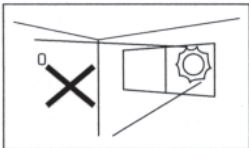


Installation Instructions

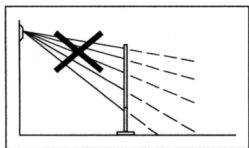
GENERAL

The SB200-001 is an occupancy sensor designed for automatic HVAC system control. This sensor provides a changeover (form C) relay signal output for fan coil controller to activate/deactivate the operation of fan coil automatically. This sensor can be wall or corner mounted with 110°, 50 ft (15m) detection range.

INSTALLATION HINTS

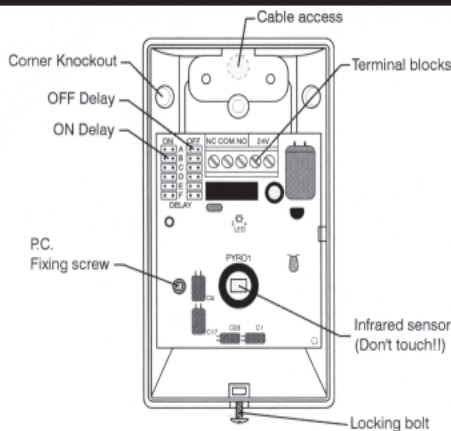


Do not install where unit is exposed to direct sunlight or directly above strong sources of heat.



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

DESCRIPTION

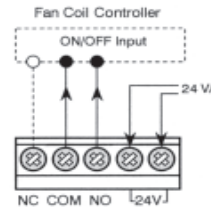


INSTALLATION & WALK TEST

Installation

1. Mount the base of mounting bracket on the selected position. Route 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.

Wiring Diagram



◆ **NC-COM-NO:** Output for ON-OFF control of fan coil operation. Dry contact signal.

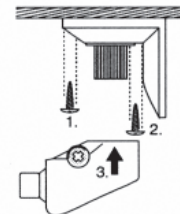
◆ **24 V:** Power supply (non-polarity)

4. Replace the front cover and then perform the walk test.

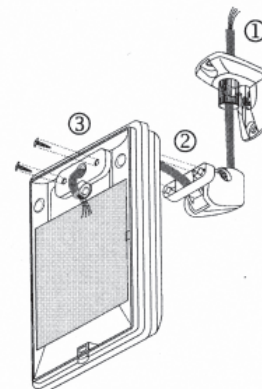
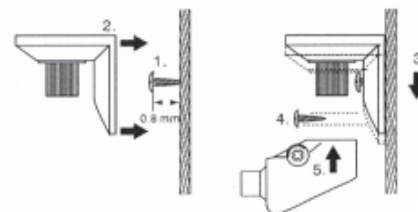
Walk Test

Apply the power supply to the sensor and wait for about 45 seconds to warm unit 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 detection zones (invisible) at normal speed. The LED will light whenever the sensor detects the motion. Note: If any jumper is not properly placed, the LED will blink.

■ Ceiling Mount



■ Wall Mount



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

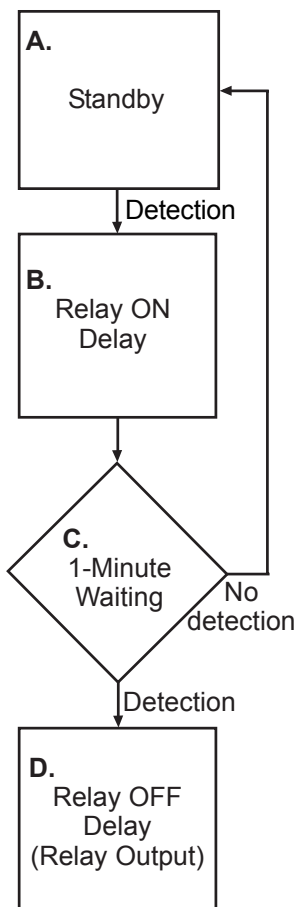
Relay ON delay is the time given to sensor to verify true occupancy before activating the relay output. Any further detection during ON delay will NOT reset the timer.

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.



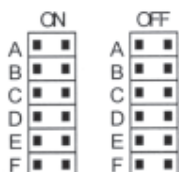
RANGE ADJUSTMENT

In order to suit different rooms or areas, the detection range of SB200-001 can be adjusted by changing the direction of the sensor. To change the sensor direction, release the screw on the mounting bracket and then carefully move the sensor to the direction desired.

ON / OFF DELAY

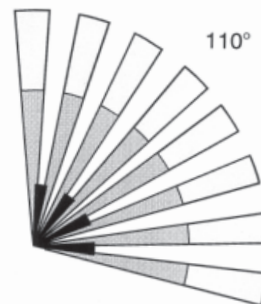
The ON and OFF delays are designed to provide intelligent energy management of the HVAC system. ON delay is the time given to the sensor to certify the occupancy, before it activates the fan controller. OFF delay is the time that relay is active. Both ON and OFF delays can be easily set by placing the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

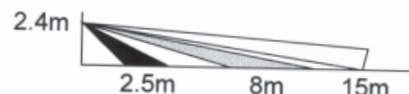


DETECTION PATTERN

Top view



Side view



SPECIFICATIONS

Power supply.....24 ± 2 V AC/DC

Detection range.....110°, 15 x 15 m at 25°C

Output format.....Form C, 30 VDC, 0.2A max.

Current drain.....Standby: 5 mA Active: 18 mA

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.....-20°C~38°C (-4°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.

