

# DAKOTA ULTRASONICS

## The PR-8V

## SONIC TESTER

The physical size, weight, and display resolution are just a few of the benefits of the PR-8V



- ▶ The time-based B-Scan feature of the PR-8V displays a cross section of the opposite surface, allowing engine builders the ability to see the contour of the back surface in cylinders while scanning.
- ▶ Use the Multi-Mode (Echo-Echo mode) feature to measure chassis tubing with or without paint and coatings. Built-in automatic gain control.
- ▶ Selectable low, medium, and high gain settings offer the inspector the additional punch power for materials that are hard to penetrate.
- ▶ The variety of calibration options is just one more example of PR-8V's versatility.
- ▶ Store up to 64 custom setups. Factory setups available for common applications.
- ▶ The internal Data Logger of the PR-8V has been customized for both the engine builder and the chassis inspector. Selectable cylinder mapping or general alpha numeric file storage will satisfy your reporting needs.
- ▶ Built-in transducer types offer increased linearity between transducers.
- ▶ The Fast Scan feature provides a better representation during the scanning process, by making 32 measurements per second. Remove the transducer from the test material and display the thinnest measurement found.
- ▶ Use the visual and audible alarm to set Hi and Lo limits to signal the inspector when the measurements are out of tolerance.
- ▶ The PR-8V also comes complete with our Windows® PC software for transferring data to- and from a PC, and viewing B-Scans, Cylinder Maps, and general measurements.
- ▶ 2 year limited warranty.

# SOUND SOLUTIONS

# PR-8V SPECIFICATIONS

## Physical

### Size:

Width (2.5in/63.5 mm)  
Height (6.5 in/165 mm)  
Depth (1.24 in/31.5 mm)

### Weight:

13.5 ounces (with batteries).

### Keyboard:

Membrane switch pad with twelve tactile keys.

### Operating Temperature:

14 to 140F (-10C to 60C)

### Case:

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

### Data Output:

Bi-directional RS232 serial port. Windows® PC interface software.

**Display(Two Options):** 1/8in VGA gray-scale display (240 x 160 pixels). Viewable area 2.4 x 1.8in (62 x 45.7mm). EL backlit (on/off/auto). 25 Hz screen refresh rate.

## Ultrasonic Specifications

### Measurement Modes:

**Pulse-Echo** - (flaws, pits, corrosion).

**Echo-Echo** - (thru-paint - chassis).

### Pulser:

Square wave pulser.

### Receiver:

Selectable low, medium, or high gain in Pulse-Echo mode or AGC gain control in Echo-Echo mode.

### Timing:

20 MHz ultra low power 10 bit digitizer.

## Warranty

2 year limited.

## Certification

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



## Power Source

Three 1.5V alkaline or 1.2V NiCad AA cells.

Typically operates for 35 hours on alkaline and 10 hours on NiCad (charger not included).

Auto power off if idle 5 minutes.

Battery status icon.

## Measuring

### Range:

### Pulse-Echo Mode:

Standard operating mode for engines and automotive parts without painted surfaces (pits or flaws detection). Measures 0.025in. to 9.999in. (0.63mm to 254mm).

### Echo-Echo Mode:

Thru-paint & coating—chassis and general body inspections. Measures from 0.050in. to 4in. (1.27mm to 102mm).

### Resolution:

+/- .001 in. (0.01 mm).

### Velocity Range:

.0492 to .3936 inches/μs.  
1250 to 9999 meters/sec.

One and Two Point calibration option, or selection of basic material types.

### Units:

English & Metric

## Display

### Display Views:

**Large Digits** - Standard thickness view. Digit Height: 0.400 inch (10mm).

**B-Scan** - Time based cross section view. Display speed of 15 secs per screen.

**Scan Bar Thickness** - 6 readings per second; Viewable in B-Scan and Large Digit views.

**Repeatability Bar Graph** - Bar graph indicates stability of reading.

## Connections

**Output:** RS232 serial interface. PC software & USB converter cable included.

**Transducer Connectors:** Two LEMO 00 connectors.

## Memory

12,000 readings and waveforms (alpha numeric storage).

OBSTRUCT to indicate inaccessible locations.

### Memory:

16 megabit non-volatile ram.

## Transducer

### Transducer Types:

Dual Element (1 to 10 MHz).

Locking quick disconnect "00" LEMO connector.

Standard 4 foot cable.

Custom transducers and cable lengths available.

## Features

### Setups:

64 custom user-defined setups. Factory setups available for common applications.

### Selectable Transducers:

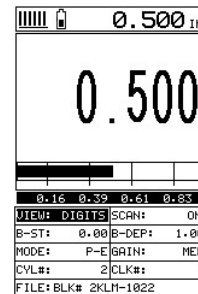
Selectable transducer types with built-in dual-path error correction for improved linearity.

### Alarm Mode:

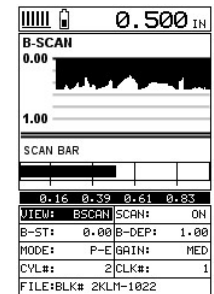
Set Hi and Lo tolerances with audible beeper and visual LEDs.

### Fast Scan Mode:

Takes 32 readings per second and displays the minimum reading found when the transducer is removed. Display continuously updates while scanning.



Digits View



B-Scan View

MADE IN THE USA



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