GENUINE PARTS | ACDelco

Instructor-Led Training
Seminars
InShop Training
Virtual Training
Web-Based Training
Self Study Training
Video On Demand
TechTube Videos

SDTC2025

2025 ACDelco Training Course Catalog

TABLE OF CONTENTS

NOTES

ACDelco History

1900s

THE SPARK IGNITES

It began with William Durant and his United Motors Corporation, which acquired the dozens of smaller parts manufacturers, including Dayton Engineering Laboratories Company (DELCO). When General Motors came along, changing United Motors Corporation to United Motors Service and adding AC Spark Plug to the roster, only the sky was the limit.

1930s

QUEEN OF THE AIR

But there was more aviation history to be made, and we helped Amelia Earhart make it. The plane in which Earhart became the first woman pilot to fly solo across the Atlantic (in under 15 hours) featured AC spark plugs.

1950s

PEACETIME EXPANSION

Having helped secure a brighter future for all, we got to work building our own. United Motors Service branched out, and began providing sales, service and training for AC rebuilt fuel pumps, DELCO batteries, DELCO radio service parts, Saginaw recirculating-ball bumper jacks and more.

1970s

NEW FRONTIERS

We didn't stop there. Once man landed on the moon, he needed a way to explore it. So AC Spark Plug and DELCO (which General Motors united to form ACDelco), helped to create key components of the lunar rover vehicle used by Apollo 15 Astronauts.

1990s

SPEEDING AHEAD

Then we made the most of solid ground by hitting the track, with ACDelco sponsoring multiple drivers in leading motorsports events throughout the last decade of the millennium.

2010s

EYE ON THE FUTURE

And in 2016 we celebrated our 100th anniversary with a continued commitment to offering the latest in GM technological improvements and innovation as the true GM original Equipment parts brand.

1920s

LUCKY LINDY

Literally! When Charles Lindbergh set off in the Spirit of St. Louis to become the first person in history to be in New York one day and Paris the next, AC Spark Plug helped power the transatlantic journey that captured imaginations around the world.

1940s

BUILDING FOR VICTORY

The 1940s brought the challenging, threatening years of World War II, and both UMS and AC Spark Plug parts went to work for the Allied cause. We also took to the skies again, producing DELCO batteries for Navy planes.

1960s

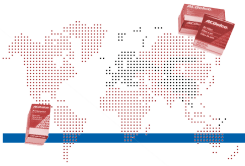
OUT OF THIS WORLD

But the space race was on, and we were proud parts of it. In fact, AC Spark Plug and Delco Electronics teams helped NASA develop the inertial guidance systems for the entire Apollo program that took the first Astronauts to the moon.

1980s

THE RIGHT FIT

Back on solid ground, we kept our minds on science. With field resources deployed to support the aftermarket, service engineers were brought into the engineering of GM vehicles to ensure that ACDelco parts fit exactly like true GM Original Equipment should.



2000s

A GLOBAL IMPACT

The new millennium brought new and exciting ways to connect; online commerce helped ACDelco expand its already extensive reach, with distribution across North America, Africa, and countries including Japan and India.

ACDelco Training Mission Statement

ACDelco's mission is to utilize engaging education methods in an industry-leading training portfolio to ensure aftermarket service professionals have the skills necessary to safely and effectively diagnose and repair customer vehicles.

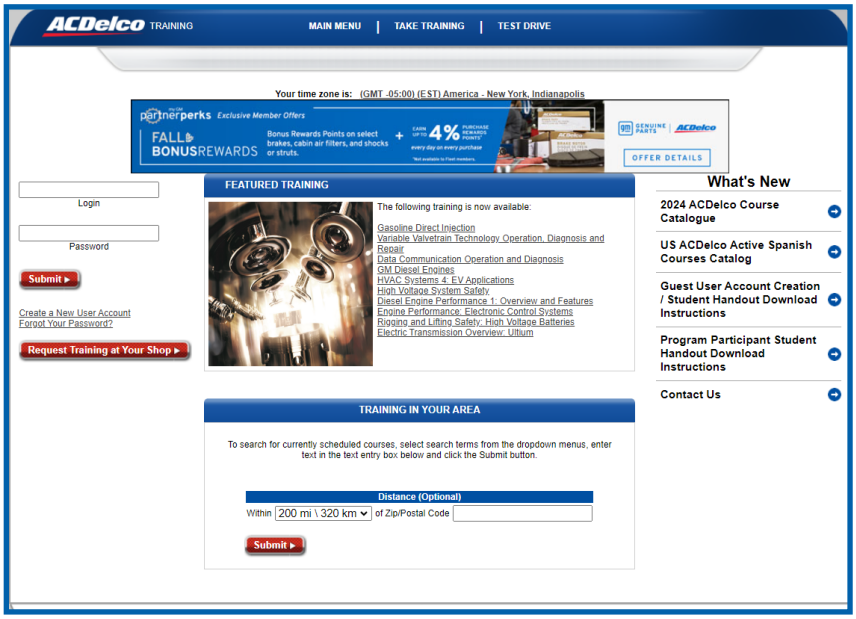
INTRODUCTION

Learning Management System

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

What is it?

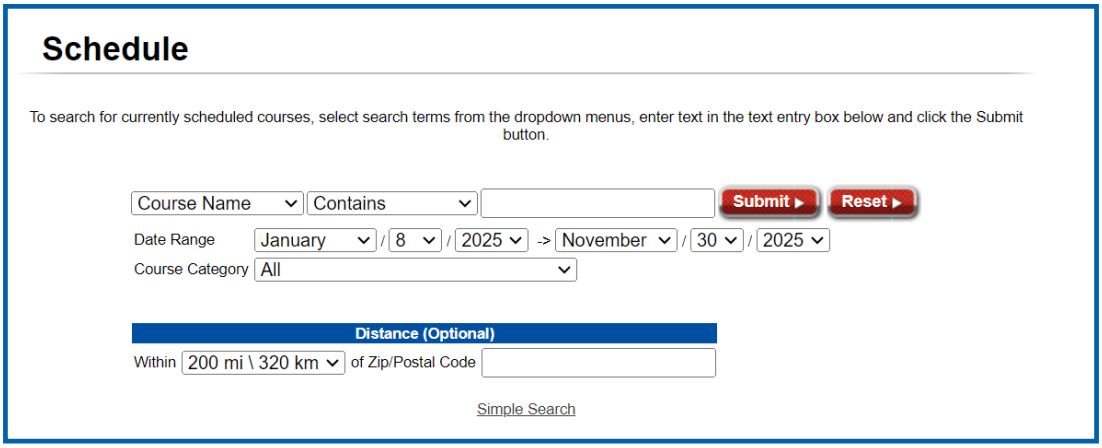
The ACDelco LMS delivers a global, single point of access for training for all personnel. The LMS is an easy-to-use, web-based application that streamlines the delivery and administration of the training program. Its many features reduce overall training costs and maximize employee time on the job.



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. The LMS provides the strong foundation needed for any learning program. Currently the LMS supports Web-Based Training (WBT), Instructor-Led Training (ILT), and streaming video.

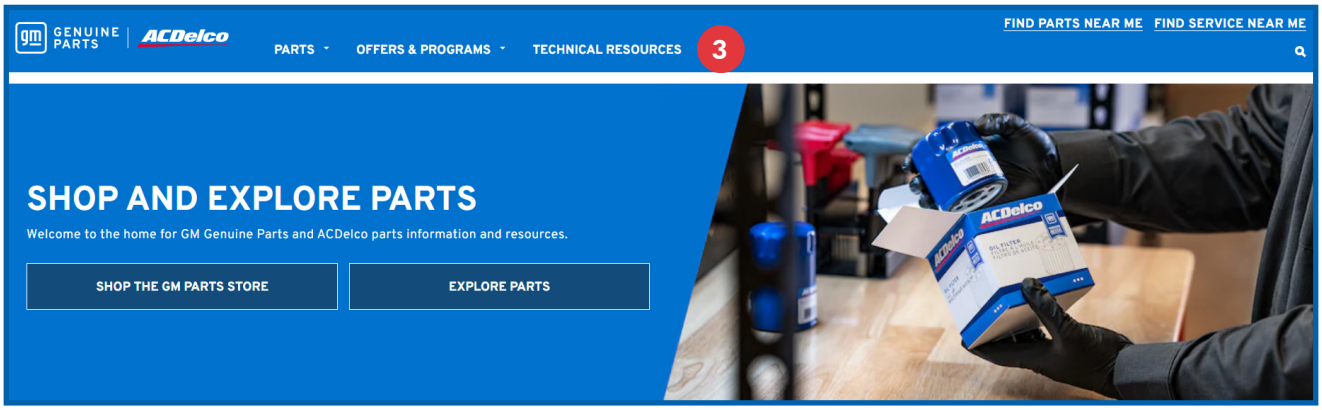


If you have any questions or would like any additional information, contact your ACDelco Representative or the Help Desk at (800) 825-5886, prompt 3, then 1, then 4.

Access the ACDelco LMS:

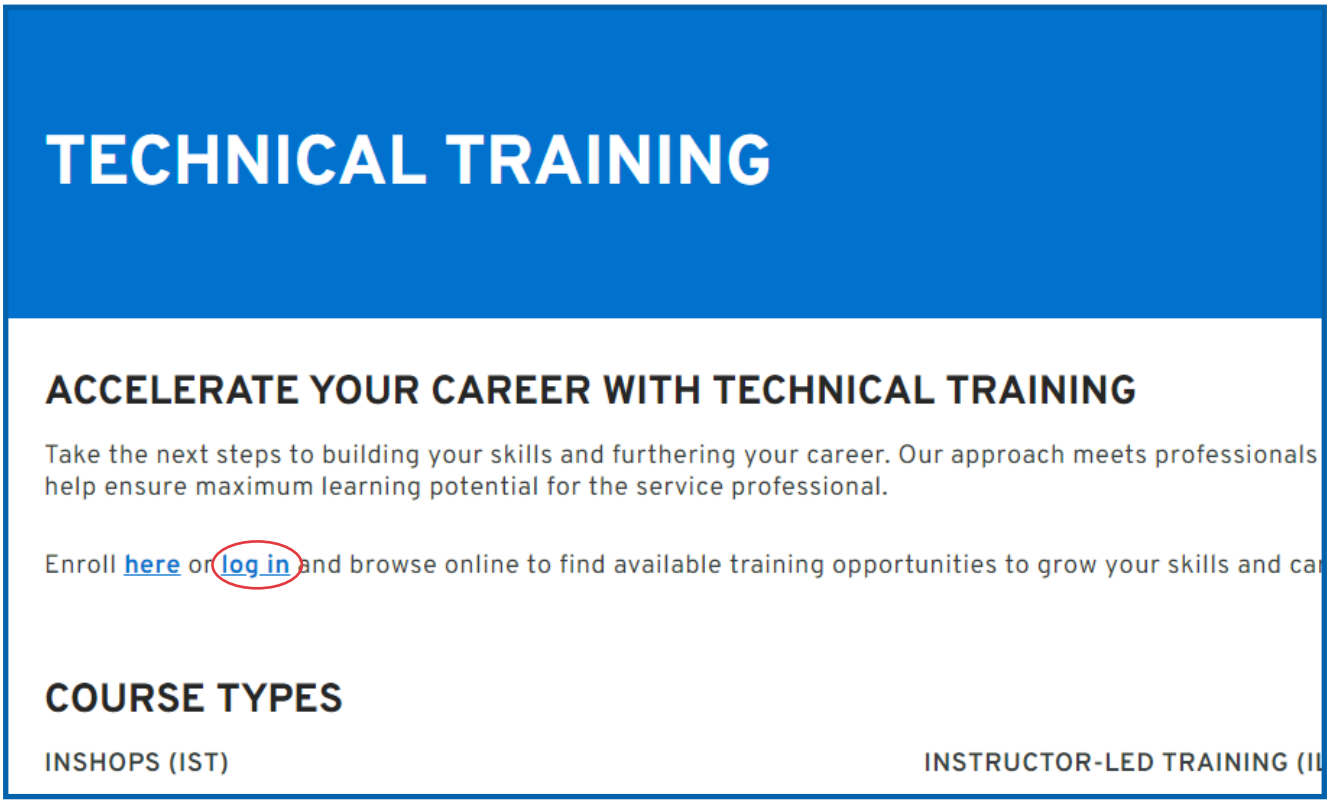
1. Open your Internet browser.
2. Type the following into your address bar: acdelco.com
3. Click on the **Technical Resources** menu.

> ***Tip:***
>
> *If your shop is a My GM Partner Perks program member, you must know your six-digit account number to register. If you don't know it, ask your manager or ACDelco rep.*

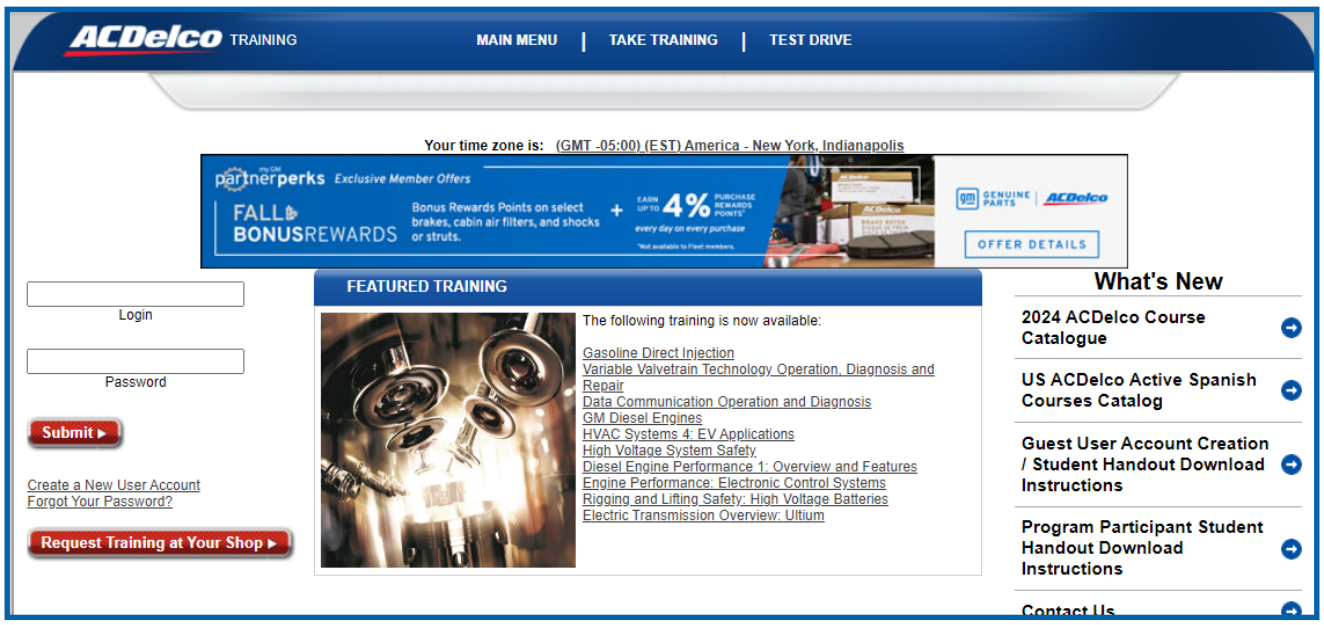


4. Scroll down to Training and click on Technical **Training**. Then click **ACDelco Technical Training**.

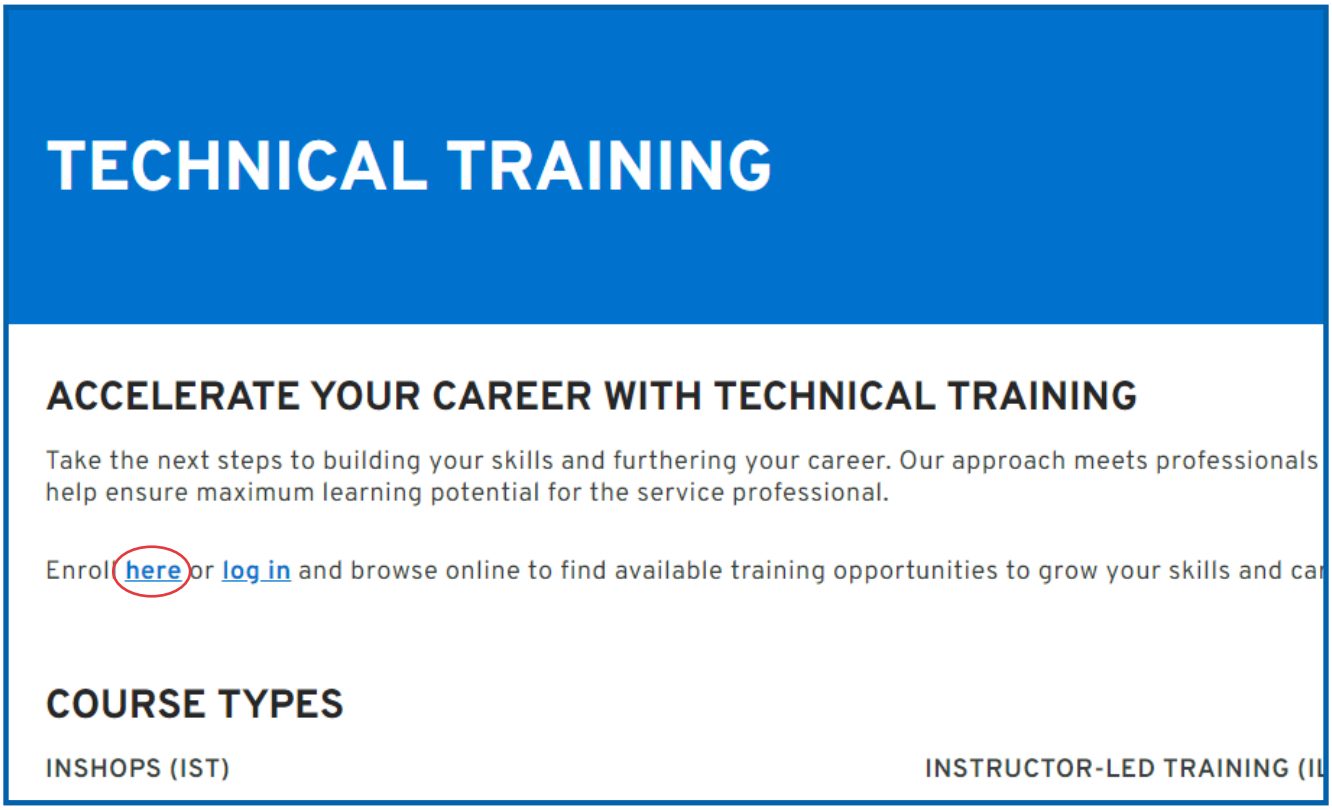
5. If you have an LMS log in, you can log directly into the LMS. Click on log in.



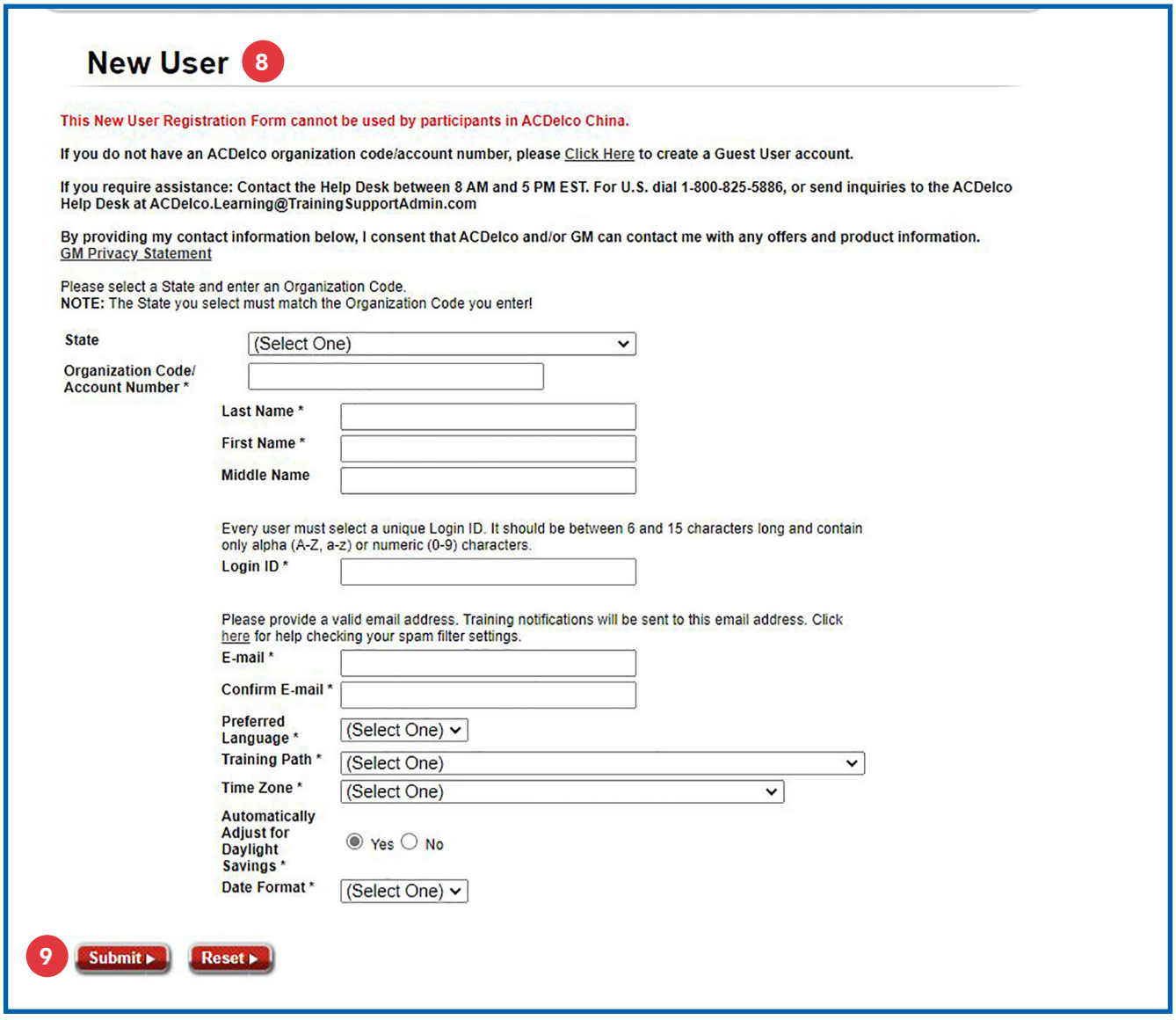
6. Log in.



7. If you need to create a new user account, click on Enroll “here”.



8. Complete the New User form.



9. Click **Submit**

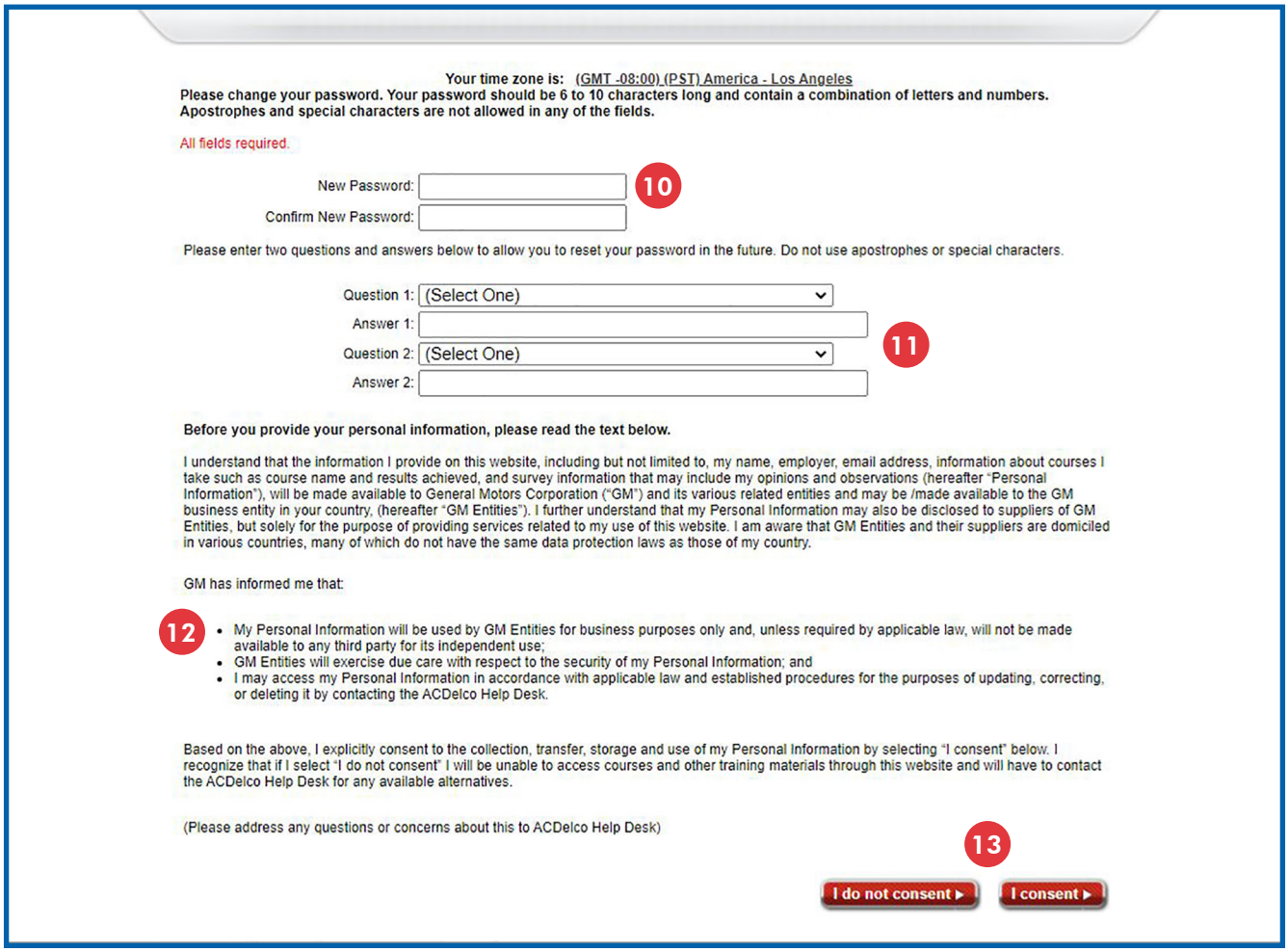
Tip:

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

10. Create a new password.
11. Select and answer 2 security questions.
12. Read the Personal Information statement.
13. Select I consent or I do not consent.

    Selecting I consent completes the User Application and automatically logs you in to the LMS.

    Selecting I do not consent will cancel the New User Account application.



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 precisely dovetail into hands on, Instructor-led Training courses.

Descriptions of the various delivery methods are detailed below.

Online Training

Each course is available to non-program participants for a nominal charge. Visit acdelcotraining.com or contact your ACDelco representative for more information.

SELF STUDY TRAINING courses can typically be reviewed in less than one hour. These courses are intended to help participants understand the technical aspect of various vehicle systems. There is a downloadable study guide that can be used for reference. Participants have the option to complete a test once material has been reviewed to receive credit for the course.

WEB-BASED TRAINING 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.

VIDEO ON DEMAND 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.

TECHTUBE VIDEOS 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.

Courseware pricing is dependent upon program participation. Contact your ACDelco representative or visit acdelcotraining.com for more information.

Face-to-Face Training

INSTRUCTOR-LED TRAINING courses are available in full-day (8 hour) sessions and are facilitated 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).

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

VIRTUAL SEMINARS are hosted by an ACDelco professional virtually via the Web. This format allows the same interactivity and participation as in-person events.

INSHOP TRAINING sessions are shorter Seminars, usually about an hour in duration and are available in-person or virtually online. During in-person InShop sessions, the ACDelco professional brings a live procedure or demonstration right into the service bay. InShop training sessions are designed for much smaller audiences - typically less than 10 technicians - and the format is more informal than a full Seminar.

VIRTUAL INSHOP TRAINING are training events hosted by an ACDelco professional virtually via the Web. This format allows the same interactivity and participation as in-person events. InShops are interactive and cover the specific issue or procedure live online.

Courseware pricing is dependent upon program participation. Contact your ACDelco representative or visit acdelcotraining.com for more information.

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.

Anatomy of a Course Code (Courses in 2018 and beyond)

Sample - SEM0101IL

Course Type	Skill Area	Sequential Course Number	Version Number	Media Type
S = Service	EM = Engine Mechanical		01 = 1st release	IL = Instructor-Led 8 Hour
B = Business	AT = Automatic Transmission		02 = 2nd release	IS = InShop
	MT = Manual Transmission / Driveline		03 = 3rd release	SM = Seminar
	SS = Suspension / Steering		04 = 4th release	SL = Simulation
	BK = Brakes			SF = Self Study
	EL = Electrical / Electronic Systems			TT = TechTube
	AC = Heating & Air Conditioning			VO = Video On Demand
	EP = Engine Performance			WB = Web-Based Training
	ST = Safety & Security			
	DS = Diagnostic Systems			
	CC = Customer Communications			
	SC = Service Consultants			
	FM = Financial Management			
	PC = Parts Consultant			
	FN = Fundamentals			
	CL = Collision			
	DE = Diesel			
	AP = Alternative Propulsion			
	BE = Body Electrical			

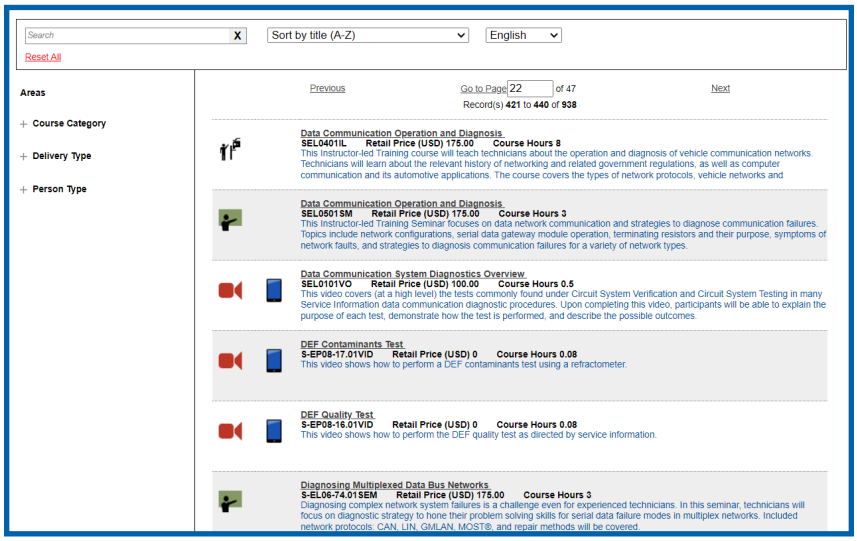
Anatomy of a Course Code (Courses prior to 2018)

Sample - S-EL06-07.01WBT

Course Type	Skill Area	Sequential Course Number	Version Number	Media Type
S = Service	FN00 = Fundamentals		01 = 1st release	ILT = Instructor-Led Training
B = Business	EM01 = Engine Mechanical		02 = 2nd release	IST = InShop Training
	AT02 = Automatic Transmission		03 = 3rd release	SEM = Seminar
	MT03 = Manual Transmission / Driveline		04 = 4th release	SIM = Simulation
	SS04 = Suspension / Steering			SST = Self Study Training
	BK05 = Brakes			VID = TechTube Video
	EL06 = Electrical / Electronic Systems			V or D = Video On Demand
	AC07 = Heating & Air Conditioning			WBT = Web-Based Training
	EP08 = Engine Performance			
	ST10 = Safety & Security			
	DS11 = Diagnostic Systems			
	CC30 = Customer Communications			
	CC60 = Marketing			
	SC31 = Service Consultants			
	FM32 = Financial Management			
	PC33 = Parts Consultant			
	FC02 = Fuel Control			

Searching for Courses

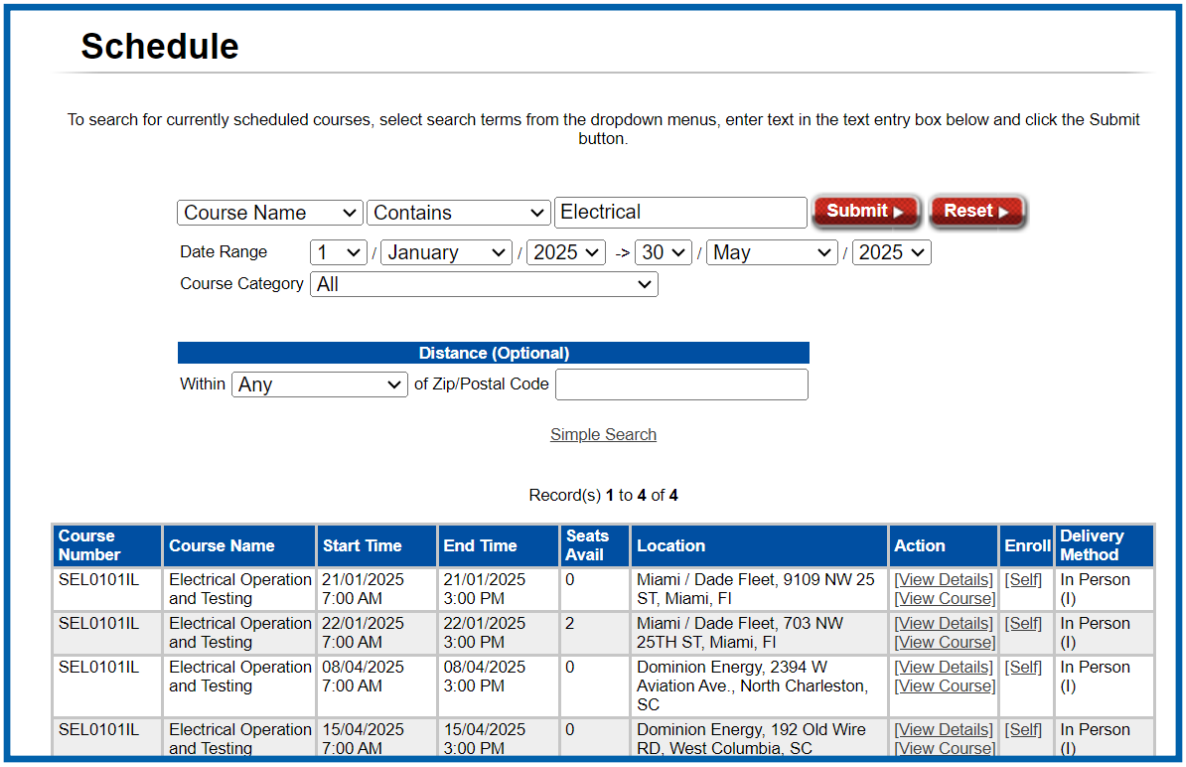
To search for courses, click on the **TAKE TRAINING** menu, and then **Catalog > Catalog Search**. Use the menu on the left to search for courses by Category, Delivery Type, or Person Type.



To search live courses in your area, click on the **TAKE TRAINING** menu, and then **Schedule > Search Course Sessions**. Enter your search criteria and click Submit.

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, prompt 3, then 1, then 4. You will need your organization's six-digit account number available to register as a user.

My User ID: _____ My Password: _____

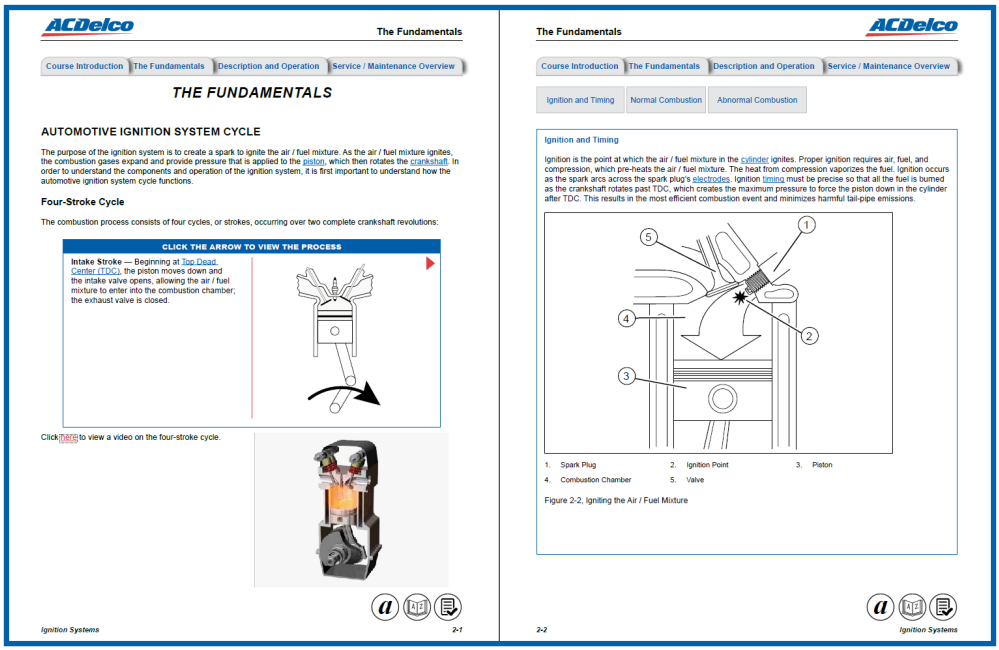


Course Number	Course Name	Start Time	End Time	Seats Avail	Location	Action	Enroll	Delivery Method
SEL0101IL	Electrical Operation and Testing	21/01/2025 7:00 AM	21/01/2025 3:00 PM	0	Miami / Dade Fleet, 9109 NW 25 ST, Miami, Fl	[View Details] [View Course]	[Self]	In Person (I)
SEL0101IL	Electrical Operation and Testing	22/01/2025 7:00 AM	22/01/2025 3:00 PM	2	Miami / Dade Fleet, 703 NW 25TH ST, Miami, Fl	[View Details] [View Course]	[Self]	In Person (I)
SEL0101IL	Electrical Operation and Testing	08/04/2025 7:00 AM	08/04/2025 3:00 PM	0	Dominion Energy, 2394 W Aviation Ave., North Charleston, SC	[View Details] [View Course]	[Self]	In Person (I)
SEL0101IL	Electrical Operation and Testing	15/04/2025 7:00 AM	15/04/2025 3:00 PM	0	Dominion Energy, 192 Old Wire RD, West Columbia, SC	[View Details] [View Course]	[Self]	In Person (I)

INTRODUCTION

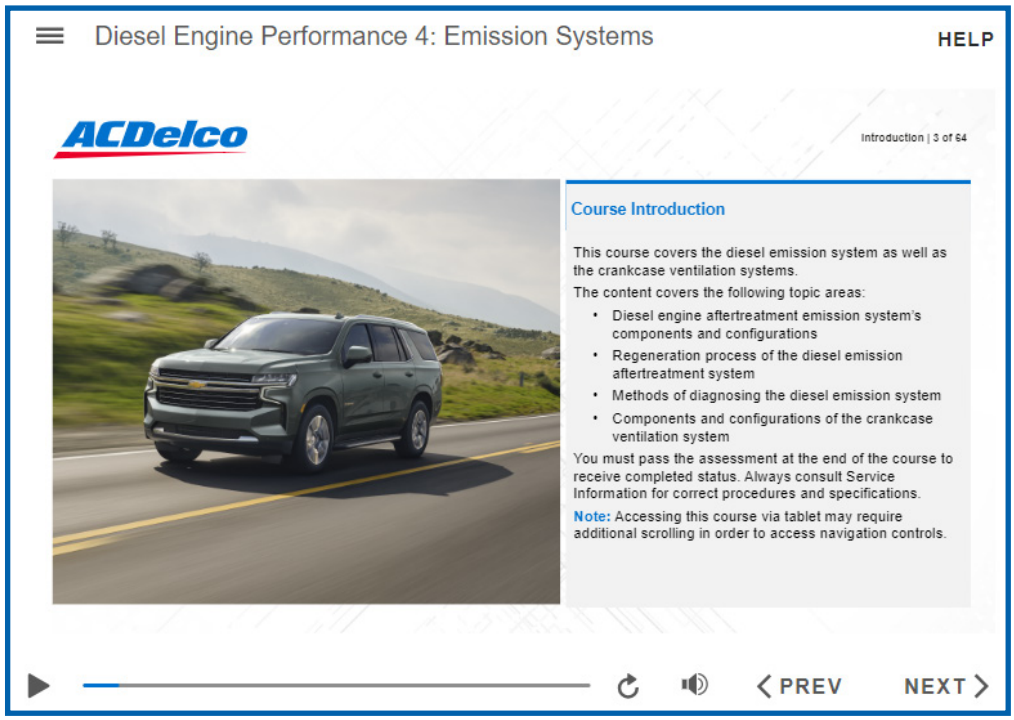
Self Study Training

These courses can typically be reviewed in less than one hour. These courses are intended to help participants understand the technical aspect of various vehicle systems. There is a downloadable study guide that can be used for reference. Participants have the option to complete a test once material has been reviewed to receive credit for the course.



Web-Based Training

Web-Based Training 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.

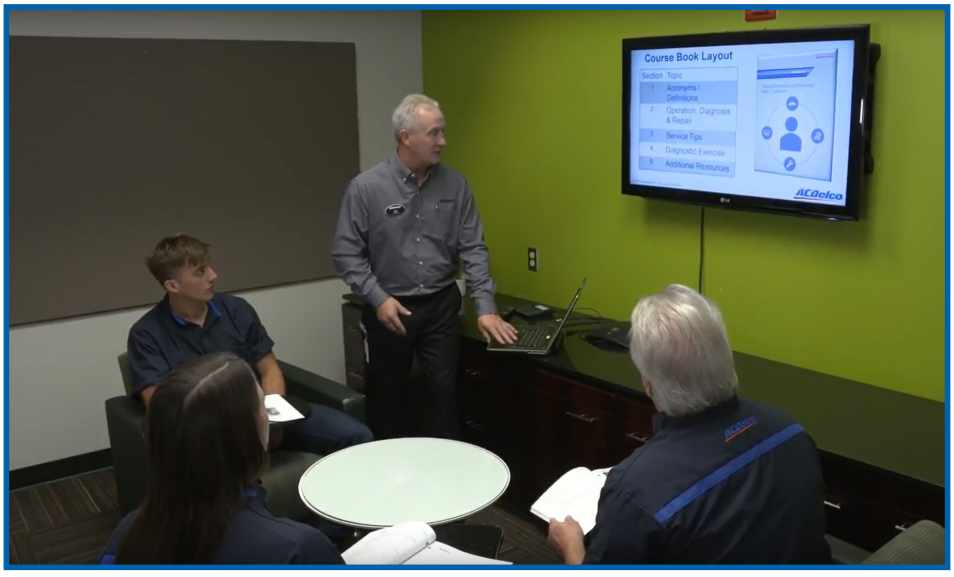


Instructor-Led Training

Instructor-Led Training courses are full-day (8 hour) hands-on sessions that are facilitated by an ACDelco Instructor at a dedicated training center. Training is presented utilizing vehicles, hands-on exercises and diagnostic situations, providing technicians the opportunity to apply service and diagnostic skills to real concerns on actual vehicles. Enroll in a course today by accessing the schedule search feature at acdelcotraining.com.

Seminar

Seminars are typically three hours in length and are hosted by an ACDelco professional at a shop, distributor facility, or virtually online. Seminars cover the latest and greatest vehicle technologies to keep technicians abreast of this ever-evolving industry. For the convenience of technicians and shop owners, seminars are typically conducted in the evening.



INTRODUCTION

Video On Demand

Video On Demand (VOD) allows technicians to review previously recorded content on the LMS at any time. VOD courses include component specific overviews and service information. VOD courses also include monthly Service Know How Emerging Issues broadcasts from 2018 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

TechTube Videos

ACDelco TechTube videos 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 acdelcotraining.com.

TechTubes are also tablet and smart phone compatible!

InShops

InShops are one hour sessions that are available in-person or virtually online. During an in-person InShop, an ACDelco professional brings training into your service bay. The training may be targeted to a specific repair issue or procedure for the technicians at that shop. Virtual InShops are interactive and cover the specific issue or procedure live online.

A1: ENGINE MECHANICAL

A recommended path for completing the Engine Mechanical curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH

WBT
Gas / Diesel Engine Mechanical Diagnosis and Measurement 1: Diagnosis
SEM0101WB

WBT
Gas / Diesel Engine Mechanical Diagnosis and Measurement 2: Disassembly
SEM0201WB

WBT
Gas / Diesel Engine Mechanical Diagnosis and Measurement 3: Inspection 1
SEM0301WB

WBT
Gas / Diesel Engine Mechanical Diagnosis and Measurement 4: Inspection 2
SEM0401WB

WBT
Gas / Diesel Engine Mechanical Diagnosis and Measurement 5: Assembly 1
SEM0501WB

WBT
Gas / Diesel Engine Mechanical Diagnosis and Measurement 6: Assembly 2
SEM0601WB

WBT
Gas / Diesel Engine Mechanical Diagnosis and Measurement 7: Unique Gasoline Procedures
SEM0701WB

WBT
Gas / Diesel Engine Mechanical Diagnosis and Measurement 8: Unique Diesel Procedures
SEM0802WB

ILT
Variable Valvetrain Technology Operation, Diagnosis and Repair
SEM0101IL

SEM
Variable Valvetrain Technology
SEM0301SM

SEM
Active and Dynamic Fuel Management
SEM0101SM

IST
Active and Dynamic Fuel Management
SEM0101IS

ADDITIONAL TRAINING

VID
Water Pump Service
S-EM01-01.01VID

VID
4.3 Balance Shaft Timing Chain Replacement (Gen V)
S-EM01-02.01VID

VID
Cylinder Leak Down Test
S-EM01-03.01VID

VID
Static Compression Test
S-EM01-04.01VID

VID
Running Compression Test
S-EM01-05.01VID

VID
Active Fuel Management Lifters
S-EM01-06.01VID

VID
Engine Mounts
S-EM01-07.01VID

VOD
2.5L LKW Intake Valve Lift Control System
SEM0101VO

Web-Based Training

GAS / DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 1: DIAGNOSIS — SEM0101WB

This course covers the diagnostic process for lower and upper 3.6L LGX V6 engine concerns, including engine noises, misfire, oil pressure concerns, and external component noises. This course is intended for service technicians and covers the theory of 3.6L LGX engine diagnosis. Topics include proven diagnostic procedures, test equipment, and methods. Upon completion of this course, the participants will be able to recall how to diagnose lower engine noise, recall how to diagnose upper engine noise, recall how to diagnose engine misfire, and identify oil pressure concerns.

Languages: English / French

GAS / DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 2: DISASSEMBLY — SEM0201WB

This course is intended for service technicians and covers the principles and procedures of 3.6L LGX engine disassembly. This course covers the disassembly process for the upper and lower sections of the 3.6L LGX V6 engine. First, it will cover the disassembly of the upper section of the 3.6L LGX V6 engine, and then the disassembly of the lower section. Related content in this course includes proven diagnostic procedures, test equipment, and methods of disassembly. Upon completion of this course, the participants will be able to recall pre-disassembly procedures, recall how to disassemble the overhead cam and camshaft, and recall how to disassemble the engine block.

Languages: English / French

GAS / DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 3: INSPECTION 1 — SEM0301WB

This course is intended for service technicians and covers the principles and procedures of the 3.6L LGX engine post-disassembly inspection. It covers the inspection process for the upper and lower sections of the 3.6L LGX V6 engine. Related content in this course includes proven inspection procedures, test equipment, and methods of measurement. Upon completion of this course, the participants will be able to summarize how to inspect the disassembled 3.6L LGX engine, recall how to clean, inspect and measure the engine block and crankshaft, recall how to disassemble, clean and inspect piston and rod assemblies, and recall how to clean and inspect the flexplate and balancer.

Languages: English / French

GAS / DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 4: INSPECTION 2 — SEM0401WB

This course is intended for service technicians and covers the principles and procedures of the 3.6L LGX engine post-disassembly inspection. It covers the second part of the inspection process, concentrating on the upper components of the 3.6L LGX V6 engine. Related content in this course includes proven inspection procedures, test equipment, and methods of measurement. Upon completion of this course, the participants will be able to: describe how to inspect the upper components of the disassembled 3.6L LGX engine, recall how to clean and inspect the fuel injector rails and injectors, recall how to clean, inspect, measure, and reassemble the camshaft / timing gear, valve lifters, and valve rocker arms, recall how to disassemble, clean, inspect, and assemble engine front cover, camshaft covers / carriers, and intake manifold, recall how to repair cylinder block bolt holes.

Languages: English / French

GAS / DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 5: ASSEMBLY 1 — SEM0501WB

This course includes proven inspection procedures, test equipment, and methods of measurement. Upon completion of this course, participants will be able to describe how to assemble the upper components of the disassembled 3.6L LGX engine, recall how to assemble the piston and rod assemblies, recall how to perform the alternate clearance checking procedure, recall how to install the rear main seal, recall how to install the oil pump, and recall how to install and properly torque the cylinder head assembly.

Languages: English / French

A1: ENGINE MECHANICAL

GAS / DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 6: PROCEDURES — SEM0601WB

This course is intended for service technicians and covers the second half of the principles and procedures used during 3.6L LGX engine reassembly. It covers specific parts of the engine assembly process, concentrating on the upper components of the 3.6L LGX V6 engine including the installation of the camshaft actuator, timing chain guide and tensioner, oil pump, camshaft sprockets, fuel pump, high pressure fuel rail crossover pipe, front cover, oil pan, water pump, camshaft cover, engine coolant thermostat housing, water outlet, intake manifold, and crankshaft balancer. Related content in this course includes proven inspection procedures, test equipment, and methods of measurement. Upon completion of this course, the participants will be able to recall the order of the steps taken to re-assemble the left side of the 3.6L LGX engine, recall the order of the steps taken to re-assemble the right side of the 3.6L LGX engine, recall the order of the steps taken for re-installation of 3.6L LGX engine components including the oil pump, the crankshaft assembly, fuel pump, the high pressure fuel rail crossover pipe, the engine front cover, oil pan, water pump, camshaft cover, engine coolant thermostat housing, water outlet, intake manifold, and the crankshaft balancer.

Languages: English / French

GAS / DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 7: UNIQUE GASOLINE PROCEDURES — SEM0701WB

This course is intended for service technicians and covers unique principles and procedures of engine service. It covers the unique parts of the disassembly, inspection, and assembly processes, concentrating on procedures and tools used for unique models of gasoline engines. Upon completion of this course, the participants will be able to: recall unique service procedures for Cylinder Set Strategy (CSS) gasoline engines, recall unique service procedures for various small and midsize gasoline engines, and recall unique service procedures used for 4.3L LV3 gasoline engines.

Languages: English / French

GAS / DIESEL ENGINE MECHANICAL DIAGNOSIS AND MEASUREMENT 8: UNIQUE DIESEL PROCEDURES — SEM0802WB

This course is intended for service technicians and covers unique principles and procedures of engine service. Specifically, this course covers the unique aspects of the disassembly, inspection, and assembly processes, concentrating on procedures and tools used for unique models of diesel engines. Upon completion of this course, the participants will be able to recall unique service procedures used for the 6.6L Duramax diesel engine, 2.8L LWN diesel engine, 3.0L LM2 diesel engine, and the 1.6L LH7 diesel engine.

Languages: English

Instructor-Led Training

VARIABLE VALVETRAIN TECHNOLOGY OPERATION, DIAGNOSIS AND REPAIR — SEM0101IL

This Instructor-led Training course focuses on the operation and diagnostic procedures of Variable Valvetrain Technology and applies hands-on exercises for comprehension. Modern engines employ variable valve timing and lift adjustment strategies to improve fuel economy, power, and emissions. Course content includes function and operation of variable valve timing and variable valve lift systems. Additionally, this course highlights the procedures and protocol for proper diagnostic steps, system repairs, service tips, and special tools. Various Original Equipment Manufacturers (OEMs) will be highlighted.

Languages: English

Seminar

ACTIVE AND DYNAMIC FUEL MANAGEMENT — SEM0101SM

This Instructor-led training Seminar covers Fuel Management systems installed on various vehicles. Active and Dynamic systems will be covered in detail. Seminar content includes function and operation of cylinder deactivation systems. Additional topics include protocol for proper vehicle repairs, diagnostic strategies, service tips, and special tools. Various Original Equipment Manufacturers (OEMs) will be highlighted.

Languages: English

VARIABLE VALVETRAIN TECHNOLOGY — SEM0301SM

This Instructor-led training Seminar focuses on the operation and diagnostic procedures of Variable Valvetrain Technology. Modern engines employ variable valve timing and lift adjustment strategies to improve fuel economy, power, and emissions. Course content includes function and operation of variable valve timing and variable valve lift systems. Additionally, this course highlights the procedures and protocol for proper diagnostic steps, system repairs, service tips, and special tools. Various Original Equipment Manufacturers (OEMs) will be highlighted.

Languages: English

InShop Training

ACTIVE AND DYNAMIC FUEL MANAGEMENT — SEM0101IS

This Instructor-led training InShop covers Fuel Management systems installed on various vehicles. Active and Dynamic systems will be covered in detail. InShop content includes function and operation of cylinder deactivation systems. Additional topics include protocol for proper vehicle repairs, diagnostic strategies, service tips, and special tools. Various Original Equipment Manufacturers (OEMs) will be highlighted.

Languages: English

TechTube Videos

WATER PUMP SERVICE — S-EM01-01.01VID

This service video will share some information on things to look for when replacing a water pump and servicing the coolant system to reduce repeat pump failures.

Languages: English

4.3 BALANCE SHAFT TIMING CHAIN REPLACEMENT (GEN V) — S-EM01-02.01VID

This video demonstrates how to replace the balancer shaft timing chain on a Gen V 4.3L engine.

Languages: English

CYLINDER LEAK DOWN TEST — S-EM01-03.01VID

This video demonstrates how to perform a cylinder leak down test to gauge the health of an engine, using a diagnostic scenario.

Languages: English

STATIC COMPRESSION TEST — S-EM01-04.01VID

This video demonstrates how to perform a static compression test and how the readings can help diagnose a base engine problem.

Languages: English

RUNNING COMPRESSION TEST — S-EM01-05.01VID

This video demonstrates how to perform a running compression test and how the readings can help diagnose a base engine problem.

Languages: English

ACTIVE FUEL MANAGEMENT LIFTERS — S-EM01-06.01VID

This video describes General Motors Active Fuel Management (AFM) system operation, diagnosis and inspection of AFM lifters and proper replacement procedures.

Languages: English

ENGINE MOUNTS — S-EM01-07.01VID

This video demonstrates inspection and diagnosis of engine mounts for front wheel drive and rear wheel drive vehicles.

Languages: English

Video On Demand

2.5L LKW INTAKE VALVE LIFT CONTROL SYSTEM — SEM0101VO

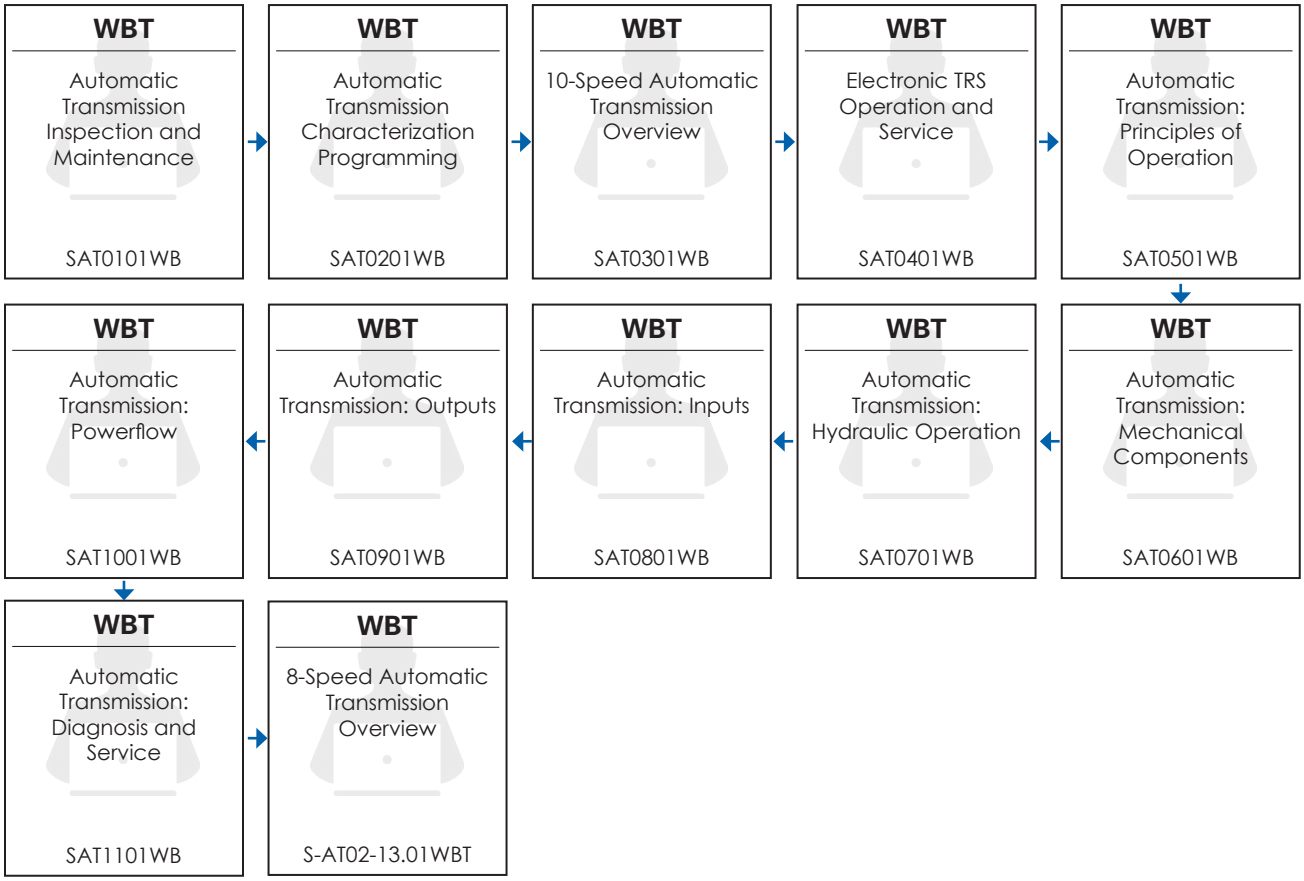
This video focuses on the Intake Valve Lift Control System or the Variable Lift System used on the 2.5L LKW engine. The video highlights component identification and system operation. Components include the camshaft, Oil Control Valve (OCV) or the rocker arm actuator control solenoid, inner and outer rocker arm assembly, and the dual feed lash adjuster.

Languages: English

A2: AUTOMATIC TRANSMISSION

A recommended path for completing the Automatic Transmission curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH



ADDITIONAL TRAINING

VID
6-Speed Transmission Fluid Level Checking
S-AT02-01.01VID

VID
Transmission IMS Testing
S-AT02-02.01VID

VOD
10L1000 Automatic Transmission Unit Repair
SAT0101VO

VOD
8L90 Automatic Transmission Unit Repair
SAT0201VO

VOD
9-Speed Automatic Transmission Overview
SAT0301VO

VOD
9T50 Automatic Transmission Unit Repair
SAT0401VO

VOD
10L90 Automatic Transmission Unit Repair
SAT0501VO

VOD
Allison LCT1000 Unit Repair
SAT0601VO

VOD
6T70/75 Automatic Transaxle Unit Repair
SAT0701VO

VOD
6L80 Functions and Features
SAT0801VO

VOD
4L60/65/70 Unit Repair
SAT0901VO

A2: AUTOMATIC TRANSMISSION

Web-Based Training

AUTOMATIC TRANSMISSION INSPECTION AND MAINTENANCE — SAT0101WB

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

AUTOMATIC TRANSMISSION CHARACTERIZATION PROGRAMMING — SAT0201WB

This course describes the purpose and process to successfully complete the Solenoid Valve Characterization Reprogramming Procedure required for all new eight, nine and ten speed automatic transmissions. This course will direct you on the proper programming required to store the information in the Transmission Control Module. When specific transmission components have been replaced during service, the characterization data must be retrieved from a database and reprogrammed into the Transmission Control Module. Upon completing this course, participants will be able to identify the purpose and importance of characterization programming, identify important elements within the Solenoid Valve Characterization Programming, and identify the process and steps involved to successfully perform the Solenoid Valve Characterization Programming.

Languages: English / French

10-SPEED AUTOMATIC TRANSMISSION OVERVIEW — SAT0301WB

This course presents an overview of the new 10L90 10-speed automatic transmission, the newest rear wheel drive transmission developed by General Motors. This course provides technicians with an overview of the mechanical, hydraulic, and electrical components necessary for its proper operation. Technicians will review the different clutches and gear sets used to achieve the forward and reverse gears. Fluid and filters are discussed to ensure proper operation and servicing. Finally, the programming is reviewed to ensure a quality repair.

Languages: English / French

ELECTRONIC TRS OPERATION AND SERVICE — SAT0401WB

This course covers the Electronic Transmission Range Select (ETRS) system. The characteristics of various features are described in this course, including ETRS system benefits, external and internal components, operation, and service procedures.

Languages: English

AUTOMATIC TRANSMISSION: PRINCIPLES OF OPERATION — SAT0501WB

This WBT course covers automatic transmission principles and hydraulics. Specific topics include characteristics of the planetary gear set, theory of torque multiplication, and reduction and types of automatic transmissions. Upon completion of this course, technicians will be able to recall principles of automatic transmissions and recall principles of hydraulics.

Languages: English / French

AUTOMATIC TRANSMISSION: MECHANICAL COMPONENTS — SAT0601WB

This WBT course covers torque converter characteristics, mechanical system fundamentals and characteristics of the one-way clutch and final drive. Other components include the torque converter pump, stator lock-up, turbine, brazed hammer down blades, stator, torque converter clutch, and planetary gear set types. Upon completion of this course, technicians will be able to 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 / French

AUTOMATIC TRANSMISSION: HYDRAULIC OPERATION — SAT0701WB

This course covers the hydraulic system characteristics and valve body components of automatic transmissions systems. Upon completion of this course, technicians will be able to recall the hydraulic system characteristics of an automatic transmission and identify characteristics of the valve body.

Languages: English / French

AUTOMATIC TRANSMISSION: INPUTS — SAT0801WB

This course covers electrical system inputs of an automatic transmission system. Topics also include driver shift control types, manual shaft position switch types, pressure switches, speed sensors, temperature sensors, and throttle position. Upon completion of this course, technicians will be able to identify the electrical system inputs in an automatic transmission.

Languages: English / French

AUTOMATIC TRANSMISSION: OUTPUTS — SAT0901WB

This course covers electrical system outputs of an automatic transmission system. Topics also include output solenoid characteristics, control module characteristics and operation. Upon completion of this course, technicians will be able to identify the electrical system outputs in an automatic transmission.

Languages: English / French

AUTOMATIC TRANSMISSION: POWERFLOW — SAT1001WB

This course covers the automatic transmission control system power flow and modes of operation. Specific operations include clutch-to-clutch, freewheeling and engine braking. Upon completion of this course, technicians will be able to recall automatic transmission system power flow and modes of operation and identify the steps of automatic transmission diagnostic process.

Languages: English / French

AUTOMATIC TRANSMISSION: DIAGNOSIS AND SERVICE — SAT1101WB

This WBT course covers the hydraulic system characteristics and valve body components of automatic transmissions systems. Specifics include characteristics and types of automatic transmission fluids, fluid pumps, lubrication systems, accumulator types, solenoids, and valve bodies. Upon completion of this course, technicians will be able to recall automatic transmission diagnostic procedures and recall how to perform automatic transmission service procedures.

Languages: English / French

8-SPEED AUTOMATIC TRANSMISSION OVERVIEW — S-AT02-13.01WBT

This WBT 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. Upon completion of this course, technicians will be able to identify features of the 8L90, identify components of the 8L90, identify the power flow through the hard components for each gear of the 8L90, recall the requirements for programming the 8L90, and describe the start-stop system.

Languages: English

Seminar

AUTOMATIC TRANSMISSION DIAGNOSTICS — W-AT02-07.01SEM

This training event is designed to highlight the differences between the 4-speed and 6-speed transmission controls. Common diagnostic process will be covered using the SBD process as the foundation. Topics covered will be the function and purpose of the inputs and outputs to the transmission control module as well as unique electrical and mechanical testing. The documentation available to the technician as diagnostic resources will be discussed and explained to provide the knowledge necessary to effectively diagnose an automatic Transmission. Finally new diagnostic tools will be highlighted along with their purpose and proper use.

Languages: English

AUTOMATIC TRANSMISSION NEW AND UPDATES — W-AT02-08.01SEM

This training event is designed to highlight the differences between the first, second and third generations of the Global Front Wheel drive 6 speed transmission. We will also introduce the new 8l45/90 Hydra-matic 8 speed transmissions found in the new Corvette, Chevrolet and GMC Pickups. The 8 speed specifications and gear ratios will be introduced as well as a high level overview of major components within the transmission. We will introduce the range reference chart and reinforce it with a brief discussion of powerflow. Unique service procedures will then be discussed and demonstrated through the use of pre-recorded technical videos. Finally we will discuss the new shift adapt learn process and SPS programming of the transmission using the new Transmission Unique Number and Part Unique Number. Several new tools and procedures will be highlighted throughout the course in support of the ever advancing evolution of Hydra-matic transmissions.

Languages: English

TechTube Videos

6-SPEED TRANSMISSION FLUID LEVEL CHECKING — S-AT02-01.01VID

This video demonstrates how to properly check and adjust fluid levels on the GM 6T70/75, 6T40 and 6L80 automatic transmissions.

Languages: English

TRANSMISSION IMS TESTING — S-AT02-02.01VID

This video demonstrates how to test the transmission Internal Mode Switch (IMS) on GM's 6L80/6L90 automatic transmissions.

Languages: English

A2: AUTOMATIC TRANSMISSION

Video On Demand

10L1000 AUTOMATIC TRANSMISSION UNIT REPAIR — SAT0101VO

This Service Know-How Video highlights the overhaul procedures for the Allison 10L1000, a heavy duty 10-speed, fully automatic, transmission. The video demonstrates the process for the disassembly, and reassembly, of the 10L1000 using the necessary special tools. Where procedures are similar, only representative examples will be shown.

Languages: English

8L90 AUTOMATIC TRANSMISSION UNIT REPAIR — SAT0201VO

This Service Know How video takes a detailed look at overhauling the Hydra-matic 8L90 8-speed automatic transmission. Information covered in this course includes procedures for transmission disassembly and reassembly. Additional topics include component measuring and inspections. Upon completing this video, participants will be able to identify the disassembly and reassembly procedures for the Hydra-matic 8L90 8-speed automatic transmission and recall the component measuring and inspection procedures for the Hydra-matic 8L90 8-speed automatic transmission.

Languages: English

9-SPEED AUTOMATIC TRANSMISSION OVERVIEW — SAT0301VO

This course presents an overview of the new 9T50 9-speed automatic transmission, the newest front wheel drive transmission developed by Hydra-matic. This course provides technicians with an overview of the mechanical, hydraulic, and electrical components necessary for proper operation. Technicians will review the different clutches and gear sets used to achieve the forward and reverse gears. Fluid and filters are discussed to ensure the transmission is service with the correct components necessary for proper operation. Finally, the programming is reviewed to ensure a quality repair. Upon completing this course, participants will be able to identify features, components and power flow operation of the 9T50 and recall the requirements for solenoid characterization reprogramming.

Languages: English

9T50 AUTOMATIC TRANSMISSION UNIT REPAIR — SAT0401VO

This Service Know-How Interactive Video (iVideo) showcases the overhaul procedures for the Hydramatic 9T50, a 9-Speed, fully automatic, transmission for transverse-mounted engines. Early applications for this transmission include the Chevrolet Malibu and Equinox, and the GMC Terrain. The iVideo demonstrates the process for the complete disassembly and reassembly of the 9T50 using the necessary special tools. Where procedures are similar, only representative examples will be shown. Removal and installation of pressed-in bearings and seals will not be presented. Interactive features of this iVideo include integrated testing, clickable "Deep Dives" that present additional pertinent information, and navigation aids. After watching this iVideo, service technicians will be able to identify the disassembly and reassembly procedures for the Hydramatic 9T50 and identify the differences between versions of the 9T50 installed in vehicles with or without Electronic Transmission Range Select (or ETRS).

Languages: English

10L90 AUTOMATIC TRANSMISSION UNIT REPAIR — SAT0501VO

This Service Know-How Interactive Video (iVideo) showcases the overhaul procedures for the Hydramatic 10L90, a 10-Speed, fully automatic, transmission. The iVideo demonstrates the process for the complete disassembly and reassembly of the 10L90 using the necessary special tools. Where procedures are similar, only representative examples will be shown. Removal and installation of pressed-in bearings and seals will not be presented. Interactive features of this iVideo include integrated testing, clickable "Deep Dives" that present additional pertinent information, and navigation aids. After watching this iVideo, service technicians will be able to identify the disassembly and reassembly procedures for the Hydramatic 10L90 and recall the special tools required for 10L90 disassembly and reassembly.

Languages: English

ALLISON LCT1000 UNIT REPAIR — SAT0601VO

This Service Know-How showcases the Allison LCT1000, which is a 6-Speed, fully automatic, heavy-duty transmission. Applications for this transmission are the Chevrolet Silverado and the GMC Sierra. The course highlights parts, special tools and procedures used in the disassembly and assembly of this transmission. After watching this video, participants will be able to identify the disassembly and reassembly procedures for the Allison LCT1000 and recall component measuring and inspection procedures for the Allison LCT1000.

Languages: English

6T70/75 AUTOMATIC TRANSAXLE UNIT REPAIR — SAT0701VO

For all Advanced GM Service Transmission Technicians, this course provides an introduction and overview of the internal components of the 6T70 Automatic Transaxle including complete overhaul procedures using the required special tools.

Languages: English

6L80 FUNCTIONS AND FEATURES — SAT0801VO

For experienced GM Transmission Service Technicians, this video introduces the Hydra-Matic 6L80 6-speed automatic transmission. While the main focus is on overhaul procedures and techniques, other topics include introduction to the transmission's key components and the special tools required to service the 6L80.

Languages: English

4L60/65/70 UNIT REPAIR — SAT0901VO

This Service Know How program takes a detailed look at overhauling the Hydra-Matic 4L60/65/70 4-speed automatic transmission. Information covered in this course includes procedures for transmission disassembly and reassembly. Additional emphasis is placed on component inspections. Upon completion of this video, service technicians will be able to identify the disassembly and reassembly procedures for the Hydra-Matic 4L60/65/70 4-speed automatic transmission and recall the inspection procedures for the Hydra-Matic 4L60/65/70 4-speed automatic transmission.

Languages: English

A3: MANUAL TRANSMISSION / DRIVELINE

A recommended path for completing the Manual Transmission / Driveline curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH

ADDITIONAL TRAINING

VID

Proper Way to Check Ring Gear Backlash

S-MT03-01.01VID

VID

Transfer Case

S-MT03-02.01VID

A3: MANUAL TRANSMISSION / DRIVELINE

Self Study Training

MANUAL TRANSMISSION CLUTCHES — SFN1602SF

An explanation of popular automotive clutch systems. Includes clutch discs, pressure plates, mechanical and hydraulic release systems, flywheels and pilot bearings.

Languages: English

Web-Based Training

PASSENGER CAR AWD SYSTEMS: SELECTABLE AWD SYSTEMS — SMT0101WB

This course provides an overview to service technicians on the newest selectable All-Wheel Drive (AWD) systems for Front-Wheel Drive (FWD) vehicles. This course covers the single and twin clutch AWD systems with the selectable power transfer unit, as well as an overview of the system, its components, and operation.

Languages: English / French

PROPSHAFTS & REAR AXLES: REAR AXLE OPERATION — SMT0201WB

This WBT course covers propshafts and rear drive axle fundamentals, characteristics, types, operation, and diagnosis.

Upon completing of this course, technicians will be able to identify propshaft and rear drive axle fundamentals and characteristics, recognize the difference between semi and full-floating rear drive axle mechanical system, and recall rear drive axle operation.

Languages: English / French

PROPSHAFTS & REAR AXLES: DRIVE SHAFT OPERATION — SMT0301WB

This course covers propshaft fundamentals, including their mechanical operation and characteristics covered are types of propshaft joints, bearings, and assemblies. Upon completion of this course, participants will be able to recall propshaft types and characteristics and recall front-wheel drive wheel driveshaft fundamentals.

Languages: English / French

PROPSHAFTS & REAR AXLES: REAR DRIVE MODULES — SMT0401WB

This course covers the operation of rear-drive modules for all-wheel drive vehicles. Covered topics include all-wheel drive electric clutch operation and all-wheel drive electro-hydraulic clutch operation. Upon completing of this course, technicians will be able to identify how to diagnose and service an all-wheel drive electric clutch, identify how to diagnose and service an all-wheel drive electro-hydraulic clutch, and identify how to diagnose and service a rear-wheel drive direct-connect module.

Languages: English / French

PROPSHAFTS & REAR AXLES: ELECTRONIC DIFFERENTIALS — SMT0501WB

This course covers propshaft fundamentals including their mechanical operation and characteristics as well as FWD wheel drive shaft assembly fundamentals. Characteristics covered are types of propshaft joints, bearings and assemblies. In addition, the course describes the proper diagnosis of semi- and full-floating rear drive axle systems using symptom-based methods, operational tests, and visual inspection. Upon completing of this course, technicians will be able to identify fundamentals of the mechanical system, identify characteristics of the one-way clutch and the final drive, identify characteristics of the one-way clutch and the final drive.

Languages: English / French

PROPSHAFTS & REAR AXLES: FRONT DRIVE AXLES — SMT0601WB

This course covers front drive axle types, components, and operation. Upon completing of this course, technicians will be able to identify fundamentals of the mechanical system, identify characteristics of the one-way clutch and the final drive, and identify characteristics of the one-way clutch and the final drive.

Languages: English / French

PROPSHAFTS & REAR AXLES: DIAGNOSIS — SMT0701WB

This course covers the operation, diagnosis, and service of several types of rear-drive modules for all-wheel drive and rear-wheel drive vehicles. Topics include the proper diagnosis of semi- and full-floating rear drive-axle systems using symptom-based methods, operational tests, and visual inspection; and rear-wheel drive direct-connect module diagnosis and service. Upon completion of this course, participants will be able to identify how to diagnose semi- and full-floating rear drive axles, identify how to diagnose and service a rear-wheel-drive direct-connect module.

Languages: English / French

A3: MANUAL TRANSMISSION / DRIVELINE

MANUAL TRANSMISSION: OVERVIEW — SMT0801WB

This course covers manual driveline fundamentals, including the manual drivetrain and axle types, location, and service. This course also covers how to service a manual drivetrain and axle using safe practices. Upon completion of this course, participants will be able to identify manual driveline fundamentals.

Languages: English / French

MANUAL TRANSMISSION: CLUTCH OPERATION & DIAGNOSIS — SMT0901WB

This course covers manual transmission clutch types and operation. This course also covers how to diagnose clutch mechanical and hydraulic systems. Upon completion of this course, participants will be able to identify the manual transmission clutch types and operation and identify the manual transmission clutch diagnostics.

Languages: English / French

MANUAL TRANSMISSION: FWD OPERATION — SMT1001WB

This course covers Front-Wheel Drive (FWD) manual transmission fundamentals, mechanical systems, operation, and the electronic control system. Upon completion of this course, participants will be able to identify the front-wheel drive manual transmission characteristics, identify the front-wheel drive manual transmission mechanical systems, components, and shift mechanism characteristics, recall the front-wheel drive manual transmission operation, recall the front-wheel drive manual transmission electronic control system characteristics.

Languages: English / French

MANUAL TRANSMISSION: RWD OPERATION — SMT1101WB

This course covers Rear-Wheel Drive (RWD) characteristics, manual transmission clutch types, and manual shift mechanism types. This course also covers Tremec 6-speed manual transmission characteristics, mechanical component characteristics, and fluid characteristics. Upon completing this course, participants will be able to identify RWD characteristics, clutch types, and shift mechanisms and recall the characteristics and components of the Tremec 6-speed transmission.

Languages: English / French

MANUAL TRANSMISSION: FWD DIAGNOSIS — SMT1201WB

This course covers front-wheel drive manual transmission diagnostics and symptom-based manual transmission diagnostics. Upon completion of this course, technicians will be able to identify the steps to diagnose a manual transmission, identify the steps to diagnose a manual transmission using symptom-based diagnostics.

Languages: English / French

MANUAL TRANSMISSION: RWD DIAGNOSIS — SMT1301WB

This course covers Tremec 6-speed manual transmission operation and electronic control system characteristics and steps of operation. Upon completion of this course, technicians will be able to recall the operational steps of a Tremec 6-speed transmission, recall the characteristics and the operation of the manual Tremec 6-speed transmission electronic control system.

Languages: English / French

PASSENGER CAR AWD SYSTEMS: DIAGNOSIS — SMT1401WB

This 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 all-wheel drive system diagnostic procedures, recall how to diagnose all-wheel drive systems using symptom-based diagnostics, recall how to diagnose all-wheel drive systems using DTC-based diagnostics.

Languages: English / French

PASSENGER CAR AWD SYSTEMS: OVERVIEW — SMT1801WB

This 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. In this course passenger car refers to all cars, Sport Utility Vehicles (SUVs), and crossovers that do not use a full frame.

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, and recall the operation of the passenger car all-wheel drive transfer case.

Languages: English / French

A3: MANUAL TRANSMISSION / DRIVELINE

AWD / 4WD SYSTEMS: OVERVIEW — SMT1901WB

This course identifies AWD / 4WD system characteristics, operation, and configuration. Upon completion of this course, technicians will be able to identify the characteristics of AWD systems, identify AWD system configuration, operation, components, controls, and driving conditions, identify the characteristics of 4WD systems, and identify 4WD system operation, components, and controls.

Languages: English

AWD / 4WD SYSTEMS: PASSENGER CAR — SMT2001WB

The AWD / 4WD Systems: Passenger Car Web-Based Training (WBT) identifies AWD/4WD system components and operation in both longitudinal and transverse vehicle configurations. Upon completing this course, participants will be able to recognize the components of the passenger car all-wheel-drive system configurations, recall the operation of components within passenger car all-wheel-drive systems with transverse configurations, and recall the operation of components within passenger car all-wheel-drive systems with longitudinal configurations.

Languages: English

AWD / 4WD SYSTEMS: CUV / SUV — SMT2101WB

The AWD / 4WD Systems: CUV / SUV online course identifies system components and operation in All-Wheel Drive (AWD) Compact Utility Vehicles (CUVs) and Sport Utility Vehicles (SUVs). Upon completing this course, participants will be able to recall the operation of system components within CUV and SUV AWD systems and recall the operation and serviceability of the rear drive axle in CUV and SUV AWD systems.

Languages: English

AWD / 4WD SYSTEMS: FULL SIZE TRUCK AND SUV 4WD — SMT2201WB

The AWD / 4WD Systems: Full-size truck / SUV 4WD Web-Based Training (WBT) identifies system components and operation in 4WD full-size truck and Sport Utility Vehicles (SUVs). Topics include 4WD system configuration and components, system operation, and an overview of the front drive axle. Upon completing this course, participants will be able to recall full-size truck / SUV 4WD system configurations and components, recall the operation of components in full-size truck / SUV 4WD systems, and recall the front drive axle operation of components.

Languages: English

TRUCK AWD / 4WD OPERATION, DIAGNOSIS & SERVICE 1: OPERATION — S-MT03-09.01WBT

This course focuses on the types, characteristics, and operations of manual and electric shift transfer cases as well as the All-Wheel Drive (AWD) viscous clutch style transfer case. Some diagnostic practices are also described in this course.

Languages: English / French

TRUCK AWD / 4WD OPERATION, DIAGNOSIS & SERVICE 2: DIAGNOSIS — S-MT03-10.01WBT

This course focuses on the types, characteristics, and operations of manual and electric shift transfer cases as well as the All-Wheel Drive (AWD) viscous clutch style transfer case. Some diagnostic practices are also described in this course. Upon completion of this course, technicians will be able to: Identify the characteristics and types of transfer cases Recall the components of the clutch, viscous and differential transfer cases Recall the operation of the clutch, viscous and differential transfer cases Recall the modes of operation of the transfer case Diagnose a transfer case using the SBD process Diagnose a transfer case using operational test Diagnose a transfer case using symptom-based diagnostic

Languages: English / French

DRIVETRAIN INSPECTION AND MAINTENANCE — S-MT03-13.02WBT

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

PROPSHAFT AND REAR AXLE OPERATION, DIAGNOSIS AND SERVICE 4: ELECTRIC LOCKING AXLES — S-MT03-18.01WBT

This course covers operation and components, including modes of operation and the integrated chassis control module, and diagnosis and service of the electronic locking rear axle and front axle. In addition, this course covers operation of the rear axle and front axle, and different types of sensors. It also describes the locking differential indicator, and identifies diagnostic trouble codes. Upon completion of this course, technicians will be able to recall electronic locking differentials operation components, identify controls for locking differentials, identify modes of operation and the integrated chassis control module, recall operation of the rear axle and front axle, identify different types of sensors, recall the locking differential indicator and identify diagnostic trouble codes.

Languages: English

Instructor-Led Training

ALL-WHEEL DRIVE / FOUR-WHEEL DRIVE — S-MT03-01.01ILT

This Instructor-led Training (ILT) course will provide technicians the opportunity to learn about the various Four-Wheel Drive (4WD) and All-Wheel Drive (AWD) systems, how power is divided in these systems, components of 4WD and AWD systems, and some diagnostics of 4WD and 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

TechTube Videos

PROPER WAY TO CHECK RING GEAR BACKLASH — S-MT03-01.01VID

This video demonstrates how to measure backlash of a ring and pinion gearset and what the measurements mean.

Languages: English

TRANSFER CASE — S-MT03-02.01VID

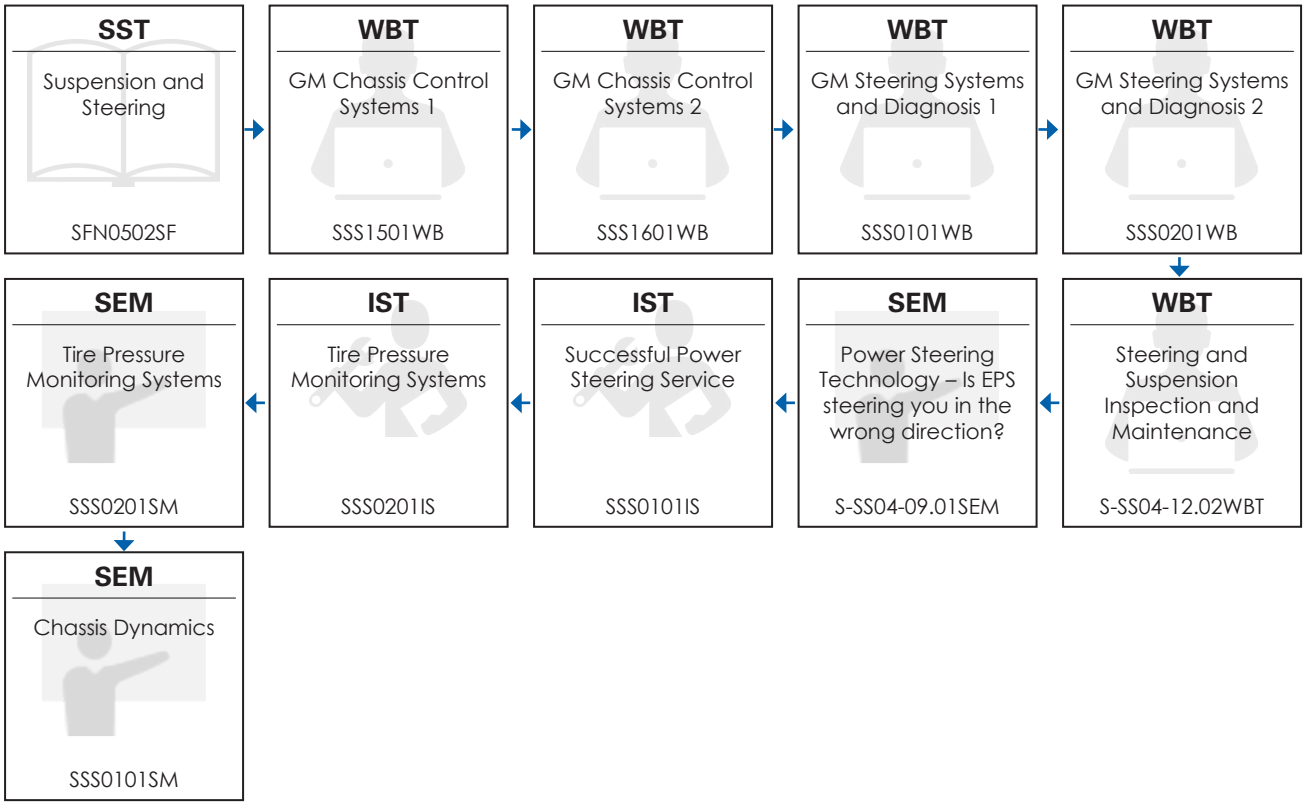
This video describes issues that can affect 4WD operation that you should be aware of before replacing a transfer case.

Languages: English

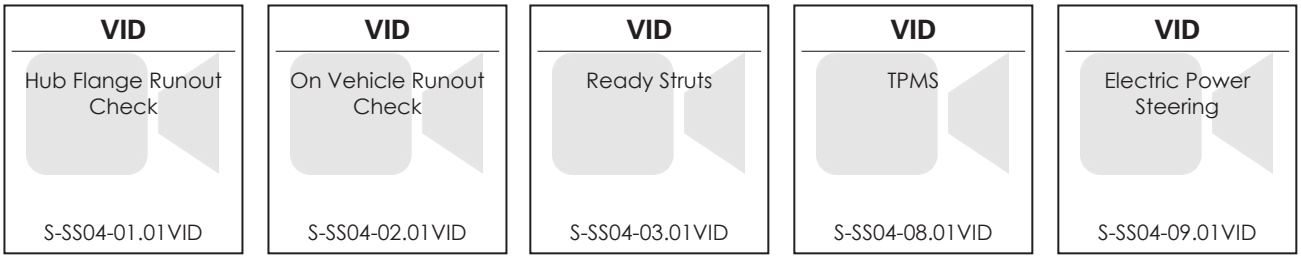
A4: SUSPENSION / STEERING

A recommended path for completing the Suspension and Steering curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH



ADDITIONAL TRAINING



Self Study Training

SUSPENSION AND STEERING — SFN0502SF

This self study course reviews suspension and steering components, operation and service through a systems overview of the suspension and steering and a functional component review.

Languages: English

Web-Based Training

GM STEERING SYSTEMS AND DIAGNOSIS 1 — SSS0101WB

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.

Languages: English / French

GM STEERING SYSTEMS AND DIAGNOSIS 2 — SSS0201WB

This course covers the features, characteristics, and operation of the electronically controlled power steering system and the electronic assist power steering system. Upon completion of this course, participants will be able to recall the features, characteristics, and operation of electronically controlled hydraulic power steering systems.

Languages: English / French

GM CHASSIS CONTROL SYSTEMS 1 — SSS1501WB

This course covers the components, characteristics, and operation of various chassis control systems found in GM vehicles. Suspension system types, ride and alignment control, tire pressure monitoring, and alignment will be covered in this course. Upon completing this course, 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, and identify the characteristics and operation of the tire pressure monitoring system.

Languages: English

GM CHASSIS CONTROL SYSTEMS 2 — SSS1601WB

This course covers the components, characteristics, and operation of various chassis control systems found in GM vehicles. Air suspension systems, automatic level control, electronically controlled damping, and alignment will be covered in this course. Upon completing this course, technicians will be able to identify the function of the air suspension systems, components and operation of the automatic level control systems, characteristics and operation of electronically controlled damping systems, and identify the types of alignment.

Languages: English

STEERING AND SUSPENSION INSPECTION AND MAINTENANCE — S-SS04-12.02WBT

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. Upon completion of this course, service technicians will be able to identify the operation of the power steering systems, identify the inspection and maintenance process for inner and outer tie rods, identify the inspection and maintenance process for ball joints, differentiate between the operation and inspection procedures of other steering system components, recall the function of the suspension components, differentiate between dependent and independent front suspension, differentiate between dependent, semi-independent, and independent rear suspension, recall the operation and inspection of the electronic suspension, and identify the operation, inspection, and maintenance of the wheels and tires.

Languages: English

Seminar

CHASSIS DYNAMICS — SSS0101SM

Intended for the experienced technician, this seminar will explore the symptoms and corrective actions needed to address abnormal ride and handling concerns. Special attention will be paid to electronic ride control systems, conventional steering and suspension systems, modified vehicles, alignment geometry, yaw control and dynamic steering, and required calibration / programming procedures.

Languages: English

A4: SUSPENSION / STEERING

TIRE PRESSURE MONITORING SYSTEMS — SSS0201SM

This Instructor-led training Seminar will cover Tire Pressure Monitoring Systems installed on various vehicles. Direct and indirect systems will be covered in detail and will include Federal regulation and repair compliance requirements. Various Original Equipment Manufacturers (OEMs) will be highlighted, including an overview of the operation, diagnosis, and servicing of the systems and their components. Additional topics include winter / accessory wheel fitment, TPMS tools, parts and information resources.

Languages: English

POWER STEERING TECHNOLOGY – IS EPS STEERING YOU IN THE WRONG DIRECTION? — S-SS04-09.01SEM

This 3-hour 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.

Languages: English

InShop Training

SUCCESSFUL POWER STEERING SERVICE — SSS0101IS

This 1-hour InShop will cover the proper procedures for effective diagnosis and repair of today's hydraulic and electric power steering systems. We will discuss ways to prevent come backs by using proper diagnostic and repair procedures. Common installation issues will be discussed including the use of proper fluids, flushing, and pulley installation. Electronic power steering installation and setup procedures will be discussed.

Languages: English

TIRE PRESSURE MONITORING SYSTEMS — SSS0201IS

This Instructor-led training InShop will cover Tire Pressure Monitoring Systems installed on various vehicles. Direct and indirect systems will be covered and will include Federal regulation and repair compliance requirements. Various Original Equipment Manufacturers (OEMs) will be highlighted, including an overview of the operation, diagnosis, and servicing of the systems and their components.

Languages: English

TechTube Videos

HUB FLANGE RUNOUT CHECK — S-SS04-01.01VID

This video demonstrates the process on how to properly measure hub flange runout.

Languages: English

ON VEHICLE RUNOUT CHECK — S-SS04-02.01VID

This video demonstrates how to measure on vehicle runout of the tire assembly, which includes the tire, rim and hub.

Languages: English

READY STRUTS — S-SS04-03.01VID

This video describes how to diagnose strut concerns and why you should use ACDelco Professional ReadyStrut complete assemblies.

Languages: English

TPMS — S-SS04-08.01VID

This video describes the operation of tire pressure monitor systems.

Languages: English

ELECTRIC POWER STEERING — S-SS04-09.01VID

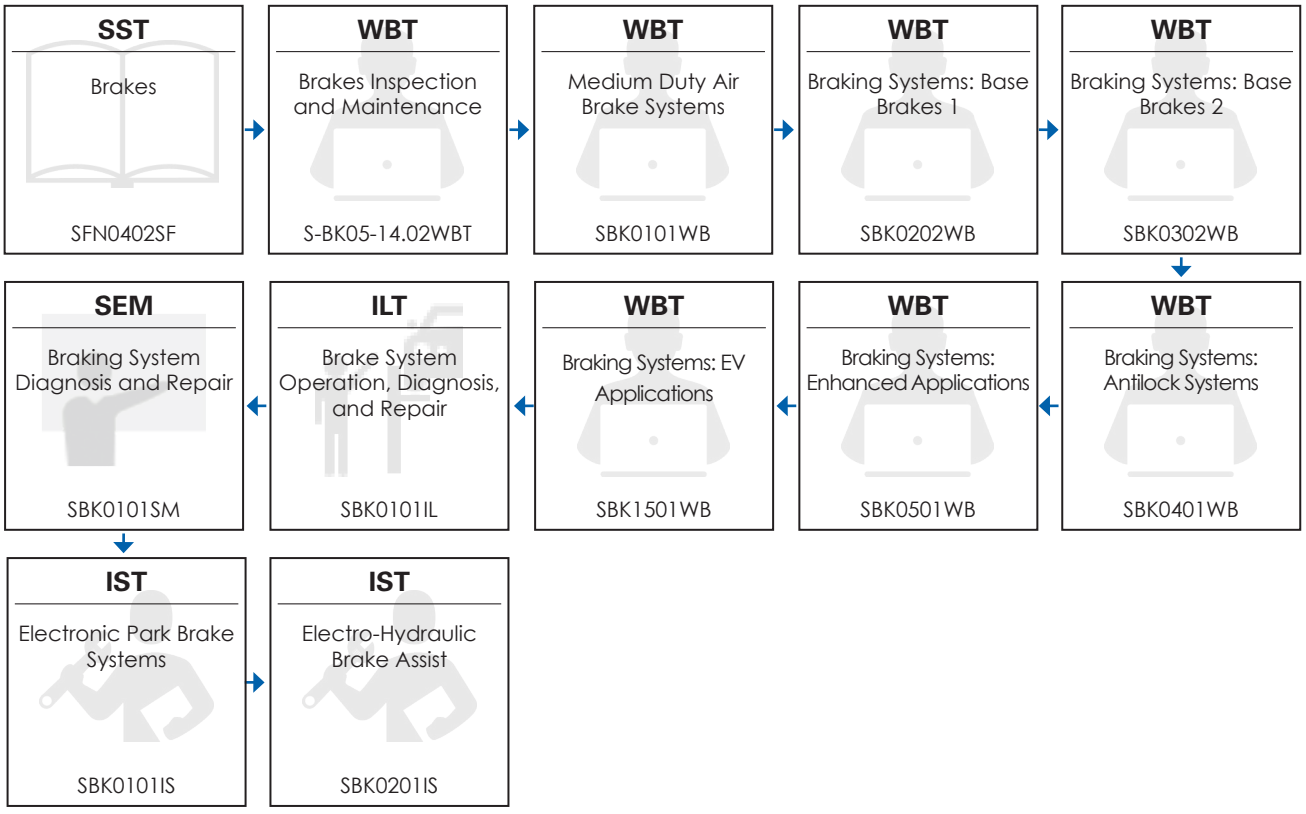
This video describes the various types of electric power steering systems.

Languages: English

A5: BRAKES

A recommended path for completing the Brakes curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH



ADDITIONAL TRAINING

A5: BRAKES

Self Study Training

BRAKES — SFN0402SF

This self study guide covers braking system components and their operation. Topics include an overview of braking systems, description and operation of braking subsystem components, and advanced braking systems.

Languages: English

Web-Based Training

BRAKES INSPECTION AND MAINTENANCE — S-BK05-14.02WBT

Brake systems enable a vehicle to stop in a controlled manner. The performance of this system is critical to the safety and well-being of the occupants, other drivers, and pedestrians. Familiarization of the brake system components and operation is essential to perform a proper inspection. 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.

Languages: English

MEDIUM DUTY AIR BRAKE SYSTEMS — SBK0101WB

This course will detail the air brake and air brake antilock braking systems for medium duty trucks. Upon completing this course, participants will be able to summarize the air brake system of medium duty trucks, recognize the control components of the air brake system, recognize the foundation brake components of the air brake system, relate how each component operates within the air brake system, and summarize how the air brake antilock braking system functions.

Languages: English

BRAKING SYSTEMS: BASE BRAKES 1 — SBK0202WB

This course covers brake fundamentals: the apply system, the boost systems, and the hydraulic braking system.

Languages: English / French

BRAKING SYSTEMS: BASE BRAKES 2 — SBK0302WB

This course covers the components, types, and operation of drum brakes, disc brakes, and manual and electronic parking brakes. The course also provides information about calibration, brake pad life monitoring systems, and tests related to braking systems. Upon completion of this course, technicians will be able to identify the components, types, and operation of drum brakes and disc brakes. Identify the components, types, and operation of manual and electronic parking brakes. Recall related service topics, including calibration and brake pad life systems.

Languages: English

BRAKING SYSTEMS: ANTILOCK SYSTEMS — SBK0401WB

This 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.

Languages: English / French

BRAKING SYSTEMS: ENHANCED APPLICATIONS — SBK0501WB

This WBT course covers the enhanced applications of braking systems, including optimized braking systems and performance braking systems.

Languages: English / French

BRAKING SYSTEMS: EV APPLICATIONS — SBK1501WB

This Web-Based Training (WBT) course is for the non-Electric Vehicle (EV) Technician and explains the referenced components by determining safety limits in servicing the EV braking system. This course aids the technician in answering what is similar and what is different within the EV braking systems when compared to conventional braking systems. Also covered in this course will be the components, characteristics, and operation of regenerative braking, including one-pedal driving and Regen On-Demand.

Note: This WBT can be utilized as a technician's refresher course as needed. Upon completing this course, the technician will be able to recall the characteristics and operation of the EV braking system. Identify the components, characteristics, and operation of regenerative braking, and identify the components, characteristics, and operation of One-Pedal Driving and Regen On-Demand.

Languages: English

Instructor-Led Training

BRAKE SYSTEM OPERATION, DIAGNOSIS, AND REPAIR — SBK0101IL

This Instructor-led training course covers the operation, diagnosis and repair of passenger car and light truck base brake systems, including an introduction to 'advanced' technologies used in modern braking systems. Emphasis will focus on brake system fundamentals, hydraulic theory, and the operation of base brake subsystems and components. Brake system diagnosis and repair, driven by common customer complaints and known issues, is also explored in this hands-on class.

Languages: English

Seminar

BRAKING SYSTEM DIAGNOSIS AND REPAIR — SBK0101SM

This Instructor-led training Seminar focuses on braking system diagnosis, and covers components, operation, and proper service practices. This course highlights real world case studies to address brake noise, pulsation, pad wear, fluid leaks, and concerns with power assist systems. Enhanced braking system designs and features by various manufacturers will also be covered.

Languages: English

InShop Training

ELECTRONIC PARK BRAKE SYSTEMS — SBK0101IS

This Instructor-led training InShop provides an overview of the various electronic park brake systems installed on modern vehicles. Various Original Equipment Manufacturers (OEM's) systems will be covered, including an overview of the operation, diagnosis, and servicing of the systems.

Languages: English

ELECTRO-HYDRAULIC BRAKE ASSIST — SBK0201IS

This Instructor-led training InShop course provides an overview of the electro-hydraulic brake assist system installed on various GM vehicles. System features and benefits will be highlighted, as well as the operation, diagnosis and servicing of the system

Languages: English

TechTube Videos

COMPLEX BRAKE TUBE BENDING — S-BK05-02.01VID

The Brake Tube Bending video demonstrates the art of tubing bends and brake pipe coils without creating restrictions in the tubing.

Languages: English

MAINTAINING (QUALIFYING) YOUR BRAKE LATHE — S-BK05-01.01VID

The Brake lathe qualification video will assist Technicians in the inspection of bench brake lathe components. This is done visually and through taking measurements of critical surfaces to ensure accurate and precise brake drum and rotor resurfacing avoiding run out issues.

Languages: English

BRAKE LATHE QUALIFICATION — SBK0101TT

The Brake lathe qualification video will assist Technicians in the inspection of bench brake lathe components. Visual inspections and measurements of critical surfaces will ensure accurate and precise brake drum and rotor resurfacing, avoiding run out issues.

Languages: English

A6: ELECTRICAL / ELECTRONIC SYSTEMS

A recommended path for completing the Electrical / Electronic Systems curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH

continued below

continued

SEM
Starting and Charging System Diagnosis
SEL0201SM

→

SEM
Vehicle Lighting and Access
SEL0301SM

→

IST
Batteries
SEL0401IS

→

IST
Starting and Charging System Diagnosis and Repair
SEL0101IS

ADDITIONAL TRAINING

VID
J38125-8 Crimping Tool Operation
S-EL06-02.01VID

A6: ELECTRICAL / ELECTRONIC SYSTEMS

Self Study Training

ALTERNATORS / GENERATORS AND STARTERS — SFN0102SF

An explanation of popular automotive alternator and starter designs. Includes alternator and starter functions as well as components, and hybrid vehicle starter-generator information.

Languages: English

BATTERIES — SFN0202SF

An explanation of popular automotive battery groups and designs. Includes construction, service and replacement information.

Languages: English

Web-Based Training

BATTERY INSPECTION AND MAINTENANCE — S-EL06-33.02WBT

This course presents an overview of the components and procedures related to battery inspection and maintenance. The course covers battery location, inspection, replacement, and jump-starting. It also identifies the characteristics and procedures for the inspection of electrical centers, and the operational modes of ignition devices. In addition, the course covers the steps on how to restore personal radio settings in a customer's vehicle after battery service.

Languages: English

GM GLOBAL ELECTRICAL SYSTEMS 1 — SEL0301WB

This course presents the principles of electrical circuits, including the common types of circuits and functions used in the electrical architecture of GM vehicles. Upon completion of this course, participants will be able to identify concepts of electrical circuits, including ground and voltage circuits, characteristics of signal circuits and control circuits, and serial data circuits and communication.

Languages: English / French

GM GLOBAL ELECTRICAL SYSTEMS 2 — SEL0401WB

This course presents standard procedures for the diagnosis of electrical systems in GM vehicles. Upon completion of this course, participants will be able to identify the characteristics of global diagnostics for electrical systems, including the information for the diagnosis of electrical faults, the diagnostic format to verify electrical circuits, and the logical order in which to test electrical systems.

Languages: English / French

ELECTRICAL / ELECTRONICS STAGE 1 — SEL0501WB

This WBT course focuses on the fundamental laws of electricity and reading electrical schematics. The topics covered in this course include voltage, current, resistance, voltage drop, Ohm's Law, electromagnetic induction, and electrical circuits. Upon completing this course, participants will be able to identify the basic characteristics of electricity, identify the basic characteristics of automotive electric circuits, and identify the characteristics of electrical circuit types.

Languages: English / French

ELECTRICAL / ELECTRONICS STAGE 2 — SEL0601WB

This WBT course focuses on the fundamentals of electricity and vehicle diagnosis and repair. The topics covered in this course include sources of automotive electricity, circuit protectors, circuit control devices, and circuit loads. Upon completing this course, participants will be able to identify sources of automotive electricity, identify the characteristics and functions of circuit protectors, identify the characteristics of circuit control devices, and identify the characteristics of circuit loads.

Languages: English / French

ELECTRICAL / ELECTRONICS STAGE 3 — SEL0701WB

This WBT course focuses on the fundamentals of the Digital Multimeter (DMM) controls and functions and DMM usage. The topics covered in this course include safety and caution, proper DMM set up, measurement scales, measuring voltage, measuring voltage drop, measuring resistance, and measuring amperage. Upon completing this course, participants will be able to recall Digital Multimeter (DMM) controls and functions, recall safety and caution, recognize proper set up, identify measurement scales, recall how to measure voltage, recall how to measure voltage drop, recall how to measure resistance, and recall how to measure amperage.

Languages: English / French

A6: ELECTRICAL / ELECTRONIC SYSTEMS

ELECTRICAL / ELECTRONICS STAGE 4 — SEL0801WB

This WBT course focuses on important types, characteristics, and diagnosis of various solid state electrical components. The topics covered in this course include characteristics of capacitors, types of semiconductors, characteristics of semiconductors, types of diodes, characteristics of diodes, diagnosis of diodes, and characteristics of transistors. Upon completing this course, participants will be able to recall the characteristics of capacitors, recall types of semiconductors, recall the characteristics of semiconductors, recall different types of diodes, recall the characteristics of diodes, recall diagnosis of diodes, and recall the characteristics of transistors.

Languages: English / French

ELECTRICAL / ELECTRONICS STAGE 5 — SEL0902WB

This WBT course will familiarize the service technicians with electrical and electronics systems used on today's GM vehicles, as well as the characteristics and functions of control modules. The service technicians will also become familiarized with the characteristics and diagnosis of various electronic sensors and communication throughout the vehicle. Upon completing this course, participants will be able to identify common characteristics and functions of control modules, identify the types of variable resistance sensors, identify the characteristics and diagnosis of various electronic sensors, and identify important features of communication systems.

Languages: English

ELECTRICAL / ELECTRONICS STAGE 6 — SEL1002WB

This WBT course will familiarize the service technicians with electrical and electronics systems used on GM vehicles. The service technicians will also become familiarized with the fundamentals of electricity and how it pertains to successful vehicle diagnosis and repair. Upon completing this course, participants will be able to identify electrical circuit components, identify the characteristics of electrical circuit faults, and identify the characteristics of electrical circuit repairs.

Languages: English

12V STOP / START SYSTEM: OVERVIEW, COMPONENTS AND OPERATION — S-EL06-68.01WBT

This course presents an overview of the 12V Stop / Start system, including its function, operation, and diagnosis. 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.

Languages: English

12V STOP / START SYSTEM: 2 — S-EL06-79.01WBT

This course presents an overview of the 12V Stop / Start System, 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.

Languages: English

GM GLOBAL ELECTRICAL SYSTEMS: CIRCUIT OPERATIONS — SEL6301WB

This course presents the types and characteristics of common vehicular electrical circuits in GM vehicles. Topics include the functions of the serial data gateway module and comparisons of the five circuit types.

Languages: English / French

STRATEGY BASED DIAGNOSTICS — SEL6401WB

This course covers GM's strategy based diagnostics process and is intended to assist service technicians in diagnosing vehicle issues. Upon completion of this course participants will be able to recognize how to verify the vehicle concern and perform preliminary checks. Identify diagnostic procedures, and recall how to isolate and repair the root cause and verify the repair.

Languages: English

VOLTAGE DROP TESTING — SEL6501WB

This course covers the fundamentals of an electrical circuit. It also covers how to safely perform voltage testing. Upon completion of this course, participants will be able to recall the fundamentals of electricity recall the safe methods for performing voltage drop testing.

Languages: English

A6: ELECTRICAL / ELECTRONIC SYSTEMS

SUPER CRUISE — SEL0102WB

This WBT provides specific information on the technologies and operation of the new GM Super Cruise driver assistance system. Upon completing this course, participants will be able to identify the purpose of the Super Cruise system, identify the technologies and components present in the Super Cruise system, recall the operation of Super Cruise system, and identify the fail-safes present for the Super Cruise system.

Languages: English / French

SUPER CRUISE: INTRODUCTION - VIP SYSTEM — SEL6602WB

This course provides information about the characteristics and functionality of GM's Super Cruise system, which assists drivers with highway cruising. The focus is on the system's function in vehicles with VIP (Vehicle Intelligence Platform) electrical architecture. This includes the hands-off lane changing function. Always consult Service Information for the correct procedures and specifications and check local regulations because the laws in some regions may not permit hands-off driving. Upon completion of this course, technicians will be able to identify the technologies and components of the Super Cruise system. Recall the operation and limitations of the Super Cruise driver assistance system.

Languages: English

BATTERY SYSTEMS — SEL7902WB

This course covers the basic operation and service of the 12-volt (12V) battery in a vehicle. Upon completion of this course, technicians will be able to identify 12V battery characteristics and battery inspection and testing procedures, recall 12V battery operation, and recognize battery service procedures.

Languages: English

CHARGING SYSTEMS — SEL8002WB

This course covers the basics of charging system operation and service. Upon completion of this course, participants will be able to identify charging system components and operation, and recall how to perform charging system diagnostics.

Languages: English

STARTING SYSTEMS — SEL8101WB

This course covers the basics of starting systems. Upon completing this course, participants will be able to: identify starting system characteristics and recall how to perform starting system diagnostics.

Languages: English

BODY ELECTRICAL: LIGHTING SYSTEMS — SEL8501WB

This course covers the GM vehicle lighting system characteristics, operation, and diagnostics for exterior, interior, and trailer lighting. Upon completing this course, technicians will be able to identify the characteristics and operation associated with exterior and interior lights, identify the characteristics and operation associated with trailer lamps, and explain lighting diagnostic procedures.

Languages: English

Instructor-Led Training

ELECTRICAL OPERATION AND TESTING — SEL0101IL

This Instructor-led training course covers the properties of electricity, electrical testing, and diagnosis. Topics covered include review of the common circuits and functions used in vehicle electrical systems, Digital Multimeter (DMM) functions and usage, test lights, terminal service and component testing. Exercises allow participants to apply circuit testing strategies and tools to different components, circuits, and functions.

Languages: English

BATTERIES, STARTING, AND CHARGING — SEL0201IL

This Instructor-led training course covers battery, starting, and charging system component operation, diagnosis and testing, and best service practices. Hands-on exercises provide opportunities for improving skills, performing measurements, interpreting test results, and making diagnostic decisions.

Languages: English

GLOBAL ELECTRICAL OPERATIONS AND TESTING — SEL0301IL

This Instructor-led training course covers the properties of electricity, interpreting and using electrical schematics, advanced Digital Multimeter (DMM) usage, scan tool diagnosis tactics, and alternate test tool usage. Hands-on exercises provide opportunities for practicing skills, making measurements, interpreting test results and making diagnostic decisions.

Languages: English

Seminar

BATTERY MARKETER — SEL0102SM

This Instructor-led training Seminar focuses on the ACDelco battery product line and will prepare participants to sell and support ACDelco branded batteries. This course covers battery technical aspects including operation, diagnosis, service, and warrantable claims. This course further examines the sales and marketing techniques associated with batteries. Battery safety will be a focus throughout each section, and participants will achieve an understanding of the competitive battery market and the skills required to support ACDelco battery sales.

Languages: English

STARTING AND CHARGING SYSTEM DIAGNOSIS — SEL0201SM

This seminar covers battery, starting, and charging system component operation, diagnosis and testing, and correct service practices. The discussion on battery operation will include details on flooded and Absorbent Glass Mat, (AGM) types of batteries with emphasis on correct diagnosis and service. Starting topics will include processor controlled cranking systems, stop / start technology, and current diagnostic procedures. Participants will discuss computer-controlled charging systems including Regulated Voltage Controls (RVC), electrical power management, and advanced diagnostic procedures.

Languages: English

VEHICLE LIGHTING AND ACCESS — SEL0301SM

This seminar covers vehicle lighting and access system component operation, diagnosis, testing and correct service practices. The discussion on vehicle lighting systems will include details on bulb monitoring, Pulse Width Modulated (PWM) lamp control, LED lighting, xenon lighting, dynamic headlight range and level control, adaptive forward lighting, laser lighting, and vehicle lighting system diagnostic strategies. Vehicle access system topics will include door lock, liftgate, and trunk release system operation and diagnostic strategies. Participants will discuss movable glass systems including power window system operation, and diagnostic strategies for door windows, back glass and sunroof systems.

Languages: English

InShop Training

STARTING AND CHARGING SYSTEM DIAGNOSIS AND REPAIR — SEL0101IS

This 1-hour InShop course covers the proper way to diagnose and repair starting and charging systems. Emphasis will be placed on discovering the root cause of starting and charging system failures and proper service procedures.

Languages: English

BATTERIES — SEL0401IS

This 1 hour InShop Training will cover battery identification and service procedures. Topics include battery testing, charging, and replacement procedures, as well as parasitic draw testing and OnStar precautions.

Languages: English

TechTube Videos

J38125-8 CRIMPING TOOL OPERATION — S-EL06-02.01VID

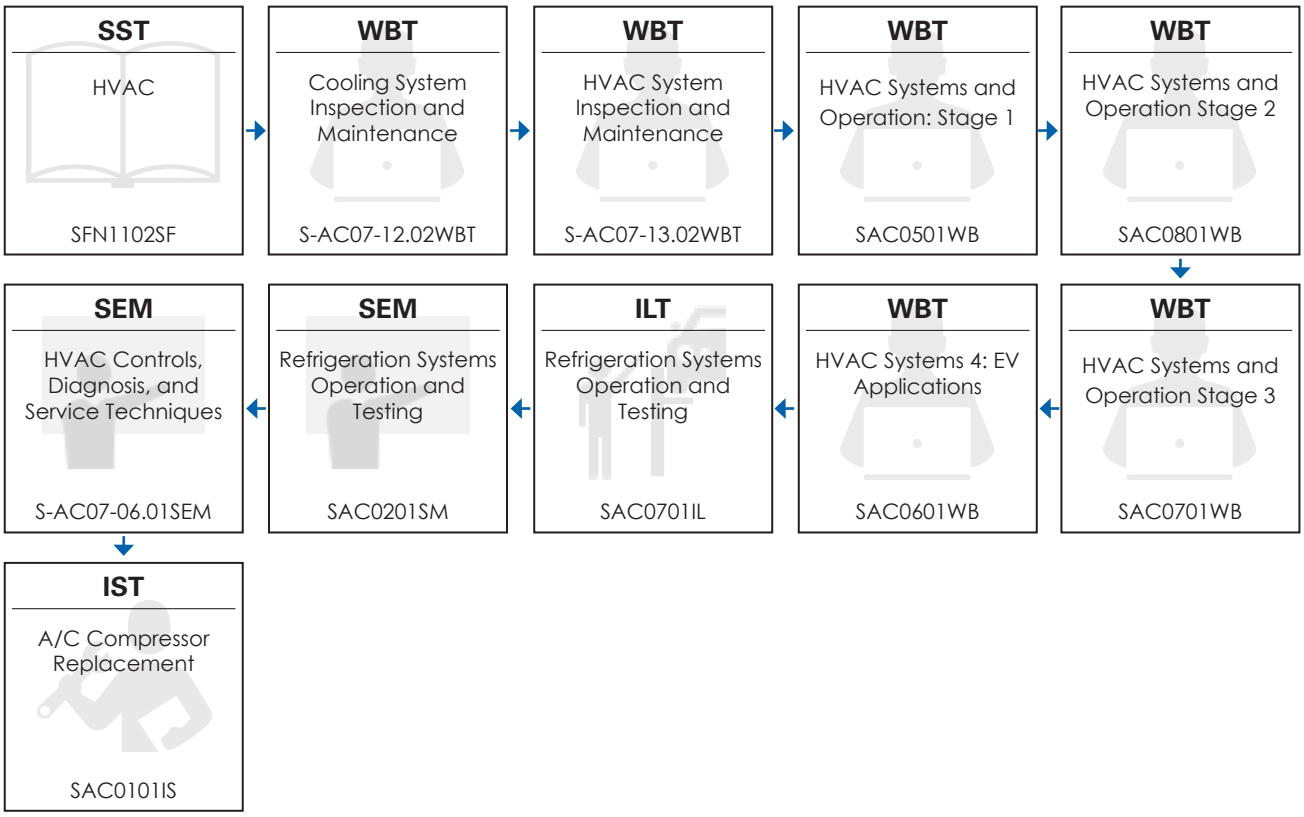
This video demonstrates the proper use of the J-38125-8 crimping tool for installing a Duraseal Crimp splice sleeve on vehicle wiring to create an effective and lasting repair.

Languages: English

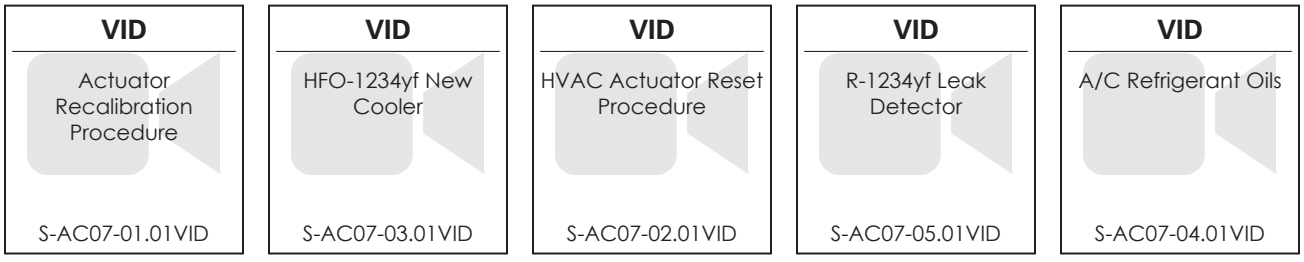
A7: HEATING AND AIR CONDITIONING

A recommended path for completing the Heating and Air Conditioning curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH



ADDITIONAL TRAINING



Self Study Training

HVAC — SFN1102SF

This self study course covers air conditioning system components, operation and service. Course topics include air conditioning systems, air distribution systems, and HVAC service overview.

Languages: English

Web-Based Training

COOLING SYSTEM INSPECTION AND MAINTENANCE — S-AC07-12.02WBT

This course covers the inspection and maintenance of the accessory drive belt, including the replacement of the drive belt and tensioner. This course also covers the inspection and maintenance of the radiator and coolant hoses, including pressure testing and documenting the findings on a work order.

Languages: English

HVAC SYSTEM INSPECTION AND MAINTENANCE — S-AC07-13.02WBT

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 an HVAC system. The course also covers relevant aspects of the inspection of HVAC systems in a hybrid vehicle.

Languages: English

HVAC SYSTEMS AND OPERATION: STAGE 1 — SAC0501WB

This course provides the fundamentals of Heating, Ventilation, and Air Conditioning (HVAC) systems. Having a solid understanding of system components and their function and operation can help identify customer HVAC concerns more quickly and efficiently. The content of this course focuses on the components and operation of the A/C system while covering the following topics: HVAC system characteristics, HVAC system theory, refrigerant systems, and refrigerant systems components.

Languages: English / French

HVAC SYSTEMS 4: EV APPLICATIONS — SAC0601WB

This course provides information and guidance to technicians about how to service Heating, Ventilation, and Air Conditioning (HVAC) systems in Electric Vehicles (EVs). Upon completion of this course, technicians will be able to identify how to perform service on the HVAC system in an EV with the Ultium battery and how to perform service on the HVAC system in a non-Ultium Bolt EV.

Languages: English

HVAC SYSTEMS AND OPERATION STAGE 3 — SAC0701WB

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 HVAC system service procedures, recovery and recharging station functions, and A/C performance diagnosis procedures.

Languages: English

HVAC SYSTEMS AND OPERATION STAGE 2 — SAC0801WB

This course recalls Heating, Ventilation, and Air Conditioning (HVAC) system distribution fundamentals. Upon completing this course, the technician will be able to recall Heating, Ventilation, and Air Conditioning (HVAC) system distribution fundamentals, and control methods and functions, and be able to identify control module input and output components.

Languages: English

Instructor-Led Training

REFRIGERATION SYSTEMS OPERATION AND TESTING — SAC0701IL

This full-day Instructor-Led Training (ILT) course provides technicians with the functional knowledge of Air Conditioning (A/C) systems operation and the skills required to effectively diagnose, service, and repair R-134a and R-1234yf A/C systems. The physics of heat transfer, A/C system operation, A/C system components and control devices, service tools, and common failures are discussed from a diagnostics and servicing point of view. The goal is to achieve maximum efficiency in the diagnosis and service of various refrigeration systems. Hands-on exercises emphasize proper use of the A/C system service tools and equipment while performing common diagnostic and repair scenarios.

Languages: English

A7: HEATING AND AIR CONDITIONING

Seminar

HVAC CONTROLS, DIAGNOSIS, AND SERVICE TECHNIQUES — S-AC07-06.01SEM

This Seminar will provide technicians with the diagnostic techniques and strategies required to diagnose non-refrigerant related issues with the HVAC electronic controls that impact electronically regulated compressor operation and the air delivery system. Specific components and systems covered include HVAC control inputs, condenser and blower motor fan controls and operation, manual, electronic and automatic temperature control and electronic mode door actuators and their control of air delivery and airflow in single and multiple zone adjustable systems. Setup procedures for all related modules will be reviewed. This course will include simulated diagnostic exercises to apply the principles learned.

Languages: English

REFRIGERATION SYSTEMS OPERATION AND TESTING — SAC0201SM

This instructor-led training Seminar (SEM) provides technicians an overview of refrigeration system design, operation, and servicing. Emphasis is placed on the skills required to effectively diagnose and service R-134a and R-1234yf Air Conditioning (A/C) systems. The physics of heat transfer, stages of a closed system refrigeration cycle, A/C system components and control devices, and common system failures are discussed from a diagnostics and servicing point of view. Proper and safe usage of A/C system service tools and equipment is covered to ensure the efficient repair of refrigeration systems.

Languages: English

InShop Training

A/C COMPRESSOR REPLACEMENT — SAC0101IS

This 1-hour InShop training session will cover important tips and procedures for replacing A/C compressors to ensure a long service life. Topics include refrigerant operation overview, system contamination, refrigerant identification, flushing procedures, component inspection, refrigerant oil requirements and component replacement procedures.

Languages: English

TechTube Videos

ACTUATOR RECALIBRATION PROCEDURE — S-AC07-01.01VID

This short video will demonstrate how to perform an HVAC actuator recalibration on some GM vehicles.

Languages: English

HVAC ACTUATOR RESET PROCEDURE — S-AC07-02.01VID

This short video will demonstrate how to get an HVAC actuator back in range if it has been run out of its set points.

Languages: English

HFO-1234YF NEW COOLER — S-AC07-03.01VID

This video will share some information about a new A/C refrigerant (R-1234yf) that will be in your shop soon if you haven't already seen it.

Languages: English

A/C REFRIGERANT OILS — S-AC07-04.01VID

This video looks at A/C refrigerant oils and concerns to be aware of, including, why A/C mineral oil 525 should be used to lubricate A/C system o-rings to prevent corrosion of connections.

Languages: English

R-1234YF LEAK DETECTOR — S-AC07-05.01VID

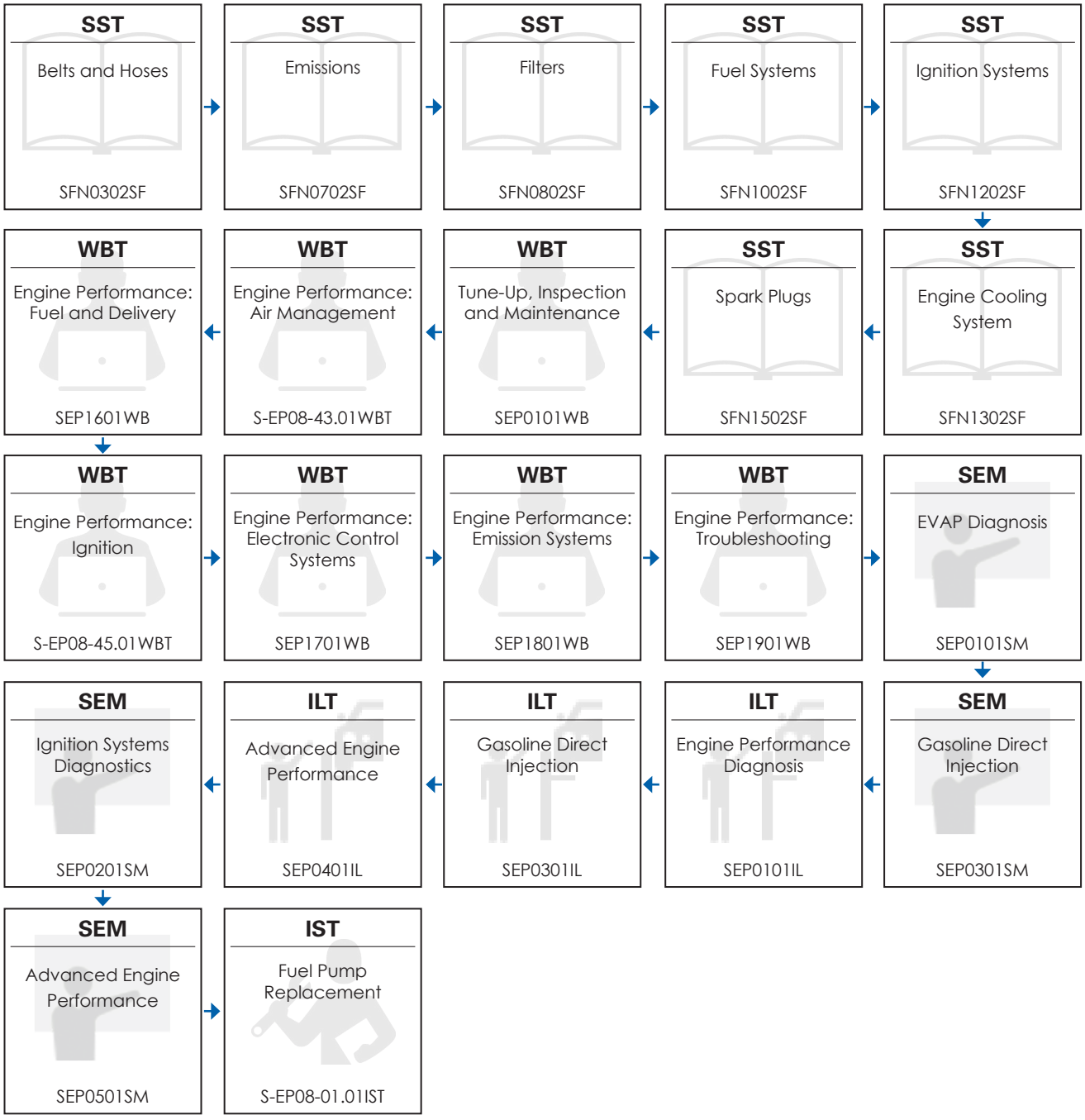
This video shows how to use the R-1234yf leak detector and why you should not use a detector that is not rated for R-1234yf.

Languages: English

A8: ENGINE PERFORMANCE

A recommended path for completing the Engine Performance curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH



A8: ENGINE PERFORMANCE

ADDITIONAL TRAINING

VID	VID	VID	VID	VID
3.6 High Pressure Fuel Pump Replacement	P0420 / P0430 Diagnosis	Diesel Exhaust Treatment Stage 1	Diesel Exhaust Treatment Stage 2	Diesel Exhaust Treatment Stage 3
S-EP08-04.01VID	S-EP08-05.01VID	S-EP08-06.01VID	S-EP08-07.01VID	S-EP08-08.01VID

VID	VID	VID	VID	VID
Throttle Body Replacement	EVAP Flow Test and Smoke Test	Gaskets and Intake Manifolds	Ignition System Testing	Proper Ignition Coil Removal
S-EP08-09.01VID	S-EP08-11.01VID	S-EP08-12.01VID	S-EP08-13.01VID	S-EP08-15.01VID

VID	VID
Fuel Pump Connector Replacement	Fuel Tank Cleaning
S-EP08-18.01VID	S-EP08-19.01VID

Self Study Training

BELTS AND HOSES — SFN0302SF

An explanation of popular automotive belts and hoses design. Includes multi-ribbed serpentine belts, V-belts and engine timing belts. Molded radiator and bypass hoses along with fuel-resistant and specialty hoses will be covered. Hybrid vehicle information as it relates to belts is also explored.

Languages: English

EMISSIONS — SFN0702SF

An explanation of popular automotive emission systems. Includes EVAP Systems, catalytic converters, PCV Valves, air injection systems, secondary air pumps and EGR Valves.

Languages: English

FILTERS — SFN0802SF

An explanation of popular automotive filter designs. Includes construction, identification, and replacement information for air, oil, fuel, transmission, coolant and cabin air filters.

Languages: English

FUEL SYSTEMS — SFN1002SF

An explanation of popular automotive fuel systems. Includes fuel injectors, regulators, Multiport Fuel Injection (MFI) systems and Spark Plug Ignited Direct Injection (SIDI) components.

Languages: English

IGNITION SYSTEMS — SFN1202SF

An explanation of popular automotive ignition systems and high voltage delivery system designs. Includes coils, spark plug wires, spark plugs, primary and secondary circuit components, distributor and distributorless systems.

Languages: English

ENGINE COOLING SYSTEM — SFN1302SF

An explanation of popular automotive cooling system designs. Includes water pumps, radiators, coolants, chemicals, hoses and heater cores. Hybrid vehicle information as it relates to engine cooling system is also explored.

Languages: English

SPARK PLUGS — SFN1502SF

An explanation of popular automotive spark plugs and design. Conventional tip, extended tip, RAPIDFire Platinum, and heat ranges are presented.

Languages: English

Web-Based Training

TUNE-UP, INSPECTION AND MAINTENANCE — SEP0101WB

This WBT provides the general and specific inspection and maintenance procedures for tune ups. The technician will learn how to inspect and identify specific components involved in a tune up. Upon completion of this course, service technicians will be able to identify the types and condition of spark plugs, identify wire inspection procedures, identify the types of coil packs, identify the location of cylinder number 1, and identify the replacement procedures for tune up components.

Languages: English

BI-FUEL SYSTEM OPERATION — S-EP08-29.01WBT

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

A8: ENGINE PERFORMANCE

ENGINE PERFORMANCE: AIR MANAGEMENT — S-EP08-43.01WBT

This course covers the fundamentals of engine performance, including the internal combustion process, air induction, fuel supply, and the exhaust system. The focus is on air management in relation to the internal combustion engine. Topics include atmospheric pressure, volumetric efficiency, components of induction systems, electronic throttle operation, and airflow diagnostics. Upon completion of this course, participants will be able to describe the principles of internal combustion engines and the air management system, including the underlying science, components, electronic throttle control, and intake flow rationality diagnostics.

Languages: English / French

ENGINE PERFORMANCE: IGNITION — S-EP08-45.01WBT

This course presents the characteristics of ignition systems, including the different sections and their functions. Topics cover the operation of the coil-near-plug and coil-on-plug ignition systems. Upon completion of this course, participants will be able to identify basic characteristics of ignition systems, as well as the crankshaft position variation learn procedure.

Languages: English / French

BI-FUEL SYSTEM OPERATION FOR RPO LFR / FHV — S-EP08-85.01WBT

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

ENGINE PERFORMANCE: FUEL AND DELIVERY — SEP1601WB

This course covers the theory and characteristics of fuel management systems in GM vehicles, including the operation of sequential port fuel injection and spark-ignited direct injection. The content covers theory and characteristics of fuel management systems and operation of sequential port fuel injection and spark-ignited direct injection systems.

Languages: English

ENGINE PERFORMANCE: ELECTRONIC CONTROL SYSTEMS — SEP1701WB

This course presents the electronic control systems in GM vehicles in relation to engine performance. Topics include the function of the engine control module, modes of operation, the fundamentals of emission control systems, characteristics of Onboard Diagnostics II (OBD-II), the diagnostics of engine off natural vacuum, the operation of positive crankcase ventilation, and monitoring techniques for emission control systems. Upon completion of this course, participants will be able to describe the characteristics of electronic control systems and emission control systems, along with the techniques for monitoring emission control systems.

Languages: English

ENGINE PERFORMANCE: EMISSION SYSTEMS — SEP1801WB

This course presents topics related to emission systems in GM vehicles. The first module covers emission control systems: the three-way catalyst, enhanced evaporative emission control, engine off natural vacuum, positive crankcase ventilation, and exhaust gas heat recovery. The second module covers the monitoring of emission control systems. Upon completion of this course, technicians will be able to explain emission control systems and describe how emission control systems are monitored.

Languages: English

ENGINE PERFORMANCE: TROUBLESHOOTING — SEP1901WB

This course presents engine performance troubleshooting using strategy-based diagnostics. Topics cover how to diagnose engine performance using external visual inspection, system-based strategy, diagnosis based on Diagnostic Trouble Codes (DTCs), and misfire monitoring. The course also provides information about how to diagnose engine performance support systems, including the air conditioning clutch, communication, theft immobilizer, cooling fan, cruise control, active fuel management, camshaft position actuator, and enhanced electronic pedal override. Upon completion of this course, technicians will be able to describe how to troubleshoot and diagnose engine performance concerns and how to diagnose engine performance support systems.

Languages: English

Instructor-Led Training

ENGINE PERFORMANCE DIAGNOSIS — SEP0101IL

This course focuses on failure modes that contribute most often to misfire and no-start engine performance concerns. Lessons are sequenced in priority order, from issues with the highest fault potential, to systems with the lowest fault potential. This course uses real world scenarios based on vehicles from several manufacturers to focus on various failure modes and related diagnostic procedures.

Languages: English

GASOLINE DIRECT INJECTION — SEP0301IL

This Instructor-led Training course provides an overview of Gasoline Direct Injection (GDI) Fuel System designs, operation, and servicing. Diagnosing and servicing of GDI fuel systems requires an understanding of fuel delivery systems. This course covers the operation of gasoline high-pressure systems and low-pressure systems as related to the GDI system. Direct fuel injectors, fuel control systems and combined direct and port fuel injection systems. Hands-on diagnosis and service procedures using scan tools and special tools required for servicing GDI systems will be performed.

Languages: English

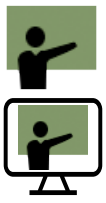
ADVANCED ENGINE PERFORMANCE — SEP0401IL

The Advanced Engine Performance – Air and Fuel Systems instructor-led course provides technicians with comprehensive diagnostic strategies to address complex driveability concerns. Course content focuses on advanced diagnostic methods, including scan tool data analysis and oscilloscope waveform analysis. These diagnostic techniques include using scan tool features such as Diagnostic Trouble Code (DTC) retrieval, sensor and actuator analysis, analysis of ECM generated data such as Short-Term and Long-Term Fuel Trim (STFT / LTFT), and actuator activation tests.

Languages: English

Seminars

EVAP DIAGNOSIS — SEP0101SM



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.

Languages: English

IGNITION SYSTEMS DIAGNOSTICS — SEP0201SM

Diagnosing ignition system misfires can be a difficult task, especially when the concern is intermittent. This seminar will improve the technician's ability to identify the root cause of ignition systems faults. Ignition system components including crank and cam sensors, knock sensors, coils, spark plugs and spark plug wires, computer controlled ignition timing and spark delivery strategies from multiple automobile manufacturers will be covered. Cylinder misfire detection and diagnostic strategies, known malfunctions, real-world case studies and diagnostic exercises will be presented.

Languages: English

GASOLINE DIRECT INJECTION — SEP0301SM

This Instructor-led training Seminar provides an overview of Gasoline Direct Injection (GDI) Fuel System designs, operation, and servicing. Diagnosing and servicing of GDI fuel systems requires an understanding of fuel delivery systems. This course covers the operation of gasoline high-pressure systems and low-pressure systems as related to the GDI system. Direct fuel injectors, fuel control systems and combined direct and port fuel injection systems are covered. Diagnosis and service procedures using scan tools and special tools required for servicing GDI systems will be discussed.

Languages: English

ADVANCED ENGINE PERFORMANCE — SEP0501SM

The Advanced Engine Performance – Air and Fuel Systems seminar provides technicians with alternative methods for diagnosing driveability concerns using scan tool data and oscilloscope waveform analysis. Course content includes using scan tool features to analyze Short-Term and Long-Term Fuel Trims (STFT / LTFT), Single Edge Nibble Transport (SENT) sensor signals, narrow-band and wide-band oxygen sensors and circuits, and fuel system controls / actuators. Oscilloscope setup procedures are covered in depth to obtain waveform measurements and further isolate complex drivability concerns present under various engine operating conditions.

Languages: English

A8: ENGINE PERFORMANCE

InShop Training

FUEL PUMP REPLACEMENT — S-EP08-01.01IST

This 1-hour InShop will cover important tips and procedures for servicing electric in-tank fuel pumps. Topics include fuel tank inspection, importance of a clean tank, installation tips and servicing the electrical connector (pigtail).

Languages: English

TechTube Videos

3.6 HIGH PRESSURE FUEL PUMP REPLACEMENT — S-EP08-04.01VID

This video demonstrates the proper procedure to remove and install the high pressure fuel pump on a 3.6L LLT SIDI engine.

Languages: English

P0420 / P0430 DIAGNOSIS — S-EP08-05.01VID

This video describes conditions to be aware of when diagnosing a P0420 / P0430 catalytic converter efficiency code.

Languages: English

DIESEL EXHAUST TREATMENT STAGE 1 — S-EP08-06.01VID

This video describes the operation of the diesel exhaust aftertreatment system for Duramax engines focusing on the Diesel Oxidation Catalyst (DOC).

Languages: English

DIESEL EXHAUST TREATMENT STAGE 2 — S-EP08-07.01VID

This video describes the operation of the diesel exhaust aftertreatment system for Duramax engines focusing on diesel exhaust fluid and the selective catalyst reduction.

Languages: English

DIESEL EXHAUST TREATMENT STAGE 3 — S-EP08-08.01VID

This video describes the operation of the diesel exhaust aftertreatment system for Duramax engines focusing on the diesel particulate filter.

Languages: English

THROTTLE BODY REPLACEMENT — S-EP08-09.01VID

This video describes how to perform the idle learn reset procedure after replacing a throttle body for GM trucks 2007 and newer, SUVs 2008 and newer with a V-8 engine.

Languages: English

EVAP FLOW TEST AND SMOKE TEST — S-EP08-11.01VID

This video shows the operation of the Evaporative Emission System Tester (EEST) for flow and smoke testing.

Languages: English

GASKETS AND INTAKE MANIFOLDS — S-EP08-12.01VID

This video demonstrates best practices for preparing surfaces for gasket replacement and features of ACDelco gaskets, gaskets sets and intake manifolds.

Languages: English

IGNITION SYSTEM TESTING — S-EP08-13.01VID

This video shows how to perform ignition system testing using a digital multimeter and a spark tester.

Languages: English

PROPER IGNITION COIL REMOVAL — S-EP08-15.01VID

This video shows the proper procedure to remove ignition system coils without damaging them, on GM 1.4, 1.6 or 1.8 liter engines using T-handles or bolts.

Languages: English

FUEL PUMP CONNECTOR REPLACEMENT S-EP08-18.01VID

This video will demonstrate how to properly clean the inside of a fuel tank when replacing an in-tank fuel pump. The focus will be on ensuring debris from the failed pump does not contaminate the new component.

Languages: English

FUEL TANK CLEANING S-EP08-19.01VID

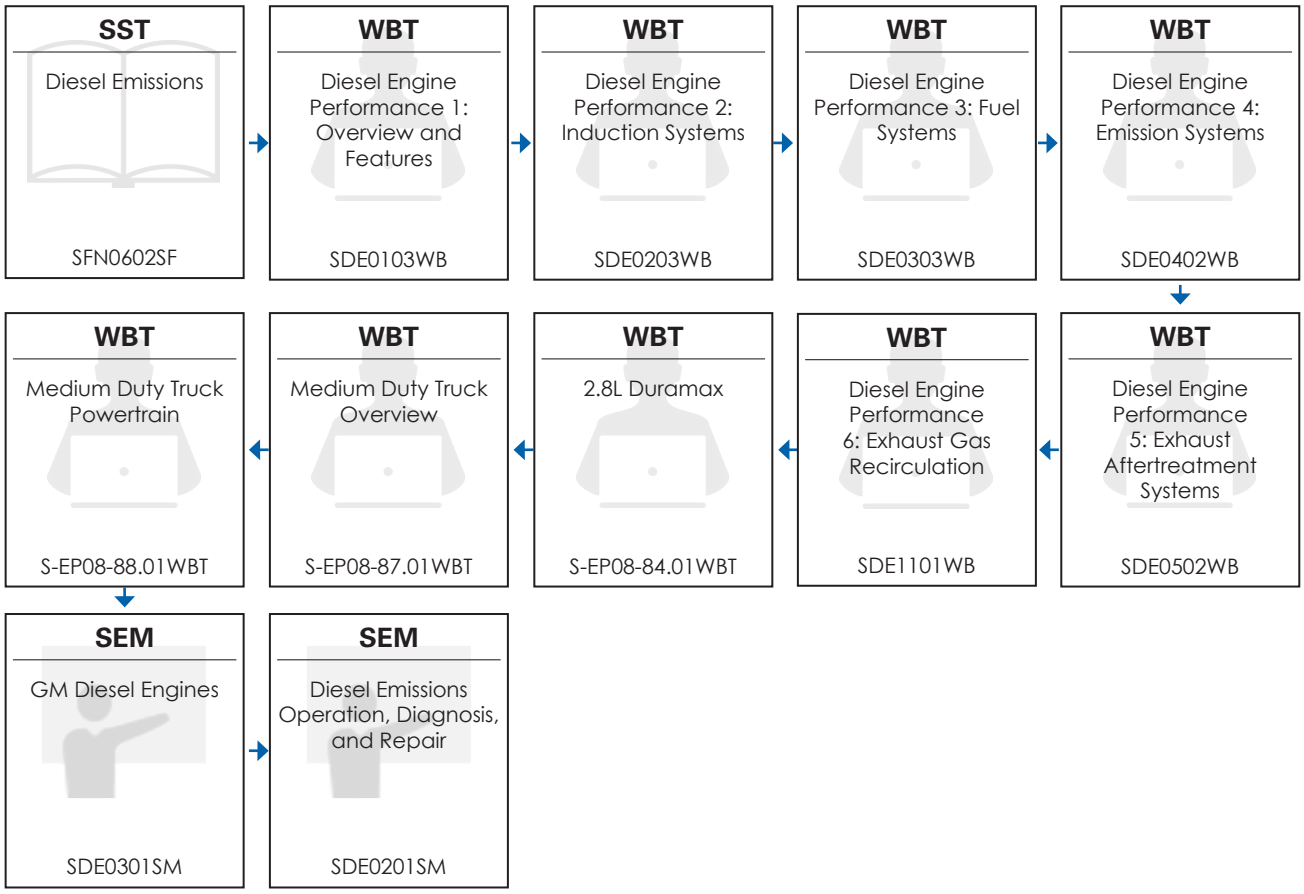
This video will demonstrate the proper way to install the updated fuel pump connector that is required with some ACDelco replacement fuel pumps. This procedure can be used with other ACDelco replacement pigtails.

Languages: English

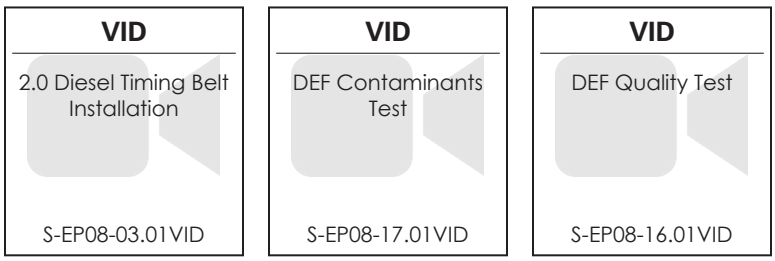
A9: LIGHT DUTY DIESEL

A recommended path for completing the Light Duty Diesel curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH



ADDITIONAL TRAINING



Self Study Training

DIESEL EMISSIONS — SFN0602SF

This self study course covers diesel gas emissions and the technology employed to reduce the exhaust emissions to comply with environmental regulations. Topics will include the function of diesel emission controls, symptoms of malfunctions, and basic maintenance and service checks.

Languages: English

Web-Based Training

DIESEL ENGINE PERFORMANCE 1: OVERVIEW AND FEATURES — SDE0103WB

This course introduces diesel engine principles and operation, including diesel engine features and control systems. Upon completion of this course, participants will be able to recall diesel engine operating principles, diesel engine features, and diesel engine control systems.

Languages: English / French

DIESEL ENGINE PERFORMANCE 2: INDUCTION SYSTEMS — SDE0203WB

This course covers the diesel engine induction system, including induction system components, turbochargers, and exhaust gas recirculation. Upon completion of this course, participants will be able to describe the diesel engine induction system, diesel engine turbochargers, and identify characteristics of diesel exhaust gas recirculation.

Languages: English

DIESEL ENGINE PERFORMANCE 3: FUEL SYSTEMS — SDE0303WB

This course covers the diesel engine fuel supply, including fuel supply types, components, fuel conditioning, and operation. It also covers diesel engine fuel injection types. In addition, this course describes fuel return components and fuel system testing. Upon completing this course, technicians will be able to recall the diesel engine fuel supply and the diesel engine high pressure fuel injection, identify the diesel engine fuel return system, and recall the diesel engine fuel system testing.

Languages: English

DIESEL ENGINE PERFORMANCE 4: EMISSIONS SYSTEMS — SDE0402WB

This course covers the diesel engine's aftertreatment emission system as well as crankcase ventilation systems.

Upon completion of this course, technicians will be able to identify the components and configurations of the diesel engine's aftertreatment emission system. Identify the regeneration process of the diesel emission aftertreatment system. Recall methods of diagnosing the diesel emission system and recognize components and configurations of the crankcase ventilation system.

Languages: English

DIESEL ENGINE PERFORMANCE 5: EXHAUST AFTERTREATMENT SYSTEMS — SDE0502WB

This course covers the diesel exhaust aftertreatment system, including aftertreatment components and operation. It also covers the diesel exhaust fluid systems, Selective Catalytic Reduction (SCR) operation, and service considerations. Upon completion of this course, participants will be able to recall correct diesel exhaust fluid handling procedures. Identify reductant systems and components. Recall the selective catalytic reduction aftertreatment operation and service considerations.

Languages: English

DIESEL ENGINE PERFORMANCE 6: EXHAUST GAS RECIRCULATION — SDE1101WB

This course covers the overview, operation, and diagnosis of the Cylinder Set Strategy (CSS) diesel engine Exhaust Gas Recirculation (EGR) system. Upon completing this course, participants will be able to: recall the purpose and components of the CSS diesel engine Exhaust Gas Recirculation system, identify the stages of operation of the CSS diesel engine Exhaust Gas Recirculation system, and identify diagnostic strategies for the CSS diesel engine Exhaust Gas Recirculation system.

Languages: English

2.8L DURAMAX — S-EP08-84.01WBT

This WBT 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. Upon completion of this course, technicians will be able to identify applications of the 2.8L diesel engine, identify features of the 2.8L diesel engine, identify components of the 2.8L diesel engine, identify service procedures for the 2.8L diesel engine, and identify the aftertreatment system of the 2.8L diesel engine.

Languages: English

A9: LIGHT DUTY DIESEL

MEDIUM DUTY TRUCK OVERVIEW — S-EP08-87.01WBT

This WBT 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. Upon completion of this course, technicians will be able to describe the new / updated aspects of the specifications features, describe the new / updated aspects of the HVAC, power and signal, and drivers information and entertainment system, describe the new / updated aspects of the body systems, safety and security, and describe the new / updated aspects of the suspension, steering, brakes and maintenance.

Languages: English

MEDIUM DUTY TRUCK POWERTRAIN — S-EP08-88.01WBT

This WBT course presents an overview of the powertrain systems found on GM's medium duty trucks. Topics cover the applicable medium duty diesel engines, the diesel exhaust treatment, and the driveline systems as well as service considerations. Upon completion of this course, technicians will be able to recognize the components of the engines in the medium duty truck, recognize the characteristics of the diesel exhaust treatment system in the medium duty truck, and recognize the driveline systems in the medium duty truck.

Languages: English

Seminar

DIESEL EMISSIONS OPERATION, DIAGNOSIS, AND REPAIR — SDE0201SM

This Instructor-led training Seminar provides an overview of system theory, operation, and diagnostics of diesel engine emission and exhaust aftertreatment systems found in modern diesel powered passenger cars and light trucks. Topics covered include diesel engine exhaust emissions, operation of glow plugs and Intake Air Heaters (IAH), Exhaust Gas Recirculation (EGR), Closed Crankcase Ventilation (CCV) systems, intake manifold runner control valves, exhaust aftertreatment system configurations and monitoring, Diesel Oxidation Catalyst (DOC), Diesel Particulate Filters (DPF), Selective Catalytic Reduction (SCR) systems, Diesel Exhaust Fluid (DEF), NOx Adsorber Catalyst (NAC), the importance of service programming, and best practices for reset and learn functions during aftertreatment service and repair. The course also covers diagnostics of glow plugs and IAH concerns, EGR and CCV system faults, intake manifold runner control valve concerns, and DOC, DPF, SCR, DEF, and NAC component and system concerns.

Languages: English

GM DIESEL ENGINES — SDE0301SM

This 3-hour Seminar prepares technicians to diagnose and service General Motors turbocharged diesel engines. The engines covered in this course are the 6.6L L5P, 3.0L LM2 and LZ0, and 2.8L LWN engines. The course includes an overview of the DENSO fuel system used on these diesel engines. The course also covers the components, operation, and diagnosis and service procedures for each diesel engine.

Languages: English

TechTube Videos

2.0 DIESEL TIMING BELT INSTALLATION — S-EP08-03.01VID

This video demonstrates how to service the timing belt on the 2.0L diesel engine.

Languages: English

DEF QUALITY TEST — S-EP08-16.01VID

This video shows how to perform the DEF quality test as directed by service information.

Languages: English

DEF CONTAMINANTS TEST — S-EP08-17.01VID

This video shows how to perform a DEF contaminants test using a refractometer.

Languages: English

A recommended path for completing the Alternative Propulsion curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH

WBT — High Voltage System Safety — SAP0102WB
→ **WBT** — Introduction to Hybrid and Electric Vehicles — SAP0202WB
→ **WBT** — High Voltage Battery Systems Fundamentals — SAP5801WB
→ **WBT** — High Voltage Power Electronics Fundamentals — SAP0302WB
→ **WBT** — High Voltage Battery: Overview - Ultium — SAP0601WB
↓
WBT — Electric Transmission Overview: Ultium — SAP1201WB
← **WBT** — Electric Vehicle Thermal Management System: Overview - Ultium — SAP0701WB
← **WBT** — Battery Systems: 12V Service — SAP0901WB
← **WBT** — High Voltage Disable Procedures — SAP5701WB
← **WBT** — Electric Vehicle High Voltage Charging — SAP5901WB
↓
WBT — Rear Wheel Steering - Electric Vehicles — SAP5202WB
→ **SEM** — Hybrid Vehicle Maintenance Procedures — SAP0101SM
→ **SEM** — Hybrid and Electric Vehicle Operation, Diagnosis, and Repair — SAP0201SM
→ **IST** — Hybrid and Electric Vehicle Operation, Diagnosis, and Repair — SAP0101IS
→ **WBT** — Hybrid Electric Vehicle Collision Protocols — SAP6001WB
↓
WBT — High Voltage Battery Handling and Shipment — SAP6101WB

Gen 1 Volt and Gen 2 Volt

WBT — Extended Range Electric Vehicle: Introduction - Gen 1 Chevrolet Volt — SAP1401WB

WBT — Extended Range Electric Vehicle: Introduction - Gen 1 Cadillac ELR — SAP1501WB

WBT — Extended Range Electric Vehicle: High Voltage Disable Procedure - Gen 1 Volt / ELR — SAP1601WB

WBT — High Voltage Battery: Overview 1 - Gen 1 Volt / ELR — SAP1701WB

WBT — High Voltage Battery: Overview 2 - Gen 1 Volt / ELR — SAP1801WB

WBT — High Voltage Power Electronics: Overview - Gen 1 Volt / ELR — SAP1901WB

WBT — Electric Transmission: 4ET50 Overview - Volt / ELR (EREV) — SAP2001WB

WBT — Extended Range Electric Vehicle: Supporting Systems 1 - Gen 1 Volt / ELR — SAP2101WB

WBT — Extended Range Electric Vehicle: Supporting Systems 2 - Gen 1 Volt / ELR — SAP2201WB

L3: ALTERNATIVE PROPULSION

WBT	WBT	WBT
Extended Range Electric Vehicle: Introduction - Gen 2 Chevrolet Volt	High Voltage Battery: Overview - Gen 2 Volt	Electric Transmission: 5ET50 Overview - Gen 2 Volt
SAP2301WB	SAP2401WB	SAP2501WB

BEV Spark

WBT	WBT	WBT	WBT
Battery Electric Vehicle: Introduction - Chevrolet Spark EV	High Voltage Battery: Gen 1 Overview - Spark EV	High Voltage Battery: Gen 2 Overview - Spark EV (BEV)	Electric Transmission: 1ET35 Overview - Spark EV (BEV)
SAP2601WB	SAP2701WB	SAP2801WB	SAP2901WB

BEV Bolt

WBT	WBT	WBT
Battery Electric Vehicle Introduction 2	High Voltage Battery: Overview - Bolt EV (BEV 2)	Advanced Technology Vehicle Transmission 5: Chevrolet Bolt 1ET25
S-EL06-80.01WBT	SAP3001WB	S-EL06-89.01WBT

HEV Malibu

WBT	WBT	WBT
Electric Transmission: 5ET50 Overview - Malibu	Hybrid Electric Vehicle: Introduction - Chevrolet Malibu	High Voltage Battery: Overview - Malibu
SAP3101WB	SAP3201WB	SAP3301WB

PHEV CT6

WBT	WBT	WBT
Plug-in Hybrid Electric Vehicle: Introduction - Cadillac CT6	High Voltage Battery: Overview - CT6	Electric Transmission: 4EL70 Overview - CT6
SAP3401WB	SAP3501WB	SAP3601WB

eAssist – Gen 1, Gen 2, and Gen 3

WBT
eAssist System Gen 1: Introduction 1 - Buick LaCrosse / Chevrolet Malibu
SAP3701WB

WBT
eAssist System Gen 1: Introduction 2 - Buick LaCrosse / Chevrolet Malibu
SAP3801WB

WBT
High Voltage Battery: Overview - Gen 1 eAssist
SAP3901WB

WBT
eAssist System Gen 1: Safety
SAP4001WB

WBT
eAssist System Gen 2: Introduction - Chevrolet Silverado / GMC Sierra
SAP4101WB

WBT
High Voltage Battery: Overview - Gen 2 eAssist
SAP4201WB

WBT
eAssist System Gen 3: Introduction - Buick LaCrosse / Chevrolet Malibu
SAP4301WB

WBT
High Voltage Battery: Overview - Gen 3 eAssist
SAP4401WB

GMC Hummer EV

WBT
Battery Electric Vehicle: Introduction – GMC HUMMER EV
SAP4801WB

WBT
High Voltage Battery: Overview – GMC HUMMER EV
SAP4901WB

WBT
Electric Drive Transmission: P79 / S8L Overview – GMC HUMMER EV
SAP5001WB

WBT
Electric Vehicle Thermal Management System – GMC HUMMER EV
SAP5101WB

Cadillac LYRIQ

WBT
Battery Electric Vehicle: Introduction - Cadillac LYRIQ
SAP5301WB

WBT
High Voltage Battery: Overview - Cadillac LYRIQ
SAP5401WB

WBT
Electric Drive Transmission: P77 Overview - Cadillac LYRIQ
SAP5501WB

WBT
Electric Vehicle Thermal Management System - Cadillac LYRIQ
SAP0501WB

Silverado / Blazer

WBT
Battery Electric Vehicle: Introduction - Silverado EV
SAP0801WB

WBT
Battery Electric Vehicle: Introduction - Blazer EV
SAP1001WB

L3: ALTERNATIVE PROPULSION

Equinox

WBT

Battery Electric Vehicle: Introduction - Equinox EV

SAP1301WB

Corvette

WBT

Battery Electric Vehicle: Introduction - Corvette E-Ray

SAP1101WB

Additional Training

VOD

Electric Transmission: 1ET25 Unit Repair - Bolt EV

SAP0101VO

VOD

High Voltage Battery: Replacement Procedure - Cadillac LYRIQ

SAP0201VO

VOD

High Voltage Battery: Replacement Procedure - GMC HUMMER EV

SAP0301VO

VOD

Silverado EV Work Truck New Model Launch

SAP0401VO

VOD

Electric Vehicles: New & Updates Video

SAP0501VO

Web-Based Training

HIGH VOLTAGE SYSTEM SAFETY — SAP0102WB

This course will introduce participants to the high voltage systems safety used in GM vehicles. This course focuses on hybrid safety, preparation for a safe working environment, personal protective equipment, best practices, tools, disabling high voltage systems, internal battery service, and first responder guides. Upon completion of this course, participants will be able to identify the characteristics of a high voltage system, identify the steps for preparing a safe working environment, identify personal protective equipment functions, identify three best practices for working with high voltage systems, identify high voltage systems safety tools, describe the steps on how to disable high voltage systems safely, describe the steps for internal battery service, and describe how to use the first responder guides.

Languages: English

INTRODUCTION TO HYBRID AND ELECTRIC VEHICLES — SAP0202WB

This course introduces the concept, design, and a brief history of hybrid and electric vehicle technology within General Motors. It also covers electrical energy storage, transfer, and general concepts that are commonly used in electric vehicles. In addition, this course discusses the characteristics of hybrid controls. Upon completion of this course, participants will be able to recall the background of the development of hybrid and electric vehicles, recall the characteristics of electrical energy, identify electrical energy storage, delivery, and transfer systems, and identify the characteristics of hybrid control.

Languages: English

HIGH VOLTAGE POWER ELECTRONICS FUNDAMENTALS — SAP0302WB

This web-based course provides an overview of power electronics and electronic motor controllers. Upon completing this course, the technician will be able to identify the purpose of power electronics and thermal management characteristics. The technician will also be able to recall motor/generator functions, electrical motor theory, purpose and components of motor position sensors, and identify thermal management characteristics. Also be able to recall electrical power inversion characteristics, rectification characteristics, and power conversion characteristics.

Languages: English

ELECTRIC VEHICLE THERMAL MANAGEMENT SYSTEM - CADILLAC LYRIQ — SAP0501WB

This course describes the thermal management system of the 2023 Cadillac LYRIQ, designed to support occupant comfort, energy optimization and drive quality. Upon completion of this course, EV technicians will be able to recognize the purpose and benefits of the Cadillac LYRIQ thermal management system, identify key components of the Cadillac LYRIQ coolant system, and recall operation, and identify key components of the Cadillac LYRIQ refrigerant system.

Languages: English

HIGH VOLTAGE BATTERY: OVERVIEW - ULTIUM — SAP0601WB

This course provides foundational detail specific to the Ultium drive motor battery assembly. This course introduces Ultium battery characteristics and components, thermal management, and diagnosis and service procedures. Upon completing this course, participants will be able to identify Ultium battery characteristics and components, thermal management characteristics, and diagnosis and service procedures.

Languages: English

ELECTRIC VEHICLE THERMAL MANAGEMENT SYSTEM: OVERVIEW - ULTIUM — SAP0701WB

This course provides an overview of the 2023 Ultium Electric Vehicle thermal management system. Upon completion of this course, the technician will be able to recall fundamental features and components of the 2023 Ultium Electric Vehicle thermal management system. They will be able to recognize the purpose and benefits of the thermal management system, identify key components of the coolant system and recall its operation, and identify key components of the refrigerant system and recall its operation.

Languages: English

BATTERY ELECTRIC VEHICLE: INTRODUCTION - SILVERADO EV — SAP0801WB

This course provides an overview of the key features, characteristics, and components of the various systems of the 2024 Chevrolet Silverado EV. Upon completion of this course, technicians will be able to identify the characteristics and special features of the Silverado EV Battery electric Vehicle (BEV), the various components and safety precautions of the BEV high voltage systems, the characteristics and components of the BEV supporting systems, and be able to describe the operation of the Silverado EV BEV selectable modes and passive power moding.

Languages: English

L3: ALTERNATIVE PROPULSION

BATTERY SYSTEMS: 12V SERVICE — SAP0901WB

This course provides an overview of the 12V charging system, including its components, the types of batteries used in the electric vehicles, and the procedures for the removal and installation of the 12V battery. In addition, it provides an overview of the vehicle charging system.

Languages: English

BATTERY ELECTRIC VEHICLE: INTRODUCTION - BLAZER EV — SAP1001WB

This course provides an overview of the key features, characteristics, and components of the various systems within the 2024 Chevrolet Blazer Battery Electric Vehicle (BEV). Upon completing this course, technicians will be able to identify the characteristics and special features of the Chevrolet Blazer BEV. They will also be able to describe the high-voltage system, vehicle support system, and the different BEV operation modes.

Languages: English

BATTERY ELECTRIC VEHICLE: INTRODUCTION - CORVETTE E-RAY — SAP1101WB

This course provides an overview of key features, characteristics, and components of the various systems within the in the 2024 Chevrolet Corvette E-Ray Battery Electric Vehicle (BEV). The content covers the following topic areas Hybrid System, Propulsion, and Hybrid System operation.

Languages: English

ELECTRIC TRANSMISSION OVERVIEW: ULTIUM — SAP1201WB

The Electric Transmission Overview: Ultium course provides a high-level overview of the single and dual motor electric transmissions. In addition to discussing the components that makeup the transmission, the safety precautions that must be kept while working on the transmissions are discussed. This course ensures that technicians can identify the components and safely work on the vehicle.

Languages: English

BATTERY ELECTRIC VEHICLE: INTRODUCTION - EQUINOX EV — SAP1301WB

This course provides an overview of the key features, characteristics, and components of the various systems within the 2024 Chevrolet Equinox Battery Electric Vehicle (BEV). Upon completion of this course, the technician will be able to identify the characteristics and special features of the Chevrolet Equinox BEV. Describe the high-voltage systems of the Chevrolet Equinox BEV, the vehicle support systems, and the different BEV operation modes.

Languages: English

EXTENDED RANGE ELECTRIC VEHICLE: INTRODUCTION - GEN 1 CHEVROLET VOLT — SAP1401WB

This course introduces Extended Range Electric Vehicles (EREVs), and covers the key features, components, modes of operation, and characteristics of the electrical and charging systems. It also covers vehicle communication and high voltage interlock circuit systems, as well as the diagnostic process and safety precautions. Upon completion of this course, technicians will be able to identify the key features of extended range electric vehicles, identify the components and modes of operation, identify the characteristics of the electrical system and the types and characteristics of the vehicle communication system, identify the characteristics of the charging system, identify the characteristics of the high voltage interlock circuits, and identify the diagnostic process and safety precautions.

Languages: English / French

EXTENDED RANGE ELECTRIC VEHICLE: INTRODUCTION - GEN 1 CADILLAC ELR — SAP1501WB

This course provides an introduction to the Cadillac ELR, including exterior and interior features, characteristics, and components. Exterior features covered include driving modes, Regen On Demand, dimensions and specifications, aerodynamic features, wheels and tires, and lighting. Vehicle components covered include the high voltage battery, charging system, transmission, engine, electric power steering system, suspension system, and braking system. Interior features covered include seating, lighting, driver information center and instrument panel cluster, driver selectable modes, safety features, and the center stack display.

Upon completion of this course, technicians will be able to recall Cadillac ELR exterior and interior features, components, and characteristics.

Languages: English

EXTENDED RANGE ELECTRIC VEHICLE: HIGH VOLTAGE DISABLE PROCEDURE - GEN 1 VOLT / ELR — SAP1601WB

This course covers the step-by-step procedure to safely disable the high voltage system within an Extended Range Electric Vehicle (EREV). Upon completion of this course, technicians will be able to identify the high voltage system disable procedure.

Languages: English / French

HIGH VOLTAGE BATTERY: OVERVIEW 1 - GEN 1 VOLT / ELR SAP1701WB

This course covers the high voltage energy storage system. It also covers drive motor battery characteristics and drive motor battery component characteristics. Upon completion of this course, technicians will be able to identify the characteristics and operation of the drive motor battery and identify characteristics of the drive motor battery components.

Languages: English / French

HIGH VOLTAGE BATTERY: OVERVIEW 2 - GEN 1 VOLT / ELR SAP1801WB

This course covers the high voltage energy storage system. In this course, participants should be able to identify the thermal management system characteristics and operation, and the characteristics and troubleshooting process for the integrated charger. Upon completion of this course, technicians will be able to identify the characteristics and operation of the thermal management system and identify the characteristics and troubleshooting process for the high voltage battery charger.

Languages: English / French

HIGH VOLTAGE POWER ELECTRONICS: OVERVIEW - GEN 1 VOLT / ELR SAP1901WB

This course covers the power electronics found in advanced technology vehicles. It includes the correct operation of the drive motor generator power inverter module and accessory Direct Current (DC) power module, as well as the characteristics and correct operation of their thermal management systems. Upon completion of this course, technicians will be able to identify the correct operation of the drive motor generator power inverter module and thermal management system and identify the correct operation of the accessory DC power control module and thermal management system.

Languages: English / French

ELECTRIC TRANSMISSION: 4ET50 OVERVIEW - VOLT / ELR (EREV) SAP2001WB

This course covers the 4ET50 transmission including the transmission characteristics and modes of operation, mechanical and electrical system characteristics, and the fluid flow and power flow for each mode of operation. Upon completion of this course, technicians will be able to identify the characteristics and modes of operation of the 4ET50 transmission, recall mechanical and electrical system characteristics of the 4ET50 transmission, and recall the correct fluid flow and power flow for each operating mode of the 4ET50 transmission.

Languages: English / French

EXTENDED RANGE ELECTRIC VEHICLE: SUPPORTING SYSTEMS 1 - GEN 1 VOLT / ELR SAP2101WB

This course covers the unique characteristics of the 1.4L engine, as well as the fuel and evaporative emissions control systems including the refueling process. Upon completion of this course, technicians will be able to identify the characteristics and modes of operation of the 1.4L engine and identify the characteristics and operation of the fuel and evaporative emissions control systems.

Languages: English / French

EXTENDED RANGE ELECTRIC VEHICLE: SUPPORTING SYSTEMS 2 - GEN 1 VOLT / ELR SAP2201WB

This course covers the unique characteristics of the braking system including regenerative braking capabilities and modes of operation. This course also covers the unique characteristics of the Heating, Ventilation, and Air Conditioning (HVAC) system, including the high voltage heater, electric air conditioning compressor and drive motor battery coolant cooler. Upon completion of this course, technicians will be able to identify the characteristics and operation of the braking system and identify the characteristics and operation of the heating ventilation and air conditioning system.

Languages: English / French

EXTENDED RANGE ELECTRIC VEHICLE: INTRODUCTION - GEN 2 CHEVROLET VOLT SAP2301WB

This course introduces the second generation (Gen 2) Extended Range Electric Vehicle (EREV), which includes the Chevrolet Volt. The course presents the vehicle's characteristics, components, and operation. The course also provides information on the EREV's electrical and communication systems, as well as its charging, fuel, and braking systems. Upon completion of this course, technicians will be able to identify features of the Gen 2 EREV, describe the components and modes of operation, describe the electrical and communication systems, identify characteristics of the charging system, identify characteristics of the fuel system, and identify characteristics of the braking system.

Languages: English / French

HIGH VOLTAGE BATTERY: OVERVIEW - GEN 2 VOLT SAP2401WB

This course covers the Generation 2 Extended Range Electric Vehicle (EREV) high voltage energy storage system. This content includes the drive motor battery assembly characteristics, drive motor battery components, thermal management system characteristics and operation, and diagnosis and service of the drive motor battery. Upon completion of this course, technicians will be able to recall components of the drive motor battery assembly, recall the operation of the drive motor battery, recall the operation of the thermal management system, and recall how to diagnose and service the drive motor battery.

Languages: English / French

L3: ALTERNATIVE PROPULSION

ELECTRIC TRANSMISSION: 5ET50 OVERVIEW - GEN 2 VOLT SAP2501WB

This course covers the 5ET50 transmission including the transmission characteristics and modes of operation, mechanical and electrical system characteristics, and the fluid flow and powerflow for each mode of operation. Upon completion of this course, technicians will be able to recognize the characteristics and modes of operation for the 5ET50 transmission, recognize the mechanical and electrical system characteristics of the 5ET50 transmission, and recognize the correct fluid flow and power flow for each operating mode of the 5ET50 transmission.

Languages: English / French

BATTERY ELECTRIC VEHICLE: INTRODUCTION - CHEVROLET SPARK EV SAP2601WB

This course provides an introduction to the battery electric vehicle. 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. Upon completion of this course, technicians will be able to recall the key characteristics and features of the battery electric vehicle, identify characteristics and components of the battery electric vehicle high voltage systems, identify characteristics and components of the battery electric vehicle supporting systems, recall characteristics of battery electric vehicle operation, and recall battery electric vehicle service procedures.

Languages: English

HIGH VOLTAGE BATTERY: GEN 1 OVERVIEW - SPARK EV SAP2701WB

This course covers the battery electric vehicle 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. Upon completion of this course, technicians will be able to recall the characteristics and operation of the drive motor battery, recall characteristics, components, and operation of the drive motor battery components, and recall the characteristics, components, and operation of the thermal management system.

Languages: English

HIGH VOLTAGE BATTERY: GEN 2 OVERVIEW - SPARK EV (BEV) SAP2801WB

This WBT course provides a description of the specifications, components, configuration, connections, and function of the drive motor battery for the 2015 Spark EV (Electric Vehicle). The content of the course covers service procedures and cautions, as well as the associated parts of the drive motor battery system. Upon completion of this course, technicians will be able to identify the function and specifications of the drive motor battery, describe the components, configuration, and associated parts of the drive motor battery, and describe the service techniques and special tools associated with the drive motor battery.

Languages: English

ELECTRIC TRANSMISSION: 1ET35 OVERVIEW - SPARK EV (BEV) SAP2901WB

This 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. Upon completion of this course, technicians will be able to recall characteristics and components of the 1ET35 transmission, identify modes of operation of the 1ET35 transmission, and recall service procedure tips for the 1ET35 transmission.

Languages: English

HIGH VOLTAGE BATTERY: OVERVIEW - BOLT EV (BEV 2) SAP3001WB

This course presents the high voltage energy storage systems in the latest battery electric vehicle from General Motors: the 2017 Chevrolet Bolt EV. The course covers characteristics and components of the drive motor battery, the associated thermal management system, and service procedures. Upon completion of this course, participants will be able to identify characteristics and components of the drive motor battery assembly, recall components and operation of the battery's thermal management system, and recall diagnosis and service procedures for the drive motor battery.

Languages: English

L3: ALTERNATIVE PROPULSION

ELECTRIC TRANSMISSION: 5ET50 OVERVIEW - MALIBU SAP3101WB

This course presents the characteristics of the 5ET50 transmission, which is part of the hybrid electric Chevrolet Malibu. Topics cover the electrical and mechanical components of the transmission, along with its modes of operation, including the hydraulic fluid flow and mechanical power flow for each mode. Upon completion of this module, technicians will be able to recognize characteristics and operating modes of the 5ET50 transmission, mechanical and electrical system components of the 5ET50 transmission, and fluid flow and power flow for each operating mode of the 5ET50 transmission.

Languages: English / French

HYBRID ELECTRIC VEHICLE: INTRODUCTION - CHEVROLET MALIBU SAP3201WB

This course introduces the hybrid electric vehicle system found in the Chevrolet Malibu. The course also provides information on the hybrid electric vehicle's components and modes of operation, as well as its electrical and communication systems and braking system. Upon completion of this course, participants will be able to identify the key features of the 2016 hybrid electric vehicle system, recall the components and modes of operation, describe the electrical and communication systems, and identify characteristics of the braking system.

Languages: English / French

HIGH VOLTAGE BATTERY: OVERVIEW - MALIBU SAP3301WB

This course presents a description of the 288-volt, lithium-ion high voltage battery found in hybrid electric vehicles such as the Chevrolet Malibu. Topics cover the battery's main components, and the steps to disconnect the high voltage battery for service. Upon completion of this course, participants will be able to recognize the characteristics and components of the high voltage battery assembly.

Languages: English / French

PLUG-IN HYBRID ELECTRIC VEHICLE: INTRODUCTION - CADILLAC CT6 SAP3401WB

This course introduces the 2017 Cadillac CT6 plug-in hybrid electric vehicle. Topics cover characteristics and components related to the vehicle's high voltage systems and supporting systems such as climate control and braking. Upon completion of this module, technicians will be able to recognize identify key characteristics and features, recall high voltage systems, and identify supporting systems.

Languages: English / French

HIGH VOLTAGE BATTERY: OVERVIEW - CT6 SAP3501WB

This course presents the high voltage energy storage systems in the latest Plug-in Hybrid Electric Vehicle (PHEV) from General Motors: the 2017 Cadillac CT6 PHEV. The course covers characteristics and components of the lithium-ion drive motor battery, thermal management system, and an overview of service procedures, including special tools. Upon completion of this course, technicians will be able to identify characteristics and components of the drive motor battery assembly, recall components and operation of the battery's thermal management system, and recall diagnosis and service procedures, including special tools.

Languages: English / French

ELECTRIC TRANSMISSION: 4EL70 OVERVIEW - CT6 SAP3601WB

This course covers the features and operation of the 4EL70 transmission. Those features include transmission specifications, components and their operation, drive modes, diagnostics, and towing methods. Upon completion of this course, technicians will be able to identify the 4EL70 transmission features and operation.

Languages: English / French

eASSIST SYSTEM GEN 1: INTRODUCTION 1 - BUICK LACROSSE / CHEVROLET MALIBU SAP3701WB

This course covers the characteristics of the eAssist system and the impact the system has on the drive cycle. Upon completion of this course, technicians will be able to recall the characteristics of the eAssist system.

Languages: English / French

eASSIST SYSTEM GEN 1: INTRODUCTION 2 - BUICK LACROSSE / CHEVROLET MALIBU SAP3801WB

This course covers the components, operation, and servicing of the eAssist system. Components discussed include the starter generator, liquid cooling system, accessory drive belt system, high voltage battery assembly, and supporting systems. Upon completion of this course, technicians will be able to identify the components, and recall the operation and service procedures of the eAssist system.

Languages: English / French

L3: ALTERNATIVE PROPULSION

HIGH VOLTAGE BATTERY: OVERVIEW - GEN 1 eASSIST SAP3901WB

This course covers the components, characteristics, and operation of the eAssist generator control and battery module assembly and the external cooling system. Upon completion of this course, technicians will be able to identify the eAssist generator control and battery module assembly components, recall the generator battery assembly components and characteristics, identify the generator control module characteristics and functions, and recall the battery cooling system components, characteristics, and operation.

Languages: English / French

eASSIST SYSTEM GEN 1: SAFETY SAP4001WB

This course covers high voltage safety precautions and eAssist service procedures, including the disabling and enabling procedures. Upon completion of this course, technicians will be able to identify high voltage safety and service procedures and identify the high voltage disabling and enabling procedures.

Languages: English / French

eASSIST SYSTEM GEN 2: INTRODUCTION - CHEVROLET SILVERADO / GMC SIERRA SAP4101WB

This course introduces the eAssist System and will describe the cooling systems, generator control module, and motor generator, including their operation. Upon completion of this course, technicians will be able to describe overall features, drive cycle features, and motor generator unit components and operation.

Languages: English / French

HIGH VOLTAGE BATTERY: OVERVIEW - GEN 2 eASSIST SAP4201WB

This course covers the eAssist battery storage system 2. This content includes the eAssist components and operation of the drive motor battery assembly and the operation of the thermal management system. Upon completion of this course, technicians will be able to recall the components of the generator and battery and recall the battery pack components and functions.

Languages: English / French

eASSIST SYSTEM GEN 3: INTRODUCTION - BUICK LACROSSE / CHEVROLET MALIBU SAP4301WB

This course presents the eAssist technology contained in the 2018 Buick LaCrosse. Topics include the eAssist drive cycle, the cooling system for power electronics, and the components and operation of the drive motor and the drive belt. Upon completion of this course, participants will be able to describe the eAssist technology in the 2018 Buick LaCrosse features, components, and operation.

Languages: English / French

HIGH VOLTAGE BATTERY: OVERVIEW - GEN 3 eASSIST SAP4401WB

This course covers the eAssist Battery Storage System 3. The content includes the eAssist components, the operation of the drive motor battery assembly, and the operation of the thermal management system. Upon completion of this course, technicians will be able to describe the eAssist battery system and identify the generator battery components and functions.

Languages: English / French

BATTERY ELECTRIC VEHICLE: INTRODUCTION – GMC HUMMER EV SAP4801WB

This course covers the various components of the high voltage systems, the supporting Battery Electric Vehicle (BEV) systems, and vehicle operation of the 2022 GMC HUMMER EV.

Languages: English

HIGH VOLTAGE BATTERY: OVERVIEW – GMC HUMMER EV SAP4901WB

This course presents an overview of the high voltage battery in the 2022 GMC HUMMER Electric Vehicle (EV). This high voltage battery is also known as the hybrid/EV battery pack. Topics include the high voltage battery's characteristics, components, thermal management, and diagnosis and service.

Languages: English

ELECTRIC DRIVE TRANSMISSION: P79 / S8L OVERVIEW – GMC HUMMER EV SAP5001WB

This course covers the front and rear electric drive transmissions of the 2022 GMC HUMMER Electric Vehicle (EV). The content covers the following topic areas: the P79 rear 2-motor electric drive transmission, S8L front 1-motor electric drive transmission, and service considerations.

Languages: English

ELECTRIC VEHICLE THERMAL MANAGEMENT SYSTEM – GMC HUMMER EV SAP5101WB

This course describes the thermal management system of the 2022 GMC HUMMER EV, designed to support occupant comfort, energy optimization, and drive quality. The content covers the following topic areas: the EV thermal management overview, coolant system, and refrigerant system.

Languages: English

REAR WHEEL STEERING - ELECTRIC VEHICLES SAP5202WB

Electric vehicle systems today have become more complex than ever before with the variations in steering technology and module control of steering systems. This course will help you understand the different rear wheel steering systems and rear steering service considerations you would need as a technician. Upon completing this course, the technician will be able to describe the rear wheel steering systems, identify the rear wheel steering components, and recall the rear steering service considerations.

Languages: English

BATTERY ELECTRIC VEHICLE: INTRODUCTION – CADILLAC LYRIQ SAP5301WB

This course covers the various components of the high voltage systems, supporting Battery Electric Vehicle (BEV) systems, and vehicle operation of the 2023 Cadillac LYRIQ. Upon completion of this course, technicians will be able to identify the characteristics and special features of the LYRIQ BEV system, identify the various components and safety precautions of the BEV high voltage systems, and identify the characteristics and components of the BEV supporting systems.

Languages: English

HIGH VOLTAGE BATTERY: OVERVIEW - CADILLAC LYRIQ SAP5401WB

This course presents an overview of the high voltage battery in the 2023 Cadillac LYRIQ Electric Vehicle (EV). This high voltage battery is also known as the hybrid/EV battery pack. This course provides a description of the high voltage battery in the Cadillac LYRIQ. Upon completion of this course, Technicians should be able to identify the characteristics and components, identify the thermal management system, and identify the diagnosis and service procedures.

Languages: English

ELECTRIC DRIVE TRANSMISSION: P77 OVERVIEW - CADILLAC LYRIQ SAP5501WB

This course covers key aspects and service considerations of the P77 Electric Drive Transmission of the 2023 Cadillac LYRIQ. Upon completion of this course, technicians will be able to identify the characteristics and components of the P77 Electric Drive Transmission and identify the service considerations of the P77 Electric Drive transmission.

Languages: English

HIGH VOLTAGE DISABLE PROCEDURES SAP5701WB

This course presents the general procedures for disabling and enabling the high voltage battery in a GM hybrid or Electric Vehicle (EV). Upon completion of this course, technicians will be able to identify how to disable the high voltage battery and how to enable the high voltage battery.

Languages: English

HIGH VOLTAGE BATTERY SYSTEMS FUNDAMENTALS SAP5801WB

This course covers the features of the global hybrid and electric vehicle high voltage battery systems. It provides the fundamentals of high battery voltage construction, control modules, thermal management, contactors, manual disconnect features, chassis isolation, and safety features. Upon completing this course, participants will be able to recall the fundamentals of high voltage battery construction, high voltage control and monitoring, and the fundamental safety features of high voltage batteries.

Languages: English

ELECTRIC VEHICLE HIGH VOLTAGE CHARGING SAP5901WB

This course provides information about high voltage charging in a GM Electric Vehicle (EV). The course covers charging system components and types, charging stations, and communication. The course covers charging levels such as onboard charging (Level 1 and Level 2) and Direct Current (DC) fast charging, as well as the charging operation and characteristics in Ultium EVs and the Bolt EV. Finally, technicians learn about charging indicators, scheduling, and issues. Upon completion of this course, technicians will be able to identify charging components and communication, the characteristics of battery charging in Ultium EVs and the Bolt EV, and charging indicators, scheduling, and issues.

Languages: English

L3: ALTERNATIVE PROPULSION

HYBRID ELECTRIC VEHICLE COLLISION PROTOCOLS — SAP6001WB

This course provides an overview of the collision protocols for Hybrid/Electric Vehicles (EVs) and their importance. Upon completing this course, the technician will be able to recall high voltage safety precautions, key elements of high voltage system inspection, and the steps for high voltage vehicle inspection. Technicians will also be able to describe high voltage collision repair best practices.

Languages: English

HIGH VOLTAGE BATTERY HANDLING AND SHIPMENT — SAP6101WB

This course provides an overview of the high voltage battery handling and shipment protocols and their importance. Upon completing this course, the technician will be able to recall the high voltage battery handling while removed from vehicle protocols, the steps in preparing a high voltage battery for shipment, and the high voltage battery shipment protocols.

Languages: English

BATTERY ELECTRIC VEHICLE INTRODUCTION 2 — S-EL06-80.01WB

This course provides an introduction to the 2017 Bolt EV battery electric vehicle. It covers key features, characteristics, and components of high voltage vehicle systems and supporting systems. The high voltage vehicle systems covered include the propulsion system, thermal management system, and charging system. Supporting systems covered include the climate control system and the braking system. This course also discusses modes of operation and safe work practices.

Languages: English / French

ADVANCED TECHNOLOGY VEHICLE TRANSMISSION 5: CHEVROLET BOLT 1ET25 — S-EL06-89.01WBT

This WBT course provides technical information on the 1ET25 transmission, which is a key component of the electric Chevrolet Bolt. Topics included are the transmission's electrical and mechanical components, modes of operation, electronic transmission range select, and service tips. Upon completion of this course, technicians will be able to identify characteristics and mechanical components specific to the 1ET25 transmission, identify electrical components of the 1ET25 transmission, identify the transmission cooling methods, fluid type and capacity related to the 1ET25 transmission, identify modes of operation performed by the 1ET25 transmission, and identify service tips related to the 1ET25 transmission.

Languages: English / French

COMPRESSED NATURAL GAS (CNG) FUEL SYSTEMS — S-EP08-23.01WBT

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

BI-FUEL SYSTEM OPERATION — S-EP08-29.01WBT

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

Seminars

HYBRID VEHICLE MAINTENANCE PROCEDURES — SAP0101SM

This course will focus on maintenance service procedures that aftermarket technicians can perform on hybrid electric vehicles. Participants will receive a high-level overview of the operation of hybrid components, related safety concerns, and serviceable systems. These include high voltage system operation, supporting systems such as HVAC and brake systems, and internal combustion engine.

Languages: English

HYBRID AND ELECTRIC VEHICLE OPERATION, DIAGNOSIS, AND REPAIR — SAP0201SM

This Instructor-led training Seminar provides an overview of hybrid and electric vehicle designs, operation, and servicing. Diagnosing and servicing Hybrid Electric Vehicles (HEV) and Battery Electric Vehicles (BEV) requires an in-depth understanding of their design and operation. This course covers the operation of HEV and BEV propulsion systems, driveline configurations, high voltage batteries, drive motors / generators, and charging systems. The course also covers HEV and BEV servicing procedures including high voltage safety, high voltage disabling / enabling, loss of isolation diagnosis, and range related conditions.

Languages: English

InShop Training

HYBRID AND ELECTRIC VEHICLE OPERATION, DIAGNOSIS, AND REPAIR — SAP0101IS

This Instructor-led training provides an overview of hybrid and electric vehicle designs, operation, and servicing. Diagnosing and servicing Hybrid Electric Vehicles (HEV) and Battery Electric Vehicles (BEV) requires an in-depth understanding of their design and operation. This course covers the operation of HEV and BEV propulsion systems, driveline configurations, high voltage batteries, drive motors / generators, and charging systems. The course also covers HEV and BEV servicing procedures including high voltage safety, high voltage disabling / enabling, loss of isolation diagnosis, and range related conditions.

Languages: English

Video On Demand

ELECTRIC TRANSMISSION: 1ET25 UNIT REPAIR - BOLT EV — SAP0101VO

This Service Know-How Video highlights the overhaul procedures for the 1ET25 Advanced Technology Vehicle Transmission. The video demonstrates the procedures for the disassembly and reassembly of the 1ET25 using the necessary special tools. Where procedures are similar, only representative examples will be shown. Even though the 1ET25 is less complex than most conventional transmissions, many of the disassembly and reassembly procedures and tools will be unfamiliar to transmission technicians. This video has been produced to help technicians successfully overhaul the 1ET25.

Languages: English

HIGH VOLTAGE BATTERY: REPLACEMENT PROCEDURE - CADILLAC LYRIQ — SAP0201VO

The Cadillac LYRIQ is a unique vehicle with unique service requirements. This Service Know-How Video will focus on the Hybrid/Electric Vehicle Battery Pack removal and installation procedures. Upon completion of the course, Electric Vehicle Technicians will be able to recall the LYRIQ's Hybrid/Electric Vehicle Battery Pack removal and installation procedures, and recall the special tools required to handle, remove and install the LYRIQ's Hybrid/Electric Vehicle Battery Pack.

Languages: English

HIGH VOLTAGE BATTERY: REPLACEMENT PROCEDURE - GMC HUMMER EV — SAP0301VO

The GMC HUMMER EV is a unique vehicle with unique service requirements. This video will focus on the Hybrid/Electric Vehicle Battery Pack removal and installation procedures. Upon completion of the course, Electric Vehicle Technicians will be able to recall the Hybrid/Electric Vehicle Battery Pack removal and installation procedures.

Languages: English

SILVERADO EV WORK TRUCK NEW MODEL LAUNCH — SAP0401VO

This Virtual Classroom Training (VCT) course for GM Fleet technicians has three modules. The first module presents the 2024 Chevrolet Silverado Electric Vehicle (EV) Work Truck (WT) and its key features, including the Ultium propulsion system and battery charging. The second module covers pre-delivery inspection and the installation of the soft tonneau cover. The third and final module deals with safety, high voltage labels, lifting procedures, and service considerations related to this vehicle. Upon completion of the course, technicians will be able to identify characteristics of the 2024 Chevrolet Silverado EV WT, identify pre-delivery inspection and vehicle readiness, and identify high voltage vehicle safety and low voltage systems service procedures.

Languages: English

ELECTRIC VEHICLES: NEW & UPDATES VIDEO — SAP0501VO

This video version of the Virtual Classroom Training (VCT) course begins with information about the safety practices and the Personal Protective Equipment (PPE) required to work around the high voltage battery in an Electric Vehicle (EV). The course covers upcoming EVs from General Motors (GM), enhancements to current GM EVs, and service related to EVs. Upon completion of this course, technicians will be able to recognize high voltage safety requirements, identify upcoming GM EVs and service procedures, and enhancements and updates to current GM EVs.

Languages: English

BODY ELECTRICAL AND COMMUNICATIONS

A recommended path for completing the Body Electrical and Communications curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH

Additional Training

Web-Based Training

INFOTAINMENT SYSTEMS 1: RADIOS — SBE0101WB

This course is intended for GM dealership service technicians who will be servicing GM entertainment system components, including radios and antennas, and servicing radio frequency interference concerns. Topics discussed include different types of radio waves, how they travel, and the types of noise that affect radio reception, as well as the 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 for isolating the cause of radio frequency interference, and the noise suppression devices to service radio frequency interference. Finally, this course discusses the operation and diagnosis of XM® satellite radio systems.

Languages: English / French

INFOTAINMENT SYSTEMS 2: SPEAKERS — SBE0201WB

This course is intended for GM dealership service technicians who will be servicing GM entertainment systems and components, including speakers, amplifiers, and active noise cancellation. Topics discussed include speaker characteristics and diagnosis. It also focuses on amplifier characteristics, operation, and diagnosis. Finally, this course discusses active noise cancellation operation, diagnostics, and components. Upon completing this course, participants will be able to describe the characteristics of speakers, describe the characteristics of amplifiers, and identify the characteristics of active noise cancellation.

Languages: English / French

INFOTAINMENT SYSTEMS 3: PERIPHERAL CONNECTIVITY — SBE0301WB

This course is intended for GM dealership service technicians who will be servicing GM entertainment systems and components, including Universal Serial Bus (USB) and Bluetooth® connectivity.

Languages: English / French

INFOTAINMENT SYSTEMS 4: REAR ENTERTAINMENT SYSTEMS — SBE0401WB

This course is intended for GM dealership service technicians who will be servicing GM entertainment systems and components, including mobile wireless charging and rear seat entertainment systems.

Languages: English / French

INFOTAINMENT SYSTEMS 5: HEAD-UP DISPLAY — SBE0501WB

Upon completion of this course, the participant will be able to describe the head-up Display characteristics and components.

Languages: English / French

INFOTAINMENT SYSTEMS 6: INTEGRATED CENTER STACK — SBE0601WB

This course covers the components and operation of the integrated center stack radio entertainment systems on GM vehicles. Upon completion of this course, participants will be able to recall the components and operation of the integrated center stack radio entertainment systems.

Languages: English / French

INFOTAINMENT SYSTEMS 7: NEXT GEN INFOTAINMENT AND NAVIGATION SYSTEMS — SBE0701WB

This course provides an overview and description of the Next Generation Infotainment (NGI) and navigation systems in GM vehicles. This includes the operation, characteristics, and components of these systems. This course also covers the characteristics, operation, and diagnostics of the MOST® network, as well as the operation and diagnostics of the navigation systems. Upon completion of this course, participants will be able to identify the components and operation of the NGI infotainment system, recall the characteristics, operation, and diagnostics of the MOST® network, and recognize components and characteristics of the navigation radio systems.

Languages: English / French

INFOTAINMENT SYSTEMS 8: INFOTAINMENT SYSTEMS IOR, IOS, IOU, IOT — SBE0801WB

This course covers the integrated radio systems, including components, data communication, audio features, and location services. Upon completion of this course, participants will be able to recall infotainment components and modes of operation, identify various data communication methods used by the infotainment system, recall the audio components and features of the infotainment system, and recall the characteristics of the navigation system.

Languages: English

GM MOVEABLE ROOF SYSTEMS 1 — SBE0901WB

This course introduces the technician to the various types of moveable roofs, along with the components and operation of the electrical/motorized power-folding top. This course will cover service implications of the electrical/motorized power-folding top, as well as any implications it has for other vehicle systems.

Languages: English / French

BODY ELECTRICAL AND COMMUNICATIONS

GM MOVEABLE ROOF SYSTEMS 2 — SBE1001WB

This course covers electrical/hydraulic power-folding top systems, along with sunroofs, and how to diagnose and service them. It will identify the components of the electrical/hydraulic power-folding top and general diagnosis procedures. The course will also identify the various types of sunroofs and panoramic roofs, along with their components and operation.

Languages: English

Instructor-Led Training

GLOBAL ELECTRICAL OPERATIONS AND TESTING — SEL0301IL

This Instructor-led training course covers the properties of electricity, interpreting and using electrical schematics, advanced Digital Multimeter (DMM) usage, scan tool diagnosis tactics, and alternate test tool usage. Hands-on exercises provide opportunities for practicing skills, making measurements, interpreting test results and making diagnostic decisions.

Languages: English

DATA COMMUNICATION OPERATION AND DIAGNOSIS — SEL0401IL

This Instructor-led Training (ILT) course will cover operation and diagnosis of vehicle communication networks. The course includes relevant history of networking and related government regulations, as well as computer communication and its automotive applications. Also, included in the course are types of network protocols, vehicle networks and topologies, data communication systems, and automotive computer networks. The course will also cover network diagnostics and service procedures.

Languages: English

Seminar

VEHICLE LIGHTING AND ACCESS — SEL0301SM

This Instructor-led training Seminar covers vehicle lighting and access system component operation, diagnosis, testing and correct service practices. The discussion on vehicle lighting systems will include details on bulb monitoring, Pulse Width Modulated (PWM) lamp control, LED lighting, xenon lighting, dynamic headlight range and level control, adaptive forward lighting, laser lighting, and vehicle lighting system diagnostic strategies. Vehicle access system topics will include door lock, liftgate, and trunk release system operation and diagnostic strategies. Participants will discuss movable glass systems including power window system operation, and diagnostic strategies for door windows, back glass and sunroof systems.

Languages: English

DATA COMMUNICATION OPERATION AND DIAGNOSIS — SEL0501SM

Diagnosing complex data communication system failures is challenging, even for experienced technicians. This seminar focuses on the strategies used to diagnose network communication failures. Proper network diagnosis using a digital multimeter, GDS2 and the Data Bus Diagnostic tool will be explained. The operation of several network protocols will be covered Including CAN, LIN, GMLAN and MOST. Network repair procedures including wiring repair methods will be discussed.

Languages: English

DIAGNOSING MULTIPLEXED DATA BUS NETWORKS — S-EL06-74.01SEM

Diagnosing complex network system failures is a challenge even for experienced technicians. In this seminar, technicians will focus on diagnostic strategy to hone their problem solving skills for serial data failure modes in multiplex networks. Included network protocols: CAN, LIN, GMLAN, MOST®, and repair methods will be covered.

Languages: English

Video On Demand

DATA COMMUNICATION SYSTEM DIAGNOSTICS OVERVIEW — SEL0101VO

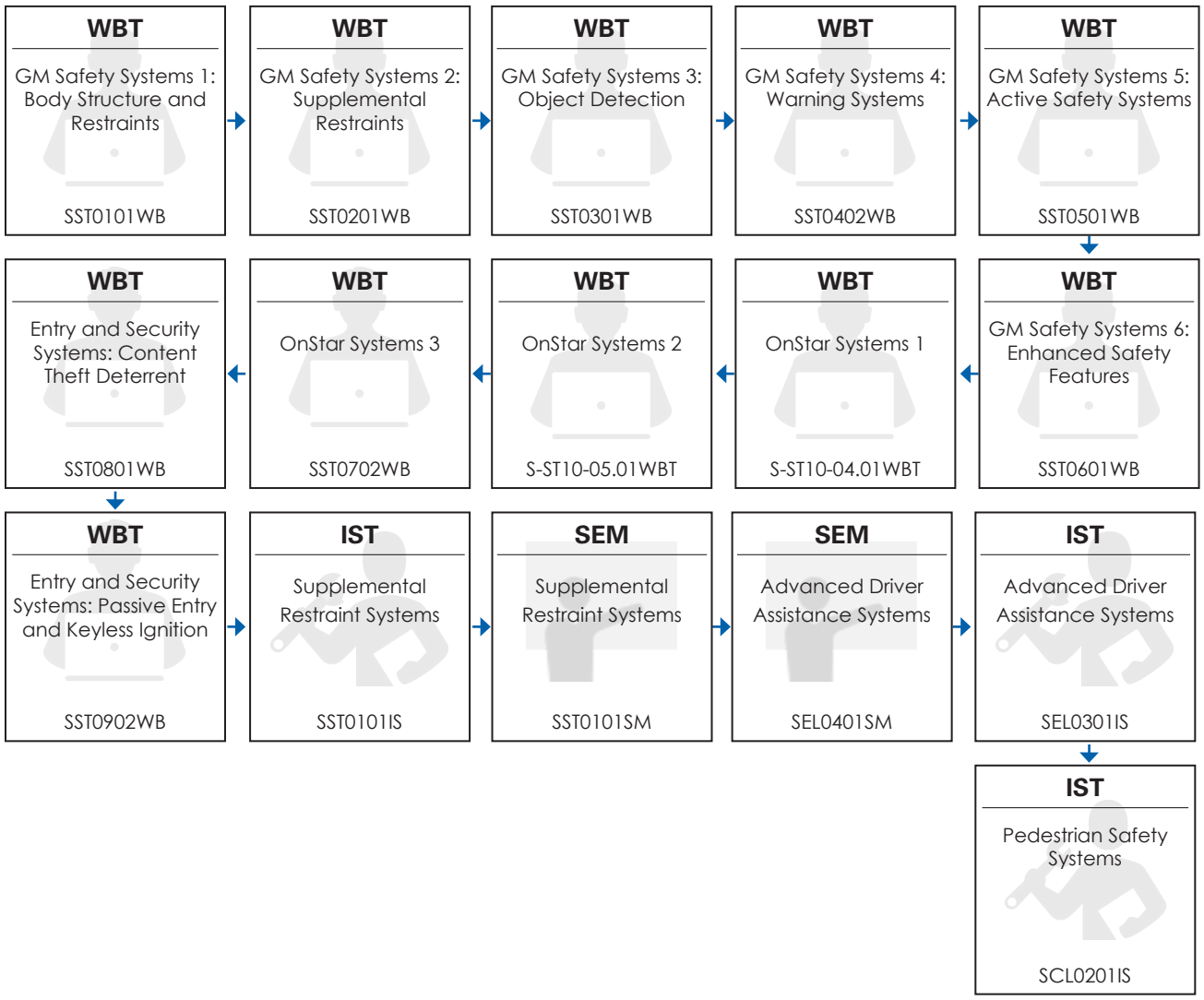
This video covers (at a high level) the tests commonly found under Circuit System Verification and Circuit System Testing in many Service Information data communication diagnostic procedures. Upon completing this video, participants will be able to explain the purpose of each test, demonstrate how the test is performed, and describe the possible outcomes.

Languages: English

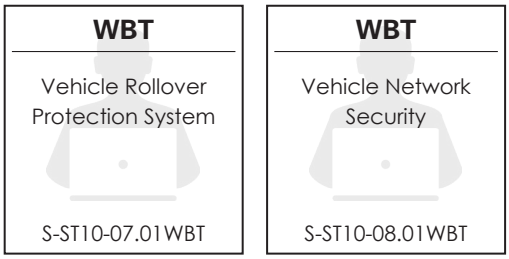
SAFETY AND SECURITY

A recommended path for completing the Safety and Security curriculum is outlined below. To complete the training below and to search for and complete additional training, visit acdelcotraining.com.

RECOMMENDED PATH



ADDITIONAL TRAINING



SAFETY AND SECURITY

Web-Based Training

GM SAFETY SYSTEMS 1: BODY STRUCTURE AND RESTRAINTS — SST0101WB

This course is intended for service technicians and covers the characteristics, components, operation, and service procedures used to repair GM vehicle safety systems. It covers the overall construction of the vehicle body structure, seat belts and restraints, and child restraint systems.

Languages: English / French

GM SAFETY SYSTEMS 2: SUPPLEMENTAL RESTRAINTS — SST0201WB

This course is intended to assist GM service technicians who will be servicing GM vehicle supplemental restraint systems. It covers GM vehicle supplemental restraints that include sub-systems such as airbags, supplemental restraint system components, functions, operation, diagnostics, repair, service, and post-repair considerations.

Languages: English / French

GM SAFETY SYSTEMS 3: OBJECT DETECTION — SST0301WB

Upon completion of this course, participants will be able to identify characteristics and operation of the GM vehicle ultrasonic object detection system and characteristics and operation of the GM vehicle radar-based object detection system.

Languages: English / French

GM SAFETY SYSTEMS 4: WARNING SYSTEMS — SST0402WB

This course covers GM vehicle warning systems, especially those using vehicle-mounted cameras.

Languages: English

GM SAFETY SYSTEMS 5: ACTIVE SAFETY SYSTEMS — SST0501WB

This course covers GM vehicle active safety systems, including the features, diagnostic strategies, and service procedures of active safety systems.

Languages: English / French

GM SAFETY SYSTEMS 6: ENHANCED SAFETY FEATURES — SST0601WB

This course covers the enhanced safety systems of the electronic pedal override, Teen Driver, and advanced trailering.

Languages: English / French

ONSTAR SYSTEMS 3 — SST0702WB

This course provides a description of the Gen 11 and Gen 12 OnStar® system. The characteristics of various features are described in this course, including antennas and other components, Wi-Fi and aspects of connectivity, warnings, and diagnostics. Upon completing this course, participants will be able to identify the OnStar® Gen 11 and Gen 12 components, and describe the characteristics and diagnostics of OnStar® Gen 11 and Gen 12.

Languages: English

ENTRY AND SECURITY SYSTEMS: CONTENT THEFT DETERRENT — SST0801WB

This course covers the characteristics, components, and operation of Active keyless entry and security systems, including content theft deterrent systems. Upon completion of this course, participants will be able to identify the characteristics, components, and operation of keyless entry and security systems, identify the characteristics, components, and operation of content theft deterrent systems, and recall the diagnostic strategies and service considerations for keyless entry and security systems.

Languages: English / French

ENTRY AND SECURITY SYSTEMS: PASSIVE ENTRY AND KEYLESS IGNITION — SST0902WB

This course covers the Passive Entry Passive Start (PEPS) system, content theft deterrent system and service considerations. Upon completing this course, the technician will be able to identify the Passive Entry Passive Start (PEPS) system characteristics, components, and operations, including the Passive Entry Passive Start (PEPS) Content Theft Deterrent System characteristics, components, operations, and diagnostic procedures. The technician will also be able to recall Passive Entry Passive Start (PEPS) service considerations.

Languages: English

ONSTAR SYSTEMS 1 — S-ST10-04.01WBT

This WBT course provides a description of the OnStar systems including generations 6 through 9. The many features of OnStar are described. The course also provides detailed information about the OnStar components, as well as information on GPS and cellular technology. Upon completion of this course, technicians will be able to identify the various features of OnStar, identify the components of OnStar, and identify aspects and diagnostics of cellular and GPS technology.

Languages: English / French

ONSTAR SYSTEMS 2 — S-ST10-05.01WBT

This WBT course provides a description of the generation 10 OnStar system. The characteristics of various features are described, including antennas and other components, Wi-Fi and aspects of connectivity, as well as warnings and diagnostics. Upon completion of this course, participants will be able to describe the characteristics of OnStar generation 10, identify the antennas and other components of OnStar, and describe OnStar generation 10 diagnostics and programming.

Languages: English / French

VEHICLE ROLLOVER PROTECTION SYSTEM — S-ST10-07.01WBT

This WBT 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

This WBT 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 / French

Seminar

SUPPLEMENTAL RESTRAINT SYSTEMS — SST0101SM

This Instructor-led Training Seminar focuses on the operation and diagnostic procedures of Supplemental Restraint Systems (SRS). Course content includes SRS sub-systems and components, vehicle applications, and interrelated systems. Additionally, this course highlights SRS safety procedures and protocol for proper vehicle repairs, safe operation of a vehicle post-collision, diagnostic procedures, service tips, and special tools. Various Original Equipment Manufacturers (OEMs) will be highlighted.

Languages: English

ADVANCED DRIVER ASSISTANCE SYSTEMS — SEL0401SM

This Instructor-led training Seminar focuses on Advanced Driver Assistance Systems installed on various vehicles. Systems including Forward Collision Warning, Automatic Emergency Braking, Lane Keep Assist, Lane Departure Warning, Adaptive Cruise Control, Park Assist and others will be covered in detail. Various Original Equipment Manufacturers (OEMs) will be highlighted, including an overview of the operation, diagnosis, and servicing of the systems and their components.

Languages: English

InShop Training

SUPPLEMENTAL RESTRAINT SYSTEMS — SST0101IS

This Instructor-led training InShop focuses on the operation and diagnostic procedures of Supplemental Restraint Systems (SRS). This course highlights SRS safety procedures and protocol for proper vehicle repairs, safe operation of a vehicle post-collision, diagnostic procedures, service tips, and special tools. Various Original Equipment Manufacturers (OEMs) will be highlighted.

Languages: English

PEDESTRIAN SAFETY SYSTEMS — SCL0201IS

This Instructor-led training InShop covers Front Pedestrian Braking (FPB) and Pedestrian Impact Detection System (PIDS). The topics discussed will include the need for pedestrian safety systems, description and operation of these systems, and replacement and repair procedures.

Languages: English

SAFETY AND SECURITY

ADVANCED DRIVER ASSISTANCE SYSTEMS SEL0301IS

This Instructor-led training course focuses on Advanced Driver Assistance Systems installed on various vehicles. Systems including; Forward Collision Warning, Automatic Emergency Braking, Lane Keep Assist, Lane Departure Warning, Adaptive Cruise Control, Park Assist and others will be covered in detail. Various Original Equipment Manufacturers (OEMs) will be highlighted, including an overview of the operation of the systems and their components.

Languages: English

Self Study Training

FLUIDS AND CHEMICALS — SFN0902SF

This self study course covers the functions and attributes of fluids and chemicals to be aware of, and their proper use. Course topics include fluids and chemicals for the engine, air conditioning, transmission, brakes, and other vehicle maintenance needs.

Languages: English

Web-Based Training

AUTOMOTIVE FLUIDS — SFN0101WB

This course is intended for service technicians and covers unique principles and practices for the use of automotive fluids across the product line.

Languages: English

FUNDAMENTAL HYDRAULIC THEORY AND OPERATION — SFN1301WB

This course provides the general concepts, operation, and applicable components involved in the hydraulic systems of an automobile. Upon completion of this course, service technicians will be able to recall the origin, operation, and use of automotive hydraulic systems. The content covers the following topic areas: hydraulic theory; Pascal's Law and hydraulic variables; hydraulics and fluid properties; and hydraulic system types, components, and operation.

Languages: English

SERVICE INFORMATION (SI) OVERVIEW — SFN1401WB

The Service Information (SI) Overview course gives a description of the characteristics, available publications, and navigation features of SI. This course also provides a description of how to view and manipulate graphics. Upon completion of this course, participants will be able to identify how to find service manuals and publications from the SI home page and recall how to view and manipulate schematics and other graphics in SI.

Languages: English

TECHLINE CONNECT FUNCTIONALITY — SFN1501WB

This course covers the installation of Techline Connect. It also covers the functionality of Techline Connect, including vehicle connection, Service Information (SI), Global Diagnostic System (GDS) 2, and the Service Programming System (SPS). Upon completing this course, participants will be able to recall how to access Techline Connect and identify the components and functionality of the Techline Connect dashboard.

Languages: English

SHOP SAFETY — SFN1901WB

Shop Safety is the technician's foundation for avoiding injury and damage during automotive repair. This WBT provides the general safety guidance for shop safety, personal protective equipment, fire prevention, tool and equipment safety, and electric vehicle safety. Upon completing this course, participants will be able to recall information pertaining to shop safety regulations, recall personal protection equipment, recall fire prevention procedures and equipment, recall tool and equipment safety, and recall electric vehicle safety information.

Languages: English

MULTI-POINT VEHICLE INSPECTION (MPVI) — SFN2001WB

This course covers Multi-Point Vehicle Inspection (MPVI) procedures. The inspection topics covered include tire and underbody, underhood, vehicle exterior and interior, driver warning, and vehicle lighting.

Languages: English

LIFTING AND JACKING SAFETY — SFN4701WB

This course provides instruction on the overall safety of lifting and jacking a GM vehicle when service is needed.

Upon completion of this course, technicians will be able to identify the proper equipment to lift and jack a GM vehicle, identify the safe and proper way to lift a GM vehicle when being serviced, and identify the safe and proper way to jack a GM vehicle when being serviced.

Languages: English

FUNDAMENTALS

RIGGING AND LIFTING: ENGINES / TRANSMISSIONS — SFN2101WB

This course provides instruction on the overall safety of rigging and lifting engines and transmissions. Upon completing this course, technicians will be able to identify the definition of rigging and lifting, identify the safety precautions associated with rigging and lifting, identify the proper equipment for rigging and lifting, and identify the proper rigging and lifting procedures for engines and transmissions.

Languages: English

RIGGING AND LIFTING SAFETY: HIGH VOLTAGE BATTERIES — SFN2201WB

Electric Vehicles require unique training, equipment, and tools to properly service them, including a forklift to assist in the safe handling of high voltage batteries. This course focuses on fundamentals related to forklift safety, special tools, and rigging and lifting procedures. Upon completing this course, technicians will be able to identify forklift safety practices, describe special tools used for rigging and lifting high voltage batteries, and describe high voltage battery rigging and lifting procedures.

Languages: English

LUBRICATION INSPECTION AND MAINTENANCE — S-FN00-22.02WBT

This course is an overview of the knowledge and skills involved in performing an oil change. It covers inspection of vehicle systems, oil change procedures, resetting the oil life monitor system, and selecting the correct grade and amount of oil to add to the engine.

Languages: English

2023 CHEVROLET CORVETTE NEW MODEL LAUNCH — 10323.89W

This New Model Launch course provides an awareness of the unique and new technology related to the 2023 Chevrolet Corvette. By the end of this course, participants will be able to recall general information about the vehicle, associated engines, associated transmissions, driveline systems, power and signal distribution systems, and body systems, safety and security systems, driver information and entertainment systems, heating, ventilation, and air conditioning systems, steering systems, suspension systems, and brake systems.

Languages: English

InShop Training

ACDELCO TRAINING SITE OVERVIEW — BCC0102IS

This InShop training course provides shop owners, managers, technicians and other shop personnel with a familiarization of the ACDelco Learning Management System (LMS). An overview of the various features, benefits and functional characteristics of the system will be covered.

Languages: English

TechTube Videos

PROPER TIRE INSPECTION — S-FN00-14.01VID

This video demonstrates the proper technique for inspecting a tire. The inspection starts with checking the tire inflation, then measuring the tread depth. Wear patterns from improper inflation, incorrect alignment or out of balance are discussed. Inspection of the sidewall for damage, tread for foreign objects and cracked rubber are shown.

Languages: English

CLUTCH STYLE LOCK CYLINDER — S-FN00-15.01VID

This video shows the normal operation of the clutch style door lock cylinder that everyone should be aware of and how to access on some models.

Languages: English

Video On Demand

USING THE CONTROL MODULE REFERENCES CHART — SFN4801VO

This video highlights the Control Module References Chart within GM Service Information. The video demonstrates chart access and navigation while identifying the importance of its use during vehicle diagnosis, repair, component acquisition, and programming of Electronic Control Units.

Languages: English

Web-Based Training

DATA BUS DIAGNOSTIC TOOL — S-DS11-15.02WBT

This course presents a description and introduction to 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 / French

GLOBAL DIAGNOSTIC SYSTEM (GDS) 2 — S-FN00-06.02WBT

This course presents a description of the Global Diagnostic System (GDS) 2. Topics include the function, installation, and navigation of the GDS 2 software; key screens; vehicle diagnostics; and the manipulation of stored data. Upon completing this course, participants will be able to recall how to install and operate the Global Diagnostic System 2 (GDS 2), describe how to use key screens in GDS 2, identify how to diagnose a vehicle using GDS 2, and recall how to manipulate stored data using GDS 2.

Languages: English

MULTIPLE DIAGNOSTIC INTERFACE (MDI) FAMILIARIZATION — S-FN00-20.02WBT

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 / French

NOISE, VIBRATION, AND HARSHNESS 1 — SDS0201WB

Successfully diagnosing causes of Noise, Vibration, and Harshness (NVH) concerns identifies possible issues before they can escalate. NVH1 course covers vibration theory, as well as how to diagnose vibration concerns using the oscilloscope and noise concerns using the microphone.

Languages: English

NOISE, VIBRATION, AND HARSHNESS 2 — SDS0301WB

NVH2 course covers vibration diagnostic techniques, such as road tests, and test equipment used in diagnosing vibration concerns.

Languages: English

MULTIPLE DIAGNOSTIC INTERFACE 2 (MDI 2) FAMILIARIZATION — SDS0401WB

This course presents a description of the Multiple Diagnostic Interface (MDI) 2. Upon completion of this course, technicians will be able to identify the key features and characteristics of the Multiple diagnostic Interface (MDI) 2 and recall the operation of the MDI Manager software.

Languages: English

GLOBAL DIAGNOSTIC SYSTEM (GDS) 2: STORED DATA — SDS0501WB

This course describes the Global Diagnostic System (GDS) 2. This course includes how to access GDS 2 via Techline Connect, navigate the system, perform diagnostics on vehicles, and use features of stored data. Upon completion of this course, participants will be able to identify GDS2 characteristics and recall GDS2 diagnostic navigation features.

Languages: English

GLOBAL DIAGNOSTIC SYSTEM (GDS) 2: NAVIGATION — SDS0601WB

This course describes the Global Diagnostic System (GDS) 2. This course includes how to access GDS 2 via Techline Connect, navigate the system, perform diagnostics on vehicles, and use features of stored data. Upon completion of this course, participants will be able to identify GDS2 characteristics and recall GDS2 diagnostic navigation features.

Languages: English

INTRODUCTION TO THE DIGITAL OSCILLOSCOPE — SFN1902WB

This course introduces the Digital Storage Oscilloscope (DSO) as an important tool in diagnosing vehicle concerns that may otherwise require significant time or disassembly for testing. Topics covered include key components and basic setup; terminology, display outputs, waveform fundamentals and parameters; and how to interpret display data.

Languages: English

DIAGNOSTIC SYSTEMS

Instructor-Led Training

SCOPES, CIRCUITS & SENSORS — S-DS11-04.01ILT

The ability to quickly and accurately solve complex electrical signal faults is a necessity for advanced diagnostic technicians. Using Oscilloscopes, technicians will learn to identify specific signal types and distinguish between good signals and specific failures. On-vehicle exercises will cover signals from sensor categories such as: Speed, Position, Proximity, Acceleration, Force, Flow, Temperature, Pressure, Gas and Concentration.

Languages: English

InShop Training

SERVICE PROGRAMMING AND TECHLINE CONNECT — SDS0201IS

This Instructor-led training course will explore service programming on GM vehicles and accessing GM's Techline Connect programming service. Service programming specific hardware will be discussed, including Tech 2, MDI 2, and supported third-party J2534 interface devices. Common service programming procedures will be covered including module setup and service programming actions. Additional topics covered include service programming resources, successful programming techniques and practices, and recovering from programming issues or errors.

Languages: English

TechTube Videos

PROGRAMMING KEY FOBS — S-DS11-01.01VID

This video will discuss some of the different methods to add, learn, or program a remote keyless entry system transmitter to a GM vehicle.

Languages: English

USING A DIGITAL MULTIMETER TO CHECK AMPERAGE — S-DS11-02.01VID

This video discusses what amperage is and the proper techniques for measuring amperage. The Fluke 87 digital multimeter is used to demonstrate the procedure. The video also demonstrates how to check the fuses on the meter and the proper settings for the meter. The video concludes by demonstrating the correct arrangement of leads to measure amperage or current flow on a live circuit.

Languages: English

TEST LIGHTS, IS THERE A DIFFERENCE? — S-DS11-03.01VID

This video will help you determine the proper test light to use for various electrical diagnostic tests and why this is important. OHMS law is utilized to calculate the working resistance and current draw of a test light.

Languages: English

HOW TO PERFORM A PARASITIC LOAD TEST — S-DS11-04.01VID

This video demonstrates the proper parasitic load test procedure to identify unwanted loads on the battery.

Languages: English

EXP-800 CAPACITANCE TESTING BATTERY - BATTERY TEST — S-DS11-05.01VID

This video demonstrates how to test a battery using the EXP 800 tester.

Languages: English

EXP-800 CAPACITANCE TESTING SYSTEM - SYSTEM TEST — S-DS11-06.01VID

This video demonstrates how to perform a system test (Battery, Starter, Alternator) using the EXP 800 tester.

Languages: English

FLUKE MIN / MAX FEATURE — S-DS11-07.01VID

This video demonstrates using the Min / Max feature of the Fluke 87 series digital multimeter for intermittent concerns, through an on car scenario and mockup circuits. Min / Max can be used while measuring voltage, amperage or resistance.

Languages: English

AGM BATTERY TESTING AND CHARGING S-DS11-08.01VID

This video describes the construction, testing and charging of Absorbed Glass Mat (AGM) batteries.

Languages: English

DATA BUS DIAGNOSTIC TOOL HELPS DIAGNOSE BATTERY DRAINS S-DS11-09.01VID

This video demonstrates the Data Bus Diagnostic Tool Message Monitor function to help diagnose battery drain concerns by monitoring the data line to see what modules wake up.

Languages: English

COLLISION

Web-Based Training

WATERLEAK AND WINDNOISE MANAGEMENT 1: THEORY AND CHARACTERISTICS SCL0101WB

This WBT course covers waterleak and windnoise management theory, types of sealers and the characteristics and water management of hard moveable roofs, soft moveable roofs, and sunroofs.

Languages: English

WATERLEAK AND WINDNOISE MANAGEMENT 2: DIAGNOSIS SCL0201WB

This WBT course covers waterleak and windnoise diagnosis using tests and visual inspections. It also covers glass and panel service using adjustment, sealing, and repair techniques.

Languages: English

WATERLEAK AND WINDNOISE MANAGEMENT 3: SERVICE TECHNIQUES SCL0301WB

This WBT course covers waterleak and windnoise service techniques using panel and glass adjustment and sealing methods. Where water damage has occurred, various repairs will be presented. Upon completing this course, participants will be able to recall how to service waterleak and windnoise concerns using careful practices, glass adjustment techniques, panel adjustment techniques, and sealing procedures. Participants will also be able to recall how to repair specific types of water damage.

Languages: English

STRUCTURAL ADHESIVE AND FASTENING APPLICATIONS SCL0401WB

In addition to covering structural adhesive, this course will aid in identifying self-piercing rivets, structural blind rivets, and flow drill screws, how each fastener works, and when to use the fasteners during a repair.

Languages: English

UNIBODY STRUCTURAL REPAIR 1 SCL0501WB

This course covers the repair of the unibody structure, including safety, unibody construction, measurement, damage assessment, repair conditions, and corrective forces. Upon completing this course, participants will be able to recall unibody structural repair safety, unibody construction, and repair platforms, unibody dimension measuring, measuring systems, damage assessment, structural repair issues, methods, types, procedures, and corrosion prevention.

Languages: English

UNIBODY STRUCTURAL REPAIR 2 SCL0601WB

This course continues the coverage of welding, structural full panel repair and replacement, and sectioning repairs. Upon completion of this course, participants will be able to recall unibody welding safety, preparation, equipment, procedures, structural full panel removal and replacement procedures, and structural sectioning repairs.

Languages: English

UNDERBODY ALIGNMENT AND MEASURING 1 SCL0701WB

This course covers the vehicle structure, the measuring procedure, and how to measure the underbody of the vehicle using specialized tools. Upon completion of this course, participants will be able to recall the vehicle structure characteristics, control and reference points, and how to perform dimensional measurements.

Languages: English

UNDERBODY ALIGNMENT AND MEASURING 2 SCL0801WB

This course covers the vehicle structure, the measuring procedure, and how to measure the underbody of the vehicle using specialized tools. Upon completion of this course, participants will be able to recall the types of measuring equipment and damage analysis and conditions.

Languages: English

BODY ON FRAME REPAIR 1 SCL0901WB

This course covers body on frame repair safety precautions as well as frame types and characteristics. Upon completion of this course, participants will be able to recall safety precautions, plus identify frame types and characteristics.

Languages: English

BODY ON FRAME REPAIR 2 SCL1001WB

This course covers body and frame damage analysis as well as body and frame repair procedures. Upon completion of this course, participants will be able to identify body and frame damage, and also recall frame and body repair processes.

Languages: English

BONDING AND ADHESIVES 1 — SCL1101WB

This course identifies the various types and characteristics of adhesives used for vehicle repairs, including specifications, tools, and application guidelines. Upon completion of the course, participants will be able to identify the characteristics and application of adhesive materials.

Languages: English

BONDING AND ADHESIVES 2 — SCL1201WB

This course covers adhesive panel bonding and replacement procedures. Upon completion of the course, participants will be able to recall the characteristics and application of adhesive materials as well as panel replacement and adhesive bonding procedures.

Languages: English

PANEL REPAIR AND REPLACEMENT 1 — SCL1301WB

This course covers the repair of auto body panels, including safety, steel repair and aluminum repair. Upon completion of this course, participants will be able to recall panel repair safety precautions, panel types, panel inspection, and panel removal preparation, including steel panel repair procedures, steps, and methods, and aluminum panel repair procedures, steps, and methods.

Languages: English

PANEL REPAIR AND REPLACEMENT 2 — SCL1401WB

This course covers the repair of auto body panels, including metal finishing methods, composite repair, and bumper and fascia repair. Upon completing this course, participants will be able to recall metal finishing procedures and methods, composite panel types and repair methods, along with procedures and steps. This will also include recalling bumper and fascia types, materials, and repair methods and procedures.

Languages: English

PANEL REPAIR AND REPLACEMENT 3 — SCL1501WB

This course covers the replacement procedures for bolted panels. This course also covers safety precautions, as well as how to perform an inspection and prepare the panels for replacement. Upon completion of this course, participants will be able to recall the safety precautions, panel types, panel attachment methods, inspection, and removal preparation and procedure for bolted panels.

Languages: English

PANEL REPAIR AND REPLACEMENT 4 — SCL1601WB

This course covers the replacement procedures for welded and bonded metal and composite panels. The course also covers how to perform an inspection and prepare the panels for replacement. Upon completion of this course, participants will be able to recall the replacement procedure for welded panels and the replacement procedure for bonded composite panels.

Languages: English

STRUCTURAL ALUMINUM WELDING AND REPAIR — SCL1701WB

This course covers the materials, products, repair procedures, and safety precautions to service various types of General Motors (GM) aluminum vehicle structures. This course also covers the purpose of aluminum welding and aluminum welding equipment. Additionally, this course describes the welding process and common weld defects. Upon completion of this course, participants will be able identify welding safety precautions, recall the purpose for aluminum welding materials and equipment, and describe the welding process and common weld defects.

Languages: English

GM BODY STRUCTURAL FASTENING SYSTEMS 1 — S-SR04-01.01WBT

This WBT course will introduce body technicians to the fastening systems used for the Omega aluminum body. Topics include aluminum and steel component identification and location, the appropriate environment needed when doing aluminum repairs and an overview of the different fastening technology used on the aluminum body.

Languages: English

GM BODY STRUCTURAL FASTENING SYSTEMS 2 — S-SR04-02.01WBT

This WBT course will introduce body technicians to the fastening technology used with GM's aluminum body. This course provides more information on the aluminum body fastening systems and the repair.

Languages: English

COLLISION

MIG BRAZING THEORY OVERVIEW — S-SR04-03.01WBT

Metal Inert Gas (MIG) brazing is a lower temperature type of welding that deposits a melted seam of filler metal into and over the surface of a narrow gap to join two pieces of base metal. The filler metal melts at a lower temperature than the base metal; therefore, MIG brazing is used to create joints with less distortion and heat affected zones than conventional welding. This course presents an overview of the theory and practice of MIG brazing. Topics include the safety precautions, equipment, methodology, and applications.

Languages: English

RESISTANCE SPOT WELDING AND BONDING PROCEDURE OVERVIEW — S-SR04-05.01WBT

This course covers the Squeeze-Type Resistance Spot Welding process and weld bonding. Content focuses on the advantages of Squeeze-Type Resistance Spot Welding and weld bonding over traditional joining methods. Participants will review the equipment, personal and vehicle safety precautions, setup processes, as well as techniques and configurations of Squeeze-Type Resistance Spot Welding and weld bonding.

Languages: English

InShop Training

ALUMINUM WELDING AND REPAIR — SCL0301IS

This training event will familiarize technicians with the types of aluminum repair and welding procedures. Specific topics will include alloys and treatment methods, as well as sectioning procedures, including chemical bonding and welding methods.

Languages: English

BOLTED BODY PANELS — SCL0401IS

This 1-hour InShop will cover installation and adjustment procedures for bolted exterior body panels and enclosures including front and rear doors, hoods, liftgates. fenders, and fascia's. Methods to establish uniform gaps, ease of opening and closing, and eliminating noise will be covered. Procedures required after replacement of bolted panels containing attached components and sensors will be identified.

Languages: English

PEDESTRIAN SAFETY SYSTEMS — SCL0201IS

This Instructor-led training InShop covers Front Pedestrian Braking (FPB) and Pedestrian Impact Detection System (PIDS). The topics discussed will include regulatory requirements, description, and operation of these systems, and replacement and repair procedures.

Languages: English

POST COLLISION - ADVANCED DRIVER ASSISTANCE SYSTEMS — WCL0101IS

This training event will describe the types of components used in Advanced Driver Assistance Systems (ADAS) including sonar, cameras, radars, lasers, and antennas. There will be a brief overview of the types of ADAS that used these components. Special attention will be paid to service considerations following a collision.

Languages: English

POST COLLISION - BRAKE INSPECTION AND REPAIR — W-EM05-10.01IST

This training event will cover the inspections needed post collision and the procedures for effective repairs on braking systems. Topics include visual inspections, brake pipe and hose replacement, caliper inspection, brake fluid and bleeding, and ABS inspection and repairs.

Languages: English

POST COLLISION - POWER STEERING INSPECTION AND REPAIR — W-EM05-11.01IST

This training event will cover the inspections needed post collision and the procedures for effective repairs on power steering systems. Topics include visual inspections, power steering pump servicing, rack inspections and servicing, electronic/electric power steering servicing, power steering fluid flushing and bleeding, and steering column inspection.

Languages: English

POST COLLISION - TIRES AND WHEELS — W-EM05-12.01IST

This training event will cover the inspections needed post collision and the procedures for effective repairs on tire / wheel assemblies. Topics include visual inspections, tire and wheel servicing, balancing, wheel reconditioning, and TPMS inspections and servicing.

Languages: English

STRUCTURAL STEEL WELDING AND REPAIR — W-SR04-02.01IST

This training event will cover repair techniques for various types of structural steel, including mild steel, High Strength Steel (HSS), laminated, Press Hardened Steel (PHS), High Strength Low Alloy (HSLA) and Advanced High Strength Steel (AHSS).

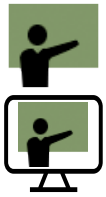
Languages: English

Clinics

ADVANCED DRIVER ASSISTANCE SYSTEMS — SEL0401SM

This training event focuses on Advanced Driver Assistance Systems installed on various vehicles. Systems including forward Collision Warning, Automatic Emergency Braking, Lane Keep Assist, Lane Departure Warning, Adaptive Cruise Control, Park Assist and others will be covered in detail. Various Original Equipment Manufacturers (OEMs) will be highlighted, including an overview of the operation, diagnosis, and servicing of the systems and their components.

Languages: English



BODY ELECTRICAL SYSTEMS - COLLISION SERVICE AND REPAIR — W-EM05-04.01SEM

This training event will cover procedures to be followed while making wiring repairs and for safe operation of vehicle post-accident. In addition, the following topics will be covered: wire harness repairs, analyzing schematics, electrical ground repairs, High Intensity Discharge (HID) and dynamic headlight setup.

Languages: English

CHASSIS SYSTEMS - POST COLLISION REPAIR — W-EM05-06.01SEM

The training event will cover procedures to be followed while making repairs and for safe operation of vehicle post-accident. In addition, the following topics will be covered, brake system inspection and repair, power steering system inspection and repair, wheel alignment, and tire and wheel inspection and repair, including TPMS and NVH tips.

Languages: English

GM NON-STRUCTURAL COLLISION REPAIR — W-NR03-01.01SEM

This training event will cover an overview of replacing exterior non-structural body components, including hinged components, bonded and welded components (such as rear quarter panels). Also covered is proper bolting, welding and bonding (to ensure proper mounting of exterior body components), alignment and measuring to meet pre-accident condition, anti-corrosion information is discussed to help eliminate rust or failure to a replacement part or components after the repair.

Languages: English

GM STRUCTURAL COLLISION REPAIR — W-SR04-01.01SEM

This training event will cover repairing and replacing structural components on GM vehicles. The training will touch on three important areas to repairing and replacing structural components on a vehicle, included are measuring, cutting, and welding. Each area relates to the performance of the repair as it will meet specific tolerances and factory guidelines. It is crucial during the repair to validate during these three areas to meet specifications and customer satisfaction. This training event will discuss the 2014 Chevrolet Corvette Stingray and aluminum repair procedures for front and rear rails.

Languages: English

HVAC – R-1234YF - SERVICE AND REPAIR AFTER COLLISION — W-EM05-01.01SEM

This training event will cover recent advances in automotive Heating, Ventilation and Air Conditioning. Topics include (HFO) R-1234yf refrigerant, tools and equipment for servicing (HFO) R-1234yf systems, differences in vehicle components, and proper service and diagnostic procedures for R-134a and (HFO) R-1234yf. Also covered are HVAC component replacement and best practices.

Languages: English

COLLISION

HYBRID ELECTRIC VEHICLES - REPAIR IT SAFELY AFTER COLLISION W-EM05-03.01SEM

This training event will cover the safe inspection and service of Electric and Hybrid Electric Vehicles. Topics include an overview of the alternative propulsion systems found in these vehicles, the required safety equipment and procedures that must be followed when inspecting and servicing these vehicles, and the procedure for removing HEV system components safely in the course of collision repairs. Also discussed will be how to diagnose two common conditions that may be encountered post collision repairs.

Languages: English

RESTRAINT SYSTEMS - REPAIR IT SAFELY AFTER COLLISION W-EM05-02.01SEM

This training event will cover the safety procedures to be followed while making repairs and for safe operation of vehicle post-accident. In addition, the following topics will be covered Supplemental Restraint Systems (SRS) components, SIR Disabling, repairs and inspection, and scan tool diagnosis. Also discussed will be SRS component replacement and restoring the system to pre-accident readiness.

Languages: English

TechTube Videos

MIG STEEL SETUP S-NR03-01.01VID

This video will discuss machine setup for MIG welding of steel and address - gas flow, wire speed, and voltage settings.

Languages: English

MIG STEEL WELD S-NR03-02.01VID

This video will demonstrate proper welds/ vertical and overhead -technique, travel speed, fine adjustments for vertical versus overhead welding.

Languages: English

MIG STEEL DESTRUCTIVE TESTING S-NR03-03.01VID

This video will provide information on performing proper visual inspection, and destructive testing -evaluating welds for pass fail, destructive test looking for tear out of metal.

Languages: English

MIG ALUMINUM SETUP S-SR04-01.01VID

This video will discuss machine setup for MIG welding of aluminum and address - gas flow, wire speed, and voltage settings.

Languages: English

MIG ALUMINUM WELD S-SR04-02.01VID

This video will demonstrate making proper welds/ vertical and overhead -technique, travel speed, fine adjustments for vertical versus overhead welding.

Languages: English

MIG ALUMINUM DESTRUCTIVE TESTING S-SR04-03.01VID

This video will provide information on performing proper visual inspection, and destructive testing -evaluating welds for pass fail, destructive test looking for tear out of metal.

Languages: English

DOOR HINGE PINS AND BUSHING KITS S-SS04-11.01VID

This video demonstrates inspection and replacement procedures of door hinge pins and bushings, highlighting ACDelco's greaseable replacement pins and complete hinge assemblies.

Languages: English

NOTES

NOTES

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