ENFORCER®
Sensor

Flush-Mount Photobeam Sensors

E-932-D33TBQ
Dual Beam
Range: 33ft. (10m)

E-932-S16RRQ
Retro-Reflective
Range: 16ft. (5m)

E-932-D33TBQ

E-932-S16RRQ

INSTALLATION MANUAL

Features:

- Range: Up to 33 feet (10m) E-932-D33TBQ
        Up to 16 feet (5m) E-932-S16RRQ
- For indoor use.
- 12~18VDC.
- Horizontal and vertical adjustment for easy alignment.
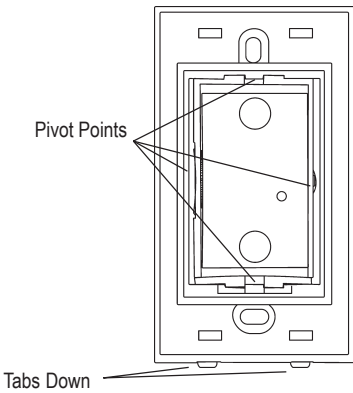- N.C./N.O./COM relay outputs.

Typical Applications:
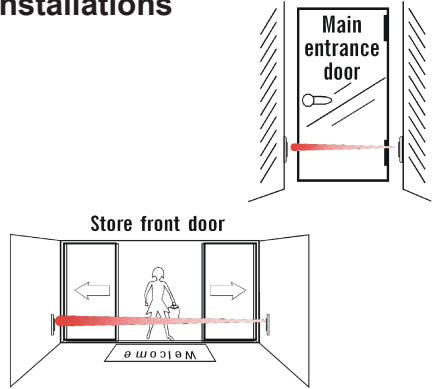
- Entry detection for store fronts.
- Alarm sensor.

Caution:

- This sensor was not designed to prevent bodily injury or loss of life.
- This sensor was not designed for use in environments where there is the possibility of explosive gasses being present.

- Use of this sensor in certain security applications may be regulated by local laws or codes. SECO-LARM is not responsible for compliance with such laws or codes.
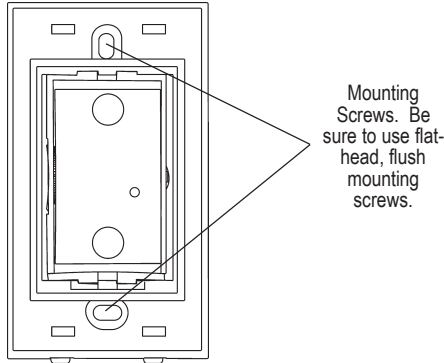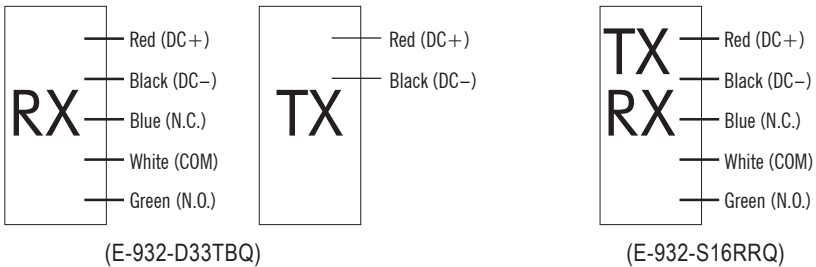
Fig. 1 - Horizontal & Vertical alignment)

Pivot Points

Tabs Down

Fig. 2 - Sample Installations

Main entrance door

Store front door

Welcome

Fig. 3 - Mounting

Mounting Screws. Be sure to use flat-head, flush mounting screws.

Fig. 4 - Wiring

RX
- Red (DC+)
- Black (DC−)
- Blue (N.C.)
- White (COM)
- Green (N.O.)

TX
- Red (DC+)
- Black (DC−)

(E-932-D33TBQ)

TX
RX
- Red (DC+)
- Black (DC−)
- Blue (N.C.)
- White (COM)
- Green (N.O.)

(E-932-S16RRQ)

E-932-D33TBQ

Installation and Alignment

LED functions:

TX RED (on): Power
RX RED (off): Aligned
RX RED (on): Out of Alignment
RX RED (on) after being aligned: Unit Triggered

Installation:

1. Decide where to mount:
   a. The transmitter and receiver should be facing each other.
   b. The units should not interfere with normal movement around the protected area.
2. Wire the units - Run the wires to the back boxes where the sensors are to be mounted. Keep wires hidden where possible, and expose them only at the very end where needed to connect to the transmitter and receiver. (see fig.4)
3. Mount the transmitter and receiver (flush mount) (fig. 3) - Mount flush to the wall with two mounting screws each.
4. Initial test - Power up the units to test alignment before permanent mounting. (See Power and Alignment below.)

Power and Alignment:

1. Power up the transmitter and receiver. The red LED on the transmitter should turn ON to indicate power is present. The red LED on the receiver should turn OFF to indicate the two are aligned properly.
2. Alignment - If the receiver is connected to power, and if the red LED does not turn off while the receiver is on, the transmitter and receiver are not aligned. Adjust the units on their pivot points until the red LED on the receiver turns off, indicating alignment. (Fig. 1.)

Testing:

1. Do a walk-through test. Walk between the transmitter and receiver. This should break the beam, turn the red LED on, and trigger the alarm panel or warning device.
2. Replace the lens covers on the transmitter and receiver. Test again one last time.

E-932-S16RRQ

Installation and Alignment

LED functions:

Red (on): Power
Yellow (off): Aligned
Yellow (on): Out of Alignment
Yellow (on) after being aligned: Unit Triggered

Installation:

1. Decide where to mount:
   a. The reflector should be directly across from the transmitter/receiver.
   b. The unit should not interfere with normal movement around the protected area.
2. Wire the unit - Run the wires to the back box where the sensor is to be mounted. Keep wires hidden where possible, and expose them only at the very end where needed to connect to the transmitter/receiver. (see fig.4)
3. Mount the transmitter/receiver (flush mount) (fig. 3) - Mount flush to the wall with two mounting screws.
4. Initial test - Temporarily hold the reflector to the wall and power up the unit to test alignment before permanent mounting. (See Power and Alignment below.)

Power and Alignment:

1. Power up the transmitter/receiver. The red LED will turn ON to indicate power is present. The yellow LED on the unit will turn OFF to indicate they are aligned properly.
2. Alignment - If the unit is connected to power, and the yellow LED does not turn off while the red LED is on, the unit and reflector are not aligned. Adjust the unit on its pivot points until the yellow LED turns off, indicating alignment. (Fig. 1.)

Testing:

1. Do a walk-through test. Walk between the transmitter/receiver and the reflector. This should break the beam, turn the yellow LED on, and trigger the alarm panel or warning device.
2. Replace the lens covers on the transmitter/receiver. Test again one last time.

Specifications:

	E-932-S16RRQ	E-932-D33TBQ
Type	Reflective beam	Dual through beam
Sensing Range	16 ft (5m)	33 ft (10m)
Supply Voltage	12~18VDC	12~18VDC
Current Drain	50 mA max.	50 mA max.
Response Time	10msec.	10msec.
Light Source	IR LED	IR LED
LEDs	Red (on): Power Yellow (off): Aligned Yellow (on): Out of alignment	TX Red (on): Power RX Red (off): Aligned RX Red (on): Out of alignment
Output	N.C., N.O., Common	N.C., N.O., Common
Switching Capacity	1A@120V (AC/DC)	1A@120V (AC/DC)
Ambient Temp	14°~122°F (-10°~50°C)	14°~122°F (-10°~50°C)
Alignment Angle	Vert. ±15°, Horiz. ±15°	Vert. ±15°, Horiz. ±15°

Troubleshooting:

Trouble	Possible Origin(s)	Remedy(s)
Sensor does not detect the object.	Object may have a reflective surface which confuses sensor.	Change the angle of the sensor.
Red LED does not turn on.	No power.	Check power.
Yellow LED or RX Red LED does not turn off.	1) Dirty sensor and/or reflector. 2) Reflector and/or sensor is misaligned.	1) Clean the sensor and reflector with a damp (not wet) cloth. 2) Adjust the reflector and/or sensor for proper alignment.
Red LED lights when object is detected, but no output.	No continuity between sensor and alarm device.	Check cable from sensor to alarm device. Test sensor.

Warranty: This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for a period of one (1) year from the date of sale to the original consumer customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM.

This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair, or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship.

The sole obligation of SECO-LARM, and the purchaser's exclusive remedy, shall be limited to replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damages of any kind to the purchaser or anyone else.