

MICRO WAVE LEAKAGE DETECTOR

Model : EMF-810



Your purchase of this MICRO WAVE LEAKAGE DETECTOR marks a step forward for you into the field of precision measurement. Although this DETECTOR is a complex and delicate instrument, its durable structure will allow many years of use if proper operating techniques are developed. Please read the following instructions carefully and always keep this manual within easy reach.



OPERATION MANUAL

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1. FEATURES

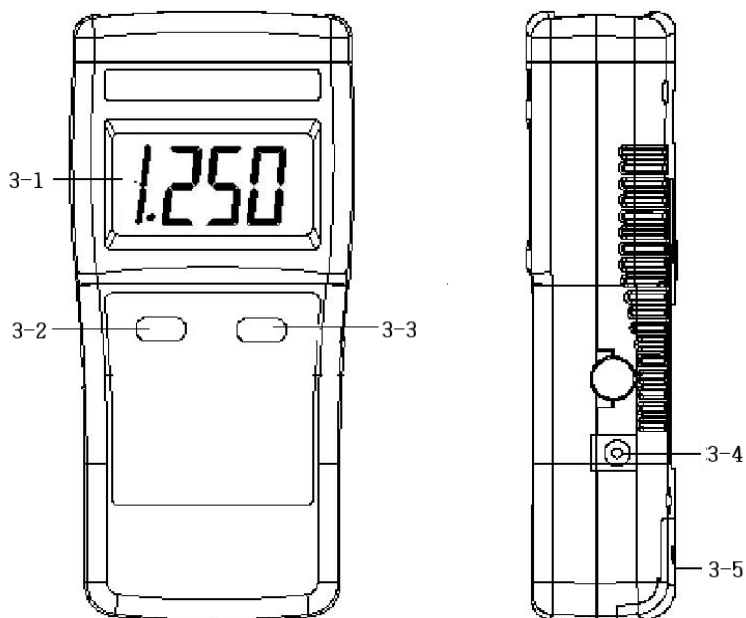
- * This meter is specially designed for measuring or monitoring electromagnetic field value for the micro-wave frequency precisely.
- * Useful equipment to detect the leakage of micro wave oven.
- * Build in alarm setting, when the measuring value $> 1 \text{ mW/cm}^2$, the buzzer will sound to remind that the measured device's micro wave EMF value (leakage value) is larger than the safety level.
- * The meter have been calibrated precisely on the frequency value 2.45 GHz.
- * Peak hold function to latch the max. measuring value.
- * Powered by 006P 9V battery and DC 9V adapter.
- * Except to measure the micro wave's EMF value, the detector also can measure the radio EMF value of hospital equipment, radar, radiation work, TV antenna, Radio station, welding equipment, baking-equipment, television, computer, factory, laboratory, and other environment...etc for reference.

2. SPECIFICATIONS

Display	LCD size : 40 mm x 25 mm. Digit size : 12 mm x 6 mm.
Measurement Unit	mW/cm^2
Operating Frequency Range	2.45 GHz \pm 50 MHz <i>* Beyond the 2.45 GHz \pm 50 MHz, other frequency's EMF value between 30 MHz to 3 GHz also can be measured, but for reference only.</i>

Measurement Range	0 to 1.999 mW/cm ²
Accuracy	< 2 dB <i>* Accuracy tested under 2.45 GHz ± 50 MHz and measurement level is 1 mW/cm².</i>
Peak Hold	To latch the max. measuring value.
Alarm Setting	If reading value > 1 mW/cm ² approximately, the buzzer will sound.
Sensor Space Length	50 mm.
Over Indicator	Display shows " OL ".
Power Current	Approx. DC 1.86 mA.
Weight	202 g/ 0.445 LB.
Dimension	152 x 69 x 36.3 mm. (6.0 x 2.7 x 1.4 inch).
Standard Accessory	Operation Manual..... 1 PC.

3. FRONT PANEL DESCRIPTION



3-1 Display

3-2 Power Off/On

3-3 Peak Hold Button

3-4 DC 9V Adapter Socket

3-5 Battery Compartment / Cover

4. MEASURING PROCEDURE

4-1. General measurement

- 1) Slide the power switch (3-2, Fig. 1) to " On " position, " Display " (3-1, Fig. 1) will indicate the EMF value that sensing from the sensor, refer to Fig. 2.
- 2) When make the measurement. it should rotate the meter at any direction to get the max. reading.

Measuring consideration :

- * The Sensor Space Length (the distance between the sensor and the case's front door) is 5 cm (2 ").
- * The Micro wave detector build in the buzzer, when the measuring value $> 1 \text{ mW/cm}^2$, the buzzer will sound to remind that the measured device's micro wave's EMF value is larger than the safety value. According the FDA regulation, for normal environment it can not exposure micro value over 1 mW/cm^2 for a long time.

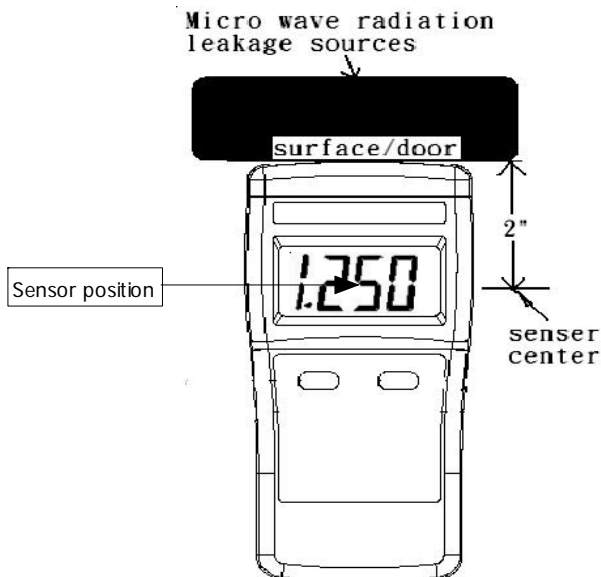


Fig. 2

4-2. Peak hold measurement

- 1) During the measurement, press the " Peak Hold Button " (3-3, Fig. 1) once, will latch the peak measuring value (max. measuring value), at the same time the display will show the " PEAK " indicator.
- 2) If press the " Peak Hold Button " once again will delete the peak hold function, the " PEAK " indicator will be disappeared from the display.


Remark :

Peak hold is the useful function, when make the measurement, execute the " Peak hold " function, if rotate the meter at any direction will latch the max. measurement value.

4-3 EMF measurement of 30 MHz to 3 GHz frequency range

Beyond the micro wave frequency (2.45 GHz), other frequency between 30 MHz to 3 GHz also can measure the EMF value, but for reference only.

5. BATTERY REPLACEMENT

- 1) When the left corner of LCD display show "  ", it is necessary to replace the battery (006P).
- 2) Slide the " Battery Cover " (3-5, Fig. 1) away from the meter and remove the battery.
- 3) Replace with battery (006P) and reinstate the cover.
- 4) Make sure the battery cover is secured after changing the battery.