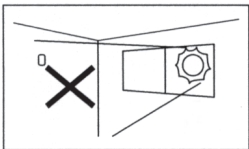


## Installation Instructions

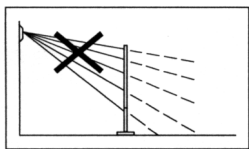
### GENERAL

The SD200-002 is the master sensor for SK200-002 Guestroom HVAC Energy Management System. This sensor provides a changeover relay contact output for SF200-001 to control the operation of HVAC device according to the occupancy status of the guestroom. Its high/low temperature limit setbacks help to prevent the room getting too hot or cold during an unoccupied period. An optional door or window switch can be connected to shut off the HVAC operation, should any door/window be left open longer than 5 minutes. This sensor can be mounted on wall or ceiling with the provided mounting bracket.

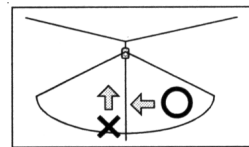
### INSTALLATION HINTS



Do not install where unit is exposed to direct sunlight or directly above strong sources of heat.

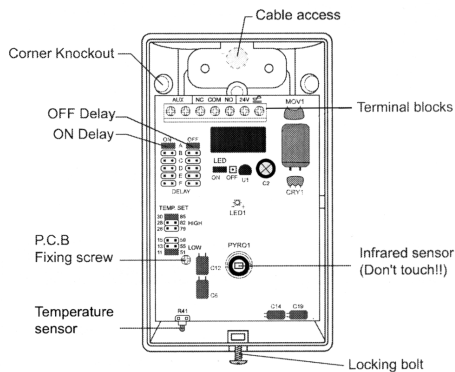


Make sure the detection area does not have any obstruction (plants, large pieces of furniture, curtains etc.) which may block the detection.



PIR detector is more sensitive to the motion "across" the detection zones than "toward" the sensor.

### DESCRIPTION



### INSTALLATION & WALK TEST

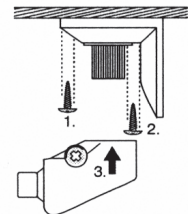
#### Installation

1. Mount the base of mounting bracket on the selected position. Lead the cable through the access tunnel of mounting bracket.

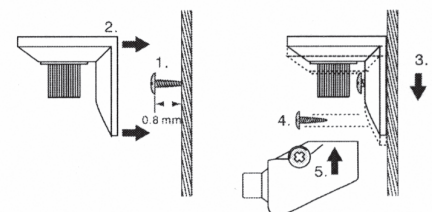
2. Open the front cover by loosening the locking screw at the bottom. Route the cable into the unit and assemble the mounting bracket with the unit.
  3. Connect the cable to the corresponding terminals according to the following instructions.
  4. Replace the front cover and then perform the walk test.
- ◆ **NC-COM-NO:** Connect to the on-off control input of fan coil controller or SF200-001 Power Pack.
  - ◆ **24 V:** For 24 V power supply input.
  - ◆ **AUX:** For connection with auxiliary door/window switch (N.O. type). If multiple-switch connection is required, please connect all switches in series.

**Note:** If any door/window switch is connected, the SD200-002 will shut off the HVAC when the associated door/window is open longer than 5 minutes.

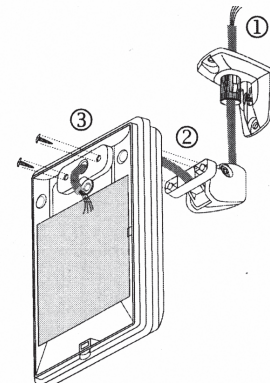
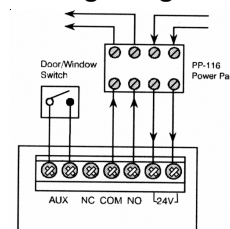
#### ■ Ceiling Mount



#### ■ Wall Mount



#### Wiring Diagram



## Walk Test

Apply the power supply to the sensor and wait about 1.5 minutes for sensor to warm up. The LED will blink (long-short) during warm up period. Ensure the jumper head connectors of ON and OFF delays are placed on "A" position (shortest delay). Walk across the (invisible) detection zones at normal walking pace. The LED will light whenever the sensor detects the motion.

**Note: If any jumper is not properly placed, the LED will blink.**

## OPERATION

### Operation Diagram

#### A. Standby

After warm up period expires, the sensor enters into standby mode. Sensor will check if delay jumpers are properly placed. If not, the LED will flash.

#### B. Relay ON Delay

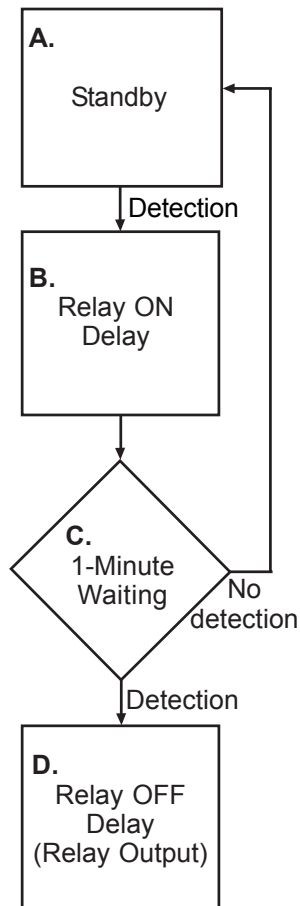
Relay ON delay is the time given to sensor to verify true occupancy before activating the relay output. Any further detection during ON delay will NOT reset the timer.

#### C. 1-minute Waiting

When Relay ON delay expires, the sensor enters into a 1-minute waiting time. If no detection within 1 minute, then sensor will return to standby mode. If any detection occurs, then relay output will be activated and Relay OFF delay will be started.

#### D. Relay OFF Delay

Relay OFF delay is the time of relay activating. Every detection during this period will reset the timer.



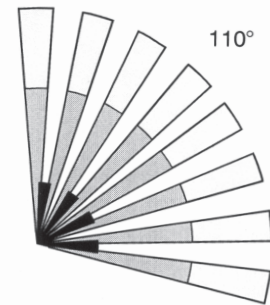
## ON / OFF DELAY

The ON and OFF delays are designed to provide intelligent energy management of the HVAC system. ON delay is the time given to the sensor to certify the occupancy, before it activates the fan controller. OFF delay is the time that relay is active. Both ON and OFF delays can be easily set by placing the jumper on the corresponding pins as follows:

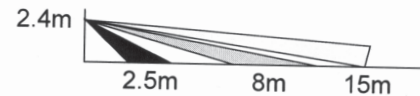
	A	B	C	D	E	F
ON	0 sec.	10 sec.	30 sec.	1 min.	5 min.	10 min.
OFF	10 sec.	1 min.	5 min.	10 min.	20 min.	30 min.

## DETECTION PATTERN

Top view



Side view



## SPECIFICATIONS

Infrared sensor ..... Dual element  
 Power supply ..... 24 ± 2 V AC/DC  
 Detection range ..... 110°, 15 x 15 m at 25°C  
 Relay output ..... Form C, 5A/NO, 3A/NC resistive  
 Current drain ..... Standby: 7 mA Active: 23mA  
 Door switch ..... N.O. open when door is opened.  
 Temperature limit .. H: 26°/28°/30°C, L: 11°/13°/15°C  
 Mounting height .... 1.8 ~ 3.6 m  
 Mounting bracket .. MB-99  
 Detectable speed .. 0.1~3.0 m/sec.  
 RFI immunity ..... Av. 20 V/m (10~1,000 MHz)  
 Temperature ..... -10°C~38°C (14°F ~ 100°F)  
 Humidity ..... 95% RH max.  
 Dimensions ..... 112 x 66 x 45 mm



## WARNING

- READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THIS DEVICE.
- Failure to observe safety information and comply with instructions could result in PERSONAL INJURY, DEATH AND/OR PROPERTY DAMAGE.
- To avoid electrical shock or damage to equipment, disconnect power before installing or servicing.
- To avoid potential fire and/ or explosion do not use in potentially flammable or explosive atmospheres.
- Retain these instructions for future reference. This product, when installed, will be part of an engineered system whose specifications and performance characteristics are not designed or controlled by PECO, Inc. You must review your application and national and local codes to assure that your installation will be functional and safe.

CAUTION



Use Copper wire only, insulate or wire nut all un-used leads.

