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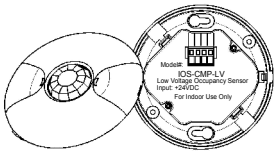


IOS-CMP-LV

360° Passive Infrared Low Voltage Occupancy Sensor With Light Level Feature

MODEL: IOS-CMP-LV

INSTALLATION AND CONFIGURATION INSTRUCTIONS

Specifications:
Voltage - 24 VDC
Current Consumption - 9mA
Power Supply - IOS-PP24 Power Packs
Adjustable Light Level - 10FC-150FC
Adjustable Time Delay - 15 sec.-30 min (DIP switch)
Walk-Through Mode - 3 minutes if no activity after 30 sec.
Test Mode - 15 sec. upon initial power-up or DIP switch reset
PIR Coverage:
Sensitivity Adjustment - Automatic or Low (DIP switch)
Coverage - Up to 1200 ft²

⚠ WARNING ***Risk of Fire, Electrical Shock or Personal Injury***

- Turn OFF power at circuit breaker or fuse and test that the power is OFF before wiring.
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are not sure about any part of these instructions, consult a qualified electrician.
- Use this device only with copper or copper clad wire.
- INDOOR USE ONLY

DESCRIPTION:

The IOS-CMP-LV 360° Passive Infrared (PIR) Low Voltage Occupancy Sensors control lighting systems based on occupancy and ambient light levels. When movement is detected, the sensor turns the lights ON. If no movement is detected for a user-specified or Autoset time of 15 seconds to 30 minutes, the lights are turned OFF. The occupancy sensor provides a 360° coverage pattern, up to 1200 square feet.

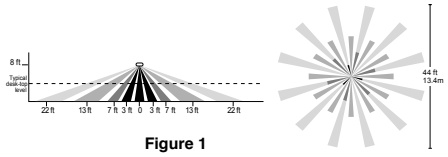


Figure 1

MOUNTING THE SENSOR

NOTE: A junction box and Phillips screwdriver are needed to complete this procedure.

1. Make sure power is turned off at the main disconnect.
2. Remove the screws on the occupancy sensor cover and remove the cover from the sensor.
3. Observe these guidelines when mounting the sensor:
   - The occupancy coverage area may be more or less than the sensing distances shown in Figure 1 due to potential coverage area obstacles, such as furniture or partitions.
   - Place the sensor 4 to 6 feet away from air supply ducts to prevent false activations.
   - If you mount the sensor outside of 8 to 11 feet from the floor, it affects the coverage pattern.
   - Decreasing the mounting height decreases the sensor range and increases the sensitivity to smaller motions. Mounting the sensor at heights more than 12 to 14 feet reduces sensitivity
   - Each occupant should be able to clearly view the sensor to guarantee no obstruction in the area
   - Avoid placing the sensor directly in line with an open door through which it has a clear view out. This may cause the sensor to detect people walking by the door.
   - To obtain complete coverage in large areas, install multiple sensors to create an overlap with each adjacent sensor's coverage area.
4. Punch knockout on the junction box and insert the IOS-PP24 power pack nipple into the knockout.
5. Pull the low voltage wires from the power pack into the junction box, through the conduit knockout.
6. Connect the low voltage wires from the power pack to the appropriate terminals on the occupancy sensor. See table below for wire designations. Refer to FIgure 2.

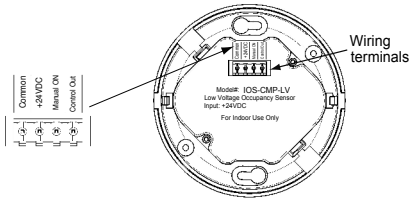


Figure 2

Wire from power pack	To Terminal on Occupancy Sensor
Red wire (+24 VDC)	**+24 VDC** terminal
Black wire (Common)	**Common** terminal
Blue wire	**Control Out** terminal

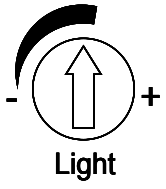


Figure 3

IOS-CMP-LV INSTALLATION

1. If you want to connect multiple single loads for the sensor to control, connect the blue wire from the power pack to the **Control Out** terminals on the sensor.
2. If you want to add a manual switch to the above application, connect a wire from one side of the switch to the common terminal on sensor and connect another wire from the other side of the switch to the Manual ON terminal on sensor.
3. Loosen the mounting screws attached to the junction box.
4. Align the sensor in the junction box so that the mounting screws in the box match the keyholes on the sensor's rear housing.
5. Push the sensor into the junction box and align the mounting screws on the junction box with the keyhole slots on the sensor so that the screws are seated in the keyhole slots. Tighten mounting screws.

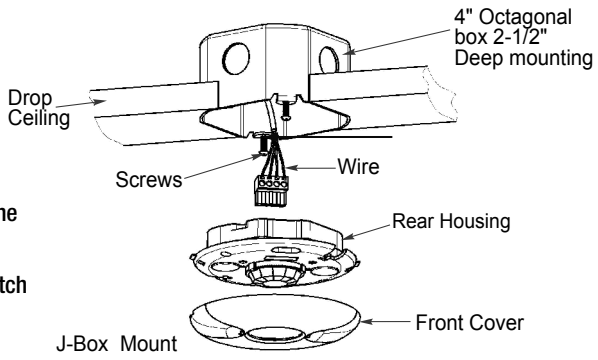


Figure 4

ADJUST THE LIGHT LEVEL

The Light Level feature enables the user to adjust the level of light needed to be detected before the sensor turns lighting ON. Remove the cover from the sensor and adjust the lighting from the light level dial on the sensor (see Figure 5). You can set the dial anywhere between + or – to obtain the optimal brightness configuration for the room (see Figure 3).

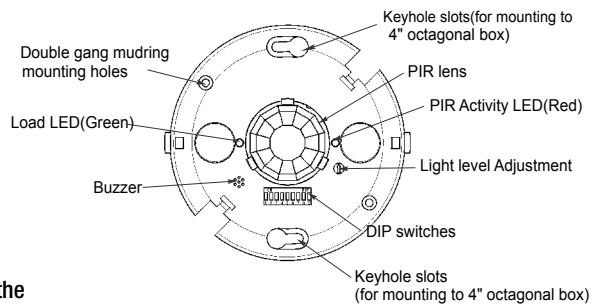


Figure 5

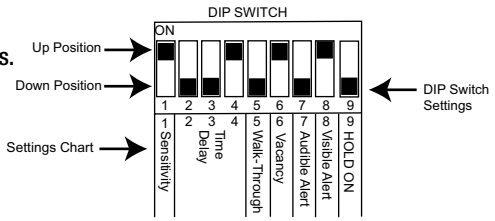
SENSOR ADJUSTMENT

Follow this procedure to verify the sensor coverage and customize the settings.

1. Remove the screws on the front cover and remove the cover.
2. Make sure all the furniture in the sensing area is installed, the lighting circuits are turned on and the HVAC systems are in the Override position.
3. If there is a V AV system, set it to the highest airflow.

ADJUSTING DIP SWITCH SETTINGS

The occupancy sensor features 9 DIP switches. Each setting can be set to an up position or down position that configures the DIP Switch setting to a specified requirement. Follow this procedure to adjust the DIP switch settings.



1. Adjust the sensitivity level DIP Switch (1). The Up position sets the sensitivity to 100%, while the down position adjusts the sensitivity level to 50%.

DIP SWITCH 1 - SENSITIVITY LEVEL SETTINGS	
50%	Down position
100%	Up Positions

2. Adjust the time delay DIP switches (2-4). Refer to the table for a list of the time delay options.

NOTE: After the sensor detects no motion in the coverage area, it will delay a user-configured amount of time before turning lights off. See the table before turning lights off. See the table below to determine how to set the desired time delay for the sensor.

TIME DELAY SETTINGS			
Time Delay	2 Switch Setting	3 Switch Setting	4 Switch Setting
15 Sec/Autoset	Down Position	Down Position	Down Position
30 Seconds	Down Position	Down Position	Up Position
5 Minutes	Down Position	Up Position	Down Position
10 Minutes	Down Position	Up Position	Up Position
15 Minutes	Up Position	Down Position	Down Position
20 Minutes	Up Position	Down Position	Up Position
25 Minutes	Up Position	Up Position	Down Position
30 Minutes	Up Position	Up Position	Up Position

3. Adjust Dip switch settings 5 through 9. See table 2 below for a description of each setting.

NOTE: For DIP switch settings 5 through 9, the up position enables the setting, while the down position disables the setting.

DIP SWITCH NUMBER	DESCRIPTION	Enable the Setting. Set DIP Switch To	Disable the Setting. Set DIP Switch To
5	**Walk Through** - Turns the lights off for three minutes after the area is initially occupied. If no motion is detected.	Up Position	Down Position
6	**Vacancy** - Turn this DIP switch to ON if you have a momentary switch. This enables overrides.	Up Position	Down Position
7	**Audible Alert** - An alarm (sounds like a tick) that indicates that the time delay has expired.	Up Position	Down Position
8	**Visible Alert** - An alarm (load LED flashes once) to indicate the time delay has expired.	Up Position	Down Position
9	**Hold ON** - Set this to ON to override all sensor functions	Up Position	Down Position

4. Install the front on the sensor and secure with the screws.

TESTING THE OCCUPANCY SENSORS

1. Ensure the PIR Activity is enabled Red LED flashes, Hold ON mode is OFF (DIP 9 switch OFF) and PIR Sensitivity is set to MAX (DIP switch 1 ON).
2. Make sure DIP Switches 2, 3, and 4 are set to the down (disable) position so the Time Delay is set for TEST MODE with the 15 seconds/AUTOSET setting.
3. Ensure the Light Level is the default (maximum).
4. Do not move so the sensor doesn't detect the movement. The green LED and Load are ON and the lights should turn off after 15 seconds.
5. Move about the coverage area. The lights will illuminate.
6. When testing and adjustment is complete, reset DIP Switches and Light Level to the desired settings and replace the cover on the sensor.

NOTE: If you need to invoke the Test Mode and the DIP switches are already set for 15 seconds/Autoset, toggle DIP switch #3 ON the back to the OFF position. This provides a 5-minute test period. During the test period, the Time Delay is only 15 seconds.

TROUBLESHOOTING

The PIR activity LED does not flash properly,	The warm-up period has not been completed Make sure the circuit breaker is on Set the PIR sensitivity to Max/Autoset (DIP switch 1 ON) Check all sensor and power pack connections Check for 24V input to the sensor. If 24V is present, replace the sensor. If 24V is not present, check if the high voltage is present to power pack. If it is, replace the power pack.
There is improper PIR activity, LED flashes	Make sure the light level adjustment is set properly by covering the PIR lens and PIR activity LED to verify if lights turn on. If lights still turn on, adjust the light level. Check all sensor and power pack wire connections. While the sensor is activated, check for 24 V DC at the blue wire connection at the sensor. If there is no voltage, replace the sensor. If voltage is present, replace the power pack.
Lights do not turn on automatically	Make sure the sensor is not experiencing activations from outside the controlled area Check all sensor and power pack wire connections Disconnect the blue wire. If lights do not turn off, replace power pack. If lights turn off, check the sensor. Turn the sensitivity and time delay to minimum and allow the sensor to time out.
The sensor is activating without detecting movement	Set the DIP switch 1 to OFF Relocate the sensor.

LIMITED WARRANTY

Warranty service is available by either (a) returning the product to the dealer from whom the unit was purchased or (b) completing a warranty claim online at www.intermatic.com. This warranty is made by: Intermatic Incorporated, 1950 Innovation Way, Suite 300, Libertyville, IL 60048. For additional product or warranty information go to: http://www.Intermatic.com or call 815-675-7000.