

# DAKOTA ULTRASONICS

The

# PR-8V<sup>v2.0</sup>

## 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.

► Five position gain switch in 3 dB increments (40-52 dB), offering fine adjustment for noisy or hard to penetrate materials.

► 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 high speed scan feature provides a better representation during the scanning process, by making up to 200 measurements per second. Captures the live minimum and maximum thickness while scanning.

► 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 includes our Windows® PC or OSX software for reporting purposes. Includes B-Scans, Cylinder Maps, and general measurements.

► 2 year limited warranty.

# SOUND SOLUTIONS

# PR-8V SPECIFICATIONS

## Physical

### Weight:

13.5 ounces (with batteries).

### Size:

2.5 W x 6.5 H x 1.24 D inches  
(63.5 W x 165 H x 31.5 D mm).

### Operating Temperature:

-14° to 140°F (-10° to 60°C).

### Keyboard:

Membrane switch with twelve tactile keys.

### Case:

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

### Display:

1/8in VGA grayscale display (240 x 160 pixels); viewable area 2.4 x 1.8in (62 x 5.7mm); EL backlit (on/off/auto/invert).

## Ultrasonic Specifications

### Measurement Modes:

Pulse-Echo (flaws, pits, corrosion).

Echo-Echo (thru-paint-chasis).

### Pulser:

150 volt square wave pulser.

### Receiver:

Manual or AGC gain control with 50dB range, depending on mode selected.

### Timing:

Precision TCXO timing with single shot 100 MHz 8 bit ultra low power digitizer.

## Display

### Display Views:

**Large Digits:** Standard thickness view; Digit Height: 0.700 in (17.78 mm).

**B-Scan:** Time based cross section view. Display speed variable (10 to 200 readings per second).

**Scan Bar:** Speed 10 Hz. Viewable in B-Scan and Large Digit views.

**Bar Graph:** Indicates stability of measurement. Viewable in B-Scan and Large Digit views.



## Power Source

**Line Power:** USB-C to PC or power outlet.

### Batteries:

Three AA cells. Alkaline - 35 hrs, Nicad - 10 hrs and NI-MH - 35hrs.

Auto power off if idle 5 minutes.

Battery status icon.

## Measuring

### Range:

**Pulse-Echo Mode (P-E)** - (Pit & Flaw Detection) measures from 0.025 to 36 inches. (0.63 to 914.4 mm). Range dependent on material and transducer type.

**Echo-Echo Mode (E-E)** - (Thru Paint & Coatings) measures from 0.100 to 4.0 inches (2.54 to 101.6 mm). Range will vary depending on the coating thickness and material type.

**Resolution:** +/- .001 inches (0.01 mm).

### Velocity Range:

0.0122 to 0.7300 inches/μs  
309.88 to 18542 meters/sec

Single and Two point calibration option, or selection of basic material types.

**Units:** English & Metric

## Memory

### Data Structure:

Grid (alpha numeric)

Engine Map (cylinder scans)

### Screen Capture:

Bitmap graphic capture for quick documentation (.tif).

**OBSTRUCT** to indicate inaccessible locations.

### Capacity:

4 Gb internal SD card.

### Data Output:

USB-C 1.1 PC & OSX connectivity.

## Transducer

### Transducer Types:

Dual Element (1 to 10 MHz).

Locking quick disconnect "00" LEMO connectors.

Standard 4 foot cable.

Custom transducers and cable lengths available.

## Features:

### Setups:

64 custom user-definable setups; Factory setups can be edited.

### 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.

### Scan Mode:

Takes 250 readings per second and displays the minimum & maximum readings found when the transducer is removed.

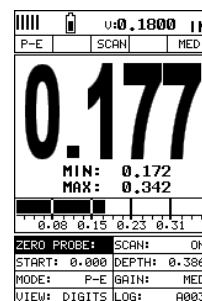
## Certification

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

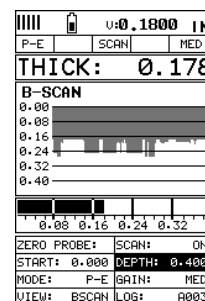
## Warranty

2 year limited

Digits View



B-Scan View



# MADE IN THE USA

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