



Instruction Manual

IM-191

Magnetic Field Meter

EN



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Introduction:

IM-191 is measuring electromagnetic fields of extremely low frequency (ELF) of 30 to 300Hz. It's capable of measuring the electromagnetic field radiation intensity that is produced by electric transmission equipment, power lines, microwave ovens, air conditioners, refrigerators, computer monitors, video/audio devices, etc.

Features:

- Display micro-Tesla & milli-Gauss in the same tester.
- Over load indication.
- Low battery Indication.
- Data hold and maximum hold function.

General specification:

- Display: LCD display with maximum reading of 1999.
- Sampling Rate: 2.5 times per second.
- Sensor: Single axis.
- Frequency response: 30Hz to 300Hz.
- Measuring Range: 200/2000 mG, 20/200 μ T.
- Accuracy: $\pm(2.5\% \pm 6\text{dgt})$ at 50Hz/60Hz.
- Power Supply: 9V NEDA 1604, IEC 6F22, JIS 006 P. battery x 1pc.
- Battery life: About 100 hours
- Dimension: (LxWXH): 130mm x 55mm x 38mm.
- Weight: Approx. 160g with battery
- Accessories: Manual, 9V battery and carrying bag.

Instrument description:



1. Sensor.
2. LCD
3. Power on/off.
4. maximum hold button
5. Data hole button
6. mG unit select button
7. μT unit select button
8. Range select button
9. Battery cover.

Safety:



CAUTION

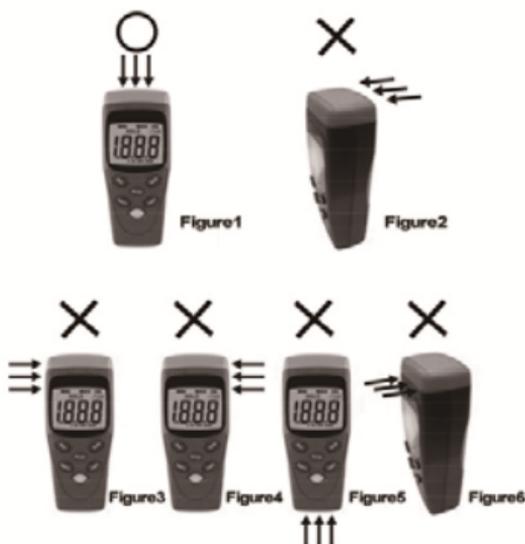
Be extremely careful for the following conditions while measuring.

- Do not operate the meter in the environment with explosive gas (material), combustible gas (material) steam or filled with dust.
- In order to avoid reading incorrect data, please replace the battery immediately when the symbol  appears on the LCD.
- In order to avoid the damage caused by contamination or static electricity, do not touch the circuit board before you take any adequate action.
- Operating Environment is for indoors use only. The meter was designed for being used in an environment of pollution degree 2.
- Operation Altitude: Up to 2000M.
- Operating Temperature & Humidity: 5°C ~ 40°C, 0%~80%RH.
- Storage Temperature & Humidity: -10°C ~ 60°C, 0%~70%RH.

Operation:

1. Press  to turn the power on or off.
2. Turn the meter on, press  or  to select the unit of mG(**Gauss**) or μ T(**Tesla**).
3. Position the front (see Figure 1) of the meter to measure the electromagnetic waves. Change the measurement angle or position to obtain the highest reading value (see Figure 2 through Figure 6).
4. The LCD displays the measured value.

MEASUREMENT PROCEDURES



Arrow pointing direction indicates the direction of electromagnetic waves.

NOTE: Due to the normal environmental magnetic field, the meter may display a reading that is lower than 0.5mG prior to measuring. This is not a malfunction of the device.

5. After the testing, turn the power off.

Range

The LCD displays “OL” on the left highest position indicates overload reading. Press **Range** to select a higher range and repeat the measurement.

MAX

To retain the maximum value, press **Max** and the reading value displayed on the LCD will keep updating to the maximum value.

Data Hold

Freezes the reading present on the LCD at the moment when **Hold** is pressed. Press **Hold** again to disable data hold.

Battery Replacement:

The meter is powered by 9V battery x 1pc.

Use the following procedure to replace the battery:

1. Replace battery immediately when the LCD displays  .
2. Turn the meter off and remove the battery cover.
3. Replace with the new battery; take care to note the correct polarity.
4. Re-install the battery cover.



Limited Warranty:

This meter is warranted to the original purchaser against defects in material and workmanship for 3 year from the date of purchase. During this warranty period, RS Components will, at its option, replace or repair the defective unit, subject to verification of the defect or malfunction. This warranty does not cover fuses, disposable batteries, or damage from abuse, neglect, accident, unauthorized repair, alteration, contamination, or abnormal conditions of operation or handling.

Any implied warranties arising out of the sale of this product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. RS Components shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expense or economic loss. Some states or countries laws vary, so the above limitations or exclusions may not apply to you. For full terms and conditions, refer to the RS website.

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