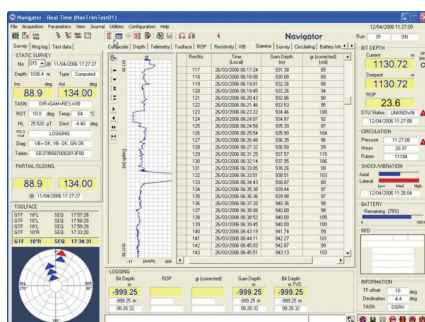


Sentinel Vibration Sensor

The Geolink Sentinel Vibration Sensor enables continuous monitoring of downhole shock and vibration. Using this information the driller can maximise ROP and minimise bit and string damage.



Navigator Real-Time Screen

The Real-Time Screen displays the various data required to monitor the data output from the MWD or LWD system. The screen includes a display of axial and lateral vibration levels (mid height, right) which is mirrored on the Driller's display.

Description

Shock sensors are added as standard to all new and refurbished tools. They consist of two solid state accelerometers, orthogonally mounted in the X (lateral) and Z (axial) axes of the MWD tool, on the Survey Electronics PCB. The Survey Electronics Assembly monitors the shock levels measured by the accelerometers over consecutive periods of 16 seconds and categorizes the current level as being either Low (safe), Moderate (warning) or High (damage likely) for both axial and lateral readings. Normally the tool will only transmit readings to surface if the latter two conditions are present - by means of a single pulse at the end of each dynamic transmission. The data is presented graphically to the Driller on the Rig Floor Display - allowing him to monitor conditions and make appropriate changes to drilling parameters (e.g. Changing Weight on Bit or Rotary Speed). Establishing smooth, shock and vibration free drilling helps to optimise penetration rate and prevents damage to the drill string and downhole tools.

Features

- Fitted as standard in all sizes (from early 2006).
- Robust and highly reliable - low maintenance.
- Simple operation - only reports potentially damaging conditions.
- Compatible with all Geolink MWD Systems.
- Graphical representation for easy interpretation
- Data can be displayed in Real-Time on the RFD and laptop or plotted against depth for later analysis.

Specification

Measurement	Range	Resolution
Shock	+/- 105g	40mg
Environmental		
Temperature	Operating: -40 – 150°C Survival: -65 – 165°C	
Shock (powered)	1000g 0.5ms, half sine	
Shock (Unpowered)	2000g 0.5ms, half sine	