Professional, ruggedized 24 bit seismic recorder suitable for reflection, refraction, downhole, VSP or small marine surveys. Intelligent self-trigger enables vibration and earthquake monitoring.

Houses from 3 to 64 channels. Expands seamlessly up to 1000 channels by connecting Geode in-field distributed modules.

Engineered for rugged field use: reliable in harsh environments, survives shock, humidity and dust. Passes MIL 810E vibration spec.

20 kHz bandwidth (0.02 µs to 16 ms sampling) for ultra-high resolution engineering surveys or low frequencies for earthquake monitoring.

Brilliant full-sun-visible color screen and built-in plotter - available also as rugged field computer without seismic channels.

Built-in geophone and line testing, full waveform noise monitor. Optional automated internal in-field instrument testing or detachable lab quality external test oscillator.

High-speed hardware correlator means no delays using Vibroseis or pseudo-random Mini-Sosie sources.

Powerful reflection, refraction and cross hole tomography software:
- Model local geology and display travel-time curves before surveying
- Pick breaks on site and view travel-time curves for optimum shot positioning
- Display in-field preliminary cross section and ray coverage plots to see what you have missed
- Undertake a comprehensive analysis back at the office and easily compare results with alternate interpretation methods

The StrataVisor™ NZ is a high-performance exploration seismic system in a compact, weatherproof chassis. The NZ can operate as a field PC, as a stand-alone seismic recorder with 3 to 64 internal channels - or expands easily to larger channel systems by connecting Geode remote distributed modules. This flexibility lets you collect data for all applications in all environments – you can even rent extra channels when needed.

Examine your data at all phases of acquisition to ensure data quality. Customizable windows show real-time noise monitor, amplitude spectra and seismic traces so you see problems instantly. A log file keeps track of all parameter changes and customizable alarms alert you to critical issues. You can even do preliminary processing in the field with industry-leading reflection, refraction and tomography software included with every system.

The StrataVisor NZ console includes a brilliant daylight-visible color screen, waterproof keypad and built-in printer. Low-power circuitry and a standby mode extend battery life and reduce weight. A tape drive controller, Vibroseis sweep generator and intelligent integration of GPS and other survey data can be included.

The StrataVisor NZ is backed by a 1 year parts and labor warranty. All this from a company with factory trained service centers world wide and over 30 years of superior support to geoscience professionals.
Specifications:

**Configurations:**
- Lightweight field-rugged PC with no seismic channels for use as field computer or rugged in-field controller for Geode distributed modules
- Integrated seismic recorder - add 3, 6, 8, 12 or 16 to 64 built-in channels (in 8 channel increments)
- Connect multiple NZ’s and operate from a single keypad
- Runs Windows™ operating system and includes all software for controlling internal channels and multiple lines of Geode modules. Total number of channels limited only by practical survey requirements.

A/D Conversion: 24 bit result using Crystal Semiconductor sigma-delta converters and Geometrics proprietary over-sampling.

**Dynamic Range:** 144 dB (system), 110 dB (instantaneous, measured) at 2 ms, 24 dB.

**Distortion:** 0.0005% @ 2 ms, 1.75 to 208 Hz.

**Bandwidth:** 1.75 Hz to 20 kHz. Low corner frequency option available.

**Common Mode Rejection:** > 100dB at <= 100 Hz, 36 dB.

**Cross Talk:** -125 dB at 23.5 Hz, 24 dB, 2 ms.

**Noise Floor:** 0.20 µV, RFI at 2 ms, 36 dB, 1.75 to 208 Hz.

**Stacking Trigger Accuracy:** 1/32 of sample interval.

**Maximum Input Signal:** 2.8V PP, 0 dB, 177 mV PP, 24 dB.

**Input Impedance:** 20 kOhm, 0.02 µf.

**Preamplifier Gains:** Standard factory configuration is 24 and 36 dB, selectable in software. Optionally, can be jumpered for software selectable 12 and 24 dB or can be jumpered in four channel blocks as a single fixed gain of 0 dB for high-voltage devices.

**Anti-alias Filters:** -3 dB at 83% of Nyquist down 90 dB.

**Acquisition and Display Filters:**
- Low Cut: OUT, 10, 15, 25, 35, 50, 70, 100, 140, 200, 280, 400 Hz, 24 or 48 dB/octave, Butterworth.
- Notch: 50, 60, 150, 180 Hz and OUT, with the 50 dB rejection bandwidth 2% of center frequency.
- High Cut: OUT, 250, 500 or 1000 Hz, 24 or 48 dB/ octave.
- Customer filter frequencies available as an option.

**Sample Interval:** 0.02, 0.03125, 0.0625, 0.125, 0.25, 0.5, 1.0, 2.0, 4.0, 8.0, 16.0 ms.

**Correlation:** Built-in high-speed hardware correlator for Vibroseis. Optional pilot conditioning for acquisition of pseudo-random (MiniSosie) sources.

**Record Length:** 16,384 samples standard, 65,536 samples optional.

**Pre-trigger Data:** Up to full record length.

**Intelligent Self-Trigger:** Available for earthquake and vibration monitoring.

**Continuous Recording:** Available for vibration monitoring.

**Delay:** 0 to 100 sec in 1 sample steps.

**Auxiliary Channels:** All channels can be programmed as either AUX or DATA.

**CDP Roll Along:** Software selectable channels can be rolled through total channels.

**Line Testing:** Full waveform noise monitor displays real-time output from geophones. Tests geophones and locates shorted or broken cables.

**Optional Built-In Test Functions**
- Digital:
  - CPU diagnostics
  - Internal network test
  - Digital functions
  - Battery Warning
- Instrument:
  - Noise
  - DC Offset
  - Gain Accuracy
  - Gain and Phase Similarity
  - Distortion
  - Crossfeed
  - Bandwidth
  - Timing Accuracy
  - Line:
    - Geophone similarity
    - Noise
    - Disconnected phones

**Instrument Tests:** Available either internally or as detachable external system. Test scripts are customizable to meet your clients needs.

**Data Formats:** SEG-2, SEG-D and SEG-Y.

**System Software:** Runs under Windows™ operating system.

- Uses Geometrics MGOS software to control acquisition on internal channels and up to 4 lines of external channels housed in Geode distributed modules. System includes the following 2nd party applications software:
  - SIPQC delay time refinement software from Rimrock Geophysics
  - SeisImager refraction modeling and analysis software from OYO
  - WinSeis-Turbo reflection software from the Kansas Geological Survey

Refraction software packages installed on instrument are configured for in-field analysis and may require attaching a keyboard and mouse. Full desktop versions of these packages are available either from Geometrics.

**Data Storage:** Stores data on internal hard drive or controls multiple SCSI tape devices. Records in SEG2, SEGY or SEG-D.

**Plotters:** Built-in 4” thermal plotter. Drives a variety of NT compatible plotters including Printrex 4, 8 and 12 inch continuous thermal plotters.

**Triggering:** Positive, negative or contact closure, software adjustable threshold.

**Power:** 30W plus 0.65W/channel during acquisition. Standby mode reduces channel power consumption by 70%. Requires external 12V supply.

**Environmental:** Boots from +5°C to 40°C. Operates from –5°C to 40°C. Extended temperature version available to +60°C. Operates in a light rain, watertight with cover closed. Passes MIL810E/F vibration test.

**Physical:**
- Field PC with no seismic channels: 10.5”L x 18”W x 13”D (27cm L x 46 cm W x 33 cm D), weighs 27 lb (12.3 kg)
- Seismic recorder with 3-64 internal channels: 10.5”L x 18”W x 21”D (26.7cm L x 34 cm W x 33 cm D), weighs 38 lb (18 kg)

**Warranty:** One year parts and labor. Extended warranty available.

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