Portable Data Recorder

For Torque-Angle-Tension Testing of Threaded Fastener Components

Highlights

- Streamlined menu system with a tactile feel keypad, USB ports, and analog output
- Measure and record torque, angle, and clamp load characteristics of threaded fastener components
- Two input channels for torque transducers, torque-angle transducers, or fastener tension load cells
- Record graphic data to plot: torque vs. angle, torque vs. tension, torque vs. time, and more
- Print both numeric and graphic data
- Upload numeric and graphic data to a PC via FastPlot2 software

Applications

- Verify Fastener Torque-Tension
- Analyze Torque Angle Signatures
- Audit, Calibrate, or Certify Performance of Power Tools and Hand Torque Wrenches
- Dynamic Monitoring of Power Tool Testing
- Troubleshoot Problematic Joints

Torque Tension Test System

RS Technologies, a division of PCB Load & Torque, Inc., Model 962 Portable Data Recorder is a battery-operated, transient recorder with two transducer inputs that can be used with torque-only, torque-angle, or force transducers. It can serve as a portable threaded fastener laboratory for measuring fastener torque, angle of turn, and clamp load. Ideal for performing fastener analysis, for auditing and certifying power tools, and for testing hand torque wrenches; Model 962 is a cost effective, versatile, and easy-to-use recorder that can collect numeric peak data, XY graphic plots, and store the data to a thumb drive. The data can be easily displayed or printed on a PC running FastPlot2 software. The alphanumeric setup and calibration menus assure ease of operation. The unit can be used with all RS Technologies' rotary torque-angle and clamp force transducers and other conventional and industry-standard strain gage transducers.

Model 962 can print out a numeric data report that contains basic information about the test along with time & date-stamped data for peak torque, angle of turn, clamp load, and torque at tension data. Statistics including high, low, median, ±3 Sigma, etc. are calculated and included on this report. The numeric test data and the graphic data can be uploaded to a computer via the USB port using the FastPlot2 data transfer and plotting utility. FastPlot2 can also provide additional graphic analysis.

As with all PCB® instrumentation, these units are complemented with toll-free applications assistance, 24-hour service, and are backed by a no-risk policy that guarantees total customer satisfaction or your money refunded.

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Statistics

After three rundowns, Model 962 Portable Data Recorder updates statistics including standard deviation and Cpk. It also flags data as being high or low depending upon the programmed engineering limits.

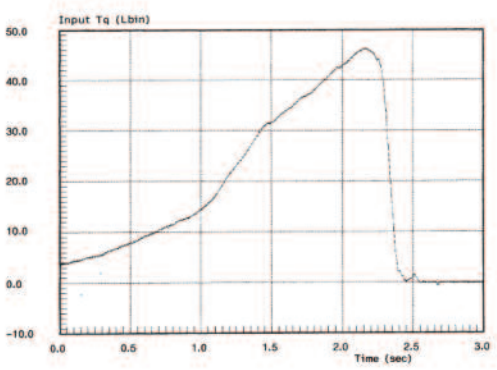
Data and Communications

Graphic plots, numeric data reports, and statistics are printed via the parallel port. Recorded data can be downloaded to a PC via the serial port for further analysis using the FastPlot2 software. Program updates are easily uploaded through the USB port.

Real-Time Plotting Capabilities

Model 962 captures real-time and peak readings for torque-angle, torque-clamp load, or torque-time and immediately displays or plots one of the following, based upon the instrument setup:

- Torque vs. Time
- Torque vs. Angle
- Torque & Angle vs. Time
- Torque & Clamp Force vs. Time
- Torque and Clamp Force vs. Angle
- Clamp Force vs. Torque
- Tool RPM vs. Time
- Tool RPM vs. Angle



Torque vs. Time Assembly Plot

Portable Data Recorder, Model 962	
Torque and Force Input Channels	
Input Range	±2.5 mV/V, ±4.5 mV/V, ±5 VDC
Excitation	5 VDC, 120 mA Maximum
Resolution	21-bit
Non-linearity	0.25% Maximum (F.S.)
Frequency Response	10 kHz
Positive Voltage Peak Trap Circuit	7 ms Reset Time
Peak Threshold	Software Programmable
Peak Reset	Manual or, Software Programmable (Automatic Reset)
Angle Input Channel	
Type	Quadrature A/B Track
Excitation	5 VDC
Input Frequency	1000 kHz Maximum
Display	
Viewing Area	4.85 x 2.68 in 123 x 68 mm
Resolution	240 x 128 Pixels, Backlit LCD
Battery	
Indication	Battery Low Indication
Battery Life	8 Hours Maximum, Continuous Use
Charge Time	3.5 Hours, Maximum
General	
Temperature Range	+32 to +158 °F 0 to +70 °C
Dimensions	
Size (W x D x H)	10.12 x 8.50 x 3.25 in 257.0 x 215.9 x 85.1 mm
Weight	6.0 lb 2700 gm
Mating Connectors	
Channel 1 and Channel 2	DB, 15 Pins
TTL/IO	DB, 25 Pins
USB Port A	A Type
USB Port B	B Type
Supplied Accessories	
FastPlot2 Upload/Graphing Utility for PC Running Windows® 2000, XP, Battery Charger, Serial Cable with USB Adapter, Instruction Manual, Carrying Case, & A2LA Accredited Calibration Certificate	

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RS Technologies, a division of PCB Load & Torque, Inc, is a leading manufacturer of a complete line of rotary and stationary torque sensors, hand torque wrenches, measuring instruments, and threaded fastener torque-tension testing systems with over 40 years of history serving the product assembly and fastener manufacturing community. From ready-to-ship stock products, to custom-made specials, RS Technologies proudly stands behind all products with services customers value most, including calibration services from our A2LA accredited laboratory, 24-hour technical support, a global distribution network, and the industry's only commitment to Total Customer Satisfaction. For more information, please visit **www.pcbloadtorque.com**.

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