

## **Installation/User Manual Statements for the DT-7360.**

*The following statement will be located in the DT-7360 Installation Instructions.*

Note: This equipment has been tested and found to comply with the limits for 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 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 and correct the interference by one or more of the following measures:

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

Changes or modifications to this equipment not expressly approved by IntelliSense may void the user's authority to operate this equipment.

This apparatus complies with Canadian Standards ICES-003 B and RSS-210.

**DT-7360**

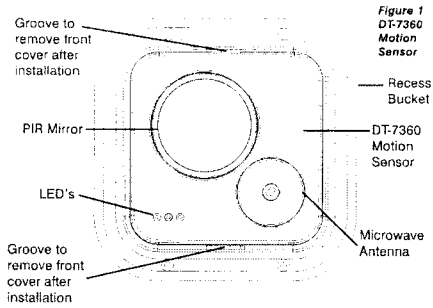


Figure 1  
DT-7360  
Motion  
Sensor

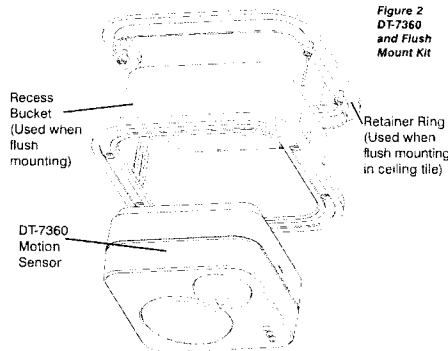


Figure 2  
DT-7360  
and Flush  
Mount Kit

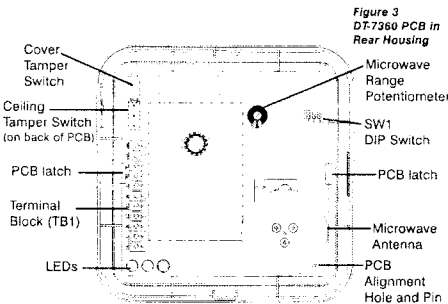


Figure 3  
DT-7360 PCB in  
Rear Housing

**1 Select the mounting location.**

**Mounting Options**

- Surface Mount on Ceiling
- Flush Mount on Ceiling
- 8' (2.4 m) to 16' (4.8 m) mounting height **See System Set-Up section to select the appropriate PIR mirror assembly (depending on mounting height). Install the appropriate mirror before mounting the sensor.**
- Cover Tamper
- Ceiling Tamper

**Mounting Location Guidelines**

- Ceiling or flush mount in the center of the protected area
- Avoid direct or reflected sunlight
- Aim sensor away from windows or heating/cooling devices
- Sensor must have a clear line-of-sight to protected area

**2 Separate the sensor housings and remove the printed circuit board (PCB).**

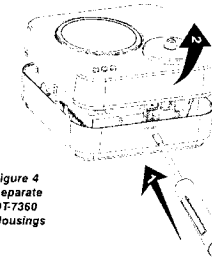


Figure 4  
Separate  
DT-7360  
Housings

- Use a small screwdriver to unfasten the housing latch. Gently pull apart the housings.
- Push outward on the PCB latch (see Figure 3) and use the microwave antenna to carefully lift the PCB out of the housing.

**3a Surface mount the sensor.**

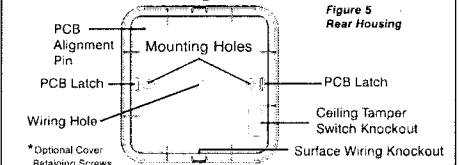


Figure 5  
Rear Housing

\*Optional Cover Relatching Screws (Not used with the recess bucket)

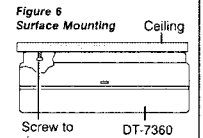


Figure 6  
Surface Mounting

- Use the rear housing as a template to mark wiring and mounting holes.
- Slide the wire through the wire hole and wire the sensor (see Wiring section). **Note:** For surface wiring, use the knockout holes on the side of the sensor.
- Mount the back housing flat against the ceiling using #6 (M 3.5) pan head screws (not provided).
- If using the ceiling tamper, remove the ceiling tamper switch knockout and install a #6 (M 3.5) screw in the ceiling. Leave enough of the screw protruding to depress the tamper switch when the sensor is mounted (see Figure 6).

**3b Flush mount the sensor.**

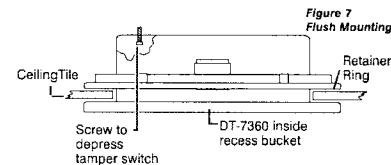


Figure 7  
Flush Mounting

- Cut a 5.5" x 5.5" (14 cm x 14 cm) hole in the ceiling tile.
- Insert recess bucket and mark mounting holes.
- Remove recess bucket and drill mounting holes.
- If using retainer ring, place it through then directly over the hole in the ceiling. Orient the retainer ring and recess bucket as shown above.
- Attach rear housing of the sensor inside the recess bucket using #6 (M 3.5) pan head screws (not provided).
- If using the ceiling tamper, remove the tamper knockout in the rear housing (see Figure 5), and install a #6 (M 3.5) screw in the recess bucket behind the knockout. Leave enough of the screw protruding to depress the tamper switch when the sensor is mounted (see Figure 7).
- Slide the wire through the wire hole in the recess bucket and rear housing, and wire the sensor (see Wiring section).
- Insert the recess bucket into the ceiling hole, and secure it to ceiling (and retainer ring) with four mounting screws (not provided).

**4 Wire the sensor.**

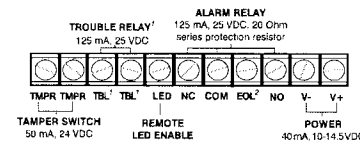


Figure 8  
Wiring Diagram

- Connect wires as shown using 1.63 - 0.64 mm<sup>2</sup> (14 to 22 gauge) wire size. Observe proper polarity.
- Return as much wire as possible back into the ceiling when returning the PCB to its housing.

<sup>1</sup> The Trouble Relay is activated when a self-test failure occurs.  
<sup>2</sup> EOL = End-of-Line (spare) terminal.

**Note:** For proper wiring methods, refer to National Electrical Code NFPA 70.

**IMPORTANT:** To ensure insects do not get inside the sensor housing, make sure to seal all holes. (Recommended sealant: silicone RTV.)

**5 Walk-test the sensor; adjust as necessary.**



Figure 9  
Switch  
S1



Figure 10  
Microwave  
Potentiometer

- Use Switch SW1 to select the sensor sensitivity, enable or disable the LED, and set the fluorescent light immunity. (See Dip Switch Setting section.)
- Set the microwave range to MINIMUM by turning the potentiometer all the way counter clockwise.
- Apply power to the sensor, wait until self-tests are complete (160 seconds) and LEDs are off, then begin walk-testing. **Note:** The front cover must be installed when you walk-test the sensor.
- As you perform the walk-test, gradually turn the potentiometer clockwise to increase the microwave sensitivity until the desired range is obtained.
- Walk across the protected area at the ranges to be covered. Two to four steps should make the LEDs light. There are three diagnostic LEDs: green for PIR, yellow for microwave and red indicates an alarm condition.
- After walk-testing, if further adjustments are needed, use a screwdriver to reopen the front cover. Insert screwdriver into the grooves in the recess bucket (see Figure 1), and gently press outward.

**Important:** The DT-7360 should be tested at least once each year to ensure proper operation.

BETA DRAFT

**DIP SWITCH SETTINGS (SW1)**

Factory default settings are shown in grey.



Switch	OFF	ON
1	Standard (Low) Sensitivity	Intermediate (High) Sensitivity
2	LED Disabled	LED Enabled
3	60 Hz Fluorescent Filter	50 Hz Fluorescent Filter

**REMOTE LED ENABLE**

The remote LED enable input can be used to enable the LEDs if disabled locally by S2=OFF. A contact closure or open collector can be used. If the signal to the Remote LED Enable terminal is low, the LEDs are enabled. If the signal to the terminal is high, the LEDs are disabled. However, if a self-test error occurs, the LEDs will light regardless of the state of the signal.

The following chart describes how the diagnostic LEDs appear during self-tests, and what action needs to be taken for each type of display.

TEST DESCRIPTION	ALARM MW PIR			ACTION
	(Red)	(Yellow)	(Green)	
Power Up Self-Test	SF	SF	SF	No action required.
On Line - All Self-Tests Passed, Ready for Walk-Test	OFF	OFF	OFF	Unit is working properly.
On-going Self-Test	SF	SF	SF	Send the unit in for repair.

SF = Slow Flash

**TROUBLE SHOOTING**

DT-7360 sensor automatically performs a series of self-tests when the unit is powered up, and periodically during normal operation.

If failure occurs during self-tests, the diagnostic LED(s) will flash and the trouble output becomes active until the failure is cleared. See the table below to understand the trouble indication.

LED	OPERATION	TROUBLE INDICATION
Red	Fast Flash	Temperature Compensation Failure
Yellow	Fast Flash	Microwave Supervision Failure
Green	Fast Flash	PIR Failure

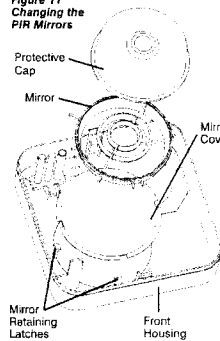
**SYSTEM SET-UP**

**Changing the PIR Mirror Assembly**

The DT-7360 package contains two PIR mirror assemblies: one for ceilings from 2.4m (8') to 3.3m (11') high, another for ceilings from 3.65m (12') to 4.8m (16') high. **The unit is shipped with the 2.4m-3.3m (8'-11') mirror installed.**

To change the mirror assembly, remove the front cover and turn it over. Next, remove the protective cap and existing mirror assembly by pressing outward on the four retaining latches at their sides. Leave the Mirror Cover in place. Store (or discard) the existing mirror and install the new one. Snap the protective cap back into place, then replace the front cover.

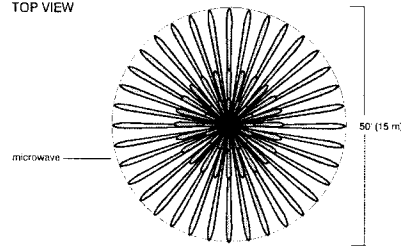
Figure 11 Changing the PIR Mirrors



**DETECTION PATTERNS**

8'-11' (2.4m-3.3m) mirror assembly

TOP VIEW



SIDE VIEW



MOUNTING HEIGHT	OUTER TIER		MIDDLE TIER		INNER TIER		CENTER
	A	B	C	D	E	F	G
8' (2.4m)	25.3" (640mm)	18.8" (478mm)	11.8" (300mm)	9.0" (230mm)	5.5" (140mm)	4.3" (110mm)	1.7" (43mm)
9' (2.7m)	31.6" (803mm)	22.5" (571mm)	14.8" (376mm)	11.3" (287mm)	7.0" (178mm)	5.4" (137mm)	2.1" (53mm)
11' (3.3m)	44.3" (1130mm)	33.0" (838mm)	20.7" (527mm)	15.8" (401mm)	9.8" (250mm)	7.5" (190mm)	2.9" (74mm)

**PIR Masking**

To eliminate specific PIR zones from the pattern, mask corresponding segments on the PIR mirror with the adhesive-backed masking tape provided. Remember, segments to be masked will be on the side of the mirror **OPPOSITE** the unwanted zones. See Figure 12.

Once the tape has been applied, walk-test the sensor to ensure that the correct mirror segments have been masked.

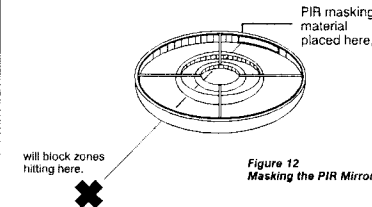
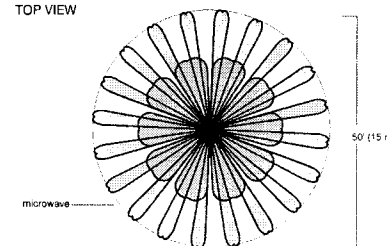


Figure 12 Masking the PIR Mirrors

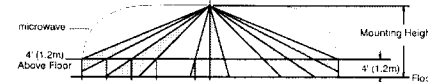
**DETECTION PATTERNS**

12'-16' (3.65m-4.8m) mirror assembly

TOP VIEW



SIDE VIEW



MOUNTING HEIGHT	OUTER TIER		INNER TIER		CENTER
	A	B	C	D	E
12' (3.65m)	19.8" (503mm)	16.0" (406mm)	12.1" (308mm)	9.3" (237mm)	2.3" (58mm)
14' (4.2m)	24.8" (625mm)	20.0" (508mm)	15.2" (386mm)	10.3" (262mm)	2.9" (74mm)
16' (4.8m)	29.7" (754mm)	24.0" (610mm)	18.2" (462mm)	12.4" (315mm)	3.4" (86mm)

**PRODUCT SPECIFICATIONS**

**Alarm relay:**  
Energized Form C  
125 mA, 25 VDC  
20 Ohm series protection resistor

**Range:**  
50' (15m) diameter  
[25' (7.6m) radius]

**Tamper switch:**  
N.C.  
50 mA, 24 VDC

**Power requirements:**  
10 - 14.5 VDC  
40 mA typical, 50 mA maximum  
AC Ripple: 3 V peak-to-peak at nominal 12 VDC

**Frequency:**  
Center band -  
24.125 GHz

**PIR fields-of-view:**  
8'-11' (2.4m-3.3m) mirror  
Three 360° fields  
36 long range zones  
24 intermediate  
16 short range  
1 look-down

12'-16' (3.65m-4.8m) mirror  
Two 360° fields  
20 long range zones  
20 intermediate  
1 look-down

**Fluorescent light filter:**  
50 Hz or 60 Hz, selectable

**RFI immunity:**  
30 V/m, 10 MHz-1000MHz

**Dimensions:**  
5" high x 5" wide x 2.3" deep  
(12.7 cm x 12.7 cm x 5.8 cm)

**Sensitivity:**  
Standard: 4-6 steps  
Intermediate: 2-4 steps

**Trouble relay:**  
De-energized Form B (N.C.)  
125 mA, 25 VDC

**PIR white light immunity:**  
900 LUX

**Operating temperature:**  
32° to 120° F  
(0° to 49° C)

**Relative humidity:**  
5% to 95%  
(non-condensing)

**Weight:**  
14 oz (397 g)

**Self-Tests:**  
Continuous/Microwave  
Supervision; PIR self-test;  
Temperature Compensation

**Standard accessories included:**  
DT-7360 recess kit;  
PIR masking material  
3.65m-4.8m (12'-16') mirror  
Two cover retaining screws

**Approvals/listings:**

