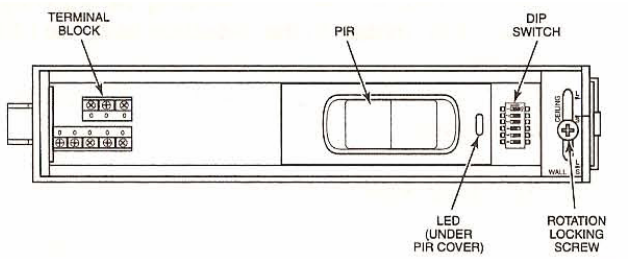
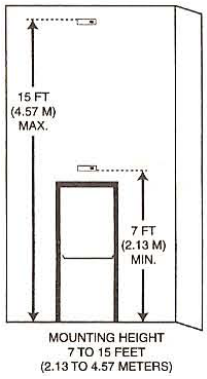
1. Description

The DORTRONICS 6612 is a Request-to-Exit Passive Infared (PIR) sensor. Mounted near an exterior door inside a building with an access control system, the sensor provides free exit to individuals within the building without causing an alarm.
The parts of the 6612 are shown below.



2. Mounting Location

The 6612 can be mounted on the wall or ceiling.



NOTE: If the maximum range of 8.4' is desired, The mounting height must be at the maximum 15'
Choose a location that:

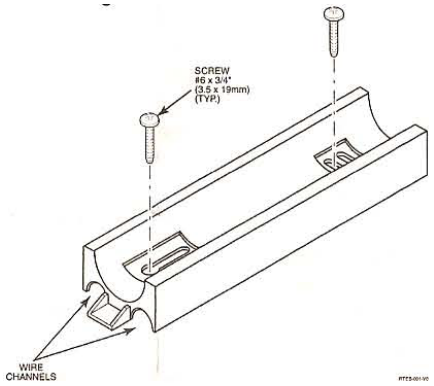
: Gives the sensor a clear line of sight to every part of the detection area. (Infared energy cannot penetrate solid objects).
: Does not place the sensor directly across from one or more windows.
: Is away from moving machinery, fluorescent lights and heating and cooling sources.

The mounting locations available for the sensor can be fairly limited. It may be necessary to adjust the view of the sensor to limit the detection pattern by adjusting the Shutters as described in section 7.

3. Mounting Procedure

To mount the sensor, do the following:

1. Open the housing by pressing on the latch with a screwdriver. This latch is located on the end of the sensor nearest the lens. Pull the cover up and away from the sensor's base.
2. Loosen rotation locking screw two (2) turns (do not remove) Then, remove PCB assembly from the back plate of the sensor.
3. Insert the wiring into one of the wire channels on the sensor's back plate.
4. Securely affix the sensor's back plate to the wall or ceiling using 2 #6 x 3/4" screws provided.
5. Reinstall the PCB assembly and adjust for short or long range as described in section 6. Then tighten rotation locking screw.

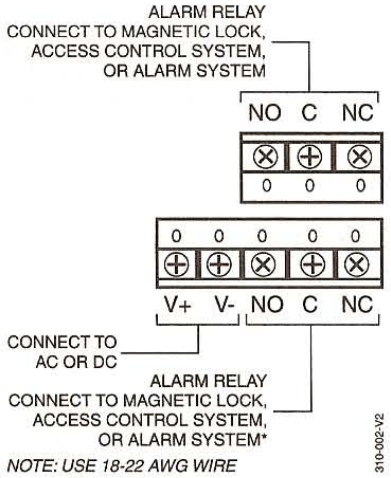


4. Input/Output Description

The 6612 inputs and outputs are as follows:
V+ / V- : Connects to AC or DC power (12-28V)
Relays: Input/Output Dual DPDT relays. The relay may be used to control a magnetic lock or signal an access control system. All relay contacts have terminal block connections on the board.
NOTE: Relay timer settings and the reset mode setting affect operation of this relay. (see switches 3,4,5,and 6 in DIP Switch Settings).
CAUTION: When using the 6612 to control an Electro Magnetic Lock, check with the lock manufacturer to ensure there is transient protection built in or provided with the lock to protect the relay contacts.
(All DORTRONICS Locks have built in Transient Surge Suppression)

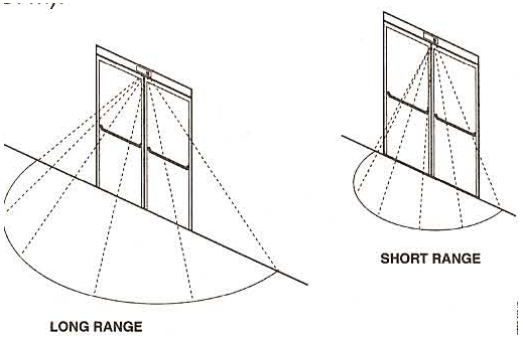
5. 6612 Wiring

Wire the sensor as shown in the illustration.



6. Long Range/Short Range Adjustments

The 6612 can be set to detect individuals at either a long range (several steps from the door) or at a short range (immediately in front of the door). If the building includes a lengthy approach to the Exit door and no other foot traffic in the area, choose the long range setting.
NOTE: If the maximum range of 8.4 feet is desired the mounting height must be at the maximum15 feet.



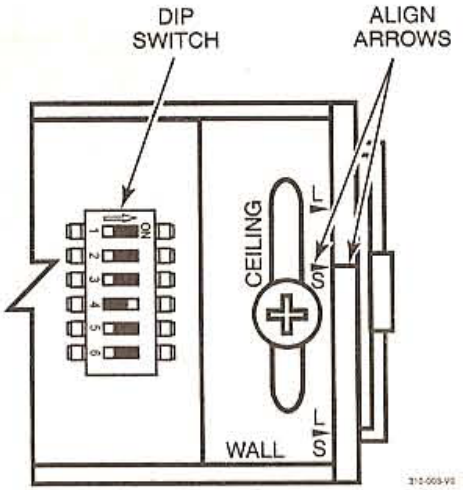
To set the range length:

1. Loosen the rotation locking screw.
2. Turn the PCB in its rotating base until the arrow on the base is aligned with the appropriate notch on the base plate. If the sensor is ceiling mounted, choose between the notches with the "Ceiling" label.

CONTINUED ON NEXT PAGE :

If the sensor is wall mounted, choose between the notches with the “Wall” label. The arrow on the mounting base (or back plate) needs to be aligned with the Ceiling or Wall arrows. The “L” designates long range and the “S” designates short range.
NOTE: Either long or short range must be selected. (Attempting to select a “mid” range will result in an undesirable operation; it will provide a long range with attenuated short range detection.

3. Tighten the rotation locking screw.



7. Shutter Adjustment

The 6612 contains shutters behind the PIR cover. These shutters are used to adjust the field width. This may be necessary when the unit is installed where it may be tripped by non-exiting traffic or an erroneous source

1. To adjust the shutters, remove the lens cover from the PIR
2. Push the forward edge of the shutter(s) toward the middle of the opening until the areas to be blocked are outside the line-of-sight of the PIR. When making the shutter adjustment, each shutter position has a detent and each detent masks off an entire detection zone. There are eight zones total and each shutter has the the ability to mask off 7 of the 8 zones. If the shutter is located between detents, the result will be an attenuation of a zone that is intended to be masked or attenuation of a detection zone resulting in improper operation.
3. Replace the lens cover.

8. Dip Switch Settings

The 6612 DIP switch contains 6 switches for selecting operating options. The functions of these switches are as follows.

Switch 1 – Sensor Mode (sensitivity) Selector: OFF is the Request-to-Exit mode. ON is the Security Sensor Mode, the sensor is more immune to false alarms, but the extra time required to perform signal qualifications may make the unit unsuitable for most RTE applications The unit is shipped in the Request-to-Exit mode.

Switch 2 – LED Disable: This switch must be off to allow the LED to function. The unit is shipped with the LED enabled (switch OFF).

Switch 3 – Relay Timer Mode: This switch selects the relay timer re-trigger or fixed modes.
With this switch OFF, the re-trigger mode is selected. In the re-trigger mode, the relay timer is restarted with the time programmed (with switches 4, 5, and 6) whenever motion is detected. The relay will only deactivate when the time programmed expires without additional motion detected during the active period.
With this switch ON, the fixed mode is selected and the relay will deactivate at the expiration of the relay time programmed (with switches 4,5 and 6) and additional motion detection during the active period has no effect.
The unit is shipped with this switch OFF (re–trigger mode).

Switches 4, 5 and 6 – Relay Timer Setting:
These switches control the relay timing: To set the relay timing, refer to the following table:

Switch			Relay Time (Seconds)
4	5	6	
OFF	OFF	OFF	0.5
OFF	OFF	ON	1
OFF	ON	OFF	2
OFF	ON	ON	4
ON	OFF	OFF	8
ON	OFF	ON	16
ON	ON	OFF	32
ON	ON	ON	64

9. Walk testing

Walk into the motion detection field. Two to four normal steps into the field should make the LED light up.
NOTE: The 6612 has a warm-up period of approximately 2 minutes.
Each time the LED goes on, wait for it to go off Then wait 12 seconds before continuing the walk test. When there is no motion in the detection field, the LED should be off.
IMPORTANT: The 6612 should be tested at least once a year.

10. Specifications:

Range:
Long:
8.4’ x 15.8’(adjustable)
Short:
2’ x 5.5’ (adjustable)

RFI Immunity:
30 V/m, 1 -1000 MHz

White Light Immunity:
2000 LUX

Relay (Dual):
Form C
Contact rating 1A max. @ 30 VDC

Size:
7” x 2” x 2”

Power Requirements:
12 to 28 VDC or AC 3V peak to peak @ 12.5V
Less than 50 mA current consumption

Operating Temp:
32 to 122F
(0 to 50C)

Relative Humidity:
Less than 95%
(Non-condensing)

Regulatory Notices:

The 6612 fully complies with the following regulations:

- FCC Part 15
- UL 294 – Access Control System Units
- C22.2 No. 205-M1983-Signal Equip.
- CE

DORTRONICS SYSTEMS, INC.
1668 SAG HARBOR TURNPIKE
SAG HARBOR, NY 11963
800-906-0137 / 631-725-0505
FAX: 631-725-7946
WWW.DORTRONICS.COM