# GEOMETRICS

## **G-857** Portable Proton Magnetometer

### **FEATURES & BENEFITS**

- 0.1 nT resolution and sensitivity
- Versatile total field, gradiometer surveys or base station applications
- Rugged weatherproof construction
- Solution Soluti Solution Solution Solution Solution Solution Solution S
- Console records GPS position and time from Garmin Oregon 450
- GPS in-field steering option
- Designed for use by experienced and non-skilled personnel
- Digital memory 65,000 readings

The G-857 provides a reliable, low cost solution for a variety of magnetic search and mapping applications. Single key stroke operation means the G-857 can be operated by non-technical field personnel and used in teaching environments. The G-857 uses the well-established proton precession method, allowing accurate measurements to be made with virtually no dependence upon variables such as sensor orientation, temperature or location. The unit provides a repeatable absolute total field magnetic reading, traceable to the National Institute of Standards and Technology.



G-857 and Optional Garmin GPS



Optional GPS allows data to be stamped with time and lat/ long positions. You may quickly and easily upload GPX waypoint survey routes to the GPS for in-field navigation using MagMap 2000<sup>™</sup> software.

#### **APPLICATIONS**

The G-857 is ideal for mapping geological structures, for mineral exploration, magnetic search for industrial, environmental or archaeological targets. The optional gradiometer attachment gives greater resolution and noise immunity for conducting searches in industrial or high cultural noise environments. Simple operation, large digital data storage capability, and the inclusion of MagMap2000 data transfer and editing software provides a system well suited for both teaching and survey applications.

The automated cycling option with long sensor cable and external power connection allows the G-857 to be used as a base station instrument for the measurement of diurnal changes in the Earth's magnetic field. Diurnal correction data is then downloaded using MagMap2000 and can be applied to other land or airborne magnetometer data.

The G-857, based on the popular G-856AX (over 2,800 units sold), provides excellent performance and is the lowest priced professional magnetometer system available. Combined with the ease of use, user friendly download/editing software, and readily available commercial contouring programs, the G-857 represents a complete magnetic surveying package generating high quality data for budget conscious users.

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MagMap2000 Display Screen

### Superior Data Editing Software:

MagMap2000<sup>™</sup> allows rapid download of data from the G-857 to a PC. Data can be diurnally corrected; profile lines and positions displayed and edited; noisy readings filtered and 2D contour and 3D surface plots made. The GPS wizard allows GPX survey routes with waypoint correction to be generated for more accurate navigation. Data can be exported in a format acceptable to Surfer, Geosoft or Geometrics' MagPick for more sophisticated final maps and analysis. The software runs in MS Windows XP or newer versions of this operating system.



For additional information on these and other products, contact:



**RMS INSTRUMENTS** For Geophysical Exploration

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### **TECHNICAL SPECIFICATIONS**

Resolution: 0.1 nT

Absolute Accuracy: 0.5 nT

Clock: Julian date, accuracy 5 sec. per month

Tuning: Auto or manual, range 20,000 to 90,000 nT

Gradient Tolerance: 1000 nT/meter

**Cycle time:** 1.6 sec to 999 sec standard

**Read:** Manual, or auto cycle for base station use

**Memory:** 65,000 field or base station readings

**Display:** Six digit display of field/time, three digit auxiliary display of line number, day

Digital Output: RS-232, switch selectable to 115200 baud

Digital Input: Will accept external cycle command

**Physical:** Console: 7 x 10.5 x 3.5 inches (18 x 27 x 9 cm), 6 lbs (2.7 kg)

Sensor: 3.5 x 5 inches (9 x 13cm), 4 lbs (1.8 kg)

**Environmental:** Meets specifications within 0° to 40°C (32° to  $105^{\circ}$ F)

Will operate satisfactorily from -20° to 50°C (-40 to 122°F)

Power: 12 Volt rechargeable Gel Cell

**Standard Accessories:** Sensor, Staff, Chest harness, Two sets of batteries, RS-232 cable, USB Serial adapter, Operations manual, Applications manual, MagMap2000 software

**Options:** Gradiometer attachment, External power/RS-232/Sensor cable, Rechargeable battery and Charger set, Garmin Oregon 450 GPS

#### For more information, contact us (see below)



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