



AUTOTECH

Course Descriptions

Making Sense of Sensors

Course No: 7302

With vehicle technologies and components continuously expanding, there are more sensors across the average vehicle platform than ever before. Modules have more to monitor and control to ensure safe and efficient vehicle operation. This course will cover the purpose, operation, and testing procedures for a multitude of sensing components used today and the failure strategies used when a fault occurs.

Students will be instructed on proper and efficient choice and application of tooling for sensor related diagnostics and how to understand the results of testing. Understanding the difference between a faulty sensor and good sensor is impossible without these skills. Sensor testing is still a challenging subject for many technicians around the world, but this course is aimed at making the topic easier to understand.

Recommended for all levels of Technicians

- Theory and operation
- Circuit design
- Circuit testing
- Necessary tooling
- Various sensor types
- Circuit faults and strategies
 - *How many different sensor types are there?*
 - *Will unplugging a sensor tell me enough to know if it's good or bad?*
 - *Can a sensor still be good even if a module sets a fault code for it?*
 - *Can I just bench test it with a multimeter?*
- Pull-up and Pull-down sensors
- Switches and sensors relationship
- Shorts to power vs Shorts to ground
- Voltage vs Current regulation
- Effects of magnetism

