TENMARS

Microwave Leakage Detector



1 Introduction

- This meter is designed for measuring and monitoring electromagnetic field value of the Radio –Frequency
- The meter is calibrated precisely on the frequency value 2.45 GHZ(Microwave Oven)

2 Application

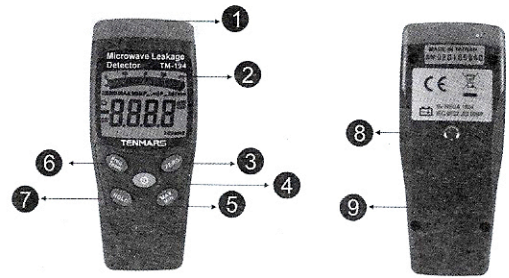
- This meter is applied to measuring electromagnetic fields of Radio –Frequency of normal or 2.45 GHZ
- It is capable of measuring the electromagnetic field radiation intensity that is produced from welding equipment、microwave oven and other environment...etc.

3 Features

- Switch between 2.45 GHZ (microwave frequency) or normal (50MHZ~3.5 GHZ).
- Data hold (HOLD)、maximum (MAX) Hold、minimum (MIN) Hold、Zero function.
- Measurement range of RF power density : 0.01~2.700m W/cm^2。
- Build in alarm setting, when the measuring value is more than 1m W/cm^2, the buzzer will sound
- Low battery detector "[−+]".
- Auto power OFF function.

- Over load indication "OL".

4 Identifying Parts

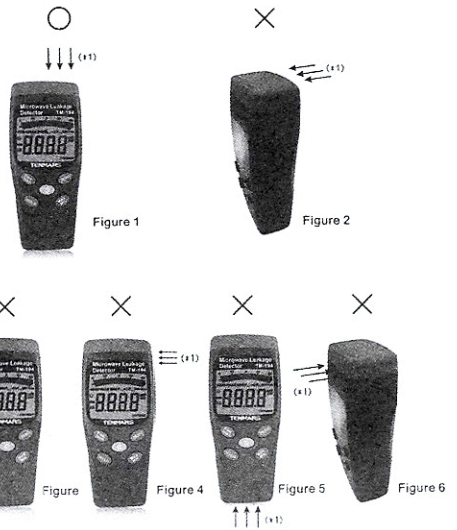


1. Sensor position.
2. LCD
3. Zero button
4. Power on/off.
5. maximum hold and minimum hold select button
6. Frequency Team select button
7. Data hole button
8. Tripod mounting screw
   Battery cover.

5 Measurement Procedures

- Press (⏻) button to power on.
- Press (Freq. Team) button test frequency to select 2.45 GHZ or normal (50MHz to 3.5 GHz).
- Position the top (refer to Figure 1) of the meter to measure the electromagnetic waves. Try to change the measurement angle or position for obtaining the highest reading value (please refer to Figure 2 to 6).
- Due to the environmental magnetic field factors, this magnetic field meter could display a reading value that is lower than 0.002 m W/cm^2 prior to measuring.
- To permanently lock and keep the reading displayed on the LCD, press (Hold) button or press (Hold) button again to unlock.
- To retain the maximum value, press (MAX MIN) button and the reading value displayed on the LCD will keep updating to the maximum value.

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(*1) Field strength measurement.

- Figure 1 indicates the correct measurement direction of the RF electromagnetic field strength measurement.
- Figure 2, 3, 4, 5 and 6 indicate the incorrect measurement direction of the RF electromagnetic field strength measurement.
- AUTO POWER OFF function

1. In order to save the battery power the meter will

be off after 30 minutes of non-use.

2. To disable this function please turn off the power then hold MAX/MIN key ,press power key.
3. Turn the power OFF then ON to restore this function the symbol ⏲ is displayed.

6 Specifications

- **Display :** 3-3/4 digits LCD, maximum reading 3999.
- **Resolution :** 0.001mW/cm^2
- **Frequency response :** 50MHz to 3.5 GHz.
- **Sensor :** Single Axis
- **Accuracy :** ±2 dB at 2.45 GHz ± 50MHz
- **Over load :** LCD display "OL".
- **Sample rate :** 2.5 times per second.
- **Battery :** 9V NEDA 1604, IEC 6F22 or JIS 006P.
- **Battery life :** Approximate 100 hours.
- **Operating temperature & humidity :** 5℃ to 40℃,below 80% RH.
- **Storage temperature & humidity :** -10℃ to 60℃, below 70%.
- **Weight :** About 170g.
- **Dimensions :** 130(L)*56(W)*38(H) mm.
- **Accessories :** User's manual, 9V battery, Carrying case.

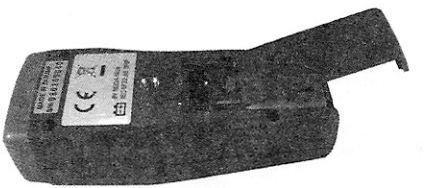
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7 Battery replacement

WARNING

If the symbol " ⊟+ " appears on the LCD, please replace the battery immediately

- Turn off the instrument.
- Remove the battery cover
- Replace the battery.
- Install the battery cover.



8 Safety Precaution

- For cleaning the instrument use a soft dry cloth. Never use a wet cloth, solvents or water, etc..
- Operation Altitude: Up to 2000M.
- Operating Environment: Indoors use. This instrument has been designed for being used in an environment of pollution degree 2.