

Bosch ADS Software Update – Nov 2019




Ver 4.0

<https://www.boschdiagnostics.com/pro/ads/>

Version 4.0 is the **largest software upgrade** provided by **Bosch**.

4.0 includes **major** upgrades that take your **diagnostic experience to the next level**.

Three major focus areas in **4.0** include:

-  **Massive additions to European Coverage** – **thousands** of new special functions you need for BMW, Mercedes, Volkswagen, Audi
-  **QuickScan** – Scan vehicles **faster than anyone else** with average full system vehicle scans in under 60 seconds
-  **FCA Approved Secure Gateway Access** for 2018+ protected vehicles

New **ADAS** and **new model year** coverage for many other brands also included in 4.0. Details provided throughout these release notes.



Added Coverage – Summary

- Thousands of new key adjustment and actuation tests:
 - BMW, 2000-2018MY
 - Mercedes, 2000-2018MY
 - Volkswagen, 1992-2018MY
 - Audi, 1992-2018MY
- New ADAS coverage:
 - Ford, 2019MY forward facing camera dynamic calibrations
 - GM, 2014-2019MY adaptive cruise control radar dynamic calibrations
 - Jaguar, 2015-2018MY forward facing camera dynamic calibrations
 - Land Rover 2016-2018MY forward facing camera dynamic calibrations
 - Hyundai, Kia, radar dynamic calibrations for SMART CRUISE CONTROL and AUTONOMOUS EMERGENCY BRAKING
- New coverage for 2019MY vehicles and systems:
 - Ford, Mitsubishi
- New coverage for 2018MY vehicles and systems:
 - Jaguar, Land Rover, Volvo

4.0 Update Highlights

QuickScan

Full System DTC Scans are now faster than any other diagnostic platform. You will see speed improvements on the following brands in 4.0, with more to come in future updates.

2008 and newer CAN vehicles for these manufacturers:

- Chrysler, Dodge, Ram, Jeep, Plymouth
- Ford, Lincoln, Mercury
- GMC, Chevrolet, Pontiac, Buick, Oldsmobile, Saturn, Hummer, Cadillac
- Hyundai, Genesis, Kia
- Mazda
- Mitsubishi
- Nissan, Infiniti
- Toyota, Lexus, Scion
- Volkswagen, Audi
- Mercedes-Benz
- BMW
- Volvo

FCA Approved Secure Gateway Access

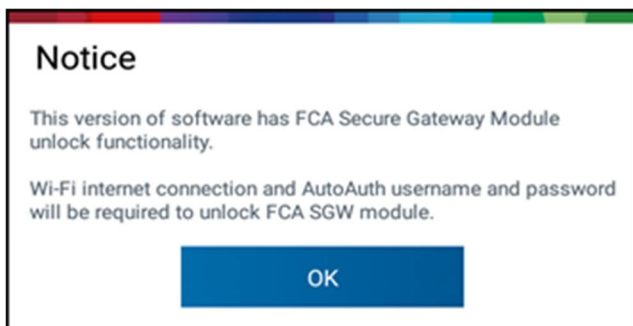
Starting with most 2018 models, FCA implemented a Secure Gateway Module, or SGW on their vehicles. This module is similar to a “firewall” to protect the vehicle network. Only FCA Approved diagnostic platforms will allow access to diagnostic functions on these vehicles.

4.0 provides a seamless integration of Unlocking FCA vehicle’s Secure Gateway Module.

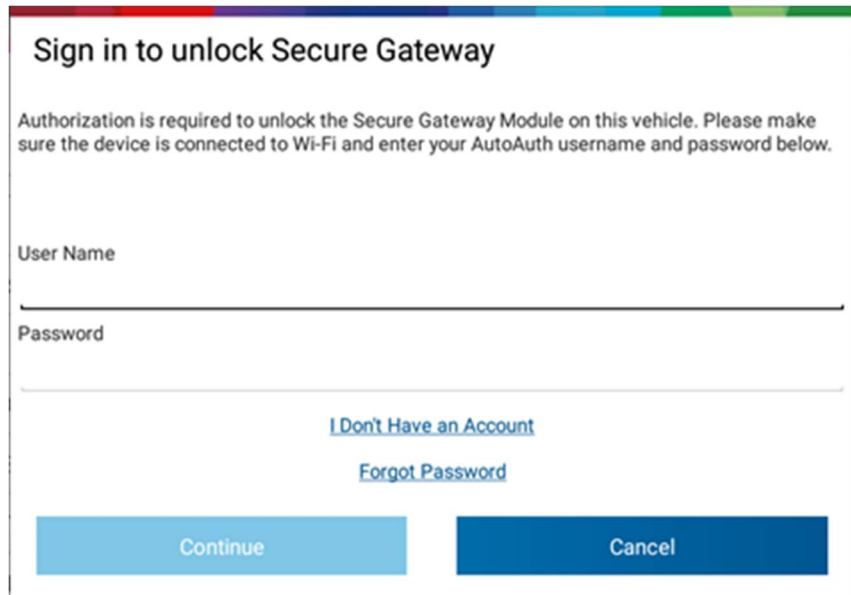
Access to these vehicles requires two steps. First, a one-time account setup and tool registration with AutoAuth. Check <https://info.autoauth.com/> or <https://webapp.autoauth.com/> for more details on user account and tool registration setup.

After AutoAuth account setup, your ADS tool should be updated to 4.0 and connected to WiFi.

Upon ID’ing the vehicle, you will be notified if the vehicle is SGW equipped as shown in message box below.



Functions such as reading DTCs or viewing Live Data require no unlocking, however, to clear DTCs or perform any bi-directional function, the user will be prompted for their AutoAuth username and password as shown in message box below. Upon entering a valid username and password, Select "Continue". Your credentials and diagnostic tool are then authenticated online, and ready to unlock the SGW.



Sign in to unlock Secure Gateway

Authorization is required to unlock the Secure Gateway Module on this vehicle. Please make sure the device is connected to Wi-Fi and enter your AutoAuth username and password below.

User Name

Password

[I Don't Have an Account](#)

[Forgot Password](#)

New European Coverage

4.0 includes thousands of new critical adjustment, actuation and workflow tests for BMW, Mercedes, Volkswagen, & Audi, and Mini. Many of these are complex 'Workflow' style tests to cover the more challenging diagnostic needs of this OEM. In addition many functions have been added to assist with the day-to-day diagnostics. Some of the most critical functions included are listed below:

Audi

- **Engine:**
 - **Generate Readiness Code**
 - Applies to the following vehicles as required:
 - 2008+ All Models
 - **Throttle Valve Basic Setting**
 - Applies to the following vehicles as required:
 - 1999+ All Models
 - **Dashboard:**
 - **Service Light Reset**
 - Applies to the following vehicles as required:
 - 1999+ All Models
 - **ABS**
 - **ESP Road Test**
 - Applies to the following vehicles as required:
 - 1999+ All Models
 - **Basic Setting / Bleeding Brake System**
 - Applies to the following vehicles as required:
 - 1999+ All Models
 - **Gateway or Battery Regulation**
 - **Battery Replacement**
 - Applies to the following vehicles as required:
 - 2004+ All Models
 - **Steering Assist or Steering Wheel**
 - **Steering Angle Sensor Basic Setting**
 - Applies to the following vehicles as required:
 - 2006+ All Models
 - **Airbag**
 - **Seat Occupant Recognition Basic Setting**
 - Applies to the following vehicles as required:
 - 2008+ All Models
 - **Parking Brake**
 - **Brake Pad Replacement**
 - Applies to the following vehicles as required:
 - 2004+ All Models
-

BMW/Mini

- **Engine**
 - **Registration Starter Exchange**
 - Applies to the following vehicles as required:
 - 2006+ All Models
 - **Battery Replacement**
 - Applies to the following vehicles as required:
 - 2002+ All Models
 - **Air Conditioning**
 - **HVAC: Installation Position of Flap Motors**
 - Applies to the following vehicles as required:
 - 2006+ All Models
 - **Power Steering Column Initialization**
 - Applies to the following vehicles as required:
 - 2007 – 2014 X6(E71), X5(E70), X6(E&!E72)
 - **Slide Roof**
 - **Slide Tilt Sunroof Initialization**
 - Applies to the following vehicles as required:
 - 2002+ All Models
 - **Transmission**
 - **MIL (Malfunction Indicator Light)**
 - Applies to the following vehicles as required:
 - 1987-2006 All Models
 - **Electromechanical Parking Brake**
 - **Electronic Parking Brake – Start-up**
 - Applies to the following vehicles as required:
 - 2006+ All Models
 - **Passenger Seat Module**
 - **RF Seat Normalization**
 - Applies to the following vehicles as required:
 - 2009+ All Models
-

Mercedes

- **Parking Brake:**
 - **Brake Pad Replacement**
 - Applies to the following vehicles as required:
 - 2015+ C-Class (205)
 - 2006+ CL-Class (216)
 - 2016+ GLC-Class (253)
 - 2007-2013 S Class(221)
 - **HVAC:**
 - **A/C Compressor Run In**
 - Applies to the following vehicles as required:
 - 2008-2018 C Class (204/205)
 - 2010-2018 E Class(207/212)
 - 2016-2018 GLC (253)
 - 2012-2015 ML Class(166)
 - 2007-2018 S Class(221/222)
 - **Normalization of Actuator Motors**
 - Applies to the following vehicles as required:
 - 2008-2018 C Class (204/205)
 - 2010-2018 E Class(207/212)
 - 2010-2015 GLK Class (x204)
 - 2016-2018 GLC (253)
 - 2012-2015 ML Class(166)
 - 2007-2018 S Class(221/222)
 - **Stability Control:**
 - **Steering Angle Reset**
 - Applies to the following vehicles as required:
 - 2006-2015 C Class(203/204)
 - 2010-2017 E Class(207/212)
 - 2010-2015 GLK Class (x204)
 - **Transmission:**
 - **Reset Adaptation Parameters**
 - Applies to the following vehicles as required:
 - 2008-2018 C Class (204/205)
 - 2010-2018 E Class(207/212)
 - 2016-2018 GLC (253)
 - 2006-2015 ML Class(164/166)
 - 2007-2018 S Class(221/222)
 - **Teach In Selection Range Sensor**
 - Applies to the following vehicles as required:
 - 2008-2018 C Class (204/205)
 - 2010-2018 E Class(207/212)
 - 2016-2018 GLC (253)
-

- 2006-2015 ML Class(164/166)
- 2007-2018 S Class(221/222)
- **Door/Sunroof/Tailgate:**
 - **Door/Sunroof/Tailgate Initialization or Normalization**
 - Applies to the following vehicles as required:
 - 2008-2018 C Class (204/205)
 - 2010-2018 E Class(207/212)
 - 2010-2015 GLK Class (x204)
 - 2016-2018 GLC (253)
 - 2007-2018 S Class(221/222)
- **Engine:**
 - **Adjust Idle Speed**
 - Applies to the following vehicles as required:
 - 2008-2018 C Class (204/205)
 - 2010-2018 E Class(207/212)
 - 2016-2018 GLC (253)
 - 2006-2015 ML Class(164/166)
 - 2007-2018 S Class(221/222)
 - **Injector Quantity Adjustment**
 - Applies to the following vehicles as required:
 - 2008-2018 C Class (204/205)
 - 2010-2018 E Class(207/212)
 - 2016-2018 GLC (253)
 - 2006-2015 ML Class(164/166)
 - 2007-2018 S Class(221/222)

Volkswagen

- **Engine:**
 - **Generate Readiness Code**
 - Applies to the following vehicles as required:
 - 2008+ All Models
 - **Throttle Valve Basic Setting**
 - Applies to the following vehicles as required:
 - 2001+ All Models
 - **Dashboard:**
 - **Service Light Reset**
 - Applies to the following vehicles as required:
 - 1999+ All Models
 - **ABS**
 - **ESP Road Test**
 - Applies to the following vehicles as required:
 - 1999+ All Models
 - **Basic Setting / Bleeding Brake System**
 - Applies to the following vehicles as required:
 - 1999+ All Models
 - **Gateway or Battery Regulation**
 - **Battery Replacement**
 - Applies to the following vehicles as required:
 - 2000+ All Models
 - **Steering Assist or Steering Wheel**
 - **Steering Angle Sensor Basic Setting**
 - Applies to the following vehicles as required:
 - 2006+ All Models
 - **Airbag**
 - **Seat Occupant Recognition Basic Setting**
 - Applies to the following vehicles as required:
 - 2008+ All Models
 - **Parking Brake**
 - **Brake Pad Replacement**
 - Applies to the following vehicles as required:
 - 2006+ All Models
-

New Coverage Details – USA Domestic

New Chrysler/Jeep Coverage

134 new Adjustment type special tests including:

- **Engine/PCM** - Active Grill Shutter Replaced, CAM Crank Relearn Routine, Crankshaft Pos. Variation Learn, Clear Engine Auto Restart Crank Counter, Clear Stored Accumulated Fuel Mass, Coolant Three Way Valve Replaced, EGR System Test, Emissions Rolls Test Mode, Engine Idle Shutdown Feature Enable/Disable, Exhaust Phaser Cleaning tests, FCM Enable Emissions Rolls Test Mode, Idle Shutdown Timer Adjustment, Intake Phaser Cleaning tests, Learn ETC, New Engine Installed, Quicklearn 62TE, Quicklearn Non RFE, Quicklearn RFE, Reset Camshaft Adaptives, Reset Enhanced Automatic Oil Change Indicator, Reset Memory, Reset Turbo Adaptives, Reset Turbo Over Boost Counter, Reset VCM Adaptives, SCR System Pressure Line Replacement, TCC Break In, TLC Learn, Turbo Actuator Pre-Align / Self Calibrate, Write Pinion Factor, Write VIN
- **ABS** - ABS Bleed Brakes, ABS Unit Bleed, ABSO Initialization, Bleed Brakes, Brake Fluid Replacement/Brake Fluid Reservoir Substitution, Calibrate Tandem Master Cylinder Sensor, Electric Park Brake Management, Emissions Rolls Test Mode, Pressure Sensor Calibration, Proxi Configuration, Service Procedures
- **Tire Pressure Monitor/WCM** - Clear TPM Sensor Rolls Test Results, Clear TPM Sensor Warnings, Tire Pressure Sensor Registration, TPM Sensor Rolls Test, Update Front and Rear Axle Nominal Tire Pressure Values
- **Climate (HVAC)** - Reset Module
- **Body Control** - Exit Shipping Mode, Headlamp Delay Time, Headlamps On With Wipers
- **ADAS** - Light Rain Sensor Re-adaption

1,307 new Actuation type special tests including:

- **Engine/PCM** - 1st Gear Clutch Test (62TE), 1st Gear Clutch Test (Non-RFE), 1st Gear Clutch Test (RFE), 2/4 Solenoid, 2-4 Solenoid, 2C Or 2-4 Solenoid, 2nd Gear Clutch Test (62TE), 2nd Gear Clutch Test (Non-RFE), 2nd Gear Clutch Test (RFE), 3rd Gear Clutch Test (62TE), 3rd Gear Clutch Test (Non-RFE), 3rd Gear Clutch Test (RFE), 4C Solenoid, 4C Solenoid State, 4th Gear Clutch Test (62TE), 4th Gear Clutch Test (Non-RFE), A/C Compressor Clutch Relay Control State, Activate Fuel Lift Pump, Active Exhaust Valve 1, Active Exhaust Valve 2, Active Grill Shutter Test, Alternator Field Control State, Alternator Field Duty Cycle, Alternator Field Duty-Cycle, Auto Shutdown (ASD) Relay Control State, Auto Shutdown Relay Control State, Auxiliary Coolant Pump, CEGR H-Bridge Valve Duty Cycle, Check PCM Odometer, Check PCM VIN, CNG Injector Relay, CNG Shut Off Relay, CNG/Gasoline Forced Fuel Type , Coolant Three Way Valve Test , Cooled EGR H-Bridge Valve System Test , Cylinder 1 Deactivation Solenoid Control State, Cylinder 4 Deactivation Solenoid, Cylinder 4 Deactivation Solenoid Control State, Cylinder 6 Deactivation Solenoid Control State, Cylinder 7 Deactivation Solenoid Control State, Double Start Override Relay, DPF Lamp, DR Solenoid, DTI FUEL TRANSFER RLY, DTI LTR CLNT PMP, DTI SPRCHRGR BPV MOTOR, Dual Speed Fuel Pump Relay, Dual Speed Oil Pump, Duty Cycle Purge Solenoid, EGR Valve Replaced, EGR Valve Solenoid Duty Cycle, Electric Thermostat Heater Solenoid, Electric Thermostat Heater Solenoid Duty Cycle, Electric Vacuum Pump, EMCC VLP Solenoid, Engine After Run Coolant Pump, Engine Off Injector Toggle Test, Engine Running Injector Kill Test, ESIM Forced Monitor Test, ETC Lamp, ETC Throttle Follower Test, Fuel Filter Water Level Warning Lamp, Fuel Injector 1, Fuel Injector 2, Fuel Injector 3, Fuel Injector 4, Fuel Injector 4 Control State, Fuel Injector 5, Fuel Injector 5 Control State, Fuel Injector 6, Fuel Injector 6 Control State, Fuel Injector 7, Fuel Injector 7

- Control State, Fuel Injector 8, Fuel Injector 8 Control State, Fuel Pump Relay Control State, Gas Injector Relay, Glow Lamp, HEV Belt-Driven Coolant Pump Clutch Relay, HEV Engine Aux Heater LIN Coolant Pump, HEV Engine Belt-Driven Coolant Pump Clutch Relay, HEV Fuel Tank Isolation Valve Solenoid, HEV TPIM Inverter LIN Coolant Pump, High Speed Fan, Idle RPM Test, Intake Manifold Short Runner Valve (SRV) Solenoid Control State, Intake Manifold Short Runner Valve Solenoid, Intake Manifold Tuning Valve (MTV) Solenoid Control State, Intake Manifold Tuning Valve Solenoid, LC Solenoid, Low Reverse Solenoid, Low-Reverse Solenoid, MIL Lamp, MS Solenoid, Multiair VVA Solenoid 1, Multiair VVA Solenoid 2, Multiair VVA Solenoid 3, Multiair VVA Solenoid 4, Neutral Gate Test (62TE), Neutral Gate Test (RFE), O2 Heater Test, Oil Pressure Lamp, Over Drive Solenoid, Over-Drive Solenoid, Overdrive Switch Test, Overdrive Switch Test (Non-RFE), OverDrive Switch Test (RFE), Oxygen Sensor 1/1 Heater Duty Cycle, Oxygen Sensor 1/2 Heater Duty Cycle, Oxygen Sensor 2/1 Heater Duty Cycle, Oxygen Sensor 2/1 Heater Duty-Cycle, Oxygen Sensor 2/2 Heater Duty Cycle, Oxygen Sensor 2/2 Heater Duty-Cycle, Oxygen Sensor 2-1 Heater Duty Cycle, Oxygen Sensor 2-2 Heater Duty Cycle, Proportional Purge Solenoid, Proportional Purge Solenoid., PTC Cabin Heater 1 Status, PTC Cabin Heater 2 Status, PTC Cabin Heater 3 Status, Purge Solenoid Duty Cycle, Radiator Cooling Fan PWM Cntrl State, Radiator Cooling Fan PWM Control State, Radiator Cooling Fan PWM Duty Cycle, Radiator Cooling Fan PWM Duty-Cycle, Radiator Cooling Fan Relay 1 Control State, Radiator Cooling Fan Relay 2 Control State, Radiator/Condenser Cooling Fan Relay 1 Control State, Radiator/Condenser Cooling Fan Relay 2 Control State, Ram Active Air Box Test, Reverse Gear Clutch Test (62TE), Reverse Gear Clutch Test (Non-RFE), Reverse Gear Clutch Test (RFE), Secondary Air Pump, Secondary Air Solenoid, Shift Lever Position Test (62TE), Shift Lever Position Test (Non-RFE), Shift Lever Position Test (RFE), Skip Shift Solenoid, Surge Solenoid Control State, Thermistor Test, Tumble Generator Valve, Underdrive Solenoid, Under-Drive Solenoid, Vacuum Pump Relay, VLP Solenoid, VVA Solenoids Pre-Energization, VVL Service Test, VVT Exhaust Phaser 1 Actuator, VVT Exhaust Phaser 2 Actuator, VVT Intake Phaser 1 Actuator, VVT Intake Phaser 2 Actuator, Wastegate Solenoid Control State, Wastegate Solenoid Duty Cycle
- **Transmission/Electronic Shifter** - Linear Solenoid tests, Shift Solenoid tests, Torque Converter Clutch tests, Transmission Clutch Pressure tests
 - **Hybrid** - APM Status, Chiller Shut-Off Valve, EAC Compressor Speed Request, Electric Transmission Oil Pump, Front Refrigerant Shut-Off Valve, High Temp Aux Pump, High Temp Cabin Valve Rotation, High Voltage Coolant Heater, Low Temp Active Pump, Low Temp Passive Pump, Park Pawl Actuator Control, Pump Control, Radiator Fan Duty Cycle
 - **ABS** – Lamp/Indicator tests, Inlet/Outlet Valve tests, Pilot Valve Activation tests, Priming Valve Activation tests
 - **Safety/Restraint** - Driver Side Seat Belt, Passenger Occupant Detection Sensor (ODS), Passenger Seat Belt, SRS Lamp
 - **Instrument Cluster** - Buzzer, Commando City, Dimming Display, Dimming Graphics, Electronic Stability Control Off, Seat Belt Unfastened Lamp, Seat Belt Unfastened Warning Cycle, Vehicle Speed Cluster
 - **Climate (HVAC)** - Front Blower, Duct Sensor - Floor Left, Duct Sensor - Floor Right, Duct Sensor - Panel Left, Duct Sensor - Panel Right, Duct Sensor Right Panel, ECVD Compressor PWM Command, Evaporator Sensor Temperature, Front Mode Door Actuator Position, Right Temp. Door Actuator Position
 - **Body Control** - Lamp and Buzzer/Warning tests, Door Lock tests, Window tests, Wiper/Washer tests, Headlight tests, Turn Signal tests
 - **Others** - tests for INTEGRATED CENTER STACK, TELEMATICS GATE WAY, AUDIO and RADIO, RADIO FREQUENCY HUB (TPMS), DRIVER ASSISTANCE SYSTEM MODULE
-

New Ford Coverage

- New coverage for 2019MY vehicles and systems
- New coverage for forward facing camera calibrations (dynamic type) for 2019 vehicles
- Added coverage for 683 new systems
- Added coverage for 898 new vehicle-ecu combinations

54 new Adjustment type special tests including:

- **Engine/PCM** - Clear Transmission Adaptive KAM Tables, Engine Oil Life Reset, Initialize Adaptive KAM Tables, Misfire Monitor Neutral Profile Correction, Relearn Vehicle Data, Reset KAM, Stop Trans-Adaptive Learning And Measure Slip Time
- **Transmission** - Clear Transmission Adaptive KAM Tables, Do Not Use The Transmission Adaptive KAM Tables, Reset KAM, Stop Trans-Adaptive Learning And Measure Slip Time
- **Brakes/ABS** - ABS ECU Reset, Accelerometer Calibration, Brake Master Cylinder Pressure Transducer Calibration, Brake System Pressure Bleeding, Calibrate Longitudinal Acceleration Sensor, IVD Initialization Routine, IVD Initialization Sequence, IVD Sensors Calibration, Multi-Calibration Routine, Roll Rate Sensor Initialization Start, Valve Calibration, Yaw Rate/Lateral Acceleration Calibration
- **ADAS** - LDWS Camera Alignment for 2018-2019 Mustang and Transit vans
- **Safety/Airbag** - Passenger System Reset/OCS Reset, Passenger Zero Seat Weight Test
- **Suspension** - Accurate Trim Test, Pneumatic Test, Ride Height Calibration
- **Steering** - Pull Drift Compensation Reset, Steering Motor Angle Trim, Steering Toe Adjustment, Steering Wheel Position Sensor Calibration
- **Body** - Battery Monitor System Reset, BCM Crash Status Reset, PATS Functions, Tire Pressure Sensor Registration
- **Others** - DRIVER FRONT SEAT MODULE Calibration, Keyless Entry Keypad Code Reset for REMOTE FUNCTION ACTUATOR, Power Window Initialization for PASSENGER FRONT DOOR MODULE

185 new Actuation type special tests including:

- **Engine/PCM** – AC Requested, Air Conditioning Compressor Command State, All Wheel Drive Clutch Control Commanded, Engine Running Fuel Pressure Test, Exhaust Flow Control Valve A Commanded, Exhaust Flow Control Valve B Commanded, Fuel Pressure Control Valve, Injector 10 Disable, Injector 9 Disable, KOEO, KOER, Low Pressure Fuel System Test, Power Balance, Relative Compression
- **Hybrid** - DC To DC Converter Enable, Motor Electronics Coolant Pump
- **Brakes/ABS** - (ABS) Power Relay, Hydraulic Pump Motor, Inlet and Outlet Valve tests, Traction Control Priming Valve Front Right, Traction Control Switching Valve Front Right
- **Suspension** - Air Compressor, Air Suspension Vent Solenoid, Left Rear Air Spring Solenoid, Pneumatic Trim, Right rear air spring solenoid
- **Instrument Cluster** – Lamp tests, Gauge Sweep tests
- **Body Control** - Lamp and Buzzer/Warning tests, Door Lock tests, Wiper/Washer tests, Headlight tests, Turn Signal tests
- **Seat** – Seat Heat and Cool Command tests, Motor tests

New GM Coverage

- New coverage for adaptive cruise control radar calibrations (dynamic type) for 2014-2019 vehicles

14 new Adjustment type special tests including:

- **Engine/PCM** - Crankshaft Pos. Variation Learn, Oil Life Reset
- **ADAS** - Distance Sensing Cruise Control Calibration
- **Safety/Airbag** - Preload Passenger Presence System, Setup New SDM

5 new Actuation type special tests including:

- **Engine/PCM** – Ignition Coil tests
-

New Coverage Details – USA Asian

New Honda Acura Coverage

10 new Actuation type special tests including:

- **ABS** - ABS ESS Forced Indication
- **Body Control** - Left RR Slide Relay, Right RR Slide Relay
- **Others** - Tests for INTEGRATED DRIVER ASSIST SYS

New Hyundai Coverage

- New coverage for dynamic type radar calibrations for SMART CRUISE CONTROL and AUTONOMOUS EMERGENCY BRAKING

5 new Adjustment type special tests including:

- **ADAS** - Radar Sensor Alignment (SCC/AEB), Radar Calibration

New Kia Coverage

- New coverage for dynamic type radar calibrations for SMART CRUISE CONTROL and AUTONOMOUS EMERGENCY BRAKING

8 new Adjustment type special tests including:

- **ADAS** - Radar Sensor Alignment (SCC/AEB), Radar Calibration, MULTIFUNCTION CAMERA Reference Point Calibration - Dynamic

New Mazda Coverage

3 new Adjustment type special tests including:

- **Brakes/ABS** - IVD Initialization Sequence, Multi-Calibration Routine, Roll Rate Sensor Initialization Start

New Mitsubishi Coverage

- New coverage for 2019MY vehicles and systems
- Added coverage for 116 new systems
- Added coverage for 192 new vehicle-ecu combinations

7 new Actuation type special tests including:

- **Engine/PCM** - Wastegate Solenoid Duty Cycle
- **Transmission** - 4th Gear Clutch Test (Non-RFE)
- **Hybrid** - HEV Belt-Driven Coolant Pump Clutch Relay, HEV Engine Aux Heater LIN Coolant Pump, HEV Fuel Tank Isolation Valve Solenoid, HEV TPIM Inverter LIN Coolant Pump

New Nissan/Infiniti Coverage

28 new Adjustment type special tests including:

- **Engine/PCM** - A/F Initial Learning, CLSD THL POS Learn, EGR Control Valve Closed Position Learning, Electric Intake Valve Timing Control Learning, Fuel Pressure Release, Idle Air Volume Learn, Misfire Count (Past), Save/Write Data for CPU Replace, Self-Learning Cont, Target Idle RPM Adjustment, VVEL Position Sensor Adj Prepare

- **Transmission** - Rotary Position Sensor Learn
- **AWD/4WD** - Decel G
- **ABS/Brakes** - Decel G Sensor Calibration, Steering Angle Sensor Calibration

293 new Actuation type special tests including:

- **Engine/PCM** - Alternator Duty, Alternator Voltage, CBV Position Override, Charge Air Cooler Cooling Electric Water Pump, Cooling Fan, EGR Control Valve, ENG COOLANT TEMP, Engine Coolant Bypass Valve, Engine Coolant Electric Water Pump, Engine Mounting, EXH V/T ASSIGN ANGLE, Fan Duty Control, FPCM, Fuel Injection, Fuel Pump Relay, FUEL/T TEMP SEN, Ignition Timing, INT V/T ASSIGN ANGLE, Purg Vol Cont/V, Target Idle Speed, TC Bypass Valve, TC/SC BYPASS VALVE, Tumble Control Valve, VENT CONTROL/V, VIAS S/V-1, VIAS S/V-2
 - **ABS/Brakes** - ABS Motor, Solenoid tests
 - **Others** – tests for BODY CONTROL MODULE, BLIND SPOT WARNING BUZZER, INTEGRATED/ADAPT CRUISE CONTROL
-

New Coverage Details – USA European

New Alfa Romeo Coverage

19 new Adjustment type special tests including:

- **Engine/PCM** - Original VIN Lock, Proxi Configuration, Reset Camshaft Adaptives , Reset Turbo Adaptives, Reset Turbo Over Boost Counter
- **ABS** - ABS Unit Bleed, Brake Fluid Replacement/Brake Fluid Reservoir Substitution, Calibrate Tandem Master Cylinder Sensor, Electric Park Brake Management, Emissions Rolls Test Mode, Pressure Sensor Calibration, Proxi Configuration
- **Tire Pressure Monitor/WCM** - Clear TPM Sensor Rolls Test Results, Clear TPM Sensor Warnings, Tire Pressure Sensor Registration, TPM Sensor Rolls Test

207 new Actuation type special tests including:

- **ABS** – Lamp/Indicator tests, Inlet/Outlet Valve tests, Pilot Valve Activation tests, Priming Valve Activation tests
- **Climate (HVAC)** - A/C Request, Air Defrost Motor Distribution (Left Side), Air Defrost Motor Distribution (Right Side), Air Rear Motor Distribution, Blower Motor, External Control Variable Displacement (ECVD), Heated Seat Left Request, Heated Seat Right Request, Heated Steering Wheel Request, Left Air MIX Motor, Right Air MIX Motor
- **Instrument Cluster** - Lamp tests, Display Dimming
- **Body Control** - Lamp and Buzzer/Warning tests, Door Lock tests, Window tests, Wiper/Washer tests, Headlight tests, Turn Signal tests
- **Others** - tests for TELEMATICS GATE WAY, DRIVER ASSISTANCE SYSTEM MODULE

New Audi Coverage

- Major focus on new coverage for important Adjustment and Actuation tests for 1992-2018 vehicles

1,708 new Adjustment type special tests including:

- **Engine/PCM** - Activate/deactivate cruise control, Activate/deactivate start/stop function, Adapt DPF Adaptation Values, Adaptation Of Idle Speed, Adaption of Application Point, Adaption Of Brake Pedal Sensor, Adaption Of Camshaft Angle Based On Knock Sensor, Adaption of Clutch Slip Points, Adaption Of Crankshaft Sensor Tolerance, Adaption Of Differential Pressure Sensor For DPF, Adaption Of Differential Pressure Sensor Low Pressure EGR, Adaption Of Engine Torque Loss In Idle Speed, Adaption Of Exhaust Gas Flap, Adaption Of Exhaust Gas Flap 2, Adaption Of Low Pressure EGR Exhaust Flap Actuator, Adaption Of Low Pressure EGR Valve, Adaption Of Oxygen Sensor Bank 1 Sensor 1 Binary Type, Adaption Of Radiator Shutter Control, Adaption Of Reductant Tank Level Sensing To Raw Value, Adaption Of Speed Limitation, Adaption Of Turbo Charger 1, Adaption Of Turbo Charger Bypass Valve, Adaption Of Turbocharger Turbine Inlet Actuator, Adaption Of Water Mixing Actuator Charge Air Cooling, Adaption Sequence Of Hybrid Components, Adaptiondyn.oil Press. Warn.:speed Threshold, AdBlue Circuit System Drainage, AdBlue Injected Quantity Test, Air Cleaner Adaptation Values, Air Entrapment Test Hydraulic Unit Engine Decoupler, Air System Test, Automated Test Exhaust Gas Flap, Automated Test Low Pressure EGR Valve, Automated Test Of EGR Low Pressure Filter, Basic Setting Charge Air Flow Flap, Basic Setting Exhaust-Gas Recirculation, Basic Setting Kickdown, Bleed Cooling System, Bleed Fuel System, Bleed System/AdBlue Circuit Leak Test, Bleeding 2 Hydraulic Unit Engine Decoupler, Bleeding Hydraulic Unit Engine Decoupler, Boost Pressure Actuator Basic Adjustment, Calibration of Clutch Valves, Calibration of Cooling Oil Valve, Calibration Of Gear Selector Movement Sensors, Calibration of Main

Pressure Valve, Camshaft Timing Control (B1) Inlet, Camshaft Timing Control (B1) Outlet, Camshaft Timing Control (B2) Inlet, CAT Conversion Rate (bank 1), CAT Conversion Rate (Bank 2), Chain Elongation Correction After Other Repairs, Chain Elongation Reset After Chain Replacement, Change Of Parameters For Monitoring Performance Of DPF Filter, Change To Correction Mode For VCA Learning After ECU Replace, Charge Air Cooler Bypass Cont. Basic Setting, Clutch Protection Function, Compressor Control Flap Basic Setting, Compressor Magnetic Clutch Basic Setting, Configuration, Coolant Bypass Valve Basic Setting, Cruise Control Operating Unit: Activation, Cylinder Pressure Sensors Adaptation Reset, DeNOx Service Regeneration During Drive, DeSOx Service Regeneration During Drive, Diesel Particulate Filter Adaption, Diesel Particulate Filter Regeneration Run, Differential Pressure Sensor Adaption, Disengagement Clutch Actuator Adaption Current Distance Line, DPF Regeneration Whilst Driving, DPF Service Regeneration, Drain Fuel System, Draining fuel tank, ECU D, Electric Fuel Pump Control Basic Setting, Enable / Disable. Oil Pressure For Engine Run, Engine decoupler close, Engine decoupler open, Engine Temperature Management Basic Setting, EOL Quickstart Actuator Test 1, EOL Start-Up SCR Metering Quantity Test, Evaporative Emission Control Functional Test, Evaporative Emission Control Regenerat. Valve, Evaporative Emission Control System, Exhaust Flap Adaption, Exhaust Gas Recirculation Valve Basic Setting, Fuel Injector Adaptation Value, Fuel Pressure Control Valve Adjustment, Fuel Pump Adaptation, Fuel pump adaption, Fuel Quantity Control Valve Adjustment, Gearbox Neutral Position Switch Adaption, Generate Readiness, Generate Readiness Code, In-Cylinder Flow Flap 1 Basic Setting, In-Cylinder Flow Flap 2 Basic Setting, Injector Adaptation, Injector Buzz Test, Inlet Camshaft Timing Control (bank 1), Lambda Sensor Adjustment, Lambda Sensor Ageing (B2 S1) Function. Test, Lambda Sensor Ageing (B2 S2) Function. Test, Lambda Sensor Ageing Bank 1 Sensor 1, Lambda Sensor Ageing Bank 1 Sensor 2, Leakage Test Hydraulic Unit Engine Decoupler, LP - Exhaust Gas Recirculation Basic Setting, LP-EGR Diff. Press. Sens. Home Setting, Magnetic clutch adaption, Manual Regeneration Of Diesel Particulate Filter, Manual Test Of EGR Low Pressure Filter, Manual Test Of Exhaust Gas Flap, Manual Test Of Low Pressure EGR Valve, Maximum Vehicle Speed, Menu-Driven Configuration, Metered Quantity Measurement/large Quantity, Metered Quantity Measurement/small Quantity, Natural Gas Pressure Reduction, Neutral Position Sensor Adapting, New DPF Reset Adaptation Values, Oil Pressure Regulation Switching Test, Oxidation Catalytic Converter Adaption, Partially Activated Engine For Automatic Trans Fluid Change, Particulate Filter Regeneration, Quantity Comparison, Quick Charging Of High Voltage Battery, Quickstart - Adaptation Pressure Characteristic Engine Decouple, Quickstart - Adaption Boost Pressure Actuator, Quickstart - Adaption Of Exhaust Gas Recirculation Valve, Quickstart - Adaption Of Intake Manifold Runner Flap Bank 1, Quickstart - Adaption Of Intake Manifold Runner Flap Bank 2, Quickstart - Adaption Of Turbo Charger, Quickstart - Automated Boost Control, Quickstart - Automated Exhaust Gas Recirculation, Quickstart - Bank Balancing, Quickstart - Blocked Catalyst, Quickstart - Boost Pressure Actuator, Quickstart - Brake Booster Pump, Quickstart - Camshaft Position Diagnostics, Quickstart - Catalyst Conversion Capability, Quickstart - Catalyst Conversion Capability Bank 2, Quickstart - Catalytic Converter Regeneration, Quickstart - Check Cylinder Balancing, Quickstart - Check Deactivating Of Sail Function, Quickstart - Check Diesel Particulate Filter Missing Substrate, Quickstart - Check Low Pressure EGR Cooling Efficiency, Quickstart - Check Oxicat Efficiency, Quickstart - Clutch Slip Point Adaptation Engine Decoupler, Quickstart - CNG Activation System Discharge, Quickstart - CNG Deactivation System Discharge, Quickstart - Cold Start Injector, Quickstart - Compression Test 1, Quickstart - Coolant Valve For Gearbox, Quickstart - Cooling Valve, Quickstart - Crankcase Ventilation Test, Quickstart - Crankcase Ventilation Valve, Quickstart - Cylinder Pressure Sensor Check, Quickstart - Demount Friction Stuck Boost Pressure Actuator Test, Quickstart - Deviation Lambda Control, Quickstart - Deviation Lambda Control CNG,

Quickstart - Diesel Particulate Filter, Quickstart - EGR Valve Cooler Bypass Valve, Quickstart - Electric Supercharger, Quickstart - Engine Shut-Off, Quickstart EOL Engine Speed Increase, Quickstart - EVAP Purge Valve 2, Quickstart - EVAP Purge Valve Functional Check, Quickstart - EVAP System Pressure Check, Quickstart - EVAP System Pressure Rough Leak Check, Quickstart - Exhaust Gas Recirculation, Quickstart - Exhaust Gas Recirculation Cooler Fouling Test, Quickstart - Fuel Injector Test, Quickstart - Fuel Supply System Test, Quickstart - Fuel Supply System Test V2, Quickstart - Fuel Tank Isolation Valve Functional Check, Quickstart - Fuel Trim Adaption Idle, Quickstart - Fuel Trim Adaption Intake Manifold Injection, Quickstart - Fuel Trim Adaption Part Load, Quickstart - Gasoline High Pressure Injection Test, Quickstart - Glow-Plug Control Module, Quickstart - Governor Deviation Exhaust Gas Recirculation, Quickstart - Half Engine Mode, Quickstart - Heater Oxygen Sensor 1 Bank 1, Quickstart - Heater Oxygen Sensor 1 Bank 2, Quickstart - Heater Oxygen Sensor 2 Bank 1, Quickstart - Heater Oxygen Sensor 2 Bank 2, Quickstart - Individual Cylinder Lambda Adaption, Quickstart - Injectors Module 1 Idle Warm Test, Quickstart - Injectors Module 1 Idle Warm Up Test, Quickstart - Injectors Module 2 Injector Test, Quickstart - Intake Manifold Pressure Compensation, Quickstart - Intake Manifold Runner Flap, Quickstart - Intake Manifold Runner Flap Bank 1, Quickstart - Intake Manifold Runner Flap Bank 2, Quickstart - Kick Down Adaption, Quickstart - Knock Sensors, Quickstart - Misfire Test, Quickstart - NOx Sensor 1 Test, Quickstart - NOx Sensor 2 Test, Quickstart - NOx Sensor Dynamic Test, Quickstart - NOx Sensor Test Modell Based, Quickstart - O2 Check For Oxygen Sensor, Quickstart - Open Circuit Adjustment Voltage, Quickstart - Open Position Check Boost Pressure Actuator, Quickstart - Oxygen Sensor, Quickstart - Oxygen Sensor Confusion (Left/Right Or Sensor2/3), Quickstart - Oxygen Sensor Front Offset Check, Quickstart - Oxygen Sensor Front Offset Check Bank 2, Quickstart - Oxygen Sensor Front Signal Dynamic Check, Quickstart - Oxygen Sensor Front Signal Dynamic Check Bank 2, Quickstart - Oxygen Sensor Heater Behind Cat, Quickstart - Oxygen Sensor Heater Gear, Quickstart - Oxygen Sensor Rear Oscillation Check, Quickstart - Oxygen Sensor Rear Oscillation Check Bank 2, Quickstart - Oxygen Sensor Rear Signal Activity Check, Quickstart - Oxygen Sensor Rear Signal Dynamic Check, Quickstart - Oxygen Sensor Rear Signal Dynamic Check Bank 2, Quickstart - Oxygen Sensor Rear Signal Responsetime Check, Quickstart - Oxygen Sensors And Catalyst, Quickstart - Parallel Fuel Trim And Mass Flow Adaption, Quickstart - Plausibility Air-Mass Sensor, Quickstart - Pre Fuel Pump, Quickstart - Pre Fuel Pump (Short-trip), Quickstart - Reductant System Consumption Monitoring, Quickstart - Reductant System Wrong Medium Detection, Quickstart - Replacement Of Turbocharger Actuator, Quickstart - Reset Of Adaption Values, Quickstart - SCR Complete System Test, Quickstart - SCR Efficiency Test, Quickstart - SCR Metering Quantity Test, Quickstart - Secondary Air System, Quickstart - Secondary Air System - Bank 2, Quickstart - Speed Increase Chassis System Bleeding, Quickstart - Summary Of Testroutines For Production, Quickstart - Summary Of Testroutines For Production 1, Quickstart - Summary Of Testroutines For Production 2, Quickstart - Supercharger Regulation Flap Adaption, Quickstart - Throttle position Adaption Bank 2, Quickstart - Turbo Charger, Quickstart - Turbo Charger Bypass Valve, Quickstart - Turbocharger Turbine Inlet Actuator, Quickstart - Turbocharger Wastegate Actuator, Quickstart - Variable Intake Manifold / Variable Resonance, Quickstart - Variable Valve Timing Inlet Bank 2, Quickstart - Ventilator Coolant Circuit, Quickstart - VVLI Functional Check, Quickstart - VVT Response/Stuck Check - Inlet, Quickstart - VVT Response/Stuck Check - Outlet, Quickstart - Warm-Up Procedure 1, Quickstart - Warm-Up Procedure 2, Quickstart - Warm-Up Procedure 3, Quickstart - Warm-Up Procedure 5, Quickstart - Warm-Up Procedure 6, Radiator Blind Basic Setting, Read Injector Codes, Readout System State Control Module Tank Leak Detection, Regeneration Of Exhaust Gas Recirculation Cooler, Reset Adaption Fuel Pressure B1S1 Upstream High Pressure Pump, Reset Adaption Of Crankshaft Pulse Generating Wheel, Reset Adaption Value, Reset AdBlue

System Data, Reset After Replace Of Quantity Value And Pressure Control, Reset After Replacement Energy Histogramm Engine Decoupler, Reset After Replacement Of Air Mass Flow Sensor, Reset After Replacement Of Diesel Particulate Filter, Reset After Replacement Of Differential Pressure Sensor, Reset After Replacement Of Engine Decoupler, Reset After Replacement Of Exhaust Gas Recirculation Valve, Reset After Replacement Of Injector 1, Reset After Replacement Of Injector 2, Reset After Replacement Of Injector 3, Reset After Replacement Of Injector 4, Reset After Replacement Of Lambda Sensor, Reset After Replacement Of Oxidation Catalytic Converter, Reset After Replacement Of Quantity Mean Value Adaptation, Reset After Replacement Of SCR Catalyst, Reset After Replacement Of Turbo Charger, Reset After Replacement Of Variable Oil Pump, Reset Air Mass Meter Adaptation Values, Reset Catalytic Converter Adaptation, Reset DPF Differential Press. Sensor Adapt., Reset Fuel On Adaption, Reset Fuel On Fuel Off Adaption, Reset Fuel Pressure Adaptation, Reset Injector Adaptation Values, Reset Lambda Sensor Adaptation Values, Reset Magnetic Clutch Adaption, Reset Misfire Adaptation, Reset Of Adaption Values Injector, Reset Of CAN Message Alive Detection, Reset Of Combustion Chamber Pressure Sensor Adaption, Reset Of Injector Closing Time Adaption, Reset Of Preignition Counter, Reset Of Reductant System Adaption, Reset Of SCR Restriction Counter, Reset Of SCR Tank Level Sensing, Reset Particulate Filter Adaption Values, Reset Rail Pressure Control Valve, Reset SCR Tank System Adaptation, Reset Start Inhibit Due To Lack Of AdBlue, Reset Start/stop Counter, Reset Statistic Memory, Reset Timing Chain Adaption Values, Reset Turbocharger Adaption Values, SCR Inducement Operating Hour Reset, Service position, "Set AdBlue Tank Level To ""full""", Start-Up Desulfurization In Standing Position, Start-Up EGR Cooler Rinsing, Start-Up Learning Of Measured Soot Mass, Start-Up Pressurized Gasoline Fuel Tank Isolation Valve Open, Start-Up Refueling Condition Pressurized Gasoline Tank, Start-Up Regen Of Particulate Filter In Standing Position, Start-Up Regeneration Diesel Particulate Filter During Drive, Start-Up Regeneration Of Particulate Filter During Drive, Stationary DPF Regeneration, Summary Reset After Replacement Of Reductant System Components, Swirl Flap Basic Setting, Swirl Flap Basic Setting (Bank 1), Swirl Flap Basic Setting (Bank 2), Switchover To The High Oil-Pressure Level, Test AdBlue Metering Valve Spray Pattern, Throttle Valve Adaption, Throttle Valve Basic Setting, Throttle position Adaptation, Transfer Configuration, Turbocharger Basic Setting, Used DPF Reset Adaptation Values, Write Configuration, Write Injector Codes

- **Transmission** - Adaption of Clutch Slip Points, Automatic Transmission Fluid Level Check, Automatic Transmission Fluid Pump Calibration, Automatic Transmission Fluid Pump Function Test, Basic Adjustment Clutch, Basic Adjustment Clutch Conventional, Basic Adjustment Electrical Fluid Pump Transmission, Basic Adjustment Transmission, Basic Setting, Basic Setting: Clutch Engagement Point, CO adaption, Calibration of Clutch Valves, Calibration of Cooling Oil Valve, Calibration Of Driving Position Sensor, Calibration Of Gear Selector Movement Sensors, Calibration of Main Pressure Valve, Calibration Of Synchron Points, Clearing The Shutdown And Reset Data, Draq Torque Detection, EEPROM Writing Of Basic Adjustment Data, Electrical Pump 3 For Transmission Function Test, Excessive Temperature Counter Write Reset, Fast adaption, Fastadaption Twin Clutch, Forced Change-Up Adjustment, Gear Positioner Neutral Position, Gear Positioner Removal Position, Hydraulic Test, Learning Of Info On Control Units Fitted, Lock Transmission Hydraulic Pump, Mileage Data Adjustment, Move Gear Positioner To Neutral Position, Move Gear Positioner To Removal Position, Power Flow Interrupt. When Stationary Adjustm., Quickstart - Clutch Slip Point Adaptation Engine Decoupler, Quickstart - Manual Transmission Fluid Pump Test, Quickstart - Reset Of Adaption Values, Release Transmission Hydraulic Pump, Reset Adaptation Parameters, Reset Adaption Of Application Point To Factory Settings, Reset Adaption Value, Reset After Replace Pressure Supply Init Adapt Electric Motor, Reset CAN Information, Reset Clutch 0 Logging Dates, Reset Clutch 1 Logging Dates, Reset Clutch 2 Logging Dates, Reset Clutch Characteristic, Reset

Clutch Characteristic Clutch 0, Reset Clutch Control Travel Pressure Characteristic, Reset Clutch Pressure Sensor Adaptation, Reset Clutch Values, Reset Clutch Values For Transient Friction, Reset clutch values forward, Reset clutch values reverse, Reset Driving parts Per Shift Position, Reset engagement counters, Reset frequency counter, Reset Gear Positioner Values, Reset Gearbox Mileage, Reset Kiss Point Adaption Fault Statistics 1, Reset Mileage And Adaption Counter, Reset Mileage Of Rough Road Detection, Reset Of Adaption Values Gear Box, Reset Of C0-Adaption Values, Reset Of Clutch Pressure Adaption, Reset Of Survey Counter, Reset Of System Specific Adaption Values, Reset Pressure Reduction Logging Dates, Reset Start/stop Counter, Reset Temperature Model, Reset To Factory Setting, Reset Total Clutch Adaption, Selector Lever Position Sensor Calibration, Set Clutch Mileage To Zero, Set Gearbox Mileage To Vehicle Mileage, Single Gear Indicator Adjustment, Start Automatic Trans Fluid Pressure Accumulator Discharge, Start Automatic Transmission Fluid Pressure Accumulator Charge, Tiptronic Steering Wheel Button Adjustment, Transfer Configuration, Transmission Adaptation Basic Setting 1, Transmission Adaptation Basic Setting 2, Transmission Adaptation Basic Setting 3, Transmission Oil Level Test, Transmission Rapid Adaption, Transmission Setting Adaption, Wheel Torque Limitation

- **Hybrid** - Activ. / Deactivation Charging HV Battery, Adaption Of Radiator Shutter Control, Air Conditioner Compressor Run In, Automatic Start, Automatic Zero Potential Check, Auxiliary Air Heating Test, Calibration Drive Motor For Electric Drive, CMC Registration, Communication Connection Adaption, Coolant Valve Adaption, Delete Iccpd Error Memory, High Voltage Heater 2 Routine, HV Battery Charge, Quickstart - Open Circuit Test Power Electronics To Electric Mo, Quickstart - Reset Of Adaption Values, Referencing LKL1, Referencing LKL2, Reset Battery Charging Profiles, Reset Battery Charging Timer, Reset Crash Detection Signal, Reset IP Counter Wrong IPV6 Addresses, Reset IP Counter Wrong TCP Ports, Reset IP Counter Wrong UDP Ports, Reset IP Counter Wrong VLANS, Reset of Adjustment/Calibration Values, Reset Of All Adaptions, Start-Up Coolant Circuits Filling, Start-Up Refrigerant Circuit Filling, Start-Up Refrigerant-And Coolant Circuits Filling, Stop Routine Coolant Circuit Filling Flushing, Stop Routine Refrigerant Circuit Filling Flushing, Take Back Of The Reversible Crash Cutoff, Transfer Configuration
- **ABS/Brakes** - Activate/deactivate Roller Dynamometer Mode, Basic Setting, Basic Setting Hydraulic Connections, Basic Setting Integrated Parking Brake, Basic Setting Steering Angle Sensor, Basic Setting Tire Pressure Monitoring (TPMS), Basic Setting Tire Pressure Monitoring Display (TPMS), Basic Setting/Bleed Brake System, Bleed, Brake Disc Drying Adjustment, Brake Pad Replacement Step 1, Brake Pad Replacement Step 2, Brake Pressure Sensor Zero Pos. Compensation, Brake Servo Action Adjustment, Brake Stabilization Adjustment, Brake Temperature Monitoring Information, Calibrate Parking Brake, Calibration Of Tyre Pressures, Complete Brake Pad Replacement Mode, Electromechanical Parking Brake Operational Test, Electronic Brake Booster Bleeding, EMF Opening Mode Adjustment, Enhancement Function Encoding, Force Auto Adjust, Initialization Accumulator, Initialization Brake Booster, Lat. Accel. Sensor Zero Pos. Calibration, Leakage Test, Longit. Accel. Sensor Zero Pos. Calibration, Null Balancing Steering Wheel Angle Sensor, Open and Close Parking Brake Pistons, Parking Brake Initialisation, Pdm Defragmentation, Quickstart - Reset Of Adaption Values, Rear Axle Full Deceleration Adjustment, Reset Brake Temperature Monitoring, Reset frequency counter, Reset Frequency Counters, Reset Highest Appeared Brake Temperature, Reset Maximum ECU Currents, Reset Maximum ECU Temperatures, Reset Maximum Smart Actuator Currents, Reset of Adaption Values, Reset of Adjustment/Calibration Values, Reset Of All Adaptions, Reset Of State Information, Reset Of Tire Not Fixed Detection Adaption Values, Reset Of Zero Point Brake Pedal Position Sender, Reset Temperature Model, Reset To Factory Setting, Rka Reset Dynamic Data, Set And Reset Parking Brake Motor Piston, Set Brake Application Signals, ~~Start Brake Pad Replacement Mode, Starting Vibration Reduction Adjustment, Start~~

- Up Test Accumulator, Start-Up Test Brake Booster, Steering Angle Initialization, Steering Basic Setting, System Function Test, Torque Test, Transfer Configuration, Variant Encoding, Vent ESP Hydraulic System, Verify Variant Encoding, Write Configuration, Yaw Rate Sensor Detection
- **AWD/Transfer Case** – Adapt Cardan Sync, Clear VIN, Open Coupling For Car Manufacture, Pump Calibration, Quickstart - Reset Of Adaption Values, Reload Pressure Sensor Identification, Reset Adaptation Parameters, Reset Clutch Values, Reset Of Adaption Value EDL Closed, Reset Of Adaption Value EDL Open, Reset Of Adaption Values Gear Box, Reset Of Adaption Values Oil Ageing, Reset of Adjustment/Calibration Values, Reset Of ECU In Delivery State Of Manufacture, Reset Of Hydraulic Pressure Sender 1 Offset, Static Calibration Routine, Static Calibration Routine Overrun, Transfer Configuration
 - **TPMS** - Program Sensor Code, Reset of Adjustment/Calibration Values, TPM Individual Specified Pressure Adjustment, Transfer Configuration, Tyre Pressure Sensor Adaptation
 - **Safety/Airbag** - Mounting Position Calibration SC, PODS Rezero, PODS Serial Number Adjustment, Pretensioner Left Serial Number, Pretensioner Right Serial Number, Reset Counter For Rollover-Bar-Deployment, Reset Rollover Trigger Counter, Rollover Protection Test, Seat Occupant Recognition Basic Setting, Seat Occupied Recognition Control Module Basic Setting, Transfer Configuration
 - **Instrument Cluster** - Adapt Fuel Consumption Indicator, Adapt Fuel Gauge, Adaptation Of Service-Interval Display, Average Consumption Display Correction, Coding Maintenance Interval Extension, Communication Connection Adaption, Country Version Encoding, Ethernet Testability Activate, Ethernet Testability Deactivate, Fixed Service Interval Adjustment, Flexible Service Interval Adjustment, Flexible SID Adaption (Diesel), Flexible SID Adaption (gasoline), Menu-Driven Configuration, Reset IP Counter Wrong IPV6 Addresses, Reset IP Counter Wrong TCP Ports, Reset IP Counter Wrong UDP Ports, Reset IP Counter Wrong VLANS, Resetting Of Service-Interval Display, Service Light Reset, Transfer Configuration, Write Configuration
 - **Climate Control/HVAC** - A/C Compressor Adaptation, Activate/deactivate Production Mode, Adaptation - A/C System Start-Up Behaviour, Adaptation - Duration Of Compressor Run-In, Adaptation -Activation Temperature Window Heater, Adaptation -Stop Enable for Start/Stop Function, Adaptation-Seat Heating Activation, Adapting Of Control Motors, Air Conditioner Compressor Run In, Automatic Start, Air Conditioner Control Motors: Adapting, Air Conditioner Heater Output Test, Air Quality Sensor Adjustment, Air Volume/distribut. Display Time Adjustment, Allocate Control Motors, Automatic Addressing, Aux. Heating Continued Heating Time Setting, Auxiliary Heating Configuration Without CAN, Basic Setting, Basic Setting A/C Actuator Motor, Calibration Of Stop Positions, Compressor Run-In, Compressor Run-In Blower Voltage Adaption, Compressor Run-In Time Adaption, Cooling Output Test, Enable Control Unit, Encoding Of Retrofitted Components, Fr. Left Seat Heating Memory Function Setting, Fr.right Seat Heating Memory Function Setting, Front And Rear Control Motor Basic Settings, Front Left Seat Heating Memory Function Setting, Lin Bus 1 Control Motor Adaption, Lin Bus 2 Control Motor Adaption, Quickstart - Reset Of Adaption Values, Reset Adaption To Factory Setting, Reset Adaption Values Potentiometers In Vents, Reset All Adaptation Values, Reset All Counters, Reset frequency counter, Reset of Adjustment/Calibration Values, Reset Of All Counters, Reset Of ECU In Delivery State Of manufacture, Reset To Factory Setting, Seat Heating Power Stage 2 To 1 Reduct. Time, Seat Heating Power Stage 3 To 2 Reduct. Time, Service Light Reset, Transfer Configuration, Write Configuration
 - **Suspension** - Accumulator bleeding, Accumulator charging, Accumulator Charging And Deactivate Self-Levelling, Activate Air Suspension, Activate shipping mode, Activate test mode, Activate/deactivate Roller Dynamometer Mode, Activate/deactivate Shipment Mode, Adjustment, Adjustment Of Vehicle Level Sensors, Air Spring Strut Bleeding, Front Axle, Air Spring Strut Bleeding, Rear Axle, Air Spring Strut Bleeding, Rear Left, Air Spring Strut Bleeding, Rear Right, Air Spring Strut Charging, Front Axle, Air Spring Strut Charging, Rear Axle, Air

Spring Strut Charging, Rear Left, Air Spring Strut Charging, Rear Right, Basic Setting, Brake Pad Replacement Step 1, Brake Pad Replacement Step 2, Calibrate Actuator Angle, Calibrate Phasing Angle Actuator, Left, Calibrate Phasing Angle Actuator, Right, Calibration Height Values, Changeover To Normal Ride Control Operation, Clear Calibration Data Left Actuator, Clear Calibration Data Right Actuator, Clear Counter And Runtime Of Compressor, Clear Counter Of Valve Activation, Clear Counter Of Valve Activations, Clear DEGRadation Events Values, clear duration mode, Clear Duration Mode And Control Activities, Clear Torsion Bar Values, Deactivate shipping mode, Deactivate test mode, Development Function Deactivation, Emergency charging, Go To High Level, Go To High Level And Deactivate Self-Levelling, Go To High Level And Deactivate Self-Levelling Permanent, Go To Normal Level, Go To Normal Level And Deactivate Self Levelling, Go To Normal Level And Deactivate Self-Levelling Permanent, Go To Normal Level With Narrow Control Tolerance, Go To Preliminary Stage For Calibration In Production, Go To Preliminary Stage For Calibration In Service, Go to production reference level, Learn Normal Level, Mounting Position Calibration, Pressure Accumulator Preload Pressure, Pressure Reduction, Reset Adaptation Parameters, Reset of Adjustment/Calibration Values, Reset Of Central Signal Processing Adaption Values, Reset Of Qsp Torque Display Adaption Values, Reset Of Raw Values Of Level Sensors In Rebounded Position, Reset To Factory Setting, Self Leveling Suspension Calibration to Determine Axle Load, Self-Levelling Suspension Activation, Self-Levelling Suspension Calibration, Self-Levelling Suspension Calibration Reset, Self-Levelling Suspension Deactivation, Self-Levelling Suspension Deactivation Permanent, Shock Absorber Damping Adjustment Valve Calibration, Swap Function Activate, Transfer Configuration, Transportation Mode, Unlock Actuator System, Wheel Alignment, Write Configuration

- **Steering** - Activation Tone Adjustment, Adjustment, Audio Reduction Adjustment, Basic Setting, Basic Setting Steering Angle Sender, Calibrate Steering Angle Sensor, Control Of Warning Light, Delete Error Memory Dev, El. Power St. St. Wheel Angle Sens. Adapt., Electric Power Steering: Configuring, Electric Power Steering: Encoding, Kerb Parking Distance Adjustment, Menu-Driven Configuration, Parking Aid Deactivation Speed, Parking Steering Assistant Cut-In Speed Adj., Power Steering Control Module Adaptation, Quickstart - Reset Of Adaption Values, Reset Adaption To Factory Setting, Reset Control Unit, Reset Counter For Mechanical Stress, Reset Of Adaption Value Current Linearization, Reset of Adjustment/Calibration Values, Reset Of Steering Support Adaption Values, Reset Of Tick Learner, Reset To Factory Settings, Service Light Reset, Steer To Center Position, Steering Angle Initialization, Steering Angle Sender - Reset Zero Point, Steering Angle Sender - Set Zero Point, Steering Angle Sensor Basic Setting, Steering Angle Sensor Calibration, Steering Assist Without Engine Running, Transfer Configuration, Vehicle Identification Number Programming, Vehicle Length Adjustment, Vehicle Width Adjustment, Visual Display Adjustment, Warning Lamp Test, Wheel Circumference Adjustment, Write Configuration
- **Body Control** - Adjustment: Locking Whilst Driving, Adjustment: Remote Control Conven. Actuation, Adjustment: Unlocking After Key Removal, Adjustment: Unlocking Options, Air Conditioner Compressor Run In, Automatic Start, Air Conditioner Heater Output Test, Automatic Addressing Of Control Motors Of Air Condition, Basic Setting Electrically Adjustable Steering Column, Basic Setting For Luggage Compartment Cover, Basic Setting Headlight, Basic Setting Quit, Basic Setting Rear Lid Opening Angle, Basic Setting Vehicle Inclination Neutral Position, Calibration Control Units For Heater Element, Calibration End Stops Of Air Condition Flaps, Calibration Operating And Display Units For Air Conditioning, Calibration Seat Fan, Counter Reset For Refrigerant Loss Detection, DWA Driver Door Opening Alarm Delay Adjustm., DWA Interior Monitor Sensitivity Adjustment, DWA Primed Feedback Adjustment, DWA Tilt Sensor Sensitivity Adjustment, EEPROM Output, England ROW DWA Alarm Signal Adjustment, ~~Fragrancing System Replacing Cartridge In Aroma Receptacle 2, Fragrancing~~

System Replacing Cartridge In Aroma Uptake 1, Keyless Locking Optical Feedback, Keyless Unlocking Optical Feedback, Load Compartment Cover Basic Setting, Locking With Key Switch Optical Feedback, Locking With Remote Control Opt. Feedback, Luggage Compartment Cover Reset Normalisation, Luggage Compartment Cover Test Run, Menu-Driven Configuration, Power Latching Test Run, Power Sunroof Control Module Basic Setting, Quickstart - Reset Of Adaption Values, Rear Lid Basic Setting, Rear Lid Reset Normalisation, Reset Adaption Values Potentiometers In Vents, Reset Energy Management Counter, Reset frequency counter, Reset Headlight Regulation Counter, Reset Master Slave Assignment, Reset of Adjustment/Calibration Values, Reset Of All Adaptions, Reset Of All Air Condition Counters, Reset Of All Counters, Reset Of Identification Data Collected On Lin Bus, Reset To Factory Setting, Roof Blind Go To Service Position, Roof Blind Normalisation, Roof Blind Reset Normalisation, Roof Roller Blind Basic Setting, Service Light Reset, Sliding Sunroof Basic Setting, Sliding Sunroof Go To Service Position, Sliding Sunroof Normalisation, Sliding Sunroof Reset Normalisation, Steering Angle Initialization, Steering Angle Sender - Reset Zero Point, Steering Angle Sender - Set Zero Point, Steering Angle Sensor Calibration, Sun Roof Basic Setting, Sun Shade Basic Setting, Sunroof Shade Control Module Basic Setting, Transfer Configuration, Unlearning Calibration Of Luggage Compartment Cover, Unlocking With Key Switch Optical Feedback, Unlocking With Remote Control Opt. Feedback, Wind Deflector Denormalisation, Wind Deflector Normalisation, Wind Deflector Original Position, Wind Deflector Service Position, Write Configuration

- **Others** – Tests for SEAT systems, HEADLIGHT systems, ACC/START, BATTERY REGULATION, MEDIA PLAYER systems, AUDIO systems, DOOR ELECTRONICS systems, GATEWAY systems

112 new Actuation type special tests including:

- **Engine/PCM** - AdBlue Circuit Leak Test, Check DPF Ash Load, Compression Test, Drain Fuel Tank, Fuel Pressure Reduction, Rail Pressure Reduction
- **Hybrid** - HV Battery Charge/discharge Current
- **Transmission** – Additional Hydraulic Pump For Gearbox
- **ABS/Brakes** – ESP Test, Pulse-Wheel Test, Read Configuration, Static Test, Test Drive Activation, Test Drive Deactivation
- **Suspension** - System function test
- **Climate (HVAC)** - Air Condition Compressor Activation, Air Flap Range/tolerance Limits,
- **Others** – tests for PARKING ASSISTANCE

New BMW / Mini Coverage

- Major focus on new coverage for important Adjustment and Actuation tests for 2000-2018 vehicles

776 new Adjustment type special tests including:

- **Engine/PCM** - Activate electric fuel pump, Activate intelligent alternator control, Activate/deactivate start/stop function, Activate/deactivate transportation mode, Adaptation of idle speed, Adaptation thermostat map, Adaption for idle actuator, Adaption for Lambda control, Adaption function for throttle valve, Adjust Wastegate Linkage, Adjusting The Electromotive Throttle Controller, Automatic Engine Start-Stop Function: Starter Exchange, Average consumption display correction, Battery replacement, Bleed cooling system, Bleed fuel system, Calibrate acceleration sensor, CO Adjustment, Control unit re-start, Deactivate intelligent alternator control, Delete Adaptations, Diesel Particulate Filter Regeneration, Diesel particulate filter regeneration run, Diesel Particulate Filter Register Replacement, Diesel Particulate Filter Replacement, Disabling production mode glow time CU, DME: Adaptations, EGR valve mounting position, Exhaust flap adaption, Exhaust gas recirculation valve basic setting, First

- initialization, Fuel Consumption Display Adjustment, High-pressure pump adaption, Idle Speed Adjust, Idling Quality, Initialize New Fuel Pump, Injection Quantity Compensation, Injector adaptation, Injector quantity adjustment, Injector quantity analysis 4-cylinder engine, Injector quantity analysis 6-cylinder engine, Learn Valvetronic Limit Positions, Learning of valve lift control end stops, Mixture adaption, Move to exhaust flap installation position, MSA: System Check, Neutral position detection, Neutral position initialization, Neutral position sensor adapting, No-load current test, Octane number adjustment, Octane number adjustment 95 RON, Open and Close Radiator Blind, Program idling speed, Read out fuel quality counter, Registration starter exchange, Replace glow plugs, Reset accelerator position sensor, Reset adaptation parameters, Reset adaptation values air mass system, Reset after changing NOx sensor, Reset after diesel partic. filter replacement, Reset catalytic converter adaptation, Reset control unit, Reset EGR adaptation values, Reset electric fuel pump adaptation values, Reset flywheel adaption values, Reset fuel minimum quantity adaption, Reset fuel pressure adaptation, Reset idle adaptation, Reset injector adaptation values, Reset knock control adaptation, Reset Lambda sensor adaptation values, Reset load adaptation, Reset mixture adaption, Reset particulate filter adaption values, Reset start/stop counter, Reset swirl flap control adaptation values, Reset trim control adaptation, Reset uneven running segment times, Reset valve lift adaptation, Reset VANOS Adaptation Values, Reset VVT minimum lift adaptation, SCR System: Adjustment, Secondary air system adaptation, Spark duration diagnosis, Spark duration diagnosis - 3 Cylinder, Spark duration diagnosis - 4 Cylinder, Stochastic smooth running evaluation, Teach-in Exhaust Flap Or Move It Into Installation Position, Throttle Adaptation, Throttle valve adaption, Throttle valve basic setting, Turbocharger adjustment, Valve lift control adaptation, Valve lift control end stop run-in, Valvetronic: Start-Up, Variable camshaft timing adaptation, Variable tract intake manifold adaptation
- **Transmission** - Activate/deactivate transportation mode, Adaptation of immobilizer, Adaption of clutch slip point, Analog Paddle Reset, Autom. transm. adaptation values reset, Automatic transmission control unit reset, Automatic transmission oil level check, Clutch control valve adaptation, Display And Reset Adaptation Values, Longit. accel. sensor zero pos. calibration, Rear axle adaptation values reset, Rear-axle centre position setting, Rear-axle diff. lock motor wear data reset, Rear-axle differential lock wear data reset, Reset adaptation parameters, Reset adaptation values converter clutch, Reset adaption value, Reset CAN adaptation values, Reset clutch adaption values, Reset control unit, Reset rear axle ratio factor, Reset steering wheel paddles, Reset transmission adaption values, Resetting adaptation values start/stop fct., Selector lever control unit reset, Test of transmission parking lock, Transm. oil check after TC/mechatr. repl., Transmission adaption, Transmission Control Unit - Oil Change, Transmission flush function, Transmission oil change interval reset, Transmission oil level indicator, Transmission position P adaptation, Transmission setting adaption, Valve cleaning
 - **Hybrid** - Activate HV battery charge cycle, Battery replacement register aux.batt, Charge condition HV battery history, Control unit re-start, Electric vacuum pump statistical data reset, First initialization, HV battery charge, HV battery control unit initialization, Initializing the electric machine, Learn rotor position, Replace refrigerant, Reset air mass meter adaptation values, Reset control unit, Reset knock control adaptation, Reset Lambda adaptation 1 bank 1, Reset service interval, Reset throttle valve adaptation values, Reset torque loss adaptation, Reset uneven running adaptation, Reset uneven running segment times, Test range extension
 - **ABS/Brakes** - Activate parking brake after pad replacement, Bleed, Brake pedal pos. sensor zero pos. compensat., Commissioning electric parking brake, Deactivate parking brake for pad replacement, Initialise puncture indicator, Null balancing, steering wheel angle sensor, Parking brake run-in, RDC Initialization, Recuperation management activation, Reset control unit, Reset puncture indicator, Sensor unit zero position compensation, Valve current adapting, Variant encoding, Vent Brakes
-

- **AWD/Transfer Case** – Rear-axle differential lock wear data reset, Reset control unit, Reset transfer case oil wear data, Transfer Box Oil Change, Transfer Box: Repair, Transfer case calibration, Transfer case type encoding
- **Steering** - Activate power steering, Activate vehicle mode, Active steering commissioning/adjustment, Learn steering end stop, Reset adaptation parameters, Reset control unit, Steering basic setting, Steering wheel angle sensor: Adaptation of the component
- **Instrument Cluster** – Activate/deactivate transportation mode, Head-up display test, Instrument cluster: Date/time configuration, Read identification of control units, Reset control unit, Service requirement reset
- **Safety/Airbag** - Airbag configuration, Reset control unit, Resistances of airbag igniter circuits, Rollover protection test, Seat Occupancy Detection Front Passenger
- **Climate (HVAC)** - A/C compressor run-in protection, Adapting of control motors, Air mix flap initialization, Auto. setting air damper control motors, Basic setting, HVAC- Newly Address the Air Distribution Flap Motors, HVAC: Installation Position of Flap Motors, Move to fitting position, Newly Address The Air Distribution Flap Motors, Replace refrigerant, Reset auxiliary heater start inhibit, Reset control unit
- **Suspension** - Acceleration sensor, Activate vehicle mode, Air spring struts installation/removal, Charge air suspension struts, Deactivate transportation mode, Drain air spring struts, Fill/empty pressure accumulator, Front axle air spring struts test, Front left air spring strut test, Front right air spring strut test, Rear axle air spring struts test, Rear axle level test, Rear left air spring strut test, Rear right air spring strut test, Reset control unit, Sensor unit zero position compensation, Store vehicle reference level
- **Body Control** - Activate vehicle mode, Activate/deactivate transportation mode, ESP steering wheel angle sensor adaptation, Gateway control unit reset, Headlamp setting, Headlight range control functional test, Initialization of all window lifters, Initialization of both front window lifters, Initialization of both rear window lifters, Rain sensor initialization, Rear wiper test reference run, Reset control unit, Reset sum of alarm triggers, Steering angle initialization, Steering column switch module ECU reset, Sun roof initialization, Teach LED headlights, Test DWA sensors, Test headlight washer system, Test spray nozzles / exterior mirror heating, Windshield wiper service position adjustment, Windshield wiper test reference run
- **Others** - Tests for SEAT systems, HEADLIGHT systems, MULTIMEDIA systems, AUDIO systems, GATEWAY systems

151 new Actuation type special tests including:

- **Engine/PCM** - Actuation, Electric Fuel Pump, Compression test, Control Tank Ventilation Valve, Coolant System Ventilation, Determining The Injector, Engine Oil Quantity, Fuel Quality Recognition, Gear change idle speed activation, Read configuration, Smooth running evaluation tests, Throttle Control, Urea/Water Mixture: Activate SCR Refuel Detection, VVT Tests
 - **Hybrid** - HV Battery Isolation Test, Parking brake lock test
 - **Transmission** - Release of Manual Shift Gate, System test
 - **ABS/Brakes** - Actuator test, ESP test, Pulse-wheel test, Wheel Electronics - Warning and Calibration Data, Wheel Speed Sensor Supply
 - **AWD/Transfer Case** - Clutch Function Test, Transfer Box - Replace Control Unit, VTG Function Check
 - **Suspension** - Rear Lift / Lower Sequence, VDM: Study the Adjustment Value
 - **Instrument Cluster** – Lamp/Indicator tests
 - **Climate (HVAC)** - Actuate of the Blower Output Stage, Read configuration, Run in Protection for A/C Compressor, System self-test
-

- **Others** – tests for CENTRAL ELECTRONICS, LIGHTING MODULEs, POWER CONTROL UNIT

New Fiat Coverage

20 new Adjustment type special tests including:

- **Engine/PCM** - Crankshaft Pos. Variation Learn, Reset Camshaft Adaptives, Reset Turbo Adaptives, Reset Turbo Over Boost Counter
- **ABS** - ABS Unit Bleed, Brake Fluid Replacement/Brake Fluid Reservoir Substitution, Calibrate Tandem Master Cylinder Sensor, Electric Park Brake Management, Emissions Rolls Test Mode, Pressure Sensor Calibration, Proxi Configuration
- **Tire Pressure Monitor/WCM** - Clear TPM Sensor Rolls Test Results, Clear TPM Sensor Warnings, Tire Pressure Sensor Registration, TPM Sensor Rolls Test, Update Front and Rear Axle Nominal Tire Pressure Values

226 new Actuation type special tests including:

- **ABS** – Lamp/Indicator tests, Inlet/Outlet Valve tests, Pilot Valve Activation tests, Priming Valve Activation tests
- **Climate (HVAC)** - A/C Request, Air Defrost Motor Distribution (Left Side), Air Defrost Motor Distribution (Right Side), Air Rear Motor Distribution, Blower Motor, External Control Variable Displacement (ECVD), Heated Seat Left Request, Heated Seat Right Request, Heated Steering Wheel Request, Left Air MIX Motor, Right Air MIX Motor
- **Instrument Cluster** - Lamp tests, Display Dimming
- **Body Control** - Lamp and Buzzer/Warning tests, Door Lock tests, Window tests, Wiper/Washer tests, Headlight tests, Turn Signal tests
- **Others** - tests for TELEMATICS GATE WAY, DRIVER ASSISTANCE SYSTEM MODULE

New Jaguar Coverage

- New coverage for 2018MY vehicles and systems
- New coverage for forward facing camera calibrations (dynamic type) for 2015-2018 vehicles
- Added coverage for 55 new systems
- Added coverage for 188 new vehicle-ecu combinations

1 new Adjustment type special tests including:

- **ADAS** - Camera Calibration

New Land Rover Coverage

- New coverage for 2018MY vehicles and systems
- New coverage for forward facing camera calibrations (dynamic type) for 2016-2018 vehicles
- Added coverage for 58 new systems
- Added coverage for 261 new vehicle-ecu combinations

1 new Adjustment type special tests including:

- **ADAS** - Camera Calibration

New Mercedes-Benz Coverage

- Major focus on new coverage for important Adjustment and Actuation tests for 2000-2018 vehicles

326 new Adjustment type special tests including:

- **Engine/PCM** - Adblue Dosing Valve Adaption, Adjust Idle Speed P/N, Adjustment Inlet Port Deactivation, Air Cleaner Adaptation Values, Air Filter Reset, Air Mass Meter Initialization, DPF Learn, Enabling Of Engine Start After Crash Event, Enrich In Case Of Poor Fuel Quality, Enriching The Fuel-Air Mixture By 10%, Enriching The Fuel-Air Mixture By 23%, Fuel Adaption, Fuel Metering Unit Adjustment, Fuel Pump Adaptation, Fuel Quantity Correction, Hfm Adaptation Reset, Increase Idle Speed With Range Engaged, Increase Idling Speed, Initialization After Crash, Injector Quantity Adjustment, Injector Quantity Adjustment (6 Cyl), Injector Quantity Adjustment (8 Cyl), New DPF - reset adaptation values, Octane number adjustment 89 RON, Octane number adjustment 91 RON, Octane number adjustment 93 RON, Octane number adjustment 95 RON, Oxidation Catalytic Converter Adaption, Pressure Regulator Valve Adjustment, Pressure Sensor Initialization, Quick Teach-In Of Values Of Zero Quantity Calibration, Reduce Idling Speed, Reduce Idling Speed With Range Engaged, Reset Adaptation Parameters, Reset Adaption To Factory Setting, Reset after changing NOx sensor, Reset After DPF Replacement, Reset After Oxidation Catalyst Replacement, Reset After Replacing Engine, Reset after SCR Catalytic Converter Replacement, Reset Air Mass Meter Adaptation Values, Reset Catalytic Converter Adaptation, Reset Egr Adaptation Values, Reset Fuel Quantity Mean Value Adaptation, Reset Idle Speed in Gear, Reset Idling Speed To Factory Setting, Reset Injector Lift Compensation, Reset Lambda Sensor Adaptation Values, Reset Of Mixture Adaptation Values, Reset Rail Pressure Control Valve, Reset Throttle Valve Adaptation Values, Reset Value Of Quantity Mean Value Adaptation, Resetting Adaptation Values, Resetting Reading Of Frequency Counter For Ethanol, Status Of Teach In Processes, Teach In Of Positions For Camshafts, Teach In Of Throttle Valve Stop, Teach In Sensor Rotor Adaptation, Teachin After Replacement Of Exhaust Gas Recirculation Actuator, Teach-in Of Drive Authorization System, Teach-in Process After Replacing The Combustion Engine, Teaching In the Ethanol Proportion In The Fuel, Throttle Valve Adaption, Used DPF - Reset Adaptation Values, Zero Quantity Calibration, Zero Quantity Calibration For Injector Replacement
- **Transmission** - Activate/Deactivate Roller Dynamometer Mode, Adaptation Of Component 'Torque Converter Lockup Clutch', Adaptation Procedure For Torque Converter Lockup Clutch, Assignment Of Hydraulic Shift Elements, Control Unit Calibration, Deactivate Transport Protection, Initialize Transmission Shift Actuator, Reset Adaptation Parameters, Reset Adaptation Values Converter Clutch, Reset Adaptation Values for Shift Operation, Reset Circuit Adaptation Values, Reset Transmission Adaption Values, Resetting Learned Values 'Deceleration Mode', Resetting The Service Life Data Of Automatic Transmission, Resetting The Service Life Data Of Torque Converter, Teach-in of Position Sensor of Park Pawl, Teach-in Of Selection Range Sensor, Upshifts, Valve Flushing
- **Hybrid** - Deactivate Transportation Mode, High Voltage Component Lock Engagement, High-Voltage Component Lock Disengagement, Software Reset
- **ABS/Brakes** - Activate The Function 'Tire Pressure Loss Warning' , Brake Bleed, Brake Pad Replacement Step 1, Brake Pad Replacement Step 1 (Release), Brake Pad Replacement Step 2, Brake Pad Replacement Step 2 (Close), Brake Pad Replacement Step 3 (Run In), Brake Pressure Sensor Zero Position Compensation, Calibration of Component Acceleration Sensor, Calibration Of Component 'Electric Parking Brake', Calibration Of Yaw Rate Sensor, Inlet Valves Calibration, Lateral Acceleration Sensor Zero Position Calibration, Longitudinal Acceleration Sensor Zero Position Calibration, Move To Assembly Position, Null Balancing - Steering Wheel Angle Sensor, Parking Brake Adaption, Reset puncture alarm (PRW), Reset Steering Angle Offset Values, Reset Steering Wheel Angle Sensor Adaptation Values, Reset Tire Control Indicator (TCI), Sensor Unit Calibration, Sensor Unit Zero Position Compensation, Solenoid Valve Calibration, Special Function VIN, Steering Angle Initialization, Switching Valve Calibration, Teach in The Component 'Electric Parking Brake'

- **AWD/Transfer Case** – Function Test Of AWD Solenoid Valve While Driving, Replacement of component 'Transfer Case', Reset of Component 'Y68/3(AWD Solenoid Valve)'learned values, Resetting The Oil Service Data
- **Instrument Cluster** – Confirmation Of General Maintenance, Date And Time, Reset Adaption To Factory Setting, Reset General Maintenance, Resetting Of Service-Interval Display, Service Interval Display Reset, Service Interval Reset Faulty, Service Requirement
- **Climate (HVAC)** - Adapting Of Control Motors, Automatic Setting Air Damper Control Motors, Basic Setting, Breaking-In Of Refrigerant Compressor, Customer Request, Front Control Motor Basic Settings, Normalization Of Actuator Motors, Normalizing Of Positioning Motors, Program Remote Control, Refrigerant Compressor Run-In, Reset Adaption To Factory Setting, Reset Auxiliary Heater Start Inhibit, Reset Control Unit, Special Settings, Teach-In Of Actuator Motors , Transfer Of Manufacturer Default Settings, Workshop Code
- **Suspension** - Anti-Roll Stability Hydraulic System Bleeding, Level Calibration, Reset Compressor Actuation History, Reset Of Compressor Operating Time, Sensor Unit Calibration, Suspension Level Calibration, Suspension Level Calibration (4X4), Confirmation Of General Maintenance, Date And Time, Reset Adaption To Factory Setting, Resetting Of Service-Interval Display, Service Interval Display Reset, Service Interval Reset Faulty, Service Requirement
- **Steering** - Calibration Of Electric Power Steering Torque Sensor, Initial Startup, Reset Control Unit, Reset Learned Values, Reset of coding, Reset Steering Angle Offset Values, Resetting the Center Position of the Steering, Torque Sensor Initialization, Variant Coding Reset
- **Body Control** - Activate Showroom Mode, Anti-Pinch Protection Teach-in Process, Battery Replacement, Confirmation Of Battery Change, Encode Rain/Light Sensor, Exchange Rain/Light Sensor, Rain Sensor Initialization, Rain/Light Sensor Initialization, SDR Clear History Get Position Start, Sun Roof Initialization
- **Others** – Tests for HEADLAMP systems, DOOR systems

286 new Actuation type special tests including:

- **Engine/PCM** - Activated Charcoal Shut-off Valve, Activation Of Fuel Pump, Compression Test, Display Of CVN, Display of Model Check Number, Display Of SCN, Drain Fuel Tank, Engine Oil Pump Valve, Fuel Pressure Reduction, Injectors Leak Test, Lambda Sensor 1, Mixture Formation, Quantity Control Valve, Rail Control, Smooth Running Evaluation, Throttle Valve Actuator
- **Hybrid** - HV battery cell evaluation
- **Transmission** - Activate Roller Dynamometer Mode, Display Of Coding Data, Switch Off Incline Recognition For Dynamometer Mode
- **ABS/Brakes** – Actuator Test, Brake Lamp Switch Test, Display Of CVN, Display Of SCN, Electric Parking Brake , ESP test, High Pressure And Return Flow Pump, Left Rear Pressure Regulating Valve Pressure Release, Pulse-Wheel Test, Read PRW (Flat Tire Warning) Information, Static Test, System Test, Test Drive Activation, Test Drive Deactivation
- **Instrument Cluster** - Current Values - Service Information, Instrument Lighting, Oil Change Data, Segments On Speedometer
- **Climate (HVAC)** - Air Conditioner Performance Test, Air Flap Control Motors, Compressor, Fresh Air/Ram Air/Recirculated Air Flap Actuator Motor, Front Left Engine Mixture Valve, Front Right Engine Mixture Valve, Intake Fan, Left A - Pillar Air Distribution Actuator Motor, Left Blend Air Flap Actuator Motor, Left Defroster, Right A - Pillar Air Distribution Actuator Motor, Right Blend Air Flap Actuator Motor, Auxillary/Supplementary Heating Functional Test
- **Suspension** - Airmatic Centralreservoir Filling Valve, Airmatic Pressure Relief Valve, Display Of Coding Data, Pressure Supply Test, Steering Wheel Position Functional Test, Leak Test
- **Steering** – Steering Wheel Position Functional Test, Steering Wheel Vibration Motor
- **Body Control** – Light tests, Lamp and Buzzer/Warning tests

- **Doors** - Door Lock/Unlock tests, Window tests, Mirror tests
- **Others** – tests for FUEL PUMP, LED MATRIX LAMP, ELECTRIC SEAT ADJ, HEADLAMP XENON, KEYLESS GO, AUDIO or COMAND, PARKING SYSTEM, PARKTRONIC

New Volkswagen Coverage

- Major focus on new coverage for important Adjustment and Actuation tests for 1992-2018 vehicles

1,698 new Adjustment type special tests including:

- **Engine/PCM** - Activate/deactivate cruise control, Activate/deactivate start/stop function, Adapt DPF Adaptation Values, Adaptation Of Idle Speed, Adaption of Application Point, Adaption Of Brake Pedal Sensor, Adaption Of Camshaft Angle Based On Knock Sensor, Adaption of Clutch Slip Points, Adaption Of Crankshaft Sensor Tolerance, Adaption Of Differential Pressure Sensor For DPF, Adaption Of Differential Pressure Sensor Low Pressure EGR, Adaption Of Engine Torque Loss In Idle Speed, Adaption Of Exhaust Gas Flap, Adaption Of Exhaust Gas Flap 2, Adaption Of Low Pressure EGR Exhaust Flap Actuator, Adaption Of Low Pressure EGR Valve, Adaption Of Oxygen Sensor Bank 1 Sensor 1 Binary Type, Adaption Of Radiator Shutter Control, Adaption Of Reductant Tank Level Sensing To Raw Value, Adaption Of Speed Limitation, Adaption Of Turbo Charger 1, Adaption Of Turbo Charger Bypass Valve, Adaption Of Turbocharger Turbine Inlet Actuator, Adaption Of Water Mixing Actuator Charge Air Cooling, Adaption Sequence Of Hybrid Components, Adaptiondyn.oil Press. Warn.:speed Threshold, AdBlue Circuit System Drainage, AdBlue Injected Quantity Test, Air Cleaner Adaptation Values, Air Entrapment Test Hydraulic Unit Engine Decoupler, Air System Test, Automated Test Exhaust Gas Flap, Automated Test Low Pressure EGR Valve, Automated Test Of EGR Low Pressure Filter, Basic Setting Charge Air Flow Flap, Basic Setting Exhaust-Gas Recirculation, Basic Setting Kickdown, Bleed Cooling System, Bleed Fuel System, Bleed System/AdBlue Circuit Leak Test, Bleeding 2 Hydraulic Unit Engine Decoupler, Bleeding Hydraulic Unit Engine Decoupler, Boost Pressure Actuator Basic Adjustment, Calibration of Clutch Valves, Calibration of Cooling Oil Valve, Calibration Of Gear Selector Movement Sensors, Calibration of Main Pressure Valve, Camshaft Timing Control (B1) Inlet, Camshaft Timing Control (B1) Outlet, Camshaft Timing Control (B2) Inlet, CAT Conversion Rate (bank 1), CAT Conversion Rate (Bank 2), Chain Elongation Correction After Other Repairs, Chain Elongation Reset After Chain Replacement, Change Of Parameters For Monitoring Performance Of DPF Filter, Change To Correction Mode For VCA Learning After ECU Replace, Charge Air Cooler Bypass Cont. Basic Setting, Clutch Protection Function, Compressor Control Flap Basic Setting, Compressor Magnetic Clutch Basic Setting, Configuration, Coolant Bypass Valve Basic Setting, Cruise Control Operating Unit: Activation, Cylinder Pressure Sensors Adaptation Reset, DeNOx Service Regeneration During Drive, DeSOx Service Regeneration During Drive, Diesel Particulate Filter Adaption, Diesel Particulate Filter Regeneration Run, Differential Pressure Sensor Adaption, Disengagement Clutch Actuator Adaption Current Distance Line, DPF Regeneration Whilst Driving, DPF Service Regeneration, Drain Fuel System, Draining fuel tank, ECU D, Electric Fuel Pump Control Basic Setting, Enable / Disable. Oil Pressure For Engine Run, Engine decoupler close, Engine decoupler open, Engine Temperature Management Basic Setting, EOL Quickstart Actuator Test 1, EOL Start-Up SCR Metering Quantity Test, Evaporative Emission Control Functional Test, Evaporative Emission Control Regenerat. Valve, Evaporative Emission Control System, Exhaust Flap Adaption, Exhaust Gas Recirculation Valve Basic Setting, Fuel Injector Adaptation Value, Fuel Pressure Control Valve Adjustment, Fuel Pump Adaptation, Fuel pump adaption, Fuel Quantity Control Valve Adjustment, Gearbox Neutral Position Switch Adaption, Generate Readiness, Generate Readiness Code, In-Cylinder Flow Flap 1 Basic Setting, In-Cylinder Flow Flap 2 Basic Setting, Injector Adaptation, Injector Buzz Test, Inlet Camshaft Timing Control (bank 1), Lambda Sensor Adjustment, Lambda

Sensor Ageing (B2 S1) Function. Test, Lambda Sensor Ageing (B2 S2) Function. Test, Lambda Sensor Ageing Bank 1 Sensor 1, Lambda Sensor Ageing Bank 1 Sensor 2, Leakage Test Hydraulic Unit Engine Decoupler, LP - Exhaust Gas Recirculation Basic Setting, LP-EGR Diff. Press. Sens. Home Setting, Magnetic clutch adaption, Manual Regeneration Of Diesel Particulate Filter, Manual Test Of EGR Low Pressure Filter, Manual Test Of Exhaust Gas Flap, Manual Test Of Low Pressure EGR Valve, Maximum Vehicle Speed, Menu-Driven Configuration, Metered Quantity Measurement/large Quantity, Metered Quantity Measurement/small Quantity, Natural Gas Pressure Reduction, Neutral Position Sensor Adapting, New DPF Reset Adaptation Values, Oil Pressure Regulation Switching Test, Oxidation Catalytic Converter Adaption, Partially Activated Engine For Automatic Trans Fluid Change, Particulate Filter Regeneration, Quantity Comparison, Quick Charging Of High Voltage Battery, Quickstart - Adaptation Pressure Characteristic Engine Decouple, Quickstart - Adaption Boost Pressure Actuator, Quickstart - Adaption Of Exhaust Gas Recirculation Valve, Quickstart - Adaption Of Intake Manifold Runner Flap Bank 1, Quickstart - Adaption Of Intake Manifold Runner Flap Bank 2, Quickstart - Adaption Of Turbo Charger, Quickstart - Automated Boost Control, Quickstart - Automated Exhaust Gas Recirculation, Quickstart - Bank Balancing, Quickstart - Blocked Catalyst, Quickstart - Boost Pressure Actuator, Quickstart - Brake Booster Pump, Quickstart - Camshaft Position Diagnostics, Quickstart - Catalyst Conversion Capability, Quickstart - Catalyst Conversion Capability Bank 2, Quickstart - Catalytic Converter Regeneration, Quickstart - Check Cylinder Balancing, Quickstart - Check Deactivating Of Sail Function, Quickstart - Check Diesel Particulate Filter Missing Substrate, Quickstart - Check Low Pressure EGR Cooling efficiency, Quickstart - Check Oxicat Efficiency, Quickstart - Clutch Slip Point Adaptation Engine Decoupler, Quickstart - CNG Activation System Discharge, Quickstart - CNG Deactivation System Discharge, Quickstart - Cold Start Injector, Quickstart - Compression Test 1, Quickstart - Coolant Valve For Gearbox, Quickstart - Cooling Valve, Quickstart - Crankcase Ventilation Test, Quickstart - Crankcase Ventilation Valve, Quickstart - Cylinder Pressure Sensor Check, Quickstart - Demount Friction Stuck Boost Pressure Actuator test, Quickstart - Deviation Lambda Control, Quickstart - Deviation Lambda Control CNG, Quickstart - Diesel Particulate Filter, Quickstart - EGR Valve Cooler Bypass Valve, Quickstart - Electric Supercharger, Quickstart - Engine Shut-Off, Quickstart EOL Engine Speed Increase, Quickstart - EVAP Purge Valve 2, Quickstart - EVAP Purge Valve Functional Check, Quickstart - EVAP System Pressure Check, Quickstart - EVAP System Pressure Rough Leak Check, Quickstart - Exhaust Gas Recirculation, Quickstart - Exhaust Gas Recirculation Cooler Fouling Test, Quickstart - Fuel Injector Test, Quickstart - Fuel Supply System Test, Quickstart - Fuel Supply System Test V2, Quickstart - Fuel Tank Isolation Valve Functional Check, Quickstart - Fuel Trim Adaption Idle, Quickstart - Fuel Trim Adaption Intake Manifold Injection, Quickstart - Fuel Trim Adaption Part Load, Quickstart - Gasoline High Pressure Injection Test, Quickstart - Glow-Plug Control Module, Quickstart - Governor Deviation Exhaust Gas Recirculation, Quickstart - Half Engine Mode, Quickstart - Heater Oxygen Sensor 1 Bank 1, Quickstart - Heater Oxygen Sensor 1 Bank 2, Quickstart - Heater Oxygen Sensor 2 Bank 1, Quickstart - Heater Oxygen Sensor 2 Bank 2, Quickstart - Individual Cylinder Lambda Adaption, Quickstart - Injectors Module 1 Idle Warm Test, Quickstart - Injectors Module 1 Idle Warm Up Test, Quickstart - Injectors Module 2 Injector Test, Quickstart - Intake Manifold Pressure Compensation, Quickstart - Intake Manifold Runner Flap, Quickstart - Intake Manifold Runner Flap Bank 1, Quickstart - Intake Manifold Runner Flap Bank 2, Quickstart - Kick Down Adaption, Quickstart - Knock Sensors, Quickstart - Misfire Test, Quickstart - NOx Sensor 1 Test, Quickstart - NOx Sensor 2 Test, Quickstart - NOx Sensor Dynamic Test, Quickstart - NOx Sensor Test Modell Based, Quickstart - O2 Check For Oxygen Sensor, Quickstart - Open Circuit Adjustment Voltage, Quickstart - Open Position Check Boost Pressure Actuator, Quickstart - Oxygen Sensor, Quickstart - Oxygen Sensor Confusion (Left/Right Or Sensor2/3),

Quickstart - Oxygen Sensor Front Offset Check, Quickstart - Oxygen Sensor Front Offset Check Bank 2, Quickstart - Oxygen Sensor Front Signal Dynamic Check, Quickstart - Oxygen Sensor Front Signal Dynamic Check Bank 2, Quickstart - Oxygen Sensor Heater Behind Cat, Quickstart - Oxygen Sensor Heater Gear, Quickstart - Oxygen Sensor Rear Oscillation Check, Quickstart - Oxygen Sensor Rear Oscillation Check Bank 2, Quickstart - Oxygen Sensor Rear Signal Activity Check, Quickstart - Oxygen Sensor Rear Signal Dynamic Check, Quickstart - Oxygen Sensor Rear Signal Dynamic Check Bank 2, Quickstart - Oxygen Sensor Rear Signal Responsetime Check, Quickstart - Oxygen Sensors And Catalyst, Quickstart - Parallel Fuel Trim And Mass Flow Adaption, Quickstart - Plausibility Air-Mass Sensor, Quickstart - Pre Fuel Pump, Quickstart - Pre Fuel Pump (Short-trip), Quickstart - Reductant System Consumption Monitoring, Quickstart - Reductant System Wrong Medium Detection, Quickstart - Replacement Of Turbocharger Actuator, Quickstart - Reset Of Adaption Values, Quickstart - SCR Complete System Test, Quickstart - SCR Efficiency Test, Quickstart - SCR Metering Quantity Test, Quickstart - Secondary Air System, Quickstart - Secondary Air System - Bank 2, Quickstart - Speed Increase Chassis System Bleeding, Quickstart - Summary Of Testroutines For Production, Quickstart - Summary Of Testroutines For Production 1, Quickstart - Summary Of Testroutines For Production 2, Quickstart - Supercharger Regulation Flap Adaption, Quickstart - Throttle position Adaption Bank 2, Quickstart - Turbo Charger, Quickstart - Turbo Charger Bypass Valve, Quickstart - Turbocharger Turbine Inlet Actuator, Quickstart - Turbocharger Wastegate Actuator, Quickstart - Variable Intake Manifold / Variable Resonance, Quickstart - Variable Valve Timing Inlet Bank 2, Quickstart - Ventilate Coolant Circuit, Quickstart - VVLI Functional Check, Quickstart - VVT Response/Stuck Check - Inlet, Quickstart - VVT Response/Stuck Check - Outlet, Quickstart - Warm-Up Procedure 1, Quickstart - Warm-Up Procedure 2, Quickstart - Warm-Up Procedure 3, Quickstart - Warm-Up Procedure 5, Quickstart - Warm-Up Procedure 6, Radiator Blind Basic Setting, Read Injector Codes, Readout System State Control Module Tank Leak Detection, Regeneration Of Exhaust Gas Recirculation Cooler, Reset Adaption Fuel Pressure B1S1 Upstream High Pressure Pump, Reset Adaption Of Crankshaft Pulse Generating Wheel, Reset Adaption Value, Reset AdBlue System Data, Reset After Replace Of Quantity Value And Pressure Control, Reset After Replacement Energy Histogramm Engine Decoupler, Reset After Replacement Of Air Mass Flow Sensor, Reset After Replacement Of Diesel Particulate Filter, Reset After Replacement Of Differential Pressure Sensor, Reset After Replacement Of Engine Decoupler, Reset After Replacement Of Exhaust Gas Recirculation Valve, Reset After Replacement Of Injector 1, Reset After Replacement Of Injector 2, Reset After Replacement Of Injector 3, Reset After Replacement Of Injector 4, Reset After Replacement Of Lambda Sensor, Reset After Replacement Of Oxidation Catalytic Converter, Reset After Replacement Of Quantity Mean Value Adaptation, Reset After Replacement Of SCR Catalyst, Reset After Replacement Of Turbo Charger, Reset After Replacement Of Variable Oil Pump, Reset Air Mass Meter Adaptation Values, Reset Catalytic Converter Adaptation, Reset DPF Differential Press. Sensor Adapt., Reset Fuel On Adaption, Reset Fuel On Fuel Off Adaption, Reset Fuel Pressure Adaptation, Reset Injector Adaptation Values, Reset Lambda Sensor Adaptation Values, Reset Magnetic Clutch Adaption, Reset Misfire Adaptation, Reset Of Adaption Values Injector, Reset Of CAN Message Alive Detection, Reset Of Combustion Chamber Pressure Sensor Adaption, Reset Of Injector Closing Time Adaption, Reset Of Preignition Counter, Reset Of Reductant System Adaption, Reset Of SCR Restriction Counter, Reset Of SCR Tank Level Sensing, Reset Particulate Filter Adaption Values, Reset Rail Pressure Control Valve, Reset SCR Tank System Adaptation, Reset Start Inhibit Due To Lack Of AdBlue, Reset Start/stop Counter, Reset Statistic Memory, Reset Timing Chain Adaption Values, Reset Turbocharger Adaption Values, SCR Inducement Operating Hour Reset, Service position, "Set AdBlue Tank Level To ""full""", Start Up Desulfurization In Standing Position, Start Up EGR Cooler Rinsing, Start Up Learning

Of Measured Soot Mass, Start-Up Pressurized Gasoline Fuel Tank Isolation Valve Open, Start-Up Refueling Condition Pressurized Gasoline Tank, Start-Up Regen Of Particulate Filter In Standing Position, Start-Up Regeneration Diesel Particulate Filter During Drive, Start-Up Regeneration Of Particulate Filter During Drive, Stationary DPF Regeneration, Summary Reset After Replacement Of Reductant System Components, Swirl Flap Basic Setting, Swirl Flap Basic Setting (Bank 1), Swirl Flap Basic Setting (Bank 2), Switchover To The High Oil-Pressure Level, Test AdBlue Metering Valve Spray Pattern, Throttle Valve Adaption, Throttle Valve Basic Setting, throttle position Adaption, Transfer Configuration, Turbocharger Basic Setting, Used DPF Reset Adaption Values, Write Configuration, Write Injector Codes

- **Transmission** - Adaption of Clutch Slip Points, Automatic Transmission Fluid Level Check, Automatic Transmission Fluid Pump Calibration, Automatic Transmission Fluid Pump Function Test, Basic Adjustment Clutch, Basic Adjustment Clutch Conventional, Basic Adjustment Electrical Fluid Pump Transmission, Basic Adjustment Transmission, Basic Setting, Basic Setting: Clutch Engagement Point, C0 adaption, Calibration of Clutch Valves, Calibration of Cooling Oil Valve, Calibration Of Driving Position Sensor, Calibration Of Gear Selector Movement Sensors, Calibration of Main Pressure Valve, Calibration Of Synchron Points, Clearing The Shutdown And Reset Data, Draq Torque Detection, EEPROM Writing Of Basic Adjustment Data, Electrical Pump 3 For Transmission Function Test, Excessive Temperature Counter Write Reset, Fast adaption, Fastadaption Twin Clutch, Forced Change-Up Adjustment, Gear Positioner Neutral Position, Gear Positioner Removal Position, Hydraulic Test, Learning Of Info On Control Units Fitted, Lock Transmission Hydraulic Pump, Mileage Data Adjustment, Move Gear Positioner To Neutral Position, Move Gear Positioner To Removal Position, Power Flow Interrup. When Stationary Adjustm., Quickstart - Clutch Slip Point Adaption Engine Decoupler, Quickstart - Manual Transmission Fluid Pump Test, Quickstart - Reset Of Adaption Values, Release Transmission Hydraulic Pump, Reset Adaption Parameters, Reset Adaption Of Application Point To Factory Settings, Reset Adaption Value, Reset After Replace Pressure Supply Init Adapt Electric Motor, Reset CAN Information, Reset Clutch 0 Logging Dates, Reset Clutch 1 Logging Dates, Reset Clutch 2 Logging Dates, Reset Clutch Characteristic, Reset Clutch Characteristic Clutch 0, Reset Clutch Control Travel Pressure Characteristic, Reset Clutch Pressure Sensor Adaption, Reset Clutch Values, Reset Clutch Values For Transient Friction, Reset clutch values forward, Reset clutch values reverse, Reset Drivingparts Per Shift Position, Reset engagement counters, Reset frequency counter, Reset Gear Positioner Values, Reset Gearbox Mileage, Reset Kiss Point Adaption Fault Statistics 1, Reset Mileage And Adaption Counter, Reset Mileage Of Rough Road Detection, Reset Of Adaption Values Gear Box, Reset Of C0-Adaption Values, Reset Of Clutch Pressure Adaption, Reset Of Survey Counter, Reset Of System Specific Adaption Values, Reset Pressure Reduction Logging Dates, Reset Start/stop Counter, Reset Temperature Model, Reset To Factory Setting, Reset Total Clutch Adaption, Selector Lever Position Sensor Calibration, Set Clutch Mileage To Zero, Set Gearbox Mileage To Vehicle Mileage, Single Gear Indicator Adjustment, Start Automatic Trans Fluid Pressure Accumulator Discharge, Start Automatic Transmission Fluid Pressure Accumulator Charge, Tiptronic Steering Wheel Button Adjustment, Transfer Configuration, Transmission Adaption Basic Setting 1, Transmission Adaption Basic Setting 2, Transmission Adaption Basic Setting 3, Transmission Oil Level Test, Transmission Rapid Adaption, Transmission Setting Adaption, Wheel Torque Limitation
- **Hybrid** - Activ. / Deactivation Charging HV Battery, Adaption Of Radiator Shutter Control, Air Conditioner Compressor Run In, Automatic Start, Automatic Zero Potential Check, Auxiliary Air Heating Test, Calibration Drive Motor For Electric Drive, CMC Registration, Communication Connection Adaption, Coolant Valve Adaption, Delete Iccpd Error Memory, High Voltage Heater 2 Routine, HV Battery Charge, Quickstart - Open Circuit Test Power Electronics To Electric Mo, Quickstart - Reset Of Adaption Values, Referencing LKL1, Referencing LKL2, Reset Battery

Charging Profiles, Reset Battery Charging Timer, Reset Crash Detection Signal, Reset IP Counter Wrong IPV6 Addresses, Reset IP Counter Wrong TCP Ports, Reset IP Counter Wrong UDP Ports, Reset IP Counter Wrong VLANS, Reset of Adjustment/Calibration Values, Reset Of All Adaptions, Start-Up Coolant Circuits Filling, Start-Up Refrigerant Circuit Filling, Start-Up Refrigerant-And Coolant Circuits Filling, Stop Routine Coolant Circuit Filling Flushing, Stop Routine Refrigerant Circuit Filling Flushing, Take Back Of The Reversible Crash Cutoff, Transfer Configuration

- **ABS/Brakes** - Activate/deactivate Roller Dynamometer Mode, Basic Setting, Basic Setting Hydraulic Connections, Basic Setting Integrated Parking Brake, Basic Setting Steering Angle Sensor, Basic Setting Tire Pressure Monitoring (TPMS), Basic Setting Tire Pressure Monitoring Display (TPMS), Basic Setting/Bleed Brake System, Bleed, Brake Disc Drying Adjustment, Brake Pad Replacement Step 1, Brake Pad Replacement Step 2, Brake Pressure Sensor Zero Pos. Compensation, Brake Servo Action Adjustment, Brake Stabilization Adjustment, Brake Temperature Monitoring Information, Calibrate Parking Brake, Calibration Of Tyre Pressures, Complete Brake Pad Replacement Mode, Electromechanical Parking Brake Operational Test, Electronic Brake Booster Bleeding, EMF Opening Mode Adjustment, Enhancement Function Encoding, Force Auto Adjust, Initialization Accumulator, Initialization Brake Booster, Lat. Accel. Sensor Zero Pos. Calibration, Leakage Test, Longit. Accel. Sensor Zero Pos. Calibration, Null Balancing Steering Wheel Angle Sensor, Open and Close Parking Brake Pistons, Parking Brake Initialisation, Pdm Defragmentation, Quickstart - Reset Of Adaption Values, Rear Axle Full Deceleration Adjustment, Reset Brake Temperature Monitoring, Reset frequency counter, Reset Frequency Counters, Reset Highest Appeared Brake Temperature, Reset Maximum ECU Currents, Reset Maximum ECU Temperatures, Reset Maximum Smart Actuator Currents, Reset of Adaption Values, Reset of Adjustment/Calibration Values, Reset Of All Adaptions, Reset Of State Information, Reset Of Tire Not Fixed Detection Adaption Values, Reset Of Zero Point Brake Pedal Position Sender, Reset Temperature Model, Reset To Factory Setting, Rka Reset Dynamic Data, Set And Reset Parking Brake Motor Piston, Set Brake Application Signals, Start Brake Pad Replacement Mode, Starting Vibration Reduction Adjustment, Start-Up Test Accumulator, Start-Up Test Brake Booster, Steering Angle Initialization, Steering Basic Setting, System Function Test, Torque Test, Transfer Configuration, Variant Encoding, Vent ESP Hydraulic System, Verify Variant Encoding, Write Configuration, Yaw Rate Sensor Detection
- **AWD/Transfer Case** – Adapt Cardan Sync, Clear VIN, Open Coupling For Car Manufacture, Pump Calibration, Quickstart - Reset Of Adaption Values, Reload Pressure Sensor Identification, Reset Adaptation Parameters, Reset Clutch Values, Reset Of Adaption Value EDL Closed, Reset Of Adaption Value EDL Open, Reset Of Adaption Values Gear Box, Reset Of Adaption Values Oil Ageing, Reset of Adjustment/Calibration Values, Reset Of ECU In Delivery State Of manufacture, Reset Of Hydraulic Pressure Sender 1 Offset, Static Calibration Routine, Static Calibration Routine Overrun, Transfer Configuration
- **TPMS** - Program Sensor Code, Reset of Adjustment/Calibration Values, TPM Individual Specified Pressure Adjustment, Transfer Configuration, Tyre Pressure Sensor Adaptation
- **Safety/Airbag** - Mounting Position Calibration SC, PODS Rezero, PODS Serial Number Adjustment, Pretensioner Left Serial Number, Pretensioner Right Serial Number, Reset Counter For Rollover-Bar-Deployment, Reset Rollover Trigger Counter, Rollover Protection Test, Seat Occupant Recognition Basic Setting, Seat Occupied Recognition Control Module Basic Setting, Transfer Configuration
- **Instrument Cluster** - Adapt Fuel Consumption Indicator, Adapt Fuel Gauge, Adaptation Of Service-Interval Display, Average Consumption Display Correction, Coding Maintenance Interval Extension, Communication Connection Adaption, Country Version Encoding, Ethernet Testability Activate, Ethernet Testability Deactivate, Fixed Service Interval Adjustment, Flexible Service Interval Adjustment, Flexible SID Adaption (Diesel), Flexible SID Adaption (gasoline),

- Menu-Driven Configuration, Reset IP Counter Wrong IPV6 Addresses, Reset IP Counter Wrong TCP Ports, Reset IP Counter Wrong UDP Ports, Reset IP Counter Wrong VLANS, Resetting Of Service-Interval Display, Service Light Reset, Transfer Configuration, Write Configuration
- **Climate Control/HVAC** - A/C Compressor Adaptation, Activate/deactivate Production Mode, Adaptation - A/C System Start-Up Behaviour, Adaptation - Duration Of Compressor Run-In, Adaptation -Activation Temperature Window Heater, Adaptation -Stop Enable for Start/Stop Function, Adaptation-Seat Heating Activation, Adapting Of Control Motors, Air Conditioner Compressor Run In, Automatic Start, Air Conditioner Control Motors: Adapting, Air Conditioner Heater Output Test, Air Quality Sensor Adjustment, Air Volume/distribut. Display Time Adjustment, Allocate Control Motors, Automatic Addressing, Aux. Heating Continued Heating Time Setting, Auxiliary Heating Configuration Without CAN, Basic Setting, Basic Setting A/C Actuator Motor, Calibration Of Stop Positions, Compressor Run-In, Compressor Run-In Blower Voltage Adaption, Compressor Run-In Time Adaption, Cooling Output Test, Enable Control Unit, Encoding Of Retrofitted Components, Fr. Left Seat Heating Memory Function Setting, Fr.right Seat Heating Memory Function Setting, Front And Rear Control Motor Basic Settings, Front Left Seat Heating Memory Function Setting, Lin Bus 1 Control Motor Adaption, Lin Bus 2 Control Motor Adaption, Quickstart - Reset Of Adaption Values, Reset Adaption To Factory Setting, Reset Adaption Values Potentiometers In Vents, Reset All Adaptation Values, Reset All Counters, Reset frequency counter, Reset of Adjustment/Calibration Values, Reset Of All Counters, Reset Of ECU In Delivery State Of manufacture, Reset To Factory Setting, Seat Heating Power Stage 2 To 1 Reduct. Time, Seat Heating Power Stage 3 To 2 Reduct. Time, Service Light Reset, Transfer Configuration, Write Configuration
 - **Suspension** - Accumulator bleeding, Accumulator charging, Accumulator Charging And Deactivate Self-Levelling, Activate Air Suspension, Activate shipping mode, Activate test mode, Activate/deactivate Roller Dynamometer Mode, Activate/deactivate Shipment Mode, Adjustment, Adjustment Of Vehicle Level Sensors, Air Spring Strut Bleeding, Front Axle, Air Spring Strut Bleeding, Rear Axle, Air Spring Strut Bleeding, Rear Left, Air Spring Strut Bleeding, Rear Right, Air Spring Strut Charging, Front Axle, Air Spring Strut Charging, Rear Axle, Air Spring Strut Charging, Rear Left, Air Spring Strut Charging, Rear Right, Basic Setting, Brake Pad Replacement Step 1, Brake Pad Replacement Step 2, Calibrate Actuator Angle, Calibrate Phasing Angle Actuator, Left, Calibrate Phasing Angle Actuator, Right, Calibration Height Values, Changeover To Normal Ride Control Operation, Clear Calibration Data Left Actuator, Clear Calibration Data Right Actuator, Clear Counter And Runtime Of Compressor, Clear Counter Of Valve Activation, Clear Counter Of Valve Activations, Clear DEGRadation Events Values, clear duration mode, Clear Duration Mode And Control Activities, Clear Torsion Bar Values, Deactivate shipping mode, Deactivate test mode, Development Function Deactivation, Emergency charging, Go To High Level, Go To High Level And Deactivate Self-Levelling, Go To High Level And Deactivate Self-Levelling Permanent, Go To Normal Level, Go To Normal Level And Deactivate Self Levelling, Go To Normal Level And Deactivate Self-Levelling Permanent, Go To Normal Level With Narrow Control Tolerance, Go To Preliminary Stage For Calibration In Production, Go To Preliminary Stage For Calibration In Service, Go to production reference level, Learn Normal Level, Mounting Position Calibration, Pressure Accumulator Preload Pressure, Pressure Reduction, Reset Adaptation Parameters, Reset of Adjustment/Calibration Values, Reset Of Central Signal Processing Adaption Values, Reset Of Qsp Torque Display Adaption Values, Reset Of Raw Values Of Level Sensors In Rebounded Position, Reset To Factory Setting, Self Leveling Suspension Calibration to Determine Axle Load, Self-Levelling Suspension Activation, Self-Levelling Suspension Calibration, Self-Levelling Suspension Calibration Reset, Self-Levelling Suspension Deactivation, Self-Levelling Suspension Deactivation Permanent, Shock Absorber Damping Adjustment Valve Calibration, Swap
-

- Function Activate, Transfer Configuration, Transportation Mode, Unlock Actuator System, Wheel Alignment, Write Configuration
- **Steering** - Activation Tone Adjustment, Adjustment, Audio Reduction Adjustment, Basic Setting, Basic Setting Steering Angle Sender, Calibrate Steering Angle Sensor, Control Of Warning Light, Delete Error Memory Dev, El. Power St. St. Wheel Angle Sens. Adapt., Electric Power Steering: Configuring, Electric Power Steering: Encoding, Kerb Parking Distance Adjustment, Menu-Driven Configuration, Parking Aid Deactivation Speed, Parking Steering Assistant Cut-In Speed Adj., Power Steering Control Module Adaptation, Quickstart - Reset Of Adaption Values, Reset Adaption To Factory Setting, Reset Control Unit, Reset Counter For Mechanical Stress, Reset Of Adaption Value Current Linearization, Reset of Adjustment/Calibration Values, Reset Of Steering Support Adaption Values, Reset Of Tick Learner, Reset To Factory Settings, Service Light Reset, Steer To Center Position, Steering Angle Initialization, Steering Angle Sender - Reset Zero Point, Steering Angle Sender - Set Zero Point, Steering Angle Sensor Basic Setting, Steering Angle Sensor Calibration, Steering Assist Without Engine Running, Transfer Configuration, Vehicle Identification Number Programming, Vehicle Length Adjustment, Vehicle Width Adjustment, Visual Display Adjustment, Warning Lamp Test, Wheel Circumference Adjustment, Write Configuration
 - **Body Control** - Adjustment: Locking Whilst Driving, Adjustment: Remote Control Conven. Actuation, Adjustment: Unlocking After Key Removal, Adjustment: Unlocking Options, Air Conditioner Compressor Run In, Automatic Start, Air Conditioner Heater Output Test, Automatic Addressing Of Control Motors Of Air Condition, Basic Setting Electrically Adjustable Steering Column, Basic Setting For Luggage Compartment Cover, Basic Setting Headlight, Basic Setting Quit, Basic Setting Rear Lid Opening Angle, Basic Setting Vehicle Inclination Neutral Position, Calibration Control Units For Heater Element, Calibration End Stops Of Air Condition Flaps, Calibration Operating And Display Units For Air Conditioning, Calibration Seat Fan, Counter Reset For Refrigerant Loss Detection, DWA Driver Door Opening Alarm Delay Adjustm., DWA Interior Monitor Sensitivity Adjustment, DWA Primed Feedback Adjustment, DWA Tilt Sensor Sensitivity Adjustment, EEPROM Output, England ROW DWA Alarm Signal Adjustment, Fragrancing System Replacing Cartridge In Aroma Receptacle 2, Fragrancing System Replacing Cartridge In Aroma Uptake 1, Keyless Locking Optical Feedback, Keyless Unlocking Optical Feedback, Load Compartment Cover Basic Setting, Locking With Key Switch Optical Feedback, Locking With Remote Control Opt. Feedback, Luggage Compartment Cover Reset Normalisation, Luggage Compartment Cover Test Run, Menu-Driven Configuration, Power Latching Test Run, Power Sunroof Control Module Basic Setting, Quickstart - Reset Of Adaption Values, Rear Lid Basic Setting, Rear Lid Reset Normalisation, Reset Adaption Values Potentiometers In Vents, Reset Energy Management Counter, Reset frequency counter, Reset Headlight Regulation Counter, Reset Master Slave Assignment, Reset of Adjustment/Calibration Values, Reset Of All Adaptions, Reset Of All Air Condition Counters, Reset Of All Counters, Reset Of Identification Data Collected On Lin Bus, Reset To Factory Setting, Roof Blind Go To Service Position, Roof Blind Normalisation, Roof Blind Reset Normalisation, Roof Roller Blind Basic Setting, Service Light Reset, Sliding Sunroof Basic Setting, Sliding Sunroof Go To Service Position, Sliding Sunroof Normalisation, Sliding Sunroof Reset Normalisation, Steering Angle Initialization, Steering Angle Sender - Reset Zero Point, Steering Angle Sender - Set Zero Point, Steering Angle Sensor Calibration, Sun Roof Basic Setting, Sun Shade Basic Setting, Sunroof Shade Control Module Basic Setting, Transfer Configuration, Unlearning Calibration Of Luggage Compartment Cover, Unlocking With Key Switch Optical Feedback, Unlocking With Remote Control Opt. Feedback, Wind Deflector Denormalisation, Wind Deflector Normalisation, Wind Deflector Original Position, Wind Deflector Service Position, Write Configuration
-

- **Others** – Tests for SEAT systems, HEADLIGHT systems, ACC/START, BATTERY REGULATION, MEDIA PLAYER systems, AUDIO systems, DOOR ELECTRONICS systems, GATEWAY systems

130 new Actuation type special tests including:

- **Engine/PCM** - AdBlue Circuit Leak Test, Check DPF Ash Load, Compression Test, Drain Fuel Tank, Fuel Pressure Reduction, Rail Pressure Reduction
- **Hybrid** - HV Battery Charge/discharge Current
- **Transmission** – Additional Hydraulic Pump For Gearbox
- **ABS/Brakes** – ESP Test, Pulse-Wheel Test, Read Configuration, Static Test, Test Drive Activation, Test Drive Deactivation
- **Suspension** - System function test
- **Climate (HVAC)** - Air Condition Compressor Activation, Air Flap Range/tolerance Limits,
- **Others** – tests for PARKING ASSISTANCE

New Volvo Coverage

- New coverage for 2018MY vehicles and systems
- Added coverage for 74 new systems
- Added coverage for 330 new vehicle-ecu combinations

4 new Adjustment type special tests including:

- **Others** – ACCESS SYSTEM/IMMOBILIZER tests, DRIVER DOOR Window Lifter Standard Initialization, PASSENGER DOOR Window Lifter Standard Initialization

16 new Actuation type special tests including:

- **Others** – tests for CENTRAL ELECTRONIC MODULE, DRIVER DOOR MODULE, PASSENGER DOOR CONTROL UNIT, FORWARD SENSING MODULE
-

Bosch Automotive Service Solutions Inc.

28635 Mound Road

Warren, MI 48092

USA

tech@boschdiagnostics.com

855-267-2483