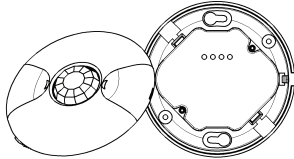


# INSTALLATION INSTRUCTIONS

## MPC-50VD

360° Passive Infrared Line Voltage  
Occupancy Sensor with 0-10V Dimming



### SPECIFICATIONS

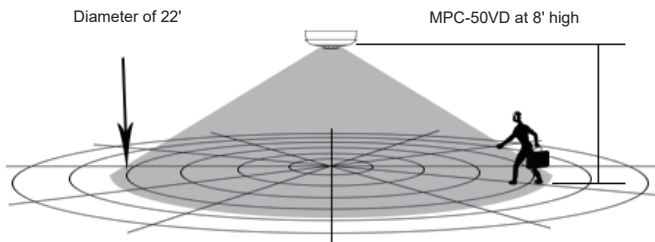
Dimmable Ballasts or LED Drivers.....	1-10VDC
Resistive .....	10A
Motor.....	1/4 HP, 120VAC, 60Hz
Electronic Ballast.....	800VA-120VAC / 1385VA-277VAC, 60Hz
Operating Temperature .....	32°F to 131°F (0°C to 55°C)
Adjustable Light Level .....	10FC—150FC
Adjustable Time Delay .....	15 sec.-30min
PIR Adjustment.....	25% to 100%
Coverage.....	Up to 1200 ft²

### DESCRIPTION

The MPC-50VD 360° occupancy sensor uses advanced PIR technology to turn on the lights when motion is detected and keep the lights on when movement is present. The sensor will automatically turn off the lights if no movement is detected within the amount of time selected in the time delay. There are 4 operating modes to choose based on the condition of the space and Title 24 requirements.

### COVERAGE

The MPC-50VD provides a 360° coverage pattern, up to 1200 square feet. The diagram below shows the range of detection with the sensor mounted at a height of 8 feet. The sensor is designed to detect a heat-emitted movements across its range of view. Obstructions and minor movements may hinder the level of detection.



**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-50VD 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.

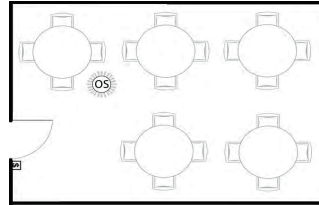


Figure 1

Helpful hints:

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

Open Office or Classroom Area Coverage:

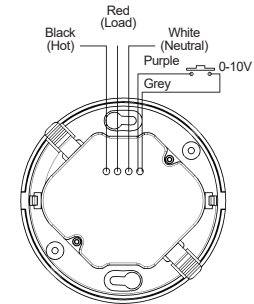
- To get complete coverage in an open office area, install multiple sensors so that there is at least 15% overlap with each adjacent sensor's coverage area.
- The sensors should cover the primary occupant's desk, the entrance and any other areas with heavy traffic.

### 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 fuse(s) and make sure power is off before wiring the device. Use copper wire only, or equivalent.

### WIRING DIRECTIONS

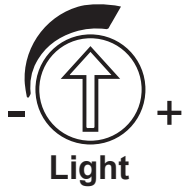


- Connect the Hot wire to the Black wire on the sensor.
- Connect the Load wire to the Red wire on the sensor.
- Connect the Neutral wire to the White wire on the sensor.
- Connect the Purple/Grey wires to the dimmable 0-10V LED electronic ballast

### LIGHT LEVEL ADJUSTMENT

The sensor may be adjusted to operate at the desired level of ambient light. 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.

NOTE: The light level is adjustable only when the time delay is set at or above 30 seconds.



### SENSOR ADJUSTMENT

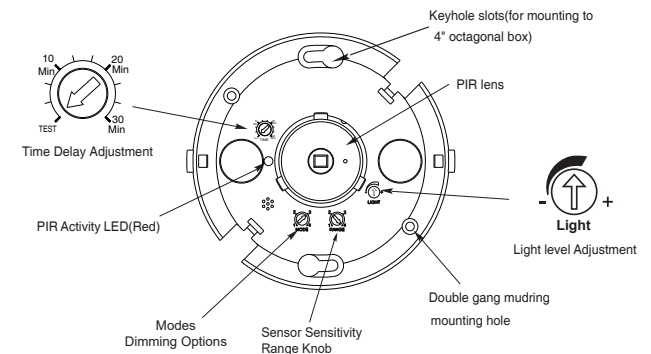
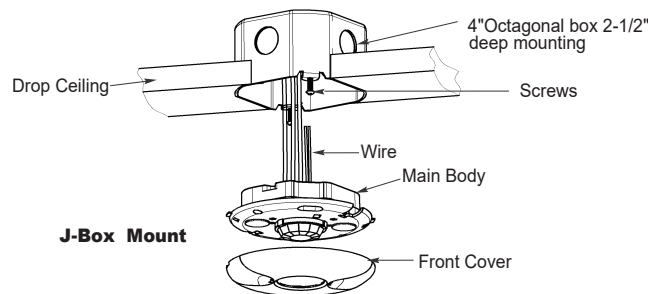


Figure 2

INSTALLATION

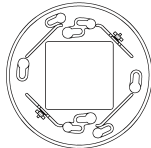
Using an Octagonal J-box (not included)

- 1. Pull the low voltage wires from the power pack into the J-Box through the conduit knockout.
- 2. Connect the low voltage wires to the appropriate terminals on the sensor.
- 3. Loosen the appliance mounting screws attached to the J-Box.
- 4. Align the sensor to the J-Box so that the mounting screws on the box match the key holes on the sensor's Main Body.
- 5. Push the sensor up into the J-Box and twist it so that the mounting screws are seated in the keyhole slots.
- 6. Tighten the two screws to secure the sensor to the J-Box.
- 7. Snap on the front cover onto the sensor.

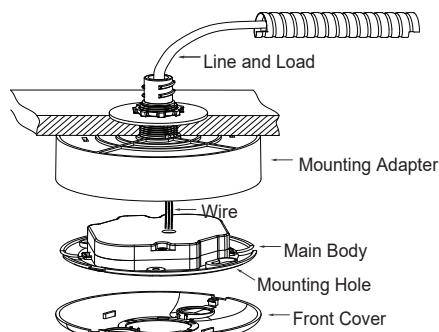


Mounting Options (not included): Auxiliary Mounting Adapter for Ceiling Sensor or quick installation method

Model	Description
MPC-A	The Auxiliary Mounting Adapter allows you to mount the ceiling sensor onto boxes such as 4" and 5" square junction box. Compatible with MPC-50V/L, MDC-50V/L

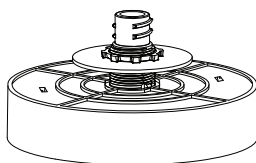


Quick Installation Method

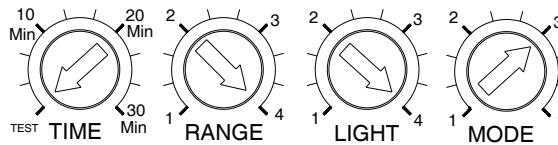


- 1. Pull the line and load wire into the sensor's adapter through the 1/2" threaded nipple.
- 2. Connect the line voltage wires to the appropriate leads on the sensor.
- 3. Feed the Purple/Grey wires through the 1/2" threaded nipple to LED ballast.
- 4. Align the sensor to the adapter so that the two side mounting latches match then snap it in.

Model	Description
MPC-B	The Auxiliary Mounting Adapter allows you to convert the ceiling sensor onto surface mount with quick installation method. Compatible with MPC-50V/L, MDC-50V/L



SENSOR SETTINGS



Time Delay Knob

- Default position: 15 Seconds (Test mode)
- Time Delay Adjustable : from 15s to 30min (clockwise)

Sensor Sensitivity Range Knob

- Default position: Adjustable: 25% (Position 1) to 100% (Position 4)
- Turn toward right for greater room space.
- Turn toward left to avoid false alert in smaller room and near the door way or heat source.

Ambient Light Level Knob

- Default position: Daylight (100% at position 4)
- Adjustable: Turn to the position 1(counter clockwise), the light threshold value is 300 lux.
- Turn to the position 4 (clockwise), regardless of ambient light level, control by PIR.
- Turn to 90% of the full range position 3 (clockwise), the light threshold value is 4000lux.

Operating Modes Knob

- Mode 1: Turn to the position 1, the Light will automatically turn ON by PIR and its output is 10V. Auto OFF by preset time delay
- Mode 2: Turn to the position 2, the Light will automatically turn ON by PIR and its output is 5V. Auto OFF by preset time delay.
- Mode 3: Turn to the position 3, the Light will automatically turn ON by PIR and its output is 10V, after the preset time delay expires its output will reduce to 5V. After 30 minutes the lights will turn off if no motion is detected. When motion is detected within 30 minutes the sensor will reverse to its original mode 3 state.
- Mode 4: Turn to the position 4, the Light will automatically turn ON by PIR and its output is 10V, after the preset time delay expires its output will reduce to 5V. After 30 minutes the lights will continue to stay on indefinitely at 5V output. When motion is detected within 30 minutes the sensor will reverse to its original mode 4 state.

TESTING OCCUPANCY SENSOR

Note: There is a 40- 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

Refer to Figure 2 on previous page.

- 1. Ensure the PIR Activity is enabled, blue and white LED flashes
- 2. Ensure the Time Delay is set for Test Mode.
- 3. Ensure that the Light Level is at the maximum position.(see" LIGHT LEVEL ADJUSTMENT").
- 4. Remain still. The blue LED should not flash. The lights should turn off after 15 seconds. (If not, see "TROUBLESHOOTING.")
- 5. Move in the front of coverage area. The lights should turn on automatically. When functional test is complete, set Time Delay, Range, Mode, and Light Level to the desired settings, and put the front cover back on the sensor.

TROUBLESHOOTING

**NOTE: There is a 40 seconds warm-up time at initial power-up. LED does not blink:**

- 1. Check that the circuit breaker has been turned back on.
- 2. Make sure that the PIR Sensitivity Range is set at number 4 for 100%.
- 3. Check all the wire connections. The Purple/Grey wires for dimming

LED blinks but lights do not turn ON:

- 1. Check the "Light" setting. 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.
  - a. Mount the sensor so that its lens is below the edge of the fixture and does not directly view the lamps.
  - b. Move the air supply away from the sensor, or move the sensor.
- 2. Verify the time delay settings. 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.

Lights do not Dim automatically:

- Check sensor wire connections.
  - a. Check to ensure the Purple/Grey wires are connected to LED.
  - b. Check sensor's operation modes.

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.