

G-862RBS

Magnetometer with Recording Base Station



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By merging Geometrics' highly-sensitive G-862 magnetometer with a Tallysman TW5341 GPS and Dog Catcher serial data logger, this system becomes the high-performance, complete-package magnetometer system that is perfect for any survey. This base station magnetometer is well-suited for applications that require stationary monitoring of the total magnetic field.

The default configuration of the G-862RBS provides 0.02 nT peak to peak performance ($0.004 \text{ nT}/\sqrt{\text{Hz}}_{\text{rms}}$) at 10 samples per second, where each measurement is time-tagged by the GPS data as it arrives from the Tallysman receiver. These time-stamped magnetic field measurements are presented as a serial data stream in ASCII format and logged by the Dog Catcher serial data logger included in the G-862RBS. Because the base station's measurements are time stamped and GPS-synchronized, they are easily and automatically combined with a similarly configured magnetometer system – whether it is stationary or mobile.

The precise, synchronous records obtained from a mobile magnetic survey system and the stationary G-862RBS will permit the recognition and removal of both the diurnal variation of the earth's field as well as higher frequency magnetic signal due to spherics.

The magnetometer and GPS time values are synchronized to within 1ms and the Cesium vapor technology used in the G-862RBS is stable, not requiring adjustment or periodic factory recalibration.

FEATURES & BENEFITS

Excellent Performance – High sensitivity cesium vapor magnetometer with the CM-221 internal counter providing $0.004 \text{ nT}/\sqrt{\text{Hz}}_{\text{rms}}$ performance. Ensures that ambient field is recorded with precision.

Bluetooth Monitoring Capability – View the data from afar using an* Android Device and Geometrics' MagMonitor Application.

Extensive Data Storage – One Gigabyte USB drive allows up to 21 days of continuous recording at 10Hz.

Status Lights – Perform QC checks by simply viewing flashing lights on data logger display.

Weatherproof – O-ring sealed for use in 100% humidity.

Easy To Use – Put the entire system together in minutes while in the field. Flip a switch and you're recording!

*May not be compatible with some Android devices



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SPECIFICATIONS | G-862RBS Magnetometer with Recording Base Station

MAGNETOMETER

Self-oscillating split-beam Cesium Vapor (non-radioactive).

Magnetometer Operating Range: 20,000 to 100,000 nT.

Operating Zones: The earth's field vector should be at an angle greater than 10° from the sensor's equator and greater than 10° from the sensor's long axis. Automatic hemisphere switching.

Noise/Sensitivity: $< 0.004 \text{ nT}/\sqrt{\text{Hz}_{\text{rms}}}$. (SX (export) version: $0.02 \text{ nT}/\sqrt{\text{Hz}_{\text{rms}}}$).

Sample Rate: 10 Hz

GPS Receiver: Time accuracy: 20ns, RMS, max. data rate; 1 Hz.

Data Logger: Serial logger, removable military grade USB memory stick or Android device.

Data Format: ASCII, MS Windows PC compatible, FAT16 file format.

Capacity: 21 days using 1 Gb USB memory stick while recording at 10 Hz rate with GPS receiver output set to provide GPRMC data sentence.

Resolution: 0.00 1nT

MECHANICAL / ENVIRONMENTAL

Storage Temperature: -45° C to +70° C (-48° F to +158° F).

Operating Temperature: -35° C to +50° C (-30° F to +122° F).

Senor Cable Length: 0.9 m (3 ft).

Electronics Module Dimensions: DIA: 7 cm; L: 38.7 cm; Weight: .91 kg (15.25 x 2.75 in; 2 lbs.)

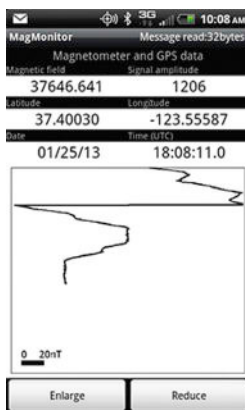
Sensor Dimensions: DIA: 7 cm; L: 17.2 cm; Weight: .82 kg with cable. (6.75 in x 2.75; 1.8 lb).

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).

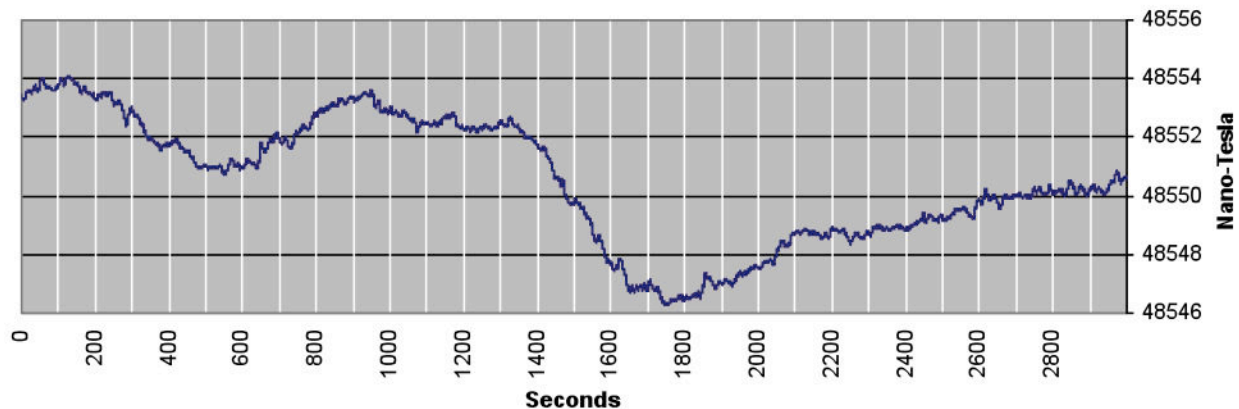
Standard Accessories*: 110-220 VAC (50-60hz) power supply, USB-Flash drive with user software and manuals, tripod, staff kit, sensor clamp, AC cord, battery clip, shipping/storage case.

***12-Volt battery not included**



Monitor the Base Station data as it records using Geometrics' MagMonitor application on an Android device.*

***May not be compatible with some Android devices**



Record of magnetic field variation measured with G-862RBS at 10 Hz rate.

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