PHILIPS

7-26585-102 May, 2012

CATALOG#
ICUH-U-S
UPC# 4368086
Part # 7-24337-001

High Bay/Low Bay
Passive Infrared
Occupancy Sensor with
Smart Timing Detection Logic

Ratings:

AC input: 120Vac to 277Vac
Unit consumption watts: 0.34w to 4.05w
800VA-6.67A @ 120VAC, 1/4 HP, 50-60Hz
1200VA-4.33A @ 277VAC, 1/4 HP, 50-60Hz

Compatible with electronic and magnetic ballasts,

electronic and magnetic low-voltage ballasts.

SENSOR FEATURES

- Fixture or electrical box mounted Passive Infrared Occupancy Sensor
- 20 ft. x 60 ft. aisle pattern at 40 ft mounting height
- 360° field-of-view for 20 ft. to 40 ft. High Bay mounting heights
- 360° field-of-view for 15 ft. to 25 ft. Low Bay mounting heights
- Interchangeable 360 High Bay/Low Bay and aisle lens
- Adjustable Time Delay (15 Minutes - 30 Minutes)
- Smart Timing Detection Logic
- 42" pre-stripped color coded wire leads
- Snap Fit Threaded Mount for easy installation. Snap fit is keyed and designed to snap into the Motion Sensor And Fixture.
- Optional peel and stick mask kit

DESCRIPTION

Philips High Bay Occupancy Sensors, **Catalog# ICUH-U-S**(cold storage), are specifically designed for high mounted areas such as warehouses, manufacturing and other high ceiling applications. The **ICUH-U-S** installs directly to an industrial luminaire or an electrical junction box. It is a self-contained sensor and relay that detects motion using the passive infrared (PIR) to sense sources (such as a person entering a room) within its field-of-view (monitored space) and automatically switches lights ON. The controlled lights will remain ON using Smart Timing Detection Logic to detect movement until the scheduled time-delay has expired. The sensor is supplied with three interchangeable lens rings that allows the user to select between a 360 degree High Bay/Low Bay pattern or an aisle pattern. The sensor is UL listed, cUL listed and conforms to California Title 24 requirements. The Sensor's High Bay lens and aisle lens is designed for 20 ft. to 40 ft. mounting heights for a symmetrical pattern which will provide coverage of 50' to 60' diameter (refer to Figure 4 and 5). The Low Bay lens is designed for 15 ft. to 25 ft. mounting heights for a symmetrical pattern which will provide coverage of 30' to 50' diameter (refer to Figure 6). The Sensor is sensitive to the heat emitted by the human body. In order to initially trigger the Sensor, the source of heat must move from one zone of detection to another. Note that occupancy sensors respond to rapid changes in temperature, so care should be taken not to mount the device near a climate control source (i.e. radiators, air exchanges, and air conditioners). Hot or cold drafts will look like body motion to the device and will trigger it if the unit is mounted too close. It is recommended to mount the Occupancy Sensor at least 6 ft. away from the heating or cooling ventilation source.

INSTALLATION INSTRUCTIONS

WARNING: IF YOU ARE NOT SURE ABOUT ANY PART OF THESE INSTRUCTIONS, CONSULT A QUALIFIED ELECTRICIAN.
WARNING: TO BE INSTALLED AND/OR USED IN ACCORDANCE WITH APPROPRIATE ELECTRICAL CODES AND REGULATIONS.
WARNING: CONTROLLING A LOAD IN EXCESS OF THE SPECIFIED RATINGS WILL DAMAGE THE UNIT AND POSE RISK OF FIRE, ELECTRIC SHOCK, PERSONAL INJURY OR DEATH. CHECK YOUR LOAD RATINGS TO DETERMINE THE UNIT'S SUITABILITY FOR YOUR APPLICATION.

OTHER CAUTIONS AND NOTES:

1. DISCONNECT POWER WHEN SERVICING LUMINAIRE OR CHANGING BULBS.
2. USE THIS DEVICE WITH COPPER OR COPPER CLAD WIRE ONLY. WITH ALUMINUM WIRE USE DEVICES MARKED CO/ALR OR CU/AL ONLY.
3. DO NOT ATTEMPT TO DISASSEMBLE OR REPAIR. CLEAN OUTER SURFACE WITH A DAMP CLOTH ONLY.

TO INSTALL:

NOTE: **The ICUH-U-S sensor** is supplied with three lens trim rings. The 360 degree High Bay lens (white color trim ring) is installed at the factory with the aisle lens (black color trim ring) and the 360 degree Low Bay lens (blue color trim ring) in the carton. Change the lens for use in aisle or Low Bay applications. See below for changing lens trim ring. The sensor mounts in a 1/2" knock out hole on the end of a luminaire or an electrical box. The Sensor's field-of-view may be partially obstructed by the luminaire housing (refer to Figure 2A). At higher mounting heights, the outer beams are not used. As long as the bottom of the sensor is mounted within 1" from the bottom of the luminaire, the field-of-view will not be affected (refer to Figure 2B).

SNAP FIT NOTE: **The ICUH-U-S** is designed with a snap fit to accommodate different packaging methods for customers who install this into a fixture prior to shipping (refer to Figure 1A). The Snap Fit is a keyed threaded adapter that snaps into the fixture and also into the motion sensor for optimum packaging positioning (Refer to Figure 2A & 2B). Also provided is a lock-nut on both ends of the snap fit that should be tightened.

SENSOR INSTALLATION:

1. **WARNING**: TO AVOID FIRE, SHOCK, OR DEATH: **TURN OFF POWER** AT CIRCUIT BREAKER OR FUSE AND TEST THAT THE POWER IS OFF BEFORE WIRING.
2. The sensor comes with three lens rings, a white one for 360 degree High Bay detection (installed at factory), a black one for aisle applications, and a blue one for Low Bay applications. NOTE: An optional peel and stick masking kit is included. This circular adhesive label (with removable wedges) is applied to the OUTSIDE of the sensor lens. Use any number of wedges to alter field-of-view for your desired application.
3. To change lens, turn trim ring so that the two indented dots line up and pull out by the finger tabs **(refer to Figure 7A).**
4. To insert the black aisle lens, line up the indented dots and indented tabs on underside of lens and insert into key openings and turn clockwise **(refer to Figure 7B)**
5. Line the finger tabs with the direction of the aisle. The lens will snap into indentation bumps to indicate the lens direction is at either 90 degree or 0 degree orientation.
6. Remove the lock-nut from the threaded snap fit and insert the wires in the threaded nipple into a half inch hole of the luminaire body or the electrical box.
7. Slide the lock-nut over the wires and thread clockwise on to the threaded snap fit to secure firmly in place. Once the Snap Fit has been secured into the fixture, insert the opposite side of the keyed snap fit into the sensor making sure the lens is orientated towards the area to be monitored (field-of-view) (refer to Figure 3).
8. Connect wires per **Wiring Diagram** as follows: BLACK lead to LINE (Hot); RED lead to LOAD; WHITE lead to LINE (Neutral). Twist strands of each lead tightly and, with circuit conductors, push firmly into the appropriate wire connector. Screw connector on clockwise making sure that no bare wire shows below the connector.
9. Restore power at circuit breaker or fuse.

SMART TIMING DETECTION LOGIC

1. Conventional high bay luminaries with add-on sensor units only control the time the fixture remains on after occupancy was last detected, potentially resulting in excessive cycling. The Smart Timing Detection Logic uses technology to allow users to aggressively target energy savings while still protecting lamp life.
2. The Smart Timing Detection Logic sensor utilizes two time delays. The "Required On" time delay ensures that the recommended minimum on time is observed for a particular lamp/ballast combination. The ″Occupancy″ time delay is comprised of a user selected minimum value. In practice, this means that once the ″Required On″ time has been met, the sensor will turn the lamps off when the time since the last occupancy detection exceeds the ″Occupancy″ time delay. The Smart Timing Detection Logic technology works equally as well In high activity areas as well as those of limited use. It assures the correct, high quality lighting levels will be available on demand for safety and with the least impact on our environment.

LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

Philips warrants to the original consumer purchaser and not for the benefit of anyone else, that this product at the time of its sale by Philips is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Philips only obligation is to correct such defects by repair or replacement, at its option. For technical assistance call Philips Controls, Tupelo, MS at 1. 800. 234. 1890. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to five years. Philips is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

PHILIPS

For Technical Assistance Call:

Philips Controls
Tupelo, MS
1. 800. 234. 1890

SNAP FIT INSTRUCTIONS:

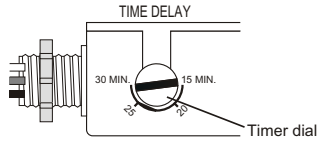
1. Insert the snap fitting into the knockout of the luminaire or electrical box.
2. Remove the locknut from the snap fit and insert the wire leads through the snap fit and align the wires with the separator provided.
3. Feed the sensor wire through the separator provided (Figure 1A & 2A & 2B & 3) on the luminaire or electrical box and into the wire access area.
4. Connect per Wiring Diagram as follows: BLACK lead to LINE (Hot), RED lead to LOAD, WHITE lead to LINE (Neutral). Twist strands of each lead tightly and with circuit conductors, push firmly into appropriate wire connector. Screw connector on clockwise making sure no bare wires show below the connector.
5. Restore power at circuit breaker or fuse.

NOTE: Allow approximately 1 minute for charge-up. If the lights turn ON and the LED blinks when a hand is waved in front of the lens, then the Sensor was installed properly. If the operation is different, refer to the Troubleshooting Section.

SETTINGS

Time-Delay: Settings should be determined during the installation period. This adjustment controls the amount of time the lights stay ON after the last detected motion. You may select settings varying from 15 minutes to 30 minutes and any time in between.

NOTE: After power is turned ON, allow two minutes for this unit to warm up before performing Time-Delay settings.



TROUBLESHOOTING

- **Lights will not turn ON**

  -Circuit breaker or fuse is OFF: Turn the breaker ON. Ensure the lights being controlled are in working order (i.e., working bulbs, ballasts, etc.)

  -Sensor is wired incorrectly or may be defective: Confirm that the sensor's wiring is done correctly and inspect visually for problems.

  -Lens is dirty or obstructed: Inspect the lens visually and clean if necessary, or remove the obstruction

- **Lights will not turn OFF**

  - Sensor is wired incorrectly or may be defective: Confirm that the sensor's wiring is done correctly and inspect visually for problems.

  - Sensor may be mounted too closely to an air conditioning or heating vent: Move the sensor or close the vent.

  - The line voltage has dropped: Perform the necessary tests to ensure the line voltage has not dropped beneath 100V.

- **Lights turn OFF and ON too quickly**

  -Sensor may be mounted too close to an air conditioning or heating vent Move the sensor to another location or close the vent.

  - Time delay set improperly: Adjust the TIME DELAY.

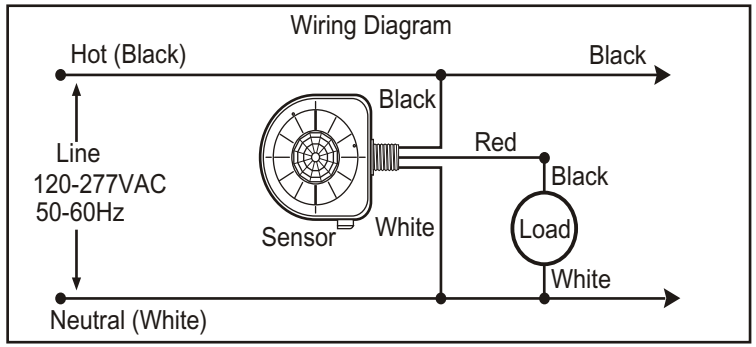


Figure 1A

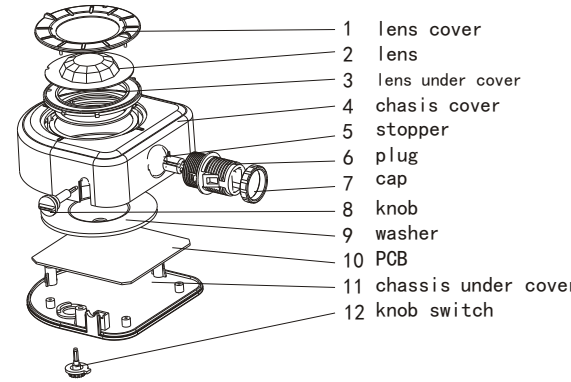


Figure 2A

INCORRECT

Sensor mounted too high
Outer beams are obstructed
Field-of-view is limited

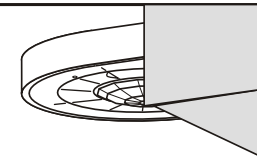


Figure 2B

CORRECT

Sensor mounted within 1" of bottom
No obstruction
Optimum field-of-view

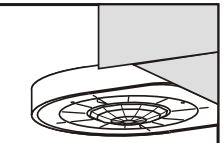


Figure 3

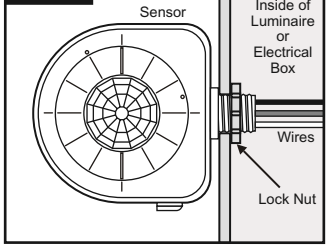


Figure 4

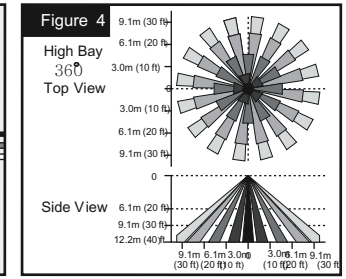


Figure 5

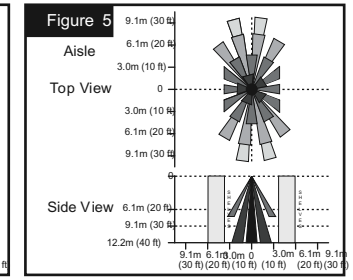


Figure 6

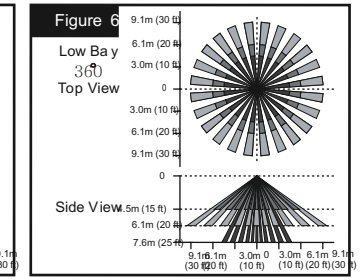


Figure 7A

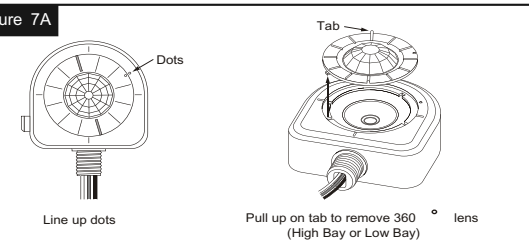


Figure 7B

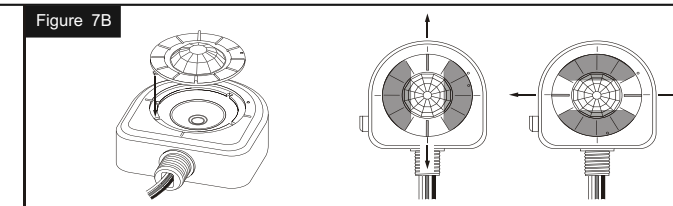


Figure 8