# Source Products



## VIB PRO<sup>™</sup> HD

INOVA's Vib Pro HD vibroseis source controller is centered on increased productivity coupled with best-in-class broadband sweep generation, established with the previous Vib Pro version.

#### FEATURES

- Provides accurate and versatile sweep generation across all surface terrains ensuring delivery of the desired energy
- Increased computing power improves control resolution and force accuracy
- Optimized low and high frequency control for INOVA's vibroseis vehicles
- INOVA's patented Low Frequency Limit (LFL)Control<sup>™</sup> enables high force, low frequency linear sweeps to be performed using short tapers within physical constraints of the vibrator
- INOVA's patented Harmonic Distortion Reduction (HDR) Control<sup>™</sup> attenuates harmonic energy in real-time generating more fundamental force with lower distortion on each sweep
- Integrated wired and wireless Ethernet communication
- Integrated VSS and PSS data management and storage
- Dynamic TDMA, collision-free radio communications
- Analog and Digital radio support
- Compatible with most acquisition systems and vibroseis vehicles on the market
- Units can be easily programmed as an encoder or decoder
- Low ground force mode for environmentally-sensitive areas

# HDR CONTROL<sup>™</sup> ADVANTAGE

- Patented Harmonic Distortion Reduction (HDR) Control provides better vibrator performance generating more fundamental force over a braodband frequency spectrum in any environment using nonlinear compensating control algorithms
- HDR Control reduces harmonic distortions and results in improved signal-to-noise ratios
- HDR Control is included in the Vib Pro HD firmware to compensate for the nonlinear behavior of the main-stage servovalve
- When utilized with the DR Valve, HDR Control is further optimized by dampening the earth/baseplate resonance and improves the linearity and bandwidth of the vibrator's servo-valve



#### **TECHNICAL SPECIFICATIONS**

Voltage Input: Frequency Range:

Timing Synchronization: Start Time Accuracy: GPS:

Number of Sweeps: Sweep Resolution: Control System Sample Rate: Vibrator Signature Recording:

High Productivity Vibroseis: External Storage: Built-in Ethernet Speed: Accelerometer\* Sensitivity: Accelerometer Range:

#### PHYSICAL SPECIFICATIONS

Height (without shock mounts): Width (without shock mounts): Length (without shock mounts): Weight (without shock mounts): Accessories: 9 Vdc - 36 Vdc <1 Hz to 400 Hz (UNIVIB, UNIVIB 2) <1 Hz to 250 Hz (AHV-IV) Local GPS or analog radio message ±20 μs External only via 9-pin interface connector 32 24 bit 0.25 msec Built-in with USB or wireless data access ISS, DSS, DSSS, and HFVS<sup>™</sup> USB Flash 100 Mbit 25 mV/g ±2% ±380 g

406 mm (16 in) 230 mm (12 in) 152 mm (6 in) 10 kg (22 lb) Radios, antennas, cables to perform fleet operations and Accelerometers are sold separately;



### VIB PRO<sup>™</sup> HD



(Top) HDR Control off, (Bottom) HDR Control on. A linear sweep from 1 to 11 Hz in 20 seconds was used to run the vibrator.



Linear sweep from 5 Hz to 240 Hz in 10 seconds.

The blue curve is produced using a standard controller while the red curve is produced using Vib Pro HD with high frequency control.

\*Model M5 and M6 Accelerometers.