



Enerlites MPC-52V 360 Degree Line Voltage PIR Occupancy Ceiling Sensor Instruction Manual

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Enerlites MPC-52V 360 Degree Line Voltage PIR Occupancy Ceiling Sensor



Product Information

Product Name: MPC-52V Self-Contained PIR Occupancy Sensor

Supported Loads:

- Resistive: 10A-120VAC
- Incandescent: 800W-120VAC
- Electronic Ballast: 800VA-120VAC, 1200VA-277VAC
- Motor: 1/4HP-120VAC

Features:

- PIR Radius of 16' (or 32' diameter)
- Light Level Adjustment
- Sensor Adjustment (Sensitivity and Time Delay)
- PIR Sensor with Detection Indicator LED

Product Usage Instructions:

1. To adjust the desired level of light under normal lighting conditions, turn the dial to point the arrow towards the “-” sign for the sensor to detect motion and operate during low light or no light. Point the arrow towards the “+” sign for the sensor to operate when there’s more light in the area or even during daylight.
2. To adjust the sensitivity setting, use DIP switch 1. The “50%” setting will decrease the coverage area to half the range, while the “100%” setting will utilize the maximum range. The maximum range of MPC-52V coverage is 800 square feet.
3. To set the time delay, use DIP switches 2, 3, and 4. The time delay can be set from 15 seconds to 30 minutes. When no movement is detected by the sensor, the lights will automatically turn off after the selected time delay has expired.
4. To test the occupancy sensor:
 1. Ensure that the PIR activity is enabled and the green LED flashes, and the PIR sensitivity is set to 100%.

2. Set the time delay to Test Mode.
 3. Set the light level to the maximum position.
 4. Remain still. The green LED should not flash, and the lights should turn off after 15 seconds.
 5. Move around in front of the coverage area. The lights should turn on automatically.
 6. Once the functional test is complete, set the desired settings for DIP switches, time delay, and light level, and put the front cover back on the sensor.
5. If the lights do not turn off automatically:
1. If the LED blinks but there is no motion detected, check for any nearby sources of infrared energy (heat) in motion, such as turbulent air from a heating or cooling supply.
 2. Verify the time delay settings in switches 2-4. Ensure that the time delay is set to the desired delay and that there is no movement within the sensor's view for that time period.

SPECIFICATIONS

- **Resistive** 10A-120VAC
- **Incandescent**800W-120VAC.....800VA-120VAC
- **Electronic Ballast**1200VA-277VAC
- **Motor**1/4HP-120VAC
- **Operating Temperature**32°to 131°F (0°to 55°C)
- **Adjustable Light Level**10FC—150FC
- **Adjustable Time Delay**15 sec.-30min.
- **Sensitivity Adjustment**50% or 100% (DIP switch 1)
- **Coverage**Up to 800 ft 2

DESCRIPTION

Presenting the self-contained passive infrared ceiling occupancy sensor – an optimal, cost-effective solution meticulously designed for commercial and institutional environments. It shines particularly in scenarios where the installation of a recessed ceiling unit is cumbersome, impractical, or prohibitively expensive. With versatile voltage options available – 120V and 277V, the MPC-52V model excels across diverse spaces such as storage areas, compact bathrooms, copy rooms, mop/sink closets, or in places where wall switches are absent. This exceptional self-contained ceiling sensor sets itself apart by obviating the need for an external control unit for power supply, junction box, or load switching. Noteworthy is its LED readiness, adding an additional layer of energy efficiency to its impressive capabilities.

FEATURES

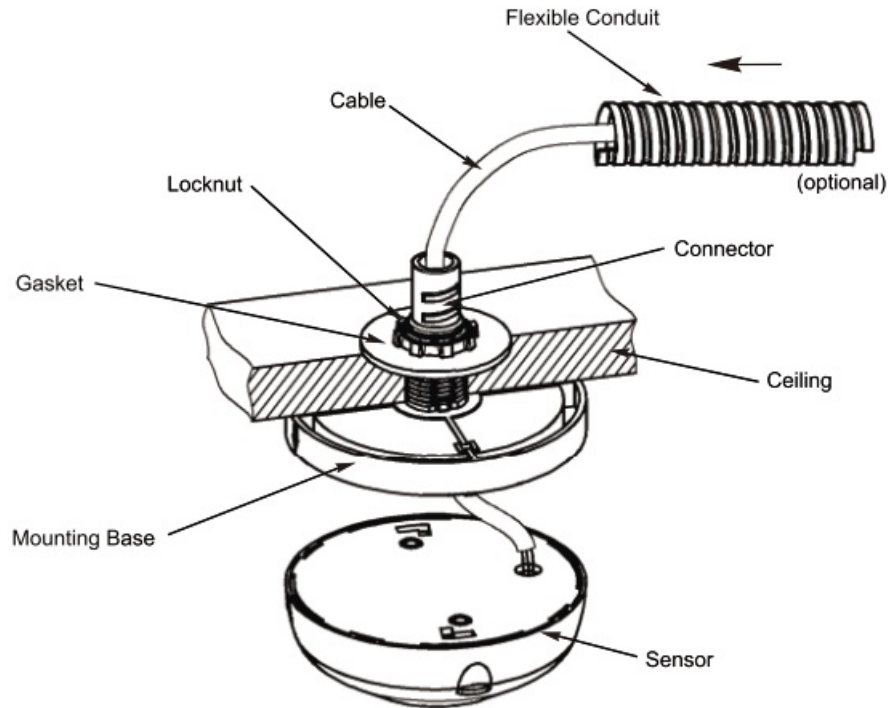
- 4-ft wire lead included
- Minor and major motion lenses included
- 2" nipple base for pass-through installation

WARNING

- Turn the POWER OFF at the circuit breaker before installing the sensor
- Read and understand these instructions before installing.

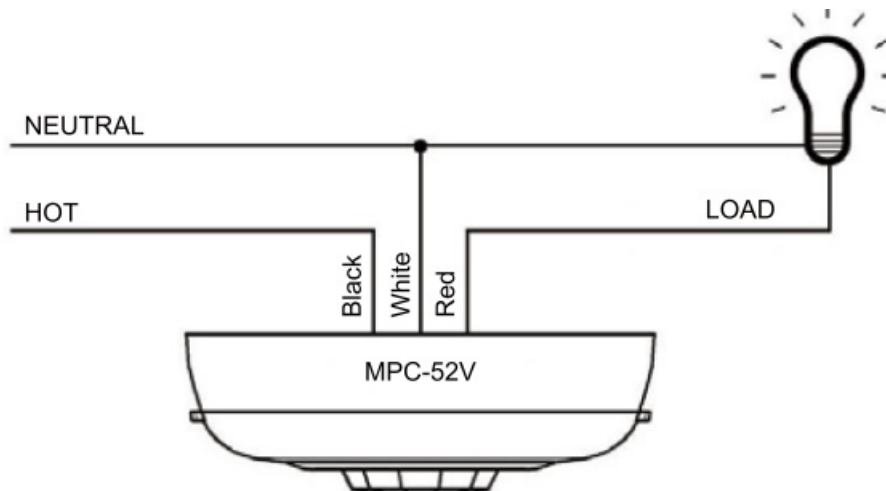
- This device is intended for installation in accordance with the National Electric Code and local regulations.
- It is recommended that a qualified electrician performs this installation. Make sure to turn off the circuit breaker or fuses) and make sure power is off before wiring the device.
- Use copper wires only.

INSTALLATION



1. Cut a 7/8" round hole in the ceiling tile at the mounting location.
2. Attach the connector on the mounting base through the cutout.
3. Twist the locknut onto the connector until the mounting base is tight.
4. Pull the high voltage wires through the connector.
5. Follow the wiring diagram and connect the high voltage wires to the appropriate terminals on the sensor.
6. Attach the sensor and lock it onto the mounting base with a slight twist.

WIRING DIRECTIONS

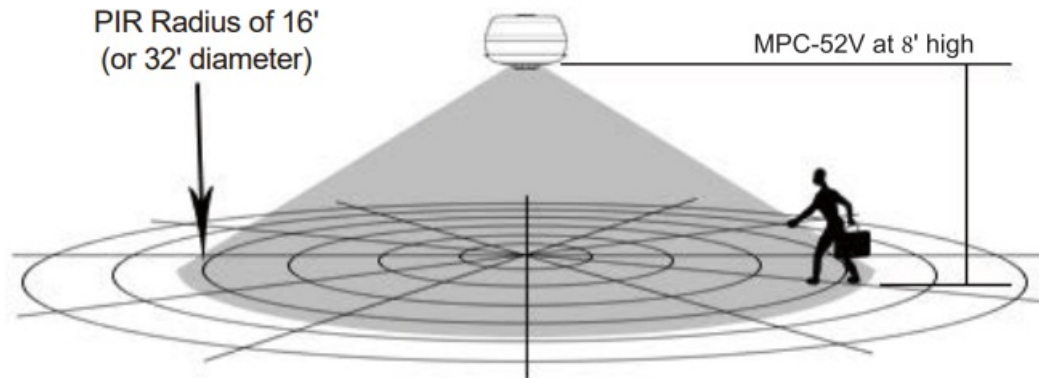


1. Connect the HOT wire to the BLACK wire on the sensor.

2. Connect the NEUTRAL wire to the WHITE wire on the sensor.
3. Connect the LOAD wire to the RED wire on the sensor.

COVERAGE

The MPC-52V provides a 360° coverage pattern. The coverage shown represents walking motion at a mounting height of 8 feet. For building spaces with lower levels of activity or with obstacles and barriers, coverage size may decrease.



Location: Device should be mounted in a location free of obstruction from furniture, plants, walls and vibration (see Figure 1). The sensor must be mounted a minimum of 4 ft. away from any air vents. Avoid mounting the sensor close to heat source. When mounting directly to a ceiling light fixture, the lens of the sensor must be below the lowest point of the fixture. MPC-52V is designed for a ceiling height of about 8-10 feet. Because of the umbrella shaped coverage pattern, mounting above or below the recommended height could reduce coverage range and sensitivity. It is not necessary to have occupancy sensor coverage on every square inch of space in any particular room.

• Helpful hints:

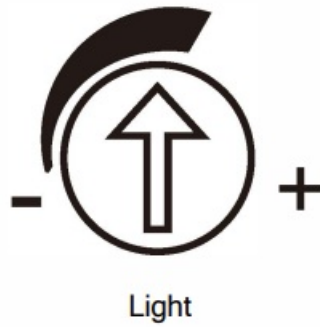
- **a.** Make sure that the sensor's view of the entrance will not be blocked by the door when it is open.
- **b.** Program a longer time out to avoid the lights constantly turning on/off.
- **c.** Do not mount sensors close to air vents.
- **d.** Cover the main walkways.
- **e.** Try to avoid having the sensor looking out the door of the space

• Open Office or Classroom Area Coverage:

- **a.** To get complete coverage in an open office area, install multiple sensors so that there is at least 15% overlap with each adjacent sensor's coverage area.
- **b.** The sensors should cover the primary occupant's desk, the entrance and any other areas with heavy traffic.

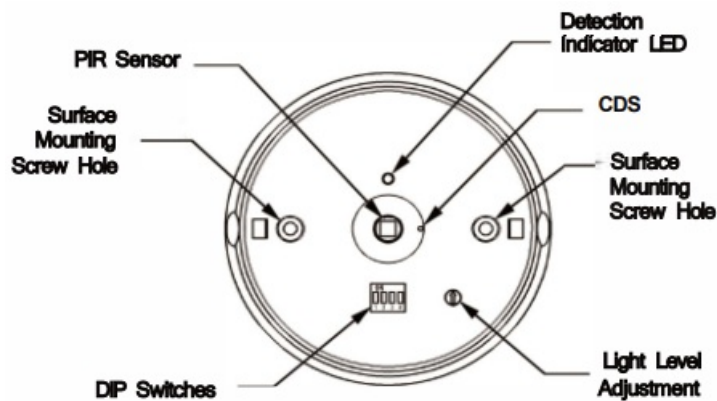
LIGHT LEVEL ADJUSTMENT

The sensor may be adjusted to operate at the desired level of light under normal lighting conditions of the immediate area.



To do so, turn the dial to point the arrow toward the “-” sign for sensor to detect motion and operate during low light or no light. Point the arrow toward the “+” sign for sensor to operate when there’s more light in the area or even during daylight.

SENSOR ADJUSTMENT



Note: The LED indicator flashes during the 60-seconds warm-up period when power is first applied. If the sensor detects occupancy during the warm-up, the time delay will increase. If no occupancy is detected during the warm-up, the light turns OFF after the initial 60-seconds warm-up period.

DIP SWITCH SETTING

The MPC-52V has 4 DIP switches under the lens cover. They are used to set the sensitivity and lime delay. This device is factory preset for quick installation and is ready to test once installed. After testing, adjust the DIP switches and Light dial to desired levels.

◀ Factory setting

⌏ = OFF ! = ON

Sensitivity	1
100%	⌏
50%	⌏

Time Delay	2	3	4
Test/15 Seconds	⌏	⌏	⌏
5 Minutes	⌏	⌏	⌏
10 Minutes	⌏	⌏	⌏
15 Minutes	⌏	⌏	⌏
20 Minutes	⌏	⌏	⌏
25 Minutes	⌏	⌏	⌏
30 Minutes	⌏	⌏	⌏

Sensitivity setting: DIP switch 1

- **50%** – This setting will decrease the amount of area the sensor will cover to half the range.

- **100%** – This setting will allow the sensor to utilize the maximum range. Maximum range of MPC-52V coverage is 800 square feet.

Time delay: DIP switch 2,3,4

The time delay is set with Dip switches 2, 3 and 4, from 15 seconds to 30 minutes. When there is no movement detected by sensor, the lights will automatically turn off after the selected time delay has expired.

TESTING OCCUPANCY SENSOR

Note: There is a 60- second warm-up period when power is first applied. Use a small screwdriver to open the front cover and make changes to the settings. The pre-set time delay is Test mode and light level is set at maximum

1. Ensure the PIR Activity is enabled, green LED flashes, and PIR Sensitivity is set to 100 percent.
2. Ensure the Time Delay is set for Test Mode.
3. Ensure that the Light Level is at the maximum position.
4. Remain still. The green LED should not flash. The lights should turn off after 15 seconds.
5. Move around in front of the coverage area. The lights should turn on automatically. When functional test is complete, set DIP Switches, Time Delay and Light Level to the desired settings, and put the front cover back on the sensor.

TROUBLESHOOTING

• LED does not blink:

1. Make sure the sensor has power.
2. Check the location of the sensor and verify that the sensor can detect motion from human body. If not, the LED will not blink.
3. Check the wire connections and verify that the wires are secured with wire caps.
4. Make sure the HOT and NEUTRAL wires are not reversed.

• LED blinks but lights do not turn ON:

1. Check the "Light" sensor. If the arrow is pointed to the "-" position, the area needs to be dark enough for the sensor to operate. Cover the light sensor lens to simulate darkness. If the light turns ON, the light level setting needs to be adjusted.
2. Make sure the wires are connected and bulbs are working.
3. Check for obstructions in the lens cover.
4. Make sure that power to the sensor has been ON continuously for at least one minute. Wait for the warm-up period to end.

• Lights do not turn OFF automatically:

1. If there is no motion from people or equipment in the sensor's view but the LED blinks, look for any nearby source of infrared energy (heat) in motion, such as turbulent air from a heating or cooling supply.
 - Mount the sensor so that its lens is below the edge of the fixture and does not directly view the lamps.
 - Move the air supply away from the sensor, or move the sensor.
2. Verify the time delay settings in switches 2-4. The time delay can be set from 15 seconds to 30 minutes. Ensure that the time delay is set to the desired delay and that there is no movement within the sensor's

view for that time period.

3. Check sensor wire connections, verify load and neutral wires are secure.

WARRANTY INFORMATION

This device is warranted to be free of material and workmanship defects for 2 years from the date of purchase. Original receipt or proof of purchase from an authorized retailer must be presented upon warranty claim. ALL claims must be verified and approved by Enerlites, Inc. Warranties from other Enerlites products may vary. This warranty is nontransferable and does not cover normal wear and tear or any malfunction, failure, or defect resulting from misuse, abuse, neglect, alteration, modification, or improper installation. To the fullest extent permitted by the applicable state law, Enerlites shall not be liable to the purchaser or end user customer of Enerlites products for direct, indirect, incidental, or consequential damages even if Enerlites has been advised of the possibility of such damages. Enerlites' total liability under this or any other warranty, express or implied, is limited to repair, replacement or refund. Repair, replacement or refund are the sole and exclusive remedies for breach of warranty or any other legal theory.

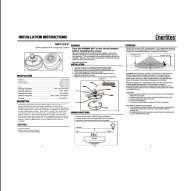
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Documents / Resources

	Enerlites MPC-52V 360 Degree Line Voltage PIR Occupancy Ceiling Sensor [pdf] Instruction Manual MPC-52V 360 Degree Line Voltage PIR Occupancy Ceiling Sensor, MPC-52V, 360 Degree Line Voltage PIR Occupancy Ceiling Sensor, PIR Occupancy Ceiling Sensor, Occupancy Ceiling Sensor, Ceiling Sensor, Sensor
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References

- [Homepage - Enerlites - Electrical Supplier](#)
- [User Manual](#)