

Mercury FM

Location of the Detector

Consider the following before mounting the detector:

- Select a location from which the pattern of the detector is most likely to be crossed by a burglar, should there be a break in.
- Avoid a location that comes in direct contact with radiators, heating/cooling ducts or air conditioners.
- Do not place the detector in front of windows subject to direct sunlight or drafts.
- Do not place bulky objects in front of the detector.

Installation Instructions

The following procedure describes the standard installation of the Mercury FM detector. The detector is factory set to 2-pulse operation with the LED enabled.

Any adjustments to these default settings are described in the next section – *Operation and Adjustment*.

1. The detector is designed for mounting in a standard single-gang recessed electrical box (not supplied). Mount this box and route the wiring before installing the detector.
2. Remove the front plate of the detector. To do so, place a small screwdriver in the bottom notch, twist and lift.
3. Disconnect the terminal block by unplugging it from the rear of the unit.
4. Wire the terminal block as shown in Figure 2 and plug it back into the 6-pin connector with the screws of the terminal block facing downwards.

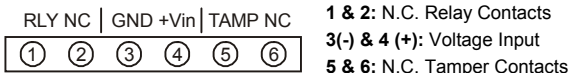


Figure 2: 6-Pin Wiring Connector

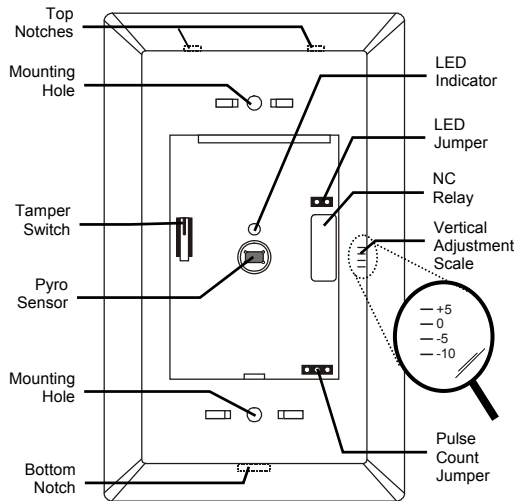


Figure 1: Mercury FM (front plate off, lens frame removed)

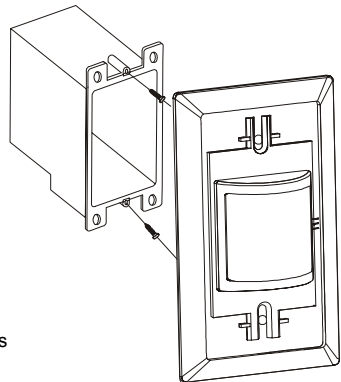


Figure 3: Mounting to the Electrical Box

5. Mount the detector onto the electrical box with two screws – see Figure 3. Do not tighten the screws yet.
6. Position the lens frame (Figure 4) at the required vertical adjustment and tighten the screws – see *Vertical Adjustment*.
7. Attach the front plate by placing the top locking tabs into the top notches and clicking the bottom locking tab into place.
8. Apply power and wait 90 seconds for the detector to “warm-up”.

Operation and Adjustment

Vertical adjustment: The vertical adjustment setting is determined by the position of the lens frame. To change this setting, loosen the two mounting screws and position the lens frame according to Table 1.

Walk testing the detector: A walk test is performed in order to determine the coverage pattern of the detector. To do so, walk across the scope of the detector according to the detection pattern selected.

Confirm that the LED indicator activates and deactivates accordingly. This test should be performed weekly.

The following two features require you to remove the lens frame and expose the circuit board. To do so, unscrew the mounting screws and slide the frame down as far as it will go. Carefully squeeze the top set of prongs on the lens frame and lift to remove.

Setting the pulse counter: The pulse counter controls the amount of lens segments that need to be crossed before the detector will generate an alarm. To set the pulse counter, refer to Table 2 for the appropriate jumper setting.

LED disable: Insert the LED jumper to enable the LED indicator, remove the jumper to disable.

Note: The LED should be disabled only after successfully walk testing the detector.

Technical Specifications

Operating Voltage: 9 - 16VDC

Max. Current Consumption: 20mA@16V (standby)

Coverage: 12m x 12m (40' x 40')

Pulse Count: 1, 2 or 3 selectable

Pyroelectric Sensor: Dual element

Alarm Output: N.C., Contact rating 10W max.

Switching Voltage: 30VDC not to exceed 10W

Switching Current: 0.3A not to exceed 10W

Alarm Duration: 1 second min.

Tamper Switch: N.C.

Contact Rating: 30VDC, 50mA max.

Operating Temperature: -10° to 60°C

Temperature Compensation: Thermistor

Reverse Polarity Protection: Diode

Fire Protection: ABS plastic housing

LED Indicator: Selectable

Dimensions: 133 x 81 x 48mm

(5.2" x 3.2" x 1.9")

Installation Height	Vertical Setting	Detection Coverage
2.2m (7.2')	-5°	12m (40')
2.2m (7.2')	-10°	9m (30')
1.5m (5')	+5°	12m (40')
1.5m (5')	0°	10m (33')
1.5m (5')	-5°	9m (30')
1.5m (5')	-10°	6m (20')

Table 1: Vertical Adjustment

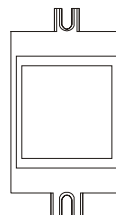


Figure 4: Lens Frame

Jumper Position	Pulse Count
Removed	1
Pins 2 & 3	2
Pins 1 & 2	3

Table 2: Pulse Count Jumper Setting

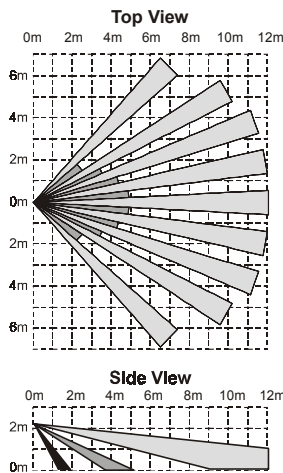


Figure 5: Lens Pattern



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