



Sentrol Ranger Field Disturbance Sensor- Commercial Application

Installation Instructions (Preliminary)

Application

The Sentrol Ranger Presence Sensor is designed for commercial applications where moving objects or people need to be sensed. The unit is operated from a 12V power supply and includes an on-board PIR detector for greater pet immunity and a decrease in false alarms.

Mounting Location

The sensor must be mounted on a stationary and vibration free object. The top of the case should face the direction that is to be monitored for movement. The sensor can "see" in approximately a 90° field of view, it cannot "see" towards the back of the sensor.

Mount the sensor with the 2 screws provided or with double-sided tape. Avoid touching the electronics during the mounting procedure.

Things to Avoid when Mounting the Ranger

Do not place metallic objects within the 1st two feet in front of the sensor or the sensor might be blinded or may see objects in back of the sensor.

Do not mount the sensor close to moving or vibrating objects: washing machines, fans, pulleys, etc. Moving or vibrating objects may cause false alarms.

Do not mount the sensor close to electrical disturbances: electrical motors, high voltage equipment, etc.

Do not mount sensor where it is exposed to water spray or corrosive environment.

Adjusting the Sensitivity and Testing the Range

The Sentrol Ranger Presence Sensor is preset at the factory for optimum sensitivity for each range. Each range can be tested separately with an on-board jumper at J6.

For normal operation the jumper at J6 is factory set to a 35 ft range. Move jumper location to the pins of the desired range.

Re-mount the unit and this selected range can now be tested. Simply walk in front of the sensor and note the distance where either an orange or red LED is lit.

Wiring

Cut a hole through the indicated knock-out at the back of the housing to run the panel wiring into the unit. Attach +12Vdc, COM, NO, NC and Tamper wires from the panel to the marked terminal blocks.

LED Indicators

<u>LED Color</u>	<u>Indication</u>
Red	Alarm (Relay changes state)
Green	PIR Only Detection (no change in relay state)
Orange	RangeGated RADAR Only Detection (no change in relay state)

SPECIFICATIONS

Electrical

Supply Voltage	8V to 15V
Current Draw	20mA typical
Relay Rating	30V, 20mA max.

Sensing Performance

Maximum Range	32 - 35 feet
Target Velocity	0.3 ft/sec to 5.0 ft/sec
Min. Target Object Size	0.5 square foot profile of a diffuse metallic reflector at 10 feet

Environmental

Operating Temp	0° C to 50° C
Humidity	10% to 95% non-condensing

Sentrol Dolphin Presence Sensor - For Industrial Automation Applications

Installation Instructions (Preliminary)

Application

The Sentrol Dolphin Presence Sensor is designed for industrial applications where moving objects or people need to be sensed. The unit is operated from a 12V power supply. Applications might include electric door openers, video camera control, or any other application where a non-critical machine needs to be activated or de-activated when motion occurs within a prescribed range of less than 20 feet.

Mounting Location

The sensor must be mounted on a stationary and vibration free object. The top of the case should face the direction that is to be monitored for movement. The sensor can "see" in approximately a 180° field of view, it cannot "see" towards the back of the sensor. The sensor will have less sensitivity to the sides than the top and bottom. The sensor may be mounted sideways if it is desired to optimize sensing in a sideways direction.

Mount the sensor with the 2 screws provided or with double-sided tape. Avoid touching the electronics during the mounting procedure.

Things to Avoid when Mounting the Dolphin

Do not place metallic objects within the 1st 2 feet in front of the sensor or the sensor might be blinded or may see objects in back of the sensor.

Do not mount the sensor close to moving or vibrating objects: washing machines, fans, pulleys, etc.

Do not mount the sensor close to electrical disturbances: electrical motors, high voltage equipment, etc.

Do not mount sensor where it is exposed to water spray or corrosive environment.

Adjusting the Range and Sensitivity

With a small slotted screw driver,

1. Adjust the RANGE and SENS potentiometers to the middle of their scale. The sensor should now be able to sense movements of your hand within the range of approximately 10 feet.
2. Now adjust the RANGE potentiometer until it operates to your desired range.
3. Adjust the SENS potentiometer so it easily senses the object you are trying to sense at the maximum range, but not an object which is 1/2 the size of the object you are trying to sense.

Wiring

Attach a 12V power supply to the marked terminal blocks.

SPECIFICATIONS

Electrical

Supply Voltage	6V to 15V
Current Draw	10mA typical
Alarm Pin Rating	30V peak, 20mA max.

Sensing Performance

Maximum Range	20 feet minimum
Target Velocity	1 ft/sec to 30 ft/sec
Target Object Size	0.5 square foot profile of a metallic object at 10 feet

Environmental

Operating Temperature	0° F to 120° F
Humidity	10% to 95% non-condensing

FEDERAL COMMUNICATIONS COMMISSION (F.C.C.) STATEMENT

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation, if this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient / Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/ TV technician for help.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.