A+CLASS™ OCCUPANCY SENSOR

Technical Installation Data

DESCRIPTION

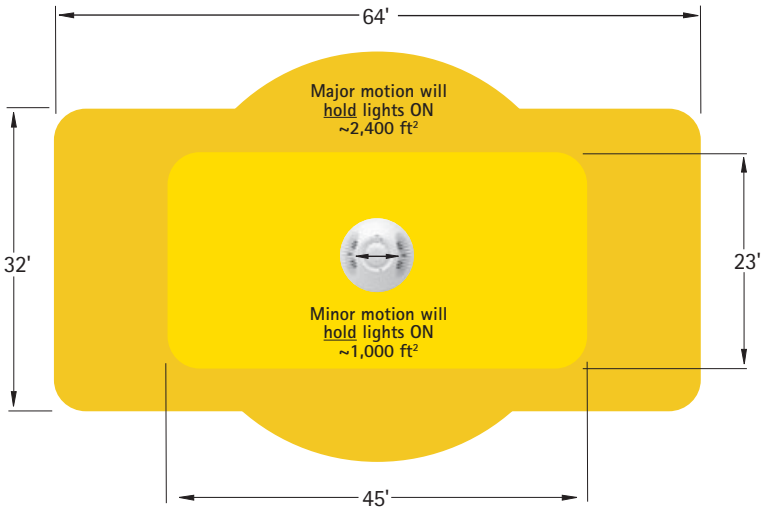
The A+CLASS™ ceiling-mounted occupancy sensor combines ultrasonic (US) and passive infrared (PIR) technologies to turn lighting on and off based on occupancy. The sensor features Hubbell's patented IntelliDAPT™ technology, which makes all the sensor's adjustments automatically. Throughout the product's lifespan, smart software analyzes the controlled area and makes digital adjustment to sensitivity and timer settings providing maintenance-free "Install and Forget" operation.

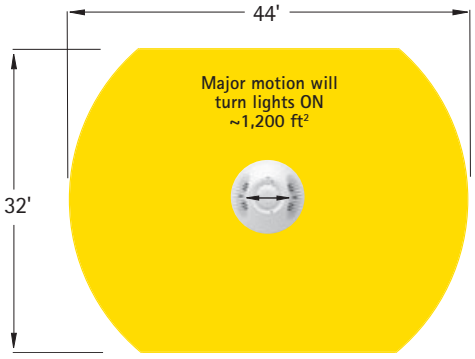
PRECAUTIONS

- **CAUTION: FOR USE WITH CLASS 2, LOW VOLTAGE SYSTEMS ONLY. DO NOT USE IN HIGH VOLTAGE APPLICATIONS.**
- Read and understand all instructions before beginning installation.
- NOTICE: For installation by a licensed electrician in accordance with National and/or local Electrical Codes.
- NOTICE: For indoor use only.
- **CAUTION: USE COPPER CONDUCTOR ONLY.**
- Confirm device ratings are suitable for application prior to installation. Use of device in applications beyond its specified ratings or in applications other than its intended use may cause an unsafe condition and will void manufacturer's warranty.
- NOTICE: Do not install if any damage to product is noticed.

OCCUPANCY SENSOR COVERAGE AND PLACEMENT

- The sensor must have an unobstructed view of the room. Do not mount behind or near tall cabinets, shelves, hanging fixtures, etc.
- Keep the sensor away from air flow – at least 8 feet from HVAC vents.
- Place the sensor 8-10 ft. away from doorway – pointing towards doorway for optimal occupant detection.
- Closely follow the diagrams for major and minor motion coverage.
- Decrease total coverage area by 15% for "soft" rooms (for example, heavy draperies or heavy carpeting).
- Indicated range is when unit is mounted on ceilings 8'-12' in height. Sensor should not be mounted on ceilings above 12'.





INSTALLATION INSTRUCTIONS

1. Identify Parts *(See Figures A and B)*

   a. Occupancy Sensor with Mounting Ring and pre-wired Quick-To-Install™ (QTI) Connector attached
   b. Retainer ring and lens
   c. Screws (2), Nuts (not shown)
   d. Retaining Nut
   e. Washers (2)
   f. Washer (threaded mounting post)
   g. Full Mask
   h. Aisle/Hallway Mask
   i. Half Mask
   j. Threaded mounting post

Fig. A

Fig. B

2. Mount Occupancy Sensor to ceiling.

   a. Mounting Method 1: Screw and mount twist-lock cover plate.
   b. Mounting Method 2: Twist and lock threaded mounting post into cover plate. Screw into acoustic ceiling tile *(See Figures C, D, E and F).*

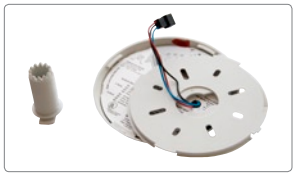


Fig. C

Fig. D

Fig. E

Fig. F

3. Run Occupancy Sensor wiring with Quick-To-Install™ (QTI) connector through ceiling tile.
   Attach sensor body to cover plate by aligning arrow and twist locking into place *(See Figures G, H and I).*

Fig. G

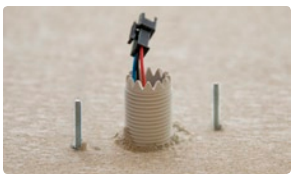


Fig. H

Fig. I

4. Plug the 50 ft. White CAT5 cable into either of the two available White connector ports on the Classroom Control Module *(See Figure J).*

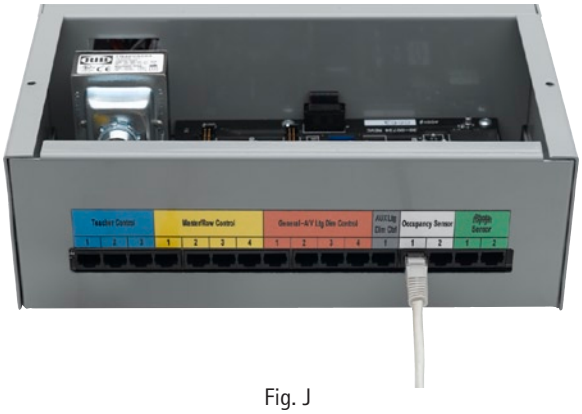


Fig. J
CCM Low Voltage CAT5 Connector Ports (line voltage not visible in this image; no line voltage connection required for occupancy sensor)

5. Route the White cable from the Classroom Control Module to the Occupancy Sensor.
   Note: Low voltage wiring must be isolated from line voltage wiring. Consult National and Local Electrical Codes for conduit requirements.

6. Plug the White cable QTI connector into the Occupancy Sensor's QTI connector *(See Figures K and L).*

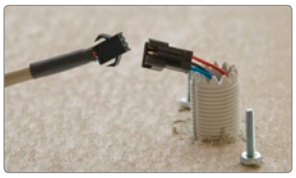


Fig. K

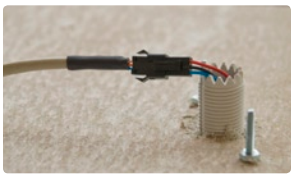


Fig. L

7. Perform system setup and/or programming activities as applicable in accordance with the instructions of the Classroom Control Module.

8. Verify Occupancy Sensor functionality by checking System Status/Occupancy Sensor on the Classroom Control Module. Real-time occupied/unoccupied states will be displayed if operating properly. If occupancy states do not change, check wiring.

9. If desired, to disconnect Occupancy Sensor from White CCM cable, press down on the upper tab on the connection (located on the White cable side of the QTI connector). Gently pull the two sides of the QTI connector apart *(See Figures M and N).*

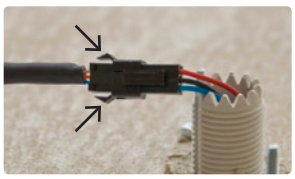


Fig. M

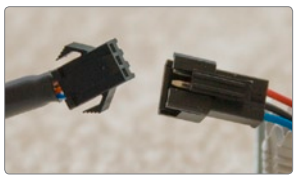


Fig. N

SENSOR ADJUSTMENTS FACTORY SETTING

RECOMMENDATION: Leave sensitivity settings as shipped.

Factory settings rarely need to be changed. In the unlikey event it is necessary to change a setting, the following instructions can be used.

Fig. O

Red Knob: Infrared Sensitivity – 75% default
Green Knob: Ultrasonic Range – 50% default
Black Knob: Timer – 8 min. default

Recommendation: Leave sensitivity settings as shipped.

TIMER TEST MODE (8 SECONDS)

1. Open the Occupancy Sensor's retainer ring *(See Figures P and Q).*

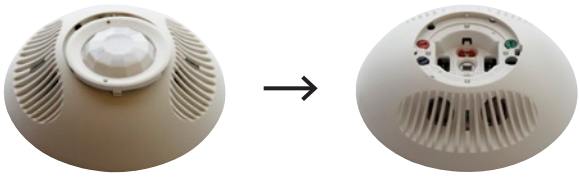


Fig. P Fig. Q

2. Rotate the black timer adjustment knob clockwise all the way (12 o'clock) *(See Figure R), then turn counterclockwise all the way (as seen in figure O).*

Fig. R

3. The timer will remain in the 8 second test mode for 1 hour, then automatically reset to 8 minutes.
4. To manually take the timer out of the 8 second test mode, turn the timer adjustment approximately 1/16" (1.6 mm) clockwise to make the setting slightly above minimum (just above the 8 minute setting).

OVERRIDE SETTINGS

BANK A

Dip Switch	Description	Off (Default)	On
A1	Auto/Manual	Automatic (Normal)	Manual On (Override)
A2	Threshold Dual Technology Mode	High Confidence setting (requires both IR and Ultrasonic detection)	High Sensitivity Setting (either IR or Ultrasonic detection)
A3	LED Motion Indicator	Lights Indicate Motion	Disable LED Indicators
A4	Reset Learned Settings	Retain Settings (Normal)	Erase All Learned Settings. Restart Learning (Toggle On, then Toggle Off)

BANK B

Dip Switch	Description	Off (Default)	On
B1	Strong Airflow Compensation	Disable Compensation (Normal)	Manual On (Override)
B2	Over Doorway Installation	No (Normal)	High Sensitivity (Low turn-on threshold)
B3	Timer Adjust	Adjust Timer Automatically (Normal)	Disable LED Indicators
B4	Auto Sensitivity	Adjust Sensitivity Automatically (Normal)	Adjust Sensitivity Manually

TROUBLESHOOTING

Problem	Possible Cause	Test	Result
Lights stay on	Air conditioning interference	Reduce both green and red knobs by 15%	Move sensor; temporarily reduce sensitivity
Lights stay on	Bad low voltage connection	Put sensor into test mode and check CCM System Status/ Occupancy Sensor to see if sensor changes from 'occupied' to 'unoccupied'.	Disconnect and reconnect wiring
Lights stay off	Bad low voltage connection	Put sensor into test mode and check CCM System Status/Occupancy Sensor to see if sensor changes from 'unoccupied' to 'occupied'	Disconnect and reconnect wiring
Lights stay on too long	Timer setting too high	Check switch settings	Typical setting is 8 minutes
Hallway traffic turns lights on	Sensor can "see" into hallway	Put sensor in test mode and walk hallway	Move sensor