



GEOMETRICS

High Performance Magnetometer

G-858SX MagMapper

- ◆ **HIGH PERFORMANCE CESIUM VAPOR MAGNETOMETER** for Mining, Oil/Gas, Utilities, UXO, Archaeology, Environmental Surveys
- ◆ **VERY HIGH SENSITIVITY 0.01 nT** and **SAMPLE SPEED** up to 10 per second. Cover two acres (1ha) per hour for target search.
- ◆ **OPTIONS** include dual sensor gradiometer operation, non-magnetic cart, integrated GPS and navigation light bar
- ◆ **SIMPLE TO USE, POWERFUL ANALYSIS TOOLS** – System is supplied with MagMap2000 and MagPick for plotting, filtering and analyzing magnetic data.



The Geometrics high sensitivity Cesium Vapor Magnetometer model G-858SX MagMapper is the industry standard for mining, oil/gas exploration, unexploded ordnance detection, archaeological surveys and utility location. The simple-to-use logging console provides real-time feedback to the operator with an X-Y position plot and up to 5 stacked profiles of recorded data. The system is fast, providing up to 2 acres per hour of tight line spacing coverage plus several options that can increase productivity even further.

The G-858SX system comprises a belt-mounted display/logging console connected to a cesium sensor mounted on a hand-held counterbalanced staff. The console contains electronics to acquire magnetic field data position (GPS or XY) and display it on an LCD screen for review and edit. The console stores up to 8 hours of data in memory for a single sensor system and uploads it to a processing computer for detailed analysis.

The system is extremely versatile and can be used in horizontal or vertical gradiometer mode, with non-magnetic carts for target search and with a GPS backpack and steering lightbar for long range mineral or geologic surveys. Rugged, reliable, easy to use, this high productivity tool outperforms all competitive technologies such as Overhauser.

The speed and efficiency of the 858SX result in low cost surveys. Even lower costs may be achieved by using the gradiometer mode and MagCart to widen the search radius. For example, a horizontal transverse gradiometer (dual sensor array held orthogonally to the survey line) provides twice the density of coverage on tightly spaced survey grids. Only half the number of profiles are required to obtain optimal coverage at a huge savings in field time.

The primary applications for the integrated magnetometer and GPS system are environmental survey, target search and mining or oil/gas exploration programs, removing the need for per survey line placement.

Our MagMap2000 data processing software uploads the data from the G-858SX console, linearly interpolates the positions and provides each data point (or other recorded device) with its own XY or Lat/Long UTM coordinate location. If recorded, the GPS positions are imported into MagMap2000 for display and editing.

MagMap also provides diurnal correction, data plotting, high or low pass filtering, spike editing, and contour map generation. Data can then be exported to Surfer, Geosoft or Geometrics free MagPick software package which can perform inversion to compute the position and depth of targets.

Specifications:

MAGNETOMETER:

Operating Principle: Self-oscillating split-beam Cesium Vapor (non-radioactive). Sensors never need calibration or alignment.

Operating Range:
20,000 to 100,000 nT

Operating Zones:
World wide operation, Automatic hemisphere switching.

Sensitivity - Speed:
Better than 0.01 nT at up to 10 Hz

Heading Error:
Better than ± 0.5 nT (over entire 360° spin)

Output:
RS-232 at 115K Baud

Software Support:
MagMap2000 full GPS support with UTM Conversion, interpolation, filtering and profile and contour map generation

MagPick provides inversion for dipoles or pipes, upward continuation, filtering, reduction to the pole, etc.

Optional Non-Magnetic all aluminum backpack and Steering Lightbar: Total weight with ag114, GPS and batteries is less than 35 lbs.

Power:
Two battery packs and charger supplied, 24 to 32 VDC. Single sensor operation is 8 hours per pack. Gradiometer with GPS is 3-4 hours operation per pack.



GEOMETRICS, INC.

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GEOMETRICS China



AG 114 DGPS:

Receiver:
Receiver is programmed via PC using Trimble AgRemote.exe software for survey line spacing and track direction

Differential Correction:
Built-in virtual reference station (VRS) ensures satellite differential correction uniformity. RTCM SC-104 and NMEA-0183 differential correction input

Weight:
0.76kg (1.68 lb)

Size:
14.5cm W x 5.1cm H x 19.5cm D
(5.7"W x 2.0"H x 7.7" D)

Position Accuracy:
Better than 1m RMS horizontal with sufficient satellites and multi-path reduction

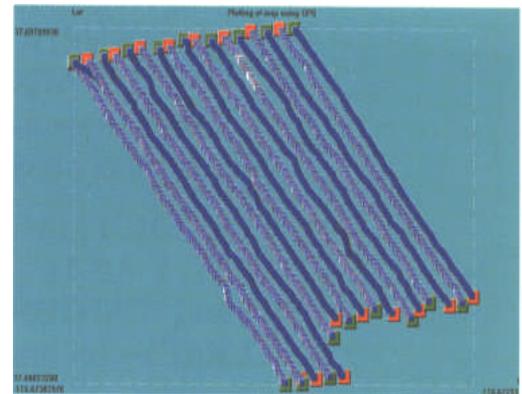
Standard:
MagMap2000 Utility Software, MagPick analysis software, operation manual and ship case

Additional Options:
Second sensor for gradiometer operation, MagCart non-magnetic platform, Geosoft Oasis program suite or Surfer for Windows.

*Combined
G-858 and
ag114 GPS
Survey System
Man carry or on
non-magnetic cart*



Non-Magnetic Cart for target search



MagMap 2000 Plot of GPS Survey Positions



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Specifications subject to change without notice

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