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It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct, but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used for, human applications.
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1 Introduction
Safety precautions should be taken against electric appliances in places including medical institutions, schools and residential districts, where people usually stay for a long time, to prevent patients, babies and senior citizens from exposure to high electromagnetic waves.
An electromagnetic wave simply means the wave motion of the electromagnetic field (EMF).
The change in electric fields produces magnetic fields, and the change in magnetic fields can also generate electric fields. The fluctuation of correlation between each other is known as “electromagnetic waves”, which is a form of energy similar to light and heat that can be transmitted either by radiation in the air or by an electric conductor.
It is suggested that rearrangements should be made in families and work locations where electromagnetic fields are detected the strongest in order to avoid prolonged exposure to excessive electromagnetic fields.

2 Application
- This meter is applied to measuring electromagnetic fields of extremely low frequency (ELF) of 30 to 300Hz.
- It is capable of measuring the electromagnetic field radiation intensity that is produced from electric transmission equipment, power line, microwave oven, air conditioner, refrigerator, computer monitor, video/audio device and so forth.
- The magnetic field unit is Tesla (T), Gauss (G), milli-Gauss (mG) or micro-Tesla (_T).
  - 1 T = 10,000 G
  - 1 G = 1,000 mG
  - 1 _T = 10 mG

3 Features
- Switch between the display of micro-Tesla and milli-Gauss is available.
- Data hold (HOLD) _ maximum (MAX) Hold function.
- Range display(20, 200, 2000).
- Low battery detector “.”
- Over load display “OL”.

1
4 Identifying Parts

1. Sensor position.
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.

5 Measurement Procedures

- Press \( \text{power on} \) to power on.
- Select \( \text{mG unit} \) or \( \text{µT unit} \).
- Position the front (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).
- Read the measured value. The display of “OL” on the left highest position indicates there is an overload on the reading. Please press \( \text{Range} \) select a higher range for measurement again.
- Due to the environmental magnetic field factors, this magnetic field meter could display a reading value that is lower than 0.5mG prior to measuring. This is not a malfunction of the device.
- To permanently lock and keep the reading displayed on the LCD, press \( \text{Hold} \) press again to unlock.
- To retain the maximum value, press \( \text{Max} \) and the reading value displayed on the LCD will keep updating to the maximum value.
Figure 1 indicates the correct measurement direction of the electromagnetic wave. Figure 2, 3, 4, 5, and 6 indicate the incorrect measurement direction of the electromagnetic wave.
6 Specifications

- **Display:** 3-1/2 digits LCD, maximum reading 1999.
- **Range:** 200/2000 mG, 20/200 µT.
- **Resolution:** 0.1/1 mG or 0.01/0.1 µT.
- **Frequency response:** 30Hz to 300Hz.
- **Sensor:** Single Axis
- **Accuracy:** ±(2.5%+6dgt) at 50Hz/60Hz.
- **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.

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.

9 End of life

Caution: this symbol indicates that equipment and its accessories shall be subject to a separate collection and correct disposal.
OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of 13 months from date of purchase. OMEGA’s WARRANTY adds an additional one (1) month grace period to the normal one (1) year product warranty to cover handling and shipping time. This ensures that OMEGA’s customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA’s Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA’s WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA’s control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

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RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA’S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA:
1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR NON-WARRANTY REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:
1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA’s policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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