THE DRIVEABILITY GUYS

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2018 Course Menu

Automotive Technical Training Offerings

TRAINING

- Technical training for automotive technicians
- Classroom, Live-Car and Hands-On
- Training at industry events, classrooms around North America or at your location
- Customized training on request

Updated November 2017

THE DRIVEABILITY GUYS

The Driveability Guys are a group of working technicians with years of experience in the automotive industry. We strive to bring the best, most accurate and most practical training to automotive technicians and shops.

Our training courses vary in length and presentation method. The majority of our courses are currently available in classroom settings around the U.S. and Canada. Live-car and hands-on classes are also available but require additional logistical aspects to coordinate.

Our courses have been presented at trade events around North America such as: Vision Hi-Tech Training and Expo, ATE Training Expo, Auto Value/Bumper to Bumper Tech Expo, KOI Cavalcade of Customs, Illinois ASA CAN Conference, AVI Conference, ATRA Powertrain Expo, APRA Big R Show and Lindertech North in Canada to name just a few.

We also provide customized training and training for individual repair shops and small groups of automotive technicians.

Please feel free to contact us with any questions or inquiries.

Thank You.

Scott Shotton

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Who Are The Driveability Guys?

scott@driveabilityguys.com 630-917-0953

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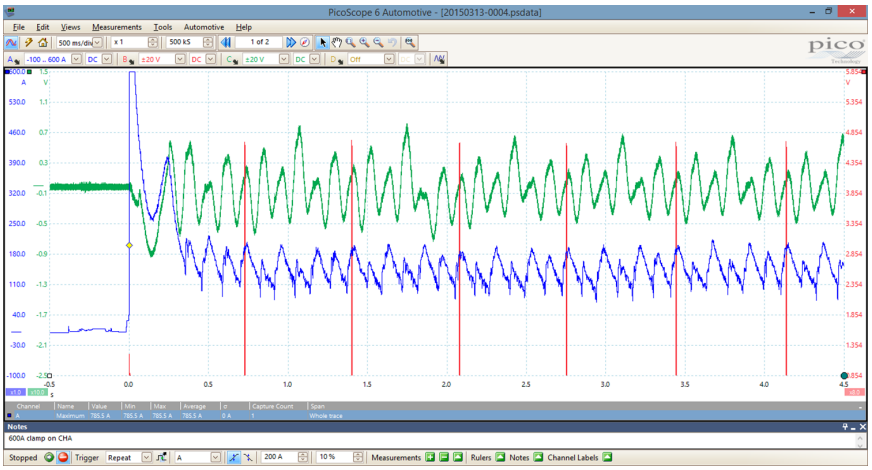
Engine Mechanical Diagnosis with Electronic Equipment

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

This class covers the use of current probes, vacuum transducers and pressure transducers to quickly diagnose engine mechanical issues quickly. Often, using the techniques discussed in this class, the amount of physical teardown to confirm the diagnosis will not be required. This class will focus on misfire problems, but will also address ignition and camshaft timing issues. Multiple tools will be covered to achieve these goals, but technique is the key. All of the testing techniques will be backed up with actual "broken car" case studies. If you own a scope, you'll want to attend this class. The information discussed will greatly expedite your diagnostic process.



Hands-On Engine Mechanical Diagnosis: Scopes, Current Probes and Transducers

Trainer: Scott Shotton and Eric Ziegler Duration: 8 hours

Course Description

This hands-on course will first discuss the techniques that will be used to diagnose mechanical issues. Second, attendees will move to the vehicles and perform the tests on actual broken vehicles. By the end of the day, attendees will have a solid grasp on using scopes and associated probes to quickly diagnose a variety of mechanical issues.

Note: This class requires quite a bit of additional logistical considerations. Please contact us for more information.

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Transmission Diagnostics for Non-Trans Techs

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

Transmissions have been controlled by computers for a long time. As a result, transmission issues can be electrical or hydraulic/mechanical in nature. When a vehicle with a transmission issue rolls into a shop it is often "shipped" to a transmission shop. Why? A perfectly capable technician who can accurately diagnose an engine issue could tackle the transmission issue. Why lose the customer? This course outlines a logical process for attacking transmission failures. Using tools and techniques that driveability technicians already possess, we will discuss how to draw the line between an electrical problem or an internal transmission issue. Basic knowledge of automatic transmissions is a plus, but this course is geared towards non-transmission technicians.

Scan Data Analysis for Driveability Diagnosis

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

This class covers a wide range of information to help you understand and diagnose driveability issues with a scan tool and your mind. Focus stresses the process of elimination and streamlining your diagnostic procedures. Gather the most valuable information quickly before opening the hood and performing potentially unnecessary and time consuming intrusive tests. Learn to maximize the use of graphed scan data. Many different OE and aftermarket scan tools will be used.

- Code and no code diagnostics
- Successfully diagnose low power problems
- Misfire and fuel trims
- Volumetric efficiency
- Learn what PIDS can be valuable when

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Essential Diagnostic Steps for Driveability and Electrical Issues

Trainer: Eric Ziegler Duration: 3-4 hours

Course Description

This is a critical thinking or logical approach class to address many of the issues that face techs every day; working on systems that are new to them or that they have little or no experience diagnosing. The course is a mix of critical thinking, theory, diagnostic testing methods, tooling and real world case studies. Four areas will be addressed: mechanical testing, fuel trim diagnostics, ignition testing and network communication issues. Graphing scan data, archiving data and other useful diagnostic software will be discussed. Lots of real world, not so forward case studies will be used to illustrate these processes and techniques.

- See how you can diagnose each type of problem with basic tools and high tech tools.
- Learn how to figure out what to do next in your diagnostic process.
- See what your results should be and where to go next.
- See a quick review of the "Flatrater" test drive and how to gather information.

Essential Diagnostic Steps: Part II

Trainer: Eric Ziegler Duration: 3-4 hours

Course Description

This course is a continuation of Essential Diagnostic Steps: Part I. The same "logic based" diagnostic process will be followed with more advanced testing techniques. Introduction to vacuum transducer testing and waveform analysis techniques are covered. Fuel trim diagnostics are expanded to cover bank to bank air flow imbalance issues. A fuel trim "cheat sheet" will be presented and discussed how to avoid diagnostic fuel trim pitfalls. Learn to enhance diagnosis by using Volumetric Efficiency. VE calculations and the means to do so are discussed. A Flatrate Test Drive "cheat sheet" will also be introduced to get the most information with the least amount of effort. Network diagnostic fundamentals and testing techniques will also be discussed. This class encourages a logic approach to many common problems that tend to stymie techs. It is a common sense approach to eliminating the possible causes of a problem. A balance of theory, discussion, and real world case studies.

Logical Diagnostic Decisions for Driveability Dilemmas

Trainer: Eric Ziegler and Scott Shotton Duration: 8 hours

Course Description

This is a critical thinking or logical approach class to address many of the issues that face techs every day; working on systems that are new to them or that they have little or no experience diagnosing. The course is a mix of critical thinking, theory, diagnostic testing methods, tooling and real world case studies. Four areas will be addressed: mechanical testing, fuel trim diagnostics, ignition testing and network communication issues. Graphing scan data, archiving data and other useful diagnostic software will be discussed. Lots of real world, not so forward case studies will be used to illustrate these processes and techniques.

- See how you can diagnose each type of problem with basic tools and high tech tools.
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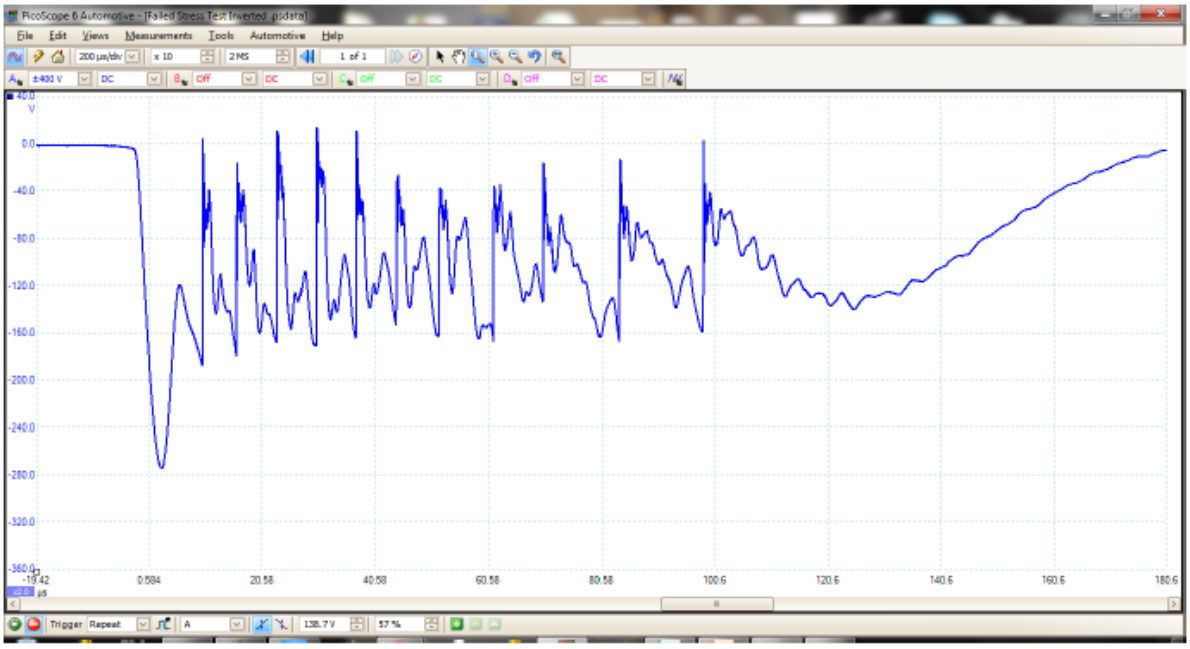

Note: This class is basically and 8 hour version of Essential Diagnostic Steps Part I and Part II.

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Basic Charging and Starting Systems: Operation, Testing and Diagnosis

Trainer: Mohammad Samii Duration: 3-4 hours

Course Description

This seminar is aimed for entry to mid-level technicians, and is designed to teach the basics of the charging and starting systems found in most domestic popular cars and light trucks that average technician mostly encounters. Basic system operation, various schemes of alternator activation, pinpoint voltage test, and other diagnostic issues are discussed and are designed to provide technicians a level of understanding and skill to tackle tough charging/starting problems by applying sound diagnostic techniques. This course can also serve as a refresher for experienced technicians to see the latest trend in charging/starting system components and serve as a refresher by reviewing the basics of the PCM control, activation, and monitor of the charging system,as well as the latest update in starter design and operation.

Advanced Charging and Starting Systems: Operation, Testing and Diagnosis

Trainer: Mohammad Samii Duration: 3-4 hours

Course Description

This class which is designed for mid-level as well as advanced skilled technicians is intended to address newer and more complex charging and starting systems and their components. It explores the details of PCM activation, monitor, and control schemes in all domestic and most import applications, and is intended to provide a diagnostic path that results in proper repairs, saving time, and eliminating guess-work. A brief outline of this class is as follows: Attendees will learn the basics of PCM-controlled charging systems and fault detection. Attendees will learn various PCM activation schemes, and will learn the various alternator pin voltages to look for while diagnosing a no charge condition, with or without a glowing warning light. Attendees will get a detailed idea how various GM, Ford, Chrysler, as well some import charging systems interact with the data-bus, and what factors affect the operation of the charging system's warning light. Attendees will get a general knowledge of modern starting system and newer starter designs, as well as varied reduction gears and PM (Permanent Magnet) starters used on light, medium, and heavy duty applications.

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Modern Import Vehicles: Charging and Starting Systems

Trainer: Mohammad Samii Duration: 3-4 hours

Course Description

However the principles and purpose of charging and starting system does not differ much between domestic and import vehicles, there are specific characteristics that are peculiar to the import vehicles. This course that is devised for average to skilled level technicians is intended to shed light on commonality, differences, as well as specifics of charging/starting systems with emphasis on details prevalent to import vehicle applications. Here are some brief details of the course that will be shown with slides, pin configuration, scope captures, pin-point voltages, and case-studies when applicable:

- Various design concepts of today's alternators and starter for Import applications
- Batteries and battery registration (BMW, Mini…etc.)
- Power curves and ripple voltage characteristics
- Alternator controls and voltage regulation
- Regulator activation schemes and PCM controls
- Honda Dual-Mode charging system
- Various Denso alternators for Import applications
- Mazda charging systems with D-P voltage regulators
- Basics of BSS-LIN regulator operation (Bosch, Mercedes-Bens, Volvo,…etc.)
- And more….!

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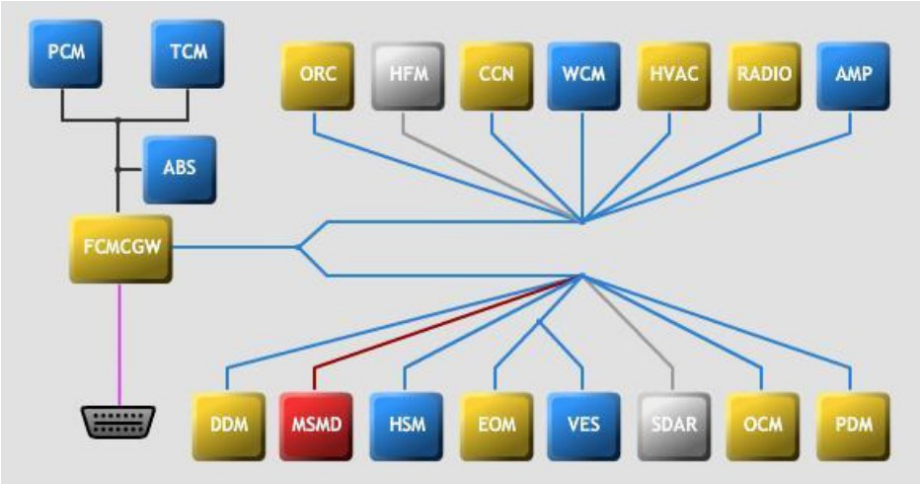
Diagnosing Network and Communication Issues Effectively

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

Module communication networks have been around for quite some time. With the ever growing number of computers built into vehicles now days it is critical to understand and diagnose issues with these computer networks. Network problems range from simple to complex. Individual systems may shot down, vehicles may not start or a vehicle may even fail a state emissions inspection with no other customer complaints. This course will cover some networking theory, communication protocols and lots of diagnostics illustrated with actual broken car case studies. A diagnostic plan of attack will be used to address networking issues. Emphasis will be placed on the "Need-to-Know" aspects of multiplexing.

- Understand the basics of computer to computer networks
- Explore proven techniques to diagnose communication issues
- Leave with a solid plan of how to attack your next communication issue



Comprehensive Network/Bus Diagnosis

Trainer: Scott Shotton and Eric Ziegler Duration: 8 hours

Course Description

This course is an extended more comprehensive version of "Diagnosing Network and Communication Issues Effectively" (listed above.) Its longer duration and two trainer format allow for greater coverage of the material and time for many more "broken car case studies."

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Communication Issues, U Codes and Network Diagnosis

Trainer: Eric Ziegler Duration: 3-4 hours

Course Description

Since the advent of the computer controlled car the number of modules on said car keeps growing. Networks are the central nervous system of the modern vehicle. Network communications are essential to the proper operation and performance of safety and infotainment systems. Networks also gave us the ability to program modules and enhance our diagnostic abilities exponentially. However, when there is a communication breakdown, or a module becomes non-responsive, the diagnostics can be not so straight forward. Unplugging every module one at a time can be a time consuming, and sometimes fruitless, task. To make things worse, "U" Codes often leave "you" with little direction. This class will introduce technicians to a simplified, straightforward and logical step by step process to understanding and diagnosing network issues in the modern vehicle. Tooling options and techniques will be discussed. Real world case studies will be used to illustrate these techniques.

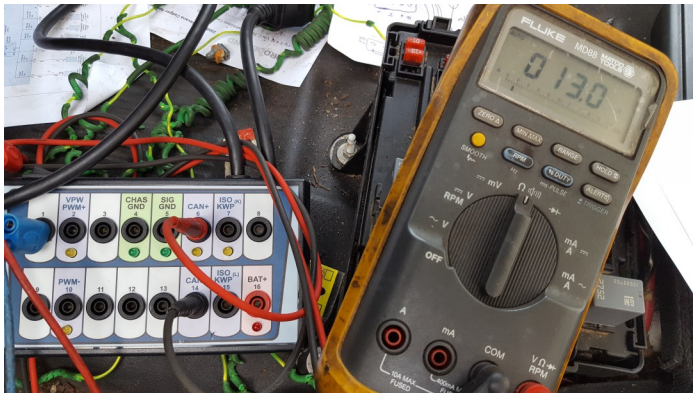
NEW

Hand-On Network Diagnostics

Trainer: Scott Shotton and Eric Ziegler Duration: 8 hours

Course Description

Network communication issues can present themselves in a variety of ways. A single module may loose its ability to communicate or the entire network could be down. This hands-on course covers techniques ranging from very basic to advanced. A variety of tests and tools will be discussed. Attendees will have the opportunity to apply the discussed techniques on actual broken vehicles.



Note: This class requires quite a bit of additional logistical considerations. Please contact us for more information.

Diagnosing the Top DTC's

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

For decades failure data has been collected from the Illinois EPA's emissions testing program. Although these statistics have only been gathered from Illinois, they provide a pretty good representation of the most common failures that appear around the country. Annual results show that many of the same DTC's are continually set. Catalyst codes, lean codes and EGR codes often top the list. This course will cover a wide variety of techniques that can be used to effectively diagnose these failures. Scan tools, exhaust gas analyzers, information resources and more will be used to attack these issues. Case studies for each failure are also included. The focus is repeatable logical approaches to resolve each type of issue.

Introduction to Digital Storage Oscilloscopes

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

Learn the power of using a DSO as a diagnostic tool. We will discuss scope principles such as voltage, time, trigger, slope, and more. We will break waveforms from common inputs and outputs down into usable diagnostic pieces. Low current probe applications basic Ohm's law will also be discussed. Emphasis is placed on using a scope correctly to diagnose vehicle issues correctly and efficiently.

- Master the basics of voltage, time, trigger, etc.
- Learn to analyze waveforms from multiple components.
- Be able to use this new knowledge to make diagnostic decisions.

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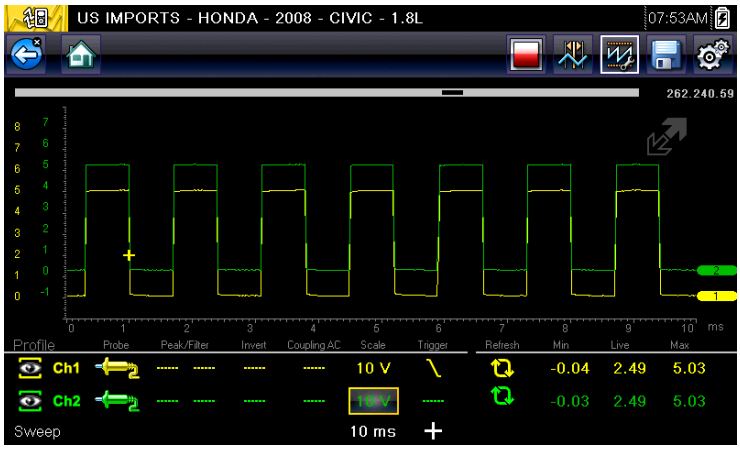
Diagnostics with Scopes: PicoScope and Snap On

Trainer: Eric Ziegler Duration: 3-4 hours

Course Description

Snap-on and Pico are a few of the most popular scopes many technicians own. This class uses a variety of case studies to illustrate effective scope usage, differences between PicoScopes and Snap-On scopes, practical scope application and data storage techniques. Step by step instructions and proven scope methods will be used to expand attendees' diagnostic tool boxes. Each case study will also include discussion on the analysis of the waveforms presented.



Using Current Probes to Diagnose Driveability Dilemmas

Trainer: Eric Ziegler Duration: 3-4 hours

Course Description

Inductive current probes have been around for years, even the venerable VAT40 charging/starting systems tester had one! Current probes use induction and "clamp" around a wire which gives us a non-intrusive method of viewing current flow in a circuit. These tools are not just for checking starting and charging system anymore. Coupling these tools with the modern DSO, or lab scope, they are incredibly powerful diagnostic instruments! Current probes can be used for checking engine mechanical integrity, ignition and injection system operation, active wheel speed sensors, shorted engine sensors, parasitic draws and even for network diagnostics. Current probe tooling options and techniques will be discussed in this class. Case studies will support some interesting approaches to some unique diagnostic dilemmas. One is only limited by ones' imagination and creativity when it comes to this affordable and often underappreciated tool.

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Introduction to PicoScope

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

This course covers all of the basic information necessary to start using PicoScopes. Topics covered will include the "buttonology" of PicoScope, scope setups, making connections, obtaining captures, saving data and analyzing the waveforms. All of these tasks will be done simultaneously and, in many cases, will use "broke car" case studies to illustrate proper scope usage. This course is ideal for the beginning scope user, new PicoScope owners or someone just considering investing in this extremely valuable diagnostic tool.

Hands-On PicoScope From the Beginning

Trainer: Scott Shotton and Eric Ziegler Duration: 8 hours

Course Description

This hands-on course covers the same material as "Introduction to PicoScope" with the addition of a hands-on component. Attendees will be able to connect and use their PicoScopes to vehicles and reproduce the techniques and procedures discussed in the lecture portion of the class.

Note: This class requires quite a bit of additional logistical considerations. Please contact us for more information.

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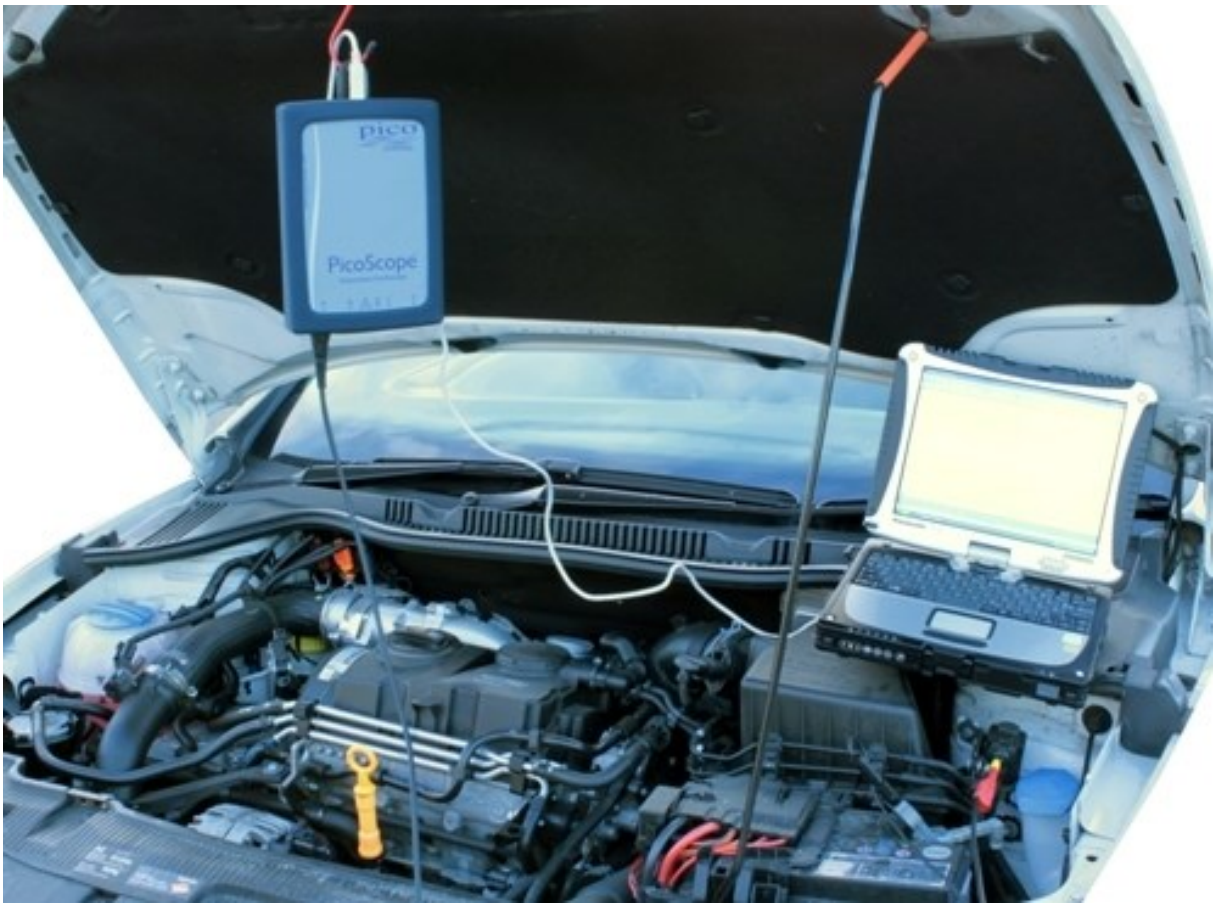
Hands-On PicoScope Intermediate to Advanced

Trainer: Scott Shotton and Eric Ziegler Duration: 8 hours

Course Description

This hands on course introduces testing techniques above and beyond basic PicoScope operation and attendees will be able to perform the covered tests on vehicles in class. Covered areas include, but are not limited to: fuel injector testing with voltage and current, ignition system testing with voltage and current, synchronization, CKP and CMP relationships and more. Attendees will be able to put the covered testing techniques to work immediately upon their return to the shop.



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Immobilizer and Anti-Theft System Diagnosis

Trainer: Eric Ziegler

Duration: 3-4 hours

Course Description

Immobilizer and Anti-theft is incorporated in almost all modern vehicles in some form. Anti-theft measures are not just keys and burglar alarms. Some valve bodies in transmissions are Theft Related Parts. More and more OE's are component protecting their parts and required some measure of "anti- theft" style programming. Several types of OE Anti- theft systems, their operation and diagnosis will be covered. Factory tooling, LSID licensing and the required

Mode $06: Diagnostics Beyond DTC's

Trainer: Scott Shotton

Duration: 3-4 hours

Course Description

Mode $06 provides detailed test results that can be used to help diagnose a variety of issues. It is also a valuable tool when diagnosing OBD Emissions Failures. Monitors are key to OBD emissions testing success. Mode $06 provides the detailed results of monitors that have run to completion. Learn what Mode $06 is and how to decipher its meanings. Learn the basics of how to use Mode $06 to your advantage to help: Diagnose intermittent MIL's; Identify marginal components; Perform repair verification; and more. Warning! Mode $06 data cannot always be trusted! Time will be spent discussing when data is valid and when it should be ignored. Websites where Mode $06 data can be found will also be discussed. The goal of this course is to educate technicians on potential uses of Mode $06 and provide attendees with an additional tool to add to their diagnostic tool box.

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Misfire: Efficient and Effective Diagnosis

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

Misfires can be caused by three things: Ignition, fuel, or mechanical issues. This course covers the diagnostic techniques required to rapidly narrow the offender to one of these three possibilities. Emphasis is placed on a logical approach and effective use of appropriate testing techniques. Scan tools and scopes will be the main focus of this class. However, other tools will be used as well.

In-Depth Misfire Analysis

Trainer : Scott Shotton and Eric Ziegler Duration: 8 hours

Course Description

There are many techniques used to diagnose a misfire. And there are just as many paths a technician can take to find a misfire. Having an effective plan of attack can greatly expedite the misfire diagnostic process and knowing when to use what test is just as valuable. Emphasis is placed on a logical approach and effective use of appropriate testing techniques.

This course is composed of 4 parts. The first part covers a detailed procedure, or plan of attack, to narrow down the area that could be causing a misfire in a quick and effective manner. The three main areas are: mechanical, ignition and fuel. From here we will choose the appropriate diagnostic path to continue down. The remaining three parts of the class cover the tests and techniques used for diagnosing the actual cause of the misfire. These three paths are covered individually.

During this course, emphasis will be placed on a logical approach and effective use of appropriate testing techniques. Scan tools and scopes will be the main focus of this class. However, other tools will be used as well.

Fuel System Testing: Basic to Advanced

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

Learn the basics of fuel system testing and explore advanced testing options that could save time. From fuel pumps to fuel injectors, we'll explore a variety of test equipment and testing techniques. Fuel delivery issues can be addressed with pressure and volume measurements as well as fuel pump current captures on a DSO. Injectors can be tested with stethoscopes, DSO's, flow tests, gas analyzers and more. Learn all of the possible tools and techniques to test fuel systems from A to Z. The goal of this class is to arm the technician with the knowledge to effectively use the tools they already have at the shop to diagnose issues quickly and correctly. Also, technicians will learn when NOT to use specific tests by understanding the limitations of certain procedures or tools.

- Understand the fuel system and the tools available for diagnosis.
- Be able to choose the appropriate test method and interpret its results correctly.
- Expedite fuel system testing...know when to go there and when to move on.

Laptop Based Diagnostic Tools

Trainer: Eric Ziegler Duration: 3-4 hours

Course Description

In today's modern world, more and more things are computer driven. The modern automobile is no exception. OE and aftermarket tool manufacturers are increasingly steering towards laptop/PC based tools. This class is designed to introduce some of the choices available to today's driveability technician. OE and aftermarket scan tools, their operation, availability, and features will be discussed. In addition, other powerful laptop based diagnostic platforms and helpful software will be investigated. This class is designed to give both techs and shop owner's a better idea of where the future of automotive diagnostics is headed.

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Module Reprogramming Essentials

Trainer: Scott Shotton Duration: 3-4 hours

Course Description

If you are a technician, service writer, or shop owner, module programming is NOW! and your attention is deserved. Today's vehicles quite often require programming when a module is replaced. Something as simple as a window switch or radio replacement may require this task. Also, there are many calibration updates to fix issues even when a module replacement is not necessary. One example could be the P0420 code that requires a calibration update for the monitor strategy. This course covers the methods to determine if an update is available, as well as the tools and techniques required to get the job done. Emphasis will be placed on return on investment. Many options will be discussed. Attendees will leave this class feeling more confident when it is time for them to reprogram a module.

Module Programming Part I: J2534 and OE

Trainer: Eric Ziegler Duration: 3-4 hours

Course Description

Module reprogramming has been around for a while and is quickly becoming a necessity in our industry. Topics covered in this class include: equipment, hardware, software and procedures to successfully program modules. J-2534 and OE tools will be covered. Emphasis will be on proper procedures and successful completion of programming operations. Benefits of programming and return on investment will also be discussed.

- Learn the basics of module reprogramming.
- Be aware of the issues technicians often fear, and how to avoid them.
- Successfully reprogram a vehicle when returning to the shop the next day.

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Module Programming Part II: Beyond the Fundamentals

Trainer: Eric Ziegler Duration: 3-4 hours

Course Description

A continuation of "Module Programming Part I," this class takes things a bit further. Issues such as the marriage of multiple modules, built-as data, RPO codes and anti-theft will be discussed. Also, OE tools can perform additional tasks where J-2534 tools fall short. Explore some of the pitfalls and solutions to some of programming's "not so forward" issues.

• Prepare students for additional procedures that may be required after a routine programming procedure.

• Expose attendees to some of the "higher end" issues and prepare them to address them in their shops.

• Prepare students for specific issues where time may need to be spent researching information to perform a unique procedure correctly.

Module Programming: Techniques for Today

Trainer: Scott Shotton and Eric Ziegler Duration: 8 hours

Course Description

This course covers module programming at all levels from introductory to advanced. Basic procedures, equipment, J2534 and OE topics will be covered. Many actual programming case studies are used to illustrate different reprogramming issues on many different types of vehicles. After a brief introduction, the class moves into the 3 domestic makes and covers many of the essentials that apply to programming across the board. The second half of the class addresses other manufactures such as: Toyota, Honda, Nissan, VW/Audi, Subaru and more. This class has something to offer the technician who has never programmed before to the seasoned technician who wishes to expand their programming skills. Open questions and discussions are encouraged.

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Hands-On J2534 Programming: Domestics

Trainer: Scott Shotton

Duration: 8 hours

Course Description

J2534 programming is usually the entry point for most technicians and shops to get their feet wet in the programming realm. This class will walk through the basics of J2534 and illustrate the specifics of J2534 programming domestic vehicles. The attendees will have the opportunity to program live vehicles during this class. The manufacturers covered will be: Ford, General Motors and Chrysler.

Note: This class requires quite a bit of additional logistical considerations. Please contact us for more information.

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Misfire: Efficient and Effective Diagnosis Bi-Lingual (Spanish)

Falla de cilindro: Diagnóstico Practico y Eficaz

Instructor: Pedro De La Torre Duración: 4 horas

Descripción:

Una falla de cilindro puedo ser causado por tres cosas: Chispa, combustible o problema mecánico. Este curso cubre técnicas de diagnostico requeridas para reconocer cual de estas tres posibilidades es el infractor. Vamos acentuar en pasos lógicos para aplicar pruebas prácticas que te van a guiar al origen de la falla. Usando estas técnicas vas a tener un plan antes de abrir el cofre. Computadoras de diagnostico y osciloscopios se van a usar en la mayoría de la presentación. Otras herramientas se usarán también.

Scan Data Analysis for Driveability Diagnosis Bi-Lingual (Spanish)

Análisis de escáner para problemas de manejabilidad

Instructor: Pedro De La Torre Duración: 4 Horas

Descripción:

Este curso va a cubrir una variedad de información para ayudarte a entender problemas de menajabilidad con tu escáner y tu mente. Usando un proceso de eliminación tu diagnostico va a ser más eficiente. Vamos a elaborar en formas de estudiar datos e información disponible rápidamente para no perder tiempo en pruebas innecesarias que requieren desmontaje. Aprende a usar la capacidad grafica que ofrece tu escáner. En la presentación se usaran diferentes escáners que tienes disponible y unas escáners de agencia también.

Temas van a incluir

- Diagnosticos sin/con códigos presentes
- Encuentra la causa de problemas de poca fuerza fácilmente
- Falla de cilindro y problemas de mezcla
- Eficiencia volumétrica (capacidad de respirar que tiene el motor)
- Cuales datos tienen valor y cuales no
- Finalmente, verificar tu reparación

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Introduction to Digital Storage Oscilloscopes
Bi-Lingual (Spanish)

NEW

Introducción a Osciloscopios Digitales

Instructor: Pedro De La Torre Duración: 4 horas

Descripción:

El poder que un osciloscopio digital como herramienta automotriz ofrece es inmenso. Lo fundamental de la función de el osciloscopio se va a explicar. Incluyendo voltaje, medida de tiempo, gatillo de señal, cuesta de señal y mucho mas. Vamos a estudiar ondas eléctricas para poder usarlas como una herramienta de diagnostico. Diferentes ondas se van a estudiar incluyendo ondas de señal y ondas de actuación. Medidas de corriente se pueden usar para reconocer voltaje y resistencia usando la ley de OHM. Nos vamos a enfocar en usar el osciloscopio correctamente para diagnosticar fallas eficientemente la primera vez.

- En esta clase vamos a maestrear lo básico que incluye voltaje, medidas de tiempo, gatillo, etc.
- Aprende como analizar e identificar diferentes ondas sean de sensor o actuación
- Al aprender estas técnicas vas a poder a ser decisiones educadas al completar tu diagnostico

NOTES on Bi-Lingual (Spanish) Courses

- Our Bi-Lingual English/Spanish courses are taught by Pedro De Le Torre, who is fluent in both english and spanish.
- Some automotive terms and scan data PID's do not have a direct translation. Therefore, our spanish courses will also use, and we will make available, ASE's english/spanish glossary.

ASE Glossary of Automotive Terminology
English/Spanish

Glosario de Terminología Automotriz de ASE
Inglés/Español

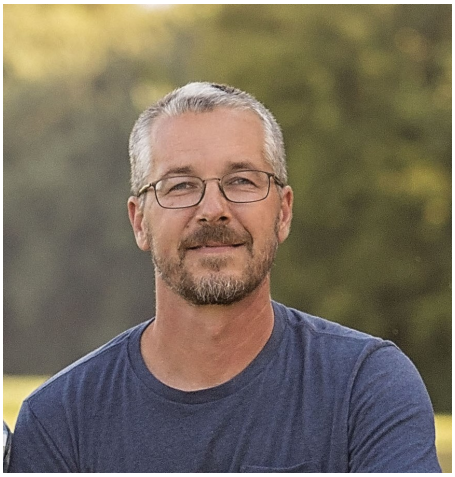
- The english/Spanish glossary can also be downloaded here:

http://www.ase.com/MediaLibrary/Images/ASE-Glossary---Test-Center-Version.pdf

Thank you to our Friends at ASE.

WHO ARE THE DRIVEABILITY GUYS?

Scott Shotton



Scott has over 25 years of technical experience in automotive repair shops. He currently teaches automotive technology at Kishwaukee College. As owner of The Driveability Guys, Scott performs mobile diagnostics and reprogramming for local repair shops in the DeKalb Illinois area as well as industry training around the United States and Canada. Scott is also one of the four trainers for the Illinois EPA's vehicle emissions testing program. Prior to Kishwaukee College, Scott was adjunct faculty at the College of DuPage for 7 years. He has a degree in Automotive Service Technology as well as many hours of training by manufacturers and independent training entities. Scott is also recognized as an Illinois state emissions repair technician. He was also a technical trainer during his 8 year Army career. Scott has written many technical articles for MotorAge and Gears magazines.

Scott currently maintains 21 ASE certifications including: Master Automotive Technician, Master Truck Technician, A9, L1, L2, L3, Alternate Fuels and more.

Eric Ziegler

Eric has over 30 years of experience as a technician with an extensive diagnostics background. Eric is an ASE Recertified Advance Level L1 Master Technician who has spent a great deal of his career focusing on automotive electronics, engine management diagnostics, module programming and network communication. He is the owner of EZ Diagnostic Solutions, a mobile business that services the Peoria Illinois area.

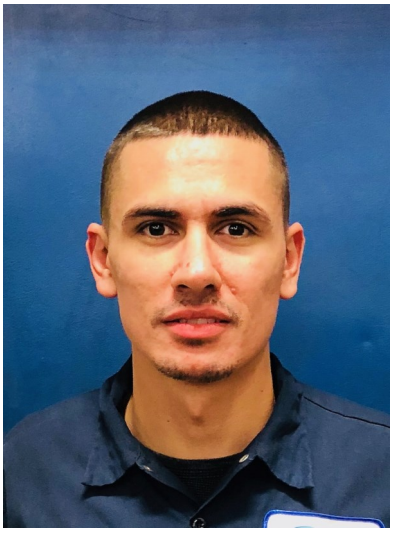
In addition to owning and operating EZDS, Eric is an accomplished automotive trainer working for Automotive Seminars and the Driveability Guys training technicians in the latest diagnostic techniques and technologies throughout the Midwest and US. He regularly attends and trains at some of the automotive industries top training events. Eric has also written technical articles for MotorAge magazine.

Eric currently maintains many ASE certifications including: Master Automotive Technician, Truck Technician, L1, L2 and L3.

Mohammad Samii

Mohammad Samii, or Sammy as he is often called, came to electrical rebuilding from a ten-year service in the Iranian Air Force as an Aircraft Maintenance Officer with a degree in aircraft maintenance engineering. Since 1972, Sammy has been involved with electrical rebuilding and is currently president and operator of Sammy's Auto Electric Service, Inc. in Champaign, Illinois, which he established in 1979. His company does custom electrical rebuilding, electrical/electronic diagnostics and installations on various vehicles for other shops and auto repair facilities.

Sammy is a member of the Society of Automotive Engineers (SAE), an ASE certified technician and is involved in training technicians at the local community college. He serves on the board of governors of the APRA Electrical Division. His monthly column, "Auto Electric Corner," appears in APRA's Reman Connection magazine. Sammy is also a past contributing editor to Engine Builder magazine where he wrote the "Complete Circuits" column. He teaches various courses on installation and rebuilding throughout the U.S. and Canada to electrical rebuilders, technicians and installers.



Pedro De La torre

Pedro has over a decade of experience in the automotive technical field. After his graduation from UTI, he was employed by independent repair facilities and specialized in electronics, emissions and driveability issues. In 2014, Pedro began working with the Indiana emissions program "Clean Air Car Check." While working in the Quality Assurance department, Pedro was the in-house diagnostic technician and repair advisor. He was also responsible for training hotline operators and he organized Clean Air Icert training. Icert training is the 60 hour program required to become an Indiana Certified Technician. In 2017, Pedro returned to an independent repair facility and remains a consultant for Indiana's Clean Air Car Check.

Pedro is currently an ASE certified Master Automotive Technician and is L1 certified.

THE DRIVEABILITY GUYS

Kenneth Zanders

Ken is an ASE Master Certified Automotive Technician with L1 Advanced Engine Performance. Ken has extensive training with various OEMs and has obtained Master Certification through many of their programs. Ken is a committed instructor striving to give something back to the automotive service community.

CONTACT INFORMATION:

To book a training class or ask any questions regarding our training courses, please contact:

Scott Shotton

Email is the preferred option:

scott@driveabilityguys.com

or call:

630-017-0953