



CTI+WTI AVI Online Training and ASE Test Prep

Access to all of our AVI Video courses including 14 ASE Test Prep courses

Course Title	Course Code	Training Type	Duration	Description
ASE-A1 Test Prep-Engine Repair	AVI-ASEA1	OLT	4:00	ASE A1 Test Prep-Engine Repair
ASE-A2 Transmission Diagnosis	AVI-ASEA2	OLT	1:15	ASE A2 Test Prep – Transmission Diagnosis
ASE-A3 Manual Drivetrains and Axles	AVI-ASEA3	OLT	2:45	ASE A3 Test Prep – Manual Drivetrains and Axles
ASE-A4 Test Prep- Suspension and Steering	AVI-ASEA4	OLT	2:30	ASE A4 Test Prep – Suspension and Steering Systems
ASE-A5 Brakes	AVI-ASEA5	OLT	5:30	ASE A5 Test Prep- Brake Systems
ASE-A6 Electrical	AVI-ASEA6	OLT	3:00	ASE A6 Test Prep-Electrical/Electronic Systems
ASE-A7 Heating and AC	AVI-ASEA7	OLT	3:30	ASE A7 Test Prep-Heating & Air Conditioning
ASE-A8 Engine Performance	AVI-ASEA8	OLT	3:30	ASE A8 Test Prep-Engine Performance
ASE-A9 Test Prep	AVI-ASEA9	OLT	2:30	ASE A9 Test Prep-Light Vehicle Diesel Engines
ASE-C1 Test Prep Service Consultant	AVI-ASEC1	OLT	0:30	ASE C1 Test Prep-Automobile Service Consultant
ASE-G1 Auto Maintenance and Light Repair	AVI-ASEG1	OLT	2:00	ASE G1 Test Prep-Auto Maintenance and Light Repair
ASE-L1 Test Prep	AVI-ASEL1	OLT	3:00	ASE L1 Test Prep-Advanced Engine Performance Specialist



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ASE-L3 Hybrid/Electric Vehicle Specialist	AVI-ASEL3	OLT	4:50	ASE-L3 Hybrid/Electric Vehicle Specialist
ASE-P2 Test Prep	AVI-ASEP2	OLT	3:00	ASE P2 Test Prep-Automobile Parts Specialist
R-1234yf Online Training	Honeywell-001	OLT	0:30	This training program consists of three short videos hosted by Paul DeGuseppi, former manager of service training for the Mobile Air Conditioning Society (MACS). It will cover system servicing of R-1234yf, as well as service equipment requirements, ensuring that automotive technicians have a working knowledge of how to service vehicles that use R-1234yf, which replaces R-134a. Participants will receive a certificate of completion at the conclusion of the program. The videos in the series are based on the SAE International standard J2845 "R-1234yf Technician Training for Service and Containment of Refrigerants Used in Mobile A/C Systems."
LS-1 Toyota Key Off EVAP Testing	LS-1	OLT	1:00	Bob Pattengale from Robert Bosch, LLC will be covering Toyota EVAP Diagnostics: geared towards automotive service technicians, hosted right here at AVI OnDemand! Bob Pattengale will cover Toyota Key-Off EVAP. This system started appearing in '05, and is now the primary system used on Toyotas today. We will look at how the system operates from a step-by-step component basis process. Then look at the diagnostics, how to test the system and alternative methods for looking for leaks within the system. The goal is to help technicians diagnose these systems quickly and accurately. Toyota's Key Off Pump Module Operating Modes · Is There a PO Code? Using a Scan Tool to Find a Leak Using a Smoke Machine to Find the Leak Toyota Key Off Adaptors Checking the Filtration System Confirming No Leaks are Present in the System



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EPT-001 Essentials of Performance Tuning	LBT-EPT001	OLT	1:15	EPT-001 Essentials of Performance Tuning: Take Me to the P.R.O.M.
Essentials of Performance Tuning: Mysteries of Fuel Injection	EPT-002	OLT	2:00	In this course Ron Bilyeu discusses all aspects of high-performance electronic fuel injection. He will cover everything from air flow into the engine by way of an aftermarket intake or throttle body, to fuel delivery through big injectors or an aftermarket fuel pump. This class will equip you with the ability to tune your high-performance hot rod to get most out of any aftermarket application to get the best bang for your buck! Making more horse power is the main goal of this course and you'll gain a solid foundation for doing so by learning about the following: Measurements of air and mass air flow, Pegging the mass air flow sensor, Picking the camshaft, Adjustable fuel pressure regulation, Capacitive ignition for distributors, Performance exhaust systems and much more
ABS & Stability Control/Braking Systems Technology	LS-2	OLT	1:05	ARCHIVED LIVESTREAM - As braking systems become more technologically advanced, so do the problems that arise. Bob Pattengale's brake technology webcast sponsored by Brake & Front End and Robert Bosch, LLC was held on December 10th, 2013. Bob covered ABS, stability, traction control and everything in-between to get those pesky problems with automatic braking and emergency assist repaired right and out of your bay in no-time.
Sprinter Diesel Diagnostics	LS-3	OLT	1:25	Bob Pattengale, National Training Manager for Robert Bosch LLC will present a training class on Sprinter Diesel Diagnostics, focusing on common rail injection systems and the differences between the 2.7 and the 3.0 engines.
Practical TPMS Service	LS-4	OLT	1:00	Mike Rose, TPMS Product Manager for Bartec will host this class on TPMS service and technology direct from Bartec's TPMS Roadmap "The Six Steps to TPMS Success", we



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				will dive into common diagnostic and service issues and provide real life solutions.
In-Vehicle Battery, Starter, Alternator Diagnostics	LS-5	OLT	1:00	Along with some basic electrical system diagnostics, many of the changes the automotive industry is seeing from multiple manufacturers will also be covered. The issue is power management and it all starts at the battery, this includes the “operating logic” manufacturers are adopting. Specific information will include changing alternator designs, off-board voltage regulation, custom charging algorithms and enhanced diagnostics for both modern batteries and charging systems. We also touch a bit on some new battery chemistry as well that may make their way into the automotive service world sooner than you think.
Intermittent Misfire Detection Strategies	LS-6	OLT	1:15	These types of diagnostic situations are always difficult because despite a general, reoccurring issue, the operation of the system in question is generally normal. Long-time AVI instructor Bill Fulton brings you a live, steaming course on how to attack these flaky, intermittent faults step-by-step. Bill starts directly with the customer and what questions you should ask that will give you the quickest test results. Learn which arsenal of tools is right for the job, schematic based diagnostics and system separation logic. Covered in this course will also be 8 real-world case studies that will cover fuel systems, ignition, electrical, BUS circuits and much more.
Service Selling Skills: Sell One More Job	LS-7	OLT	1:30	In this course, Bill Haas emphasizes’ on the importance of good customer service skills and shop relationships in order to make the customer feel at-ease about purchasing necessary maintenance.
Computer Engine Data: Make Testing Quicker	LS-8	OLT	2:00	In this course, Ron Bilyue takes you through the ins and outs of reading and understanding computer engine data and how to apply that data to real world diagnostics. This course



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				examines various monitoring systems individually to help you achieve a detailed understanding of what that system is reporting. It is also important to view these systems from a distance to make data comparisons in order to get to the most logical conclusion in the diagnostic process. Topics Covered: Scan Tool Routine Fuel System Monitor Ignition Monitor Oxygen Sensor Monitor EGR Monitor EVAP System Monitor Catalyst Efficiency Positive & Negative Fuel Trims
Meter Usage & Electrical Circuit Testing	AP-9	OLT	4:00	The electrical system is the perfect place to begin building a foundation for an automotive education. This program takes a complex system and gives you the fundamentals in terms easily understood by students and technicians of all levels. This class provides detailed explanations, applications and practical uses when utilizing your multimeter in everyday situations. Instructor Dave Hobbs presents an array of Fluke meters illustrating intermediate and advanced operations, buttonology, and functionality through hands on exercises. Dave touches upon series and parallel circuits, electrical theory and the basics of Ohms law, just enough to make it practical for you to apply it to vehicles you're working on. This class provides you with the knowledge on how to properly and safely use your multimeter on Hybrid vehicles, conduct voltage drop tests and apply meter accessories for routine uses.
Wiring Schematics Interpretation	LS-9	OLT	1:30	This is a special Live Stream course because it is going to be live from the AVI Conference in Las Vegas. That's right we are packing up the studio and bringing it all to Vegas so you don't have to leave the comfort of your home to enjoy some of the awesome training presented here. The understanding of electrical theory, tracing wiring and understanding schematics is essential to be successful in today's automotive repair



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				<p>industry. In this course, presented by 30-year ASE certified Master Technician Peter Orlando, we cover all the steps necessary to trouble shoot electrical issues quickly and confidently. Peter will run it down from the basics on reading common electrical symbols to understanding power flow and circuit design. Be sure to Log on or sign up for AVI OnDemand to access to live, free course. Schematic symbols Circuit and schematic diagrams Wiring representation and lines of demarcation Use demonstration of location codes for components and connectors Identification and use of common point diagnostics Understand power flow techniques Quick tips and techniques to trace circuits</p>
Electronic Communication and Diagnostics for the Diesel Technician	LS-10	OLT	1:00	<p>Heavy duty diagnostic capabilities have changed tremendously with increased data speed and the sheer quantity of information available to the technician. On-board diagnostic standards, similar to passenger cars, are being added to class 7 and class 8 trucks to provide greater access to diagnostic information for diesel technicians. This Livestream will cover the history of heavy-duty communication protocols and changes to diagnostics connections. Topics Covered: Computer protocols SAE J1587/J1708 SAE J1939 Scan data and codes PIN connections and network access New heavy duty on-board diagnostics standards RP1210 reprogramming standards</p>
Testing and Diagnosing Turbo Charging Systems	LS-11	OLT	0:45	<p>Forced induction has become the strategy of choice for manufacturers looking to squeeze more power out of their diesel vehicles while still meeting the stringent guidelines the government has put in place to regulate fuel efficiency. This LiveStream covers diesel diagnostics with a focus on turbos and turbo systems. Topics Covered: Diagnosing loss of power Diagnostic Procedures Leak detection Twin Turbo systems False code diagnostics</p>



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Servicing Telematic Systems	LS-12	OLT	1:00	The term Telematics escapes a lot of technicians even though it is becoming a popular technology that is connected to over 66 million vehicles in operation today and expected to exceed 356 million in only a couple of years. Telematics is a real-time support, entertainment and diagnostic system that you may know as Chevy's OnStar and Ford's Sync systems. There are very few ways to work with these systems if you are not the dealership – your true competition. In this course, veteran Delphi Instructor Dave Hobbs will educate you about the functions of telematics systems, the differences between each system and the new volume of business this state-of-the-art technology will bring to your independent shop. Don't let your customers rely on the dealership for their service; educate yourself with this Telematics LiveStream.
Start/Stop Technology Overview	LS-13	OLT	1:00	May 13, 2015- The challenge of achieving 54 MPG by 2025 requires creative solutions and Start/Stop systems provide a cost effective, simple, and energy saving solution. Passenger cars equipped with Start/Stop systems have substantially lower fuel consumption - approximately 8% less than vehicles without Start/Stop systems. Start/Stop vehicles are already on the road in the US and this LiveStream event sponsored by Bosch will help you get ready.
Diagnosing GDI - Gas Direct Injection	LS-14	OLT	1:05	GDI - Gas Direct Injection has been steadily making its way into mainstream for well over a decade. The miles accumulating on these state-of-the-art fuel injection systems can often lead to customer drivability concerns. This in turn means service opportunities for the independent aftermarket repair business ready to tackle this latest technology in fuel systems. In this informative seminar veteran Delphi instructor Dave Hobbs brings you up close and personal to the workings of both the low pressure and high-pressure sides of GDI



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				systems along with live scan tool and lab scope diagnostic tips. Learn what both the OEM and aftermarket experts are advising on the source, correction and prevention of intake valve carbon deposits that are so common on many of the GDI vehicles on the road today. Join us at AVI studios on June 10th 2015 for the newest Livestream brought to you by Delphi and taught by Dave Hobbs.
Fuel System Diagnostic Starting Point	LS-16	OLT	1:00	Are you making the best use of your valuable diagnostic time? In this session, you will learn a tried-and-true method of determining how the PCM is reacting to engine performance issues. This simple 4-Step process is designed to work on code and no code drivability issues and can be performed with an inexpensive OBD II generic scan tool. Topics Covered: Review the key fuel system control components. Evaluate critical sensor inputs and environmental conditions. Benefits of using a consistent diagnostic starting point. Learn how to get the most from the 4-Step process. Join us for this LIVE LiveStream brought to you by Robert Bosch, LLC and taught by Jim Wilson.
Increasing Car Count and Profits	LS-17	OLT	1:10	Building Relationships and Selling Preventative Maintenance Price shoppers and coupon clippers only increase your car count for a little while. Increasing your loyal customer base is what really improves both your car count and long term profits! Earning repeat customers begins with making a good first impression, continues when they have a memorable experience and comes full circle with customer loyalty created by you knowing and acting on the most important things vehicle owners really want. Building relationships, educating vehicle owners and creating preventive maintenance plans that fit your customers' lifestyles can have greater positive impacts to your bottom line than expensive marketing plans and upsell programs. Delphi instructor Dave Hobbs





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				shares proven techniques to help your repair shop stand out where it counts - in the hearts and conversations of your customers!
Promoting and Profiting with Hybrids	LS-18	OLT	1:25	Imagine telling a customer with a diesel engine "Sorry, we don't work on diesels." Sound crazy? No crazier than saying "Sorry, we don't work on hybrids." The hybrid vehicle market share is quite similar to diesels and that spells opportunity for any repair shop willing to pursue the market! Hybrid electric vehicles have been around 15 years now and their owners can be some of the most loyal customers you'll ever have IF you know how to gain their business. Veteran Delphi instructor and hybrid specialist Dave Hobbs will share proven techniques to get hybrid owners in your shop for the first time AND keep them coming back year after year for safe, accurate and profitable service. You'll be amazed how modest the cost is to do a 'hybrid tool up' and how fast you can learn this amazing new technology that's here to stay!
Reducing OBD II Comebacks Using Mode \$06	LS-19	OLT	1:00	The science of late model vehicle OBD II emissions just keeps evolving along with the problems that can result in comebacks from repeat Malfunction Indicator Lights (MIL) sometimes referred to as the 'Misery Indicator Light!' Trouble codes, data PIDs and freeze frames are helpful but sometimes just won't provide you enough information on intermittent problems. Fortunately Mode \$06 is on just about every shop's scan tool and can save the day IF you're willing to learn a little about its deep dive record of emission monitors. In this seminar, veteran Delphi instructor Dave Hobbs helps you sort out the engineering complexities from the simpler side of Mode \$06 so you can put this powerful function of your scan tool to real world practical use. Learn how to use those confusing TIDs, CIDs and MIDs on your scan tool's Mode \$06 display as accurate predictors



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				of OBD II monitor failures so you can turn the “Misery Indicator Light” into a “Money Indicator Light!” Join us at AVI studios on September 9th 2015 at 4pm EDT for the newest LiveStream brought to you by Delphi and taught by Dave Hobbs.
Lubrication & Filtration Technologies: The Difficult Truth	LS-20	OLT	1:00	Conventional, Synthetic Blends, Full Synthetic, High Mileage... No matter where you buy it, it pays to understand the most basic ingredient of the most important service we provide. Oil and Filter service is sometimes delayed or even ignored by consumers is now being threatened. OEM’s continuously modify oil formulas with almost every new model year and engineers are constantly improving ways to control deposits, limit oxidation and corrosion, and increase normal oil-change intervals and fuel economy. Today’s vehicles are using full synthetic proprietary formulas that are designed specifically for that OEM. The engine oils we have come to know and the brands we have all used and trusted have changed dramatically over the years. One oil you have trusted for decades may not be able to effectively provide the proper protection today’s engines require, which could lead to a denial of warranty. I know a technician is misinformed when he says “I don’t use 0W-20 because it’s too thin, I use 5W-30 in all my customers cars!” Seek the truth and get the FACTS about engine oils in this seminar. A multi-grade oil 0W-30, 10W-30 or a straight grade 30 have the same thickness at 212°F. The difference is at 40°F, in the morning when you go to start the engine.
European Vehicle Security Systems	LS-22	OLT	1:30	Modern-day immobilizer systems present the technician with many challenges and European vehicles only prove to compound these challenges. A service as simple as replacing an ignition key can now end up costing hundreds of dollars. Performing immobilizer resets or entering pin codes in the stereo systems can be frustrating for the



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				<p>technician working on a modern European vehicle. This course will provide you with the understanding of the process on how to become a vehicle security professional and help you recognize the opportunities to utilize this in your market. Your instructor will teach you how European vehicle security systems work and how to properly troubleshoot and repair these vehicle security systems. Topics covered in this class include: How to become a registered vehicle security professional Pin and key code acquisition Transponder type security systems operation Diagnostic tools and programming Troubleshooting and repairing security systems equipped on VW, Audi, BMW, Jaguar, Mercedes Benz, Volvo, and more</p>
Quick Strike Diesel: No Start Diagnostics	LS-28	OLT	1:30	<p>You've heard the constant cranking of a late model diesel engine and lucky for you, it's not in your bay. Fuel quality, quantity and atomization need to be so precise there is little room for errors. The key to solving common rail diesel issues is having a solid game plan. This LiveStream event sponsored by Bosch will ensure you are ready when the vehicle is in your service bay. Topics covered: Diesel Fuel System Diagnosis Low Pressure Delivery High Pressure Delivery Fuel Injectors Fuel Sensors &amp; Actuators</p>
Focus on Ford	LS-29	OLT	1:30	<p>In this "Focus on Ford" class, Ron will discuss Ford Eco-boost technology, turbo charging, and Variable CAM Timing (Twin-Independent VCT). Ron will share his analytical approach and what PIDS you need to be viewing, and how to use scan tool data to reduce your diagnostic time to make you more efficient when servicing ford Eco-boost systems. He will also give you an extensive look at fuel trims and how it effects the Eco-boost system. Topics Covered: Digital Mass Air Sensor Close Loop Boost Control Ecoboost Pressure Sensors Diagnostics Electronic Throttle Control Strategies Types of Variable Cam Timing</p>



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				Electronic Returnless Fuel GDI Ecoboost Pitfalls OBD II New Monitors COP 2 & 3 Wire Pattern Failures and Tips Neutral Profile Learning
Who Killed the CAT	LS-30	OLT	1:00	In this class, "Who Killed The Cat" Ron will give you a thorough understanding of all the emission codes related to catalytic efficiency and what causes them. Most Shops need to make a proper diagnosis using their scan tool. Ron will share with you his strategy to determine what killed the catalytic converter before you have it replaced.
Keep the Spark Alive - Ignition Coil Diagnostics	LS-31	OLT	1:15	Problems ranging from misfires to no-starts can be related to ignition coil problems. Getting a C.O.P. (Coil-On-Plug) diagnosis right the first time can be difficult if you don't have every trick and tip at your disposal. In this 1-hour Delphi live cast training program, veteran Delphi instructor Dave Hobbs will bring you valuable information on a variety of topics. Topics Covered: Using your wiring schematic to determine the kind of C.O.P. under scrutiny – internal coil driver, external coil driver and feedback circuit C.O.P.s (Toyota & Kia) Secondary and primary resistance tests, identifying carbon tracking Easy ways to use common and popular tools & equipment to diagnose C.O.P.s o DMM (Digital Multi Meter) Inductive amp clamps DSO (Digital Storage Oscilloscope) whether stand alone or built in your scanner C.O.P. inductive pick-ups that are inexpensive and easy to use Leveraging DTCs, Global OBD II and Mode \$06 data to enhance your diagnostics. Tips and tricks on replacement procedures and estimating coil longevity.
EVAP Diagnostics: Diagnosis Module - Tank Leakage (DM-TL) System	LS-32	OLT	1:00	The Bosch DM-TL leakage pump is primarily thought of as a European only device, but manufacturers like Hyundai, Kia and Mazda also used this component. The DM-TL was introduced in the late 90's and is still being installed on production vehicles today. This Livestreaming event sponsored by Bosch will



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				provide an in-depth understanding of the DM-TL and how vehicle manufacturers utilize this pump to test gas vapor systems. Topics Covered: Detailed overview of the DM-TL components Theory of operation with animated examples Review the gas vapor leakage principles How to test the DM-TL and system with scan tool Options for manually operating and testing the DM-TL How to deal with gas vapor leaks
MAF and the Modern Tech	LS-33	OLT	1:00	Mass Air Flow Sensors (MAF) have been with us for decades, helping engine management systems know the precise volume and density of air the engine is breathing to provide the right fuel injector spray and correct spark timing. Faulty MAF sensors often set a Diagnostic Trouble Code (DTC) but that's not always the case, leading to excess frustration in the service bay. In this one-hour Live Cast training program, veteran Delphi instructor Dave Hobbs will show: The design and operation of the most common MAF sensors Predictable failure with MAF sensors and the drivability symptoms that can result Diagnostic strategies for technicians at every level of technical ability Creating default modes by bypassing suspect MAF sensors Using advanced features within most scan tools to verify a faulty MAF Using a digital multi meter (DMM) in MAF diagnostics Using a digital storage oscilloscope (DSO) to catch intermittent MAF glitches Dos and Don'ts regarding MAF cleaning and replacement Sorting out MAF problems from actual engine breathing problems using ANY scan tool and a simple volumetric efficiency (VE) calculator
ABS – Enhanced Stability Systems, Operation, Analysis, and Repair	LS-34	OLT	1:15	ARCHIVED LIVESTREAM - This class will cover ABS operational systems including traction control and enhanced stability systems. Mark DeKoster will teach you common failures, inspection techniques and what to look for, and the use of tools for analyzing concerns such as digital multi-meters scan tools and



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				oscilloscopes Topics covered: Understanding the ABS system and components network communication Component testing Calibration and replacement modules Suspension system Tire maintenance Safety precautions for hybrid vehicles
MACS 2016 AC Update	LS-35	OLT	1:00	There's a lot to know in the ever-changing world of Mobile A/C, and MACS and AVI have got you covered! What's up with this new refrigerant we've been hearing about? Is there new equipment my shop is going to need? How will we service this next generation of vehicles? Join Steve Schaeber, MACS Manager of Service Training for this highly informative, up-to-date seminar, covering the latest from the leader in mobile A/C. Topics Covered: Refrigerant Identification Accurate Temperature Testing A Few "Cool" New Features Do You Need New Equipment? J3030 "Multi-Refrigerant" Machines R/R/R Equipment & Service Time Update on Refrigerant Regulations, R-1234yf, CO2 & Section 609 Certification
Diagnosing to Win With Fuel Trim	LS-36	OLT	1:15	Fuel trim (FT) data is the automotive equivalent of a medical "CT Scan" of combustion event efficiency. Much has been written on the subject of fuel trim, yet much is still not understood regarding the causes of those high and low numbers. Is it a vacuum leak, faulty MAF or drippy fuel injector causing that FT number to be off? In this one-hour live cast training event, veteran instructor Dave Hobbs will provide valuable information on: Short-term, Long-term fuel trim and total fuel trim defined Long-term adaptive memory blocks/cells FT reset Dos and Don'ts Graphing to perfect FT diagnostics Misfires, false air, exhaust leaks, vacuum leaks and FT numbers – what to expect O2 Sensor Types and Operation / Switch Times and Voltage Ranges FT, MAF and VE – what they'll tell you about the engine's mechanical condition

Essential Skills for Electrical Diagnostics	LS-37	OLT	0:45	You've taken an electrical class with electron theory and all those ohm's law formulas, but it left you confused. How will this information really help me fix an electrical or drivability issue? This Livestreaming event sponsored by Bosch will clear up the confusion and teach you the essential skills needed to apply electrical theory in real world practical situations. Topics covered: Series circuit diagnosis for pumps, motors and lighting circuits Identifying and diagnosing parallel circuits Identifying and diagnosing series/parallel circuits, which are the most common circuits on vehicles today. Why you need understand the type of circuit for proper diagnosis. How to check the power and ground side of any circuit and why voltage drop is your best friend.
O2 Sensors: Wide vs. Narrow Band	LS-39	OLT	1:15	The PCM looks at the demands of the driver and then injects fuel into the cylinder to meet those demands. It then looks at the upstream and downstream O2 sensors to see how close to perfect it determined the air/fuel ratio. By using a scan tool and a scope we can monitor these actions and use the data to determine likely causes of concerns. Using the downstream O2 is particularly helpful in determining the cause of intermittent misfire. Join us to watch and learn how to use the scan tool and the scope to monitor operation and test O2 sensors to assist in analyzing drivability concerns.
From Order Taker to Sales Maker	LS-40	OLT	1:30	Order takers don't make sales. Order takers sound rushed, usually answer questions with yes or no and seldom ask questions. A sales maker will master the art of listening, take whatever time is necessary to present a solution, be prepared to address objections and always ask for the sale. Sales is never about price. You can only be compared on price when you fail to present a better value. A sales maker will differentiate their solutions



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				from their competitors and provide a better value.
LBT-41 Current Ramping 1-2-3	LBT-41	OLT	1:45	LBT-41 Current Ramping 1-2-3
Bosch Diesel Vehicle Diagnostics: Nissan Titan Diesel Overview	LS-42	OLT	1:30	The trend towards diesel powered vehicles continues with the introduction of the Nissan Titan pickup equipped with a Cummins 5.0L turbocharged engine and Bosch Common Rail Diesel (CRD) fuel system. This Livestreaming event sponsored by Bosch and presented by Bob Pattengale, will provide a comprehensive overview of the Titan CRD fuel system and a good foundation for diagnosing drivability concerns. This is Cummins first Piezo injector equipped vehicle. Many of the principles learned during this session will be useful for diagnosing other vehicles equipped with CRD systems. Expect to see the use of this engine broaden to school busses, motor homes, ambulances & boats. Topics Covered: Understanding CRD fuel systems Low pressure system components and testing High pressure system components and testing Piezo injector overview Review of tools needed for diagnosis
LBT-43 4 and 5 Gas Emissions Testing with Bill Fulton	LBT-43	OLT	2:00	LBT-43 4 and 5 Gas Emissions Testing with Bill Fulton
Current Probe Diagnostics	LS-43	OLT	0:55	Interpreting lab scope patterns using your low amp clamp will allow you to quickly pin point your diagnostics when it comes to engine driveability issues. Engine outputs all have something in common; a coil of wire. Think about the composition from the rear bumper to the front bumper on any late model vehicle of all the relays, motors, solenoids, and sensors. The best way to dynamically test these is current ramping. To make your shop more profitable, test don't guess. Topics Covered: Testing fuel pump rush-in current





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				Testing fuel pump speed Interpreting fuel pump patterns to reveal bad brush to armature contact Dynamic amperage waveform testing on both the 2 wire Ignition Coil and the 3 wire Ignition coil Pinpoint the moment at which the computer turns on the switching transistor Find the defined opening and closing points of a solenoid Observe injector pulse width
Bosch Common Rail Diesel Diagnostics for European Vehicles	LS-45	OLT	1:30	European branded manufacturers were the first to introduce Common Rail Diesel (CRD) fuel systems on light-duty passenger car vehicles in the US. Audi, BMW, Mercedes and Volkswagen are the most common brands with a variety of vehicle and engine configurations. The process of diagnosing any CRD system begins with a solid understanding of the components involved and how they operate. This Livestreaming event sponsored by Bosch, will provide an overview of EURO CRD systems and specific processes to quickly and accurately diagnose these systems. Topics covered: CRD fuel system overview Supply fuel side operation and testing High pressure fuel side operation and testing Fuel injector operation and testing Review common issues with EURO CRD systems
The Power of the Phone	LS-46	OLT	1:30	The most powerful tool in your shop is your phone. Sure, we all know to say Good Morning or Good Afternoon, identify the shop, and identify who is answering the phone. However, it goes much deeper than that. Shops measure the success of their marketing and advertising by the number of times the phone rings, but what happens after the phone rings? Proper listening skills are by far the most overlooked area of communication today. Taking notes on the customers concerns are good, but when Mrs. McCurdy wants to tell you about her grandchildren hang in there and engage her. That may seem like a waste of time, but when you do get her vehicle in your shop she will be more



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				<p>accepting of your suggestions for repairs needed. This 1.5 hour HD broadcast taught by Bill Haas, will give you valuable information to improve your phone skills and help you improve the number of calls you convert to appointments. Topics Covered: Techniques for answering the phone Starting conversations Asking powerful questions Converting the price shopper to an appointment</p>
Strange But True	LS-47	OLT	0:30	<p>We have all run into weird diagnostic problems right? Well, in this HD Broadcast Ron Bilyeu will show you how to keep your focus as you battle strange but true diagnostic related issues and how to retain valuable information. As stated by Ron Bilyeu, “When something is very strange, don’t forget the diagnostic process and do your research”. We ensure these strategic tips will accommodate your shop with proper effectiveness and cut down trouble shooting time. Course Objectives: Learn to diagnose when no Diagnostic Trouble Codes are available Ability to read intermittent OBD trouble code P0012 (CMP timing over- retarded) Ability to read Intermittent OBD trouble code P0300 (Random misfire) Understanding low compression 90 PSI on all cylinders with engine rattle Understanding Smokes PCM every 3 days with no OBD trouble codes And much more</p>
Diagnostic Strategies: Air Induction	LS-48	OLT	1:15	<p>For a Professional Technician, the proper diagnostic strategy is a critical component of establishing your tech efficiency. In part 1 of our Diagnostic Strategies Series, this course will cover air induction. Learn the proper diagnostic procedures to determine induction problems. Your instructor, Ron Bilyeu has over 30 years of experience and will share his knowledge of the following topics: Course Objectives: Scan Tool Data –Learn how to group data pids to do performance testing on mass air flow sensor systems or speed density systems Testing Methods – learn why using VE</p>



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				<p>(volumetric efficiency calculator) is critical in determining the efficiency of the engine in various RPM ranges Possible failures such as MAF problems (false breathing problem) Carbon, cam timing and others (real breathing problems) Relative Compression – you will learn to interpret wave form patterns to make diagnostic decisions on the health of the cylinder and pin point weak cylinders Case Studies focused on key air induction p codes</p>
<p>Unlock the Power of Global OBD2 for European Vehicles</p>	<p>LS-49</p>	<p>OLT</p>	<p>1:05</p>	<p>Have you ever wondered how diagnostic trouble codes are set and how the engine management system makes those decisions? You might think the answer to this question is complex, as we are talking about European vehicles and most technicians believe EURO vehicles can only be diagnosed using an expensive OE or enhanced aftermarket scan tool. In reality the answer is simple and the solution is closer and less expensive than you might think. The solution is fully understanding the power of Global OBD2 and this HD streaming event, sponsored by Bosch and presented by Jim Wilson, will provide the information needed to successfully use a Global OBD2 scan tool on European vehicles. Course Objectives: Knowing what the 10 Global OBD2 modes are Review the powerful list of Mode \$01 data parameters. Understanding the power of Mode \$02 - Freeze Frame data. Understanding Mode \$06 and DTC set criteria Know how to use Short Term and Long-Term Fuel Trim as a diagnostic baseline and repair verification tool. Review the variety and differences between OBD2 generic scan tool</p>
<p>Diagnostic Strategies: Fuel Delivery</p>	<p>LS-50</p>	<p>OLT</p>	<p>1:00</p>	<p>In Part 2 of our Diagnostic Strategies Series, this HD Broadcast will cover fuel delivery. As with Part 1 on air induction, this course covers the diagnostic step-by-step routines technicians use. Your instructor, Ron Bilyeu has over 30 years of experience and will share his knowledge of the following topics: Course</p>



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				<p>Objectives: Understanding different Varieties of fuel systems are covered, including GDI Understanding volumetric Efficiency Testing Understanding Fuel Pump Testing using traditional methods and low current with a labscope Understanding Short Term and Long-Term Fuel Trim Diagnostics Knowing the O2 sensor effects on fuel delivery AND MORE! Once you have a solid foundation it does not matter what make, model or test equipment you use. You'll be more efficient as a technician by enrolling our course, Diagnostic Strategies: Fuel Delivery today!</p>
Bosch Denoxtronic (DeNOx) System Overview	LS-51	OLT	1:05	<p>ARCHIVED HD BROADCAST - Exhaust gas after-treatment systems are an integral part of today's common rail diesel vehicles and understanding how to diagnose and service these emissions control systems is critical for optimal vehicle operation and longevity of these expensive components. In order to reduce Nitrogen-oxide (NOx) output, many vehicle manufacturers have elected to utilize a Selective Catalyst Reduction (SCR) system. This HD streaming event, sponsored by Bosch will provide the information needed to understand and diagnose passenger car and heavy-duty diesel Denoxtronic systems. Topics Covered: Overview of after-treatment system components Review of SCR DeNOx theory of operation Denoxtronic 3.1 passenger car system overview Denoxtronic 2.2 heavy commercial and off highway system overview Review diagnostic and service procedures What tools are needed to service SCR systems</p>
MACS 2017 Mobile A/C Update	LS-52	OLT	1:05	<p>The 2017 Mobile A/C Update brings you the latest tips, tricks and industry trends from MACS, the worldwide mobile air conditioning authority. If you work on mobile A/C, you need this information! Course Objectives: Will be able to understand sealant issues Understand same root heating problem, different symptoms (2 case studies) Recognize an F-Series coolant message Know how much</p>



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				oil should the system have Understand the best approach to A/C electrical & electronics diagnostics Recognize the difference between sensors & switches Understand smart A/C pressure sensors Guide to buying R/R/R machine Understand the latest update on refrigerant regulations, R-1234yf, CO2 and Section 609 Certification
Fundamentals of TPMS	LS-53	OLT	1:00	TPMS systems have been mandatory on most vehicles for almost a decade, so it's critical you know how they work and some of their repair issues. Instructor Mark DeKoster helps you make faster, more accurate repairs with great information contained in this course. Course Objectives: Understanding TPMS regulations and requirements How to perform the 5 step analysis procedure Understanding the importance of service publications Know the differences between passive and active TPMS systems Know the tools needed for TPMS diagnostics and relearn procedures Hands-on demonstrations of relearn procedures
LBT-54 Ignition System Testing with Coil-on-Plug and Misfire Detection	LBT-54	OLT	0:45	LBT-54 Ignition System Testing with Coil-on-Plug and Misfire Detection
Diagnostic Strategies: Ignition & Misfires	LS-54	OLT	0:50	In Part 3 of our Diagnostic Strategies Series, this HD Broadcast will cover Ignition & Misfires. As with Part 1 on Air Induction and Part 2 on Fuel Delivery, this course is designed to help the technician with diagnostic information they can use on a daily basis. Your instructor, Ron Bilyeu has over 30 years of experience and will share his knowledge of the following topics: Identifying cylinder misfires using DTCs, Misfire PIDs and more. Mode 6 - The Good & The Bad. Cylinder contribution and balance testing. O.P. and Near C.O.P. systems. Primary, Secondary and Amperage waveform analysis. Ignition testing using O2 sensor data AND MUCH MORE!



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LBT-55 Enhanced Ignition Systems	LBT-55	OLT	1:30	LBT-55 Enhanced Ignition Systems
Batter Up with Battery Technology	LS-55	OLT	1:00	ARCHIVED HD BROADCAST - This diagnostic program will help you to be at the top of your diagnostic game when it comes to battery and charging system testing. We'll cover battery technology, proper battery charging and testing, BMS (Battery Management Systems) and those alternator 'equivalents' on Hybrid vehicles - DC-DC converters. Topics Covered: Battery Disconnects – When to be concerned and what to do AGM vs. Conventional – It makes a BIG difference with battery chargers Hitting the Hybrid Curve Ball – Coping with DC-DC converters Battery Parasitic Draws – Easy way to determine WHEN to test / simple HOW to test Smart Charging Systems – Components that can fail & scan tool PIDs to watch Battery Management Systems – The importance of new battery registration!
Bosch Chrysler Late Model EVAP Diagnostics Update	LS-56	OLT	1:45	ARCHIVED BROADCAST - Evaporative emissions systems are changing rapidly and can be difficult to diagnose without a good understanding of the changes. Since 2003, Chrysler has introduced two different systems; the Natural Vacuum Leak Detection (NVLD) and the Evaporative System Integrity Monitor (ESIM). This training event sponsored by Bosch will provide an overview and diagnostic tips for both systems. Topics Covered: Natural vacuum leak detection strategy Review of the Leak Detection Pump (LDP) system Overview of NVLD and ESIM components Operation of NVLD and ESIM Tips and diagnostic strategy for each system
Steering Clear of Undercar Misdiagnosis	LS-58	OLT	1:00	In this program, we'll give you the scoop on steering and suspension system essentials along with helpful diagnostic tips to keep your customers driving straight and riding smooth. Topics Covered: Front & Rear Suspension Types - SLA, MacPherson Strut and solid axle



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				Common Suspension Issues & Tire Wear Tips - Relating 4-wheel alignment measurement to premature tire wear out Electronic Ride Controls & Active Suspension - Active suspension systems with hands on time with a Mercedes Airmatic Variable Effort & Electric Power Steering - Scan tool demos for variable effort steering Mercedes SUV and EPS Ford SUV systems
The Mystery of Diesel Fuel Injectors	LS-60	OLT	1:00	The Mystery of Diesel Fuel Injectors
F.R.E.D. Takes the Bus	LBT-73	OLT	1:15	LBT-73 F.R.E.D. Takes the Bus
LBT-74 Mastering the Mastertech	LBT-74	OLT	2:00	LBT-74 Mastering the Mastertech
LBT-75 Computer Engine Data Modes	LBT-75	OLT	1:30	LBT-75 Computer Engine Data Modes
LBT-83 Fuelish Tips	LBT-83	OLT	1:30	LBT-83 Fuelish Tips
LBT-84 Getting Technical with Your Tech 2	LBT-84	OLT	1:30	LBT-84 Getting Technical with Your Tech 2
LBT-146 Functional Scanner Testing	LBT-146	OLT	1:30	LBT-146 Functional Scanner Testing
LBT-149 Duramax Diesel Diagnostics	LBT-149	OLT	2:00	LBT-149 Duramax Diesel Diagnostics
LBT-153 SP Sistemas de TPM	LBT-153SP	OLT	1:00	LBT-153 SP Sistemas de TPM
LBT-158 Getting the Most out of Your Solarity Scope	LBT-158	OLT	2:00	LBT-158 Getting the Most out of Your Solarity Scope



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LBT-159 Genisys 3.0	LBT-159	OLT	2:30	LBT-159 Genisys 3.0
LBT-159 SP Sacarle lo probecho a tu Genisys	LBT-159SP	OLT	1:00	LBT-159 SP Sacarle lo probecho a tu Genisys
LBT-164 CAN Data Diagnostics	LBT-164	OLT	0:30	LBT-164 CAN Data Diagnostics
LBT-165 6.0L Powerstroke Enhanced Diagnostics	LBT-165	OLT	3:00	LBT-165 6.0L Powerstroke Enhanced Diagnostics
LBT-165 SP Aumento De Diagnostico Ford Powerstroke 6.0L	LBT-165SP	OLT	3:00	LBT-165 SP Aumento De Diagnostico Ford Powerstroke 6.0L
LBT-166 Using the Ford IDS	LBT-166	OLT	1:45	LBT-166 Using the Ford IDS
LBT-166 SP Usando El Ford IDS	LBT-166SP	OLT	1:30	LBT-166 SP Usando El Ford IDS
LBT-172 Ford and Chrysler EVAP	LBT-172	OLT	0:45	LBT-172 Ford and Chrysler EVAP
LBT-173 GM and Toyota EVAP	LBT-173	OLT	0:45	LBT-173 GM and Toyota EVAP
LBT-175 The Competition for Your Customers Loyalty	LBT-175	OLT	1:45	LBT-175 The Competition for Your Customers Loyalty
Fuel Trim Diagnostics	LBT-177	OLT	0:45	With the cost of fuel today, gas mileage is more important to your customers than ever. Have you had customers complaining of lost engine power and poor fuel economy? Would you like to sell more fuel injection service work? AVI can help with Fuel Trim Diagnostics. In this program Jim Wilson shows you how to use fuel trim as a diagnostic tool to test certain sensors and to verify your auto repairs.





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				He explains how things like high mileage, dirty injectors, lazy O2 sensors or coking affect short term fuel trim. He also shows you how and what sensors affect fuel trim and how the catalytic converter is involved. Wouldn't you like to learn more about fuel trim so that you can help improve your customer's engine power and fuel economy? The answer to where should proper fuel trim values be Where to find all the data to get the job done Live data, setups, lots of tips and great tech logic
LBT-188 MACS AC Clinic	LBT-188	OLT	1:45	LBT-188 MACS AC Clinic
LBT-190 Ford Powerstroke: Hard Starts and No Starts	LBT-190	OLT	2:15	LBT-190 Ford Powerstroke: Hard Starts and No Starts
LBT-191 Introduction to the Ford 6.4L Diesel	LBT-191	OLT	1:30	LBT-191 Introduction to the Ford 6.4L Diesel
LBT-192 Advantages of Mode \$06	LBT-192	OLT	1:00	LBT-192 Advantages of Mode \$06
LBT-196 Genisys EVO	LBT-196	OLT	1:45	LBT-196 Genisys EVO
LBT-202 Misfire Diagnostics	LBT-202	OLT	1:15	LBT-202 Misfire Diagnostics
Automatic Transmission Diagnostics & Scan Tool Tips	LBT-204	OLT	9:00	Have you ever had a problem properly diagnosing vehicle transmission related issues due to constantly varied scan tool parameters and procedures? ATSG's Wayne Colonna is here to help you by providing answers to some of the most difficult transmission related problems, giving you solutions and demonstrations on how to properly diagnose these issues utilizing aftermarket scan tools. This training program presents detailed



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				<p>explanations and breakdowns on scan tool data and how to properly diagnose transmission problems for seasoned or beginner technicians. Wayne tackles transmission problems from top car manufacturers such as, Ford, GM, and Chrysler. The fact is advancements occur frequently for optimum transmission performance and a lot of scan tools don't have the updated information to help properly diagnose current issues. This class helps you pin point the correct diagnostic procedure for up-to-date transmission repairs, allowing your shop to exceed customer expectations by providing timely and superior transmission services</p>
LBT-205 Pegisys Essential Techniques Training	LBT-205	OLT	1:00	LBT-205 Pegisys Essential Techniques Training
LBT-210 In Cylinder Pressure Transducer Diagnostics	LBT-210	OLT	4:30	LBT-210 In Cylinder Pressure Transducer Diagnostics
LBT-212 Anatomy of a Waveform	LBT-212	OLT	1:30	LBT-212 Anatomy of a Waveform
LBT-213 Fuel System Testing Strategies	LBT-213	OLT	2:30	LBT-213 Fuel System Testing Strategies
LBT-215 Pico Scope Guided Tour	LBT-215	OLT	2:15	LBT-215 Pico Scope Guided Tour
LBT-217 MTS 5200	LBT-217	OLT	2:15	LBT-217 MTS 5200
LBT-218 Using Your Tech2	LBT-218	OLT	2:15	LBT-218 Using Your Tech2
LBT-219 J2534 Reprogramming	LBT-219	OLT	1:00	LBT-219 J2534 Reprogramming



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Advanced Chrysler Diagnostics	LBT-222	OLT	2:30	Bill Fulton takes you into the shop for live vehicle training. He will cover APPS and TPS sensors, Networking & Bussing, CCD wires and bus circuits, KOER and KOEO testing, Cam and Crank diagnostics and Auto Shut Down & Fuel Pump Relay Schematics and testing. Topics Covered: Electronic Throttle Control: Hard faults & functional testing NGC 5 Volt Power Supply: Missing scan data Problems with exhaust back pressure and too much EGR-why this happens and how to diagnose the problem 7 Hemi Engine Variations: Avoid inductive cross firing when rerouting spark plug wires, drive by wire and COP/DIS systems Over 30 mins of hands-on diagnostic testing with Modis & more
LBT-224 AC Best Recommended Practices	LBT-224	OLT	1:15	LBT-224 AC Best Recommended Practices
LBT-227 Why J2788 Standard	LBT-227	OLT	0:45	LBT-227 Why J2788 Standard
LBT-228 Mastering Hybrid HVAC Systems	LBT-228	OLT	1:15	LBT-228 Mastering Hybrid HVAC Systems
LBT-229 Intermittent Diagnostics	LBT-229	OLT	7:00	LBT-229 Intermittent Diagnostics
LBT-229 SP Diagnosticos Intermitentes	LBT-229SP	OLT	3:00	LBT-229 SP Diagnosticos Intermitentes
LBT-230 OTC TPMS	LBT-230	OLT	1:30	LBT-230 OTC TPMS
LBT-233 Victory Over Voltage Drops	LBT-233	OLT	2:30	LBT-233 Victory Over Voltage Drops
LBT-236 Marketing to Generation X and Y	LBT-236	OLT	1:30	LBT-236 Marketing to Generation X and Y



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LBT-237 F.R.E.D. Kicks The CAN	LBT-237	OLT	4:00	LBT-237 F.R.E.D. Kicks The CAN
LBT-239 Gasoline Direct Injection	LBT-239	OLT	1:15	LBT-239 Gasoline Direct Injection
LBT-243 Quick Check Diagnostics	LBT-243	OLT	3:40	LBT-243 Quick Check Diagnostics
LBT-246 SP MTS 5200 Oscilloscopic	LBT-246SP	OLT	2:30	LBT-246 SP MTS 5200 Oscilloscopic
LBT-249 Getting To Know Your VCI	LBT-249	OLT	2:00	LBT-249 Getting To Know Your VCI
LBT-250 Working with Gen X and Y	LBT-250	OLT	1:00	LBT-250 Working with Gen X and Y
Future Power: Advanced Technologies in Batteries, Starting & Charging Systems	LBT-257	OLT	4:00	Charging and starting systems are changing as fast as current model years roll out. What we used to do to test them doesn't always apply to the new way of testing today's vehicles. Instructor Dave Hobbs covers all the latest information & technology including anti-theft systems. Modern vehicles rely on communication between computers and modules that operate everything. A properly maintained battery is essential to power these systems. In fact, some batteries are so sensitive to being overcharged one can do damage with their shop's battery charger. This program will show you how to diagnose these issues and keep your skills up to date.
LBT-258 Cummins 5.9L and 6.7L	LBT-258	OLT	3:45	LBT-258 Cummins 5.9L and 6.7L Issues and Review of Operation
LBT-260 How to Sell a Spark Plug	LBT-260	OLT	0:40	LBT-260 How to Sell a Spark Plug: A Communication Learning Program



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LBT-262 IDS VCM 2	LBT-262	OLT	2:00	LBT-262 IDS VCM 2
LBT-263 Duramax Diesel Diagnostics Update	LBT-263	OLT	1:45	LBT-263 Duramax Diesel Diagnostics Update
LBT-267 Genisys 5.0 Training	LBT-267	OLT	1:05	LBT-267 Genisys 5.0 Training
LBT-269 Wiring Schematics Interpretation	LBT-269	OLT	8:30	LBT-269 Wiring Schematics Interpretation
LBT-270 Parasitic Current Draw	LBT-270	OLT	3:15	LBT-270 Parasitic Current Draw
LBT-271 Deceptive Diagnostics	LBT-271	OLT	1:00	LBT-271 Deceptive Diagnostics
MACS AC Temperature Testing	LBT-272	OLT	1:15	LBT-272 MACS A/C Temperature Testing
LBT-274 Saving Your 6.0 Powerstroke	LBT-274	OLT	2:00	LBT-274 Saving Your 6.0 Powerstroke
LBT-275 Computer Engine Data Using Your Autel MaxiSYS	LBT-275	OLT	2:00	LBT-275 Computer Engine Data Using Your Autel MaxiSYS
LBT-277 Making More Money Servicing TPMS	LBT-277	OLT	1:00	LBT-277 Making More Money Servicing TPMS
LBT-278 Service Management Made Simple	LBT-278	OLT	1:40	LBT-278 Service Management Made Simple
LBT-281 Servicing Hybrids	LBT-281	OLT	3:00	LBT-281 Making Money Servicing Hybrid Vehicles



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Chrysler On-Board Diagnostics	LBT-282	OLT	2:30	Charging and starting systems are changing as fast as current model years roll out. What we used to do to test them doesn't always apply to the new way of testing today's vehicles. Instructor Dave Hobbs covers all the latest information & technology including anti-theft systems. Modern vehicles rely on communication between computers and modules that operate everything. A properly maintained battery is essential to power these systems. In fact, some batteries are so sensitive to being overcharged one can do damage with their shop's battery charger. This program will show you how to diagnose these issues and keep your skills up to date.
LBT-283 The Diagnostic Approach	LBT-283	OLT	2:30	LBT-283 The Diagnostic Approach
7 Ways to Improve Cash Flow & Increase Profit	LBT-286	OLT	1:00	Charging and starting systems are changing as fast as current model years roll out. What we used to do to test them doesn't always apply to the new way of testing today's vehicles. Instructor Dave Hobbs covers all the latest information & technology including anti-theft systems. Modern vehicles rely on communication between computers and modules that operate everything. A properly maintained battery is essential to power these systems. In fact, some batteries are so sensitive to being overcharged one can do damage with their shop's battery charger. This program will show you how to diagnose these issues and keep your skills up to date.
LBT-287 6.7L Power Stroke Training	LBT-287	OLT	1:00	LBT-287 6.7L Power Stroke Training
Ford Power Stroke Component Testing	LBT-288	OLT	2:00	This course is a complete focus on component and sensor testing for the Ford diesel Power Stroke Family which includes the 6.0, 6.4 and 6.7 liter engines. Computer data expert Ron Bilyeu utilizes the Ford IDS to explore and diagnose the Power Stroke family's on-board

				<p>diagnostics systems. In this course Ron Bilyeu addressed the PCM inputs, powertrain control software, fuel system, intake system and catalyst and exhaust systems. This course includes hand-on testing and live case studies with Ford’s factory scan tool, the IDS. Components Addressed: RPM Limiter High Speed-Controller Area Network (HS-CAN) Keep Alive Random Access Memory (RAM) Accelerator Pedal Position (AAP) Sensor Manifold Absolute Pressure (MAP) Barometric Pressure Sensor (BARO) Crankshaft Position Sensor (CKP) Mass Air Flow Sensor Fuel Injection Control Module (FICM) And much more!</p>
Mastering the Module Flash	LBT-293	OLT	1:00	<p>Join instructor Dave Hobbs in this training program on mastering the module flash! Dave will cover the J2534 standard for module flashing, how to determine if your customer needs a flash, the tips and tricks for actually flashing a vehicle, and finally how-to follow-up a successful flash. Delphi’s Dave Hobbs will guide us through the world of electronic control modules, how they go wrong, and how technicians can ensure the modules do the best job they can. This program will cover the different kinds of module flashes, which scan tools to use for each job, and how-to follow-up a flash to ensure update completion. Topics Cover: Module Reprogramming Where to Find Calibration Updates Base Line Calibration Tables GM Re-flashes Hands – On training Delphi iFlash Software J2534 Application Relearning Systems Quirks and Issues that you will run into when Re-flashing</p>
Diagnosing OEM Vehicle Theft Deterrent Systems	LBT-294	OLT	5:30	<p>Honda, Ford, Chrysler, and Toyota theft systems are covered in depth in this video. You’ll learn about how each of the various systems operate and are incorporated into the normal running scenario of today’s cars, as well as the diagnostics processes you’ll need to know. Vehicle theft systems are part of today’s vehicles and sooner or later you’ll run</p>



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				<p>into a no-start condition that is related to the immobilizer system in a particular vehicle. This video covers all of this and more. It's not all that secretive, but it is not the kind of information that you'll find in most diagnostic manuals. That information is part of this video and you'll be glad you invested the time! Passing up a repair because it has something to do with the factory theft system is money your shop is passing up on. AVI's Dave Hobbs has the answers to those questions you've always asked about factory theft systems. Learn about the various types of theft systems used in today's cars and how to diagnose them, and the equipment needed. From the transponder to programming the theft systems is covered.</p>
Variable Valve Timing	LBT-295	OLT	4:00	Variable Valve Timing
Insider Secrets: Focus on Fords	LBT-298	OLT	2:00	<p>In this "Insider Secrets: Focus on Ford" class, Ron will discuss Ford Eco-boost technology, turbo charging, and Variable CAM Timing (Twin-Independent VCT). Ron will share his analytical approach and what PIDS you need to be viewing, and how to use scan tool data to reduce your diagnostic time to make you more efficient when servicing ford Eco-boost systems. He will also give you an extensive look at fuel trims and how it effects the Eco-boost system. Course Objectives: Understand Turbo Charging Understand Variable Cam Timing Understand Gas Direct Injection (GDI) Understand GDI carbon build up Understand Closed Loop Boost Control Electronic Throttle Control Strategies Understand MAF function Using scan tool in mode \$06 Understand Ford Failsafe Cooling Strategy Many more tips and tricks for diagnosing Ford's</p>
Oils: The Slippery Slope	LBT-299	OLT	1:50	Engine Oil, the slippery slope.





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LBT-300 Cummins Generations	LBT-300	OLT	2:45	LBT-300 Cummins Generations
Mysteries Of Gasoline Direct Injection	LBT-301	OLT	1:30	Mysteries of Gasoline Direct Injection
Fundamentos de Diagnósticos Eléctricos	LBT-303SP	OLT	1:45	<p>¿Tiene dudas de como circula la electricidad en un automóvil? En esta clase de Electricidad Básica, estudiamos el comportamiento de la electricidad comparándolo directamente con el agua. Comparamos el voltaje con la presión de un fluido y de la misma forma la cantidad de fluido la cual representa la cantidad de corriente circulando medida en amperes. Hablamos de la Ley de Ohms y su aplicación diaria en el taller. Hablamos sobre relés y sus distintas configuraciones. Analizamos circuitos en paralelo, serie, así como también en serie/paralelo. Estudiamos punto por punto la alimentación de corriente a una bomba de gasolina y de la misma forma los ventiladores de un sistema de refrigeración de motor. Simplemente siéntese y mire el video el cual le dará la oportunidad de convertir este tiempo en dinero mañana mismo.</p>
The Essentials of Gasoline Direct Injection (GDI)	LBT-307	OLT	0:50	<p>In 1937, Bosch equipped an aircraft engine with a mechanical direct injection system and by 1952 Bosch was adding direct injection to passenger car engines. As a result of increased mobility worldwide, coupled with the desire for lower fuel consumption and reduced emissions, Gasoline Direct Injection (GDI) is still regarded today as a key technology with huge potential. According to forecasts, a quarter of all vehicles will be equipped with GDI by 2020. If you are not already working on GDI vehicles, you will soon, which means you need to be prepared to diagnose and service these vehicles. This learning module will help you properly identify, understand and diagnose Bosch GDI engine management systems with an overview of GDI operating</p>

				and fuel delivery systems. Topics Covered: History of GDI Introduction to GDI Supply pump delivery High pressure delivery Fuel injection delivery Diagnostic and service tips
Duramax Diesel Update: L5P	LBT-311	OLT	1:00	The newest engine in the Duramax family is the L5P. This engine includes mechanical upgrades, a new fuel delivery system, solenoid style fuel injectors, a revised high pressure pump, and a brand new air induction system with a high tech mass air flow sensor. These compliments contribute to making an incredible 925 ft. lbs. of torque. This program will take you through the diagnostic procedures and component testing techniques of the low and high pressure fuel system, the new air induction system along with revised emission components to keep you up to date with GM's latest diesel engine. Course Objectives: Understanding Low Side Fuel Stress Test Understanding Procedures with Scan Tool for Resets and Relearns Know how to perform a Cylinder Contribution Test Understanding Important Data PID List Know how to perform a Bi-directional Test Know the newest parts for a quieter operation (Oil Pan, Valve Cover, and Fuel System) Understand how to perform Sensor Testing Understanding Service and Maintenance
Advanced Scan Tool Testing Strategies	LBT-312	OLT	5:30	Instructor Bill Fulton covers a wide range of areas in this very comprehensive and updated course. With almost 3 hours of detailed information, technicians will have new respect for the diagnostic power of their scan tools. This course includes live on-car demonstrations, plus lots of case studies from a variety of makes and models. Course Objectives: Understand hands on scan tool testing including data packets & what each one can do for you Identify 10 Global Modes/Each mode individually and what info



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				<p>it provides and why (how to use the modes in depth to better diagnose the vehicle) Perform wide range O2 sensor testing (case studies on a Ford, Nissan, Honda, &amp; Toyota) Understand Lambda Fuel Trims &amp; Fuel Ratios Understand ignition issues &amp; Intermittent Misfires Understand Mass Air Flow Sensor Diagnostics &amp; Hands on MAF Replacement Identify Variable Cam Timing Data (at idle &amp; during test drive) Identify PO Codes related to MAF &amp; Fuel Trim/P0440 Code (Electronic Throttle Control data, EVAP &amp; Purge Test, Fuel Trim, Power Break Condition test) Hands on Case studies (02 &amp; 05 F150, 05 Mustang, 09 Chevy Silverado, 08 Chrysler Town &amp; Country, 08 Prius, 02 Dodge Caravan, 14 Nissan Maxima, Chevy S-10, 05 &amp; 2012 Chevy Equinox)</p>
Labscope Diagnostics	LBT-313	OLT	2:30	<p>AVI instructor Bill Fulton updates his labscope diagnostic strategies with new case studies focusing on compression waveforms. Even those technicians who have been using their labscopes for years will acquire new tips and techniques for quicker and more accurate engine diagnostics. Course Objectives: Compression &amp; Vacuum Testing Using Waveform Analysis Using Exhaust Pulse Waveforms For Misfire Analysis Checking Mechanical Integrity Using Cranking Vacuum Waveforms Compression Waveform Analysis Using Pressure Transducers Fuel Injector Pressure Waveform Analysis Fixed &amp; Variable Valve Timing Checks Using Amperage Waveform Analysis Crankcase Pressure &amp; Vacuum Testing Techniques Using Waveform Analysis Jeep &amp; Ford Hands-On Testing Using Waveform Testing</p>
What You Need to Know About Lean P-Code Conditions	LBT-319	OLT	3:00	<p>This class, taught by Ron Bilyeu, covers some of the most popular Diagnostic Trouble Codes that technicians face every day, P0174 and P0171 Lean Conditions. The issue is there is such a variety of problems that can cause the engine management computer to increase fuel trim adaptation. Once the Fuel Trims get</p>



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				too far away from target 0.0%, there are certain load cells programmed in the computer that are weighted to set the popular codes for each individual bank. How many issues can cause the computer to add fuel trim? We cover any and all with case studies from a variety of makes and models. There will never be a code P0171/P0174 that will blindside you again!
Bosch Quick Strike EVAP System Diagnostics	LBT-321	OLT	1:30	The most common evaporative emissions fault codes relate to leaks in the fuel vapor system, which means checking for leaks is a critical diagnostic process. Unfortunately, not all vehicles use the same EVAP system, which complicates the leak checking process. The addition of gas capless systems also creates issues for those who like to test from the gas cap. This HD streaming event, sponsored by Bosch will provide a quick strike process to quickly identify and test a variety of fuel vapor systems for leaks. Topics Covered: Review common EVAP system components Leak Testing 101 process overview How to deal with gas capless systems Learn how to deal with vehicles without a vent solenoid
Beyond Pattern Failures	LBT-322	OLT	2:15	“Beyond Pattern Failures”, instructor Bill Fulton presents a diagnostic approach that starts with the symptom then moves to the system that may be causing the problem. Along the way, he shows how not to jump to conclusions based on “pattern failures”, and what to do when you have no P-codes. Topics covered include: Network Testing Load Calculations Key On, Engine Off Sweep Testing Code 31 Diagnosis & Performing An Idle Relearn Validating Good & Bad TAC Motor Commands Using A Scanner Time Saving Tips Using A COP Wand Wide Range Air Fuel Ratio Sensors Using Scan Data, Map Sensors & Rich Code Diagnosing Lack Of Power and Misfires Spark Duration During Idle No Load Conditions Using Scope Pattern To Diagnose Misfire Under Load With No Codes Cold Start Up &



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				Poor Acceleration The Importance of Using Ford's Self-Test and more!
Electrical Troubleshooting	LBT-323	OLT	3:00	This HD Broadcast event from Bill Fulton "Electrical Troubleshooting and Schematic Based Diagnostics", is a comprehensive schematic based look at the path technicians should take when faced with electrical issues. Topics covered include: Electrical schematic based diagnostics Color coding voltage, grounds, components, and bias circuits for ease of diagnostics Examples of current for testing Voltage drop testing from both the feed and ground sides of the circuits Fundamental use of all DVOM features Various case studies from real world automotive electrical problems Determining bias state of Relays and Igniters Using valuable min/max peak detect mode of DVOM Diode testing Using the Ohmmeter Intermittent electrical problem detection strategies
609 Certification Training	LBT-324	OLT	1:45	The Section 609 Certification Training Program is produced by AVI with support from MACS, the Mobile Air Conditioning Society, and contains the information you will need to pass the Section 609 certification test. By watching the video program, along with using the provided online training resources, technicians will learn about the following topics: Why you need to be Section 609 certified History of the Clean Air Act and how it relates to certification MVAC equipment and refrigerant changes over the years and current use Best practices of MVAC service and procedures Regulations regarding proper handling and disposal of refrigerants Information regarding R-1234yf versus other refrigerant Updated information on the certification requirements to purchase refrigerant & More
Basics of Labscopes	LBT-326	OLT	1:30	You may have not needed to break out your labscope very much recently, but maybe you should - because there's money to be made!



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				<p>Renowned labscope guru Bill Fulton shows you the proper way to use your labscope to save diagnostic time, which makes you more money! COURSE OBJECTIVES: Upon completion of this course, the participant will be able to: Describe the 5 Keys to Obtaining a Good Labscope Waveform Explain Labscope Trigger Sources Identify Key Labscope Trigger Settings For Diagnostics Describe the Advantages of Both Automatic and Manual Labscope Settings Explain the Proper Settings of the Labscope Trace Modes</p>
Diesel Exhaust Aftertreatment Explained	LBT-329	OLT	1:00	<p>The first diesel exhaust gas aftertreatment components were introduced over 10 years ago and are required on all common rail diesel vehicles today. This HD streaming event, sponsored by Bosch will provide an in-depth presentation on diesel aftertreatment system designs, system history, federal emission standards, plus theory and operation. The program will provide a detailed analysis of individual system components, including what causes them to fail and how to diagnose and service them correctly. Topics Covered: Diesel Oxidation Catalyst (DOC) Diesel Particulate Filter (DPF) Selective Catalyst Reduction (SCR) System troubleshooting and diagnosis tips Component servicing and cost saving preventive maintenance Future systems discussion</p>
Controller Area Networks	LBT-333	OLT	1:00	<p>After attending this course, the student will have a thorough understanding of the two common types of networking systems used on vehicles today and understanding how to diagnose those issues. Topics Covered: What is networking? Students will be presented with an overview of multiplexing, networking systems and how the various modules are integrated onto a common communication network. Students will learn the advantages and disadvantages of this process from both a design and diagnostic view. Types of CAN: Loop/Star Students will learn the two common</p>



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				ways these vehicles are wired by way of the loop and star configurations. They will learn the necessary steps involved with isolating various module on each of these designs. High Speed vs. low: Students will be presented the difference between high and low speed circuits and will learn the priority of various modules dictating their placements. They will also be presented with various node and sub node scenarios. Diagnosing with scan tools: Students will be shown how to use a scan tool effectively to diagnose various types of network issues including the dreaded no communications message. Case studies reviewed: Case studies utilizing various tooling will be used to show the thought process used when confronted with a controller area networking issue.
Diagnostic Mindset	LBT-334	OLT	3:00	If we were to start by trying to perform many different tests on every car starting with compression testing, moving on to ignitions specific tests and followed by fuel tests, we would never make any money on any diagnostic job at all. What if we took a different approach? An approach that consists of viewing a handful of PID's on our scan tool to determine in which system listed above the problem originates. That is exactly what this program does. We won't overwhelm you with a bunch of background system information we will instead show you a common-sense approach with diagnostic shortcuts to get to the bottom of this type of issue as efficiently as possible. Topics Covered: Various automotive complaints Vehicle running rough Misfires/No starts Popular DTCs Testing with commonly used tools
Bosch Repair Shop Efficiency	LBT-338	OLT	1:15	How are you adapting to challenges in the shop and automotive technology changes? How do you make decisions about the next scan tool or garage equipment? How about your technicians, are they as efficient and productive as they could be? This HD



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				streaming event, sponsored by Bosch will provide useful information on how to improve your efficiency in the garage area. This program will be useful for shop owners, service advisors, shop managers and technicians of all skill levels. Topics Covered: Review challenges in the production area of the shop Learn how to perform a simple diagnostic tool review the process of performing return on investment for old and new equipment Learn how to analyze the current skills of technicians and how to develop a customized learning plan to improve their productivity
Bosch Sprinter Diesel Diagnostic Update	LBT-339	OLT	1:00	Bosch Sprinter Diesel Diagnostic Update
Diesel Tips & Tricks	LBT-340	OLT	2:45	Tony Salas, one of the aftermarket's most respected diesel instructors, offers up some of his best tips and tricks when servicing a variety of the popular light duty diesel engines Cummins, Duramax, and Power Stroke. Tony's tips not only help you fix diesels faster, but he also points out how to prevent future customer issues and what you may be doing wrong that leads to comebacks. Topics Covered: Case Studies Diagnostic Scenarios Induction Systems Common Rail Injection Issues Programming Issues Drivability Problems Upon completion of this course, the participant will be able to: Identify Steps To Prevent Duramax 6.6L Engine Issues Regarding Injector Clogging Explain How Variable Vane Turbochargers Work and Various Diagnostic Procedures Related to them Describe Methods To Prevent Excessive Diesel Regenerations Explain Various Methods To Prevent and Repair Coolant Electrolysis Describe Power Stroke 6.7L CP4 Pumps and Their Preventative Maintenance Recognize and Check For Turbocharger Boost Leaks





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				Explain How To Test Cummins 5.9L Common Rail Issues Using Air Pressure
Generation Z: Understanding the Newcomers	LBT-343	OLT	1:15	<p>This course will offer a brief review of previous generation’s characteristics with an in depth look at generation Z. Sara Fraser will share her knowledge on attracting these customers and employees. She will cover differences in communication and relationships and help you learn how to change your approach when managing, mentoring, and coaching this generation. We will focus on what has shaped this generation and how very different they are from their predecessor the Millennial. Generation Z currently makes up 25% of our population making them a larger cohort than the baby boomers or millennials! At the end of this session this student will be able to:</p> <ul style="list-style-type: none"> <li>Identify the age ranges that make up Generation Z</li> <li>Identify the characteristics of Generation Z</li> <li>Identify the differences between Generation Z and millennials</li> <li>Have and understanding of how to work with and sell to Generation Z</li> <li>Understand the environment that shaped Generation Z</li> <li>Have a better understanding of what is important to Generation Z</li> <li>Obtain an understanding of why this generation is going to be so important in the workplace as our future employees and customers</li> </ul>
Top EPA Trouble Codes	LBT-347	OLT	0:15	<p>Every quarter of every year, the EPA releases a list of the top trouble codes regarding emission related issues. Instructor John Forro discusses the most recent list of codes, and the possible fixes for them. A great class for all technicians and critical for technicians with state mandated emissions tests. Trouble Codes Covered Include: PO420: Bank 1 Catalyst Below Threshold PO171: Bank 1 Too Lean PO455: Gross EVAP Leak PO442: Small EVAP Leak PO440: EVAP Malfunction PO141: Bank 1 Sensor 2 O2 Sensor Heater Circuit</p>



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				Malfunction PO128: Coolant Thermostat Out Of Range PO174: Bank 2 System Lean
LBT-352 Bosch Start/Stop Technology Overview	LBT-352	OLT	1:00	The challenge of achieving 54 MPG by 2025 requires creative solutions and Start/Stop systems provide a cost effective, simple, and energy saving solution. Passenger cars equipped with Start/Stop systems have substantially lower fuel consumption – approximately 8% less than vehicles without Start/Stop systems. Start/Stop vehicles are already on the road in the US and this course sponsored by Bosch and taught by Bob Pattengale will help you get ready. Topics Covered: Overview of Start/Stop systems Review Start/Stop operation strategy Review common components on Start/Stop systems Diagnostic process examples
LBT-353 SMP Keeping it Cool	LBT-353	OLT	2:15	Troubleshooting automotive air conditioning systems can be trickier than many technicians think, especially after replacing a third compressor. In this program, presented by Standard Motor Products director of Training Ryan Kooiman shows step-by-step procedures and a few tricks and tips to help technicians repair A/C systems right the first time. Several case studies are also featured. COURSE OBJECTIVES: Upon completion of this course, the participant will be able to: Explain The Different Components of Automotive MVAC Systems And Their Functions Describe Common Causes Of Failures Of Each MVAC Component Identify When To Flush And When To Replace Components Explain Proper MVAC Testing Procedures Describe Differences Between R-134a And R-1234yf MVAC Systems
LBT-361 Import Cylinder Management	LBT-361	OLT	1:00	Like it or not, turning cylinders off and on for fuel economy is here to stay. Instructor Ron Bilyeu explains how import cars handle this technology differently than most domestics. He also points out the differences in cylinder management among the imports, and what



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				<p>took out for when troubleshooting these vehicles. Topics covered: The Mercedes approach to cylinder management and how to deal with Low Speed Pre-ignition issues Mitsubishi Modular Displacement discussion VW, Audi &amp; Porsche ACT system Honda VCM system and why P0420 &amp; P0430 codes appear sometimes Course Objectives: Upon completion of this course, the participant will be able to: Describe The Differences Between Import Cylinder Management Systems Explain The Mercedes Approach to Active Cylinder Management Define The Functionality Of The VW ACT system Explain The Honda VCM System Identify Important PIDs For VCM Service Procedure</p>
LBT-363 Critical Scan Tool Analysis On Toyota, Lexus, & Scion Systems - Part 1	LBT-363	OLT	4:00	<p>Longtime AVI instructor Bill Fulton focuses this scan tool course on Toyota systems. Bill shows you how to quickly analyze data to get to the root of systematic issues, including using Global and Enhanced data to get your diagnostics started fast. O2 sensors, fuel trim data, MAF issues and more are discussed in several case studies regarding specific trouble codes. COURSE OBJECTIVES: Upon completion of this course, the participant will be able to: Explain the Advantages of Using Global and Enhanced Scan Tool Data to Begin Diagnostics Interpret Proper Air/Fuel Ratios During Scan Tool Analysis Identify Differences between O2 Sensor Voltage and Milliamp Readings Explain the Diagnostic Advantage of Increasing/Decreasing Injector On Time with a Scan Tool Describe Mass Air Flow Sensor Pattern Failure Diagnostic Procedures Utilize Toyota IGT and IGF Ignition Signals for Diagnostic Purposes And much more!</p>
LBT-364 Critical Scan Tool Analysis On Toyota, Lexus, & Scion Systems - Part 2	LBT-364	OLT	3:00	<p>Bill Fulton continues his scan tool diagnostics on Toyota systems by covering the additional areas of EVAP systems along with Variable Valve Timing operations and testing. He also offers tips on PCM replacement and immobilizer issues. Includes case studies</p>



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				involving P1354, P2111, P2112 & B2784 codes and more. (This course is a continuation of LBT-363 Toyota Brands: Critical Scan Tool Analysis Part 1) COURSE OBJECTIVES: Upon completion of this course, the participant will be able to: Describe the Toyota EVAP System Testing Strategies Identify Electronic Throttle Control Issues Operate the Toyota Variable Valve Timing Testing Parameters Describe Toyota Immobilizer & Security Lamp Diagnostics Explain the Toyota PCM Replacement Reset Procedures
LBT-365 Start/Stop Technology Overview part 2	LBT-365	OLT	1:00	This program builds on the LBT-352 program, which was presented live at the 2019 AVI Spring Training Conference. In this program we will dig deeper into the three different voltage stabilization designs, featured on Stop/Start vehicles, specifically looking at the components involved and analyzing the wiring schematics. On vehicle testing will demonstrate the steps needed to diagnose the components and circuits. Interesting note, General Motors vehicle applications use all three designs. Topics covered: Stop/Start system voltage stabilization designs Review dual battery system Review capacitor system design Review DC/DC converter system design Diagnostic testing of voltage stabilization circuit
LBT-366 Turbocharger Diagnosis & Service	LBT-366	OLT	1:00	Turbochargers are used in all light truck diesels have become common in small displacement engines. These systems change the diagnosis of fuel trim and engine breathing. Technician must understand turbocharger components and operation for proper diagnosis of engine performance complaints. The goal of this class is to prepare technicians to diagnose and service turbochargers on light trucks and passenger cars. After completing this training, a technician will: Be able to identify turbocharger types and components Understand turbocharger control systems and



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				operation Learn best practices for turbocharger replacement Be prepared to diagnose boost
LBT-367 SMP Going Beyond the Code	LBT-367	OLT	0:45	Engine performance problems typically set DTCs and technicians can fall into the trap of replacing parts based only on the code stored. Often, replacing parts based on DTCs alone does not solve the problem. Sometimes a vehicle can have symptoms but does not set a code. The goal of this class is to prepare technicians to approach problems in a structured and logical way. Diagnostic scenarios will be presented with exercises and solutions.
LBT-368 SMP Brain Teasers	LBT-368	OLT	1:00	How long has it been since you had “the car” that has been to several shops but is not fixed? Join us as we follow diagnostic techs as they tackle tough diagnostic scenarios. You will have an opportunity to diagnose them to see if you can arrive at the correct conclusion.
LBT-369 European Diagnostics	LBT-369	OLT	2:30	What do you need to know when performing diagnostics on a EURO vehicle? Make your job easier. Learn to use the platform and engine designations to access the data information. Learn to use OBD2 information to determine how a code sets. What is the VW Data Blocks? Why the EURO vehicles use Additive and Multiplicative instead of Long Term and Short Term Fuel Trim. Why sometimes you will need more than one scan tool. Topics covered: Scan Tool Types & Set Up New Names To Learn Audi & VW Diagnostics European vs Domestic Fuel Trim Autoscan of 2004 VW Beetle Using VCDS Software Live Scan Data KOER 2004 VW Beetle Live Scan Data KOER Launch X - 431 PADIII Mercedes Benz Diagnostics Course Objectives: After completing this course, the participant will: Thoroughly understand the European approach to diagnostics and basic principles Understand VW Data Blocks Locate additional information to help to set up the scan tool for diagnostics



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<p>LBT-370 Cyber Security</p>	<p>LBT-370</p>	<p>OLT</p>	<p>1:15</p>	<p>Cyber security is in the news, all the time. And with today’s vehicles having a huge amount of digital connectivity not only internally between modules and components, but externally via wi-fi and navigation systems, the chance for “hacking” is all to real. Cyber security expert and NASTF Executive Director Donny Seyfer shows you to be aware of and how to prevent yourself and your customers from becoming victims of hacking attacks. Topics Covered: Steps the Government Is Taking (Or Not Taking) To Secure Data Best Practices To Better Protect Your Customers’ Vehicles From Security Threats Do’s and Don’ts In Your Business Practices To Prevent Problems What You Should Be Doing To Protect Your Personal Data And More...</p>
<p>LBT-372 Delphi Technologies Training Series: LBT-372 Delphi LBT-372 Delphi Technologies Training Series: Making Sense of Sensors</p>	<p>LBT-372</p>	<p>OLT</p>	<p>1:15</p>	<p>Delphi Technologies will help the advanced automotive service technician “make sense of sensors” in this informative training program on vehicle electronics. Senior Delphi Technologies instructor Dave Hobbs will cover sensor diagnostics with a meter and scan tool both on the bench and on the vehicle to help you go behind the DTC trouble tree when encountering difficult sensor problems! We’ll Discuss Different Types of Sensors Temperature Sensors Dual curve ECT sensors AND the new switching dual curve ECT sensors Rotational Sensors CKP, CMP, SAS (Steering Angle) and WSS (Wheel Speed Sensors) MAF Sensors Checking MAF accuracy with VE Testing Pressure Sensors MAP &amp; Baro Sensor Correlation Knock Sensors Tuned and Wide Band We’ll Demonstrate Advanced Sensor Diagnostics How to test a knock sensor on the engine or on the bench How to verify a default from a real sensor value on a scan tool How to put sensors into “Dead Bands” to test wiring and ECUs ECU pull up resistors / how sensor voltage divider networks work Multiple 5-volt reference circuit equipped vehicles How to perform voltage drop tests on low current</p>



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				<p>sensor circuits Advanced diagnostics for multiple sensor DTCs using vehicle schematics This course will assist the professional service technician to Understand some of the more common types of sensors used in automotive systems today Increase their knowledge beyond simply reading sensor values on a scan tool Better utilize their DMM (Digital Multimeter) when a DTC doesn't lead to a solution Master the use of complex schematics in solving multiple sensor DTCs</p>
LBT-373 Bosch Why High Pressure Pumps Fail	LBT-373	OLT	1:30	<p>Many times, the high-pressure pump is to blame for a low-pressure code or performance issue related to low pressure. Often the technician does a multiple of tests and from those tests determines that the high-pressure pump is the fault. After replacing the high-pressure pump, the vehicle still has issues and only to find out there was another cause of the low pressure. Another concern is what caused the system to fail. If the high-pressure pump has failed the question should be asked, what caused the high pressure to fail? What is the fuel is tested and no contamination is found. This program will give you the knowledge to understand what influences the high pressure to make high pressure. Test procedures beyond the manufactures steps. Course Objectives: Identify different types for supply pumps How to check the supply system How to check the high-pressure pump Perform contamination check What to replace when contamination is found Injector return testing</p>
LBT-374 Delphi Technologies Training Series: Variables of AC compressors	LBT-374	OLT	1:30	<p>Delphi Technologies will help the advanced service technician learn to more accurately diagnose variable displacement compressors in this informative training program on automotive air conditioning. Senior Delphi Technologies instructor Dave Hobbs will explain compressor diagnostics with a scan tool and specialty A/C test equipment to help you go beyond the DTC trouble trees when</p>



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				<p>encountering difficult A/C problems. Topics Covered Variable Displacement Compressor Control Valves Pressure Controlled Displacement Valves Solenoid Controlled Displacement Valves Advanced A/C Diagnostic Techniques Pressure Testing Tips Temperature Testing Tips In-depth Variable Displacement Compressor Diagnostics Scan Tool Compressor Displacement Control Solenoid PIDs Specialty Tool Displacement Control Solenoid Activation Course Objectives This course will assist the professional service technician to: Understand variable displacement compressor operation and diagnostics Increase their knowledge beyond simply reading gauge pressures Better utilize their scan tool to diagnose compressor related issues Learn to activate variable displacement compressor solenoids in their diagnostic process</p>
LBT-375 Key Programming Using the Ford FDRS	LBT-375	OLT	1:30	<p>This course provides the participant with an overview, as well as step by step instructions on utilizing OEM resources, specifically Ford Motorcraft Service FJDS and FDRS software to learn keys or Intelligent Keys when all keys or Intelligent Keys are lost for late model Ford Lincoln Mercury vehicles. Learning Objectives: The participant can successfully locate, download and install FJDS and FDRS software given necessary access. The participant can successfully initiate an NASTF SDRM D1 Form, collect required data for a Customer Authorization D1. The participant can execute a Key Code Lookup utilizing <a href="http://Motorcraftservices.com">Motorcraftservices.com</a> The participant can perform the necessary steps in the FJDS software application in order to learn a new key through Pats Functions. The participant can perform the necessary steps in the FDRS software application in order to learn a new proximity key through Pats function. The participant can complete a D1 transaction through Nastf Sdrm in order to close out the transaction. The participant can troubleshoot</p>





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				<p>various steps of the learn key procedure and communication process in order to resolve common issues. Requirements to Complete Key Reprogramming: NASTF LSID J2534 Compatible Device and connectors Proper key or proximity (2 each if clearing and erasing) PC that meets the Motorcraft Services requirements. Key Machine capable of decoding Key Codes and cutting sidwinder style keys. Battery Maintainer or Clean Power Supply</p>
LBT-378 Labscope Testing of Automotive Sensor Signals	LBT-378	OLT	1:15	<p>Every technician that uses or is looking to start using a labscope in their diagnostics will gain valuable knowledge form this course. Instructor Ron Bilyeu covers all of the critical sensor signals you will encounter, and what you should be looking for when interpreting their patterns and waveforms. Course Objectives: Upon completion of this course, the participant will be able to: Explain the Various Types of Waveform Patterns Identify the Major Automotive Sensors Interpret Major Automotive Sensor Waveform Patterns Describe Using Pattern Analysis for Diagnostic Purposes Recognize Problem Patterns &amp; Their Meaning Topics covered include: Throttle &amp; Thermistor Sensors Hall Effect &amp; Mass Air Flow Sensors O2 Sensors &amp; Fuel Injector Analysis Ignition Patterns Amp Probe Testing And More...</p>
LBT-379 Service Writing for Diesel Shops	LBT-379	OLT	2:30	<p>Service writing for diesel shops can be quite different than other types of repair facilities. AVI instructor Tony Salas delivers this course from a real-world perspective, having owned his own diesel repair shop for many years. If you are a service writer for diesel, this course will definitely give you valuable information to make your shop more money. Course Objectives: Upon completion of this course, the participant will be able to: Explain the Basics of Diesel Engine Operation Identify the Components and Parts of a Diesel Engine Describe Possible Issues with Component</p>



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				<p>Operations Recognize Documentation Issues from Technicians Describe the Proper Method of Quoting Labor Rates Topics covered include: Diesel Basics Diesel Compression Operation Diesel Emission Systems Diesel Fuel Systems and Fuel Controls Different Diesel Manufacturers Common Rail Fuel Function and Issues Proper Pricing and Documentation for the Service Order And More...</p>
<p>LBT-380 Fiat Chrysler Automobiles (FCA) 3.0L V6 EcoDiesel</p>	LBT-380	OLT	2:15	<p>Have you have seen the 3.0L EcoDiesel from FCA at your shop yet? You probably will shortly as they come off factory warranty soon. The 2020 is the third generation of this engine design and the changes have made this engine even better. Get a look into this powerful 3.0L EcoDiesel during this course. Newly designed solenoid injectors, from Bosch, have the ability to open and close as many times as Piezo injectors per stroke. Using the latest (5.1) DEF dosing system, get an OE supplier's look into this system. Topics Covered: Changes from 1 – 3 generation EcoDiesel High pressure pump fuel testing Bosch 2.2 balanced solenoid fuel injectors Scope patterns of injector pulses per event DEF dosing control system After-treatment system overview Scan data verifying EGT sensors And much more</p>
<p>LBT-389 AFV Towing Safety</p>	LBT-389	OLT	1:15	<p>A variety of factors in today's transportation arena are making alternative fuel vehicles more common on our nation's roadways. With increased vehicle use, the chance of these new technologies being involved in a vehicular accident also increases. This course helps participants learn the concerns, differences, and proper procedures to follow when towing an alternative fuel vehicle. The vehicle types covered in this course include electric drive, propane, natural gas, biodiesel, and ethanol. The subjects covered in this course include:</p>



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				<p>Understand the properties of the alternative fuel, including each vehicle’s unique components. Recognize the proper personal protective equipment required for the tow operator. Be aware of how to identify each type of alternative fuel vehicle from its more conventionally powered counterparts. Identify the methods and procedures for alternative fuel vehicle fuel spills. Understand how to properly shut down and disable an alternative fuel vehicle. Know standard towing operations for each vehicle type.</p>
LBT-393 Labscopes For The New User	LBT-393	OLT	3:30	<p>This course, "Labscope for the New User," describes what labscopes are, what they should and should not be used for, and describes the standard features found on all 'scopes. Instructor Jim Wilson will also talk about the different types of labscopes, procedures to set them up correctly, and follow the necessary activities to self-educate on their use. Jim will also cover the five primary signal types, how to set the labscope’s time, voltage and trigger, pattern of the signal, and the five critical dimensions of amplitude. The student will complete this class in understanding how a labscope can be used in their daily diagnostic procedures, how to choose the best ‘scope for their needs, and the best way to build and maintain the skills needed to effectively and efficiently use their labscope.</p>
LBT-394 Improving Your Road Test Procedures for Fuel Trim Diagnostics	LBT-394	OLT	1:00	<p>Are you making the best use of your road tests for diagnostics? Join us to discover a procedure that has been proven to work on no-code and code diagnostics to determine the PCM fuel control for driveability issues. This proven four-step procedure, when added to the roadtest, will greatly help as your first step in the diagnostic process for engine performance. Course Objectives: Validating Fuel Trim Control When to use the Enhanced Side of the scan tool or OBD2 side Evaluating sensors inputs Why use this as a starting point</p>



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				in all diagnostics How to use the similar conditions window Determine Rear o2 Fuel Trim How to read Freeze Frame and Drive Cycles You are already doing roadtests, so why not make the best use of your time?
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