



SMT-400

- Backwards compatible with the SMT-200 & SMT-300 Geophone Testers
- Traceable to the SENSOR final ISO certified test standard
- Geophone & String specification libraries
- Lightweight, ultra rugged housing
- Intuitive graphical user interface with soft keys
- Multi lingual support for easy menu navigation
- 1/4 VGA colour, transfective sunlight readable liquid-crystal display
- Tests common string configurations from 5Hz to 60Hz
- High durability rubberised keypad
- USB PC communication link
- Red, amber, green LED indicators
- 64MB internal flash memory provides a data storage capacity for 65,000 test results

The fifth generation SMT series Geophone Tester which again sets the industry standard for geophone and string testing. The SMT-400 utilises the latest advances in analogue and digital electronics including a high resolution 24 bit Sigma-Delta A/D converter which provides both speed and accuracy in the data collection process. Available in any user requested language (reset defaults to English). A high capacity replaceable Li-ion standard battery offers over 8 hours of continuous operation.

Measurement Capability at +20°C

Natural Frequency

Range	5 to 100 Hz
Accuracy	8 to 14 Hz $\pm 0.5\%$ of the measured value. Other: $\pm 2\%$ of the measured value or $\pm .5$ Hz, whichever is greater.
Display resolution	0.01 Hz

Resistance

Range	5 to 20k Ω
Accuracy	$\pm 1\%$ or $\pm 1\Omega$ whichever is greater
Display resolution	1 Ω (0.1 Ω when measured value is less than 100 Ω)

Damping

Range	0.100 to 0.850
Accuracy	$\pm 1\%$ of measured value
Display resolution	0.001

Sensitivity

Range	1 to 999 V/m/s (0.0254 to 25.37 V/in/s)
Accuracy	$\pm 2\%$
Display resolution	0.1 V/m/s (0.01 V/in/s)

Harmonic Distortion

Range	0 to 20 % (maximum drive frequency 64Hz)
Accuracy	$\pm 10\%$ of measured value or $\pm 0.01\%$ distortion
Display resolution	0.01% whichever is greater

Impedance

Range	20 to 200k Ω
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Leakage Test

Range	1 M Ω to 100 M Ω
Accuracy	$\pm 5\%$
Display resolution	0.01 M Ω

Features

LCD screen	Colour 1/4 VGA 240 pixels 320 pixels (52mm x 74mm) viewable
Keyboard	Sealed chemical resistant elastomeric silicon, tactile touch
Case	IP 65, High impact ABS with additional rubber protection boot

Data Processing and Storage

Microprocessor:	Intel Xscale® PXA255 at 400 MHz
DSP processor:	MOTOROLA @ DSP56L307
Memory:	Internal RAM 128 MB
Storage user data	64 MB flash (maximum 65,000 geophone test results)

Communications

USB communication via Microsoft® ActiveSync®

Power

Battery	Li-Ion 2200 Ah Long life removable Lithium Ion battery pack
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Physical Characteristics

Dimensions	186 mm 93 mm (7.44" x 3.72") narrowest point, 186 mm 134 mm (7.44" x 5.36") widest point
Weight	715 grams (1.6 lb)

Environmental Specifications

Operating temperature range	-20°C to +60°C (-4°F to +140°F)
Storage temperature range	-30°C to +70°C (-40°F to +158°F)
Humidity	95% non-condensing
Housing standard	IP 65
Standards	CE, RoHS

SMT-400 Geophone String Tester P/N NLSMT-400

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