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Arrow Hart

ENGLISH

Catalog # OSP10M Occupancy Sensor (Single Output)

SPECIFICATIONS

- Single Pole and 3-Way
- 15A, 120V AC 60 Hz – Incandescent, Magnetic Low Voltage, Magnetic Ballast
  10A, 120V AC, 60 Hz – LED, Compact Fluorescent, Electronic Low Voltage, Electronic Ballast
  8A, 277V AC, 60 Hz – Magnetic Low Voltage, Magnetic Ballast, LED, Compact Fluorescent, Electronic Low Voltage, Electronic Ballast
  1/2 HP, 120V AC, 60 Hz – Motor
- **NOTE** - A Ground Connection is required in the wallbox where the sensor will be installed.

DESCRIPTION

- This Sensor Wall Switch can replace a standard wall switch in any of the following applications:
  - Single location – one Single Pole switch.
  - Two location – one location is the sensor and the other location is a standard 3-way switch.
  - Two location – replace both 3-Way switches with sensors.
- The OSP10M can interface with an external control Switchpack.
- The OSP10M turns on automatically when a person enters the room.
- Will automatically turn OFF lights after a selectable time delay.
- The selectable time delays are 5 seconds (Test Mode), 5 minutes (factory default), 15 minutes and 30 minutes.
- Includes a light level adjustment for daylight to prevent motion from turning ON the lights.
- A green LED indicates the load status and provides a momentary flash to indicate motion.
- The OSP10M relay connections are isolated. They may be wired to a load that is powered from a different power source than the sensor power.

SPECIAL MODES

- **Reverse Mode:** The reverse mode is used when the lights must stay OFF in a room while motion is detected. If the lights are ON, a double tap of the ON/OFF button will turn off the lights and put the device into the Reverse Mode. This allows the lights to stay OFF as long as motion is detected. After the time delay is finished the sensor operation goes back to normal.
- **Vacancy mode:** This mode may be selected to prevent motion from automatically turning on the lights. Press and hold the ON/OFF button for 5 seconds until the indicator LED blinks. Release the button while the LED is blinking. Repeat this procedure to restore normal operation.
- **Override Mode:** Turns off all motion sensing and allows the device to be used as a regular ON/OFF switch or in the unlikely event of a failure of the motion sensor. Press and hold the ON/OFF button for 10 seconds until the indicator LED blinks for the second time (the LED will also blink at the 5 second point). Release the button while the LED is blinking. Repeat this procedure to restore normal operation.
- **Disable Manual Operation** – In this mode the sensor will function normally with automatic sensing, however the sensor will not respond to pressing the ON/OFF button. This feature is enabled by pressing and holding the ON/OFF button for 15 seconds until the LED indicator blinks for the third time (the LED will also blink at the 5 second and 10 second point) and then releasing the button while the LED is blinking. Repeat this procedure to restore normal operation.

INSTALLATION INSTRUCTIONS

WARNING:

- **Turn OFF circuit breaker or remove fuse(s) and verify that power is OFF before wiring.**
- Never wire any electrical device with power turned ON. Wiring the device with the power on unsafe and may cause permanent damage to the device and void the warranty.
- If you are unsure about any part of these instructions, or if the wiring does not match the descriptions given, you should call a qualified electrician.

CAUTION:

- Must be installed and used in accordance with all applicable electrical codes.
- If a bare copper or green ground connection is not available in the wallbox, contact a quali- electrician for installation. Do not install without proper ground connections.
- Do not exceed maximum device ratings.
- For use ONLY with permanently installed fixtures of these types:
  Incandescent/Halogen, Magnetic Low Voltage (MLV), Electronic Low Voltage (ELV), Fluorescent, Compact Fluorescent, LED.
- May also be used with motors up to 1/2 HP
- To avoid overheating and possible damage to other equipment, do not use to control receptacles.
- Use only #14 or #12 copper wire with these devices.
- Make sure the controlled load (connected to Relay OUT) is rated to handle the volt- connected to the Relay IN wire of the OSP10M

Installing OSP10M for single pole application

Refer to wiring diagram 1A and install the sensor properly by following the described wire connections. Once all wires are connected, using the provided wire nuts, **go to COMPLETING THE INSTALLATION**.

Installing OSP10M for Switchpack control

Refer to wiring diagram 1B and install the sensor properly by following the described wire connections. Once all wires are connected, using the provided wire nuts, **go to COMPLETING THE INSTALLATION**.

Installing OSP10M for 3-way applications

NOTE that the 3-way switch is NOT wired in the traditional 3-way manner. Refer to either wiring diagram 2A or 2B and install the sensor properly by following the described wire connections (The sensor may be placed at either end of 3-way circuit). Once all wires are connected, using the provided wire nuts, **go to COMPLETING THE INSTALLATION**.

Installing OSP10M for 2 sensor applications

Refer to wiring diagram 3 and install the sensor properly by following the described wire connections. Once all wires are connected, using the provided wire nuts, **go to COMPLETING THE INSTALLATION.**

COVERAGE PATTERN

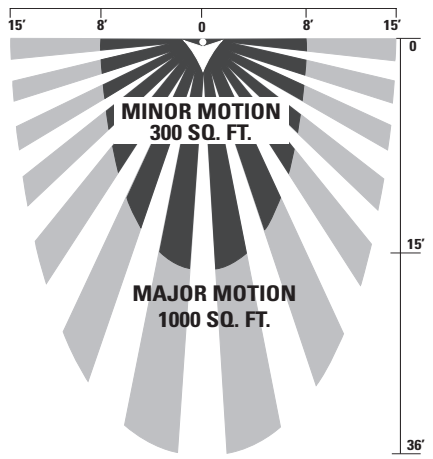


DIAGRAM 1A: SENSOR IN ONE LOCATION (NON-ISOLATED)

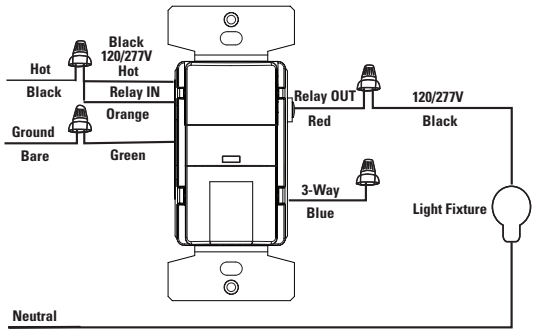


DIAGRAM 1B: SENSOR AND SWITCHPACK CONTROL

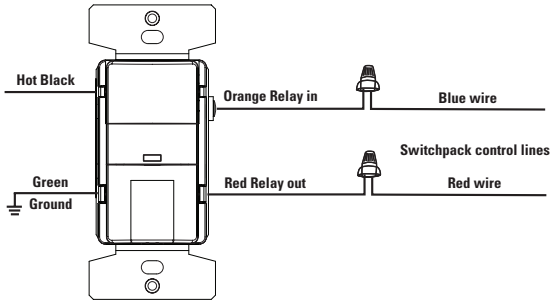
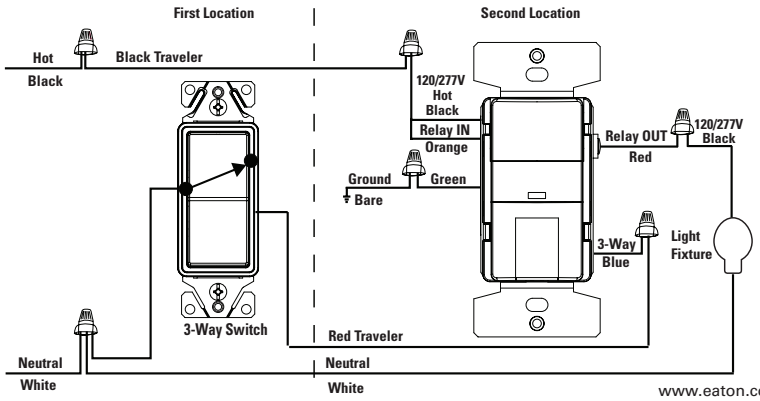


DIAGRAM 2A: SWITCH IN LOCATION WITH HOT WIRE



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COMPLETING THE INSTALLATION:

1. Install the sensor loosely using the mounting screws provided.
2. Apply power temporarily and verify that the sensor works by pushing the ON/OFF button to verify the control load can operate properly (i.e. lights can turn on and off). In the case of controlling a Switchpack, skip STEP 3 altogether.
3. If the lights do not work, then turn off the power and swap the connections on the sensor black and red wires. Apply power again and verify that the sensor works by pushing the ON/OFF button to verify the lights turn on and off.
4. Turn power to the device OFF.
5. Secure sensor into the wall box using two mounting screws provided. Turn the circuit breaker ON.
6. Allow the sensor to stabilize for 30 seconds. The sensor is now ready to detect motion.
7. Verify that Power is ON by pushing the ON/OFF button. Lights should turn ON.
8. NOTE - The sensor time delay is factory preset (5 minutes).
9. If you want to change the time delay proceed as follows:
   a. Remove the button from the sensor by pressing in hooks on the button, and then lift up on the button shown in Fig. 4.
   b. Set the time delay using the dial on the right side by using a small Phillips screwdriver. Align the arrow on the dial to desired time delay. See Fig. 5.
   c. To allow the installer to quickly confirm that the sensor is functioning properly the time delay can be set to TEST. This will set a time delay of 5 seconds, which allows quick feedback that the sensor is work-properly.
10. Replace push button by sliding it upward into the slots in the front housing and push down until the button hook snaps into place.
11. Push the ON/OFF button to verify that the lights turn ON/OFF, and that the button operates freely.
12. Install the wallplate.

Daylight Sensing Adjustment:

- The Daylight sensing feature prevents lights turning ON when the room is adequately illuminat- by natural light.
- NOTE - The factory setting for this adjustment is clockwise and permits motion detection to turn ON the lights regardless of the ambient light level in the room.
- Remove the ON/OFF pushbutton to access the light level adjustment. See Fig. 4.
- This adjustment must be made when the light level the room is at the desired level for the lights to ON.
- From the clockwise position, turn the dial on the left counterclockwise using a small Phillips screwdriver until the LED starts to flash. See Fig. 5.
- Step away from the sensor to allow the calibrate to the normal light level in the room. Do not obstruct the natural light. The calibration process starts when the LED and lights turn will take approximately 15 seconds. After completion the lights will turn on.
- Replace the ON/OFF pushbutton.

DIAGRAM 2B: SENSOR IN LOCATION WITH HOT WIRE

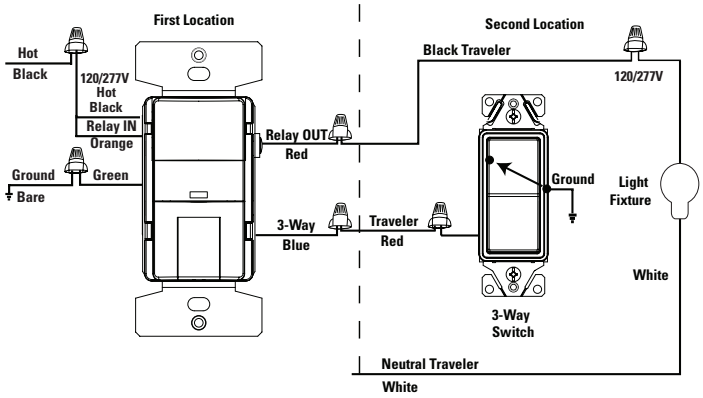
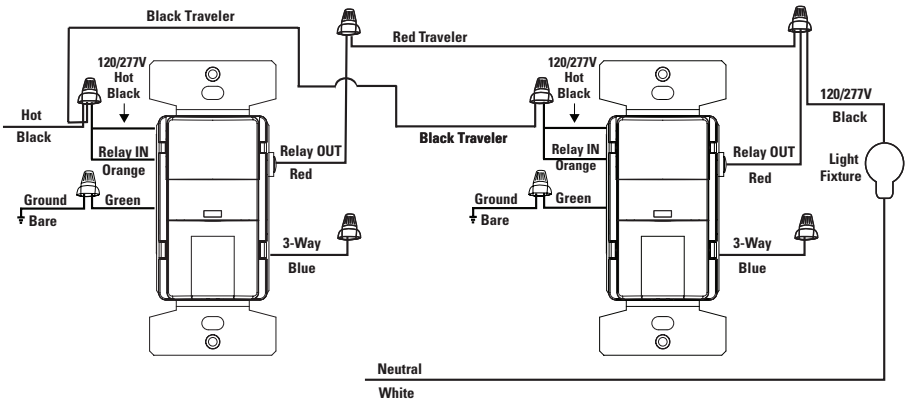


DIAGRAM 3: SENSORS IN BOTH LOCATIONS



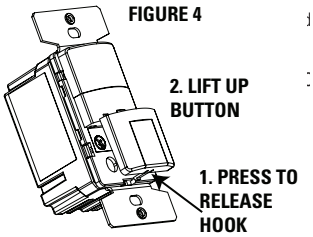
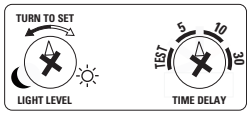


FIGURE 4

FIGURE 5:



TROUBLESHOOTING:

If you have a problem with your Motion Sensor, first follow this guide. If the problem persists, call the customer service hotline at 1-866-853-4293 between 8:00 A.M. and 6:00 P.M. EST weekdays.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Light does not automatically turn on.	1. Circuit breaker is turned off, or fuse is blown. 2. Bulb is defective. 3. Poor connection. 4. Control may be wired incorrectly. 5. Daylight sensing prevents lights on 6. Manual On mode selected	1. Turn circuit breaker on, or replace fuse. 2. Replace light bulb. 3. Verify all wiring connections. 4. Check wiring. 5. Re-adjust daylight sensing level. 6. Set device to Automatic On mode.
Light does not automatically turn off.	1. Motion is still present. 2. Time Delay has not expired. 3. Control may be wired incorrectly. 4. Switch is being triggered by air vent or other heat source.	1. Make sure there is no motion during the time delay period. 2. No action needed or shorten TIME DELAY. 3. Check wiring 4. Move switch to the other switch location (if a 3-way), or determine the source triggering the switch, and alter the air flow.
Light does not stay on	1. Motion is not detected. 2. TIME control is set for too short a delay	1. Create movement in front of the sensor for 5 seconds. 2. Set switch TIME control to longer time period.
Remote switch does not work	1. Control may be wired incorrectly.	1. Check wiring

EATON WIRING DEVICES LIMITED 2 YEAR WARRANTY

Eaton Wiring Devices (EWD) warrants this device to be free of defects in materials and workmanship in normal use and service for a period of two years from date of original purchase. THIS 2 YEAR LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS, OR LIABILITIES, EXPRESSED OR IMPLIED (INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE THAT IS IN DURATION IN EXCESS OF 2 YEARS FROM THE DATE OF ORIGINAL CONSUMER PURCHASE). NO AGENT, REPRESENTATIVE, OR EMPLOYEE OF EWD HAS AUTHORITY TO INCREASE OR ALTER THE OBLIGATIONS OF EWD UNDER THIS WARRANTY.

To obtain warranty service for any properly installed EWD device that proves defective in normal use send the defective device prepaid and insured to Quality Control Dept., Eaton Wiring Devices, 203 Cooper Circle, Peachtree City, GA 30269; in Canada: Eaton Wiring Devices, 5925 McLaughlin Road, Mississauga, Ontario L5R 1B8.

EWD will repair or replace the defective unit, at its option. EWD will not be responsible under this warranty if examination shows that the defective condition of the unit was caused by misuse, abuse, improper installation, alteration, improper maintenance or repair of damage in shipment to EWD.

EWD SHALL HAVE NO RESPONSIBILITY FOR INSTALLATION OF THE DEVICE, OR FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR ANY SPECIAL, INCIDENTAL, CONTINGENT, OR CONSEQUENTIAL DAMAGES OF ANY KIND, RESULTING FROM DEFECTS IN THE SYSTEM OR FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT.