Step 1
Select mounting height.

Step 2
Carefully push screwdriver into slots to disengage latches and open top cover.

Step 3
DT906AM ONLY: Firmly insert screwdriver into slot in arrow and rotate PIR Mirror Selector to the correct range.

Step 4
Set switch S4 to establish microwave range.

Step 5
Locate correct sensor range scale and rotate Vertical Adjustment Screw until the diamond corresponds to the sensor mounting height (coarse adjust).

Step 6
Set switch S3 to establish the sensitivity best suited to your application.

Step 7
Select INFORMER™ mode with switch S2, if desired. (See INFORMER Mode section).

Step 8
Carefully push screwdriver into slot to disengage latch and remove bottom cover.

Step 9
Unfasten screws and remove mounting plate from sensor. If required, remove the knockout to allow wire entry via electric metallic tubing or surface wiring conduit.

Step 10
Attach mounting plate to wall at desired height, using four screws (not supplied).

Step 11
Install M5 (#10) screw (not supplied) in wall 1.9 cm (3/4") below mounting screw, as shown, for tamper activation.

Step 12
Pull about 30 cm (12") of wire from wall through the opening in the mounting plate and route wire to the terminal strip.

Step 13
Hang the sensor on the mounting plate hooks and fasten with the two mounting plate screws.

Step 14
Wire the unit as shown. Use 0.8 - 1.5 mm (22-16 AWG).

Step 15
Loosen horizontal locking screw in sensor support base.

Step 16
Grasp housing and rotate it to the desired position (coarse adjust). If fine adjust is needed see Steps 21-23.

Step 17
Tighten horizontal locking screw in sensor support base.

Step 18
Apply power to the sensor, and all the LED’s will start flashing rapidly. Wait 90 seconds for the power-up self-test to finish, at which point, if there is no motion in the detection area, all the LED’s will be off, and the sensor will be ready for walk testing. If the three LED’s do not go off after 90 seconds, refer to the Troubleshooting section.

Step 19
Turn the microwave potentiometer counterclockwise to decrease the microwave range to minimum. During walk-test, gradually turn the potentiometer clockwise increasing microwave sensitivity until the desired range is obtained.

Step 20
Walk-test the sensor to check for adequate detection coverage and to verify the sensor is fully functional. Depending on the selected sensitivity level, the sensor will alarm after taking between 2 and 4 steps in the detection pattern.

Step 21
For fine horizontal adjustment, loosen the PIR horizontal fine locking screw on the PCB.

Step 22
Rotate the horizontal fine adjust knob to the desired position. Note: Fine adjustment allows for small changes (3 degrees right or left) between coarse settings.

Step 23
Tighten the horizontal fine locking screw on the PCB.

Step 24
Remove the jumper at J4 on the PCB to disable the LEDs after walk-testing, and complete installation by closing the top cover and replacing the bottom cover.
**OPERATION RELAY**

**NORMAL Anti-Mask Operation**

The DT900AM features an anti-mask function that detects attempts to mask the sensor. The sensor has active infrared beams that sweep out the sensor’s field-of-view, and monitors for reflections from materials that will block or cover the sensor. If the sensor registers a mask condition, it will open the mask relay and rapidly flash the green LED.

To avoid false mask alarms, follow the mounting guidelines shown in Step 1.

**CLEARING An Anti-Mask Condition**

Visually inspect the sensor, and remove any materials blocking the sensor’s view, and the sensor will normally reset automatically.

*If a self test error occurs, the Trouble relay will latch open and all three LED’s will flash rapidly.*

**NOTE:** When a self test error occurs, the Trouble relay will latch open and all three LED’s will flash rapidly.

**LED ENABLE**

*NOTE: TS05121-2-4-Compliant*

The LED’s will only be enabled by either installing Jumper J4 or by connecting the Remote LED Enable terminal as per the table below (see also INPUT 1 & 2 in the Product Specifications section).

**INPUT 1**

**HIGH/LOW Connected**

- Low LED Enable terminal
- Low Remote LED Enable terminal
- Low Remote Test terminal
- Low Faulted

**INPUT 2**

**High/Not Connected**

- Low Fault
- Low Remote Test terminal
- Low Remote LED Enable terminal
- Low Remote Relay Enable terminal

**SELF TEST**

The sensor will perform a series of self-tests in the following instances:

- **Power up**
- Automatically every hour during normal operation
- **On installer initiation.** Self tests can be installer initiated either by momentarily short circuiting the two self test terminals or by following the Remote Test self terminal, as per the table below (see INPUT 1 & 2 in the Product Specifications section).

- **Trouble relay:**
- **Alarm relay:**

**INFORMER MODE**

The INFORMER mode is a useful diagnostic tool for identifying environmental conditions that are liable to cause installation problems.

The INFORMER circuit counts the number of events registered by both the microwave and PIR technologies, and uses the resulting ratio to determine if either technology is working properly or is misapplied. Establish the INFORMER mode using switch S2 (see Step 7).

**Mode 1:** Set S2 to position 1. In Mode 1, PIR events without a microwave event will cause the unit to go into PIR INFORMER mode, and microwave events without a PIR event will cause the unit to go into microwave INFORMER.

**Mode 2:** Set S2 to position 2. In Mode 2, PIR events without a microwave event will cause the unit to go into PIR INFORMER mode, and microwave events without a PIR event will cause the unit to go into microwave INFORMER.

**NOTE:** The Mode 2 setting is not recommended. Use only if INFORMER indication is required quickly.

**DISABLED:** To disable INFORMER function, set S2 to the OFF (open) position (factory default setting).

**INPUT 1**

**High/Low Connected**

- Low Operation Power
- Low Source
- Low Normal Temperature
- Low Trouble
- Low High/Low Temperature
- Low Failure

**INPUT 2**

**High/Not Connected**

- Low Input 1
- Low Input 2
- Low Fault
- Low Remote Relay Enable terminal
- Low Remote Test terminal
- Low Remote LED Enable terminal
- Low Power requirement

**TROUBLESHOOTING**

**Problem:** The sensor’s PIR range is too long or short.

**Explanation:** Various mounting locations may require fine vertical adjustment (e.g., due to uneven walls or floors, etc.).

**Solution:** During the walk-test, if the PIR is short-ranged, turn the Vertical Adjust Screw clockwise. If the PIR is long-ranged, turn the Vertical Adjust Screw counterclockwise.

**Problem:** A combination of the sensor’s LED’s are flashing closely when there is no motion in the detection area.

**Explanation:** INFORMER mode is selected on the sensor, and there is a potential false alarm source in the local environment.

**Solution:** The table below describes two trouble alerts which are reported by the INFORMER circuit. Use the troubleshooting matrix to identify the trouble alerts.

1. Find the trouble alert that describes the condition of the walk-test LEDs (both no motion in the area).
2. Walk-test the sensor, carefully watching the reaction of the diagnostic LEDs.
3. Refer to the Possible Causes column of the matrix for an explanation of the way in which the diagnostic LEDs reacted to the walk-test.
4. If no environmental sources can be found, initiate a self test. If the sensor fails the self test, replace the sensor. If not, replicate the sensor and re-test.

**NOTE:** Do not replicate the jumper J4 at the same time as the Remote LED Enable terminal is low, or the LED’s will not illuminate.

**PRODUCT SPECIFICATIONS**

**Range:**

- **37 m (120') Range**
- **24.4 m (80') Range**
- **4.4 m (15') Range**

**Power requirements:**

- **10 - 15 VDC**
- **50 mA (max) at 12 VDC**
- **22 Ohm series protection resistor**
- **De-energized Form C**
- **50 mA (max) at 12 VDC**
- **De-energized Form B**
- **50 mA (max) at 12 VDC**

**Temperature:**

- **-20°C to +55°C**
- **50°C (max)**

**Weight:**

- **1.26 kg (2.8 lbs)**

**Approvals/listings:**

- **PDBS 2004, prEN 50131-1:2004 and TS05121-2-4:2004 Security Grade 3, Environmental Class II**

**Sensitivity:**

- **2 x 4 x 60 m range**

**Applications:**

- Suitable for connection to an EH 6600 Class II Limited Power Source in European installations.

**Note:** In TS05121-2-4 compliant installations, mount the sensor at 2.3 m, select the high sensitivity setting and set switch S4 to OPEN.

**Disclaimer:** The content of this document is provided for your reference only. If you require any specific information regarding the compliance of this product with any specific European requirements, please contact Quality Assurance Department, Honeywell Security & Custom Electronics, Newhouse Industrial Estate, Motherwell, Lanarkshire ML1 5SB, Scotland.

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