

Mercury EL-100

Passive Infrared Detector - 1, 2 or 3 Pulse Count, RFI/EMI Immunity, Temperature Compensation, Easy Lock • Détecteur Infrarouge Passif - 1, 2 ou 3 Comptages d'Impulsions, Immunité aux Interférences Radio Électriques et Electro-magnétiques, Compensation de Température, Fermeur • Detector Infrarrojo Pasivo - Conteo de 1, 2 or 3 pulsos, Alta Inmunidad a Interferencias EM y de RF, Compensación de Temperatura, Traba de PCB de fácil ajuste "Easy Lock"

English

Location of 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.
- Select an appropriate height from the following table:

Lens Type	Recommended Installation Height
Standard	6.6ft / 2.2m
Long Range	6.5ft / 2m
Curtain	3.25ft / 1m

Table 1

- 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

- Open the housing** by removing the front cover. To do so, press the tab located on the bottom of the detector.
- Remove the PCB** by turning counter-clockwise and removing the "Easy Lock". **Note: Do not touch the face of the PYRO sensor.**
- Knock out** the required mounting and wiring holes.
- Thread the wires** through the wiring holes (from the outside of the unit) using the appropriate wiring hole knock outs shown in Figure 2. **Note: Electronics Line recommends using 20-22 AWG connection cable.**
- Seal the wiring hole** with the foam plug provided.
- Choose an appropriate mounting height** from table 1 and attach the base to the wall.
- Connect the wires** to the terminal block (as shown in figure 1).

Note: This equipment should be installed in accordance with the NFPA 70 standard.

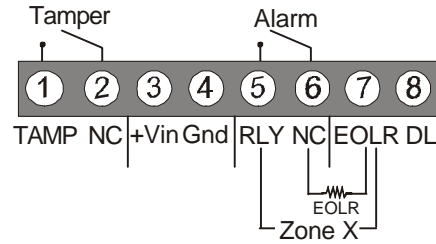


Figure 1: Terminal Block

Terminals 1 & 2: Tamper Contacts.

Terminals 3 (+) & 4 (-): Voltage Input.

Terminals 5 & 6: Alarm Relay Contacts.

Terminal 7: Optional end of line resistor - see figure 1.

Terminal 8: Disable LED. To remote disable the LED, provide 12V from the control panel to the DL pin in the terminal block. **Note: This feature only functions if the LED jumper JP2 is installed.**

- Mount the PCB** at the required vertical adjustment and replace the Easy Lock.
- Optional** - If a restricted field of view is desired, mask the appropriate lens segments with the stickers provided.
- Attach the front cover** making sure to close the plastic housing with the housing screw provided.

Operation and Adjustment

Warm-up Time: The detector will need to warm up for the first 90 seconds after applying power. **Note: The unit is to be connected to a UL listed power supply or control unit capable of providing a minimum of four hours standby power.**

Setting the pulse counter: The pulse counter controls the amount of pulses that need to be detected before the detector will generate an alarm. To set the pulse counter, refer to the following table:

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

Table 2

Note: The maximum pulse count for the long range and curtain lenses is 2P. It is not recommended to select 3P for distances above 12m.

Vertical Adjustment: To position the PCB, turn the Easy Lock counter-clockwise and slide the PCB up or down to the required setting using the vertical adjustment scale. The detector's coverage area is 15m x 15m when the PCB is positioned at 0. Slide the PCB up towards the -8 position to decrease the coverage area bringing the beams closer to the mounting wall.

Walk testing the detector: A walk test is performed in order to determine the lens 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 activates and deactivates accordingly. This test should be performed weekly.

Setting the LED indicator: Insert the LED jumper to enable LED indication and remove the LED jumper to disable LED indication. **Note: The LED should be disabled only after successfully walk testing the detector.**

Changing Lenses: To change a lens, release the cavity seal using a small screwdriver and fix the new lens into place with the smooth side facing outwards. Verify that the word TOP is located at the top of the lens (alternatively a notch may appear on the bottom edge of the lens) before snapping the cavity seal back into place.

Technical Specifications

Operating Voltage: 9 - 16VDC

Current Consumption: Standby @ 12V - 10mA
Max. (Alarm) @ 16V - 25mA

Maximum Coverage: 50ft x 50ft / 15m x 15m

Alarm Duration: 1 second min.

Pulse Count: 1, 2 or 3 Jumper Selectable

Pyroelectric Sensor: Dual Element

RFI Immunity: 40V/m up to 1GHz

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

Switching Voltage: 30VDC not to exceed 10W

Switching Current: 0.3A not to exceed 10W

Tamper Switch: N.C.

Contact Rating 30VDC, 50mA max.

Operating Temperature: -10° to 60°C

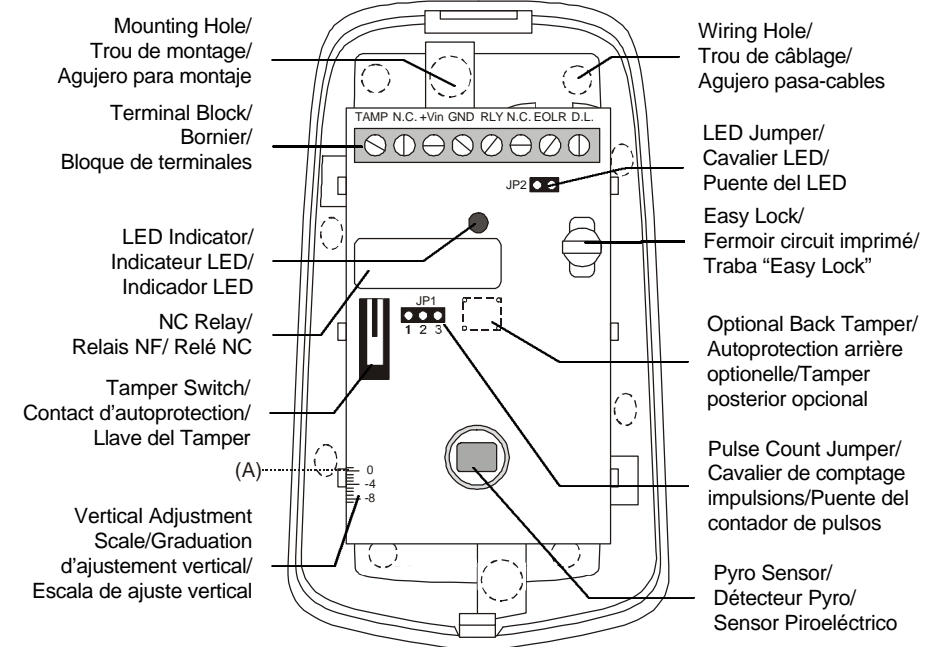
Temperature Compensation: Thermistor

Reverse Polarity Protection: Diode

Fire Protection: ABS Plastic Housing

LED Indicator: Jumper Selectable

Dimensions: 110 x 60 x 45mm



Note: The Vertical adjustment scale relates to the top edge of the adjacent plastic stud (A) /

Note: La partie supérieure du clou en plastique (A) sert de point de référence pour la graduation d'ajustement verticale /
Nota: La escala de ajuste vertical toma como referencia el borde superior del soporte adyacente de plástico (A).

Figure 2: PCB / Figure 2: Circuit Imprimé / Figure 2: PCB

Lens Patterns

The diagram shows the coverage pattern for the detector fitted with a standard lens, with the PCB set at a vertical adjustment of 0.

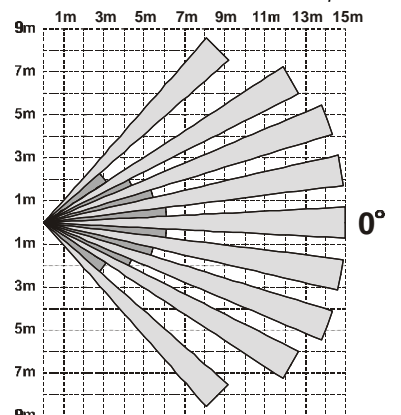
Zones de Couverture

Le schéma indique la zone de couverture pour un détecteur équipé d'une lentille standard, avec le circuit imprimé en ajustement vertical à 0.

Diagramas de Detección

El diagrama muestra la cobertura del detector con lente standard y con la tarjeta PCB en la posición 0 de ajuste.

Plan View/ Vue de Dessus/ Vista Superior



Side View/ Vue de Côté/ Vista Lateral

