position = This setting will turn **ON** any lightings that are connected to the unit. However, sensitivity and motion detection will be disabled.

8. Testing:



Reach setting (sensitivity)

Reach is the term used to describe the radius of the circular detection zone produced on the ground. After mounting the sensor light at a height of 8ft, rotate the reach control completely in counter-clockwise direction to select minimum reach (approx. 3ft radius), and rotate the reach control completely in a clockwise direction to select the maximum reach (approx. 100ft radius).

The LED indicator will flash when the reach control is rotated. It flashes 1 to 10 times, representing 3ft to 100ft radius of detection zone.

NOTE: The above detection distance is measured referencing a person who is between 5'-2"~5'-6" tall with an average build, moving at a speed of 3.2~5ft/sec. If any of these variables are changed, the detection distance will also change.

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Time setting

The light can be set to stay ON for any period of time between approx. 10sec (dial rotate fully counter-clockwise) and a maximum of 30min(dial rotate fully clockwise). Any movement detected during the “on” time will reset the timer. The LED indicator will flash when adjusting the time setting dial. The number of flashes means the following: 1 flash = 5 sec, 2 flashes= 15sec, 3 flashes= 30sec, 4 flashes= 1 min,5 flashes=2 min, 6 flashes= 4 min, 7 flashes= 6 min, 8 flashes= 8 min, 9 flashes= 10 min, 10 flashes= 12min.

NOTE: After the light switches off, it takes approx. 1sec before it is able to start detecting movement again. The light will only switch on in response to movement once this period has elapsed.

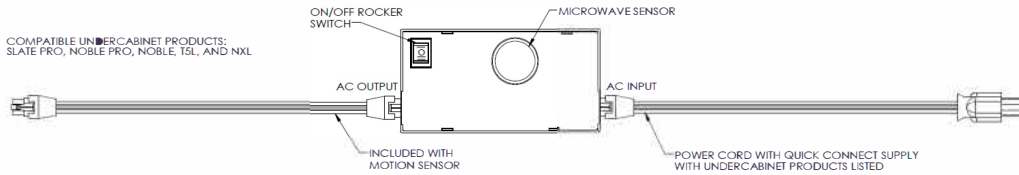


Light-control setting

The chosen light response threshold can be infinitely from approx. 2-2000lux. Turn it fully counter-clockwise to select dusk- to-dawn operation at about 2 Lux. Turn it fully clockwise to select daylight operation at about 2000lux. The knob must be turned fully clockwise when adjusting the detection zone and performing the walk test in daylight. *Note: This feature is disabled with the unit.*

Troubleshooting

Malfunction	Cause	Remedy
The load will not work	• wrong light-control setting selected	• Adjust setting
	• load faulty	• Change load
	• mains switch OFF	• Switch ON
The load work always	• continuous movement in the detection zone	• check zone setting
The load work without any identifiable movement	• the sensor not mounted for detecting movement reliably	• securely mount enclosure
	• movement occurred, but not identified by the sensor(movement behind wall, movement of a small object in immediate lamp vicinity etc.)	• Check zone setting
The load will not work despite movement	• rapid movements are being suppressed to minimize malfunctioning or the detection zone you have set is too small	• Check zone setting



Limited Factory Warranty

AFX Inc. hereby warranty that this fixture is free from defects in materials and workmanship when installed and used under normal operating conditions for a period of 5 years from date of shipment from factory. This warranty covers all component parts and extends only to replacement of defective fixture or components; it does not cover failure due to improper installation, misuse, mishandling or damage incurred in transit.