

# DAKOTA ULTRASONICS



## PR-9 Sonic Tester

- ▶ Dedicated design for the racing industry, to measure and map the thickness of cylinders & decks on engine blocks, ports on heads, and chasis tubing for car builders and sanctioning bodies.
- ▶ The PR-9 features three material calibration options (single point, two point, and target velocity) for increased accuracy.
- ▶ High speed scan feature that takes 100 readings per second. Drag the probe up the side of a cylinder wall to find the thinnest measurement over the area scanned.
- ▶ Cylinder mapping software available for manually creating reports.
- ▶ The 5 year limited warranty indicates how we feel about the quality.

SOUND SOLUTIONS

# THE PR-9 SONIC TESTER

## A partial list of common racing probes:

- |                                  |                               |                |
|----------------------------------|-------------------------------|----------------|
| • Chassis Tubing, Roll Cages     | 3/16" 10MHz Flat Probe head   | 0.00" radius   |
| • Cast Iron Cylinder Heads       | 1/4" 5MHz with 1" or 9" Wand  | 0.60" radius   |
| • Aluminum Cylinder Heads        | 1/4" 10MHz with 1" or 9" Wand | 0.60" radius   |
| • Cast Iron/Alum Cylinder Blocks | 1/2" 5MHz                     | 2.00" radius   |
| • Cast Aluminum Cylinder Blocks  | 1/2" 10MHz                    | 2.00" radius * |

\* Only required for noisy materials

## Common automotive applications:

- |                  |               |               |
|------------------|---------------|---------------|
| • Cylinders      | • Head Ports  | • Roll Cages  |
| • Chassis Tubing | • Body Panels | • Windshields |

## SPECIFICATIONS

### Physical

#### Weight:

11 ounces (with batteries).

#### Size:

Width (2.5 in / 63.5 mm)  
Height (5.17 in / 131.3 mm)  
Depth (1.24 in / 31.5 mm)

#### Operating Temperature:

-22 to 167F (-30 to 75C).

#### Case:

Extruded aluminum body with nickel-plated aluminum end caps (gasket sealed).

### Keypad

Sealed membrane that is resistant to both water and petroleum products.

Nine tactile-feedback keys.

### Transducer

Dual-element (transmit and receive).

1 to 10 MHz frequency range.

Locking quick disconnect LEMO connectors.

4 foot cable.

Custom transducers available for special applications.

### Power Source

Two 1.5V alkaline, 1.2V NiCad, or 1.5V Lithium AA cells.

Typically operates for 45 hours on alkaline and 23 hours on NiCad.

Low battery indicator on display. Auto shut-off after 5 minutes of inactivity.

### Display

Multi-function 7 segment 4.5 digit liquid crystal display with 0.500 in digit height. Two 0.125 in<sup>14</sup> segment fields for labels and values, and one 7 segment field for labels and values. Additional icons to indicate features and modes.

Backlight is selectable on/off/auto, and selectable brightness (Lo, Med, Hi) options.

Bar graph indicates repeatability of measurement.

### Certification

Factory calibration traceable to NIST & MIL-STD-45662A.

### Warranty

5 year limited.

### Measuring

#### Range:

Measures from 0.025 to 36.00 inches (0.63 to 914.4 millimeters). Range dependent on material and transducer type.

#### Automotive Applications:

0.050 to 1.500 inches in casted materials.

#### Units:

English & Metric

#### Resolution:

0.001 inches (0.01 millimeters)

#### Velocity Range:

0.0120 to .7300 in/ $\mu$ s  
(305 to 18,542 m/sec)

PRF: 200Hz

Display Update Rate: 10Hz

#### High Speed Scan:

Display the lowest measurement found during a scan. Scan speed at 100Hz.

One or Two point calibration option.



## MADE IN THE USA

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