

Clinic Types

Clinic

Clinics are designed to be held at venue that can accommodate group sizes from 20 to 100. The intent of the larger venue is to host multiple repair facilities within the Dealer market area at one event. The Instructor will be available for up to five total hours per session:

- Arrive one hour prior to session to prepare
- Teach two-three hours per session
- Remain at venue up to one hour following the session

Please Note: The Dealer will be responsible for invitations and post-clinic communications

InShop Clinic

An **InShop Clinic** is designed to take training to the repair facility's location to meet an individual, specific need. The repair facility must have available space onsite to accommodate the training (minimum participation of five, maximum of 20). The Instructor will be available for up to three total hours per InShop clinic session:

- Arrive one hour prior to session to prepare
- Teach maximum one hour per session
- Remain at repair facility up to one hour following the session

InShop Clinics include:

- A professional Instructor for one hour of technical training

InShop Scheduling Policy:

The Dealer must schedule two InShop clinics at once. To maximize Instructor utilization, it is preferred that InShop clinics be scheduled on the same day. If necessary, these sessions can be scheduled on two different days (within the same week) as long as the request coordinates with the Instructor's schedule and availability.

Available Topics

Clinics for Mechanical Repair Audiences

Automatic Transmission Diagnostics

W-AT02-07.01SEM

This 3 hour clinic 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.

Automatic Transmission Updates

W-AT02-08.01SEM

This 3 hour clinic 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.

Braking System Diagnosis and Repair *New for 2020!*

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.

Chassis Dynamics

WSS0101SM

Intended for the experienced technician, this 3 hour clinic 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.

Diagnosing Multiplexed Data Bus Networks

W-EL06-74.01SEM

Diagnosing complex network system failures is a challenge even for experienced technicians. In this 3 hour clinic, 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.

Diesel Emissions and Exhaust Aftertreatment

W-EP08-37.01SEM

This clinic will cover Diesel engine emission systems found in modern Diesel powered passenger cars and light trucks. Topics include: The major and minor components of diesel exhaust emissions and the legislative requirements that drive these emission control systems; Internal engine emission controls, intake air swirl and heating, EGR and PCV components. Exhaust after-treatment including the oxidation catalyst, particulate filter, NOx and SCR catalysts, and diesel exhaust fluid. Also discussed will be symptoms and diagnostics related to these systems, along with several real-world case studies.

EVAP Diagnosis

W-FC02-02.01SEM

This clinic 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.

HVAC Control System Operation and Diagnostics

W-AC07-06.01SEM

This clinic 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.

Hybrid Vehicle Maintenance Procedures

WAP0101SM

This 3 hour clinic 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.

Ignition Systems Diagnostics

W-EP08-40.01SEM

Diagnosing ignition system misfires can be a difficult task, especially when the concern is intermittent. This 3 hour clinic 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.

Next Generation GM Diesel Engines

WDE0101SM

This 3 hour clinic prepares technicians to diagnose and service the new generation of diesel engines from General Motors, including the 1.6L offered in the Chevrolet Cruze, the 2.8L offered in the Chevrolet Colorado and GMC Canyon, and the 6.6L offered in the Chevrolet Silverado and GMC Sierra. Topics will include unique features, maintenance procedures, documented service concerns, and special service tools for each next generation diesel engine covered.

Power Steering Technology

W-SS04-09.01SEM

This 3 hour clinic 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.

Refrigeration Diagnostics and Service Procedures

W-AC07-07.01SEM

Designed for technicians with prior understanding of the refrigerant cycle and system operation, this clinic will provide technicians with techniques and strategies required to isolate the root cause and perform repairs of failures in R-134a and R-1234yf equipped Air Conditioning (A/C) systems. The use of pressure-temperature and humidity readings as a diagnostic aide will be the foundation of the course. Specific component diagnosis includes variable displacement compressors, electrically driven compressors, expansion valves, Internal Heat Exchangers (IHx), enhanced evaporators and condensers. This course will include simulated diagnostic exercises to apply the principles learned.

Starting and Charging System Diagnosis

SEL0201SM

This 3-hour clinic 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.

SRS and Safety Systems

W-ST10-01.01SEM

This 3 hour clinic will cover the operation and diagnostic procedures of current Supplemental Restraint Systems (SRS) and why they are needed. Course content includes SRS sub-systems and components found on current vehicles, their function(s) and interrelated systems, such as OnStar. This course also covers the SRS safety procedures to be followed while making repairs, safe operation of a vehicle post-accident, diagnostic procedures, service tips, and special tools.

Vehicle Lighting and Access

SEL0301SM

This 3-hour clinic 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.

Clinics for Collision Repair Audiences

Advanced Safety Systems: Post Collision Service and Repair

W-EM05-05.01SEM

This 3 hour clinic 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: Side Blind Zone Alert, lane departure, haptic seats, rear vision camera, parking assist and adaptive cruise control.

Body Electrical Systems: Collision Service and Repair

W-EM05-04.01SEM

This 3 hour clinic 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.

Chassis Systems: Post Collision Repair

W-EM05-06.01SEM

This 3 hour clinic will cover procedures to be followed while making chassis system repairs 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.

GM Non-Structural Collision Repair

W-NR03-01.01SEM

This 3 hour clinic 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 insure 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.

GM Structural Collision Repair

W-SR04-01.01SEM

This 3 hour clinic will cover repairing and replacing structural components on GM vehicles. The clinic 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 clinic will discuss the 2014 Chevrolet Corvette Stingray and aluminum repair procedures for front and rear rails.

HVAC – R-1234yf: Service and Repair after Collision

W-EM05-01.01SEM

This 3 hour clinic will cover recent advances in automotive Heating, Ventilation and Air Conditioning. Topics include: The new (HFO) R-1234yf refrigerant, Tools and Equipment for servicing (HFO) R-1234yf systems, Differences in vehicle components, Proper service and diagnostic procedures for R-134a and (HFO) R-1234yf. Also covered are HVAC component replacement and best practices.

Hybrid Electric Vehicles: Repair it Safely after Collision

W-EM05-03.01SEM

This 3 hour clinic covers 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; the procedure for removing HV 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.

Restraint Systems: Repair it Safely after Collision

W-EM05-02.01SEM

This 3 hour clinic will cover the safety procedures to be followed while making repairs 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.

InShop (1 hour) Clinics for Mechanical Repair Audiences

A/C Compressor Replacement

W-AC07-01.01IST

This 1 hour InShop will cover important tips and procedures for replacing A/C compressors to ensure a long service life. Topics include: system contamination and flushing procedures, and the selection of correct refrigerant oil.

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.

Batteries

W-EL06-01.01IST

This 1 hour InShop will cover battery testing and replacement. Topics include: battery testing, charging and replacement, parasitic draw testing and OnStar precautions.

Electro-Hydraulic Brake Assist *New for 2020!*

SBK0201IS

This instructor-led InShop training 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.

Electronic Park Brake System *New for 2020!*

SBK0101IS

This instructor-led InShop training course 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.

Fuel Pump Replacement

W-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).

GM Service Programming

WDS0101IS

This 1 hour InShop will explore service programming on GM vehicles. Special attention will be paid to what service programming is, how to approach service programming, the locations of service programming information, how to address a service programming error, and special service programming considerations.

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.

TEHCM Programming

W-AT02-06.01IST

This 1 hour InShop will introduce the TEHCM and its related components, while highlighting related diagnostic and service procedures including TEHCM removal and reinstallation.

InShop (1 hour) Clinics for Collision Repair Audiences

Advanced Driver Assistance Systems

WCL0101IS

This 1 hour InShop 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.

Bolted Body Panels

W-NR03-02.01IST

This 1 hour InShop will cover the installation and adjustment procedures for bolt on body panels. These bolt-on panels include front and rear doors, hoods, liftgates, fenders and fascias. Proper installation and adjustment results in uniform gaps; ease of opening and closing, eliminates noise and improves customer satisfaction.

Pedestrian Safety Systems

SCL0201IS

This 1-hour InShop covers pedestrian collision mitigation and pedestrian impact detection systems. Topics discussed will include regulatory requirements, description and operation of these systems, and replacement and repair procedures.

Post Collision: Brake Inspection and Repair

W-EM05-10.01IST

This 1 hour InShop 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, ABS inspection and repairs.

Post Collision: Power Steering Inspection and Repair

W-EM05-11.01IST

This 1 hour InShop 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, steering column inspection.

Post Collision: Tires and Wheels

W-EM05-12.01IST

This 1 hour InShop 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, TPMS inspections and servicing.

Supplemental Restraints: Service and Repair

W-ST10-01.01IST

This 1 hour InShop will cover the servicing of supplemental restraint systems. Topics include replacement of the SDM, inflators, passenger presence sensor, SIR coil, seat belt retractors and wire repair strategy.

Aluminum Welding and Repair

W-SR04-01.01IST

This 1 hour InShop clinic 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.

Structural Steel Welding and Repair

W-SR04-02.01IST

This 1 hour InShop 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).