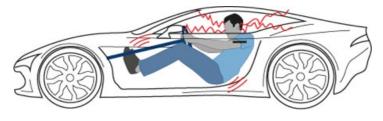# PicoScope®

pico®
Technology

NVH Diagnostics Kit

THE BENCHMARK FOR NOISE, VIBRATION AND HARSHNESS DIAGNOSTICS

The PicoDiagnostics® NVH kit provides a breakthrough in accurate analysis of vehicle noise, vibration and harshness problems. It uses the display of your laptop, and combines lightning-fast capture and analysis of vehicle data with clear easy-to-read presentation of results and actions. It offers everything you ever wanted in an NVH tool, harnessing the power of your laptop to impress with fantastic performance, flexibility and easy-to-share information.

TYPICAL USES

Customer complaints surrounding noise/vibration are subjective and present technicians with a challenge before diagnosis and rectification begins. Using the NVH kit on the vehicle will let you road-test the vehicle with the customer to obtain all vibration and noise levels. Once this valuable data has been collected it can be analyzed and compared to previous captures or against other vehicles.

OVERVIEW

The PicoDiagnostics NVH Kit from Pico Technology is the cost-effective answer to the many NVH problems facing technicians today. It provides real-time diagnosis in the form of either: a bar graph, a frequency chart, a 3D frequency chart, RPM order, road speed, or time domain view. The ability to start the recording before a road test, and play back the recording for analysis upon return, ensures that the driver's attention remains on the road. Saving the recordings couldn't be simpler: as with our other automotive software you simply save the file to the hard drive on your PC or laptop.

The PicoDiagnostics NVH kit makes use of the PicoScope 4000 Series Automotive oscilloscope (not included). You can be sure that this investment will benefit your business well into the future, and the software updates for PicoDiagnostics are free for life.

In addition to Single channel, the software also offers the following three signal vibration modes:

3-AXIS MODE
Allows the measurement of vibration in all three directions of travel (X axis, Y axis and Z axis).

3-AXIS MODE + SINGLE CHANNEL
As above, but with the added option to measure a vibration or sound in one axis at another location on the vehicle.

MULTIPLE SENSORS
Allows between two and four individual readings of vibration or sound from different locations on the same vehicle.

LICENCE FREE VIEWING
You can easily and freely use the NVH software to share the NVH results. There is no license to download the software and open shared files for analysing.

CUSTOM VIBRATIONS
This feature allows the user to add an unlimited number of known or calculated vibrations.
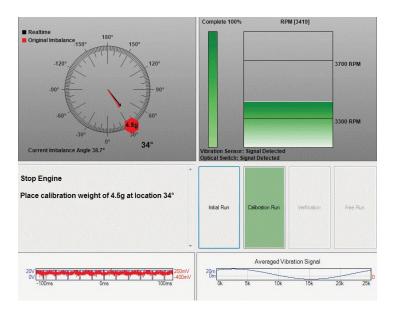
EXPORT TO CSV AND WAV
The option to export your recorded data as CSV (comma separated values text file) makes the data viewable by third party tools and makes it easy to share with design teams. Audio recordings can be exported and imported as WAV (waveform audio file format files).

Free technical support • Free updates • Software compatible with Windows 7, 8, and 10

DYNAMIC DRIVELINE BALANCING

With the addition of our Optical Balancing Kit, the PicoDiagnostics NVH system provides clear advice, analysis and procedures for balancing of propshafts:

- Direct support for pinion flange, single weight, and hose clamp balancing weights

- Step-by-step procedures with help and graphical displays

WHAT IS IN THE KIT

- Accelerometer(s)
- BNC cable(s)
- Sensor extension lead(s)
- NVH Interface(s)
- Microphone(s)

OPTIONAL EXTRAS (FOR BALANCING)

- Optical sensor
- Magnetic mounting fixture

KEY FEATURES

- Simple bar charts and easy-to-read results make for quick diagnosis and ease of use. Full analysis and advanced features (including waterfall and spectral displays) are at your fingertips

- Designed for road testing, workshop diagnosis and driveline balancing

- Detects and isolates multiple vibrations and noises providing help and advice on causes and fixes

- Can use a J2534-compliant interface or an alternative speed signal input for engine speed data - this is particularly useful for older or non-compliant vehicles

- Full screen, high-resolution results are presented clearly and accurately

- Record up to 500 seconds of data with automatic analysis

- PicoDiagnostics allows you to store multiple road tests for playback, analysis, sharing and comparison.

- Report feature allows for easy presentation of the diagnosis and repair for your customer

- The inbuilt function generator can generate sounds using your laptop to stimulate resonance, causing an object to vibrate with a greater amplitude at its specific natural frequency.

- Time domain analysis to make measuring and tracing of knocks and rattles easier.

- Import WAV audio files of vehicle noise (perhaps recorded by the customer)

- NVH works with your automotive PicoScope (available separately)

- Free software updates

- Software compatible with Windows 7, 8 and 10

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