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ES-3000 Data Sheet

A lightweight cost effective underground imaging tool including an ultra-portable recorder with all of the features.

If you are a geoscientist doing teaching or research, or just need an exploration seismograph to find bedrock, the ES-3000 is for you. The system includes ESOS data acquisition software and the ES-3000 seismodule connects directly to your PC via the Ethernet port – no additional hardware or drivers are required.

The ES-3000 system comes with all the data analysis software you need to do comprehensive refraction surveys to find bedrock, the water table, where to rip, or even outline gravel deposits. Geometrics also offers special multi-license pricing on the standalone version of SeisImager/2D so that field crews and students can have their own copies.

Features

- Find bedrock, depth-to-water, faults and fractures.
- Ideal for engineering, construction, road building, and teaching.
- Best quality data: automatic settings, make no mistakes.
- Lightweight (8 lbs/3.5 kg) and low-power.
- Easy interface: no complicated drivers, plugs directly into your PC Ethernet port.
- Includes analysis software to give you quick answers in the field and reports for your client.
- Reduced noise and cost: Data transmitted from ES-3000 to host computer digitally, replacing long, expensive analog cables with digital cables.
- Optional software for blast and vibration measurements, earthquake monitoring.

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	25.4cm x 30.5cm x 17.75cm	3.6kg

Technical Specifications

Channels:	8, 12, 16 or 24.
A/D Conversion:	24-bit result using Crystal Semiconductor sigmadelta converters and Geometrics proprietary over-sampling.
Dynamic Range:	144 dB (system); 110 dB (instantaneous, measured) at 2 ms, 24 dB.
Bandwidth:	1.75 Hz to 8 kHz
Distortion:	0.005% @ 2 ms, 1.75 to 208 Hz.
Common Mode Rejection:	>100dB at ? 100 Hz, 36 dB.
Crosstalk:	-125 dB at 23.5 Hz, 24 dB, 2 ms.
Noise Floor:	0.20 uV, RFI at 2 ms, 36 dB, 1.75 to 208 Hz.
Maximum Input Signal:	177 mV P-P, 24 dB.

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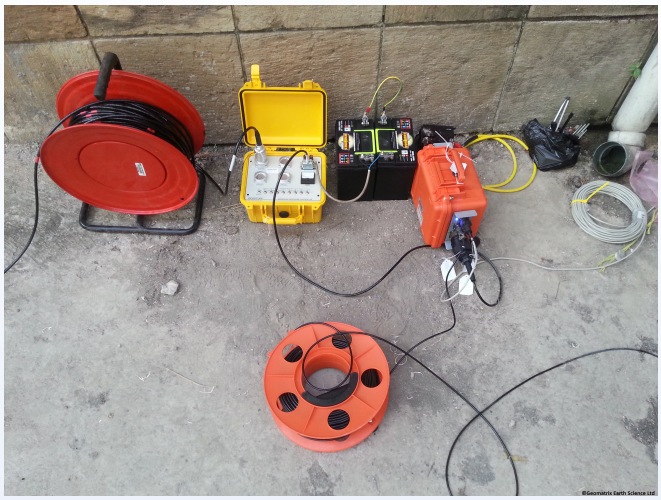
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Input Impedance:	20 kOhm, 0.02 uf.
Stacking Trigger Accuracy:	1/32 of selected sample interval.
Preamplifier Gains:	24 or 36 dB, software-selectable.
Anti-alias Filters:	Down 3 dB at 83% of Nyquist frequency; down 90 dB or more ? Nyquist frequency.
Sample Intervals:	0.0625, 0.125, 0.25, 0.5, 1.0, 2.0 ms.
Record Lengths:	4,096 samples standard; 16,384 samples and 65,536 samples optional.
Pre-trigger Data:	Up to full record length.
Triggering:	Positive, negative, or contact closure, software adjustable threshold.
Data Format:	SEG-2 standard.
Recording Device:	Windows OS, XP -10.
Power:	Requires 12V external battery. Draws 0.65 W per channel during acquisition.
Warranty:	36 months. Please contact the factory for complete details.

Gallery



ES-3000 seismic refraction system.



ES-3000 seismic downhole system.

Videos

https://youtu.be/tVfcEE2_5pw
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