



**CODEVINTEC**  
Tecnologie per le Scienze della Terra

45° 27' 39.384" N  
9° 07' 30.145" E

## Model G-857 Portable Proton Magnetometer

G-857  
Console and  
Sensor



G-857  
and Optional  
Garmin GPS



**The G-857 provides a reliable, low cost solution for a variety of magnetic search and mapping applications.**

### Features

- > 0.1 nT resolution and sensitivity Designed for ease of use by non-skilled personnel
- > Digital memory - 65,000 readings
- > Manual data recall, or down load to a PC
- > Versatile - total field or gradiometer surveys or base station applications use.
- > Rugged weatherproof construction.
- > Console records GPS position from optional Garmin Oregon450



## Portable Proton Magnetometer Model G-857

*Single key stroke operation* means the G-857 can be operated by non-technical field personnel or 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 Bureau of Standards, unlike other magnetic field measurement processes which measure only a single component of the field.

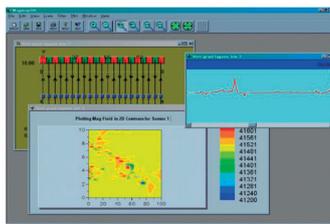
### Applications

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.

### Superior Data Editing Software

MagMap2000 allows rapid download of the data from the G-857 to a PC. Data can be diurnally corrected, profile lines and positions displayed and edited, noisy readings filtered and QC plots of profiles, 2D contour and 3D surface plots made. Data can be exported to Surfer, Geosoft or MagPick (free from Geometrics) for more sophisticated final maps and analysis. The software requires Windows 98, NT, XP or newer operating system.



MagMap2000  
Display Screen

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.



G-857 Base Station  
and Optional Garmin GPS

### Technical specifications

Resolution	0.1 nT
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	3 sec to 999 sec standard can be manually selected as fast as once every 1.6 seconds
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 13 cm) 4 lbs (1.8 kg)
Environmental	Meets specifications within 0° to 40°C (32° to 105°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