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.
- Microwave energy will pass through glass and most construction walls, point the unit away from outside traffic and rotating machinery.

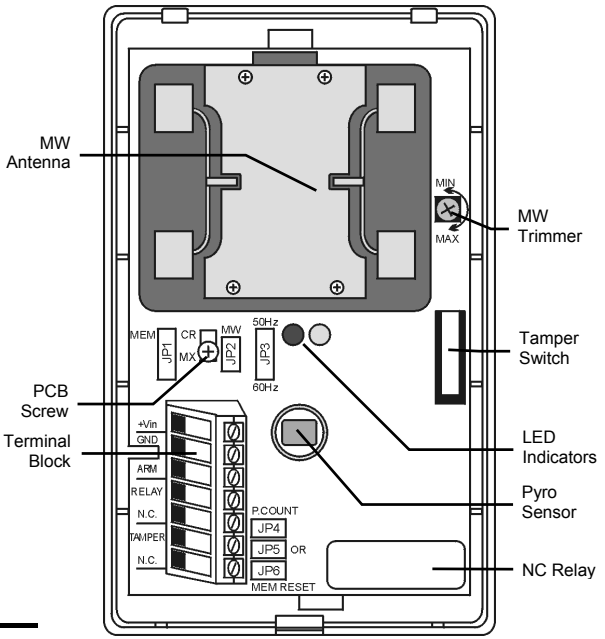

Figure 1: Micro-X (cover off)

Installation Instructions

1. **Open the housing** by removing the front cover. To do so, press the tab located on top of the detector.
2. **Remove the PCB** by unscrewing the PCB screw from the rear of the protective plastic casing. ***Note: Do not touch the face of the PYRO sensor.***
3. **Knock out** the required mounting and wiring holes.
4. **Thread the wires** through the wiring holes (from the outside of the unit) using the appropriate wiring hole knock outs. ***Note: Electronics Line recommends using 20-22 AWG connection cable.***
5. **Choose a mounting height** between 2.1m and 2.3m and attach the base to the wall.
6. **Connect the wires** to the terminal block – *see Figure 2*.
7. **Mount the PCB** and replace PCB screw. For maximum PIR range, slide the PCB upwards so that the screw is opposite the MX mark.
8. **Attach the front cover,** making sure to click the plastic housing closed.

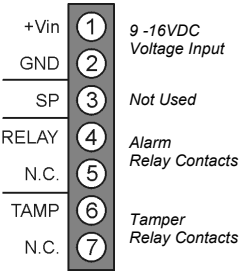

Figure 2: Wiring Connections

Operation and Adjustment

Warm-up time: The detector needs to warm up for the first 90 seconds after applying power.

Fluorescent light interference filter: The Micro-X incorporates a filter that prevents false alarms from the MW section triggered by electro-magnetic fields generated by fluorescent lights, electric motors, etc. This filter must be set according to the local AC mains power frequency. To choose the frequency, install jumper JP3 according to Figure 3 – *see Figure 1 for jumper location*.

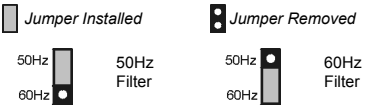

Figure 3: JP3 Configuration

Vertical adjustment: To position the PCB, loosen the PCB screw and slide the PCB up or down to the required setting. The detector's coverage area is 12m x 12m when the PCB is positioned at MX.

Setting the pulse counter: The pulse counter controls the amount of pulses that need to be detected before the detector will generate an alarm. Insert jumper JP4 for 1-Pulse mode, remove for 2-Pulse mode – *see Figure 1 for jumper location*.

MW sensitivity: Adjust microwave sensitivity by turning the trimmer clockwise to increase sensitivity or counter-clockwise to decrease sensitivity. Do not set microwave sensitivity higher than required, refer to the walk test procedure below.

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 red PIR LED and the green MW LED indicators activate and deactivate accordingly. This test should be performed weekly.

LED disable: Jumpers JP1 (PIR LED) and JP2 (MW LED) are used to enable or disable the LED indicators – *see Figure 1 for jumper location*. Insert the jumper to enable the LED and remove the jumper to disable. ***Note: Only disable the LEDs after successfully walk testing the detector.***

AND/OR function: In AND mode, the detector generates an alarm as a result of microwave and PIR detection. In OR mode, the detector generates an alarm if either the PIR or microwave detect motion. Insert jumper JP5 for OR mode, remove the jumper for AND mode – *see Figure 1 for jumper location*.

Changing lenses: To change a lens, release the lens frame using a 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 lens frame back into place.

Technical Specifications

Operating Voltage: 9 - 16VDC

Current Consumption: Standby 26mA@12V
Max. (Alarm) 43mA@16V

Coverage: 12m x 12m

Pulse Count: 1 or 2 selectable

Pyroelectric Sensor: Dual element

Microwave Antenna: Built-in patch

Microwave Frequency: 10.525, 10.687, 9.9 or 9.3GHz

Alarm Output: N.C., dry contacts
Switching Voltage: 30VDC not to exceed 10W
Switching Current: 0.3A not to exceed 10W

Alarm Duration: 2 seconds

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 Indicators: Selectable

Dimensions: 104 x 64 x 50mm

Weight: 103g

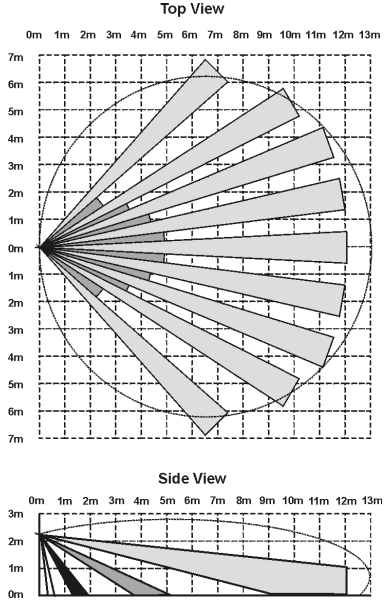

Figure 3: Lens Pattern

Note: The diagram shows the maximum coverage pattern for the detector set at a vertical adjustment of 0°.

Electronics Line

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