

## Version 3.5.1.7

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### Overview

The new version 3.5.1.7 contains over 25,000 new special tests and functions crossing multiple brands and vehicles. Highlights of new special tests are listed below. You may notice many more in the software that are just too numerous to identify individually. Technician feedback is the #1 driver in providing the coverage you need most.

### New Coverage - Summary

- **Volvo** – New coverage for 2016 & 2017MY vehicles and systems
- **GM** – Many new Actuation and Adjustment type tests for Engine, Hybrid, Transmission, AWD/Transfer Case, Brakes, Instrument Cluster, Climate/HVAC, Steering, Body systems
- **Hyundai** – New Actuation and Adjustment type tests for Engine/PCM and Brakes
- **Kia** – New Actuation and Adjustment type tests for Engine/PCM and Brakes
- **Mazda** – New Actuation type tests for Engine/PCM and Adjustment type tests for Brakes
- **Audi** – Many new Actuation and Adjustment type tests for Engine/PCM, Transmission, Brakes, Airbag, Instrument Cluster, Climate/HVAC
- **BMW** – Many new Actuation and Adjustment type tests for Engine/PCM, Transmission, Brakes, Steering and Suspension
- **Mercedes Benz** – Many new Actuation and Adjustment type tests for Brakes, Instrument Cluster and Climate/HVAC
- **Volkswagen** – Many new Actuation and Adjustment type tests for Engine/PCM, Transmission, Brakes, Airbag, Instrument Cluster, Climate/HVAC
- **Volvo** – Many new Actuation and Adjustment type tests for Engine/PCM, Battery, Transmission, Brakes, Instrument Cluster, Climate/HVAC
- **New Systems** - 112
- **New Vehicle-ECU Combinations** - 581
- **New Adjustment type tests** – 1,744
- **New Actuation type tests** – 23,232

# New Coverage – Special Test Highlights

## GM

- **Diesel functions added for 2011-2017 Silverado, Sierra, Express, and Savana 6.6 vehicles, and 2016-2017 Colorado and Canyon 2.8 diesels:**
  - DPF Pressure Sensor Reset
  - DPF Service Regeneration
  - DPF/Catalyst Reset
  - Exhaust Gas Temperature Sensor Reset
  - Elevated Idle
  - Exhaust After Treatment Fuel Injector Reset
  - Exhaust Gas Temperature Sensor Reset
  - Glow Plug Learn
  - NOx Catalyst Reset
  - NOx Sensor Reset
  - Particulate Matter Sensor Service Regeneration
  - Pilot Injector Balance Procedure
  - PTO Options
  - Reductant Fluid Tank Level Reset
  - Reductant System Reset
  - Reprogram Injector Flow Rates
  - Service DFFP Regeneration Routine
- **Post Collision, SRS, and Steering Service Functions on most makes and models of GM vehicles. Some of these additions cover vehicles from 2003 to 2017:**
  - Configure New Module
  - Passenger Presence Sensor Learn
  - Reset High Voltage Disable Request After Crash Event Detected
  - Re-Zero Passenger Presence System
  - Setup New PIDM
  - Setup New SDM
  - Setup SDM Primary Key in BCM
  - Setup SDM Serial Number in BCM
  - Setup SDM Serial Number in DIM
  - Steering Position/Torque Sensor Calibration
  - Steering Angle Sensor Learning
  - Clear Active Pull Compensation Learned Limits
  - Clear Driver- Specific Steering Angles
  - Power Steering Softstops Reset
  - Steering Tuning Selection

## Chrysler

- **Multiple Jeep, Ram, Dodge and Chrysler cars and trucks:**
  - Compression Test
  - Cylinder Balance Test
- **Ram and ProMaster diesel trucks and vans:**
  - DEF Dosing Injection Quantity

- DEF Heater Tests
- DEF Reductant Doser Prime Override Test
- Diesel Particulate Filter Replacement

## Volkswagen and Audi

- **Multiple vehicle models and years:**
  - Battery Separating Deactivation
    - Used for battery replacement
  - Generator Load Calibration
    - Used for alternator replacement
  - Idle Speed Adjustment
  - Injector Calibrations
    - Adapts a new injector value after injector or ECU replacement
  - Carbon Mass (DPF Replacement)
  - Oil Ash Volume (ECM Replacement)
    - Both of the above used when replacing the DPF
  - Parking Brake Close (activation and deactivation)
    - Used for brake service
  - Seat Occupied Recognition Reset
    - Post collision service or seat component replacement

## Hyundai and Kia

- **Multiple vehicle models and years:**
  - Resetting Auto Trans Adaptive Values
    - Used for transmission replacement or repair on 2012-2018 vehicles
  - EVAP Leakage Test
    - Aids in diagnosis of the EVAP system on 2017-2018 vehicles
  - Engine Test On and Off tests
    - Used on Hybrid vehicles to force the engine to either keep running or remain off

## **New Coverage Details – USA Domestic**

### Chrysler/Jeep Coverage

#### **320 new Actuation type special tests including:**

- **Engine/PCM** - Compression Test, Cylinder Balance Test, DEF Dosing Injection Quantity, DEF Heater tests, DEF Reductant Doser Prime Override Test, Diesel Particulate Filter Replacement, Direct Gear Clutch Slip Test, EGR tests, Engine Off Injector Toggle Test, Engine Running Injector Kill Test, ETC System Test, Exhaust Gas Recirculation Actuator, Glow Plug Relay Actuator, Injector Kill tests, LDP Pump Test, Leak Detection Pump Forced Monitor Test, O2 Heater Relay, PTC Heater Relay tests, Rail Pressure tests, Set Throttle Blade Position, Throttle Valve Actuator, Wastegate Solenoid Duty Cycle
- **Transmission/Electronic Shifter** - BTSI Solenoid, ESM Shift Lever Test, Line Pressure Test, Shift Lever Position Test
- **Instrument Cluster** - Lamp tests

- **Climate (HVAC)** - Indicator/Lamp tests, A/C Request, Blower Motor, Front Mode 1 Actuator Position, HVAC Cool Down Test, Solar Sensor Values
- **Body Control** - Lamp and Buzzer/Warning tests, Door Lock tests, Flash Programming Voltage Control, Window tests, Wiper/Washer tests, Headlight tests, Turn Signal tests, Diesel Fuel Heater Relay, Fuel Level Output, Oil Pressure Output, Vehicle Speed Output
- **Others** - tests for AUTOMATIC HEADLAMP LEVELING, ALARM REMOTE KEYLESS ENTRY, AUDIO and RADIO, DRIVERS DOOR MODULE

## Ford Coverage

### 3 new Adjustment type special tests including:

- **Brakes/ABS** - Calibrate Longitudinal Acceleration Sensor, Multi-Calibration Routine
- **Safety/Airbag** - Passenger System Reset/OCS Reset

### 20 new Actuation type special tests including:

- **Engine/PCM** – All Wheel Drive Clutch Control Commanded, Fuel System Test, Low Pressure Fuel Leakdown Test
- **Climate (HVAC)** - Air Mode Actuator
- **Body Control** - Turn Signal tests, Headlight tests
- **Others** - Tests for AUDIO CONTROL

## General Motors / Saturn Coverage

- Many new Adjustment type tests for Engine, Hybrid, Transmission, AWD/Transfer Case, Brakes, Instrument Cluster, Climate/HVAC, Steering, Body systems

### 564 new Adjustment type special tests including:

- **Engine/PCM** - APP Learn, Average Fuel Age Reset, BARO Sensor Reset, Brake Pedal Position Sensor Learn, Catalyst 1 Reset, Clear TAP, Crankshaft Learn, Clutch Pedal Position Learn, Crankshaft Pos. Variation Learn, DPF Pressure Sensor Reset, DPF Service Regeneration, DPF/Catalyst 2 Reset, Elevated Idle, Engine Oil Life Reset, Excessive Clutch Slip Data Reset, Exhaust After treatment Fuel Injector Reset, Exhaust Gas Temperature Sensor Reset, Fuel Composition Reset, Fuel Filter Life Reset, Fuel Injection Small Quantity Learning Odometer Reset, Fuel Pump Trim Reset, Fuel Rail Pressure Relief Valve Learned Values Reset, Fuel Trim Reset, Gear Selector -N- Position Learn, Glow Plug Learn, HO2S Heater Learn, Idle Learn Reset, Idle Speed Adjustment, Intake System Learned Values Reset, Learned Values Reset, NOx Absorber Catalyst Reset, NOx Catalyst Reset, NOx Sensor Reset tests, Oil Life Reset, Particulate Matter Sensor Service Regeneration, Pilot Injection Balance Procedure, PTO Options, Reductant Fluid Tank Level Reset, Reductant System Reset, Reprogram Injector Flow Rates, Reset Transmission Adapts, Service DPF Regeneration Routine
- **Transmission** - Allison TCM Fast Learn, Transmission Adaptive Pressure Reset tests, Clear All Garage Shift TAP, Gear Selector -N- Position Learn, , Trans. Adaptives Reset, Transmission Oil Life Reset, Transmission Service Fast Learn
- **Hybrid** - Fuel Economy Reset, Hybrid/EV Battery Pack Capacity Learn, Hybrid/EV Battery Pack Data Reset
- **AWD/Transfer Case** - AWD Disabled-by-Malfunction Counter Reset, Clutch Control Module/Rear Drive System Matching ID Setup, Range Actuator Learn, Reset Clutch Overtemp Counter
- **Brakes/ABS** - Automated Bleed, Automated Test, Adaptive Pressure Control Learn, Brake Pedal Position Sensor Calibration, Brake Pressure Sensor Calibration, Park Brake Cable Replacement

Procedure, Steering Angle Sensor Centering, Steering Position / Torque Sensor Calibration, TIM Reset, Tire Pressure Reset, Yaw Rate Sensor Learn, Yaw Rate Sensor Recalibration

- **Safety/Airbag** - Configure New Module, Passenger Presence Sensor Learn, Reset High Voltage Disable Request After Crash Event Detected, Re-Zero Passenger Presence System, Setup New PIDM, Setup New SDM, Setup SDM Primary Key In BCM, Setup SDM Serial Number In BCM, Setup SDM Serial Number In DIM
- **Climate/HVAC** - Actuator Recalibration, AfterBlow Option, HVAC Actuator Recal., Instant OAT Update, Recalibrate All Motors, Setup New HVAC
- **Instrument Cluster** - Driver Information Center Options, Engine Oil Life Reset, Instant OAT Update, Relearn Control Panel Type, Synchronize IPC and SIR
- **Steering** - Clear Active Pull Compensation Learned Limits, Clear Driver-Specific Steering Angles, Clear Softstops, Control Module Reset, Learned Values Reset, Power Steering Pressure Sensor Learn, Power Steering Softstops Reset, Steering Angle Sensor Learn, Steering Gear Replacement Procedure, Steering Position Sensor Calibration, Steering Tuning Selection, Steering Wheel Angle Sensor Centering, Steering Wheel Angle Sensor Reset, Torque Sensor Calibration
- **Body Control** - Assist Step Learn Procedure, Auto Door Unlock, Battery Sensor Module Learn, Clear Window Learned Values tests, Copy BCM Files, Invalidate All Fobs, Program Key Fob tests, Reset Teen Driver Key PIN, Setup BCM, Setup New RCDLR, Setup SDM Part Number In BCM, Setup SDM Serial Number In BCM, Tire Pressure Sensor Registration, Tire Pressure Sensors Learn
- **Others** - RADIO DRR Setup tests, Tuner Calibration, VIN Relearn

### **3,795 new Actuation type special tests including:**

- **Engine/PCM** – A/C Relay, Active Grill Shutter tests, Alternative Fuel Cylinder Power Balance, Alternative Fuel Injector Balance, Alternative Fuel Pressure Regulator Solenoid Valve, Autostart/Autostop, Boost Pressure Control VSV, Camshaft Actuator tests, Cam Valve Timing, Catalyst Test, Compression Test, CNG to Gasoline, Cooling Fan Motor, Cylinder Deactivation System, Cylinder Power Balance, Depressurize Fuel System, DPF Regeneration Enable, EGR Cooler tests, EGR Valve, Engine Speed Control, EVAP tests, Exh. Aftertreatment, Fuel Injector, Fan tests, Forced Fuel Switch Over, Fuel Pump tests, Fuel Injector Balance, Fuel Injector tests, Fuel Pressure tests, Fuel Pump tests, Fuel Trim Reset, Gasoline to CNG, Glow Plug Self-Test, Mixture Control Valve, HO2S Heater tests, IACV Motor Control, Idle Air Control, Ignition Coil tests, Intake Air Flow Valve tests, Oxygen Sensor tests, Particulate Matter Sensor Service Regeneration, Prime Fuel Pump, Reductant Heater tests, Reductant Fluid Quality Test, Reductant Injection Quantity Test, Reductant Injector, Reductant Pump, Reductant System Leak Test, Secondary Air Injection tests, Shift Solenoids, Supercharger control relay, TC Vane Pos. Ctrl. Solenoid, TC Wastegate Solenoid, Throttle Position, Throttle Sweep, Transmission Accumulator tests, Turbocharger Bypass Solenoid Valve, Turbocharger Vane Position, VVTL System tests, Wastegate Solenoid Duty Cycle
- **Hybrid** - Autostart/Autostop, Battery Charging System tests, Battery Pack Fan Speed, Drive Motor Coolant Pump Relay, EAC Compressor Speed, Hybrid Electronics Coolant Pump, Transmission Accumulator Solenoid Valve, Hybrid/EV Battery Pack Cooling Fan, Hybrid/EV Battery Pack tests, Motor Isolation tests, Pump Motor Test, Regenerative Braking, Service Charge, Shift Solenoids
- **Transmission** - All Wheel Drive Sol, Brake Band Pressure Control Solenoid Valve, Band Apply Solenoid, Clutch PC Solenoid tests, High Side Driver tests, Line Pressure tests, Odd Gear Clutch tests, Pressure Control Solenoid tests, Shift Solenoid tests, TCC Solenoid tests
- **ABS/Parking Brake** - ABS Motor, ABS Relay Test, Solenoid tests, Tension Relief Gear, Test, Lamp/Warning Light tests, Park Brake Actuator tests, Park Brake Cable Service tests, Park Brake Solenoid Relay tests, Rear Brake Caliper Piston Extend, Rear Brake Caliper Piston Retract
- **Safety/Airbag** - Driver Door Unlatch, Passenger Door(s) Unlatch, Lamp/Warning Light tests

- **Transfer Case** - ATC Range, Clutch Coupling Request, Front Diff Lock Control, Motor Driver tests, Rear Differential Clutch Solenoid Valve, Rear Differential Clutch Torque Command, Rear Differential Hydraulic Line Fill, Rear Diff Lock Control, Rear Drive Clutch Solenoid Valve, Transfer Case Clutch, Transfer Case Range
- **Suspension** - All Shock Solenoids, Compressor Relay, Compressor Test, Damper Actuator tests, Depressurize System, Exhaust Solenoid, Left Air Solenoid, Right Air Solenoid, Extended Ride Height Switch, EVO Solenoid Test, Pressurize System, Suspension Position Sensor Trim Height, Vehicle Level Control Exhaust Valve
- **Instrument Cluster** - Display Test, Dimming tests, Instrument Cluster Gauge Sweep, Lamp tests
- **Climate/HVAC** - A/C Compressor, A/C Defrost Solenoid, AC Relay, A/C Request, Blower Motor, Defrost Mode, Mode Door tests
- **Body Control** - Lamp and Buzzer/Warning tests, Door Lock tests
- **Seat** – Lumbar tests, Horizontal Movement tests, Vertical Movement tests
- **Doors** - Door Deadbolt Lock/Unlock, Door Lock/Unlock, All Door Lock Unlock, Driver Mirror Fold, Exterior Lighting, Heated Seat Mode, Mirror Fold, Passenger Mirror Fold

## New Coverage Details - USA Asian

### Hyundai Coverage

- New Adjustment type tests for Engine/PCM and Brakes

#### 16 new Adjustment type special tests including:

- **Engine/PCM** - Auto Detected Configuration Reset, Reset Adaptive Values, Resetting E-CVVT Values, Resetting Auto Trans Adaptive Values
- **ABS/Brakes** - Air Bleeding Mode, Auto Detected Configuration Reset (ESP/ESC Only), G Sensor Calibration, Longitudinal G Sensor Calibration(HAC/DBC Only), Pedal Travel Sensor (PTS) Calibration, SAS CALIBRATION(CAN-ESP Only)
- **Others** – Power Steering ASP Calibration

#### 515 new Actuation type special tests including:

- **Engine/PCM** - Additive Correction for O2 Sensor Heaters , ETC Motor Cleaning, EVAP tests, ETC Motor, Fuel Pressure tests, Fuel Pump tests, Ignition Coil tests, Injector Disable tests, Oil Control Valve tests, Variable Intake tests, Waste Gate Valve (Turbo Only)
- **Hybrid** - Fan tests
- **Transmission** - Engage Both Clutch(20mm), Lock Up Solenoid, Shift Control Solenoid Valve tests, Torque Converter Clutch Solenoid Valve
- **ABS/Brakes** – Electric Shuttle Valve tests, Inlet Valve tests, Outlet Valve tests, Motor Test
- **Electric Parking Brake** - Actuator Control Apply, Actuator Control Release, EPB Status Lamp, In-Line mode - Apply/Release, Maintenance mode - EPB/MOC tests
- **Instrument Cluster** – Lamp/Indicator tests
- **Climate/HVAC** – Mode Selector tests, Blower Fan Motor Step tests, Compressor tests, Mix Door tests
- **Body Control** - Lamp and Buzzer/Warning tests, Window tests, Door Lock tests, Wiper/Washer tests
- **Others** - tests for 4WD CONTROL, ADAPTIVE FRONT LIGHTING, BLIND SPOT DETECTION, POWER SEAT MODULE, SMART KEY UNIT, SURROUND VIEW MONITOR

## Kia Coverage

- New Adjustment type tests for Engine/PCM and Brakes

### **15 new Adjustment type special tests including:**

- **Engine/PCM** - Auto Detected Configuration Reset, Reset Adaptive Values, Resetting E-CVVT Values, Resetting Auto Trans Adaptive Values
- **ABS/Brakes** - Air Bleeding Mode, Auto Detected Configuration Reset (ESP/ESC Only), G Sensor Calibration, Longitudinal G Sensor Calibration(HAC/DBC Only), Pedal Travel Sensor (PTS) Calibration, SAS CALIBRATION(CAN-ESP Only)

### **526 new Actuation type special tests including:**

- **Engine/PCM** - Additive Correction for O2 Sensor Heaters , ETC Motor Cleaning, EVAP tests, ETC Motor, Fuel Pressure tests, Fuel Pump tests, Ignition Coil tests, Injector Disable tests, Oil Control Valve tests, Variable Intake tests, Waste Gate Valve (Turbo Only)
- **Hybrid** - Fan tests
- **Transmission** - Engage Both Clutch(20mm), Lock Up Solenoid, Shift Control Solenoid Valve tests, Torque Converter Clutch Solenoid Valve
- **ABS/Brakes** – Electric Shuttle Valve tests, Inlet Valve tests, Outlet Valve tests, Motor Test
- **Electric Parking Brake** - Actuator Control Apply, Actuator Control Release, EPB Status Lamp, In-Line mode - Apply/Release, Maintenance mode - EPB/MOC tests
- **Instrument Cluster** – Lamp/Indicator tests
- **Climate/HVAC** – Mode Selector tests, Blower Fan Motor Step tests, Compressor tests, Mix Door tests
- **Body Control** - Lamp and Buzzer/Warning tests, Window tests, Door Lock tests, Wiper/Washer tests
- **Others** - tests for 4WD CONTROL, ADAPTIVE FRONT LIGHTING, BLIND SPOT DETECTION, POWER SEAT MODULE, SMART KEY UNIT, SURROUND VIEW MONITOR

## Mazda Coverage

- New Adjustment type tests for Brakes

### **8 new Adjustment type special tests including:**

- **ABS/Brakes** - Brake Fluid Pressure Sensor Initialization, Lateral Acceleration Sensor Initialization, Longitudinal Acceleration Sensor Initialization, Yaw Rate Sensor Initialization

### **20 new Actuation type special tests including:**

- **Engine/PCM** - A/C Compressor Clutch Relay, Camshaft Position Commanded Duty Cycle 1, Desired RPM, EGR Valve Stepping Motor Position, EVAP Canister Purge Valve, Fuel Injector tests, Fuel Pump, Fuel System Test, Generator Voltage Desired, Intake Manifold Runner Control, O2 Sensor Heater tests, Variable Fan Duty Cycle

## Mitsubishi Coverage

### **1 new Actuation type special tests including:**

- **Engine/PCM** - Engine Running Injector Kill Test

## Toyota/Lexus Coverage

### 48 new Actuation type special tests including:

- **Engine/PCM** - Boost Pressure Control VSV, EGR Step, Exhaust Gas Control VSV, Fuel Pressure Control, IACV Motor Control, Idle Up VSV, Intake Air Control VSV, Purge Cut VSV, Secondary Air VSV Control, Slip Control Solenoid, Supercharger control relay, Variable Intake VSV Control, VVTL System tests

## **New Coverage Details – USA European**

### Audi Coverage

- Many new Adjustment type tests for Engine/PCM, Transmission, Brakes, Airbag, Instrument Cluster, Climate/HVAC

### 525 new Adjustment type special tests including:

- **Engine/PCM** - Activate/Deactivate Start/Stop Function, Bleed Fuel System, Carbon Mass (DPF Replacement), Climate Compressor Torque Calibration, Drain Fuel Tank, EGR Valve Reset, Fuel Pressure Reduction, Fuel Pump Adaptation, Generator Load Calibration, Idle Speed Adjustment, Injector Calibration tests, Intake Manifold Runner/Motor Reset, Neutral Position Sensor Adapting, Oil Ash Volume (ECM Replacement), Reset Timing Chain Adaption Values, Starting Torque Calibration, Throttle Valve Basic Setting, Turbo Charger Boost Control Reset
- **Transmission** - Forced Change-Up Adjustment, Mileage Data Adjustment, Single Gear Indicator Adjustment, Tiptronic Steering Wheel Button Adjustment, Transfer Configuration
- **ABS/Brakes** - Brake Pad Replacement tests, Sensor Unit Zero Position Compensation, Trailer Stabilization
- **Safety/Airbag** - Battery Separating Deactivation, Airbag Deactivation tests, Belt Tensioner Deactivation tests, Passenger Seat Occupation Recognition Sensor Deactivation, Seat Occupied Recognition Reset
- **Instrument Cluster** - Maximum Mileage to Service, Maximum Time to Service, Mileage (Since Service), Minimum Mileage to Service, Minimum Time to Service, Oil Quality, Service Reminder tests, Tank Characteristic tests, Time since Service, Total Consumption, Transport/Service Mode
- **Climate Control/HVAC** - Learned Values (Vehicle Data), Reset All Counters

### 1,176 new Actuation type special tests including:

- **Engine/PCM** - Actuator For Camshaft Adjustment, Boost Pressure Control Solenoid Valve, Camshaft Adjustment, Coolant tests, Diesel Particulate Filter Indicator Lamp, EGR tests, EVAP tests, Fan Control tests, Fuel Injector tests, Fuel Pressure Regulator tests, Fuel Pump Relay, Glow Plug Control Module, Intake Manifold Runner Flap, Throttle Body Module Control Circuit
- **Hybrid** - Charging Connector Indicator Lights Test Control Value LED tests
- **Transmission** – Gear Oil Cooling Valve Close Control Value, Open Converter Clutch Control Value, Shift Lock Control Value
- **ABS/Brakes** – Lamp tests, Dynamic Test Control Value, Inlet and Outlet Valve tests, PARKING BRAKE tests
- **Suspension** - Damper tests



- **Climate (HVAC)** - Air Distribution Flap Control Motor tests, Blower Activation Setpoint, Defroster Flap Control Motor, Footwell Flap Control Motor tests, Heat Regulation Valve tests, Segment Test, Temperature Flap tests
- **Body** – Lamp/Indicator test, Headlamp/Lighting tests, Window tests, Mirror tests, Door Lock tests, Seat tests, Blower tests, Electrically Adjustable Steering Column Test
- **Seats** - Pump and Valve tests, Backrest Inclination tests, Belt Height Adjustment tests, Lumbar Support tests, Position Movement tests, Seat Height tests, System function test, Upper Backrest Adjustment tests
- **Doors** - Door Lock/Unlock tests, Window tests, Mirror tests
- **Others** – tests for CENTRAL MODULE COMFORT SYSTEM, FRONT SENSORS DRIVER ASSISTANCE, GATEWAY, INFOTAINMENT INTERFACE, LIGHT CONTROL modules, TRAILER modules, SOUND SYSTEM modules, XENON RANGE (55)

## **BMW/Mini Coverage**

- Many new Adjustment type tests for Engine/PCM, Transmission, Brakes, Steering and Suspension

### **30 new Adjustment type special tests including:**

- **Engine/PCM** - Adjust Wastegate Linkage, Battery Exchange Register, Idle Adjustment, Move the Exhaust Flap into Install Position
- **Transmission** - Analog Paddle Reset
- **ABS/Brakes** - Activate Parking Brake After Pad Replacement, Bleed, Brake Bleed Procedure
- **Steering** - Activate Vehicle Mode, Auxiliary Battery (24V EPS) Exchange, Reset Steering Angle Offset Values
- **Suspension** – Air-Spring Bellows tests, Air-Spring Strut tests, Ride Height Sensor Check

### **17 new Actuation type special tests including:**

- **Engine/PCM** - E-Box Fan Control, Evaluate the Battery State of Charge, Fuel Quality Recognition, Gear Change Idle Speed Activation, Transmission Oil Change
- **ABS/Brakes** - ABS Pump Activation Test (5 seconds), Brake Line Mix-up test
- **Suspension** - Air Supply System Check, Compressor Relay Check

## **Fiat Coverage**

### **2 new Actuation type special tests including:**

- **Engine/PCM** - Thermostat Heater, Wastegate Solenoid Duty Cycle

## **Mercedes Benz**

- Many new Adjustment type tests for Brakes, Instrument Cluster and Climate/HVAC

### **11 new Adjustment type special tests including:**

- **ABS/Brakes** - ESP Test, Intake Valve Calibration, Null Balancing - Steering Wheel Angle Sensor, Sensor Cluster Configuration, Separation Valve Calibration, Test Drive Activation
- **Instrument Cluster** – Oil Change Data, Reset Adaption To Factory Setting

- **Climate (HVAC)** - Refrigerant Compressor Run-In

#### 46 new Actuation type special tests including:

- **Engine/PCM** - Engine Running Injector Kill Test, Exhaust Flap
- **ABS/Brakes** – AVHL Actuator Test
- **Instrument Cluster** - Current Values - Service Information, Read Service Needs
- **Body Control** - Lamp and Buzzer/Warning tests, Lock tests
- **Others** – tests for MULTICONTOUR SEAT

### Volkswagen Coverage

- Many new Adjustment type tests for Engine/PCM, Transmission, Brakes, Airbag, Instrument Cluster, Climate/HVAC

#### 524 new Adjustment type special tests including:

- **Engine/PCM** - Activate/Deactivate Start/Stop Function, Bleed Fuel System, Carbon Mass (DPF Replacement), Climate Compressor Torque Calibration, Drain Fuel Tank, EGR Valve Reset, Fuel Pressure Reduction, Fuel Pump Adaptation, Generator Load Calibration, Idle Speed Adjustment, Injector Calibration tests, Intake Manifold Runner/Motor Reset, Neutral Position Sensor Adapting, Oil Ash Volume (ECM Replacement), Reset Timing Chain Adaption Values, Starting Torque Calibration, Throttle Valve Basic Setting, Turbo Charger Boost Control Reset
- **Transmission** - Forced Change-Up Adjustment, Mileage Data Adjustment, Single Gear Indicator Adjustment, Tiptronic Steering Wheel Button Adjustment, Transfer Configuration
- **ABS/Brakes** - Brake Pad Replacement tests, Sensor Unit Zero Position Compensation, Trailer Stabilization
- **Safety/Airbag** - Battery Separating Deactivation, Airbag Deactivation tests, Belt Tensioner Deactivation tests, Passenger Seat Occupation Recognition Sensor Deactivation, Seat Occupied Recognition Reset
- **Instrument Cluster** - Maximum Mileage to Service, Maximum Time to Service, Mileage (Since Service), Minimum Mileage to Service, Minimum Time to Service, Oil Quality, Service Reminder tests, Tank Characteristic tests, Time since Service, Total Consumption, Transport/Service Mode
- **Climate Control/HVAC** - Compressor Run-In Time Adaption, Learned Values (Vehicle Data), Reset All Counters

#### 1,214 new Actuation type special tests including:

- **Engine/PCM** - Actuator For Camshaft Adjustment, Boost Pressure Control Solenoid Valve, Camshaft Adjustment, Coolant tests, Diesel Particulate Filter Indicator Lamp, EGR tests, EVAP tests, Fan Control tests, Fuel Injector tests, Fuel Pressure Regulator tests, Fuel Pump Relay, Glow Plug Control Module, Intake Manifold Runner Flap, Throttle Body Module Control Circuit
- **Hybrid** - Charging Connector Indicator Lights Test Control Value LED tests
- **Transmission** – Gear Oil Cooling Valve Close Control Value, Open Converter Clutch Control Value, Shift Lock Control Value
- **ABS/Brakes** – Lamp tests, Dynamic Test Control Value, Inlet and Outlet Valve tests, PARKING BRAKE tests
- **Suspension** - Damper tests

- **Climate (HVAC)** - Air Distribution Flap Control Motor tests, Blower Activation Setpoint, Defroster Flap Control Motor, Footwell Flap Control Motor tests, Heat Regulation Valve tests, Segment Test, Temperature Flap tests
- **Body** – Lamp/Indicator test, Headlamp/Lighting tests, Window tests, Mirror tests, Door Lock tests, Seat tests, Blower tests, Electrically Adjustable Steering Column Test
- **Seats** - Pump and Valve tests, Backrest Inclination tests, Belt Height Adjustment tests, Lumbar Support tests, Position Movement tests, Seat Height tests, System function test, Upper Backrest Adjustment tests
- **Doors** - Door Lock/Unlock tests, Window tests, Mirror tests
- **Others** – tests for CENTRAL MODULE COMFORT SYSTEM, FRONT SENSORS DRIVER ASSISTANCE, GATEWAY, INFOTAINMENT INTERFACE, LIGHT CONTROL modules, TRAILER modules, SOUND SYSTEM modules, XENON RANGE (55)

## Volvo

- New coverage for 2016 & 2017MY vehicles and systems
- Added coverage for 112 new systems
- Added coverage for 581 new vehicle-ecu combinations
- Many new Adjustment type tests for Engine/PCM, Battery, Transmission, Brakes, Instrument Cluster, Climate/HVAC

### **48 new Adjustment type special tests including:**

- **Engine/PCM** – EVAP tests, Reset Adaptation Parameters, Show Operating Value Monitoring
- **Transmission** - Reset Adaptation Parameters, Start Gear Indicator Mode, Transmission Oil Change Interval Reset, Transmission Position Sensor Calibration
- **ABS/Brakes** - Brake Pressure Sensor Zero Pos. Compensation, Lateral Acceleration Sensor Zero Position Calibration, Longitudinal Acceleration Sensor Zero Position Calibration, Null Balancing - Steering Wheel Angle Sensor
- **Safety** – AIRBAG Calibrate Acceleration Sensor
- **Transfer Case/Differential** - Drain Pressure Accumulator
- **Cluster** - Resetting Of Service-Interval Display, Activate/Deactivate Warning tests
- **HVAC/Climate Control** - Adapting Of Control Motors, Air Conditioner Actuator Learning Mode, Air Conditioner Control Unit Programming, Component Status Display, Evaporator Output Programming, Programmed Configuration, Recirculated-Air Flap Cleaning Mode
- **Battery** - Battery Replacement, Reset Battery Sensor Adaptation
- **Others** – DOOR modules Window Initialization tests

### **107 new Actuation type special tests including:**

- **Engine/PCM** - Air Conditioner Relay
- **HVAC/Climate Control** – Button tests, Mode tests, Seat Heating tests
- **Body Control** - Lamp and Buzzer/Warning tests
- **Others** – DRIVER DOOR tests, PASSENGER DOOR tests