

OPERATOR INSTRUCTIONS
GM-200A Gaussmeter

. DECLARATION OF CONFORMITY

Manufacturer: Carlsen Melton, Inc.
1138 Royal Ann Drive
Sunnyvale, CA 94087 USA
www.carlsenmelton.com

Declares that the product

Product Name: Gaussmeter
Model Number: GM-200A
Product Options: All

Conforms to the following Product Specifications:

EMC: AS/NZS 2064.1 (Level 2)
BS EN 55022/CISPR 22:2003 (Class B)
CISPR 22: 1995, 1998, 2003 (Class B)
EN 55022: 1995, 1998, 2003 (Class B)/VCCI (Class B; Level 2)
EN 55011: 2003 Group2 (Class B)
FCC Title 47 CFR, Part 15: 2006 (Class B)
ICES-003, Issue 4: 2004 (Class B)

Supplementary Information:

The product herewith complies with the requirements of the following European Community Directives: The EMC Directive (89/336/EEC)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

For Compliance Information ONLY, contact:

USA Contact: Carlsen Melton, Inc. Office of the Quality Manager, PO Box 60729,
Sunnyvale, California 94088 USA
<http://www.carlsenmelton.com>
Evaluation Laboratory: Pulver Laboratories, Inc., Office of the President, 320 North Santa
Cruz Avenue, Los Gatos, California 95030 USA
<http://www.pulverlabs.com>

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CAUTIONS

1. Please read this Operators' Manual completely before using your new GM-200A.
2. For best results use your GM-200A away from metal objects (other than the magnets you want to evaluate). Some metals, especially iron and steel, can distort the magnetic fields you are trying to measure.
3. Do not use your GM-200A near extremely large magnetic fields. The GM-200A has components in it, including the batteries, which are attracted to magnetic fields. Magnets with large fields and large areas, such as those used in MRI machines or particle accelerators may be strong enough to pull the GM-200A out of your hand. If the magnetic fields you wish to measure are large enough to pull the GM-200A out of your hand, use another Gaussmeter.
4. The GM-200A is not a child's toy and should be kept out of the reach of children.
5. Avoid rubbing or dragging the sensor target along abrasive surfaces. The magnetic sensor may be damaged if it is exposed.
6. Avoid dropping or rough handling.
7. Do not use or operate the GM-200A in or near flammable, explosive or hazardous atmospheres.
8. Do not remove or change the GM-200A batteries in or near flammable, explosive or hazardous atmospheres.
9. Do not attempt to recharge the batteries.
10. Please follow local laws and regulations for disposing/recycling of batteries.
11. Do not throw batteries into a fire, batteries may explode.
12. Please follow local laws and regulations for disposing of waste electronic equipment.

INTRODUCTION

Your GM-200A Gaussmeter is a battery operated, handheld instrument that measures DC magnetic fields. All functions including the sensor and display are combined into a single compact package. Your GM-200A measures DC (steady) magnetic fields in the range of 0 to 9999 Gauss. It operates with the push of a single button. Just point, click, and read.

GETTING STARTED

Remove the battery compartment cover located on the back of your GM-200A. Insert 2 AA batteries into the battery compartment with the polarity as indicated. A single beep indicates that the batteries have been inserted correctly. Replace the battery compartment cover. Your GM-200A is now ready for use.

SETTING ZERO

Your GM-200A comes from the factory zeroed and ready for use. Checking Zero often is recommended preferably before each use. To Set Zero, perform the following procedure well away from magnets and metal structures. Once the display is off, point the sensor target east or west. Then, PUSH the button 3 times within 1 second. Wait until you hear a double beep and the screen clears. PUSH the button again to verify that your GM-200A is now zeroed. Also, see the BATTERIES section regarding magnetized batteries.

NORMAL OPERATION

Place the sensor target (located on the top of the unit) in the region of interest. PUSH and release the button. Hold your GM-200A steady until it beeps. Read the field strength and direction. The reading will be displayed for 10 seconds. You may take another reading any time after hearing the beep.

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FINDING MAXIMA

Your GM-200A can also be used to find the maximum field in a given region. Place the sensor target near the region of interest. PUSH and hold the button. While holding the button down, move the sensor target around the region of interest. It also helps to vary the angle of the GM-200A with respect to the region of interest. Release the button and wait for the beep. The maximum reading found during the last 15 seconds will be displayed.

SURVEY OPERATION

Place the sensor target in the region of interest. PUSH and hold the button. While holding the button down, move the sensor target about the region you wish to survey. As long as the button is held down, your GM-200A will display the current magnetic field it sees. Release the button when finished.

CARE IN USE AND STORAGE

Please avoid dropping your GM-200A. When making measurements avoid rubbing or abrading the sensor area along a surface under test. If storage is planned for more than 3 months, remove batteries to avoid potential leakage damage. Do not store or use above temperatures of 50C.

WARRANTY

Your GM-200A has a 1 year warranty from the date of purchase. If you receive a GM-200A that is defective, we will replace it upon return of the defective unit. In addition, if your GM-200A becomes defective within the warranty period, we will repair or replace it upon return of the defective unit. We cannot replace a product that has been damaged by rough handling, by misuse or abuse. Please contact Carlsen Melton, Inc. preferably by email for a Return Materials Authorization (RMA) and instructions for returning your product.

BATTERIES

Your GM-200A uses 2 AA size, 1.5 volt batteries. If the display shows "LOW BATTERIES" then the batteries need replacement. If your GM-200A does not operate after replacing the batteries, make sure that the batteries are placed with the correct polarity in the battery compartment. Your batteries may become magnetized if exposed to large magnetic fields. If your GM-200A does not read zero when away from all magnets, try a new set of batteries. Most standard AA batteries contain some steel which will distort magnetic field in their vicinity. This normally is not an issue unless you are trying to measure large highly uniform fields. If you wish to measure such specialized fields to high accuracy, please contact Carlsen Melton customer care.

RECYCLE

Please follow local laws and regulations for disposing/recycling of waste electronic equipment. Carlsen Melton, Inc. provides for recycling of the GM-200A. Simply contact Carlsen Melton, Inc. preferably by email to request a Return Material Authorization (RMA) for recycling your GM-200A. You will be provided with instructions for shipment.

SPECIFICATIONS

Resolution: 1 gauss
Range 0 – 9999 gauss DC (North or South)
Accuracy: +2% or 2 gauss (whichever is larger)
Sensor Type: DC Hall Generator
Sample Rate: 4 Hz
Controls: 1 Button
Temp Range: 0 – 50 °C
Humidity: 10 – 90 %RH (non-condensing)
Water Resist: Splash resistant, non-submersible
Display: LCD

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Batteries: 2 AA, 1.5V
Dimensions: 2.5w x 3.7h x 1.1d in. (64 x 94 x 28 mm)
Weight: 4.4 oz. (125 gm) with batteries
Manufacture: Made in USA

COMPLIANCE NOTICES

FCC NOTICE

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INFORMATION FOR USER

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1) Reorient or relocate the receiving antenna.
- 2) Increase the separation between the equipment and receiver.
- 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4) Consult the dealer or an experienced radio/TV technician for help.

The user may find the following publication prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems" (Stock Number 004-000-00345-4). Available exclusively from the Superintendent of Documents, Government Printing Office, Washington, DC 20402 (telephone 202-512-1800)

FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance to Part 15 of the FCC Rules could void the user's authority to operate the equipment.

ICAN NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations

Cet appareil numérique de la classe respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada