

Motion Sensor Operating Instructions:

This ultrasonic sensor is designed to integrate into specially designed lighting fixtures. It is an advanced ultrasonic occupancy sensor with a 40KHz frequency. Utilizing advanced omni-directional, Doppler technology, the sensor detects movement in a controlled area and then switches lighting on to 100% upon occupancy detection. The adjustable time delay keeps the lights on for a set period of time. If there is no detection of movement during the present time delay period, the light will turn off or go dim.

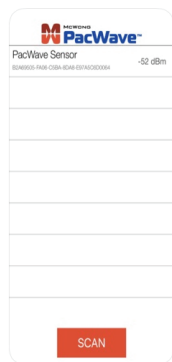
Bluetooth App Download



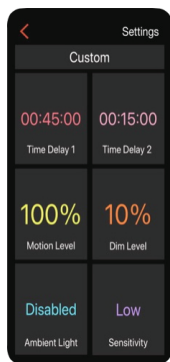
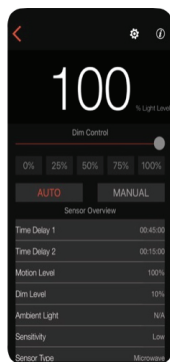
Scan for iPhone App



Scan for Android App



The PacWave™ Sensor mobile application complements your Bluetooth® Smart enabled PacWave™ Ultrasonic, Microwave, and PIR bi-level occupancy sensors by providing a simple user interface to configure the sensor's settings beyond what the physical controls can offer, view real-time feedback from the sensor, and control your lighting.



UNIT IS INTENDED TO BE INSTALLED BY A QUALIFIED ELECTRICIAN

TROUBLESHOOTING - BEFORE CALLING FACTORY CHECK THE FOLLOWING:

FIXTURE IS PROPERLY EARTH GROUNDED - USE A METER

FIXTURE HAS PROPER POLARITY - IF REVERSED SENSOR WILL APPEAR TO BE WORKING BUT NOTHING WILL HAPPEN **THERE ARE NO LOOSE CONNECTIONS** - CONFIRM WIRES ARE INSERTED INTO LED BOARDS FROM DRIVER AND THAT LED BOARDS ARE PLUGGED INTO DRIVER LEADS. IF UNIT IS EQUIPPED WITH WATT STOPPER POWER PACK, CHECK LEADS GOING INTO POWER PACK AND DRIVER DISCONNECT AS WELL.

THERE IS ACTUALLY POWER TO THE FIXTURE - UNIT IS DESIGNED TO OPERATE AT 120 VOLT - 277 VOLT ONLY

IF EQUIPPED WITH EMERGENCY BATTERY PACK, ENSURE THAT SEPARATE BATTERY MODULE IS CONNECTED TO EMERGENCY LED DRIVER.

Mount fixture to intended surface

Attach house mains to supplied disconnect

Black = Mains Hot

White = Mains Neutral

Green = Ground

If the unit contains an emergency battery pack, connect RED lead to mains constant hot lead

LaMar LED 1150 Motor Pkwy, Central Islip, NY 11722 tel 631.777.7700 | fax 516.333.7695 | Outside NY 888.665.2627
www.lamarled.com | www.occusmart.com



occu-smart®

IMPORTANT!!!

**THESE INSTRUCTIONS MUST BE FOLLOWED FOR PROPER OPERATION OF THIS FIXTURE
SAVE THESE INSTRUCTIONS**

IMPORTANT SAFEGUARDS:

WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED INCLUDING THE FOLLOWING:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- CAUTION - RISK OF FIRE OR ELECTRIC SHOCK
- DISCONNECT POWER PRIOR TO INSTALLATION - DO NOT CONNECT THE FIXTURE TO A/C MAINS WHILE POWER IS ON!
- DO NOT USE OUTDOORS!
- EQUIPMENT SHOULD BE MOUNTED IN LOCATIONS AND AT HEIGHTS WHERE IT WILL NOT BE SUBJECTED TO TAMPERING BY UNAUTHORIZED PERSONNEL
- THE USE OF ACCESSORY EQUIPMENT NOT RECOMMENDED BY THE MANUFACTURER MAY CAUSE AN UNSAFE CONDITION
- DO NOT USE THIS EQUIPMENT FOR OTHER THAN ITS INTENDED USE
- THIS UNIT IS INTENDED TO BE INSTALLED BY A QUALIFIED ELECTRICIAN
- DISCONNECT ALL POWER SOURCES BEFORE INSTALLATION
- UNITS **MUST BE GROUNDED** AND INSTALLED IN ACCORDANCE WITH LOCAL ELECTRICAL CODES
- ALL SERVICING SHOULD BE PERFORMED BY QUALIFIED PERSONNEL
- **DISCONNECT POWER BEFORE SERVICING OR REPLACING LED BOARDS AND DRIVERS**

IT IS THE RESPONSIBILITY OF THE INSTALLER TO PROPERLY COMMISSION THESE UNITS

OCCUSMART FIXTURES EQUIPPED WITH ULTRASONIC SENSORS MAY NOT OPERATE PROPERLY IN AREAS PRONE TO DRAFTS OR EXPOSED TO HVAC EQUIPMENT

PROPER POLARITY IS CRITICAL TO THE NORMAL OPERATION OF THESE UNITS

Warranties

Occu-Smart® Fixture Warranty

All non-electrical equipment is warranted for a period of one year. A replacement part will be furnished in exchange for any part in a fixture, excluding lamps, which under normal use and service proves defective within one year after purchase. This warranty is null and void if fixtures are installed in a manner other than stated normal conditions. If fixtures have been subjected to abnormal stresses, such as, but not limited to, ambient room temperature or ceiling plenum temperature exceeding 90 degrees F; or if the voltage is more than 5% above the rated line voltage of the driver; or if "insulating blankets" are installed closer than 1" from recessed fixture sides and tops or if surface units are mounted to low density combustible ceilings, thus causing overheating and driver failure. Consult factory if application requires low operating temperatures. Units returned to the factory pre-paid will be repaired or replaced at no charge if the defect is due to defects in materials or workmanship during the warranty period. Damage due to negligence, vandalism or other environmental conditions is not covered under this or any other stated warranties. **NO LABOR CHARGES WILL BE BORNE BY LAMAR LED FOR REMOVAL OR REINSTALLATION OF PRODUCTS WITHOUT PRIOR WRITTEN AUTHORIZATION.**

Certification and Affiliations

All items U.L. Listed and IBEW Union Made

Driver and LED Warranty

All drivers used by LaMar LED are those of recognized manufacturers and are warranted by the applicable manufacturer for a period of 60 months from the date of manufacture. Any defects in drivers or LED boards occurring out of normal usage will be replaced on a no-charge basis, provided that such failure is within the warranty period. **No allowance for labor charges involved in replacing components will be borne by LaMar LED.** Should there be a part failure, advise us immediately and we will notify the manufacturer of the difficulty and they in turn will notify you as to disposition of this problem. **Do not proceed with repairs until authorization is received from the component manufacturer.**

Ultrasonic Occupancy Sensor Warranty

McWong International Co., Inc. warrants its products to be free of defects in materials and workmanship for a period of five years. There are no obligations or liabilities on the part of McWong Int'l Co., Inc. for consequential damages arising out of or in connection with the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation. This warranty covers replacement parts only, no labor. Damage to the sensor components as a result of improper installation, adjustments or vandalism is specifically excluded.

Emergency Battery Pack Warranty (on units so equipped)

Internal emergency packs are warranted by their respective manufacturer for 1-5 years from date of manufacture, provided that the failure is due to defects in materials or workmanship. Repair or replacement will be made at no charge if testing and inspection show that operating conditions have been within specified limits. **Neither battery pack manufacturer nor LaMar LED will be responsible for any labor or back charges without prior written consent. This warranty is for replacement parts only - not removal or replacement labor.**

Detection Range



Left (Fully CCW)

Sensitivity Mode = Low

(Turn CW to increase sensitivity)



Center

Sensitivity Mode = Medium



Right (Fully CW)

Sensitivity Mode = High

(Turn CCW to decrease sensitivity)

Motion Detection



Left (Fully CCW)

Time Delay = 1 minute



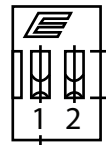
Center

Time Delay = 5 minutes

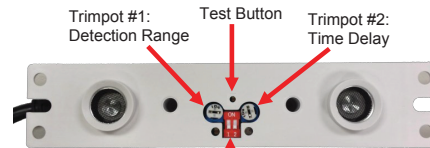


Right (Fully CW)

Time Delay = 20 minutes



Dipswitch 1	Dipswitch 2	DIM Level
OFF	OFF	5% or OFF*
OFF	ON	10%
ON	OFF	25%
ON	ON	50%



*Will dim to off when "FO" model is ordered

Dipswitches:
Dimming
Level

Standby Light Level



Dipswitch Position = "OFF OFF" or "00"

Dim Level = 5% or OFF depending on model



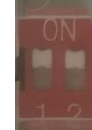
Dipswitch Position = "OFF ON" or "01"

Dim Level = 10%



Dipswitch Position = "ON OFF" or "10"

Dim Level = 25%



Dipswitch Position = "ON ON" or "11"

Dim Level = 50%

Trim pots

Trimpot #1 on left adjusts motion detection range and sensitivity. Trimpot #2 on right adjusts time delay. Turn clockwise to increase, turn counter-clockwise to decrease.

Test button sets the time delay to 5 seconds and runs for 5 minutes. LED flashes 2 times to indicate Test Mode has started. After 5 minutes (or pushing the Test Mode button again), LED flashes 3 times, the sensor returns to the selected Trimpot time delay setting.

The adjusting screws are delicate! Adjustments must be made carefully. ONLY use a small phillips driver for sensitivity adjustments. DO NOT turn screw past Min or Max setting. Damage will occur by turning past limits.

Sensor Operation

Upon initial power up, the sensor will turn on to 100% and then dim to 10% after 20 seconds. After that, it will run based on the programmed time delay and dim level.

During standard operation, the sensor will turn on to 100% when motion is triggered. It will then dim the light to the level set by the dip switches after the time delay (set by Trimpot #2) expires. The light will remain at this dim level indefinitely until motion is triggered again (light will not turn off). (Bluetooth app will override these settings).

Bi-level Dimming

0-10V dimmer connects to 0-10V control on the LED driver. When motion is detected the sensor will bring lighting up to 100% lumen output. When no motion is detected for the length of selected time delay, the sensor will send a signal to dim lighting to a specific level set by the end user.

Test Mode

Pressing the test button puts the sensor into test mode. Test mode sets the time delay to 5 seconds and runs for 5 minutes. The red motion LED will flash twice to indicate that test mode has started. After either 5 minutes has elapsed or the test button is pushed again, the red motion LED will flash three times to indicate the sensor is returning to normal operation based on the programmed time delay and dim level.