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Six Way Concatenator Data Sheet

The Geomatrix Earth Science Ltd Six Way Concatenator has been specifically designed to enhance the functionality of the Geometrics G-823, 862, 880 & 882 magnetometers. The Geomatrix Six Way Concatenator offers a reliable, easy to use, solution for managing sophisticated Geometrics caesium sensor arrays.

Initially developed for English Heritage, the small light weight package is perfectly suited for deployment on hand carts or vehicle towed systems. By utilising the GPS Pulse Per Second (PPS) to synchronise the trigger timing it is possible to accurately account for variable latency within the data acquisition software at high sample rates.



The Geomatrix Six Way Concatenator with English Heritage's 6 G-862 Cs magnetometers.

Features

- Able to concatenate 6 Geometrics caesium magnetometers & GPS sentence.
- Two modes of operation: Continuous & Trigger .
- Trigger Timing synchronised to GPS PPS pulse enabling PC latency correction at fast sample rates.
- High sampling speeds which reject 50&60Hz mains noise.
- Incorporate magnetometer ID into concatenated sentence, aiding system troubleshooting.

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- Channel bypass switches.
- Power feed through to all instruments.
- Data telemetry compatible with existing software (Geometrics MagLog & Geomar Nav823 software)

Technical Specifications

Operation Modes:	Continuous & Triggered sampling.
Maximum telemetry latency:	30ms (at 30Hz sampling).
Sample Rates:	10Hz, 16.66Hz and 25Hz (for 50Hz mains electric supply). 10Hz, 20Hz and 30Hz (for 50Hz mains electric supply).
GPS:	Passes GGA and ZDA NMEA sentences.
Baud rate:	From 9600 to 115200.
PPS input:	BNC or pin 9 on GPS D9 connector.
Data output:	Via RS232.
Data Format:	ASCII.
Power requirements:	28V DC supply, polarity protected.

Gallery



Magnetometer array installed on the Geomatrix MSP Sledge.
Image courtesy of English Heritage.

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