

- Instructor-Led Training
- Half Day Training
- Seminars
- InShop Training
- Web-Based Training
- TECHAssist
- Simulations
- Self Study Training
- Virtual Classroom Training
- Video on Demand
- TechTube Videos



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ACDelco | **BE CERTAIN**

INNOVATION STARTS WITH THE ORIGINAL

Steeped In Tradition

For years, ACDelco has been recognized as a world-class leader in the automotive aftermarket parts business and it's no surprise, since the brand dates back as far as the turn of the 20th century.

Our strong presence in the industry, as well as our commitment to the ultimate in quality, has stayed consistent, helping us build a worldwide reputation as a premium source for experience, dependability, technology and performance.

- 1901** The Remy brothers founded the Remy Electric Company.
- 1908** The AC Spark Plug Division was established by Albert Champion.
- 1910** C.F. Kettering invented electric starting equipment for automobiles and Dayton Engineering Laboratories Company (DELCO) began producing these parts.
- 1916** United Motors Corporation (UMC) was formed by William Durant: That same year, William Durant formed United Motors Service, Inc. (UMC) to distribute and service parts made by UMC. UMC was the forerunner for General Motors® parts business.
- 1926** Remy Electric merged with Dayton Engineering Labs Company (DELCO) to form Delco Remy Corporation.
- 1971** UMC changed its name to United Delco Division.
- 1974** United Delco and AC Spark Plug sales and marketing organizations merged resulting in the ACDelco Division.
- 1986** GM Service Parts Operations (GMSPO) was created and ACDelco represented it in the aftermarket.
- 1995** The ACDelco logo changed its appearance to reflect a continuing commitment to expanding its aftermarket presence with all-makes and all-models product coverage.
- 2010** Formerly "Service and Parts Operation", GM changes the name to "Customer Care and Aftersales" to better reflect GM's commitment to customer satisfaction. The new name better reflects GM's critical role in customer retention and service after the sale.
- 2016** ACDelco celebrates 100 years in the aftermarket, with an eye on future vehicle technologies and more than 90,000 parts and 37 product lines.
- Today** ACDelco continues to reinforce its dedication to global aftermarket leadership with a strong pledge to uncompromising standards and a full offering of quality automotive replacement parts for all makes and all models of vehicles.



The early brains behind the brand, from left: Albert Champion, Frank Remy, and William Durant



1908 - AC Spark Plug Division



1916 - United Motor Service, Inc.



1971 - United Delco Division



1974 - AC-Delco Division



1995 - The new ACDelco

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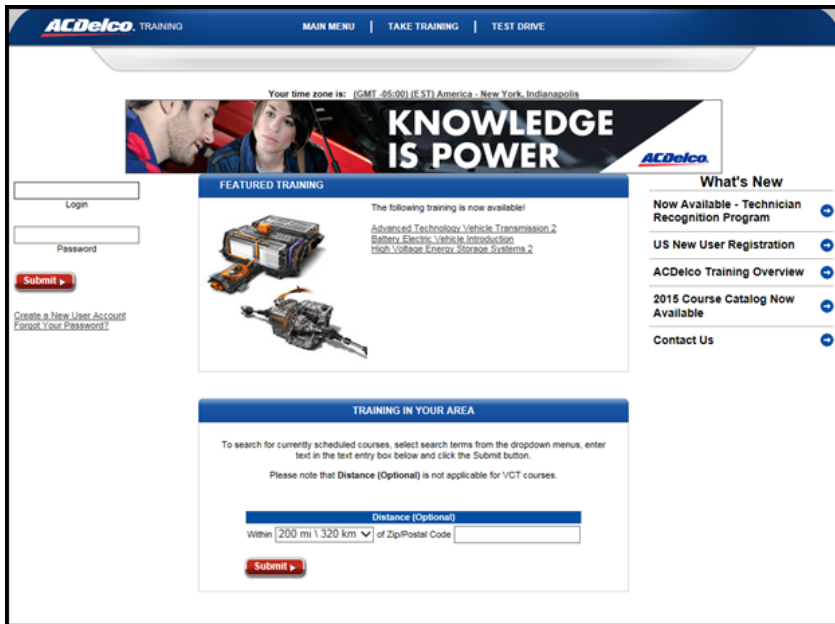
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Learning Management System

ACDelco's Learning Management System (LMS) offers single source access for training 24/7.

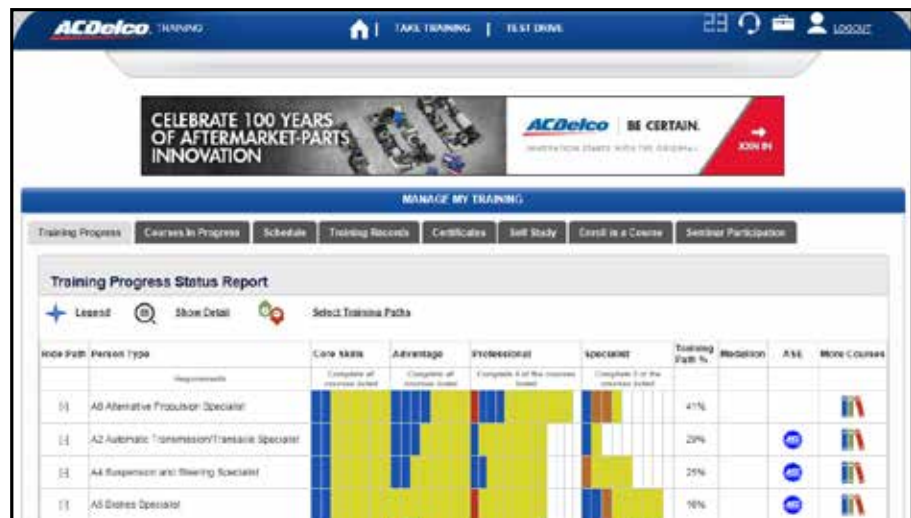


What is it?

The ACDelco LMS delivers a global, single point of access for training for all personnel. The LMS is an easy-to-use, web-based application that streamlines the delivery and administration of the training program. Its many features reduce overall training costs and maximize employee time on the job.

What can it do?

- Offers a web-based, single point of access to training courses and student history
- Contains simple navigation that flattens the learning curve for Web-Based Training (WBT)
- Allows for scheduling and enrolling in Instructor-Led Training (ILT) events
- Permits access to comprehensive training materials
- Tracks learner progress
- Includes assessment / testing capabilities
- Ensures security of data



The ACDelco LMS enhances the ability to improve organizational skills and performance, without reducing employee productivity. It provides the strong foundation needed for any learning program. Currently the LMS supports Web-Based Training (WBT), simulations, Instructor-Led Training (ILT), Virtual Classroom Training (VCT) and streaming video.

INTRODUCTION

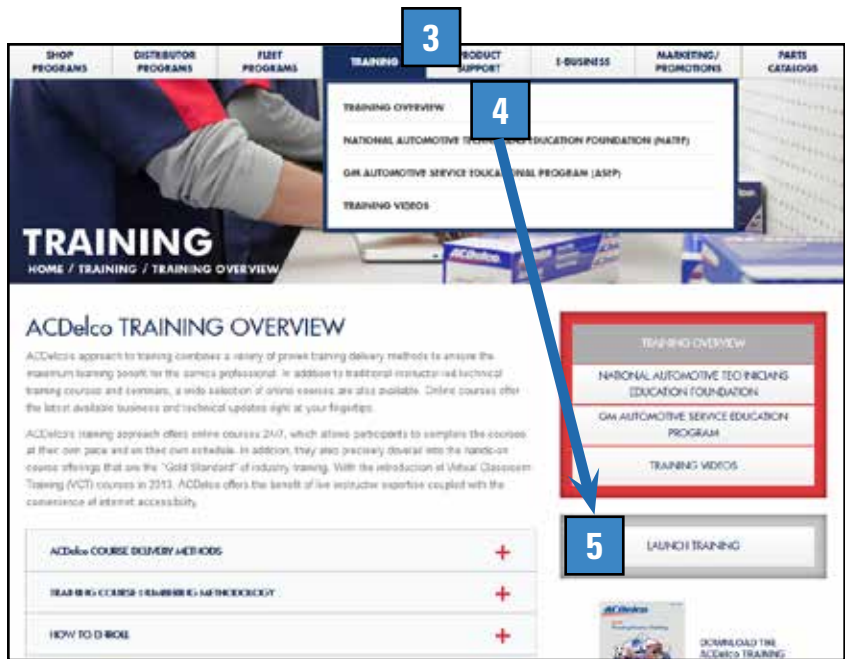
Access the ACDelco LMS:

1. Open your Internet browser
2. Type the following into your address bar: www.acdelcotechconnect.com
3. Click on **Training** tab
4. Click on the **Training Overview** option
5. Click **Launch Training**

Arrive at the ACDelco LMS login page

Tip:

If you are an ACDelco program member, you must know your six-digit account number to register. If you don't know it, ask your manager or ACDelco rep.

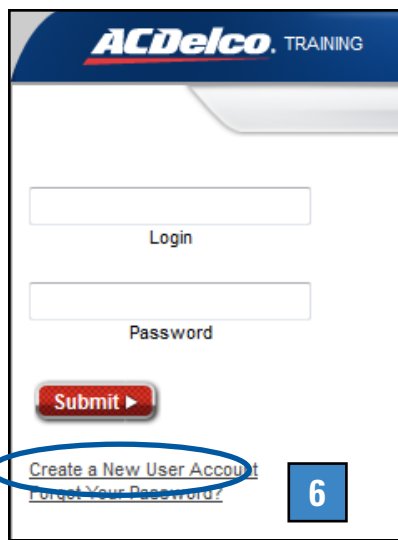


Create an Account:

6. Click on **Create a New User Account**
7. Complete the New User form
8. Click **Submit**
9. The system will generate a password for you, but you will be prompted to change it

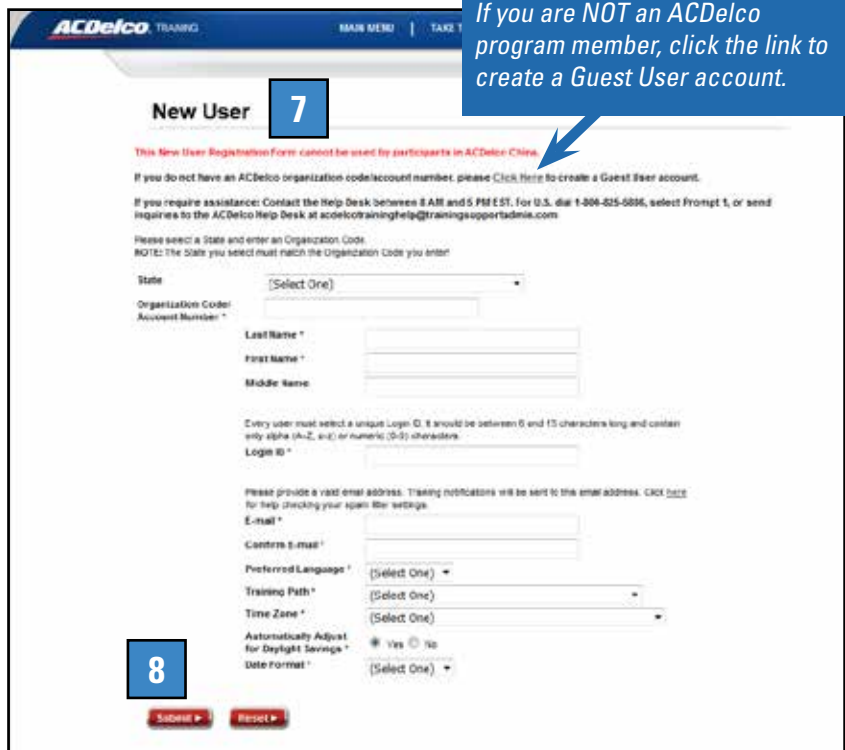
Tip:

If you are NOT an ACDelco program member, click the link to create a Guest User account.



Tip:

After registering, you will be prompted to change your password right away. Remember to write down your log-in ID!



Login to the LMS:

11. Return to the Home page by clicking on the ACDelco logo at the top
12. Enter your login information
13. Click **Submit**

ACDelco Training Approach

ACDelco's approach to training combines a variety of proven training delivery methods to ensure the maximum learning benefit for the service professional. In addition to traditional instructor-led technical training courses & seminars, a wide selection of online courses are also available. Online courses offer the latest available business & technical updates right at your fingertips.

ACDelco's training approach offers online courses 24/7 which allow participants to complete the courses at their own pace and on their own schedule. In addition, they also precisely dovetail into the hands-on course offerings that are the "Gold Standard" of industry training.

Below is a brief description of the various course delivery methods:

Face-to-Face Training



INSTRUCTOR-LED TRAINING (ILT) courses are available in full-day (8 hour) and half day (4 hour) sessions, and are presented by an ACDelco instructor. Training is presented utilizing vehicles, hands-on exercises and diagnostic situations. Registration for these courses can be accessed through the ACDelco Learning Management System (LMS). Each instructor-led course is available for no additional charge to non-program participants for a nominal charge of \$175.00.



HALF DAY TRAINING (HDT) courses are half day versions of full-length ILT sessions. An ACDelco Instructor leads the group through on-vehicle exercises and diagnostic skills in half the time. These sessions are tailored for those who want the benefits of Instructor-Led Training, but may not be able to commit to an entire day. Each half day training course is available to non-program participants for a nominal charge of \$100.00.



SEMINARS (SEM) are 3-hour sessions that are interactive and fast-paced and are presented by an ACDelco professional in a shop or distributor facility. Seminars are designed to keep technicians abreast of rapidly changing vehicle technology, product information and diagnostic tips on ACDelco's top product lines.



INSHOP TRAINING (IST) sessions are shorter Seminars, usually about an hour in duration. During InShop sessions, the ACDelco professional brings a live procedure or demonstration right into the service bay. They are designed for much smaller audiences - typically less than 5 technicians - and the format is more informal than a full Seminar.

Pricing is dependent upon program participation. Contact your ACDelco representative or visit acdelcotechconnect.com for more information.

Information on how to enroll or access is on the following pages.

INTRODUCTION

Online Training



WEB-BASED TRAINING (WBT) courses range from 1-2 hours in length. Content is presented through voiceover narration, on-screen text, graphics, animations and videos. Technicians are tested on their progress frequently by completing activities and tests. Each web-based course is available to non-program participants for a nominal charge of \$100.00.



TECHASSIST (TAS) are shorter versions of WBT courses, typically 15-20 minutes in length. These courses provide technicians content tailored to a specific task, procedure or common concern, and are designed to provide highly relevant information about current challenges technicians face. Each TECHAssist course is available to non-program participants for a nominal charge of \$20.00.



SIMULATIONS (SIM) address challenging diagnostic scenarios by presenting the technician with a virtual repair order, access to Service Information and fully-functional tools needed to service the repair. These courses bring a hands on environment to the web and are just as accessible and convenient as WBT and TECHAssist. Each interactive simulation is available to non-program participants for a nominal charge of \$50.00.



SELF STUDY TRAINING (SST) courses are downloadable packets of technical information that can typically be reviewed in less than one hour. These guides are intended to help participants understand the technical aspect of various vehicle systems. Participants have the option to complete a test once material has been reviewed to receive credit for the course.



VIRTUAL CLASSROOM TRAINING (VCT) courses are live sessions available through the Internet and are presented by a live ACDelco instructor. Content is presented utilizing animations, graphics and videos. Group discussions and activities as they apply to the content are also facilitated. A VCT has just about everything a live classroom training provides, but without the travel. Each instructor-led course is available to non-program participants for a nominal charge of \$50.00.



VIDEO ON DEMAND (VOD) courses offer technicians the ability to view previously recorded content at any time. These videos are searchable, include the ability to navigate through specific topics, and are now compatible with mobile phones and tablet devices. Each video on demand course is available to non-program participants for a nominal charge of \$20.00.



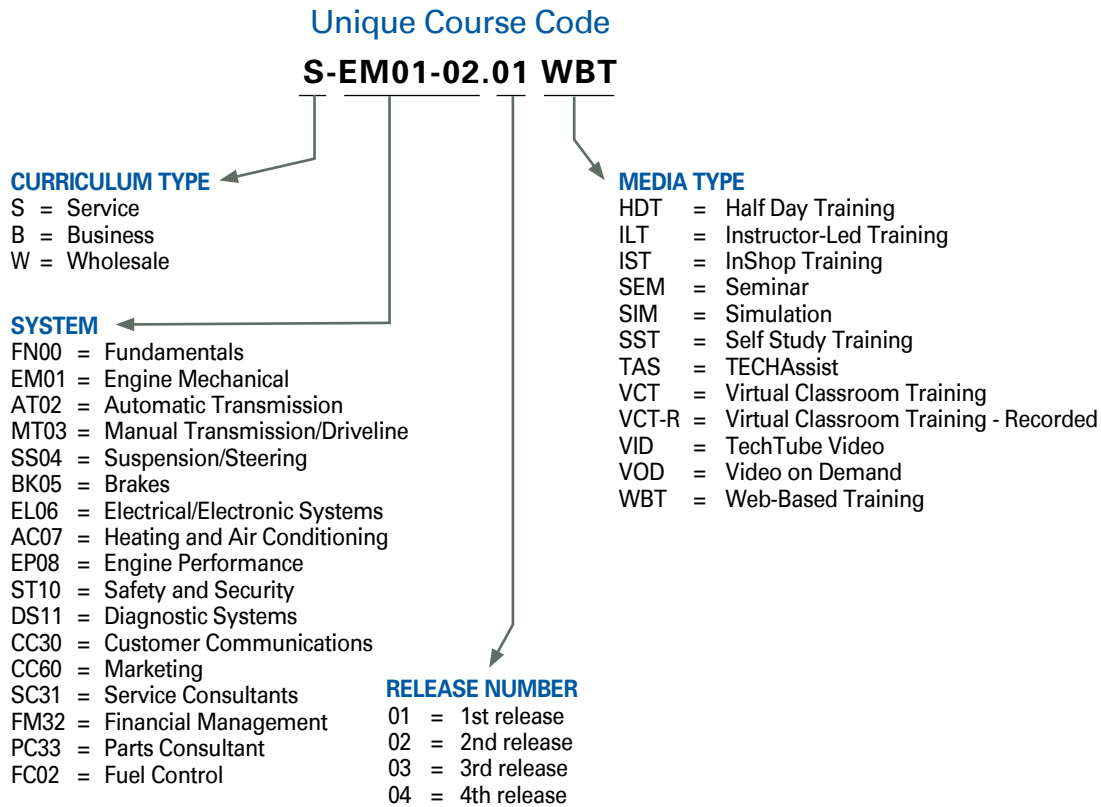
TECHTUBE VIDEO (VID) are short videos that focus on specific diagnostic procedures. Typically 3-7 minutes in length, these brief instructional videos offer a quick and convenient way to view various topics of instructional interest.

Pricing is dependent upon program participation. Contact your ACDelco representative or visit acdelcotechconnect.com for more information.

Information on how to enroll or access is on the following pages.

ACDelco Training Course Numbering Methodology

Each ACDelco training course has a unique number. This number not only individually identifies each course for enrollment and credit tracking, but is combined with an alpha or numeric suffix to inventory all associated course materials.



Enrolling in Courses

To enroll, simply access www.acdelcotraining.com and register as a new user on the Learning Management System (LMS). You must be a registered user in order to gain access into the LMS.

If you are not a current user or need help with your user ID and password, contact the Help Desk between 8:00 a.m. and 5:00 p.m. (EST) at 1-800-825-5886 and select prompt 1. You will need your organization's six-digit account number available to register as a user.

My User ID: _____ My
 Password: _____

The LMS is easy to use and offers a convenient mechanism to view course schedules and either:

- Enroll in all types of courses
- Request classes at remote training sites
- Launch any online training course 24/7

The LMS will also generate email notifications/reminders the week prior to training. Additionally, the LMS includes training reporting capabilities that allow tracking and monitoring of training sessions and training history.

INTRODUCTION



Instructor-Led Training (ILT)

Instructor-Led Training (ILT) courses are full-day courses facilitated by an ACDelco instructor. Training is presented utilizing vehicles and hands-on exercises, providing technicians the opportunity to apply diagnostic skills to real concerns on actual vehicles.



Half Day Training (HDT)

ACDelco offers Half Day Training (HDT) sessions, which allow technicians to experience the same elements as a full-day ILT session, but in half the time. These 4-hour hands-on sessions are facilitated by an ACDelco Instructor at a dedicated training center. Training is presented utilizing vehicles and hands-on exercises, providing technicians the opportunity to apply diagnostic skills to real concerns on actual vehicles. Enroll in a course today by accessing the schedule search feature at www.acdelcotraining.com.

To enroll in ILT and HDT sessions, visit acdelcotraining.com, log in and click **Schedule > Schedule Search** from the **TAKE TRAINING** menu. Enter your search criteria and click **Submit**.

You can also search for ILT and HDT sessions by entering your zip code in the Distance Search area.

The screenshot shows the 'ACDelco TRAINING' website's 'Schedule' search page. The page has a blue header with 'TAKE TRAINING' and 'TEST DRIVE' links. A dropdown menu is open, showing 'Catalog', 'Schedule', and 'Training'. Below the menu, there's a search instruction: 'To search for currently scheduled courses, select search terms from the dropdown menus, enter text in the text entry box below and click the Submit button. Please note that Distance (Optional) is not applicable for VCT courses.' The search form includes: 'Course Number' (dropdown), 'Ends with' (dropdown), 'Ends with' (text input with 'ILT' entered), 'Date Range' (January 1, 2017 to March 29, 2016), 'Course Category' (All), and 'Distance (Optional)' (Within 200 mi / 320 km of Zip/Postal Code 48439). There are 'Submit' and 'Reset' buttons.

The screenshot shows the 'TRAINING IN YOUR AREA' section of the website. It features a blue header with the title. Below it, there's a section for 'My Preferred Training Centers' with instructions to edit the profile. A specific center is listed: 'Baker College - Flint, MI'. There's a link to 'Request Unscheduled Course' and instructions to find sessions by zip or postal code. A search form is provided with 'Distance (Optional)' (Within 200 mi / 320 km of Zip/Postal Code 48439) and a 'Submit' button.

TIP: For quicker search results, use the Training in my Area section of the homepage. You can also save your local Training Centers and view results at those locations.





Web-Based Training (WBT)

Web-Based Training (WBT) courses are typically 1-2 hours in length. Content is presented through voiceover narration, on-screen text, graphics, animations and videos. Technicians are tested on their progress frequently by completing activities and tests.

For a complete listing of all WBTs available, log in to acdelcotraining.com, click on the **TAKE TRAINING** menu > **Catalog > Catalog Search**, select the **Delivery Type** area and then select **Service Web-Based Training**.



New WBTs released in 2016 include:

8-Speed Automatic Transmission Overview	S-AT02-13.01WBT	Gas-Diesel Engine Mechanical Diagnosis and Measurement	S-EM01-04.01WBT
HVAC Systems and Operation Stage 2	S-AC07-09.03WBT	2.8L Duramax	S-EP08-84.01WBT
HVAC Systems and Operation Stage 3	S-AC07-14.01WBT	Bi-Fuel Systems Operation (Impala)	S-EP08-85.01WBT
GM Braking Systems 6	S-BK05-17.01WBT	Diesel Engine Performance 4	S-EP08-86.01WBT
Tech 2 Familiarization	S-DS11-01.05WBT	Medium Duty Truck Overview	S-EP08-87.01WBT
Noise, Vibration and Harshness (NVH)	S-DS11-04.03WBT	Medium Duty Truck Powertrain	S-EP08-88.01WBT
Data Bus Diagnostic Tool	S-DS11-15.01WBT	SI Overview	S-FN00-02.03WBT
Entertainment Systems 2	S-EL06-20.04WBT	GDS 2	S-FN00-06.02WBT
Entertainment Systems 3	S-EL06-21.03WBT	Multiple Diagnostic Interface (MDI) 2	S-FN00-24.01WBT
Gen 2 EREV Intro	S-EL06-75.01WBT	Vehicle Rollover Protection System	S-ST10-07.01WBT
eAssist Introduction 2	S-EL06-77.01WBT	Vehicle Network Security	S-ST10-08.01WBT
eAssist Battery Storage System 2	S-EL06-78.01WBT		
12V Stop / Start System 2	S-EL06-79.01WBT		

INTRODUCTION



TECHAssist (TAS)

TECHAssists (TAS) are shorter versions of WBTs - typically 15-20 minutes. These courses provide technicians content tailored to a specific task, procedure or common concern, and are designed to provide highly relevant information about current challenges technicians face.

TECHAssists are available on the following topics. To search for all TECHAssist topics, log in to acdelcotraining.com, click on the **TAKE TRAINING** menu > **Catalog** > **Catalog Search**, select the **Delivery Type** area and then select **TECHAssist**.

Tire Pressure Monitoring System (TPM) Diagnostics	S-DS11-07.01TAS	Multi-Panel Panoramic Roof	S-ST10-05.01TAS
Understanding Strategy Based Diagnostics	S-DS11-08.01TAS	4.3L Timing Tensioner Kit	S-EM01-02.01TAS
Saturn AURA & Chevrolet Malibu Hybrid	S-EL06-23.01TAS	Camshaft Variable Lift Systems	S-EM01-05.01TAS
eAssist Safety	S-EL06-48.01TAS	New Cylinder Bore Liner/ Piston Sleeve Replacement	S-EM01-03.01TAS
Chevrolet Volt High Voltage Disable Procedure	S-EL06-54.01TAS	4L60E Input Speed Sensor Overview	S-AT02-03.01TAS
Micrometer Basics	S-FN00-01.01TAS	Diagnosing the 4T65-E Valve Body	S-AT02-01.01TAS
Brake Drum Measurement	S-FN00-02.01TAS	Base Suspension	S-SS04-05.01TAS
Introduction to Automotive Oscilloscope	S-FN00-04.01TAS	Electric Power Steering Systems	S-SS04-03.01TAS
Service Information Search	S-FN00-05.01TAS	High Performance Strut Suspension	S-SS04-08.01TAS
		Rack-mount Electric Steering	S-SS04-06.01TAS



Virtual Classroom Training (VCT)

VCT is a learning technology that allows:

- Participants to engage directly with the instructor and other participants over the Internet
- The ability to view animations, graphics and videos related to the content
- New repair and diagnostic techniques to be quickly launched with direct instructor interaction

To sign up for a live VCT session today, log in to acdelcotraining.com, click on **Schedule** from the **TAKE TRAINING** menu, and then **Search Course Sessions**. Enter the search name or number into the search criteria, select a date range, and click the **Submit** button.

You may also view the next live VCT session on the homepage in the **VCT Countdown** area.

The latest VCT topics include:

Automatic Transmission Diagnosis and Service	S-AT02-05.01VCT S-AT02-06.01VCT
Gas/Diesel Engine Mechanical Diagnosis and Measurement	S-EM01-06.01VCT
Camshaft Position Actuator Systems 1	S-EM01-04.01VCT
Camshaft Position Actuator Systems 2	S-EM01-05.01VCT



VCT COUNTDOWN

S-EM01-06.01VCT
Gas/Diesel Engine Mechanical Diagnosis

begins in

8 **4** **22**
Days Hours Minutes

There are 25 seats available

[Click here to enroll now](#)



Video on Demand (VOD)

Video on Demand (VOD) allows technicians to review previously recorded content on the Learning Management System (LMS) at any time. VOD courses include monthly Service Know How Emerging Issues broadcasts from 2006 to current. This series of monthly broadcasts is designed to keep the service technicians up-to-date on current issues. During each 60-minute session, current GM service bulletins and warranty issues will be highlighted for technical awareness. Each session will feature a major service topic, supported by GM engineering and service experts. Regular segments include:

- Top Stories
- Featured Topic
- What's Hot for Cars
- What's Hot for Trucks
- Powertrain
- Back to Basics
- Fix it Right the First Time

Additionally, technicians are encouraged to ask questions and suggest topics via email.



In addition to these Emerging Issues broadcasts, the following VOD sessions are also available:

PicoScope Noise, Vibration, and Harshness Diagnostics Overview	13042.13V	Axles and Propshafts	14041.15D1
5L40/5L50 Automatic Transmission Service Procedures	17041.36V	T-56 Unit Repair	17043.40V
6L80 Functions and Features	17041.60V	Transfer Case Overhaul	14040.05V
6-Speed Automatic Transmission Fluid Fill Procedure(s)	17041.62V	Versatrak All-Wheel Drive System	14340.10V
6T40/45 Unit Repair	17041.52V	Rear Wheel Steering (QuadraSteer)	13041.20D
6T70/75 Automatic Transaxle Unit Repair	17041.55V	Silverado/Sierra Vibration and Launch Shudder Correction	13241.20V
Automatic Transmission Diagnosis	17041.51D	Tire Service & Diagnosis	13044.15V
Getrag F23 Manual Gearbox Unit Repair	17043.41V	Spark Ignited Direct Injection (SIDI) Fuel Injection System	16044.20D
Hydra-Matic 4L60-E Transmission DTC P1870 Diagnosis	17040.01V	GM Braking Systems	15045.11D2
TCC Diagnostic Tips	17040.10V	HHR Waterleak Diagnostics and Repair	22249.53V
Transmissions New & Updates: 6T70/75 Introduction and Service Procedures	17440.11D	ACR 2000 Familiarization	11045.05V
Transmissions: New & Updates: 6T40/45	17440.12D	2.4L Ecotec Engine Overhaul	16341.03V
AWD/4WD Diagnosis	14040.01V	2.8L Turbo V6 Engine	16049.10V
		4200 Engine Familiarization	16340.20V
		High Feature V6 Engine	16341.05V
		LZ Engine Family Introduction	16341.02V

To search for VOD sessions in the LMS, click on the **TAKE TRAINING** menu > **Catalog** > **Catalog Search**, select the **Delivery Type** area and then select **Video on Demand**. VOD broadcasts are also available from the mobile LMS.



INTRODUCTION



TechTube Videos (VID)

ACDelco TechTube videos (VID) are short, vignette-style videos (typically 3-7 minutes) that are focused on specific technical procedures. These brief instructional videos offer a quick and convenient way to view various topics of instructional interest and value. Browse for videos today by accessing the training catalog on www.acdelcotraining.com.



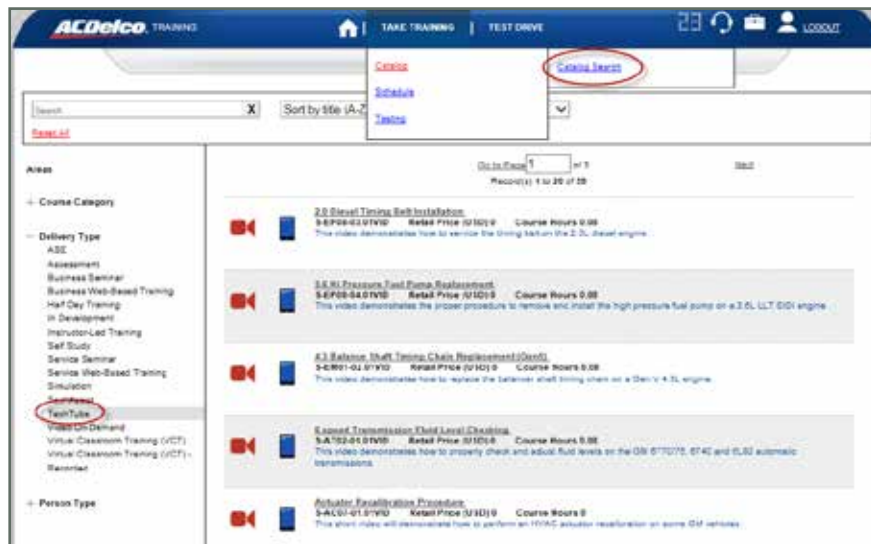
TechTubes are also tablet and smart phone compatible!

There are over 60 TechTubes available. Topics include:

- Battery Testing and Charging
- 1234yf Refrigerant
- Throttle Body Replacement
- TPMS

TechTube topics also include a series on reprogramming using the MDI and GDS2, Diesel Exhaust Treatment and MIG welding, for body technicians.

To access TechTube videos, visit acdelcotraining.com, select **Catalog > Catalog Search** from the **TAKE TRAINING** menu, and click on **TechTube** under the **Delivery Type** area.



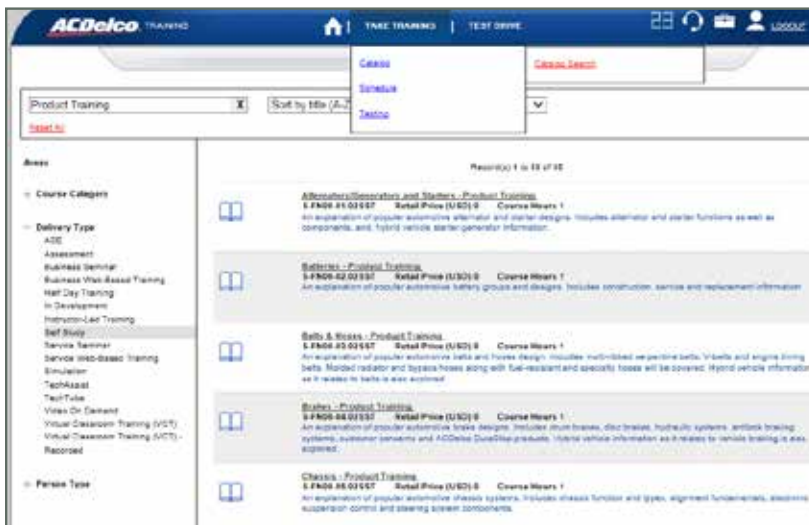


Self Study Training (SST)

Self Study Training (SST) courses are downloadable packets of technical information that can typically be reviewed in less than one hour. These guides are intended to help participants understand the technical aspect of various vehicle systems. After reviewing the information, participants may receive credit for the course by completing a test.

To access the SST courses, visit acdelcotraining.com, log in and click **Catalog > Catalog Search** from the **TAKE TRAINING** menu. In the **Delivery Type** area, select **Self Study Training**.

To view the material, click on the Click Here link from the course entry page. To complete the test, click on Test Out.



The available SST courses are listed below:

ASE Heating and Air Conditioning (Test A7) Prep	S-AC07-A7.01SST	Manual Transmission Clutch	S-FN00-06.02SST
ASE Automatic Transmission/Transaxle (Test A2) Prep	S-AT02-A2.01SST	Emissions	S-FN00-07.02SST
ASE Brakes (Test A5) Prep	S-BK05-A5.01SST	Filters	S-FN00-08.02SST
ASE Electrical/Electronic Systems (Test A6) Prep	S-EL06-A6.01SST	Fluids and Chemicals	S-FN00-09.02SST
ASE Engine Repair (Test A1) Prep	S-EM01-A1.01SST	Fuel Systems	S-FN00-10.02SST
ASE Engine Performance (Test A8) Prep	S-EP08-A8.01SST	HVAC	S-FN00-11.02SST
ASE Light Vehicle - Compressed Natural Gas (Test F1) Prep	S-FN00-F1.01SST	Ignition	S-FN00-12.02SST
Alternators/Generators and Starters	S-FN00-01.02SST	Engine Cooling System	S-FN00-13.02SST
Batteries	S-FN00-02.02SST	Shocks, Struts, Rack and Pinion	S-FN00-14.02SST
Belts and Hoses	S-FN00-03.02SST	Spark Plugs	S-FN00-15.02SST
Brakes	S-FN00-04.02SST	ASE Exhaust Systems (Test X1) Prep	S-FN00-X1.01SST
Chassis	S-FN00-05.02SST	ASE Manual Drive Train and Axles (Test A3) Prep	S-MT03-A3.01SST
		ASE Suspension and Steering (Test A4) Prep	S-SS04-A4.01SST

INTRODUCTION



Simulations (SIM) or Diagnostic Exercises

ACDelco offers Simulation (SIM) web-based courses that feature Diagnostic Exercises. These simulation-based courses are also compatible on tablet devices. They offer an interactive approach to follow a Diagnostic Exercise from the customer's concern to completing the repair. While being coached, participants safely practice multiple procedures, in a virtual environment that acts as a knowledge bridge between traditional WBT and hands-on training.

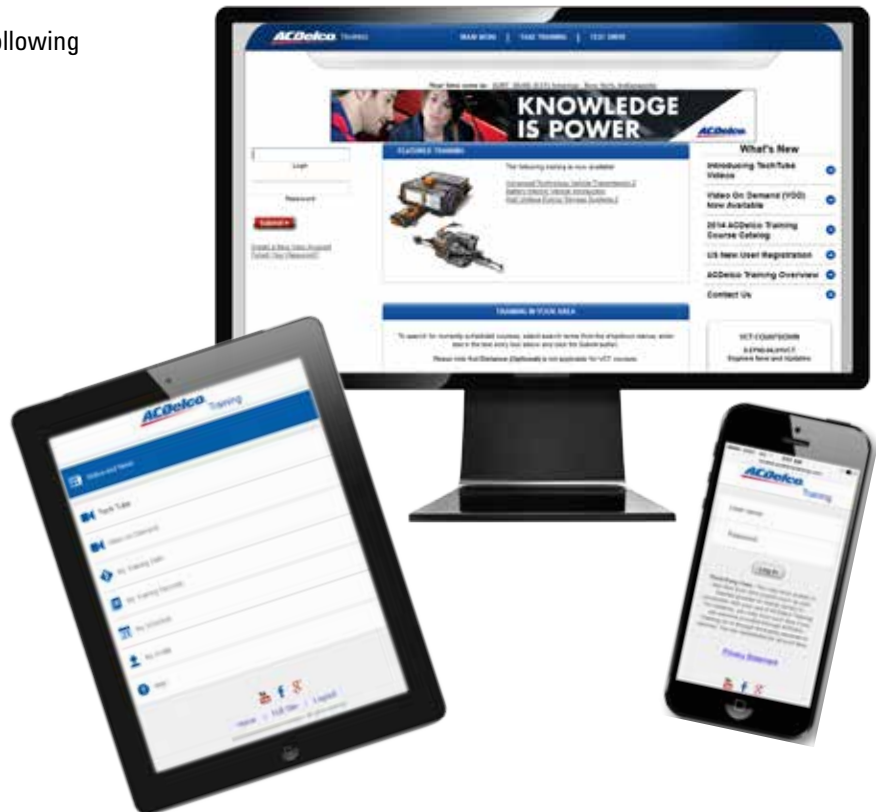


Try a Diagnostic Exercise on one of the following Internet browsers:

- Apple Safari
- Google Chrome
- Internet Explorer (IE) 10 or 11
- Mozilla Firefox

Mobile Site

The ACDelco training website is available on smart phone and tablet devices. Visit www.acdelcotraining.com from your device to browse features and content.



Technical Fundamentals

The technical fundamentals Web-Based Training (WBT) program features over sixty self-paced foundational service technical courses with testing and scoring features that provide tangible results. These courses offer ACDelco shops the opportunity to build upon their technician base, allowing learning when it is convenient for them. The main objective of these courses is to help shops build their business and enhance their customer satisfaction, with more experienced, and trained personnel.

This program helps aspiring technicians prepare to perform basic service repairs and maintenance on customer vehicles.

Access acdelcotraining.com to access these courses.

Introduction to HVAC	S-AC07-03.01WBT	Hybrid Brake Systems Overview	S-EL06-64.01WBT
Heating and Ventilation	S-AC07-04.01WBT	Communication and Entertainment Systems	S-EL06-65.01WBT
Air Conditioning	S-AC07-05.01WBT	Vehicle Networks	S-EL06-66.01WBT
HVAC Service	S-AC07-10.01WBT	Accident Avoidance Systems	S-EL06-67.01WBT
Advanced HVAC Systems and Controls	S-AC07-11.01WBT	Electrical Components and Circuits	S-EL06-69.01WBT
Auto Transmission Electronic Control System	S-AT02-12.01WBT	Electrical Sensors	S-EL06-72.01WBT
Base Brake Components	S-BK05-03.01WBT	Battery, Starting and Charging System Operation	S-EL06-73.01WBT
Brake System Operating Components	S-BK05-04.01WBT	Exhaust System Theory	S-EP08-06.01WBT
Introduction to Base Brakes	S-BK05-05.01WBT	Automotive Fuels	S-EP08-07.01WBT
Apply Assist System Repair	S-BK05-06.01WBT	Carburetor Fundamentals	S-EP08-08.01WBT
Hydraulic System Repair	S-BK05-07.01WBT	Diesel Emissions 1	S-EP08-09.01WBT
ABS Systems	S-BK05-08.01WBT	Engine Fundamentals	S-EP08-13.01WBT
Traction and Stability Control Systems	S-BK05-09.01WBT	Ignition System Fundamentals	S-EP08-14.01WBT
Machining Rotors and Drums	S-BK05-15.01WBT	Fuel Injection Systems	S-EP08-15.01WBT
ABS Diagnostics	S-BK05-16.01WBT	Induction Systems	S-EP08-16.01WBT
Fasteners, Seals & Gaskets	S-DS11-06.01WBT	Diesel Engine Introduction	S-EP08-35.01WBT
Automotive Meters	S-DS11-07.01WBT	Diesel Mechanical System	S-EP08-36.01WBT
Automotive Testers	S-DS11-08.01WBT	Diesel Engine Subsystems	S-EP08-37.01WBT
Automotive Analyzers	S-DS11-09.01WBT	Diesel Common Rail Fuel System	S-EP08-38.01WBT
Precision Measuring Tools	S-DS11-10.01WBT	Introduction to Diesel Emissions	S-EP08-39.01WBT
Diagnosis of DTCs	S-DS11-13.01WBT	Engine Management System Operation	S-EP08-40.01WBT
Electromagnetism	S-EL06-11.01WBT	Throttle and Idle Control System Operation	S-EP08-41.01WBT
Battery Theory	S-EL06-12.01WBT	Maintenance - Automotive Fluids	S-FN00-16.01WBT
Starting System Theory	S-EL06-13.01WBT	Maintenance - Behind the Wheel	S-FN00-17.01WBT
Charging System Theory	S-EL06-14.01WBT	Maintenance - Under Car	S-FN00-18.01WBT
Electrical Components	S-EL06-15.01WBT	Maintenance - Underhood	S-FN00-19.01WBT
Electrical Circuits	S-EL06-16.01WBT	Introduction to Drivetrain	S-MT03-14.01WBT
Computer System Fundamentals	S-EL06-17.01WBT	Manual Transmissions	S-MT03-15.01WBT
Electrical Theory	S-EL06-18.01WBT	Steering System Operation	S-SS04-02.01WBT
Electrical Schematics	S-EL06-25.01WBT	Suspension System Operation	S-SS04-03.01WBT
Advanced Battery Theory	S-EL06-26.01WBT	Tires and Wheels	S-SS04-04.01WBT
Hybrid Fundamentals	S-EL06-62.01WBT	Wheel Alignment	S-SS04-05.01WBT
Hybrid Safety Overview	S-EL06-63.01WBT	Tire Pressure Monitoring Systems	S-SS04-09.01WBT

INTRODUCTION

Technician Training Recognition Program

Looking to become a Top Tech? Study using ACDelco Training Paths!

ACDelco has launched a Training Recognition Program for technicians that features:

- 10 Training paths that align with core automotive ASE categories.
- Training reward system that awards individual medallions and a plaque to display medallions.
- Customized status communications that keep participants on track and up-to-date on completing their training paths.
- A variety of courses that feature the latest web-based, face-to-face, hands-on and technical seminar training.
- Various proficiency areas that technicians can learn within each training path.

Many Paths to Choose From!

The courses on the paths listed below present the latest automotive technologies to ensure that technicians gain the most real-world experience possible. Technicians who complete these paths will achieve “**Specialist**” status:

- A0 Alternative Propulsion
- A1 Engine Repair
- A2 Automatic Transmission / Transaxle
- A4 Suspension and Steering
- A5 Brakes
- A6 Electrical / Electronics Systems
- A7 Heating and Air Conditioning
- A8 Engine Performance
- A9 Light Duty Diesel
- A10 Body Electrical and Communications

Getting Rewarded!

Upon **100 percent completion** of training paths, both technicians and shop owners will receive:

- **Medallion** for each completed path
- **Plaque** on which to display the medallions
- **Certificate** showing completed training paths
- **Congratulation** letter



● Denotes that a course is part of the Technician Training Recognition Program.

Where do I Start?

- To access training, log into the training website www.acdelcotraining.com and view courses on the [Training Progress Status Report](#) on the homepage.
- This status report provides a personalized visual of your completion status toward your training paths. Participants can select and modify training paths by clicking [Select Training Paths](#) on the homepage.
- To take a course in the training path, select the [Show Detail](#) icon, simply click on the course you'd like to take, and click [Launch Course](#).

How will I Know My Status?

Your [Training Progress Status Report](#) will automatically update as you participate in training and the [Legend](#) color codes will show you what you have left to complete.

Technicians who complete training – and shop owners – will receive email notifications upon 25%, 50%, 75% and 100% completion of training paths. Please check the following options in your profile to ensure you will receive announcements:

- Verify** Spelling of your name – this is how it will appear on Certificates and Plaque
- Ensure** your email address is entered correctly.
- Agree to Terms and Conditions** and select the **Yes** confirmation button.
- Ensure** your **Training Announcements** are turned **ON**.
- Click **“Submit”** button to update your information

FUNDAMENTALS

Web-Based Training (WBT)



ELECTRICAL/ELECTRONICS STAGE 1

S-EL06-01.03WBT

Course Description: This course will examine the fundamentals of electricity and how it pertains to successful vehicle diagnosis and repair. Upon completion of this course, technicians will be able to identify the basic characteristics of electricity, basic characteristics of automotive electric circuits, characteristics of the Digital Multimeter (DMM) and characteristics of electrical circuit types.

Languages: English/Spanish/French



ELECTRICAL/ELECTRONICS STAGE 2

S-EL06-02.02WBT

Pre-Course Recommendation: S-EL06-01.03WBT

Course Description: This course will examine the fundamentals of electricity and how it pertains to successful vehicle diagnosis and repair. Upon completion of this course technicians will be able to identify electrical circuit components, characteristics and functions of wire control devices, characteristics and functions of circuit protectors, characteristics of electrical circuit faults and properties of permanent magnets and electromagnets.

Languages: English/Spanish/French



ELECTRICAL/ELECTRONICS STAGE 3

S-EL06-03.03WBT

Pre-Course Recommendation: S-EL06-01.03WBT and S-EL06-02.02WBT

Course Description: This course presents information on capacitors, solid state devices, transformers, microprocessors, electro-static discharge, component handling techniques, theory of electrical fault diagnosis and electrical magnetism. Upon completion of this course technicians will be able to identify the characteristics of capacitors and solid-state devices used in electrical circuits and computer data communications. The technician will be able to recognize the effect that magnetism has on current flow, identify the relationship of electromagnetic induction in the operation of transformers and generators and use of electromagnetic induction in the operation of relays and solenoids.

Languages: English/Spanish/French



GM SAFETY SYSTEMS 1

S-FN00-03.01WBT

Course Description: Part one of this two part WBT course covers the primary restraints, including seat belt systems, pretensioners, and child restraints. Supplemental restraints are also discussed, including airbag systems, active head restraints, and knee bolsters. Topics include restraint system design, operation, diagnostics, servicing and handling procedures. Upon completion of this course, technicians will be able to recall the function and operation of occupant safety systems. Recall the function and operation of seat belt restraint systems, recall the function and operation of child restraint systems, recall the function and operation of Supplemental Inflatable Restraint (SIR) systems, and recall how to diagnose and service Supplemental Inflatable Restraint (SIR) systems.

Languages: English/Spanish/French



GM SAFETY SYSTEMS 2

S-FN00-04.01WBT

Course Description: Part two of this two-part WBT course covers the components, operation, diagnostic and service procedures for safety systems found on General Motors (GM) vehicles including Rear Vision Camera (RVC), Parking Assist, Lane Departure, Side Blind Zone Alert (SBZA), and the Brake Override System. Upon completion of this course, technicians will be able to identify the components, operation, and diagnostic and service procedures of the Rear Vision Camera (RVC) system; identify the characteristics, components, operation, and diagnostic and service procedures of the Parking Assist System; identify the components, operation, and diagnostic and service procedures of the Lane Departure System; identify the components, operation, diagnostic and service procedures of the Side Blind Zone Alert (SBZA) System; and identify the components, operation, and diagnostic and service procedures of the Brake Override System.

Languages: English/Spanish/French



GM SAFETY SYSTEMS 3

S-FN00-07.01WBT

Course Description: General Motors (GM) vehicles commonly include safety systems packages to ensure occupant safety. This course covers the active safety control module components including operation and diagnosis. This course provides the characteristics of the rear cross traffic alert system components, and the full speed adaptive cruise control operation. This course also identifies characteristics, operation, and diagnosis for the automatic collision preparation system. Upon completion of this course, participants will be able to identify the components, the operation, and the diagnostic and service procedures for GM safety systems including the active safety control module, the rear cross traffic alert system, and the automatic collision preparation system.

Languages: English

FUNDAMENTALS

SI OVERVIEW

S-FN00-02.03WBT

Course Description: This course covers the navigation of the Service Information (SI) website. It also covers search procedures, publication types, schematics, routine diagrams, and how to interpret schematic symbols.

Languages: English



GLOBAL DIAGNOSTIC SYSTEM

S-FN00-05.01WBT

Course Description: This WBT course introduces the new Global Diagnostic System (GDS), including software and hardware components, set up and operation, and diagnostic procedures. Upon completion of this course technicians will be able to recall the key features of the Global Diagnostic System, identify the administration and navigation procedures, recall the characteristics of diagnostic packages, identify the operation the vehicle identification and home screens, and recall the diagnostic functions of the Global Diagnostic System.

Languages: English



GLOBAL DIAGNOSTIC SYSTEM (GDS) 2 / MDI

S-FN00-06.01WBT

Course Description: This course covers the latest information regarding the software, hardware, components, set-up, operations, and diagnostic procedures for Global Diagnostic System 2 (GDS 2). Upon completion of this course, technicians will be able to recall the steps for software installation, lease renewal, and screen navigation, identify steps to install, configure, and update software required for a Multiple Diagnostic Interface (MDI) device and troubleshoot, identify steps to use key screens in Global Diagnostic System 2 (GDS 2), recall how to perform Global Diagnostic System 2 (GDS 2) diagnostic functions, and identify steps to perform Global Diagnostic System 2 (GDS 2) stored data functions.

Languages: English



GDS 2

S-FN00-06.02WBT

Course Description: This course is designed to provide the technician with the skills necessary to properly diagnose current and future vehicle platforms, using Global Diagnostic System 2 (GDS 2) and the Multiple Diagnostic Interface (MDI). Basic hardware requirements and networking concepts are addressed to aid technicians with installation, setup, update, and operation of both GDS 2 and MDI. Use of both tools during vehicle diagnostics including navigation, graphing, data display and DTC display are also covered.

Languages: English



MULTIPLE DIAGNOSTIC INTERFACE (MDI) FAMILIARIZATION

S-FN00-20.02WBT

Course Description: This WBT course covers common characteristics of the MDI including MDI Setup Software, MDI / On Vehicle operation, and the Service Programming System Procedure. Upon completion of this course technicians will be able to identify common characteristics of the MDI, identify MDI Setup Software, identify MDI / On Vehicle operation, and identify the Service Programming System Procedure.

Languages: English/Spanish/French



TECHNICIAN'S GUIDE TO MULTI-POINT VEHICLE INSPECTION

S-FN00-23.01WBT

Course Description: This course covers Multiple Point Vehicle Inspection (MPVI) characteristics and procedures. The inspection topics covered include tire and underbody, underhood, vehicle exterior and interior, driver warning, and vehicle lighting. Tire and underbody inspection includes validating proper operation of the tires, fuel system, drivetrain, suspension, steering, and exhaust systems. Underhood inspection includes checking the battery, fluids, and underhood components. Vehicle interior and exterior inspection includes body exterior function, power door lid function, vehicle interior conditions and functions, driver comfort and convenience, as well as power window operation. Driver warning inspection procedures include identifying basic instrument panel cluster warning lamps, performing an instrument panel cluster bulb check, as well as warning chime and horn operation. Vehicle lighting inspection procedures include automatic lighting controls and interior and exterior lights.

Languages: English



MULTIPLE DIAGNOSTIC INTERFACE (MDI) 2

S-FN00-24.01WBT

Course Description: This course presents a description of the Multiple Diagnostic Interface (MDI) 2. Topics include the hardware and the software associated with the MDI 2, as well as the relevant setup, operation, and recovery procedures.

Languages: English/Spanish/French



ASEP MENTOR TRAINING

S-SC31-01.01WBT

Course Description: This course will orient the mentor to the various roles, responsibilities and standards of behavior for mentors. Expectations for trainees and some basic guidelines to help mentors plan their training including orientation and assigning daily work, ways to improve communications with trainees and types of trainee evaluations.

Languages: English



FUNDAMENTALS

Seminar (SEM)



HYBRID VEHICLES

S-EL06-43.01SEM

Course Description: Equivalent to S-EL06-42.01WBT, S-EL06-43.01WBT, and S-EL06-44.01WBT. This seminar provides an in-person opportunity to complete prerequisite hybrid training. Two-mode hybrid vehicle features and the safety precautions associated with servicing them will be described. Procedures for disabling and enabling the Two-mode hybrid 300 volt battery system will be explained. Operation of the Two-mode hybrid 300 volt battery system and high voltage power electronics will be covered. The high voltage disconnect procedure will be explained, as well as how to verify that the high voltage system is disabled. The discharge procedure and jump starting procedure will also be discussed. Two-mode hybrid supporting systems and self diagnosis logic will also be introduced. Voltage conversion components that power various systems will be described. The seminar will conclude with overviews of electric power steering, electric air conditioning compressors, and regenerative braking systems that capture and store energy.

Course Length: 3 hours

Languages: English



VEHICLE TECHNOLOGY UPDATE

S-EL06-44.02SEM

Course Description: The seminar will cover what's new in vehicle technology and features. Modern vehicles from General Motors and others are coming out with even more advanced technologies and materials. Though you may not service these vehicles today, it won't be long before you will have one in for maintenance or service. Topics for this seminar include: The newest engines from General Motors, the systems and strategies that make them the most efficient ever, advanced manual and automatic drivelines, new materials, new electrical components, and the latest in driver assistance and vehicle dynamic control systems.

Course Length: 3 hours

Languages: English



EFFECTIVE USE OF DIAGNOSTIC RESOURCES

S-DS11-16.01SEM

Course Description: This seminar covers resources that technicians can access daily as needed in the diagnosis and repair of today's vehicles. Resources include manufacturer, aftermarket, government and Internet-based service information. Course content includes location of and access to both manufacturer service information and aftermarket service information. Additionally, content covers the viability and reliability of repair-related Internet sites and blogs and their place in the scheme of today's repair environment. Content also includes government-based, automotive-related websites as well as diagnostic procedures, service tips and special tools.

Course Length: 3 hours

Languages: English



BODY ELECTRONICS: ADVANCED POWER MANAGEMENT

S-FN00-02.01SEM

Course Description: This seminar covers key operation and diagnosis of the electrical center and power management systems. The seminar will provide proper service techniques to improve the technician's system knowledge to help increase customer satisfaction and profits by repairing vehicles right the first time. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing the electrical center and power management systems.

Course Length: 1 hour

Languages: English



BODY ELECTRONICS: ENTERTAINMENT, COMFORT, SAFETY & GLOBAL A ARCHITECTURE

S-FN00-03.01SEM

Course Description: This seminar covers key operation and diagnosis of the ECU piconets, integrated radio controllers, comfort and convenience systems, safety features, and Global A Architecture system. The seminar will provide proper service techniques to improve the technician's system knowledge to help increase customer satisfaction and profits by repairing vehicles right the first time. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing ECU piconets, Integrated Radio Controllers, comfort and convenience systems, safety features, and the Global A Architecture system.

Course Length: 1 hour

Languages: English

Web-Based Training (WBT)

TECH 2 FAMILIARIZATION

S-DS11-01.05WBT

Course Description: This course covers the Tech 2 components, functions, set up, and diagnostic procedures. It also covers different protocol communications, electrical architecture, recording failures, snapshot functions, and the updating process. Upon completion of this course, the participant will be able to: identify Tech 2 components, the protocols and electrical architecture identify how to connect the Tech 2 to the vehicle, describe how to diagnose a vehicle, and how to update the Tech 2, recall the snapshot functions and the Tech 2 WIN functions.

Languages: English



NOISE, VIBRATION AND HARSHNESS (NVH)

S-DS11-04.03WBT

Course Description: This course covers vibration theory and the operation of components that may cause abnormal noise or vibration concerns. It also covers diagnosis techniques, such as road tests, and test equipment used in diagnosing vibration concerns.

Languages: English



WATERLEAK AND WINDNOISE MANAGEMENT 1

S-DS11-11.01WBT

Course Description: Part one of this two part WBT course covers windnoise and waterleak theory, and types of sealers. The course also covers the characteristics and water management of hard moveable roofs, soft moveable roofs, and sunroofs. Upon completion of this course, technicians will be able to recall the theories of waterleak and windnoise, and recall the characteristics and water management of moveable hard roofs, moveable soft roofs, and sunroofs.

Languages: English



WATERLEAK AND WINDNOISE MANAGEMENT 2

S-DS11-12.01WBT

Course Description: Part two of this two part WBT course covers windnoise and waterleak diagnosis using windnoise and waterleak tests and visual inspections. It also covers glass and panel service using adjustment, sealing, and repair techniques. Upon completion of this component technicians will be able to recall the fundamentals of waterleak and windnoise diagnostics; recall how to diagnose waterleak and windnoise concerns using visual inspections, water tests, and customer worksheets; recall how to service panels and glass using adjustment techniques; and recall sealing and repair service techniques.

Languages: English



DATA BUS DIAGNOSTIC TOOL

S-DS11-15.01WBT

Course Description: This course presents a description of the Data Bus Diagnostic Tool (DBDT). Topics include the DBDT's major characteristics: software installation, main screen (window), Detected State tab, Measured Voltage tab, Message Monitor tab, and error messages.

Languages: English



Seminar (SEM)

COMEBACK PREVENTION SEMINAR

S-DS11-01.01SEM

Course Description: This seminar will focus on key service items related to various vehicle systems to prevent early failures of components. The seminar will provide proper service techniques to improve the technician's skills when replacing various on-vehicle components. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing any of the following systems, power steering pumps, generators, starters, fuel pumps, water pumps, heater cores, A/C compressors and EGR valves.

Course Length: 3 hours

Languages: English



ROTATING ELECTRICAL SYSTEM SERVICING TIPS

S-DS11-02.01SEM

Course Description: This seminar covers key service items related to various vehicle systems to prevent early failures of rotating electrical system components. The seminar will provide proper service techniques to improve the technician's skills when replacing various on-vehicle components. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing charging and starting systems.

Course Length: 1 hour

Languages: English



DIAGNOSTICS



FUEL SYSTEM SERVICING TIPS

S-DS11-03.01SEM

Course Description: This seminar covers key service items related to various vehicle systems to prevent early failures of fuel system components. The seminar will provide proper service techniques to improve the technician's skills when replacing various on-vehicle components. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing fuel systems.

Course Length: 1 hour

Languages: English



EMISSION CONTROL SYSTEM SERVICING TIPS

S-DS11-04.01SEM

Course Description: This seminar covers key service items related to various vehicle systems to prevent early failures of emission control components. The seminar will provide proper service techniques to improve the technician's skills when replacing various on-vehicle components. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing emission control systems.

Course Length: 1 hour

Languages: English



POWER STEERING SYSTEM SERVICING TIPS

S-DS11-05.02SEM

Course Description: This seminar covers key service items related to various vehicle systems to prevent early failures of power steering system components. The seminar will provide proper service techniques to improve the technician's skills when replacing various on-vehicle components. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing power steering systems.

Course Length: 1 hour

Languages: English



COOLING SYSTEM SERVICING TIPS

S-DS11-07.01SEM

Course Description: This seminar covers key service items related to various vehicle systems to prevent early failures of cooling system components. The seminar will provide proper service techniques to improve the technician's skills when replacing various on-vehicle components. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing cooling systems.

Course Length: 1 hour

Languages: English



BRAKE SYSTEM SERVICING TIPS

S-DS11-08.01SEM

Course Description: This seminar covers key service items related to various vehicle systems to prevent early failures of brake systems. The seminar will provide proper service techniques to improve the technician's skills when replacing various on-vehicle components. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing brakes.

Course Length: 1 hour

Languages: English



BATTERY SERVICING TIPS

S-DS11-09.01SEM

Course Description: This seminar covers key service items related to various vehicle systems to prevent early failures of batteries. The seminar will provide proper service techniques to improve the technician's skills when servicing the battery. The seminar will also cover some of the latest bulletins, service tips and diagnostics when servicing batteries.

Course Length: 1 hour

Languages: English



SCAN TOOLS

S-DS11-14.01SEM

Course Description: The Scan Tools seminar examines the features, output controls, special functions and data parameters of the Tech 2, GM Global Diagnostic System 2, Tech2Win, OTC Genisys and Snap-On Verus scan tools. The intent of this course is to present a straight forward comparison of the features, outputs controls, special functions and data parameters available on each scan tool rather than show current owners how to operate their scan tool. If you are curious about the differences between these scan tools, but do not have the time to do the research on your own, this course is for you.

Course Length: 3 hours

Languages: English

DIAGNOSTICS

REAL-WORLD SERVICE PROGRAMMING

S-DS11-15.01SEM

Course Description: This seminar will teach technicians the most current methods for programming new, or updating existing, electronic control modules in various manufacturers' vehicles. This course looks at some of tools available to aftermarket for programming. The vehicle manufacturer websites that contain programming information will be discussed. After completing this course, technicians will be able to describe the tools and resources necessary for reprogramming electronic control modules.

Course Length: 3 hours

Languages: English



Instructor-Led Training (ILT)

SERVICE PROGRAMMING

S-DS11-02.01ILT

Course Description: This Instructor-Led Training (ILT) course will provide technicians the opportunity learn and practice the process for service programming in the aftermarket auto repair facility. GM-specific hardware and procedures will be discussed, including TECH2, MDI, supported third-party J2534 interface devices and the process of performing GM service programming. Non-GM vehicle manufacturer information will also be covered, as well as common questions about service programming, such as: when is service programming needed, what is the difference between module setup and service programming, how to find calibrations, how to ensure successful programming and how to recover from programming failures or errors. Exercises and demonstrations of service programming and module setup will also be performed.

Languages: English



DIAGNOSTICS GPS

S-DS11-03.01ILT

Course Description: This Instructor-Led Training (ILT) course will provide technicians with an overview of the thought processes that promote strong and efficient diagnostics. Topics in this area include the skills that sharp diagnostic technicians use to go from Symptom to System to Repair. We will explore vehicle network diagnostics, including the new MOST infotainment bus; Advanced GDS2 diagnostics, gaining the upper hand on Intermittents, the GM Pico Scope NVH kit and the new GM Data Bus Diagnostic Tool. The technician will have the opportunity to complete exercises that leverage the tools and resources discussed to gain practical experience in diagnosing complex vehicle symptoms with confidence.

Languages: English



VEHICLE NETWORK COMMUNICATIONS

● S-DS11-13.01ILT

Course Description: This course uses real-world scenarios based on vehicles from several manufacturers. Course content describes the operation of various serial data protocols, and the physical data bus layout used by a number of manufacturers. After exploring the operation of various data buses and the associated components, Original Equipment Manufacturer (OEM) supported diagnostic techniques will be examined. After completing this course, technicians will be able to describe diagnostic approaches to typical serial data bus concerns such as no communication with one, several, or all modules on a vehicle.

Languages: English



A0: ALTERNATIVE PROPULSION

Web-Based Training (WBT)



HYBRID INTRODUCTION AND SAFETY

S-EL06-07.01WBT

Course Description: This course will familiarize technicians with proper safety practices required to service a vehicle equipped with a GM hybrid system. The course will identify the main components of the hybrid system, provide instructions for disconnecting the generator battery and identify specific hybrid system precautions. Upon completion of this course technicians will be able to explain mandatory safety procedures to promote safe working conditions and identify the main components of the 42-volt hybrid system.

Languages: English/Spanish/French



HYBRID VEHICLES: THEORY, OPERATION AND SERVICE

S-EL06-08.01WBT

Pre-Course Recommendation: S-EL06-07.01WBT

Course Description: This course describes the function of the primary and secondary components of GM hybrid vehicles and the theory behind their operation. Specific topics include: safety practices, generator battery, generator control module, generator assembly and secondary components such as the hybridized 4T45 transmission, hill hold valve and coolant system. Drive cycle modes and how they affect the operation of the hybrid is addressed. Upon successful completion of this course technicians will be able to identify hybrid system safe working practices, primary & secondary components and the correct operation of hybrid system. Modes of operation during the drive cycle in the hybrid system and system diagnosis using a Tech 2 is detailed.

Languages: English



HIGH VOLTAGE SYSTEM SAFETY

S-EL06-42.01WBT

Course Description: This WBT course contains information on high voltage system safety practices and precautions, as well as personal protective equipment that must be used when working on high voltage systems. A video of the Class 0 isolation glove inspection procedure will also be included. Upon completion of this course technicians will be able to identify key high voltage system safety practices and precautions, identify personal protective equipment utilized when working on or around high voltage systems, identify the procedure for inspecting class 0 isolation gloves and recognize high voltage system warnings and labels. Note: While initial volume of these Two-Mode Hybrid products will be limited, all technicians need to be aware of the high voltage safety issues.

Languages: English/French



TWO-MODE HYBRID INTRODUCTION AND SAFETY

S-EL06-43.01WBT

Pre-Course Recommendation: S-FN00-02.01WBT, S-DS11-01.02WBT, S-EL06-01.03WBT, S-EL06-02.02WBT, S-EL06-03.02WBT and S-EL06-42.01WBT

Course Description: This WBT course will introduce technicians to the Two-mode Hybrid full size pick-ups and sport utility vehicles. The course also provides information on key safety features of the Two-mode vehicle and safety precautions that must be used when servicing, as well as a simulation of the high voltage battery disconnect procedure. Upon completion of this course technicians will be able to identify the different types of Two-mode Hybrid vehicles, identify the interior and exterior features specific to the Two-mode Hybrid vehicle, identify the unique Hybrid support systems utilized in Two-mode vehicles and identify the correct procedure to disable the high voltage system and verify it is disabled. Note: While initial volume of these Two-Mode Hybrid products will be limited, all technicians will need to be aware of the high voltage safety issues.

Languages: English/French



TWO-MODE HYBRID 300 VOLT BATTERY SYSTEM THEORY AND OPERATION

S-EL06-44.01WBT

Pre-Course Recommendation: S-EL06-10.01WBT, S-EL06-04.01WBT, S-EL06-42.01WBT and S-EL06-43.01WBT

Course Description: This WBT course will introduce technicians to the Two-mode Hybrid full size pick-ups and sport utility vehicle 300 volt battery and battery system. The course also provides information on key safety features of the Two-mode vehicle and safety precautions that must be used when servicing the high voltage components, as well as a simulation of the high voltage battery disconnect procedure. Upon completion of this course technicians will be able to identify the components that make up the 300 volt battery. Identify the components of the high voltage power electronics system, identify the safety practices required when working on the high voltage system and identify the correct procedure to disable the high voltage system and verify it is disabled.

Languages: English/French

A0: ALTERNATIVE PROPULSION

2ML70 TRANSMISSION THEORY AND OPERATION

S-EL06-45.01WBT

Pre-Course Recommendation: S-EL06-42.01WBT and S-EL06-43.01WBT

Course Description: This WBT course will introduce technicians to Two-mode Hybrid full size pick-ups and sport utility vehicle Two-mode transmissions. The course provides information on key safety features of the Two-mode vehicle and safety precautions that must be used when servicing the high voltage components. Upon completion of this course technicians will be able to identify the safety procedures and practices required when working on the high voltage system, identify the components that make up the Two-mode transmission and identify the modes of operation of the Two-mode transmission.

Languages: English



TWO-MODE HYBRID SUPPORTING SYSTEMS THEORY AND OPERATION

S-EL06-46.01WBT

Pre-Course Recommendation: S-EP08-01.02WBT, S-EP08-02.02WBT, S-EP08-12.01WBT, S-AC07-01.01WBT, S-AC07-02.01WBT, S-BK05-01.02WBT and S-BK05-02.02WBT

Course Description: This WBT course will introduce technicians to Two-mode Hybrid full size pick-ups and sport utility vehicle supporting system components and operation. The course will provide information on key safety features of the Two-mode vehicle as well as safety precautions that must be used when servicing the high voltage components. Upon completion of this course technicians will be able to identify the Two-mode engine components and operation, identify the components and operation of the Two-mode power electronics cooling system, identify the components and operation of the Two-mode HVAC system, identify the components and operation of the Two-mode electronic power steering system and identify the Two-mode braking system components and operation.

Languages: English/French



TWO-MODE HYBRID SYSTEM DIAGNOSIS

S-EL06-47.01WBT

Pre-Course Recommendation: S-EL06-42.01WBT, S-EL06-43.01WBT, S-EL06-44.01WBT, S-EL06-45.01WBT and S-EL06-46.01WBT

Course Description: This WBT course will introduce technicians to the Hybrid LAN communication buss, the types of communication used and the diagnosis of the Hybrid LAN. This course will also identify the data list and special functions of the Tech 2 scan tool that are unique to this type of vehicle as well as discuss the use of this information to help properly diagnose the hybrid system. Also we will discuss normal Two-mode operating conditions that could be perceived as a concern. Upon completion of this course technicians will be able to identify the Hybrid Diagnostic Approach, identify the Hybrid LAN, diagnose the Hybrid LAN, identify the types of communication used by the hybrid system, identify the function of and rationale of torque-based strategy, recall the Tech 2 data lists and special functions for the Hybrid system and identify Two-mode Hybrid vehicle design intent factors that customers may identify as concerns.

Languages: English/French



CHEVROLET VOLT INTRODUCTION AND SAFETY

S-EL06-53.01WBT

Course Description: This course introduces technicians to the Chevrolet Volt and covers key features, components, modes of operation and characteristics of the electrical and charging systems. It also covers vehicle communication and High Voltage Interlock Circuit (HVIC) systems, as well as the diagnostic process and safety precautions.

Languages: English/French



HIGH VOLTAGE ENERGY STORAGE SYSTEMS

S-EL06-54.01WBT

Course Description: This course covers the Chevrolet Volt high voltage energy storage system. It also covers drive motor battery; drive motor battery components, thermal management system operation and the troubleshooting process for the integrated charger. Upon completion of this course technicians will be able to identify the characteristics and operation of the high voltage battery, the high voltage system disable and enable procedures, high voltage battery components, the thermal management system, and troubleshooting process for the On-Board Charger Module (OBCM).

Languages: English/French



ADVANCED TECHNOLOGY VEHICLE POWER ELECTRONICS

S-EL06-55.01WBT

Course Description: This course covers power electronics found in advanced technology vehicles. Upon completion of this course technicians will be able to identify the correct operation of the drive motor/generator power inverter module, the accessory DC power module and thermal management system.

Languages: English/French



ADVANCED TECHNOLOGY VEHICLE TRANSMISSION

S-EL06-56.01WBT

Course Description: This course covers the 4ET50 transmission. A good understanding of automatic transmission principals and operation is recommended prior to taking this course. Upon completion of this course technicians will be able to identify the characteristics and modes of operation, the mechanical and electrical system characteristics and the correct fluid flow and power flow for each operating mode of the 4ET50 transmission.

Languages: English/French



A0: ALTERNATIVE PROPULSION

ADVANCED TECHNOLOGY VEHICLE SUPPORTING SYSTEMS

S-EL06-57.01WBT



Course Description: This course covers the unique characteristics of the 1.4L engine. Upon completion of this course technicians will be able to identify the correct operation of the fuel and evaporative emissions control systems, the refuel request switch and the braking system, regenerative braking capabilities and modes of operation. It also covers the unique characteristics of the heating, ventilation, and air conditioning system including the high voltage heater, electric air conditioning compressor and drive motor battery coolant cooler.

Languages: English/French

eASSIST INTRODUCTION

S-EL06-27.01WBT



Course Description: This WBT course covers the characteristics of the eAssist system and the impact the system has on the drive cycle. This course also covers the components of the eAssist system, including the starter generator, liquid cooling system, accessory drive belt system, high voltage battery assembly, and supporting systems. Upon completion of this WBT technicians will be able to recall the characteristics of the eAssist system and identify the components of the eAssist system.

Languages: English/French

eASSIST BATTERY STORAGE SYSTEMS

S-EL06-28.01WBT



Course Description: This WBT course describes the eAssist battery storage system. Specific topics include the components, characteristics, and function of the generator control and battery module assembly, the generator battery assembly, the generator control module and the battery cooling system. Upon completion of this course technicians will be able to identify the eAssist generator control and battery module assembly components, describe the generator battery assembly components and characteristics, identify the generator control module characteristics and functions, and describe the battery cooling system components, characteristics and operation.

Languages: English/French

ADVANCED TECHNOLOGY VEHICLE TRANSMISSION 2

S-EL06-59.01WBT



Course Description: This WBT course covers the 1ET35 transmission characteristics, components, modes of operation, and service tips. The characteristics of the 1ET35 transmission include transmission cooling and fluid type. Mechanical and electrical components are also covered, as well as drive, reverse, and regenerative braking modes of operation. The service tips covered include fluid filling procedure highlights, and transmission disassembly highlights. The 1ET35 transmission is first used in the 2014 Chevrolet Spark EV; its use in the Spark EV is its first appearance for GM.

Languages: English

BATTERY ELECTRIC VEHICLE INTRODUCTION

S-EL06-60.01WBT



Course Description: This WBT course provides an introduction to the Battery Electric Vehicle (BEV). It covers key features, characteristics and components of high voltage vehicle systems and supporting systems. High voltage vehicle systems covered include the propulsion system, thermal management system, and the charging system. Supporting systems covered include the climate control system, electrical and vehicle communication systems, braking system, and the steering system. This course also discusses modes of operation as well as safe work practices, the diagnostic process, and the high voltage disabling procedure.

Languages: English

HIGH VOLTAGE ENERGY STORAGE SYSTEMS 2

S-EL06-61.01WBT



Course Description: This WBT course covers the Battery Electric Vehicle (Spark EV) high voltage energy storage system. It covers characteristics and failure modes of the drive motor battery, as well as special tools required to diagnose and service the drive motor battery. This course also covers characteristics of the lithium ion battery modules and battery control systems, as well as operation of the contactors. Lastly, this course discusses the thermal management system, including its characteristics, components, and operation.

Languages: English

EREV INTRODUCTION AND SAFETY 2

S-EL06-75.01WBT



Course Description: This course covers the Generation 2 Extended Range Electric Vehicle (EREV) high voltage system components, description and operation.

Languages: English

eASSIST INTRODUCTION 2

S-EL06-77.01WBT



Course Description: This course introduces the eAssist system. Specific topics include the description and operation of the cooling systems, generator control module, high voltage monitoring system, and the starter generator. The course will also examine the hybrid modes of operation.

Languages: English

A0: ALTERNATIVE PROPULSION

eASSIST BATTERY STORAGE SYSTEM 2

S-EL06-78.01WBT

Course Description: This course describes the eAssist battery storage system. Specific topics include the battery pack components and characteristics.

Languages: English



12V STOP / START SYSTEM 2

S-EL06-79.01WBT

Course Description: This course presents an overview of the 12V Stop / Start System 2, including the three different types, how they operate, features, and components. Topics include information about the benefits and the supporting automatic transmission fluid systems. Participants will acquire a sound understanding of how the 12V stop-start system works, enabling them to service vehicles equipped with this system more effectively. Upon completion of this course, participants will be able to recognize functions, conditions and benefits of the stop-start system; distinguish between the operations of the three different types of stop-start systems; compare the functions of the two different automatic transmission fluid systems.

Languages: English



Instructor-Led Training (ILT)

HYBRID TECHNOLOGY AND SERVICE

● S-EL06-12.01ILT

Pre-Course Requirements: S-EL06-42.01WBT, S-EL06-43.01WBT and S-EL06-44.01WBT

Course Description: This course will introduce technicians with past, current, and future advances in Hybrid technology. The instructor will guide technicians through information regarding hybrid history, safety considerations while servicing Hybrid vehicles systems, the disable procedure for the high voltage system, various Hybrid system designs and types and hybrid components. Hands-on exercises will be performed on a Hybrid vehicle, in which students will explore locating and identifying Hybrid system components, performing the jump assist procedure disabling and enabling the high voltage system and diagnosing issues with the Hybrid system.

Languages: English



HYBRID VEHICLE SERVICE AND SAFETY

● S-EL06-16.01ILT

Pre-Course Requirements: S-EL06-42.01WBT, S-EL06-43.01WBT and S-EL06-44.01WBT





Course Description: This Instructor-Led Training (ILT) course begins with a discussion of GM full size truck Two-mode hybrid components and functions. A review of safety equipment and procedures will prepare technicians for on-vehicle exercises. Technicians will identify and locate all Two-mode hybrid components on a vehicle. Participants will perform high voltage system disabling and enabling procedures. Toyota Camry hybrid operation and service will be described. An overview of the Chevrolet Volt and E-assist vehicles will provide insights into advanced vehicle service.

Languages: English






A1: ENGINE REPAIR

Web-Based Training (WBT)

-  **ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 1** ● S-EM01-01.01WBT
Course Description: Part one of this three-part WBT course will introduce technicians to basic engine mechanical concepts, disassembly and assembly procedures and component measuring. Upon completion of this course technicians will be able to identify correct methods for assembling the overhead cam and camshaft, assembling the crankshaft, inspecting the crankshaft, assembling the piston & rods, assembling the cylinder head, inspecting the valve train and diagnose upper and lower engine noise.
Languages: English/Spanish/French
-  **ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 2** ● S-EM01-02.01WBT
Course Description: Part two of this three-part WBT course will introduce technicians to basic engine mechanical concepts, disassembly and assembly procedures and component measuring. Upon completion of this course technicians will be able to identify correct methods for assembling the overhead cam and camshaft, assembling the crankshaft, inspecting the crankshaft, assembling the piston & rods, assembling the cylinder head, inspecting the valve train and diagnose upper and lower engine noise.
Languages: English/Spanish/French
-  **ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 3** ● S-EM01-03.01WBT
Course Description: Part three of this three-part WBT covers the re-assembly of the engine as well as diesel engine component service procedures. Upon completion of this course, technicians will be able to recall how to re-assemble the engine and recall how to service diesel engine components.
Languages: English/Spanish
-  **GAS-DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT** ● S-EM01-04.01WBT
Course Description: The Gas / Diesel Engine Mechanical Diagnosis and Measurement WBT covers various engine procedures. These procedures include engine timing, removal and replacement of oil pump balance shafts, direct injector removal and replacement, turbocharger removal and replacement, camshaft removal and replacement, and other maintenance procedures. The engines included in this course are the LGV, LGE, and SGE gasoline engines and the L5P, LWN, LUZ, and LH7 diesel engines.
Languages: English

Seminar (SEM)

-  **ADVANCED VARIABLE VALVE TIMING** ● S-EM01-01.01SEM
Course Description: This seminar is intended for engine mechanical and engine performance technicians. The seminar will familiarize technicians with some of the latest engine technologies found on today's vehicles. Some of the topics include: Variable Valve Timing (VVT), Spline Phaser system, Vane Phaser Overhead Cam (OHC) system, and Vane Phaser Overhead Cam (OHC) magnetically controlled system. This seminar will cover operation and unique service procedures related to each system.
Course Length: 1 hour
Languages: English
-  **CAMSHAFT VARIABLE VALVE LIFT SYSTEMS AND ACTIVE FUEL MANAGEMENT** ● S-EM01-02.01SEM
Course Description: This seminar is intended for engine mechanical and engine performance technicians. The seminar will familiarize technicians with some of the latest engine technologies found on today's vehicles. Topics include camshaft variable valve lift systems and Active Fuel Management (AFM). The seminar will cover operation and unique service procedures related to each system.
Course Length: 1 hour
Languages: English
-  **SPARK IGNITION DIRECT INJECTION** ● S-EM01-03.01SEM
Course Description: This seminar is intended for engine mechanical and engine performance technicians. The seminar will familiarize technicians with some of the latest engine technologies found on today's vehicles. Some of the topics include: Spark Ignition Direct Injection (SIDI), the fuel delivery system, scan tool diagnostics and service, piezoelectric injector, and the SIDI start/stop feature. The seminar will cover operation and unique service procedures related to each system.
Course Length: 1 hour
Languages: English

A1: ENGINE REPAIR

HOMOGENEOUS CHARGE COMPRESSION IGNITION

● S-EM01-04.01SEM

Course Description: This seminar is intended for engine mechanical and engine performance technicians. The seminar will familiarize technicians with some of the latest engine technologies found on today's vehicles. A future GM system referred to as Homogenous Charger Compression Ignition (HCCI) will be covered, as well as 2.2 Ecotec engines and the highlights and benefits of HCCI.

Course Length: 1 hour

Languages: English



Instructor-Led Training (ILT)

VALVETRAIN CONTROLS

● S-EM01-01.01ILT

Course Description: The ILT course will cover valvetrain timing and control systems. Modern engines employ valve timing and lift adjustment strategies to improve fuel economy, power and emissions. Topics include: function and operation of variable valve Timing, valve lift and cylinder deactivation systems. Also discussed are diagnosis and repair techniques, including servicing chains and toothed belts, a review of basic engine mechanical testing and how these tests are affected by valvetrain control strategies.

Languages: English



A2: AUTOMATIC TRANSMISSION / TRANSAXLE

Web-Based Training (WBT)



AUTOMATIC TRANSMISSIONS

S-AT02-01.01WBT

Course Description: This WBT course introduces automatic transmissions. This course also covers specifications, powerflow, cases, torque converters, and gear select indicators. Upon completion of this course, technicians will be able to detail correct powerflow through an automatic transmission, recall the characteristics of automatic transmission cases, identify the proper operation of automatic transmission torque converters and detail the correct function of automatic transmission gear select indicators.

Languages: English/Spanish



AUTOMATIC TRANSMISSION GEARSET

S-AT02-02.01WBT

Course Description: This WBT course covers the characteristics of planetary and differential gearsets. The course also discusses the operation and disassembly/assembly of gearsets and how to service differential gearsets. Upon completion of this course technicians will be able to identify the characteristics of planetary and differential gearsets, the operation of gearsets, gearsets components and identify how to service differential gearsets.

Languages: English/Spanish



AUTOMATIC TRANSMISSION MECHANICAL APPLY COMPONENTS

S-AT02-03.01WBT

Course Description: This WBT course covers the mechanical and apply components used in automatic transmissions. Upon completion of this course, technicians will be able to understand apply component characteristics, operation of the 1-2-3-4 clutch, 3-5 reverse clutch, 4-5-6 clutch and the 2-6 clutch. Explain operation of the Low and Reverse Clutch and Low Clutch Sprag characteristics.

Languages: English



AUTOMATIC TRANSMISSION DIAGNOSIS

S-AT02-04.01WBT

Course Description: This WBT course covers the processes and procedures for diagnosing automatic transmission concerns. Upon completion of this course, technicians will be able to recall the procedure for performing a preliminary inspection, the process for performing a road test, and post-road test diagnosis.

Languages: English/Spanish



AUTOMATIC TRANSMISSION HYDRAULICS AND ELECTRICAL SYSTEMS

S-AT02-05.01WBT

Course Description: This WBT course covers the components and operation of the hydraulic system and the electronic controls that drive the hydraulic system. Upon completion of this course technicians will be able to explain how the hydraulic system operates, the functions of the valves & solenoids, the characteristics of the electronic control modules, control module operation and explain characteristics of transmission adaptive functions.

Languages: English



AUTOMATIC TRANSMISSION OPERATION, DIAGNOSIS & SERVICE 1

● S-AT02-06.01WBT

Course Description: Part one of this three part WBT covers automatic transmissions principles, hydraulics, torque converter characteristics, and mechanical system fundamentals. Upon completion of this course, technicians will be able to recall principals of automatic transmissions and hydraulics, identify fundamentals of the torque converter, identify fundamentals of the mechanical system and identify characteristics of the one way clutch and the final drive.

Languages: English/Spanish/French



AUTOMATIC TRANSMISSION OPERATION, DIAGNOSIS & SERVICE 2

● S-AT02-07.01WBT

Course Description: Part two of this three-part WBT covers the hydraulic system characteristics, valve body components and types, electrical system inputs and outputs of automatic transmission systems. Upon completion of this course, technicians will be able to recall the hydraulic system characteristics of an automatic transmission, identify characteristics of the valve body, identify the electrical system inputs in an automatic transmission, and identify the electrical system outputs in an automatic transmission.

Languages: English/Spanish/French



AUTOMATIC TRANSMISSION OPERATION, DIAGNOSIS & SERVICE 3

● S-AT02-08.01WBT

Course Description: Part three of this three-part WBT covers the automatic transmission control system powerflow and modes of operation. This course also covers the steps of the diagnostic process, and the diagnostic and service procedures for automatic transmissions. Upon completion of this course, technicians will be able to recall automatic transmission control system power flow and modes of operation, identify the steps of the automatic transmission diagnostic process, recall automatic transmission diagnostic procedures, and describe how to perform automatic transmission service procedures.

Languages: English/Spanish/French

A2: AUTOMATIC TRANSMISSION / TRANSAXLE

8-SPEED AUTOMATIC TRANSMISSION OVERVIEW

S-AT02-13.01WBT

Course Description: This course presents an overview of the 8-speed automatic transmission known as the 8L90. Topics cover the 8L90's features, components, power flow and programming requirements, as well as the start-stop system.

Languages: English



Seminar (SEM)

TEHCM PROGRAMMING

● S-AT02-06.01SEM

Course Description: This seminar will introduce the TEHCM and its related components, while highlighting related diagnostic and service procedures including TEHCM removal and reinstallation. This seminar will illustrate the procedures for correctly programming the TEHCM and relearning transmission adaptive strategies. A programming demonstration is also included in this seminar.

Course Length: 3 hours

Languages: English



A3: MANUAL TRANSMISSION / DRIVELINE

Web-Based Training (WBT)



ALL WHEEL DRIVE / FOUR WHEEL DRIVE SYSTEMS

S-MT03-01.01WBT

Course Description: Intended for experienced driveline and transmission service technicians, this WBT course investigates construction and operation of All-Wheel Drive, 4-Wheel Drive, and Automatic 4-Wheel Drive systems. Upon completion of this course, technicians will be able to identify the operations and customer concerns for Part-time Four Wheel Drive (PT4WD), All Wheel Drive (AWD), Full-time Four Wheel Drive (FT4WD), Automatic Four Wheel Drive (Auto 4WD), front axle assembly and propeller shafts.

Languages: English



MANUAL GEARBOX AND CLUTCH

S-MT03-02.01WBT

Course Description: This WBT course introduces technicians to the manual transmission gearbox and clutch assembly. Items discussed in this course include the transverse mounted gearbox, clutch assemblies, clutch controls, synchronizers and electrical components. Upon completion of this course, technicians will understand the operation of the transverse mounted gearbox, diagnostic charts, component inspection, clutch controls, service procedures and electrical components.

Languages: English/Spanish



FRONT-WHEEL DRIVE (FWD) / REAR-WHEEL DRIVE (RWD) OPERATION, DIAGNOSIS AND SERVICE 1

S-MT03-03.01WBT

Course Description: Part one of this four-part WBT course covers manual drivetrain / axle types, where to locate manual drivetrain / axle resources, and how to service a manual drivetrain / axle using safe practices. This course also covers front wheel drive (FWD) characteristics, FWD transmission clutch types and steps of operations, manual transmission characteristics, including the mechanical components, the shift mechanism, and the steps of operation. The course further covers manual transmission steps of operation, manual transmission electronic control system characteristics, and front wheel drive half shaft assembly types and steps of operation. Upon completion of this course, technicians will be able to identify manual driveline fundamentals; identify FWD manual transmission fundamentals; recall FWD transmission clutch types and operation; recall FWD manual transmission mechanical system characteristics and operation; recall FWD manual transmission operation; identify FWD manual transmission electronic control system characteristics; and recall FWD half shaft assembly fundamentals.

Languages: English/Spanish/French



FRONT-WHEEL DRIVE (FWD) / REAR-WHEEL DRIVE (RWD) OPERATION, DIAGNOSIS AND SERVICE 2

S-MT03-04.01WBT

Course Description: Part two of this four-part WBT course covers diagnostics of a Front-Wheel Drive (FWD) manual transmission clutch, manual transmission, and an axle shaft. This course also covers how to diagnose a FWD manual transmission, clutch, and axle shaft using visual and operational inspections, symptom-based diagnostics, and Diagnostic Trouble Code (DTC)-based diagnostics. Upon completion of this course, technicians will be able to describe FWD manual transmission clutch diagnostics, recall FWD manual transmission diagnostics, recall FWD manual transmission symptom-based diagnostics, and identify FWD axle shaft diagnostics.

Languages: English/Spanish/French



FRONT-WHEEL DRIVE (FWD) / REAR-WHEEL DRIVE (RWD) OPERATION, DIAGNOSIS AND SERVICE 3

S-MT03-05.01WBT

Course Description: Part three of this four-part WBT course covers Rear-Wheel Drive (RWD) characteristics and manual transmission clutch types. This course also covers Tremec® 6-speed manual transmission characteristics, fluid characteristics, and mechanical component characteristics. This course also covers Tremec® 6-speed manual transmission shift mechanism types, and direct mounted and remote mounted operation. The course further covers Tremec® 6-speed manual transmission operation, electronic control system characteristics and modes of operation. Upon completion of this course, technicians will be able to identify Rear-Wheel drive fundamentals; identify manual transmission fundamentals of a Tremec® 6-speed transmission; recall operational steps of a Tremec® 6-speed manual transmission; and identify characteristics and the operation of the manual Tremec® 6-speed transmission electronic control system.

Languages: English/Spanish/French



FRONT-WHEEL DRIVE (FWD) / REAR-WHEEL DRIVE (RWD) OPERATION, DIAGNOSIS AND SERVICE 4

S-MT03-06.01WBT

Course Description: Part four of this four-part WBT course covers how to troubleshoot Rear-Wheel Drive manual transmissions using a systematic strategy-based diagnosis process. This course also covers how to diagnose rear-wheel drive manual transmissions using a preliminary inspection, an operational test, preliminary symptom-based diagnostics, and preliminary diagnostic trouble code-based diagnostics. Further, this course covers how to diagnose rear-wheel drive manual transmissions using electronic and electrical tools. Upon completion of this course, technicians will be able to recall how to diagnose rear-wheel drive manual transmissions.

Languages: English/Spanish/French

A3: MANUAL TRANSMISSION / DRIVELINE

PASSENGER CAR AWD OPERATION, DIAGNOSIS & SERVICE 1

S-MT03-07.01WBT

Course Description: Part one of this two-part WBT course provides the fundamentals to service General Motors (GM) passenger cars with all-wheel drive systems. Topics discussed include an all-wheel drive system overview, the types of passenger car all-wheel drive systems, the characteristics and operation of a passenger car all-wheel drive system, and the types and operation of the passenger car all-wheel drive transfer case. Upon completion of this course, technicians will be able to: Identify the types and characteristics of the passenger car all-wheel drive system. Recall the operation of the passenger car all-wheel drive system. Identify the passenger car all-wheel drive transfer case types. Recall the operation of the passenger car all-wheel drive transfer case.

Languages: English/Spanish/French



PASSENGER CAR AWD OPERATION, DIAGNOSIS & SERVICE 2

S-MT03-08.01WBT

Course Description: Part two of this two-part WBT course covers the diagnostic procedures for passenger car all-wheel drive systems, transfer cases, and rear drive axle systems. The diagnostic procedures discussed for passenger car all-wheel drive systems include preliminary visual inspections, functional tests, symptom-based diagnostics, Diagnostic Trouble Code (DTC)-based diagnostics, and scan tool data and special functions. Upon completion of this course, technicians will be able to: Identify passenger car all-wheel drive system diagnostic procedures. Recall how to diagnose passenger all-wheel drive systems using symptom-based diagnostics. Recall how to diagnose passenger all-wheel drive systems using DTC-based diagnostics. Identify passenger car all-wheel drive transfer case and rear drive axle diagnostic procedures.

Languages: English/Spanish/French



TRUCK AWD/4WD OPERATION, DIAGNOSIS & SERVICE 1

S-MT03-09.01WBT

Course Description: Part one of this two-part WBT course identifies 4WD / AWD drivetrain types and transfer cases. The course also covers truck 4WD / AWD clutch, viscous and differential operation. In addition, the course also identifies 4WD / AWD electrical and mechanical modes of operation. Upon completion of this course, technicians will be able to identify 4WD / AWD drivetrain types, identify 4WD / AWD transfer case types, recall truck 4WD / AWD clutch transfer case mechanical operation, recall truck 4WD / AWD viscous transfer case mechanical operation, recall truck 4WD / AWD differential transfer case mechanical operation, identify 4WD electrical modes of operation, and identify AWD electrical modes of operation.

Languages: English/Spanish/French



TRUCK AWD/4WD OPERATION, DIAGNOSIS & SERVICE 2

S-MT03-10.01WBT

Course Description: Part two of this two-part WBT course covers Four-Wheel Drive (4WD) / All-Wheel Drive (AWD) diagnostics for trucks, and truck transfer cases. Topics covered in this course include troubleshooting 4WD / AWD trucks and transfer cases using a systematic, strategy-based diagnostics process. This course also covers diagnosing 4WD / AWD trucks and transfer cases using preliminary symptom-based and Diagnostic Trouble Code (DTC)-based diagnostics, operational tests, and electronic / electrical tools. This course further covers the steps for diagnosing a 4WD truck transfer case, specifically the MP 3023/3024-NQH transfer case, using a visual inspection of the external and internal components. Upon completion of this course, technicians will be able to recall a systematic approach to 4WD / AWD transfer case diagnostics, recall how to diagnose 4WD / AWD truck transfer cases using symptom-based diagnostics, and identify the steps to follow when diagnosing 4WD truck transfer case, MP 3023 / 3024 NQH.

Languages: English/Spanish/French



PROPSHAFT AND REAR AXLE OPERATION, DIAGNOSIS, AND SERVICE 1

S-MT03-11.01WBT

Course Description: Part one of this two-part WBT course covers propshaft and rear drive axle fundamentals, and semi- and full-floating rear drive axle characteristics, mechanical systems, and diagnostics. Upon completion of this course, technicians will be able to identify propshaft and rear drive axle fundamentals and characteristics, recall semi- and full floating rear drive axle mechanical systems, and recall semi- and full-floating rear drive axle diagnostics.

Languages: English/Spanish



PROPSHAFT AND REAR AXLE OPERATION, DIAGNOSIS, AND SERVICE 2

S-MT03-12.01WBT

Course Description: Part two of this two-part WBT course covers propshaft characteristics and types, how to diagnose a semi- and full-floating rear drive axle with the symptom-based and operational tests and a visual inspection. The course also covers how to diagnose a rear drive axle, the rear drive axle differentials, and the 8.6 inch rear drive module. Upon completion of this course, technicians will be able to identify the propshaft characteristics and types, recall how to diagnose a semi- and full-floating rear drive axle with the symptom-based and operational tests and the visual inspection, and recall how to diagnose a rear drive axle, the rear drive axle differential, and the 8.6 inch rear drive module.

Languages: English/Spanish



A3: MANUAL TRANSMISSION / DRIVELINE



MANUAL TRANSMISSION 2

S-MT03-16.01WBT

Course Description: This course covers general inspection, diagnostic and repair practices for common rear wheel drive manual transmissions. Topics include systematic diagnostics, external visual inspections, operational testing, removal and installation, disassembly and assembly, and cleaning. Visual inspection of internal transmission components, such as bearings, gears, synchronizers, shafts and case housings, is also covered.

Languages: English

Instructor-Led Training (ILT)



ALL-WHEEL DRIVE / FOUR WHEEL DRIVE

S-MT03-01.01ILT

Course Description: This course will provide technicians the opportunity learn about the various four wheel and all-wheel drive systems, how power is divided in these systems, components of four wheel and all-wheel drive systems, and some diagnostics of four wheel (4WD) and all-wheel drive (AWD) systems. The course will also include real world scenarios based on vehicles from several manufactures, and vehicle exercises to explore and apply diagnostic processes to some common symptoms.

Languages: English

Half Day Training (HDT)



FOUR WHEEL DRIVE

S-MT03-02.01HDT

Course Description: This course will provide technicians the opportunity learn about the various four wheel systems, how power is divided in these systems, components of four wheel systems, and some diagnostics of four wheel (4WD) systems. The course will also include real world scenarios based on vehicles from several manufactures, and vehicle exercises to explore and apply diagnostic processes to some common symptoms.

Languages: English



ALL-WHEEL DRIVE

S-MT03-01.01HDT

Course Description: This course will provide technicians the opportunity learn about the various all-wheel drive systems, how power is divided in these systems, components of all-wheel drive systems, and some diagnostics of all-wheel drive (AWD) systems. The course will also include real world scenarios based on vehicles from several manufactures, and vehicle exercises to explore and apply diagnostic processes to some common symptoms.

Languages: English

A4: SUSPENSION AND STEERING

Web-Based Training (WBT)

VIBRATION CORRECTION

● S-SS04-01.01WBT

Course Description: This course will provide technicians with a better understanding of the types of vehicle vibrations that result in customer concerns. By the completion of this course technicians will understand the key elements that make-up vibrations and use a systematic approach to identifying the causes of vibrations. The course shows the proper use of diagnostic tools and details the appropriate service procedures for reducing and eliminating vehicle vibration concerns.

Languages: English



STEERING SYSTEMS AND DIAGNOSTICS

● S-SS04-06.02WBT

Course Description: This course covers the characteristics, types, operation, and diagnosis of the steering system and its main components, as well as a high level overview of some disassembly and assembly service procedures and tools. Upon completion of this course technicians will be able to identify steering system fundamentals, identify steering column and brake transmission shift interlock components and diagnosis, identify steering gear and steering pump components and diagnosis, identify features of electronically controlled hydraulic steering systems, identify types, characteristics and diagnosis of electronic power steering systems, and identify steering system performance factors, improvement features, and safety precautions.

Languages: English/French



AXLES AND PROPSHAFTS

● S-SS04-07.01WBT

Course Description: This course is intended for driveline service technicians and will include characteristics, operation, diagnostic and service procedures of front and rear axles and propshafts. Topics include propshafts, universal joints, rear axle, differential assembly, front axle and electrical system. Upon completion of this course, technicians will be able to identify the characteristics of the propshafts and universal joints, recall diagnostic and service procedures for propshafts and universal joints, identify the characteristics of rear axles, recall diagnostic and service procedures for rear axles, identify characteristics and operation of differential assembly, recall diagnostic and service differential assembly-locker, identify the characteristics and operation of front axle and identify electrical systems operation and service procedures.

Languages: English/French



GM CHASSIS CONTROL SYSTEMS

● S-SS04-08.02WBT

Course Description: This WBT component covers the components, characteristics, and operation of various chassis control systems found in GM vehicles. Suspension system types, ride and alignment control, air suspension systems, automatic level control, electronically controlled damping, tire pressure monitoring, and alignment will be covered in this course. Upon completion of this WBT technicians will be able to identify the characteristics and operation of independent and non-independent suspension systems, identify the components and operation of ride control and alignment control, identify the function of the air suspension systems, identify the components and operation of the automatic level control systems, identify the characteristics and operation of electronically controlled damping systems, identify the characteristics and operation of the direct tire pressure monitoring system, and identify the types and characteristics of alignment.

Languages: English/Spanish/French



GM STEERING SYSTEMS AND DIAGNOSIS 1

● S-SS04-10.01WBT

Course Description: This WBT course covers the characteristics, types, operation, and diagnosis of the steering system and its main components. It also includes a high level overview of some disassembly and assembly service procedures and tools.

Languages: English



GM STEERING SYSTEMS AND DIAGNOSIS 2

● S-SS04-11.01WBT

Course Description: This WBT course covers the features and characteristics of two electric power steering systems: the rack and dual pinion electric power steering system and the belt-driven electric power steering system.

Languages: English



A4: SUSPENSION AND STEERING

Simulation (SIM)



TIRE PRESSURE MONITORING SYSTEM DIAGNOSTIC EXERCISE

S-SS04-01.01SIM

Course Description: This mobile ready DE is compatible with the following browsers: Apple Safari, Internet Explorer 10 & 11, Google Chrome & Mozilla Firefox. This course presents three diagnostic exercises related to the tire pressure monitoring system. Through these interactive exercises, the course provides learners with a demonstration on how to diagnose and resolve common faults of the tire pressure monitoring system in motor vehicles. Upon completion of this course, participants will be able to recall the steps to diagnose a defective remote control door lock receiver, a defective tire pressure monitoring sensor, and an incorrect setup in the Body Control Module (BCM) for the tire pressure monitoring system.

Languages: English



GM CHASSIS CONTROL SYSTEMS DIAGNOSTIC EXERCISE

S-SS04-02.01SIM

Course Description: This mobile ready DE is compatible with the following browsers: Apple Safari, Internet Explorer 10 & 11, Google Chrome & Mozilla Firefox. This course presents three diagnostic exercises related to GM chassis control systems. Through these interactive exercises, the course provides participants with a demonstration on how to diagnose and resolve chassis control system concerns, including faults with the multi axis sensor, suspension position. Upon completion of this course, participants will be able to recall the steps to diagnose a fault in the multi axis sensor, the suspension position sensor, and the wiring for the multi axis sensor and steering wheel angle sensor.

Languages: English

Seminar (SEM)



SUSPENSION TECHNOLOGY

S-SS04-01.01SEM

Course Description: This seminar examines the evolution of automotive suspension systems and their integration with other chassis components. Focus is placed on the wide variety of input sensors and output control devices used on modern ride control systems. Other topics include a review of suspension electronic control functions & diagnostics as well as an examination of new and upcoming suspension / chassis technology.

Course Length: 3 hours

Languages: English



BASE SUSPENSION

S-SS04-02.01SEM

Course Description: This seminar is designed to provide an overview of base suspension components, operation and diagnostics. Specific topics include vehicle suspension designs and their components; vehicle support as it relates to vehicle suspension operation; operation and characteristics of spring dampening; suspension parts, how they operate and how they function together as a system.

Course Length: 1 hour

Languages: English



TIRES, WHEELS AND ALIGNMENT

S-SS04-03.01SEM

Course Description: This seminar is designed to provide an overview of tires, wheels and wheel alignment. Specific topics include current and future tire designs, mandatory tire data, tire inflation, specifications, tire related service issues and ACDelco alignment solutions.

Course Length: 1 hour

Languages: English



ELECTRONIC SUSPENSION CONTROLS OVERVIEW

S-SS04-04.01SEM

Course Description: This seminar is designed to provide an overview of electronic suspension control systems. Specific topics include shock basics, functions of the selectable ride system, purpose and operation of MagneRide systems and the importance of inputs, outputs and controllers.

Course Length: 1 hour

Languages: English



ELECTRONIC SUSPENSION CONTROLS DIAGNOSTICS

S-SS04-05.01SEM

Course Description: This seminar is designed to provide an overview of manual select ride (MSR), real time dampening (RTD), continuously variable RTD (CV-RTD) and MagneRide systems. The strategy based diagnostic (SBD) process will also be covered.

Course Length: 1 hour

Languages: English

A4: SUSPENSION AND STEERING

AUTOMATIC LEVELING CONTROLS

S-SS04-06.01SEM

Course Description: This seminar is designed to provide an overview of automatic leveling control systems. Specific topics include types of automatic leveling control systems, operation of each type of system and diagnostic tips for servicing automatic leveling control systems.

Course Length: 1 hour

Languages: English



TIRE PRESSURE MONITORING

S-SS04-07.01SEM

Course Description: This seminar is designed to provide an overview of tire pressure monitoring (TPM) systems. Specific topics include reasons TPM is necessary, legal requirements of TPM, antilock braking based TPM systems, transmitter-based TPM systems and common programming procedures.

Course Length: 1 hour

Languages: English



TIRE PRESSURE MONITORING SYSTEMS

S-SS04-08.01SEM

Course Description: This seminar will cover the Tire Pressure Monitoring Systems. Topics include: Introduction of technology and the regulations that brought it about and how it works. We will discuss the various systems employed by vehicle manufacturers, and how to diagnose and service the systems effectively. We will also cover what's involved in winter/accessory wheel fitment, and what's available in TPMS tools, parts and information resources.

Course Length: 3 hours

Languages: English



POWER STEERING TECHNOLOGY

S-SS04-09.01SEM

Course Description: This seminar will cover some of the electric power steering systems found today. Including the components and operation, diagnostics and servicing these electric power steering systems. Even though electric power steering technology is expanding into more vehicles, let us not forget that many vehicles on the road still have hydraulic power steering. Additionally, some unique features of new technology found in electronically enhanced hydraulic systems, as well as diagnostic and service tips will be discussed.

Course Length: 3 hours

Languages: English



A5: BRAKES

Web-Based Training (WBT)



BRAKING SYSTEMS 1

S-BK05-01.02WBT

Course Description: Part one of this two-part WBT course introduces the base brake system operation. It covers system configurations, components and diagnostic process for servicing braking systems. Upon completion of this course technicians will be able to explain braking system operation, types of brake systems, identify diagnostic processes and techniques, identify drum and rotor service procedures, identify the correct methods and tools for inspecting and servicing brakes, recognize proper master cylinder operation and brake system bleeding procedures.

Languages: English



BRAKING SYSTEMS 2

S-BK05-02.02WBT

Pre-Course Recommendation: S-BK05-01.02WBT

Course Description: Part two of this two-part WBT course covers an introduction to antilock braking systems (ABS) used in GM vehicles, including theory and operation, component overview and component location. Upon completion of this course technicians will be able to identify the types of brake boosters, define the steps of power brake booster operation, recognize the correct methods for visually inspecting hydraulic boosters, identify the components in the electro-hydraulic braking system, define different types of ABS, recall the characteristics of ABS and traction control systems (TCS) and identify the steps of TCS operation.

Languages: English



GM BRAKING SYSTEMS 1

S-BK05-10.01WBT

Course Description: Part one of this four-part WBT course covers braking system operation, configuration, and characteristics. It also covers hydraulic braking systems; operation of valves, components, and characteristics; power assist brake types; drum and disc brake systems; and parking brake types. Upon completion of this course, technicians will be able to identify and recall the braking systems operation, configuration, and characteristics, identify the hydraulic braking system, identify the types of power assist brakes, identify and recall the drum and disc brake system, and identify and recall the types of parking brakes.

Languages: English/Spanish/French



GM BRAKING SYSTEMS 2

S-BK05-11.01WBT

Pre-Course Recommendation: S-BK05-10.01WBT

Course Description: Part two of this four-part WBT course covers Antilock Braking System (ABS) characteristics and operation, and automatic traction control characteristics and operation. This course also covers vehicle stability enhancement system theory, characteristics, and operation. Upon completion of this course, technicians will be able to identify antilock braking system characteristics and operation, recall the automatic traction control system's characteristics and operation, and identify vehicle stability enhancement system theory, characteristics, and operation.

Languages: English/Spanish/French



GM BRAKING SYSTEMS 3

S-BK05-12.01WBT

Pre-Course Recommendation: S-BK05-10.01WBT, S-BK05-11.01WBT

Course Description: Part three of this four-part WBT course covers the diagnosis of base, hydraulic, and anti-lock brake systems. The learner will be able to diagnose customer concerns regarding brake noise, brake performance, as well as inspect individual brake system components. Upon completion of this course, technicians will be able to recall how to troubleshoot brake system concerns, recall how to diagnose hydraulic brake system concerns, identify how to diagnose drum and disc brake assemblies using visual inspection, recall how to diagnose Anti-lock Brake System (ABS) brakes using DTC-based diagnostics, and recall how to diagnose Automatic Traction Control and Vehicle Stability Enhancement Systems.

Languages: English/Spanish/French



GM BRAKING SYSTEMS 4

S-BK05-13.02WBT

Pre-Course Recommendation: S-BK05-10.01WBT, S-BK05-11.01WBT, S-BK05-12.01WBT

Course Description: For experienced service technicians, part four of this four-part WBT course provides system operation and diagnostic information on various base and anti-lock brake systems, and their related components. Topics include master cylinder operation, brake/drum operation, and hydraulic system fundamentals.

Languages: English/Spanish/French

A5: BRAKES

GM BRAKING SYSTEMS 6

S-BK05-17.01WBT

Pre-Course Recommendation: S-BK05-10.01WBT, S-BK05-11.01WBT, S-BK05-12.01WBT

Course Description: For experienced service technicians, part four of this four part WBT course provides system operation and diagnostic information on various base and anti-lock brake systems, and their related components. Topics include master cylinder operation, brake/drum operation, and hydraulic system fundamentals.

Languages: English/Spanish/French



Simulation (SIM)

BRAKE SYSTEM DIAGNOSTIC CHALLENGE

S-BK05-01.01SIM

Course Description: This course is a web-based brake simulation which is designed to challenge the skilled service technician. This simulation is not a training exercise and therefore minimal feedback is provided during the duration of the activity. Upon completion of the simulation a score is provided based upon following the optimal strategy based diagnostic path and how much time it took to complete the simulation. This simulation may be repeatedly taken to improve your score.

Languages: English



BRAKING SYSTEMS DIAGNOSTIC EXERCISE

S-BK05-02.01SIM

Course Description: This mobile ready DE is compatible with the following browsers: Apple Safari, Internet Explorer 10 & 11, Google Chrome & Mozilla Firefox. This course presents two diagnostic exercises related to GM braking systems. Through these interactive exercises, the course provides learners with a demonstration of how to diagnose and resolve a wheel speed sensor fault of the braking system in motor vehicles. Upon completion of this course, participants will be able to recall two procedures to diagnose a fault in the wheel speed sensor.

Languages: English



Seminar (SEM)

TRACTION CONTROL AND STABILITY ENHANCEMENT SYSTEMS

S-BK05-02.01SEM

Course Description: This seminar covers Traction Control and Stability Enhancement systems, as well as similar systems found on various vehicle manufacturers. The history and future trends of these systems will also be covered.

The main components of Traction Control systems will be covered, including engine speed components, throttle position, ECM / PCM, throttle actuator module, TCS "OFF" switch, and lateral accelerometer. Operation of this system, including engine management and brake intervention will be covered. Operation and control of Stability Enhancement systems will be briefly discussed, including understeer and oversteer, zero point calibration, active yaw control, and vehicle stability assist. The seminar will also cover the typical components within Stability Enhancement systems, including lateral and longitudinal accelerometers, yaw rate sensor, wheel speed sensor, and steering wheel position sensor. Diagnosis of the two systems and how they are integrated together will also be covered.

Course Length: 1 hour

Languages: English



ANTILOCK BRAKE SYSTEMS

S-BK05-03.01SEM

Course Description: This seminar covers the major suppliers of Anti-lock Brake Systems (ABS). The major components of ABS will be covered, including the Electronic Brake Control Module (EBCM) and Brake Pressure Modulator Valve (BPMV), as well as how these components enable operation of the system. Operation of the system will be discussed in comparison with non-ABS vehicles. ABS service and diagnostics will also be covered, include brake bleed procedures and tire replacement.

Course Length: 1 hour

Languages: English



HYBRID REGENERATIVE BRAKE SYSTEMS

S-BK05-04.01SEM

Course Description: This seminar covers the physics and diagnostics of Hybrid regenerative braking systems. The use of inertia, force and mass will be discussed, as well as the principles of electric motor operation. Operation and diagnosis of the pedal feel emulator will also be covered. In order to promote safety while working with Hybrid vehicles, the importance of wearing Personal Protective Equipment (PPE), properly identifying conduit color of the high voltage system, and deactivating the high voltage system will be reviewed.

Specific common customer concerns will also be covered, as well as general diagnostic procedures and service tools needed to address these concerns.

Course Length: 1 hour

Languages: English



A5: BRAKES



FOUNDATION BRAKE SYSTEMS

S-BK05-05.01SEM

Course Description: This seminar covers base brake systems, including the components and operation of these systems as they apply to different brake suppliers. Disc brakes, drum brakes, boost systems and hydraulic assist will be covered. The course will also discuss service and diagnosis of disc brakes, calipers, drum brakes, hydraulics, and brake fluid.

Course Length: 1 hour

Languages: English



BRAKE NOISE DIAGNOSIS AND SERVICE

S-BK05-06.01SEM

Course Description: This seminar covers diagnosis of various brake noises. Specific topics include evaluating brake noise, sources of brake noise, tips for preventing brake noise, and suspension noise. The seminar will also cover the service tools necessary to diagnose brake noises, including micrometers, brake lathe, measuring tools, and hydraulic pressure gauge.

Course Length: 1 hour

Languages: English



BRAKE NOISE DIAGNOSIS

S-BK05-07.01SEM

Course Description: Modern brake systems operate on the same principles that braking systems have used for over 100 years. Recent regulation changes combined with the pursuit of improved fuel economy and safety have resulted in changes in the designs. Some changes have increased the occurrences of the braking system noises. This three-hour seminar presents information on diagnosing brake system noise concerns, service tips and procedures to reduce brake noise comebacks. In addition, special service tools and ACDelco brake products are discussed.

Course Length: 3 hours

Languages: English

Half Day Training (HDT)



SERVICING TODAY'S BRAKE SYSTEMS

S-BK05-01.01HDT

Course Description: This course focuses on up-to-date service procedures to address customer concerns and reduce come-back issues. Brake technology is continually advancing on modern vehicles and it is important for service technicians to keep pace. This seminar covers important service tips to achieve quality results and increase customer satisfaction. Hands-on vehicle activities will be included.

Languages: English

Instructor-Led Training (ILT)



BRAKING SYSTEMS

S-BK05-01.01ILT

Pre-Course Recommendation: S-BK05-01.02WBT and S-BK05-02.02WBT

Course Description: This full-day technician classroom course builds upon what is learned in the web-based courses Brakes 1 & 2. It provides system operation and diagnostic information on various base and antilock brake systems and their related components. The technician will learn the latest techniques used in diagnosing concerns related to base brake subsystems and components. Operation of antilock brakes as well as common mechanical and antilock braking concerns are covered in detail.

Languages: English



ABS OPERATION AND DIAGNOSIS

S-BK05-02.01ILT

Pre-Course Recommendation: S-BK05-01.02WBT and S-BK05-02.02WBT

Course Description: This full-day technician classroom course builds upon what is learned in the web-based courses Brakes 1 & 2. It provides system operation and diagnostic information on various base and antilock brake systems and their related components. The technician will learn the latest techniques used in diagnosing concerns related to base brake subsystems and components. Operation of antilock brakes as well as common mechanical and antilock braking concerns are covered in detail.

Languages: English



ELECTRONIC BRAKE AND CHASSIS CONTROLS

S-BK05-03.01ILT

Course Description: The Electronic Brake and Chassis Controls course uses real-world scenarios based on vehicles from several manufacturers. Course content focuses on the different strategies and components used to control chassis and brakes systems. After exploring the operation of various systems and their components, Original Equipment Manufacturer (OEM) supported diagnostic techniques will be examined. Technicians who complete this course will be able to diagnosis common concerns in the following systems: Antilock Brakes, Tire Pressure Monitoring, and Electronic Power Steering.

Languages: English

A6: ELECTRICAL / ELECTRONIC SYSTEMS

Web-Based Training (WBT)

GM BODY CONTROL AND COMMUNICATION SYSTEMS

S-EL06-04.01WBT

Course Description: This course covers concepts and applications of multiple body controllers with multiple inputs and outputs. Communication languages, multiplexing and complex networks in automotive applications are also presented. Upon completion of this course technicians will be able to define a body control system, identify power moding and the characteristics of networked module systems. GM LAN electrical architecture and the benefits of the GM LAN is discussed as well as discrete input/output functions and the purpose of fail-soft. Diagnostics and module programming strategies and procedures for electronically controlled systems are covered.

Languages: English



BODY CONTROL SYSTEMS DIAGNOSTICS

● S-EL06-05.01WBT

Pre-Course Recommendation: S-EL06-04.01WBT

Course Description: This course involves in depth discussions on applications of multiple body controllers with multiple inputs and outputs. It includes many on vehicle and other types of exercises. Communication languages, multiplexing, and complex networks in automotive applications are also presented. Upon completion of this course technicians will be able to identify power moding and its application to BCS diagnostics, identify the characteristics of networked module systems and their application to BCS diagnostics, define the LAN electrical architecture, identify discrete input/output functions and their application to BCS diagnostics, define communicated input/output functions and their application to BCS diagnostics, define the purpose of failsofts and their application to BCS diagnostics, identify diagnostics and module programming of a body control system and apply diagnostic strategies and procedures for electronically controlled systems.

Languages: English



INTRODUCTION TO AUTOMOTIVE OSCILLOSCOPES

● S-EL06-06.01WBT

Course Description: This course introduces the basic operation and use of the oscilloscope in the automotive field. The course presents how oscilloscopes work and when to use them. Topics covered in this course include historic overview, points of diagnostic relevance, scope set-up, measurement types and waveform interpretation.

Languages: English



ELECTRICAL WIRING DIAGRAMS

S-EL06-09.01WBT

Course Description: This course provides the technician the ability to identify the basic operation and the selected properties of simple electrical circuits, identify selected wiring diagram basic elements, symbols and component properties, navigate through the wiring diagram application in TIS 2000, identify the operation of selected advanced electrical circuits in the wiring diagrams, identify selected electrical component test methods, select a correct component diagnostic strategy and identify selected defective components in an electrical circuit.

Languages: English/Spanish/French



BATTERY, CHARGING & STARTING

● S-EL06-10.02WBT

Course Description: This course covers the Battery, Charging, and Starting systems including battery functionality, operation, and charging. Additional content includes causes of battery discharge, advanced battery charging, charging system components, operation and control. In addition starting system overview, operation, and diagnosis will be covered.

Languages: English/Spanish/French



ENTERTAINMENT SYSTEMS 1

S-EL06-19.02WBT

Course Description: Part one of this three-part WBT is intended for technicians who will be servicing GM entertainment system components, including radios, antennas, and speakers; and servicing radio frequency interference concerns. Topics discussed include different types of radio waves and how they travel, the types of noise that affect radio reception; types of antennas, including fixed mast, glass mounted, and roof / trunk mounted, along with the procedures to test antenna reception. This course also discusses the procedures to diagnose radio speaker concerns, the procedures for isolating the cause of radio frequency interference, and the noise suppression devices to service radio frequency interference.

Languages: English/Spanish/French



ENTERTAINMENT SYSTEMS 2

S-EL06-20.05WBT

Course Description: This course provides the fundamentals to service General Motors entertainment system components, including integrated center stack radios, the MOST® network, Bluetooth® connectivity, and rear seat entertainment systems. Topics discussed include the types and components of integrated center stack radios, and the types of and steps to diagnosing Universal Serial Bus (USB) connectivity. Additional topics include the available Bluetooth® features and functions, the steps to diagnose connectivity, the types of rear seat entertainment systems, and the characteristics and operation of rear seat audio controls.

Languages: English/Spanish



A6: ELECTRICAL / ELECTRONIC SYSTEMS



ENTERTAINMENT SYSTEMS 3

S-EL06-21.03WBT

Course Description: This course provides a description of the navigation and satellite radio systems in GM vehicles. The description of the navigation system includes types of inputs, outputs, and diagnostic procedures. The characteristics of the satellite radio and antenna are also described. Additionally, the course covers mobile wireless charging and the head-up display.

Languages: English/Spanish



MOVEABLE ROOF SYSTEMS

S-EL06-22.01WBT

Course Description: This WBT course will explain basic hydraulic and electrical theory behind moveable roof operation. It will also describe system specific functions and identify components of hydraulic, electrical, and mechanical roof systems. Upon completion of this course technicians will be able to explain basic hydraulic theory for moveable roof operation, identify characteristics of the Pontiac Solstice, Saturn SKY, Saab 9.3 Chevrolet Corvette soft top and Cadillac XLR and Chevrolet SSR hard top system.

Languages: English



SAAB THEFT PROTECTION 1

S-EL06-23.01WBT

Course Description: Part one of this two-part WBT course will familiarize the service technician with the theory and operation of the theft protection systems found on today's Saab 9-5 vehicles. The service technician will also become familiarized with the theft protection systems' components and their functions, as well as the various modules used on each vehicle. Upon completion of this course technicians will be able to identify the theft protection system operation and related concerns on the Saab 9-5 vehicles.

Languages: English



SAAB THEFT PROTECTION 2

S-EL06-24.01WBT

Course Description: Part two of this two-part WBT course will familiarize the service technician with the theory and operation of the theft protection systems found on today's Saab 9-5 vehicles. The service technician will also become familiarized with the theft protection systems' components and their functions, as well as the various modules used on each vehicle. Upon completion of this course technicians will be able to identify the theft protection system operation and related concerns on the Saab 9-5 vehicles.

Languages: English



GM MOVEABLE/SUN ROOF SYSTEMS 1

S-EL06-29.01WBT

Course Description: Part one of this two-part WBT course covers the types of moveable roof systems, hydraulic roof systems, soft top, and hard top systems. This course also covers the components, operation, and service of the moveable roof systems. Upon completion of this course technicians will be able to identify the components and operation for the types of moveable roof systems; identify the components, operation, and diagnostic and service procedures for hydraulic roof systems; identify operation and service procedures for the soft top roof systems; and identify components and operation for the hard top system.

Languages: English/Spanish/French



GM MOVEABLE/SUN ROOF SYSTEMS 2

S-EL06-30.01WBT

Course Description: Part two of this two-part WBT course explains how to diagnose and service hard and soft top moveable roof systems. It also describes the operation of power sunroofs. Upon completion of this course component technicians will be able to diagnose and service the hard top and soft top systems; and recall the type, panoramic characteristics and operation, and systematic diagnostic process of power sunroofs.

Languages: English/Spanish/French



GM GLOBAL ELECTRICAL SYSTEMS

 S-EL06-52.02WBT

Course Description: The GM Global Electrical Systems course familiarizes the service technician with the global format of service diagnostic procedures, including the common circuit types and functions used in GM electrical architecture and the types and characteristics of serial data circuits. Upon completion of this course, participants will be able to recall the types of electrical and ground circuits, recall the types of voltage circuits and their characteristics, identify the types of signal circuits, recall the types of control circuits, identify the types of serial data circuits, and recognize how to troubleshoot electrical systems using a systematic process.

Languages: English



SUPPLEMENTAL RESTRAINT SYSTEMS

S-ST10-02.02WBT

Course Description: Intended for experienced service technicians with competent electrical skills, this WBT course focuses on design, operations, servicing and handling procedures of supplemental restraint systems. Diagnostic tests are introduced utilizing the Tech 2 scan tool, SIR driver/passenger load tool and digital multimeter. Upon completion of this course technicians will understand the characteristics of GM supplemental restraint systems, GM system components and their operation, the purpose and function of the SDM and the sequence of the GM supplemental restraint systems states of operation, the procedures for servicing and handling as well as the diagnostic approaches to GM supplemental restraint systems.

Languages: English

A6: ELECTRICAL / ELECTRONIC SYSTEMS

VEHICLE ROLLOVER PROTECTION SYSTEM

S-ST10-07.01WBT

Course Description: This course presents a description of the vehicle rollover protection system. Topics cover the system components, operation and service considerations.

Languages: English



VEHICLE NETWORK SECURITY

S-ST10-08.01WBT

Course Description: This course covers the characteristics of General Motors Local Area Network (GMLAN) network security. Topics include identifying isolated networks, how the Serial Data Gateway Module manages network traffic, and how isolated network faults are identified.

Languages: English



Simulation (SIM)

ELECTRICAL SYSTEM DIAGNOSTIC CHALLENGE

S-EL06-01.01SIM

Course Description: This technician course is a web-based electrical simulation which is designed to challenge the skilled service technician. This simulation is not a training exercise and therefore minimal feedback is provided during the duration of the activity. Upon completion of the simulation a score is provided based upon following the optimal strategy based diagnostic path and how much time it took to complete the simulation. This simulation may be repeatedly taken to improve your score.

Languages: English



Seminar (SEM)

SMART POWER MANAGEMENT

S-EL06-10.01SEM

Course Description: This seminar is an overview of smart power management diagnostics. The following topics are covered: Cranking systems, including electronic control module-controlled cranking systems and hybrid cranking systems; Charging systems, including electronic control module-controlled charging system performance, charging system control and diagnosis, and hybrid charging systems; Three real-world case studies on the Chevrolet Malibu, GMC Yukon Hybrid, and Ford F-150 provide technicians with exposure to real-world customer cranking and charging concerns. GM Service Information and Mitchell Repair Information are referenced for on-the-job diagnostic procedures.

Course Length: 3 hours

Languages: English



BODY CONTROLS & SAFETY SYSTEMS

S-EL06-11.01SEM

Course Description: What do you do when a customer bring you a vehicle with one of more of the body control or safety systems disabled or inoperative? The Body Control and Safety Systems course uses real world scenarios based on vehicles from several manufactures to focus on identifying and diagnosis of the various body control and safety systems.

Course Length: 3 hours

Languages: English



SUPPLEMENTAL RESTRAINT SYSTEMS (SRS) AND SAFETY SYSTEMS

S-ST10-01.01SEM

Course Description: The seminar covers the operation and diagnostic procedures of current Supplemental Restraint Systems (SRS) and why they are needed. Course content includes SRS sub-systems and components found on current vehicles, their functions and interrelated systems, such as OnStar. This course also covers the SRS safety procedures to be followed while making repairs, safe operation of a vehicle post-accident, diagnostic procedures, service tips, and special tools.

Course Length: 3 hours

Languages: English



BATTERY MARKETER SEMINAR

S-EL06-71.01SEM

Course Description: This seminar will cover at a high level the following topics: Safe Handling, Battery Marketer Role Overview, Battery Types and Characteristics, Reserve Capacity vs. Cold Cranking Amps, Battery Stock Rotation, Battery Date Codes, Battery Inspection and Testing (Midtronics and Load Testing) and Battery Charging. Also discussed will be ACDelco online resources, including catalogs, sell sheets, MSDS sheets, and additional training offerings.

Course Length: 3 hours

Languages: English



A6: ELECTRICAL / ELECTRONIC SYSTEMS



ENGINE ELECTRICAL

S-EL06-72.01SEM

Course Description: This seminar will cover basic battery, starting and charging system components, operation and testing. Included in the discussion will be new technologies in these systems, along with testing and diagnosis of these systems. Topics will include: dealing with battery management systems, how a defective battery can cause U-codes and drivability complaints along with useful service and diagnostic tips.

Course Length: 3 hours

Languages: English

Half Day Training (HDT)



BODY CONTROL SYSTEMS

S-EL06-02.01HDT

Course Description: This course is designed to familiarize technicians with technical information and diagnostic procedures that are related to vehicle body control systems. Topics covered include body control module communication/programming, lighting systems, power door locks, keyless entry and retained accessory power systems. Module interfaces such as battery rundown protection, load shedding and regulated voltage control will also be discussed.

Languages: English



VEHICLE COMMUNICATION SYSTEM DIAGNOSTICS

S-EL06-03.01HDT

Course Description: This course is designed to familiarize technicians with technical information and diagnostic procedures that are related to vehicle communication systems. Topics covered include various types of serial data lines including UART, E&C, SBI, SPI, LIN, Keyword 81, 82 & 2000, Class 2 and CAN (GMLAN). Several networking configurations including ring/star hybrid will be covered. Functional diagnostics as it relates to scan tool and vehicle interface will also be discussed.

Languages: English



CONTROLLER AREA NETWORK (CAN) VEHICLE COMMUNICATION

S-EL06-03.02HDT

Course Description: This course is designed to familiarize technical information and diagnostic procedures that are related to CAN data vehicle communications. Topics covered include an overview of non-CAN lines such as UART, Class 2, Keyword and certain body lines, Simple Bus Interface (SBI), SPI and LIN. GMLAN communication will be covered in detail, along with power moding, functional diagnostics and global electronic service information (ESI). A new system will be introduced: Global A Serial Data Architecture. New tools such as the GM Multiple Diagnostic Interface (MDI) and vehicle communication interface module will also be covered. Hands-on vehicle activities will be included.

Languages: English



ADVANCED CHARGING AND STARTING SYSTEMS

S-EL06-20.01HDT

Course Description: This course is intended for electrical technicians. The course will focus on various starting and charging systems from stand-alone controls to PCM/BCM interfaced systems. Electronic power management, regulated voltage control, load shedding and battery rundown protection will be discussed. An emphasis will be put on proper diagnostics and service procedures for each system. Fundamentals will be covered only as a review..

Languages: English

A6: ELECTRICAL / ELECTRONIC SYSTEMS

Instructor-Led Training (ILT)

NETWORK COMMUNICATION DIAGNOSIS

S-EL06-04.02ILT

Course Description: This course is an updated version of Body Control Systems (S-EL06-04.01ILT). The course includes enhanced CAN/GMLAN data network diagnosis, testing termination resistors, and voltage differential protocols using applicable tools. Added to the course is advanced parasitic drain testing factoring in Power Cycle times of the various On Star systems (Generation 6, 7 and 8), and how to determine the specific system. Technicians will work through a series of hands-on exercises that involve newer BCM symptom DTCs (subtypes and categories) with the functional diagnostics format.

Languages: English



ELECTRICAL POWER MANAGEMENT

S-EL06-10.02ILT

Course Description: This course is an updated version of Battery Starting and Charging Systems (S-EL06-10.01ILT). The course emphasizes vehicle intelligent energy management, which includes the new regulated voltage control systems, load cycling and load shedding. Regulated voltage control uses numerous factors to actively control the flow of electrical and mechanical energy in a motor vehicle. The course includes a series of hands-on and desk exercises designed to enhance the technician's knowledge of these new, complex systems. Updates to the starting system portion of the program include BCM/ECM interaction for starting and Remote Vehicle Start (RVS) systems.

Languages: English



ENHANCED AUTOMOTIVE CIRCUIT DIAGNOSIS

S-EL06-11.02ILT

Course Description: This course is designed for automotive technicians working on any electrical systems on today's vehicles. This course will cover all aspects of electrical fundamentals and diagnostics including voltage, resistance and amperage, and Ohm's Law. Magnetic principles will also be covered as they apply to such items as starters, alternators, and ABS sensors. Additional topics include bussed electrical centers, proper wire repair and wire diagram analysis.

Languages: English



BODY ELECTRICAL: GLOBAL DIAGNOSTICS

S-EL06-13.01ILT

Pre-Course Recommendation: S-EL06-11.02ILT

Course Description: This course will help experienced technicians improve their diagnostic skills on electrical circuits. The course will focus on various electrical faults found on electronic module networking, intermittent electrical faults, and proper meter use to diagnose electrical systems. The new GM Global Serial Data Architecture will also be covered.

Languages: English



ADVANCED BODY CONTROL SYSTEM ELECTRICAL DIAGNOSTICS

S-EL06-14.01ILT

Pre-Course Recommendation: S-EL06-11.02ILT and S-EL06-13.01ILT

Course Description: This course will focus on Body Electrical Systems, both BCM and non BCM control systems. Some key items covered will include Power Windows, Power Locks, Lighting Systems along with unique systems such as Keyless Entry, Radio Theft Lock, Remote Start/keyless start, Rain Sense and Ultra Sonic Rear Parking Assist (URPA). Diagnostics and worksheets will be utilized to reinforce body system concepts.

Languages: English



ELECTRICAL DIAGNOSTICS

S-EL06-17.01ILT







Course Description: This course will cover electrical testing and diagnosis from the circuit/signal perspective and how the tool you choose can affect the diagnosis and your efficiency. Topics covered include: Review of the common circuits and functions used in vehicle electrical systems, DVOM functions and usage, basic oscilloscope functions and usage, test lights, interpreting schematic information, relays, and terminal numbering. Exercises will allow participants to apply circuit testing strategies and tools to different circuits/functions.

Languages: English



A7: HEATING AND AIR CONDITIONING

Web-Based Training (WBT)

-  **INTRODUCTION TO AIR CONDITIONING** ● S-AC07-01.01WBT
Course Description: This course covers R12 and R134A refrigeration systems, recovery and evacuation procedures, system charging and leak testing procedures. Specific topics include CCOT, VDOT and TXV systems. Upon completion of this course technicians will be able to describe the components and operation of the refrigeration, heating, cooling and air distribution system. Control system operation, handling concerns and safety precautions for servicing HVAC systems will be discussed.
Languages: English
-  **HVAC SYSTEMS OPERATION** ● S-AC07-02.01WBT
Pre-Course Recommendation: S-AC07-01.01WBT
Course Description: The course is intended for experienced HVAC service technicians. The course focus is on system operation with additional emphasis placed on electrical and control systems. Specific topics include automatic, dual zone, and rear HVAC systems. Upon completion of this course technicians will be able to identify the operation of the manual and automatic HVAC control system and control system concerns.
Languages: English
-  **TOYOTA HVAC** S-AC07-06.01WBT
Course Description: Keep your Toyota customers warm during the winter and cool in the summer by learning about the functions and operating characteristics of the HVAC systems found on Toyota vehicles. This course will focus upon Toyota HVAC component location, manual air conditioning controls, automatic air conditioning controls. The HVAC system used on Toyota Hybrid vehicles is also discussed in this course.
Languages: English
-  **CHRYSLER HVAC** S-AC07-07.01WBT
Course Description: Wow your customers with the knowledge you will obtain by taking the Chrysler HVAC course. This course covers the theory and operation of Chrysler HVAC systems, including the air conditioning system and its components, air conditioning controls, automatic air conditioning systems and the Hybrid HVAC system.
Languages: English
-  **HVAC SYSTEMS AND OPERATION STAGE 1** ● S-AC07-08.02WBT
Course Description: This course provides the fundamentals of Heating, Ventilation, and Air Conditioning (HVAC) systems. It covers the theory, characteristics, and operation of HVAC Air Conditioning (A/C) systems. This course provides an overview of the function and operation of HVAC components. It provides information about the various types of compressors, along with the operation of the piston-type and scroll-type compressors. This course also covers the characteristics of refrigerants and the operation of fixed orifice systems. Participants will also learn safety practices. Upon completion of this course, participants will be able to recall HVAC system characteristics and theory and identify refrigerant systems and their components.
Languages: English
-  **HVAC SYSTEMS AND OPERATION STAGE 2** ● S-AC07-09.02WBT
Course Description: This course provides the servicing and performance diagnosis of Heating, Ventilation, and Air Conditioning (HVAC) systems. It also covers the operation of recovery and recharging stations. Upon completion of this course, the participant will be able to recall Heating, Ventilation and Air Conditioning (HVAC) system servicing, including performance diagnosis, and identifying recovery/recharging station functions.
Languages: English
-  **HVAC SYSTEMS AND OPERATION STAGE 3** S-AC07-14.01WBT
Course Description: This course provides the fundamentals of Heating Ventilation and Air Conditioning (HVAC) systems. It also covers HVAC theory, the function and operation of HVAC components, and servicing HVAC systems. Upon completion of this course, participants will be able to recall practices for servicing heating, ventilation, and air conditioning systems, recall air conditioning performance diagnosis, identify recovery and recharging stations, recall air distribution fundamentals, and identify control head input and output components.
Languages: English

A7: HEATING AND AIR CONDITIONING

Simulation (SIM)

HVAC SYSTEM DIAGNOSTIC CHALLENGE

S-AC07-01.01SIM

Course Description: This course is a web-based HVAC simulation which is designed to challenge the skilled service technician. This simulation is not a training exercise and therefore minimal feedback is provided during the duration of the activity. Upon completion of the simulation a score is provided based upon following the optimal strategy based diagnostic path and how much time it took to complete the simulation.

Languages: English



Seminar (SEM)

ADVANCED COOLING SYSTEMS DIAGNOSTICS

S-AC07-02.01SEM

Course Description: This seminar will help technicians to understand the changes of cooling systems and the system components over the past years. Various cooling system components, including water pumps, cooling fans, heater cores, radiators, and unique systems, such as Hybrid cooling, dual thermostat, and “run-without-coolant” technology, will be covered. This seminar also covers proper service procedures for modern cooling systems.

Course Length: 3 hours

Languages: English



INTERIOR COMFORT CONTROLS

S-AC07-04.01SEM

Course Description: The Interior Comfort Controls Seminar uses real world scenarios based on vehicles from several vehicle manufacturers to focus on all aspects of the HVAC system: Heating, Air Distribution and Air Conditioning. This seminar covers the inputs and outputs that enable HVAC operation and those that can affect HVAC performance. Service techniques such as actuator installation, flushing and line repair will also be covered. Finally it will compare various manufacturers’ system operation and diagnostic procedures.

Course Length: 3 hours

Languages: English



HVAC TECHNOLOGY AND SERVICE

S-AC07-05.01SEM

Course Description: This seminar will cover recent advances in automotive Heating, Ventilation and Air Conditioning. Topics include: New refrigerants (HFO R-1234yf and others), Hybrid and Electric Vehicle Thermal Management, Refrigerant circuit enhancements, New actuators, Networking, Sensors, Reprogramming, Service Procedures, Tools and Equipment.

Course Length: 3 hours

Languages: English



Half Day Training (HDT)

EMERGING A/C TECHNOLOGY AND SERVICE

S-AC07-03.02HDT

Course Description: This course is intended to help technicians understand and diagnose current air conditioning systems. Focus is on diagnosis of electrical and hardware issues related to the various systems. The seminar will also cover items such as compressor service, oil balancing, sealants, line repair and leak detection. In addition, the latest scan tools and new CAN data communication involving compressor operation and module reprogramming will be covered. New technologies will be discussed such as R134a replacements (R152a, R744, and HFO-1234YF) and regulations such as SAE J2788 R/R/R machines as well as other SAE regulations. Clutchless compressors and high voltage hybrid compressors will also be covered. Hands-on vehicle activities will be included.

Languages: English



A7: HEATING AND AIR CONDITIONING

Instructor-Led Training (ILT)



AUTOMOTIVE AIR CONDITIONING ADVANCED REFRIGERANT SYSTEM DIAGNOSTICS

S-AC07-02.01ILT

Course Description: Building upon the technicians knowledge obtained in the related ACDelco HVAC web-based courses, this instructor-led course utilizes class discussion and hands-on lab exercises to improve the participants' diagnostic skills. This course focuses on cycling clutch orifice tube (CCOT), variable displacement thermostatic expansion valve (VDTXV), cycling clutch thermostatic expansion valve (CCTXV) and variable displacement orifice tube (VDOT) systems. An overview of Hybrid vehicle refrigerant systems, interpreting refrigerant gauge readings, refrigerant oil and sealant types, refrigerant type detection and sealants, system flushing, leak detection and refrigerant legislation is presented in this course. Various exercises and activities are utilized by the instructor to tailor the participant's individual learning experience. For example, an exercise is available to address the needs of the technicians that are not certified in refrigerant recovery and recycling as noted in Section 609 of the Clean Air Act Amendment. Exercises are comprised of desk, bench, case study, on-vehicle and proper tool usage activities and are assigned based upon facility accommodations.

Languages: English



HVAC CONTROL SYSTEM OPERATION AND DIAGNOSTICS

S-AC07-03.01ILT

Course Description: Building upon the technicians knowledge obtained in the related ACDelco HVAC web-based courses, this instructor-led course utilizes class discussion and hands-on lab experience to improve the participants' HVAC control system diagnostic skills. The course covers controlling compressor operation, system input devices, engine fan controls and operation, manual, electronic and automatic temperature control, air delivery and flow controls and, zone adjustable climate controls. An overview of HVAC system control operation, clutchless pulley design, single/multiple zone controls and airflow control is also presented in this course. Exercises are comprised of desk, bench, case study, on-vehicle and proper tool usage activities and are assigned based upon facility accommodations.

Languages: English



HVAC DIAGNOSIS AND SERVICE

S-AC07-04.01ILT

Course Description: Modern automotive HVAC systems have undergone some changes in recent years. We are on the threshold of a new era of refrigerants that come with new tools and procedures. Also you may have noticed that the system charge has progressively become smaller with each new model. The variable displacement compressor and expansion valve has become common, along with the computer control of the compressor. Changes to the refrigerant circuit have also been made: internal heat exchangers (IHX), enhanced evaporators and condensers. Let us not forget the electrically driven compressors found in the hybrid electric vehicles; these too require specific diagnostic and service procedures. The goal of this 8-hour ILT course is to cover these changes to HVAC systems, how to diagnose performance concerns, and the correct service processes for these systems. Exercises will provide the opportunity to explore and diagnose some common scenarios, using the tools and equipment provided to gain confidence in both knowledge and practical skill.

Languages: English

A8: ENGINE PERFORMANCE

Web-Based Training (WBT)

POWERTRAIN PERFORMANCE 1

S-EP08-01.02WBT

Course Description: Part one of this five-part WBT course covers the characteristics of engine performance including the processing functions of electronic control systems, modes of operation, characteristics of the PPCM/ECM, sensor inputs/outputs and subsystems of the ECM. Upon completion of this course, technicians will be able to identify common characteristics of engine performance, the processing functions of electronic control systems, modes of operation, characteristics of PCM/ECM sensor inputs, subsystems of the ECM and characteristics of sensor outputs.

Languages: English/Spanish



POWERTRAIN PERFORMANCE 2

S-EP08-02.02WBT

Pre-Course Recommendation: S-EP08-01.02WBT

Course Description: Part two of this five-part WBT course covers components and operation of the Sequential Multiport Fuel Injection System, Central Multiport Fuel Injection System, Central Sequential Multiport Fuel Injection System, Saab T7 Fuel Injection System, Saab T8 Fuel Injection System and Saab ME9 Fuel Injection System. Upon completion of this course technicians will be able to identify components and operation of a wide variety of fuel delivery systems.

Languages: English/Spanish



POWERTRAIN PERFORMANCE 3

S-EP08-03.02WBT

Pre-Course Recommendation: S-EP08-01.02WBT and S-EP08-02.02WBT

Course Description: Part three of this five-part WBT course covers ignition system fundamentals including the function and operation of the Coil on Plug ignition system, the Gen III & Gen IV Coil-Near-Plug Ignition System, GM ignition systems and Saab ignition systems. Upon completion of this course, technicians will understand the system fundamentals of a wide variety of ignition systems.

Languages: English/Spanish



POWERTRAIN PERFORMANCE 4

S-EP08-04.01WBT

Pre-Course Recommendation: S-EP08-01.02WBT, S-EP08-02.02WBT and S-EP08-03.02WBT

Course Description: Part four of this five-part WBT course introduces diagnostics of GM Powertrain Performance. This course includes topics regarding On-Board Diagnostics (OBD) II system, OBD II drive cycle, Diagnostic Trouble Codes (DTC), heated oxygen sensor, catalyst diagnostics, misfire monitoring and comprehensive input monitoring is detailed. Upon completion of this course technicians will understand the basic requirements and functions of an On-Board Diagnostics II system, characteristics of each type of Diagnostic Trouble Code and Diagnostic Trouble Code messages, scan tool capabilities, On Board Diagnostics II drive cycle, comprehensive input monitoring, heated oxygen sensor characteristics, catalyst diagnostics and characteristics of misfire monitoring.

Languages: English/Spanish



POWERTRAIN PERFORMANCE 5

S-EP08-05.01WBT

Pre-Course Recommendation: S-EP08-01.02WBT, S-EP08-02.02WBT, S-EP08-03.02WBT and S-EP08-04.01WBT

Course Description: Part five of this five-part WBT course introduces powertrain performance systems used in General Motors vehicles. This course covers exhaust gas recirculation, hydro-carbon adsorbers, evaporative emissions control, engine off natural vacuum, on-board refueling vapor recovery and control systems. Upon completion of this course technicians will understand the operation of the EGR system, hydro-carbon adsorber, enhanced EVAP diagnostic procedures, F89EVAP system, ENOV system operation and control system diagnostic procedures.

Languages: English/Spanish



OBD II OVERVIEW

S-EP08-10.01WBT

Course Description: This course provides experienced service technicians with a fundamental understanding of OBD II systems. Upon completion of this course technicians will be able to identify and explain basic requirements, terms and features of an OBD II compliant system and understand the difference between OBD I and OBD II. Basic OBD II system protocols, 5-character DTCs, basic requirements, terms and features of an OBD II compliant system are detailed. Trips, drive cycles, warm-up cycles and diagnostic monitors are covered in detail.

Languages: English



OBD II GM

S-EP08-12.01WBT








Pre-Course Recommendation: S-EP08-10.01WBT

Course Description: This course provides experienced service technicians with a fundamental understanding of OBD II systems as applied to GM products. Upon completion of this course technicians will be able to identify and explain the basic requirements, terms and features of an OBD II compliant system. GM OBD II system protocols and the meaning of 5-character DTCs are covered in detail.

Languages: English



A8: ENGINE PERFORMANCE

-  **TOYOTA ENGINE PERFORMANCE** ● S-EP08-20.01WBT
Course Description: Expand your knowledge and learn unique features of Toyota components and systems that affect engine performance. This course specifically covers the operation and characteristics of input sensors, fuel systems and emission systems.
Languages: English
-  **CHRYSLER ENGINE PERFORMANCE** ● S-EP08-21.01WBT
Course Description: Discover and learn the unique features of Chrysler components and systems that affect engine performance, including the operation and characteristics of Chrysler next generation controller (NGC) level 5, NGC speed density and NGC fuel injection.
Languages: English
-  **OBD II OPERATIONS AND SYSTEM DIAGNOSTICS – FORD** S-EP08-22.01WBT
Pre-Course Recommendation: S-EP08-10.01WBT
Course Description: This course provides experienced service technicians with a focused look at OBD II on Ford products. Upon completion of this course technicians will be able to identify and explain basic requirements, terms and features of an OBD II compliant system and the history of electronic engine controls. Input/output components, comprehensive input monitoring, H02S and catalyst monitoring and diagnostics are discussed. Fuel system monitoring, misfire diagnostics, control system diagnostics and evaporative emissions systems diagnostics are detailed.
Languages: English
-  **COMPRESSED NATURAL GAS (CNG) FUEL SYSTEMS** ● S-EP08-23.01WBT
Course Description: The WBT component provides knowledge of regulations, component function and operation, vehicles, diagnosis, service, and maintenance procedures for Compressed Natural Gas (CNG) fuel systems. Upon completion of this WBT component technicians will be able to recall laws, regulations, characteristics, and safety procedures for compressed natural gas fuel systems, describe the compressed natural gas system components and operation, identify compressed natural gas vehicles, engines and diagnostic procedures, and recall compressed natural gas inspection and maintenance procedures.
Languages: English
-  **ENGINE PERFORMANCE 1** ● S-EP08-24.01WBT
Course Description: Part one of this four-part WBT covers engine performance theory and characteristics, air management system theory, air management system types, and the operational steps for air management systems. It also covers the fuel system, including: fuel characteristics, theory, fuel system types, and the operational steps for sequential fuel injection and spark-ignited, direct injected fuel systems. Upon completion of this course, technicians will be able to identify the theory and characteristics of engine performance, identify the air management system, identify fuel system theory and characteristics and identify fuel system operation.
Languages: English/Spanish/French
-  **ENGINE PERFORMANCE 2** ● S-EP08-25.01WBT
Pre-course Recommendation: S-EP08-24.01WBT
Course Description: Part two of this four-part WBT discusses ignition system characteristics, theory, types, and primary and secondary section operation. This course also covers electronic control system characteristics, including the Engine Control Module (ECM), support system inputs, and modes of operation. Upon completion of this course, technicians will be able to identify the characteristics of ignition systems, recall the ignition system operation and identify electronic control system characteristics.
Languages: English/Spanish/French
-  **ENGINE PERFORMANCE 3** ● S-EP08-26.01WBT
Pre-course Recommendation: S-EP08-24.01WBT, S-EP08-25.01WBT
Course Description: Part three of this four-part WBT covers the emission control systems including control system theory, On-Board Diagnostics (OBD) characteristics, internal engine systems, after-treatment systems, and other emission control system characteristics. Upon completion of this course, technicians will be able to identify the operation of the emission control systems, identify the operation of the emission control components, identify the operation of the emission control systems – engine internal, and identify the operation of the emission control systems – exhaust after treatment.
Languages: English/Spanish/French

A8: ENGINE PERFORMANCE

ENGINE PERFORMANCE 4

S-EP08-27.01WBT



Pre-course Recommendation: S-EP08-24.01WBT, S-EP08-25.01 WBT, S-EP0826.01WBT

Course Description: Part four of this four-part WBT covers how to troubleshoot engine performance using strategy-based diagnostics, and how to diagnose engine performance using external visual inspection, system-based strategy, Diagnostic Trouble Code (DTC)-based diagnostics, and misfire monitoring. The course also covers how to diagnose engine performance support systems including the Air Conditioning (A/C) clutch, communications, cooling fan, cruise control, active fuel management, and the cam phaser. Upon completion of this course, technicians will be able to recall how to troubleshoot and diagnose engine performance related issues and support systems.

Languages: English/Spanish/French

LIQUEFIED PETROLEUM GAS (LPG) FUEL SYSTEMS

S-EP08-28.01WBT



Course Description: This WBT course provides information on regulations, component function and operation, vehicles, diagnosis, service and maintenance procedures for Liquid Propane Gas (LPG) fuel systems. Upon completion of this WBT course, technicians will be able to recall laws, regulations characteristics, and safety procedures for LPG fuel systems, Describe the liquid propane gas components and operation, identify liquid propane gas vehicles, engine, and diagnostic procedures, and recall liquid propane gas inspection and maintenance procedures.

Languages: English

BI-FUEL SYSTEM OPERATION

S-EP08-29.01WBT



Course Description: General Motors bi-fuel systems use a combination of Compressed Natural Gas (CNG) fuel and traditional gasoline systems. This course covers the process of how the bi-fuel system operates and performs in comparison to a traditional gasoline vehicle. It also identifies components involved in bi-fuel system operation and bi-fuel supply operations. Bi-fuel diagnostic scenarios for no start and improper CNG operation will be discussed. In addition to diagnostics, the bi-fuel inspection and maintenance process including leak checking and tank removal safety will be presented. Vehicle storage will also be covered. Upon completion of this course, participants will be able to describe the bi-fuel system components and operation, describe bi-fuel system diagnostic procedures, and recall bi-fuel system inspection and maintenance procedures.

Languages: English

OBD II OPERATIONS AND SYSTEM DIAGNOSTICS – CHRYSLER

S-EP08-32.01WBT



Pre-course Recommendation: S-EP08-10.01WBT

Course Description: This course provides experienced service technicians with a focused look at OBD II on Chrysler products. Upon completion of this course technicians will be able to identify and explain basic requirements, terms and features of an OBD II compliant system and the history of electronic control modules and communication protocols. Input/output components, comprehensive input monitoring, H02S and catalyst monitoring and diagnostics are discussed in detail. Fuel system monitoring, misfire diagnostics, control system diagnostics and evaporative emissions systems diagnostics are covered.

Languages: English

OBD II OPERATIONS AND SYSTEM DIAGNOSTICS – HONDA

S-EP08-42.01WBT



Pre-Course Recommendation: S-EP08-10.01WBT

Course Description: This course provides experienced service technicians with a focused look at OBD II on Honda products. It explains the Honda approach to OBD II. Upon completion of this course technicians will be able to identify and explain basic requirements, terms and features of an OBD II compliant system and the history of electronic control modules and communication protocols. Input/output components, comprehensive input monitoring, H02S & catalyst monitoring and diagnostics are discussed. Fuel system monitoring, misfire diagnostics, control system diagnostics and evaporative emissions systems diagnostics are detailed.

Languages: English

MEDIUM DUTY TRUCK OVERVIEW

S-EP08-87.01WBT



Course Description: This course is an overview of the new medium duty truck and covers the exterior features, HVAC, power and signal distribution, entertainment, body systems, safety and security, suspension, steering and brakes. Topics include specifications, options, operation, and procedures.

Languages: English

MEDIUM DUTY TRUCK POWERTRAIN

S-EP08-88.01WBT



Course Description: This course is an overview of the new medium duty truck and covers the exterior features, HVAC, power and signal distribution, entertainment, body systems, safety and security, suspension, steering and brakes. Topics include specifications, options, operation, and procedures.

Languages: English

A8: ENGINE PERFORMANCE

Simulation (SIM)



ENGINE PERFORMANCE DIAGNOSTIC CHALLENGE

S-EP08-01.01SIM

Course Description: This course is a web-based engine performance simulation which is designed to challenge the skilled service technician. This simulation is not a training exercise and therefore minimal feedback is provided during the duration of the activity. Upon completion of the simulation a score is provided based upon following the optimal strategy based diagnostic path and how much time it took to complete the simulation.

Languages: English

Seminar (SEM)



BEYOND THE FOUR STROKES

S-DS11-11.01SEM

Course Description: Beyond the four strokes course uses real world scenarios based on vehicles from several manufacturers to focus on engine mechanical related misfire diagnosis, Spark Ignited Direct Injection (SIDI) engine service techniques and most recent engine sensor technology.

Course Length: 3 hours

Languages: English



ELECTRONIC IGNITION SYSTEM DIAGNOSTICS

S-EP08-11.01SEM

Course Description: This seminar is intended for drivability technicians and focuses on various ignition systems and their related components. Featured systems include distributor ignition, electronic ignition, coil-on-plug, compression sense and ionization current sense systems. The seminar will cover operation and diagnosis of each system including triggering systems as well as primary and secondary circuits. Service procedures unique to each system will also be discussed.

Course Length: 3 hours

Languages: English



GM ON-BOARD DIAGNOSTICS – GENERATION II

S-EP08-12.01SEM

Pre-Course Recommendation: S-EP08-15.01SEM

Course Description: This seminar focuses on OBD II regulations as they pertain to GM vehicles, misfire detection, catalytic converter monitoring, enhanced EVAP system diagnostics and comprehensive monitoring will be discussed. Terminology and hardware changes along with information on GM's CAN system, displacement-on-demand and wide-range air/fuel sensors are also discussed.

Course Length: 3 hours

Languages: English



EMISSION SYSTEM DIAGNOSTICS

S-EP08-13.01SEM

Pre-Course Recommendation: S-EP08-12.01SEM

Course Description: This seminar will focus on emission control systems. Vehicle emissions and government emission standards including Tier 1, Tier 2 and low emission vehicles will be detailed. Various systems will be discussed including enhanced EVAP, EGR, AIR, catalytic converter and PCV with an emphasis on OBD II strategy and diagnostics of each system. An explanation of inspection and maintenance programs including I/M 240 and OBD II emission testing will also be covered. The content of this seminar will help technicians understand emission systems to improve their diagnostic skill.

Course Length: 3 hours

Languages: English



EVAP DIAGNOSIS

S-FC02-02.01SEM

(New in 2017) Course Description: This seminar will provide an overview of evaporative emissions and the systems that control them. Topics include the function of the fuel tank ventilation system, charcoal canister, purge and vent valves, fuel tank pressure sensors, Leak Detection Pumps (LDP) and other components. We will discuss the strategies and function of Onboard Refueling Vapor Recovery (ORVR), Engine Off Natural Vacuum (EONV), including the diagnosis of P0440, P0442 and other EVAP system DTCs.

Course Length: 3 hours

Languages: English

A8: ENGINE PERFORMANCE

Half Day Training (HDT)

ELECTRONIC IGNITION SYSTEM DIAGNOSTICS

S-EP08-11.01HDT

Course Description: This course is intended for drivability technicians and focuses on various ignition systems and their related components. Featured systems include distributor ignition, electronic ignition, coil-on-plug, compression sense and ionization current sense systems. The course will cover operation and diagnosis of each system including triggering systems as well as primary and secondary circuits. Service procedures unique to each system will also be discussed.

Languages: English



FUEL SYSTEM SERVICE AND DIAGNOSTICS

S-FC01-01.02HDT

Course Description: The purpose of this course is to familiarize the ACDelco professional with the fuel, exhaust, and emissions control systems. The course will emphasize the basic operating principals and components of each of these systems along with the Features and Benefits of the ACDelco product line allowing you to better serve our customers. This seminar is divided into the following sections: Fuel System—covers fuel system components and operation. Exhaust System—covers exhaust system components and operation. Emissions Control Systems—covers emissions control systems components and operation. Hands-on vehicle activities will be included.

Languages: English



Instructor-Led Training (ILT)

ENGINE PERFORMANCE: COMPUTER CONTROLS AND IGNITION SYSTEM DIAGNOSIS S-EP08-02.01ILT

Course Description: Building upon the technicians knowledge obtained in the related ACDelco engine performance web-based courses, this instructor-led course utilizes class discussion and hands-on lab experience to further explore and improve the participants' electronic engine performance control system and ignition system diagnostic skills. Course topics include input/output device operation, testing and diagnosis. An overview of module processing operation, testing and diagnosis of ignition systems and subsystems, including coil-on-plug (COP) are included. Exercises are comprised of desk, bench, case study, on-vehicle and proper tool usage activities which are assigned based upon the participant's skill level and facility accommodations.

Languages: English



ENGINE PERFORMANCE: FAULT MONITORING AND EMISSIONS SYSTEM DIAGNOSTICS

S-EP08-04.01ILT

Pre-Course Recommendation: S-EP08-02.01ILT and S-EP08-03.01ILT

Course Description: Building upon the technicians knowledge obtained in the related ACDelco engine performance web-based courses and instructor-led courses this course utilizes class discussion and hands-on lab experience to further explore and improve the participants' fault monitoring and emission system diagnostic skills. Course topics include on-board diagnostic systems and emission system diagnostics. Exercises are comprised of desk, bench, case study, on-vehicle and proper tool usage activities which are assigned based upon the participants' skill level and facility accommodations.

Languages: English



ENGINE PERFORMANCE: ADVANCED DRIVEABILITY DIAGNOSTICS

S-EP08-05.01ILT

Pre-Course Recommendation: Either S-EP08-02.01ILT, S-EP08-03.01ILT or S-EP08-04.01ILT

Course Description: This course challenges technicians' diagnostic skills by expanding upon what was learned in the previous three engine performance instructor-led courses. Utilizing vehicles in class, online diagnostic simulations and snapshot data, technicians will trouble-shoot advanced-level exercises, which combine engine operating data from fuel, air induction, emission, ignition, and control module systems. By applying the logical problem solving approach of strategy based diagnosis (SBD), correctly interpreting scan data, and closely following service information, the technician will arrive at the correct diagnosis. The diagnostic cases represent actual vehicle diagnostic scenarios, which technicians will work through in small groups and document their problem solving approach.

Languages: English



AFTER COMBUSTION SENSORS

 S-EP08-06.01ILT

Course Description: Your scan tool shows the Heated Oxygen Sensor voltage stuck under 500mv. Should the fuel trims be positive or negative? After combustion sensors course uses real world scenarios based on vehicles from several vehicle manufacturers to focus on the relationship between Heated Oxygen Sensor, Fuel Trims and Catalytic Converters. We will examine OEM supported techniques and tools to diagnosis Heated Oxygen Sensor, Fuel Trims and Catalytic Converters.

Languages: English



A8: ENGINE PERFORMANCE



AIR INDUCTION AND FUEL INJECTION OPERATION AND DIAGNOSIS

S-EP08-07.01ILT

Course Description: This course explores the different operational and diagnostic procedures on various vehicle manufacturers' air induction and fuel systems. In this class, technicians will use a combination of hands-on exercises and case studies to develop various service strategies, reducing time spent under the hood.

Languages: English



EVAPORATIVE EMISSIONS CONTROLS

S-EP08-08.01ILT

Course Description: The EVAP Controls course uses real world scenarios based on vehicles from several manufacturers to focus on the different strategies and components used by various manufacturers to detect Evaporative Emission leaks. After exploring the operation of various systems and its components, OEM supported techniques and tools for finding leaks are examined.

Languages: English



SPARK GENERATION

S-EP08-09.01ILT

Course Description: Have you ever asked yourself, questions like: What voltage should that Crank Sensor output? Do I need a cam sensor to have spark? What module is in control of spark timing? Spark Generation course uses real world scenarios based on vehicles from several manufacturers to focus on various strategies and components used to generate spark with a Heavy emphasis on misfire diagnosis related to spark delivery.

Languages: English



DIRECT INJECTION

S-EP08-10.01ILT

Course Description: This comprehensive Instructor-Led Training (ILT) course covers direct injection systems for gasoline and diesel engines. The discussion and hands-on based session includes animations, videos, case studies, photos, graphics, schematics and vehicle-based exercises. Direct Injection information for both gasoline and diesel engines include: system components, system operation, diagnosis and service. In addition, students receive an all-inclusive student guide for reference during the training and after training.

Languages: English

A9: LIGHT DUTY DIESEL

Web-Based Training (WBT)

6.5L DIESEL ENGINE

● S-EP08-80.01WBT



Pre-Course Recommendation: S-EP08-02.01WBT

Course Description: This course focuses on the 6.5L turbo-charged diesel engine operation, performance and major subsystem integration. Specific systems include electronic fuel delivery, turbo-charge operations, low/high fuel pressure delivery, injection pump timing, emission controls and engine management systems. Upon completion of this course technicians will be able to identify application, configuration and design features of the 6.5L diesel engine. Operation of the air induction system, exhaust system, emissions system and fuel system along with the interactions of the electronic engine control system are detailed.

Languages: English

DURAMAX 6600 OPERATION, SERVICE AND DIAGNOSIS 1

● S-EP08-81.03WBT



Course Description: This WBT course is intended for experienced engine/driveability service technicians. The course focuses on the Duramax 6600 LB7, LLY-LBZ and LMM engine operation, performance and major subsystem integration. Specific systems covered are the fuel system, engine management system, exhaust aftertreatment system and electronic engine controls. Upon completion of this course, technicians will be able to apply concepts and procedures to diagnose the Duramax 6600 LMM Diesel Fuel system, Engine Management system, and Exhaust Aftertreatment system concerns.

Languages: English

DURAMAX 6600 OPERATION, SERVICE AND DIAGNOSIS 2

● S-EP08-82.01WBT



Pre-course Recommendation: S-EP08-81.03WBT

Course Description: This WBT course is intended for experienced engine/driveability service technicians. The course focuses on the Duramax 6600 LB7, LLY-LBZ and LMM engine operation, performance and major subsystem integration. Specific systems covered are the fuel system, engine management system, exhaust aftertreatment system and electronic engine controls. Upon completion of this course, technicians will be able to apply concepts and procedures to diagnose the Duramax 6600 LMM Diesel Fuel system, Engine Management system, and Exhaust Aftertreatment system concerns.

Languages: English

DURAMAX 6600 OPERATION, SERVICE AND DIAGNOSIS 3

● S-EP08-83.01WBT



Pre-course Recommendation: S-EP08-81.03WBT, S-EP08-82.01WBT

Course Description: This WBT course is intended for experienced engine/driveability service technicians. Part three of this three-part WBT course covers conventional and variable nozzle turbochargers, the cooling system, the engine emission control system, and the engine exhaust aftertreatment system. It also covers the selective catalytic reduction process and the diesel particulate regeneration process.

Languages: English

2.8L DURAMAX

S-EP08-84.01WBT



Course Description: This course presents a description of the 2.8L Duramax diesel engine. The course provides a description of the engine's applications and specifications. Other topics are a comprehensive overview of components of the 2.8L diesel engine, and its aftertreatment system.

Languages: English

BI-FUEL SYSTEMS OPERATION (IMPALA)

S-EP08-85.01WBT



Course Description: General Motors bi-fuel systems use a combination of Compressed Natural Gas (CNG) fuel and traditional gasoline systems. This course covers bi-fuel system components, operation, and diagnostics and repair for the RPO LFR / FHV system. It describes how the bi-fuel system operates and performs in comparison to a traditional gasoline vehicle. This course also identifies components involved in bi-fuel system operation and supply, as well as some common diagnostic and service procedures.

Languages: English, French

DIESEL ENGINE PERFORMANCE 4

S-EP08-86.01WBT



Course Description: The content in this course covers the new generation of diesel aftertreatment systems. The course will provide a general overview of the aftertreatment system as well as cover its operation. Learners will be provided in-depth information on components, sensors, and the Diesel Exhaust Fluid (DEF) system.

Languages: English

A9: LIGHT DUTY DIESEL

Seminar (SEM)



DURAMAX 6600 DIESEL ENGINE

S-EP08-30.01SEM

Course Description: This seminar will focus on unique features of the Duramax 6600 diesel engine. Engine design, lubrication, cooling, turbocharger, electric air heater, glow plug, common rail fuel and engine management systems are covered in detail. The seminar will focus on aspects of the common rail fuel system including injector testing and service, injector pump, fuel injection, control module testing and system service. Inputs and outputs as they relate to the Duramax system will also be covered. This seminar will also cover the new diesel particulate filter found on the 2007 LMM engine.

Course Length: 3 hours

Languages: English



DURAMAX 6600 DIESEL ENGINE-RPO LB7-2001/2004

S-EP08-31.01SEM

Course Description: This seminar covers the unique features of the 2001-2004 LB7 version of the 6600 Duramax engine. Systems covered include Engine Design, Lubrication, Fuel System, Cooling System, Air Induction, Turbocharger, Electric Air Heater, Glow Plug, Common Rail Fuel System and Engine Management.

Course Length: 1 hour

Languages: English



DURAMAX 6600 DIESEL ENGINE FEATURES-RPO LLY-2004/2005

S-EP08-32.01SEM

Course Description: This seminar will focus on the 2004-2005 LLY changes. System changes include Variable Nozzle Turbocharger, Digital Exhaust Gas Recirculation, Glow Plugs, Crankcase Ventilation System, and Fuel System.

Course Length: 1 hour

Languages: English



DURAMAX 6600 DIESEL ENGINE FEATURES RPO LLY-2006

S-EP08-33.01SEM

Course Description: This seminar describes the technological enhancements that the Duramax 6600 engine received for the 2006 model year including engine mechanical modifications, changes in the cooling system components, air induction system, and fuel injection system. A description of the enhancements in engine management control is included, as well as injector flow rate programming.

Course Length: 1 hour

Languages: English



2007 DURAMAX 6600 DIESEL ENGINE UPDATE-2007

● S-EP08-34.01SEM

Course Description: This seminar describes the technological enhancements that the Duramax 6600 diesel engine receives for the 2007 model year. Included will be a review of diesel emission regulations, fuel and engine oil requirements, and biodiesel fuel. A discussion regarding the diesel oxidation catalyst and the diesel particulate filter is also included.

Course Length: 1 hour

Languages: English



DURAMAX 6600 DIESEL ENGINE LGH AND LML-2010/2011

● S-EP08-35.01SEM

Course Description: This seminar covers the two new Duramax diesel engines that were developed to meet the 2010 Federal emission standards for oxides of Nitrogen (NOx) and particulate matter (PM). Included in the course is an overview of the engine mechanical features, the fuel delivery system, electronic control features, and the aftertreatment system.

Course Length: 1 hour

Languages: English



DIESEL TECHNOLOGY INSIGHTS

● S-EP08-36.01SEM

Course Description: The seminar will cover what's new in light diesel cars and trucks. If you haven't noticed, there is a new generation of common-rail diesel engines on the road today: cleaner, quieter, and more powerful. Seminar topics include: updates to the 2011 and newer GM Duramax, the new Chevrolet Cruze Diesel, what's new in exhaust aftertreatment, as well as new sensors and diesel offerings from Ford, Chrysler, and VW. Also discussed are safety, maintenance, diagnostics and service related to these modern diesel fuel and emission systems.

Course Length: 3 hours

Languages: English

A9: LIGHT DUTY DIESEL

DIESEL EMISSIONS AND EXHAUST AFTERTREATMENT

S-EP08-37.01SEM

(New in 2017) Course Description: Modern diesel engines are subject to increasingly stringent emission regulations and monitoring requirements. This seminar will prepare technicians to effectively diagnose and repair diesel exhaust emission reduction failures by developing an understanding of the emissions created by diesel engines and the systems designed to reduce those emissions. Both pre- and after-treatment systems will be covered. Specific systems and components will include intake air swirl and heating, glow plugs, exhaust gas recirculation, oxidation catalysts, diesel particulate filtration, NOx reduction technologies, selective catalyst reduction, and diesel exhaust fluid. Technicians will strengthen their diagnostic techniques by focusing on the conditions used by the Engine Control Module (ECM) to set codes related to these systems, developing an understanding of how false codes could be set, and determining the root cause of any code or failure. Common failures will be covered.

Course Length: 3 hours

Languages: English



Instructor-Led Training (ILT)

DURAMAX DIESEL OPERATION AND DIAGNOSIS

● S-EP08-81.02ILT

Pre-Course Recommendation: S-EP08-81.01WBT

Course Description: This course covers the Duramax diesel engine evolution from 2001 to 2011, including the LB7, LLY, LBZ, LMM, LML, and LGH. An overview of the Duramax features and design changes for all engine applications are covered. Other topics of this course include the engine control management system, the fuel delivery system and the variable geometry turbocharger. Also highlighted are features of the aftertreatment system of the new Duramax engines: diesel oxidation catalyst; diesel exhaust fluid injection and mixer; selective catalyst reduction; diesel particulate filter and the exhaust cooler. Diagnosis and service procedures are included.

Languages: English



MAINTENANCE AND REPAIR

Web-Based Training (WBT)



BRAKES INSPECTION AND MAINTENANCE

S-BK05-14.01WBT

Course Description: This course covers the basic procedures for the inspection and maintenance of brake systems. The course presents an overview of the relevant components and their operation, and covers the appropriate inspection and maintenance procedures. Upon completion of this course, participants will be able to identify the major components of a vehicle's brake system, recall the basic operation of the brake system, and recall how to inspect the brake system.

Languages: English



COOLING SYSTEM INSPECTION AND MAINTENANCE

S-AC07-12.01WBT

Course Description: This course covers the steps to inspect the accessory drive belt and note the condition on work order, the steps to replace a drive belt and tensioner, and the steps to inspect the radiator and heater hoses. This course also covers the drive belt and tensioner characteristics, the belt inspection, and the pulley system operation and condition. The course also describes the drive belt and tensioner replacement. Upon completion of this course, participants will be able to identify the drive belt and tensioner characteristics, how to perform the belt inspection, and identify the pulley system operation and condition. Participants will also be able to identify how to perform the drive belt and tensioner replacement. Lastly, participants will be able to identify the radiator and coolant hoses, the hoses characteristics, the radiator condition, the leaks.

Languages: English



HVAC INSPECTION AND MAINTENANCE

S-AC07-13.01WBT

Course Description: This course presents an overview of a vehicle's Heating, Ventilation, and Air Conditioning (HVAC) system, including components and operation, and then covers the basic procedures for the inspection and maintenance of the HVAC system. The course also covers relevant aspects of the inspection of HVAC systems in a hybrid vehicle. Upon completion of this course, participants will be able to identify the basic components and operation of HVAC systems in vehicles. In addition, participants will be able to recall inspection procedures for the HVAC systems. Finally, participants will be able to identify the characteristics of an HVAC system in hybrid vehicles, and recall the inspection and safety procedures for the HVAC system in hybrid vehicles.

Languages: English



AUTOMATIC TRANSMISSION INSPECTION AND MAINTENANCE

S-AT02-09.01WBT

Course Description: This course covers how to perform visual inspections of the automatic transmission system. The course also covers service procedures for removing and replacing the external speed sensor seal and adjusting the transmission fluid level.

Languages: English



BATTERY INSPECTION AND MAINTENANCE

S-EP08-33.01WBT

Course Description: This course presents the components and procedures related to battery service in vehicles from General Motors (GM). The course covers battery location, inspection, replacement, and jump-starting. The course identifies the characteristics and procedures for the inspection of electrical centers, and the operational modes of ignition devices. The course also covers the steps to restore personal radio settings in a customer's vehicle after battery service.

Languages: English



TUNE-UP INSPECTION AND MAINTENANCE

S-EP08-34.01WBT

Course Description: This course covers how to perform visual inspections of the ignition system, emission system, and throttle body system. The course also covers service procedures for removing and replacing the spark plugs and spark plug cables, removing and replacing the PCV valve, and filling the DEF holding tank.

Languages: English



LUBRICATION INSPECTION AND MAINTENANCE

S-FN00-22.01WBT

Course Description: This course covers an overview of general maintenance and service procedures involving vehicle fluids, including to inspect and lubricate the hood latch and release cable, inspect brake fluid for proper level and signs of contamination, inspect fluid level in the transfer case and differential, inspect fluid level in the transmission, inspect for fluid leaks, damaged or missing components, inspect for fluid leaks and note any findings on the work order, as well as to check tire pressure. This course also covers the service procedures of removal and installing engine oil drain plug and engine oil filter, resetting the oil life monitor system and selecting the correct grade and amount of diesel engine oil to the engine.

Languages: English

MAINTENANCE AND REPAIR

DRIVE TRAIN INSPECTION AND MAINTENANCE

S-MT03-13.01WBT

Course Description: This course covers the characteristics and inspection procedures for the manual transmission clutch, manual transmission fluid, and transfer case. This course also covers the types and service procedures for drivetrain axles.

Languages: English



STEERING AND SUSPENSION INSPECTION AND MAINTENANCE

S-SS04-12.01WBT

Course Description: This WBT provides the general and specific inspection and maintenance procedures for the steering and suspension systems. The technician will learn how to inspect and identify worn and damaged parts of the steering and suspension system. They will also learn the steps for performing a tire rotation including removing and installing wheels, hub caps/covers, and lug nuts.

Languages: English



BUSINESS TRAINING

Business Fundamentals

The business fundamentals web-based training (WBT) program features 25 self-paced non-technical courses that focus on effectively running your service center. The courses cover a wide range of topics, including information on how to increase customer satisfaction, how to effectively manage your business finances, and how to recruit and manage your employees.

The program is intended to help business owners improve their shop's efficiency and profitability.

The available business fundamental courses are listed below:

Managing Customer Objections	B-CC30-01.01WBT
Customer Follow-up & Going Forward	B-CC30-02.01WBT
Verbal & Non Verbal Communication	B-CC30-03.01WBT
Conflict Resolution	B-CC30-04.01WBT
Marketing & Advertising	B-CC60-01.01WBT
Building Customer Loyalty	B-CC60-03.01WBT
Introduction to Financial Management	B-FM32-01.01WBT
Introduction to Forecasting and Planning	B-FM32-02.01WBT
Profit Margins	B-FM32-03.01WBT
Financial Reports	B-FM32-04.01WBT
Enhancing Profitability	B-FM32-05.01WBT
Parts Inventory	B-PC33-01.01WBT
Parts Inventory Performance	B-PC33-02.01WBT
Parts Facilities	B-PC33-03.01WBT
Introduction to Selling Service	B-SC31-01.01WBT
Preparing for Successful Service	B-SC31-02.01WBT
Increasing Service Bay Sales	B-SC31-05.01WBT
Closing the Sale & Delivery	B-SC31-06.01WBT
Scheduling Basics	B-SC31-07.01WBT
Service Facilities	B-SC31-08.01WBT
Talent Acquisition	B-SC31-09.01WBT
Managing Employees	B-SC31-10.01WBT
Training Employees	B-SC31-11.01WBT
Business Analysis	B-SC31-12.01WBT
Expanding Your Customer Base	B-CC60-02.01WBT

ACDelco Service Programs

ACDELCO LEARNING MANAGEMENT SYSTEM (LMS) OVERVIEW

B-CC30-01.04SEM

Course Description: This seminar provides a venue for technicians, shop owners, managers, bookkeepers or other shop personnel that are unfamiliar with the ACDelco Learning Management System (LMS) to learn about and experience the functional characteristics of the system. This seminar, which focuses on the redesigned Learning Management System, provides a venue for technicians, shop owners, managers and other shop personnel that are unfamiliar with the system to learn about and experience its functional characteristics. In this seminar, participants will learn the purpose and benefits of the LMS, as well as how to navigate within the system. Everything from obtaining a password and accessing the LMS site, to performing course catalog searches, updating profiles, locating and launching a web course, to enrolling in an instructor lead course is presented in this dynamic seminar. Managers will also learn how to utilize the system to manage users, course enrollments and track user training progress reports.

Course Length: 3 hours

Languages: English



ACDELCO TRAINING RECOGNITION PROGRAM

B-CC30-03.01SEM

Course Description: This seminar will cover the key features of the Technician Training Recognition Program, which is a program that recognizes the technician for completing the ACDelco training paths on the training website. The course includes highlights of the training website, including an overview of the training paths and skill groups that list the courses required to earn medallions.

Course Length: 1 hour

Languages: English



Service Consultant Skills

FEATURES AND BENEFITS

B-SC31-11.01WBT

Course Description: In this self-paced web-based training course, participants will learn the importance of knowing and understanding the competitive advantages their ISC offers customers over other vehicle service providers. They will be able to identify features of their service center and relate them as benefits that meet customer needs.

Languages: English



CUSTOMER CIRCUMSTANCES

B-SC31-12.01WBT

Course Description: In this self-paced web-based training course, participants will learn the importance of understanding the circumstances of each customer service visit and to look beyond the condition of the vehicle and consider the customer. Topics covered include how to take into account characteristics such as personality type, age and gender when consulting with each individual customer.

Languages: English



CUSTOMER NEEDS AND EXPECTATIONS

B-SC31-13.01WBT

Course Description: In this self-paced web-based training course, participants will learn the importance of using effective questioning techniques to identify and understand the needs and expectations of their customers. Topics covered include using open and closed questions, understanding and overcoming different types of objections, handling irate customers and creating a strong bond with customers.

Languages: English



PROFESSIONAL SKILLS ASSESSMENT

B-SC31-21.01WBT

Course Description: In this self-paced web-based training course, participants will learn the importance of demonstrating professionalism in an automotive service business. Topics include effective communication, problem solving and consulting skills that are needed for success.

Languages: English



STRESS MANAGEMENT

B-SC31-22.01WBT

Course Description: In this self-paced web-based training course, participants will learn the role personal attitude plays in communication and how stress can be a barrier to communication. Topics include understanding the types of stress, the causes of stress and how to recognize and control personal stress.

Languages: English



BUSINESS TRAINING



TIME MANAGEMENT

B-SC31-23.01WBT

Course Description: In this self-paced web-based training course, participants will learn the role time management plays in their ability to provide customers with a satisfying service experience. Topics will include how to manage time more effectively in order to accomplish more within the time available as well as how to assess and change personal time management behaviors.

Languages: English



TEAM BUILDING

B-SC31-31.01WBT

Course Description: In this self-paced web-based training course, participants will learn the importance of communicating with other service center employees. Topics include using techniques that help develop an effective team atmosphere that is focused on customer satisfaction.

Languages: English



PROBLEM SOLVING

B-SC31-32.01WBT

Course Description: In this self-paced web-based training course, participants will learn about ways to resolve conflicts. Topics include managing workflow issues and “crunch time”, dealing with phone interruptions and what to do when things don’t work out.

Languages: English



CONTINUOUS IMPROVEMENT

B-SC31-33.01WBT

Course Description: In this self-paced web-based training course, participants will learn how to develop and implement an action plan for change. Topics include identifying areas for improvement, presenting ideas to management and developing action plans for change.

Languages: English

Customer Satisfaction Process



REPAIR ORDER PREPARATION

B-CC30-31.01WBT

Course Description: In this self-paced web-based training course, participants will learn the importance of accurate repair orders and invoices in developing customer trust and maintaining service center credibility. Topics include how to write repair orders that clearly communicate customer needs and expectations and create a well-understood service agreement with customers.

Languages: English



DISPATCHING

B-CC30-32.01WBT

Course Description: In this self-paced web-based training course, participants will learn the importance of a well-managed system for dispatching work to the shop. Topics include ensuring accurate repair times, the relationship between dispatching and keeping time promises to customers and making the best use of service center resources.

Languages: English



FINAL VEHICLE INSPECTION

B-CC30-33.01WBT

Course Description: In this self-paced web-based training course, participants will learn how performing a quality check after the repair builds customer trust and loyalty by verifying the quality of repairs. Topics include using a final inspection checklist, determining a process for performing quality checks and how quality checks minimize comebacks.

Languages: English



TRAFFIC FLOW

B-CC30-11.01WBT

Course Description: In this self-paced web-based training course, participants will review how various customer retention activities can be used to increase traffic flow through the service center, focusing on the strengths and weaknesses of the activities. Topics include identifying different types of customer retention activities including thank you and reminder mailings and customer satisfaction surveys.

Languages: English



DATA MINING

B-CC30-12.01WBT

Course Description: In this self-paced web-based training course, participants will learn how a database of basic, relevant information can provide the service center with the ability to identify, communicate with and retain loyal customers. Topics include storing the right information to facilitate ongoing relationships with clients and measure the effectiveness of marketing activities. There are also techniques for designing, using and maintaining a customer database that will allow your service center to build a loyal client base.

Languages: English

BUSINESS TRAINING

BUSINESS IMPACT

B-CC30-13.01WBT

Course Description: When selecting customer retention activities, you need to consider the service center's business goals as well as the needs and preferences of your customers. This course focuses on the business and customer information to consider when selecting activities to increase customer loyalty. Topics include identifying your target customers and creating a plan.

Languages: English



VEHICLE DROP-OFF

B-CC30-21.01WBT

Course Description: In this self-paced web-based training course, participants will learn the value of a prompt customer greeting in developing a good customer relationship. Topics include the benefits of a reservation process, using an inspection form during consultation, the importance of spending time effectively with each customer and establishing processes that allow enough time to ensure you understand each customer's needs and expectations.

Languages: English



VEHICLE DELIVERY

B-CC30-22.01WBT

Course Description: In this self-paced web-based training course, participants will learn the importance of using progress checks and a vehicle delivery process to set the stage for moving the customer relationship beyond the current service visit. Topics include monitoring repair progress, communicating delays or the need for additional work to the customer, answering customer questions, building value in the service visit and minimizing customer wait time.

Languages: English



FOLLOW-UP

B-CC30-23.01WBT

Course Description: In this self-paced web-based training course, participants will learn the value of a repair follow-up process in moving the customer relationship toward future service. Topics include follow-up calls, measuring customer satisfaction and resolving specific problems discovered during a follow-up call.

Languages: English



Financial Management

FACILITY MANAGEMENT

B-FM32-11.01WBT

Course Description: In this self-paced web-based training course, participants will learn the impact of facility utilization and capacity on service center profitability. Topics include evaluating causes of low facility utilization and what actions to take to improve utilization.

Languages: English



COMPUTER SYSTEMS

B-FM32-12.01WBT

Course Description: In this self-paced web-based training course, participants will learn the impact on service center workflow of using an integrated shop management computer system such as WISE on customer satisfaction and profits. Topics covered include WISE Shop Management System features and benefits.

Languages: English



PERSONNEL MANAGEMENT

B-FM32-13.01WBT

Course Description: In this self-paced web-based training course, participants will learn the impact of technician efficiency and shop productivity on service center profit. Topics include defining technician efficiency and shop productivity, factors that affect productivity and efficiency and how to implement actions to meet productivity and efficiency goals.

Languages: English



GROSS PROFIT AND PRICING

B-FM32-21.01WBT

Course Description: In this self-paced web-based training course, participants will learn techniques for improving gross profit through pricing. Topics include defining and calculating gross profit, calculating selling price, margin vs. mark-up, competitive pricing and the impact of price cutting factors that impact gross profit and sources of additional profit.

Languages: English



CONTROLLING EXPENSES

B-FM32-22.01WBT

Course Description: In this self-paced web-based training course, participants will identify controllable expenses and calculate them as a percent of total labor sales. Topics include methods for controlling and monitoring key manageable expenses such as theft.

Languages: English



BUSINESS TRAINING



CAPITAL MANAGEMENT

B-FM32-23.01WBT

Course Description: In this self-paced web-based training course, participants will review the information shown on the balance sheet of the financial statement. Topics include assets, liabilities, net worth, financial health measurements and methods to track progress.

Languages: English



BUSINESS DEVELOPMENT

B-FM32-31.01WBT

Course Description: In this self-paced web-based training course, participants will learn and understand the benefits of a business plan and the business planning process in meeting their business goals and objectives.

Languages: English



MARKETING

B-FM32-32.01WBT

Course Description: In this self-paced web-based training course, participants will learn techniques for marketing the service center. Topics include knowing the competition, service menus and traffic building methods.

Languages: English



ANALYSIS

B-FM32-33.01WBT

Course Description: In this self-paced web-based training course, participants will learn an analysis process that will identify desirable and undesirable areas of service center financial performance. Topics include calculating key performance indicators.

Languages: English



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NOTES



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