

DAKOTA ULTRASONICS

Accuracy with Simplicity



The MAX:

Ultrasonically measures the actual clamp load produced by tightening a threaded fastener.

Portable battery operation.
Uses 4 standard C size batteries.

Built-in linear regression for optimizing load measurements.

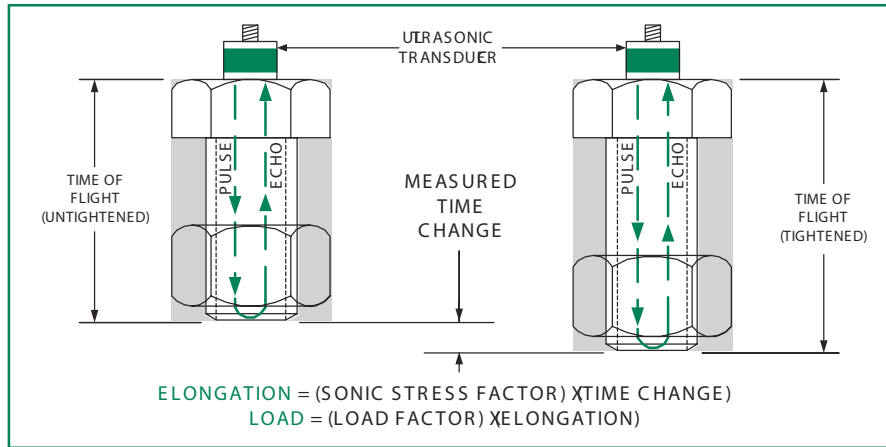
Single or Dual transducer measurements.

Complete with utility software for transferring data, capturing and printing reports, and viewing/printing waveforms.
Software compatible with Windows® 95/98/NT.

Digital Signal Processing minimizes operator training, provides excellent repeatability and simple calibration.

On-board 0 to 10 volt analog output for elongation controlled tightening and lab use.

TECHNOLOGY WITH A PURPOSE



The **MAX** can measure clamp load, or resulting fastener elongation, very accurately in fasteners of virtually any material from 1 inch to over 20 feet in length. The measurement is achieved by **determining the change in the transit time** of an ultrasonic shock wave along the length of the fastener as the fastener is tightened by any method.

The **on-board microcomputer** automatically interprets this time measurement to display load, tensile stress, or elongation results in the fastener. Through use of **high speed digital signal processing** and automated diagnostics, the **MAX** minimizes the requirement for extensive operator training. With **built in data recordation**, reporting through RS232 and analog interface, the **MAX** offers easy-to-use, reliable solutions for difficult bolting problems. Visit our website for further information, www.dakotaultrasonics.com.

S P E C I F I C A T I O N S

Physical Description

- Size:**
Width (8.5 in / 216 mm)
Height (6.5 in / 165 mm)
Depth (2.0 in / 51 mm)
- Weight:**
2 lbs. 10 ounces
(with batteries).
- Keyboard:**
Membrane switch pad with tactile keys.
- Case:**
Extruded aluminum body with nickel-plated aluminum end caps (gasket sealed).
- Data Output:**
RS232 port out. Windows® interface software.
0 to 10 volt analog out.
- Display:**
Backlit LCD—3.5"W x 2.0"H.
- Waveform Display:**
Verify signal analysis.
Optimize transducer placement.

Ultrasonic Specs

- General:**
Pulse echo and pitch catch measurement modes.

Selectable frequencies at 1.0, 2.25, 5.0, & 10.0MHz.
Automatic peak and phase selection.
- Displays readings in English/Metric units.
- Pulser:**
Tone burst (push pull).
Selectable 1, 2, or 4 pulses.
- Receiver:**
Low noise preamplifier.
Automatic gain control.
- Timing:**
160 MHz 10 ppm TCXO.
Controlled digitizer.
- Memory:**
8 megabit non-volatile ram.
Up to 4000 bolts, 20,000 load measurements.

Power

- Line power:**
100-240 ACV 47 to 63 Hz.
- Battery:**
Four "C" size batteries.



Warranty

2 full years.



Distributed by:



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