ELECTROMAGNETIC FIELD TESTER

(EMF TESTER) *Model : EMF-827*

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1. FEATURES

* The EMF tester is designed to provide user a quick, reliable and easy way to measure electromagnetic field radiation levels around power lines, home appliances and industrial devices.
* Wide measuring ranges, 3 ranges of 20 micro Tesla, 200 micro Tesla & 2000 micro Tesla.
* The EMF tester is a cost effective, hand-held instrument designed and calibrated to measure electromagnetic field radiation at different bandwidths down to 50 Hz/60 Hz.
* Separate probe, easy operation.

2. APPLICATIONS

This EMF tester is specifically designed to determine the magnitude of electromagnetic field radiation generated by power lines, computer's monitor, TV sets, video machinery and many other similar devices.

3. CAUTION OF ELECTROMAGNETIC FIELD EXPOSURE

Claims by some scientists that long term exposure to electromagnetic field may be the cause of childhood leukemia & other forms of cancer.

Complete answers to any of these and related questions are not currently available. At the present time the most common practice is to avoid excess exposure over long period of time.

"Prudent Avoidance" as stated by the Environmental Protection Agency(EPA) USA is recommended.

4. SPECIFICATIONS

Display	13mm (0.5") LCD, 3 1/2 digits. Max. indication 199.9.
Range /Resolution	20 micro Tesla/0.01 micro Tesla 200 micro Tesla/0.1 micro Tesla 2000 micro Tesla/1 micro Tesla * 1 micro Tesla = 10 mili-Gauss
Band width	30 Hz to 300 Hz.
Number of Axes	Single axis.
Accuracy	(4 % + 3 d) - 20 micro Tesla range. (5 % + 3 d) - 200 micro Tesla range. (10 % + 5 d) - 2000 micro Tesla range. * *Spec. accuracy tested under 50 Hz or 60 Hz.* * *Spec. tested under the environment RF Field Strength less than 3 V/M & frequency less than the 30 MHz only.*
Over-input	Display shows '1' .
Sampling Time	Approx. 0.4 second.
Battery	DC 9 V battery (006P, 6F22).
Power Current	Approx. DC 2 mA.
Operating Temp.	0 蚓 to 50 蚓 (32 蚌 to 122 蚌).
Operating Humidity	Max. 90% RH(0蚓 to 35蚓). Max. 80% RH(35蚓 to 50蚓).
Weight	285 g/0.63 LB (including battery).
Dimension	*Main meter :* 163 x 68 x 24 mm (6.4 x 2.7 x 0.9 inch).
	Probe : 175 x 45 x 22 mm (6.9 x 1.8 x 0.9 inch).
Accessories Included	Operation Manual..... 1 PC.

5. FRONT PANEL DESCRIPTION

Fig. 1

5-1 Display
5-2 Off/Range Switch
5-3 Battery Cover/Compartment
5-4 Sensor Head
5-5 Sensor Probe

6. MEASURING PROCEDURE

1) Place the " Off/Range Switch " (52, Fig. 1) to the suitable range. For the unknown EMF measurement, start with the highest range and keep decreasing until the higher resolution's reading is obtained.

Due to the electromagnetic interference of the environment, the display reading may show small values before testing, for example less than 0.05 micro Tesla. This is not malfunction of the tester.

2) Hold the " Sensor Probe " (5-5, Fig. 1), move the " Sensor " Head " (5-4, Fig. 1) slowly towards to the object under measurement until it is physically touched.

Notice how the field intensity increases as you move closer to the object.

3) Position the " Sensor Head " at different angles to the object under measurement and observe how this may affect your reading of the meter.

4) By trying different angles approaching the object under measurement, recorder the highest value shown on the display.

If the object under measurement is turned off during the measurement, the EMF tester reading should then return to zero, unless a field from other sources are detected.

5) The meter are designed to read the display unit of " micro Tesla " directly. However if intend to know the measurement reading value by " mili-Gauss ", then just multiply the factor by " 10 "

For example :

* *If display reading is 11.43 micro Tesla. Then the reading value for " mili- Gauss " will be 114.3 (11.4 x 10).*
* *If display reading is 118.2 micro Tesla. Then the reading value for " mili- Gauss " will be 1182 (118.2 x 10).*

7. RECOMMENDATION

It is recommended to measure the presence of the electromagnetic field inside and outside of your home and business locations regularly.

As "hot spots" are detected by the EMF tester, re-arrangement of the living and working areas is lightly recommended. Always try the best to avoid long term exposure to strong electromagnetic field.

8. BATTERY REPLACEMENT

1) When the left corner of the LCD display shows "LO BAT", it indicates the battery output less than 6.5 V - 7.5 V.
   Replacement of the battery is then needed. However measurement could still be taken for another few hours before the tester becomes inaccurate.
2) Open the Battery Cover (5-3, Fig 1) at the back of tester and remove the battery.
3) Replace with a 9V battery and reinstate the cover.