

WPS500X

Automotive Diagnostic Pressure Transducer



Designed to offer uncompromising resolution and accuracy, the Pico automotive diagnostic pressure transducer allows quick and accurate pressure analysis of many automotive systems, with:

- three pressure ranges
- a zoom tool
- integrated bleed-off / pressure relief valve

Accurately measure vacuum to 500psi

Ultra fast 100 μ S response time

Zoom feature for enhanced analysis capabilities

Rechargeable Li-PO battery

Integrated pressure relief / bleed-off valve

Auto Zeroing

High noise immunity

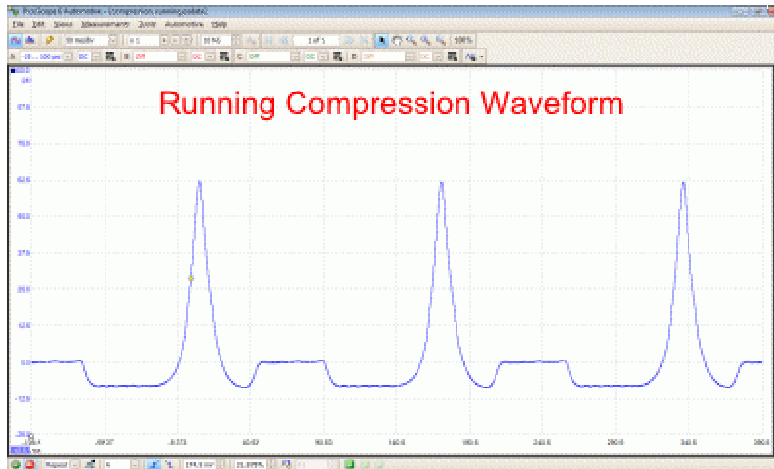
Temperature compensated

This unit is an auto zeroing pressure transducer designed to offer form and flexibility to automotive diagnostics.

Contents

- WPS500X transducer (TA060)
- Battery Charger: USB to miniUSB (TA081)
- 6ft BNC to BNC cable (TA082)
- Vacuum Hose (TA085)
- Exhaust Adapter (TA087)
- M14 high strength compression hose with short reach adaptor (TA088)
- Users Manual (DO157)

Range 1 of 3



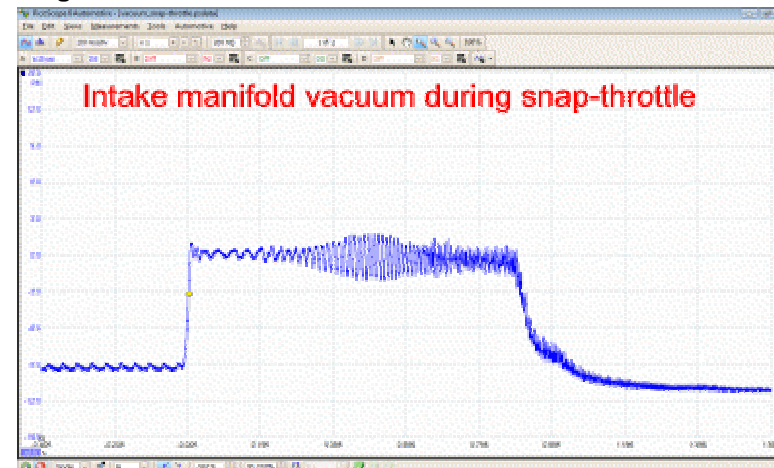
The first range offers high resolution and accuracy for high pressure tests such as cranking and running cylinder compression or fuel pressure testing.

Not only is this test a great way to find compression issues but it is an excellent way to identify cam timing issues such as jumped timing belts and stretch timing chains, especially

on multi-cam engines that may not have a cam sensor on each camshaft.

The kit includes a specially designed compression hose for performing this test with a significantly reduced error and higher operating temperature range than conventional compression hoses and adapters.

Range 2 of 3



The second range measures from -15psi (-29.9"Hg) to 50 psi.

This range is ideal for vacuum test and fuel system tests. When testing these systems the zoom function is especially useful to analyze the valves operating with the vacuum waveform or the injectors through the fuel waveform.

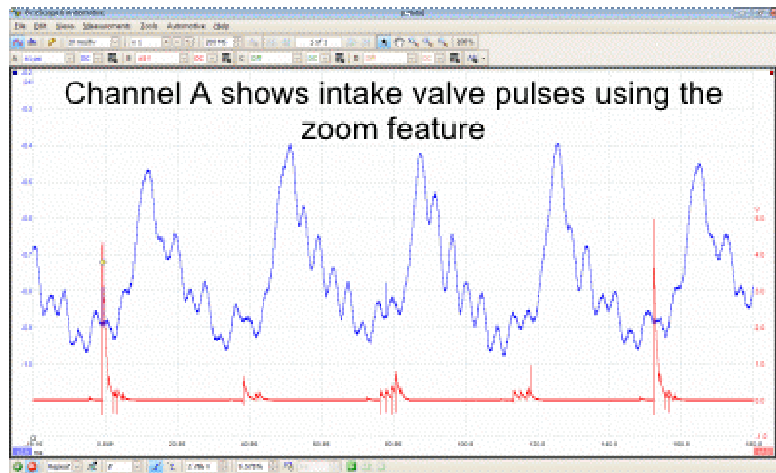
Range 3 of 3

The third range measures -5 to 5psi (-138"H2O to 138"H2O).

This setting is sensitive enough to analyze small pressures or pulses such as exhaust pulses from the tail pipe.

| Range Setting | Pressure range | Accuracy | Response time | Output Scaling |
|---------------|----------------|-------------|---------------|-----------------------|
| 1 | -15 to 500psi | 1% of scale | 0.1mS | 10mV/1psi (500psi=5V) |
| 2 | -15 to 50psi | 1% of scale | 0.01mS | 100mV/1psi (50psi=5V) |
| 3 | -5 to 5psi | 5% of scale | 0.01mS | 1V/1psi (5psi=5V) |

Zoom Feature



The Zoom feature operates by removing all of the voltage from the signal below 100Hz and then multiplying the remaining signal up to 100 times.

For example: Lets say the transducer is connected to intake manifold vacuum on a running engine at idle with the transducer set to mode 2 (-15 to 50psi) and the waveform on

the scope is at -9psi (-18"Hg).

The fluctuation in the signal caused by the valves opening and closing verses atmospheric pressure forcing air into the manifold will be visible but will only make up a small portion of the overall signal. Selecting the zoom function will bring the waveform up to the zero line (remove the -9psi portion) and the fluctuations will be magnified making analysis of this component of the signal much clearer.

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