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## HHG1392 ElectroMagnetic Field Tester (EMF Tester) Data Logger & RS-232 Interface

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**Germany/Austria:** Daimlerstrasse 26, D-75392 Deckenpfronn, Germany  
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FAX: +49 (0) 7056 9398-29  
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e-mail: info@omega.de

**United Kingdom:** OMEGA Engineering Ltd.  
One Omega Drive, River Bend Technology Centre, Northbank  
Irlam, Manchester M44 5BD England  
Toll-Free: 0800-488-488  
FAX: +44 (0)161 777-6622  
TEL: +44 (0)161 777-6611  
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**WARNING:** These products are not designed for use in, and should not be used for, human applications.

## 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.
- ◆ The EMF tester is a cost-effective hand-held instrument that was designed and calibrated to measure electromagnetic field radiation at different bandwidths down to 50Hz/60Hz.
- ◆ Display micro Tesla & milli Gauss in the same tester.
- ◆ Data hold / Peak hold / on-line computer / data record function.
- ◆ Comply with CE.

## 2. APPLICATIONS

- ◆ This EMF tester is specifically designed to determine the magnitude of electromagnetic filed 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.

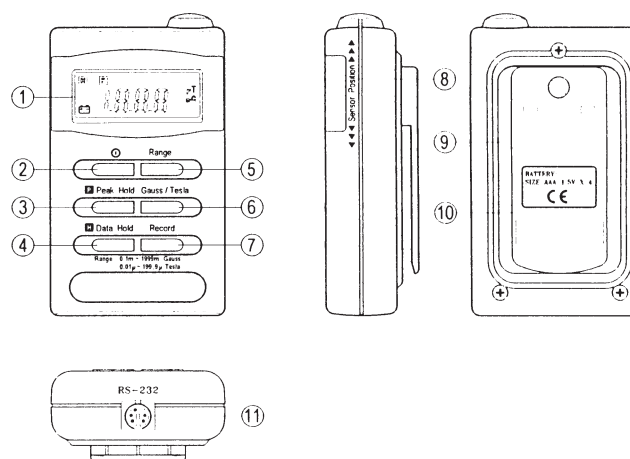
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## 4. SPECIFICATIONS

Display :	3-1/2 digits. Max. indication 1999
Range :	200/2000 milli Gauss 20/200 micro Tesla
Resolution :	0.1/1 milli Gauss 0.01/0.1 micro Tesla
Number of Axis :	Single axis
Band Width :	30 Hz to 300 Hz
Accuracy :	±(3%+3d) at 50Hz or 60HZ
Over-Input :	Display shows "OL"
Sampling Time :	Approx. 0.4 second
Battery :	4 pcs size AAA (Only Use Alkaline Battery)
Battery Life :	Approx. 60 hours.
Operating Temp and Humidity :	0°C to 40°C (32°F to 104°F) below 80%RH
Storage Temp and Humidity :	-10°C to 60°C below 70%RH
Weight :	Approx. 165g
Dimension :	111(L) x 64 (W) x 34(H) mm
Accessories Included :	Operation manual , RS-232 cable, CD software ,4 size AAA (Alkaline Battery).

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## 5. NAME OF PARTS AND POSITIONS



1). Display panel	7). LCD state record button
2). Power button	8). Sensor position
3). Peak Hold function	9). Battery cover
4). Data Hold function	10). Carrying clip
5). Range selector button	11). RS-232
6). Milli Gauss/Micro Tesla button	

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## 6. MEASURING PROCEDURE

- 1). Press the button of power and set the "Range", "Gauss", "Tesla" by pressing the buttons according to the measuring requirements. Tester is now ready to take the measurement.

Due to the electromagnetic interference of the environment, the display reading may show the reading before testing, for example the reading would be lower than 0.5m Gauss. This is not malfunction of the tester.

- 2). With the tester in hand, move 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 EMF tester at different angles to the object while measuring. Users would observe how this may affect your reading.
- 4). Try different angles approaching the object while measuring to get Max.

If the power of object was turned off during the measurement, the reading of EMF tester should return to zero, unless there is the electromagnetic from other sources are detected.

## 7. DATALOGGING (METER)

- 1). To clear Datalogger memory :  
Press and hold the (RECORD) button then turn the "Power" on.
- 2). To trigger continuous Datalogging :  
Press (RECORD) button for one second then release. Now the unit symbol glittering (0.4s) show on LCD and the metes begin is recording.

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- 3). To stop continuous Datalogging :  
Press (RECORD) button once again LCD show the unit symbol not glittering and stop recording.
- 4). Before downloading recorded data to PC, please turn off the meter then turn on the meter.
- 5). Memory recording full :  
LCD show the unit symbol glittering (0.2s) and stop recording.

## 8. 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 in the strong electromagnetic field.

## 9. BATTERY REPLACEMENT

- 1). When the left corner of the LCD display shows "", it indicates the output of battery is less than 4.0V ~ 4.5V.

Replacement of the battery is then needed. However, measurement could still be taken for next few hours before the tester is unavailable.

- 2). Open the battery cover at the back of tester and remove the battery.
- 3). Replace with four AAA-size alkaline batteries and reinstate the cover.

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## 10. RS-232 INTERFACE, SOFTWARE INSTALLATION and OPERATION

- For the detailed instruction, please refer to the content of attached CD-ROM, which has the complete instruction of RS-232 interface, software operation and relevant information.
- RS-232 protocol: are enclosed within the content of CD-ROM, please open the CD-ROM for details.

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### WARRANTY/DISCLAIMER

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.

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### RETURN REQUESTS/INQUIRIES

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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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