



VIBRATION DIAGNOSTICS

FINDING THE SOURCE, NOT THE SYMPTOM

WITH GARY MACHROS

Vehicles are using lighter materials and advanced suspension systems, making vibration concerns more noticeable and complex to diagnose. When tire balance or part replacement does not solve the issue, a structured approach is required. Understand the relationship between component speed, vibration frequency, and amplitude, and interpret diagnostic tool data to identify the source of vibration.

- Frequency, Amplitude and Vibration Order Fundamentals
- Tire and Wheel Patterns - Road Force Insight
- Driveline and Axle Contributors, Angles and Phasing
- Engine-Related Sources - Mounts and Accessory Influence
- Transfer Paths to the Cabin - Receivers and Isolators
- Runout Testing and Tire Stiffness Variation
- Modern Diagnostic Tools - Sensors and Analyzers
- Road Test Strategy - Data Capture and Verification

How vibrations originate, transfer, and are sensed throughout the vehicle — real case studies to demonstrate diagnostic strategy and test accuracy.

MON 5/4/26
TUE 5/5/26

6PM-8PM EDT
CLASS ID: OLT513
\$150 USD / STUDENT

