www.geomatrix.co.uk
sales@geomatrix.co.uk
Tel: 01525 383438

G-864 Data Sheet

The high performance G-864 caesium magnetometer/gradiometer provides a quick and efficient solution for magnetic mapping. It gives extremely accurate magnetic field readings at a high sample rate (10Hz). Data is passed via Wifi to a rugged tablet with a head up navigation display. A a USB memory stick installed on the backpack electronics module record the raw magnetic measurements and GNSS position to ensure the users data is always backed up. The tablet has the speakers removed for reduced magnetic influence, and can be used to operate the system within 1m of the sensors with minimal noise using the NavMag app.

Geometrics G-864 horizontal gradiometer with DGPS receiver

NavMag offers a few data acquisition options; simple survey, mapped survey and navigation. Users familiar with the G-858 and G-859 caesium magnetometers will already be recognise the simple survey and mapped survey modes. Simple survey only records the GPS and magnetometer data as it comes into the device, while mapped survey allows the grid coordinates of the survey file to be defined. Navigation mode enables the operator to see their position on the map of survey lines as well as a close up line view which directs the operator to the left or right in order to maintain accurate survey positions. Survey lines can can be produced during the survey design phase using Geometrics survey manager program and uploaded to the tablet.

A GPS message is integrated into the magnetic data to provide accurate time stamps which can be synced to a high degree of precision with another mobile magnetometer or base station using GPS.

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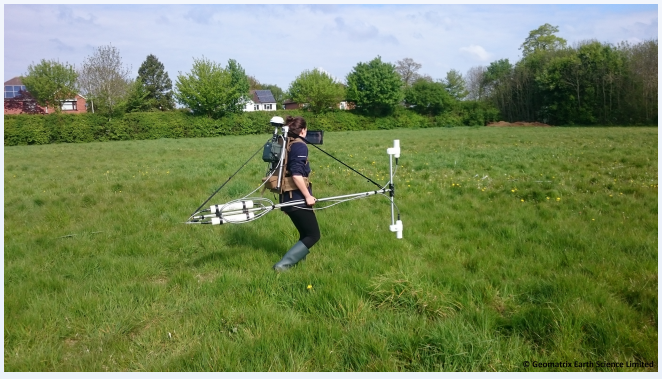
Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	250cm x 60cm x 220cm	11kg

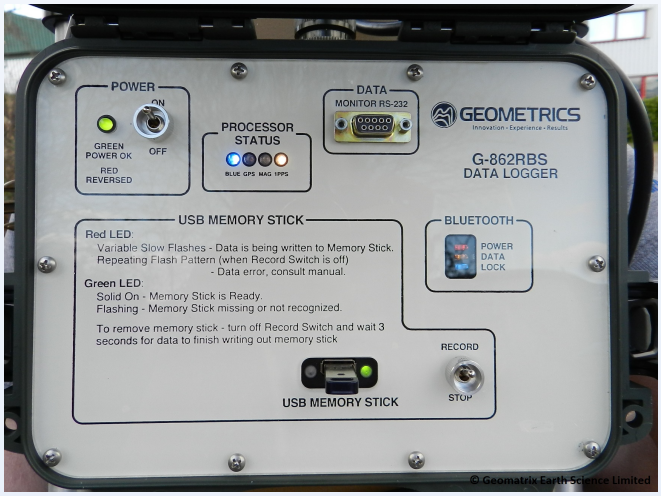
Technical Specifications

Sensor:	Self-oscillating split-beam Caesium Vapour (non-radioactive)
Operating Range:	20,000 nT to 100,000 nT
Sensitivity:	< 0.004 nT?Hz rms
Absolute Accuracy:	< 3 nT throughout range
Operating modes:	- Monitor - Simple survey - Mapped survey - Logger with navigation
Data Output:	Serial logger, removable USB memory stick
Data Format:	ASCII, MS Windows PC compatible, FAT32 file format
Data storage:	22 days using 1 GB USB memory stick while recording magnetometer at 10 Hz and GPS at 1 Hz.
Weatherproof:	O-ring sealed for operation in the rain and/or 100% humidity
Power:	10 to 36 VDC, 30 Watt or 110-220VAC (50-60Hz)

Gallery



Using MagMonitor in navigation mode to complete a survey



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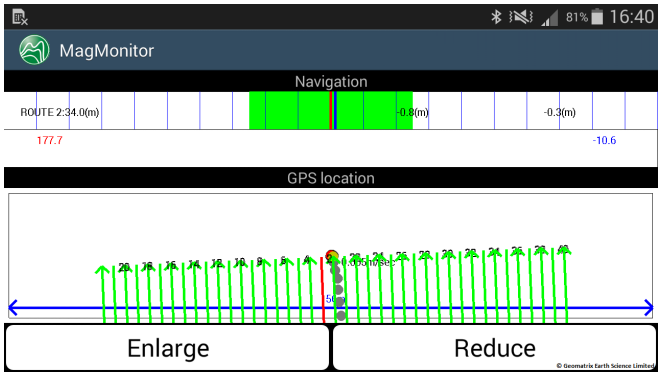
Close up of the Dogcatcher data logger with USB memory stick



Screenshot in the MagMonitor app which helps the operator stay in the correct position

Videos

20170503 G864 video
https://www.youtube.com/watch?v=oCqLUSAkPes

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