

Bosch ADS Software Update – May 2019

Ver 3.7

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

Version 3.7 releases major features you need NOW.

- Unlock 2018 / 2019 Secure Gateway protected FCA vehicles (Chrysler, Dodge, Jeep, Ram, Fiat, Alfa Romeo) *(BETA Software)*
- 2019 Pre / Post Scan Coverage
- ADAS Camera Calibrations
- 2017-2018 GM, Ford Special Tests

Thousands of new tests included in this 3.7 update including improvements and suggestions from professional technicians.

Software and Coverage feature details provided throughout these release notes.



Unlock 2018 / 2019 Secure Gateway protected FCA vehicles *(BETA Test)*

This functionality included as a Beta Test with the May 3.7 software release on Bosch ADS. The Beta test will allow customers to quickly diagnose all security gateway protected vehicles seamlessly and within seconds. Only an internet connection and active tool subscription is required.**

**Security gateway unlock feature can be interrupted during the course of the Beta Test at any time. Service offering conditions subject to change with official release.

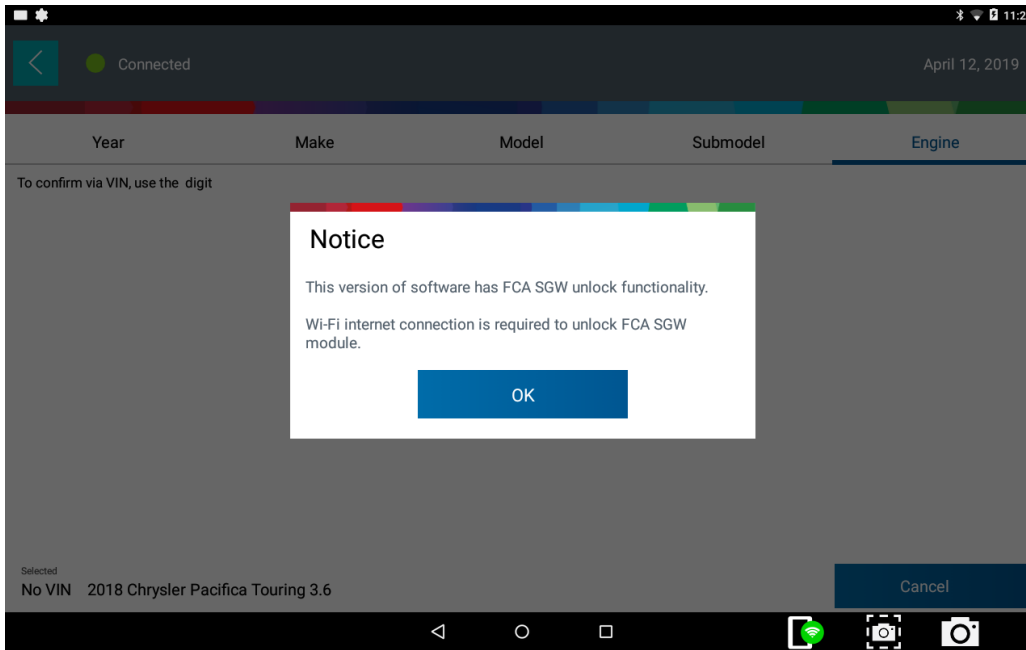
Added Coverage – Summary

- 2019 Model year Pre/Post Scan coverage:
 - Chrysler, Jeep, Toyota, Honda, Nissan, Mazda, Subaru, Alfa Romeo, Fiat
 - Many brands also include Live Data
- 2008-2018 Model year ADAS dynamic camera calibrations
 - GM, Ford, Chrysler, Jeep, Mazda, Mitsubishi, BMW and Volvo, Honda, Hyundai, Kia
- 2017/2018 Special test coverage:
 - GM, Ford
- 2004 - 2018 Model year special tests across various manufacturers
- OBDII Mode 6 additions – New parameters added for Nissan/Infiniti
- Updated Diagnostic Information for:
 - PCM Connector Pin Information (B.O.B) for 2016-2018MY Chrysler/Jeep, 2017MY Ford and 2017-2018MY GM

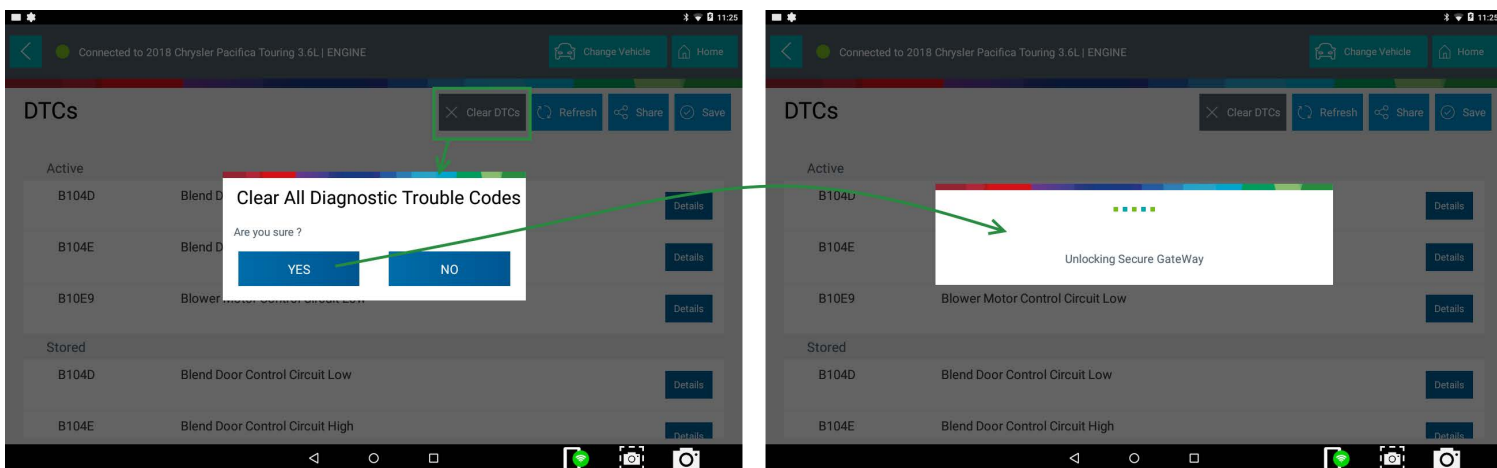
Secure Gateway Unlock – Beta Test

Bosch ADS devices are now enabled to unlock FCA Secure Gateway (SGW) vehicles. This means that Bosch ADS devices can now clear Diagnostic Trouble Codes and perform Special Tests on many 2018 and newer Chrysler, Dodge, Jeep, Ram, Fiat, and Alfa Romeo vehicles.

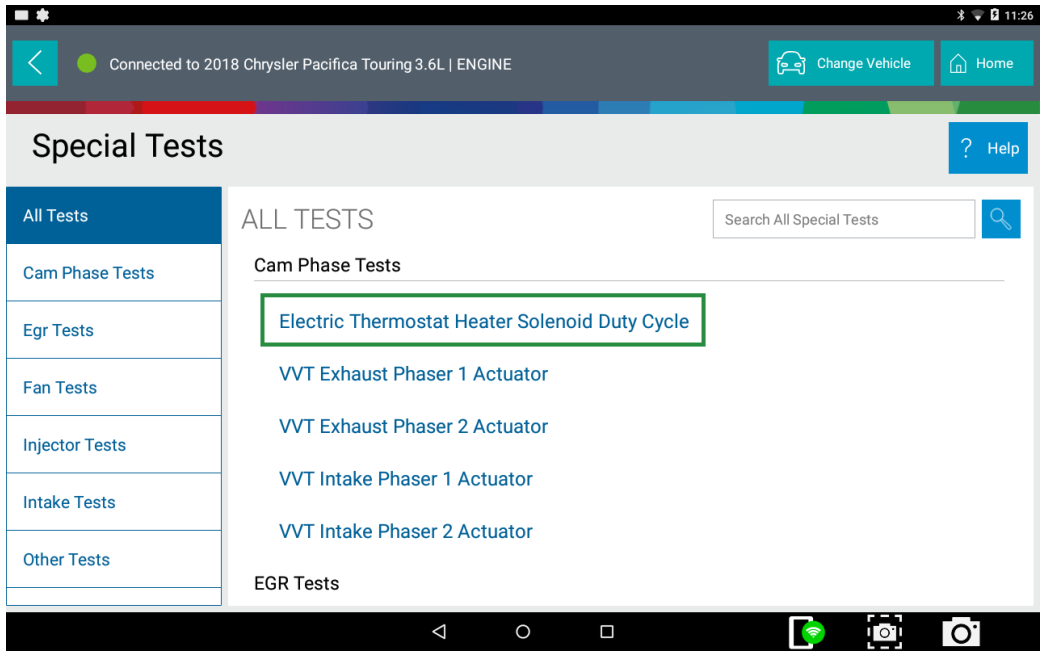
For those vehicles that support the FCA Secure Gateway (SGW) unlock functionality, users will see the following message during Vehicle Selection process:



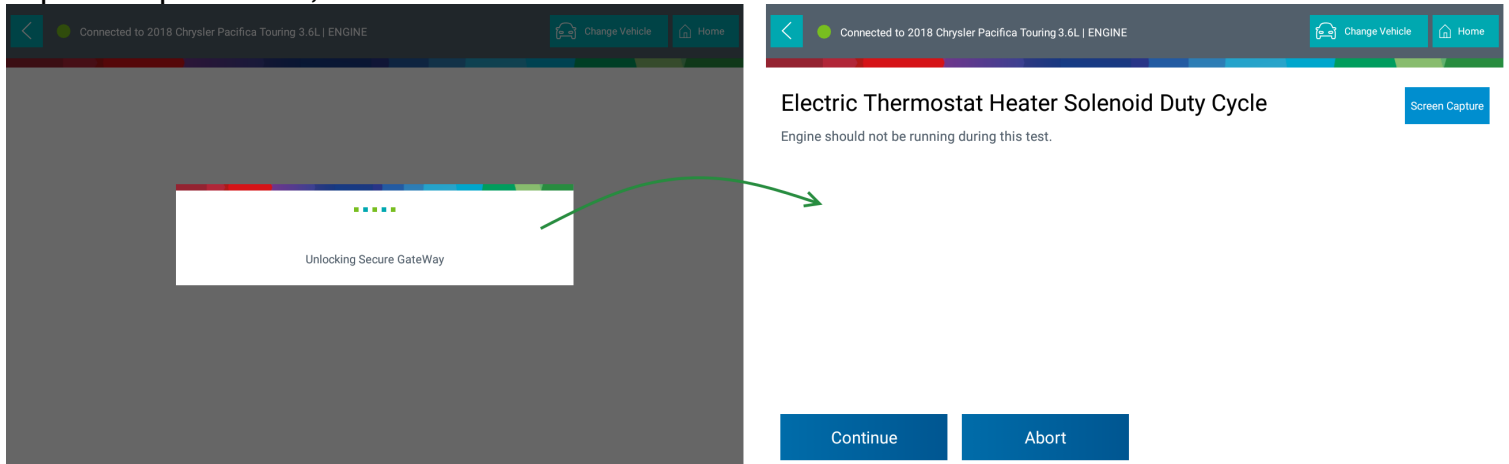
Clearing DTCs on FCA SGW enabled vehicles requires an internet connection in order to relay the details of your 2018 and newer FCA vehicle to an online service that can unlock the Gateway. Just connect to the internet, read DTCs and utilize the “Clear DTCs” button:



Special Tests on FCA SGW enabled vehicles also requires internet connection. Ensure ADS device is connected to the internet, and open up desired a Special Test to begin the process:



Tap on a Special Test, wait for SGW to be unlocked and the test will be made available:

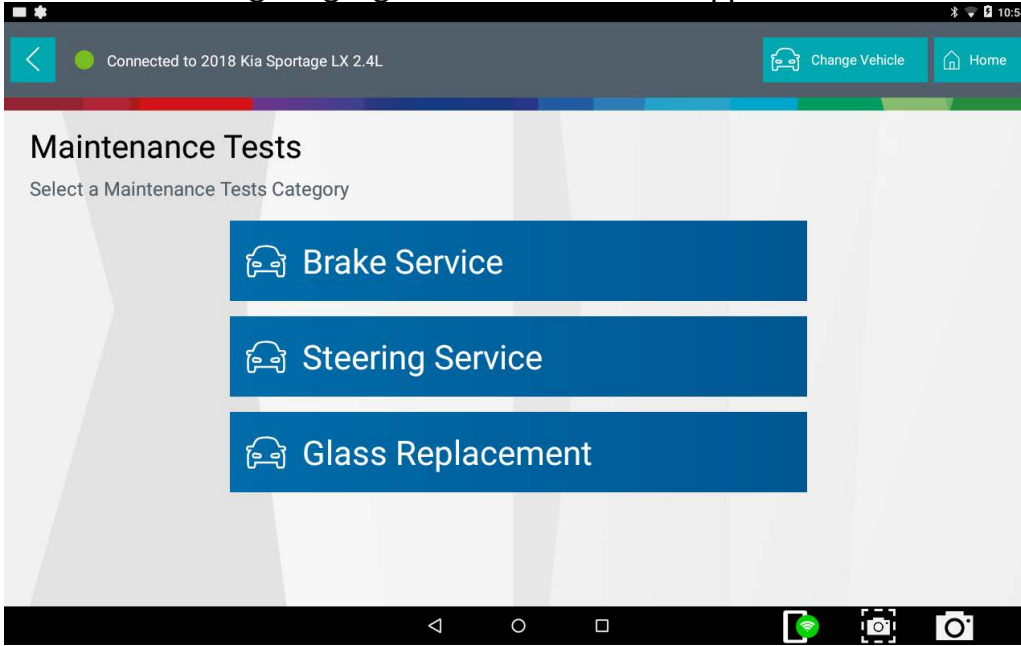


New Coverage Highlights (Full list starts on page 11)

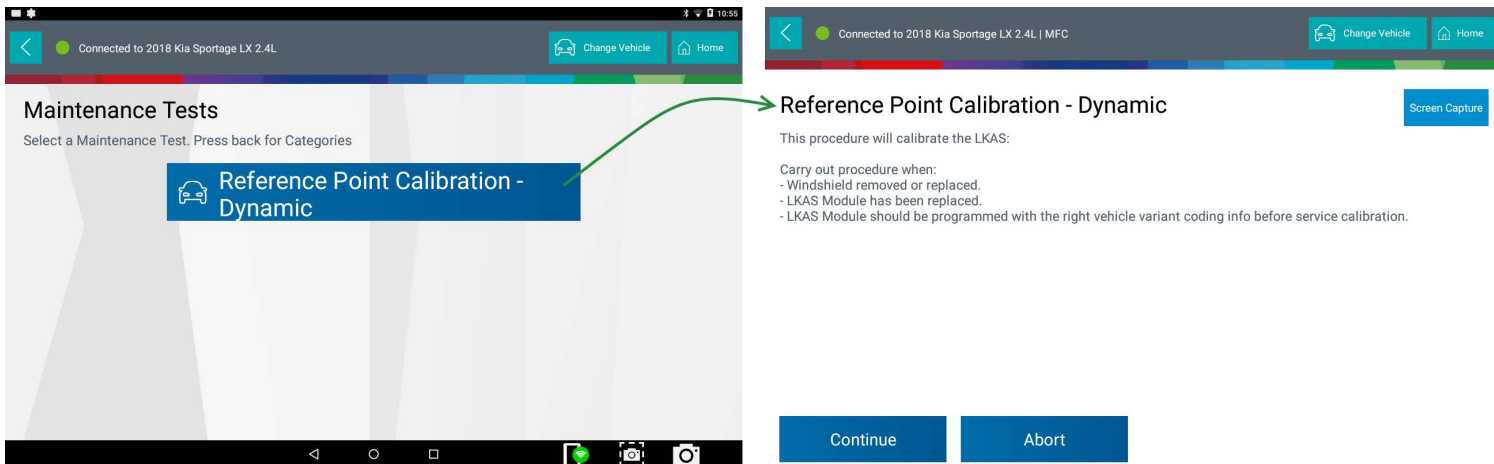
ADAS - Dynamic Camera Calibrations

- Calibrations now included as part of the 3.7 Release. This is available by utilizing the Maintenance Test Special test function from the Vehicle Menu for certain 2008-2019 vehicles*

* See the Coverage Highlights below for where supported.



- Tapping on the Glass Replacement selection brings up all available “Dynamic” tests that are available for the selected vehicle. Tap the test to launch the desired calibration test:



- These functions can also be found using the regular Special Test entry method for each ECU.

These tests are set up as a ‘Guided Tour’ of the function tailored for each vehicle application. Here is an example of one of the tests:

- First we explain when this function is commonly used:



Reference Point Calibration - Dynamic

Screen Capture

This procedure will calibrate the LKAS:

Carry out procedure when:

- Windshield removed or replaced.
- LKAS Module has been replaced.
- LKAS Module should be programmed with the right vehicle variant coding info before service calibration.



- Next, we will give vehicle specific instructions about vehicle set up procedures that must be completed to run the test:



Reference Point Calibration - Dynamic

Screen Capture

Before Aiming:

- Make sure all tires are inflated to the proper pressure.
- Vehicle is NOT loaded.
- Windshield is clean.
- Camera has unobstructed view.

This procedure will require the vehicle to be driven.



- Now we make notes related to the driving portion of the procedure:



Reference Point Calibration - Dynamic

[Screen Capture](#)

Note:

- The minimum vehicle speed: more than 22mph.
- The minimum driving distance: more than 1.1 mile.
- The lane markings must be clearly recognizable on both sides. (Faded lane paint may not be detected by the LKAS).
- There should not be any sharp bends in the road (curvature radius of less than 820 feet).
- There should not be sidewalks or other dividing structures along the edge of the lane.

Be prepared to drive before continuing.

[Continue](#)[Abort](#)

- We continue with notes and tips about the driving portion:



Reference Point Calibration - Dynamic

[Screen Capture](#)

Note:

- Although the vehicle running on the straight roads enters curved roads or comes to stop, the progress in calibration process is maintained and the calibration process is resumed when the vehicle re-enters the straight roads.
- The real driving time is subject to traffic and roads situation.
- If calibration is not completed within ten minutes, the calibration process fails. In this case, the calibration process should be repeated from the first phase.

Be prepared to drive before continuing

[Continue](#)[Abort](#)

- Now we begin the driving part of the test:



Reference Point Calibration - Dynamic

Screen Capture

Start engine and drive at required speed range to calibrate camera.

Press Continue to start Calibration.



- Status view during the procedure:



Reference Point Calibration - Dynamic

Screen Capture

Status IN PROGRESS



- And finally a completion status screen:



Reference Point Calibration - Dynamic

Screen Capture

Calibration Successfully Completed.

Continue

Abort

Vehicle Applications for dynamic camera calibration tests:

- **BMW** - 'KAFAS Camera Calibration' was added for these vehicles:
 - o 2014-2017 BMW 2-Series
 - o 2012-2017 BMW 3-Series
 - o 2014-2017 BMW 4-Series
 - o 2008-2017 BMW 5-Series
 - o 2008-2017 BMW 6-Series
 - o 2009-2017 BMW 7-Series
 - o 2013-2015 BMW ActiveHybrid 3
 - o 2013-2015 BMW ActiveHybrid 5
 - o 2013-2015 BMW ActiveHybrid 7
 - o 2015 BMW Alpina B6 Gran Coupe
 - o 2016-2017 BMW Alpina B6 xDrive Gran Coupe
 - o 2011-2015 BMW Alpina B7
 - o 2017 BMW Alpina B7
 - o 2011-2015 BMW Alpina B7L
 - o 2014-2015 BMW i3
 - o 2015 BMW i8
 - o 2014-2017 BMW M2
 - o 2015-2017 BMW M3
 - o 2015-2017 BMW M3
 - o 2015-2017 BMW M4
 - o 2008-2016 BMW M5
 - o 2008-2017 BMW M6
 - o 2015-2017 BMW M6 Grand Coupe
 - o 2017 BMW M760i xDrive
 - o 2016-2017 BMW X1
 - o 2012-2017 BMW X3
 - o 2014-2017 BMW X4
 - o 2008-2017 BMW X5
 - o 2008-2017 BMW X6
- **Chrysler/Jeep** - 'Camera Calibration' was added for these vehicles:
 - o 2015-2017 Chrysler 200
 - o 2015-2017 Chrysler 300
 - o 2015-2017 Dodge Charger
 - o 2014-2017 Dodge Durango
 - o 2017 Chrysler Pacifica
 - o 2014-2018 Jeep Cherokee
 - o 2017-2018 Jeep Compass
 - o 2014-2017 Jeep Grand Cherokee

- **Ford/Lincoln** - 'LDWS Camera Alignment' was added for these vehicles:
 - o 2017-2018 Lincoln Continental
 - o 2015-2018 Ford Edge
 - o 2017-2018 Ford Escape
 - o 2013-2018 Ford Explorer
 - o 2015-2018 Ford F-150
 - o 2017-2018 Ford F-250 Super Duty
 - o 2017-2018 Ford F-350 Super Duty
 - o 2015-2018 Ford Focus
 - o 2013-2018 Ford Fusion
 - o 2015-2018 Lincoln MKC
 - o 2012-2016 Lincoln MKS
 - o 2013-2018 Lincoln MKT
 - o 2013-2018 Lincoln MKX
 - o 2013-2018 Lincoln MKZ
 - o 2018 Lincoln Navigator
 - o 2013-2016 Ford Police Interceptor Sedan
 - o 2013-2016 Ford Police Interceptor Utility
 - o 2015-2016 Ford Special Service Police Sedan
 - o 2012-2018 Ford Taurus
 - o 2018 Ford Transit-150
 - o 2018 Ford Transit-250
 - o 2018 Ford Transit-350
 - o 2018 Ford Transit-350 HD

- **GM** - 'Vehicle Direction Camera Learn' was added for these vehicles:
 - o 2016-2018 Buick Casada
 - o 2014-2018 Buick Enclave
 - o 2013-2018 Buick Encore
 - o 2016-2018 Buick Envision
 - o 2014-2017 Buick LaCrosse
 - o 2014-2017 Buick Regal
 - o 2018 Buick Regal Sportback
 - o 2018 Buick Regal TourX
 - o 2014-2017 Buick Verano
 - o 2013-2018 Cadillac ATS
 - o 2018 Cadillac CT6
 - o 2014-2018 Cadillac CTS
 - o 2014-2016 Cadillac ELR
 - o 2014-2018 Cadillac Escalade
 - o 2015-2018 Cadillac Escalade ESV
 - o 2013-2016 Cadillac SRX
 - o 2017-2018 Cadillac XT5
 - o 2013-2018 Cadillac XTS
 - o 2017-2018 Chevrolet Bolt EV
 - o 2015-2018 Chevrolet Colorado
 - o 2016-2018 Chevrolet Cruze
 - o 2013-2018 Chevrolet Equinox
 - o 2014-2018 Chevrolet Impala
 - o 2014-2018 Chevrolet Malibu
 - o 2016 Chevrolet Malibu Limited
 - o 2014-2018 Chevrolet Silverado 1500
 - o 2015-2018 Chevrolet Silverado 2500 HD
 - o 2015-2018 Chevrolet Silverado 3500 HD
 - o 2014-2018 Chevrolet Sonic
 - o 2014-2018 Chevrolet Sonic
 - o 2016-2017 Chevrolet Spark
 - o 2014-2017 Chevrolet SS
 - o 2015-2018 Chevrolet Suburban
 - o 2016-2018 Chevrolet Suburban 3500 HD
 - o 2015-2018 Chevrolet Tahoe
 - o 2014-2018 Chevrolet Traverse
 - o 2015-2018 Chevrolet Trax
 - o 2013-2018 Chevrolet Volt
 - o 2014-2018 GMC Acadia
 - o 2017 GMC Acadia Limited
 - o 2015-2018 GMC Canyon
 - o 2014-2018 GMC Sierra 1500
 - o 2015-2018 GMC Sierra 2500 HD
 - o 2015-2018 GMC Sierra 3500 HD
 - o 2013-2018 GMC Terrain
 - o 2015-2018 GMC Yukon
 - o 2015-2018 GMC Yukon XL

- **Honda/Acura** - 'Dynamic Camera Aiming' was added for these vehicles:
 - o 2013-2015 Honda Accord
 - o 2013-2015 Honda Civic
 - o 2013-2015 Honda Crosstour
 - o 2013-2017 Honda Odyssey
 - o 2014-2016 Acura MDX
 - o 2016 Acura RDX
 - o 2014-2016 Acura RLX
 - o 2015 Acura TLX
 - o 2013 Acura ZDX
 - **Hyundai** - 'Reference Point Calibration - Dynamic' was added for these vehicles:
 - o 2015-2017 Hyundai Azera
 - **Kia** - 'Reference Point Calibration - Dynamic' was added for these vehicles:
 - o 2017-2018 Kia Cadenza
 - o 2016-2018 Kia K900
 - o 2017-2018 Kia Niro
 - o 2016-2018 Kia Optima
 - o 2016 Kia Sorento
 - o 2017-2018 Kia Sportage
 - **Mazda** - 'Forward Sensing Camera Calibration - Dynamic' was added for these vehicles:
 - o 2017-2018 Mazda CX-5
 - o 2017-2018 Mazda 3
 - o 2017-2018 Mazda 6
 - o 2016-2018 Mazda MX-5 Miata
 - **Mitsubishi** - 'Dynamic Camera Aiming' was added for these vehicles:
 - o 2014-2016 Mitsubishi Outlander
 - **Volvo** - 'Camera and Radar Calibration' was added for these vehicles:
 - o 2012-2017 Volvo S60
 - o 2016-2017 Volvo S60 Cross Country
 - o 2008-2017 Volvo S80
 - o 2017 Volvo S90
 - o 2015-2017 Volvo V60
 - o 2015-2017 Volvo V60 Cross Country
 - o 2009-2010 Volvo V70
 - o 2010-2017 Volvo XC60
 - o 2009-2016 Volvo XC70
 - o 2016-2017 Volvo XC90
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New Coverage Details – USA Domestic

New Chrysler/Jeep Coverage

- New coverage for 2019MY vehicles and systems
- ADAS dynamic camera calibration tests for 2014-2017 vehicles
- Added coverage for 810 new systems
- Added coverage for 1,515 new vehicle-ecu combinations

New Adjustment type special tests including:

- **ADAS** - FFCM Camera Calibration

Special test fixes/improvements:

- 2008 Ram 3500 6.7L ENGINE – improved preconditions instructions to help user
- 2012 Ram 2500 6.7L ENGINE – added Rail Pressure Override test, was missing

Updated Diagnostic Information for the following:

- PCM Connector Pin Information (B.O.B) for 2016-2018MY

New Ford Coverage

- **ADAS dynamic camera calibration tests for 2012-2018 vehicles**

53 new Adjustment type special tests including:

- **Engine/PCM** - DPF Parameter Reset, Fuel Injector Adaptive Reset tests, Fuel Mass Observer Reset, Oil Change Reset, Particulate Filter Static Regeneration, Read All Injector Quantity Adjustment Coding, Reset Automatic Regeneration Control Tracking Information, Reset CKP Wheel & Sensor Adaptation Values, Reset Diesel Oxidation Catalyst (DOC) Parameters, Reset EGR (Exhaust Gas Recirculation) Throttle Parameters, Reset Fuel System High Pressure Side Parameters, Reset Fuel System Low Pressure Side Parameters, Reset KAM, Reset MAF (Mass Air Flow) Sensor Parameters, Reset Min Fuel Mass Adaptations tests, Reset Min. Fuel Mass Adaptation - All Cylinders, Reset NOx Sensor 1 Learnt Values, Reset NOx Sensor 2 Learnt Values, Reset Oil Service Counters, Reset Oxygen Sensor Learnt Values, Reset Particulate Filter Differential Pressure Sensor, Reset Particulate Filter Upstream Gauge Pressure Sensor, Reset Particulate Matter Sensor Learnt Values, Reset SCR Inducement Fault Chain, Reset Selective Catalyst Reductant (SCR) Parameters, SCR Dosing Quantity Measurement Test, SCR Emptying, SCR System Refill Activation, SCR Visual Leak Check
- **Brakes/ABS** - ABS Service Bleed, Electronic Integrated Park Brake, Multi-Calibration Routine, Valve Calibration
- **Body Control** - Battery Monitor System Reset, BCM Crash Status Reset
- **ADAS** - IMAGE PROCESSING MODULE A - LDWS Camera Alignment

685 new Actuation type special tests including:

- **Engine/PCM** – A/C tests, All Wheel Drive Clutch Control Commanded, Charge Air Cooler Cooling Fan Speed, Camshaft tests, Desired Fuel Rail Pressure, Engine Running Fuel Pressure Test, EVAP tests, Fan tests, Fuel Injector tests, High Pressure Fuel System Test, Intake Manifold Runner Control, Low Pressure Fuel Leakdown Test, O2 Heater Control tests, Transmission tests, Turbocharger Wastegate Control, Reductant Injector Duty Cycle, Reductant Line Heater Control, Reductant Pump Heater Control, Reductant Reverting Valve Duty Cycle – Commanded, Reductant Tank Heater Control
- **Transmission** - Commanded Current Shift Solenoid F, Converter Pressure Control, Desired Line Pressure Control, Electric Transmission Fluid Pump Control Duty Cycle, Gear Command

- By Output State Control, Output State Control Of Torque Converter, Pressure Control Solenoid A, Shift Solenoid Pressure Control tests
- **Brakes/ABS** - ABS Booster Solenoid Current, ABS Pump Motor Control, Antilock Braking System Power Relay Output Status, Brake Fluid Line Hydraulic Pressure, Hydraulic Pump Motor, Inlet Valve tests, Outlet Valve tests
- **AWD/Transfer Case** - 4WD PWM Clutch Status, CCW Relay, CW Relay, Integrated Wheel Ends Output Control, Rear Locking Diff Lamp Output Control Optional, Rear Locking Diff Output Duty Cycle Optional, Shift Motor Position Sense Contact Plate Power Circuit Status
- **Instrument Cluster** - Lamp tests, Gauge tests, Segment tests, Button tests, Dimming Control, On Demand Test
- **Climate (HVAC)** - Air Mode Actuator, Blower Motor Speed, Left Blend Door Mode, Right Blend Door Mode, Rear Blower Control, Rear HVAC Mode Control Input, Rear Temperature Flap Position
- **Body Control** - Lamp and Buzzer/Warning tests, Door Lock tests, On Demand Test, Wiper tests, Turn Signal tests, Headlight tests
- **Seat** – Bladder Inflate tests, Memory tests, Front Motor Up/Down, Horizontal Motor Backward/Forward, Rear Motor Up/Down, Recline Motor Back / Forth, Seat Heat and Cool Command tests, Telescope In/Out, Tilt Up/Down
- **Others** - Tests for AUDIO CONTROL, DRIVER DOOR MODULE, PASSENGER FRONT DOOR MODULE, TRAILER MODULE

Updated Diagnostic Information for the following:

- PCM Connector Pin Information (B.O.B) for 2017MY

New GM / Saturn Coverage

- **ADAS dynamic camera calibration tests for 2013-2018 vehicles**

182 new Adjustment type special tests including:

- **Engine/PCM** - Ambient Air Temperature Calculation Reset, Average Fuel Age Reset, BARO Sensor Reset, Brake Pedal Position Sensor Learn, Catalyst 1 Reset, Clutch Pedal Position Learn, Crankshaft Pos. Variation Learn, DPF Pressure Sensor Reset, DPF Service Regeneration, DPF/Catalyst 2 Reset, Engine Oil Life Reset, Excessive Clutch Slip Data Reset, Exhaust After treatment Fuel Injector Reset, Exhaust Flow Control Valve Learn, Exhaust Gas Temperature Sensor Reset, Fuel Composition Reset, Fuel Filter Life Reset, Fuel Injection Small Quantity Data Reset, Fuel Injection Small Quantity Learning Odometer Reset, Fuel Rail Pressure Relief Valve Learned Values Reset, Fuel Trim Reset, Gear Position Sensor Learn, Gear Selector -N- Position Learn, Glow Plug Learn, HO2S Heater Learn, HO2S Learned Values Reset, Idle Learn Reset, Intake System Learned Values Reset, Learned Values Reset, NOx Absorber Catalyst Reset, NOx Catalyst Reset, NOx Sensor Reset tests, O2 Heater Resistance Reset, Particulate Matter Sensor Service Regeneration, Prime Fuel Pump, PTO Options, Reductant Fluid Tank Level Reset, Reductant System Data Reset, RVS Disable History Reset, Stop/Start Capacitor State Of Health Reset
- **Transmission** - Transmission Adaptive Pressure Reset tests, Selector -N- Position Learn, Reset Transmission Adapts, Transmission Oil Life Reset, Transmission Service Fast Learn, Transmission Adaptive Values Learn
- **Hybrid** - Clear Secured High Voltage DTCs, Fuel Economy Reset, Fuel Economy Reset, Hybrid/EV Battery Pack Data Reset, OnBoard Jump Assist Counter Reset, Pass. Comp. Heater Coolant Control Solenoid Valve Learn

- **AWD/Transfer Case** - AWD Disabled-by-Malfunction Counter Reset, Range Actuator Learn, Rear Differential Hydraulic System Service Bleed, Transfer Case Clutch Overtemperature Counter Reset
- **Brakes/ABS** - Automated Brake Bleed, Adaptive Pressure Control Learn, Brake Pressure Sensor Calibration, Park Brake Cable Replacement Procedure, Park Brake Calibration
- **Tire Pressure Monitor/RCDLR** - Copy And Paste TPM Information, Tire Pressure Sensor Registration, Tire Pressure Sensors Learn, Tire Type/Pressure Selection
- **Safety/Airbag** - Configure New Module, Passenger Presence Sensor Learn, Reset High Voltage Disable Request After Crash Event Detected, Reset History Buffer, Setup SDM Primary Key In BCM, Yaw Rate Sensor Learn
- **Climate/HVAC** - HVAC Actuators Learn, HVAC Afterblow Configuration
- **Instrument Cluster** - CAN Bus Configuration Learn, Driver Information Center Options
- **Steering** - Clear Active Pull Compensation Learned Limits, Clear Driver-Specific Steering Angles, Clear Softstops, Control Module Reset, Learned Values Reset, Power Steering Pressure Sensor Learn, Power Steering Softstops Reset, Steering Gear Replacement Procedure, Steering Wheel Angle Sensor Centering, Steering Wheel Angle Sensor Learn, Steering Wheel Angle Sensor Reset
- **Body Control** - Battery Sensor Module Learn, Brake Pedal Position Sensor Learn, Clear Window Learned Values tests, Invalidate All Fobs, Program Key Fob tests, Reset Teen Driver Key PIN, Setup SDM Part Number In BCM, Hands-Free Liftgate Sensor Control Module Calibration, Liftgate Maximum Open Position Learn
- **ADAS** - FRONTVIEW CAMERA MODULE- Vehicle Direction Camera Learn
- **Others** – SEAT MEMORY Adjustable Pedal Calibration

808 new Actuation type special tests including:

- **Engine/PCM** –14V Power Module Setpoint, A/C Relay, Active Grill Shutter Test, Active Grille Air Shutter, Active Grille Air Shutter 2, AIR Pump Service Bay Test, AIR System, Autostart/Autostop, Camshaft Position Actuator, Canister Vent Solenoid, Catalyst Test, Charge Air Cooler Coolant Pump, CMP Actuator, CMP Actuator Solenoid, Compression Test, Coolant Thermostat Heater and Cooling Fan, Cooling Fan, Cooling Fan Solenoid Valve, Cylinder 1, Cylinder 1 Injector Flow Identifier, Cylinder 4, Cylinder 4 (deactivation), Cylinder 6, Cylinder 6 (deactivation), Cylinder 7, Cylinder 7 (deactivation), Cylinder Deactivation System, Cylinder Power Balance, Depressurize Fuel System, Discharge Stop/Start Capacitor, DPF Regeneration Enable, EGR Cooler Bypass Motor, EGR Valve, Engine Controls Ignition Relay, Engine Coolant Pump Relay, Engine Coolant Temperature, Engine Coolant Thermostat Heater, Engine Coolant Thermostat Heater and Cooling Fan, Engine Oil Pressure Control Solenoid Valve, Engine Serial Number, Engine Speed, Engine Speed Control, EVAP Leak Detection Pump, EVAP Leak Detection Pump Switching Valve, EVAP Leak Detection Pump to Vent Solenoid Valve Leak Test, EVAP Purge Solenoid, EVAP Purge/Seal, EVAP Service Bay, EVAP Service Bay Test, EVAP Test, EVAP Vent Solenoid, Exh. Aftertreatment Fuel Injector, Exhaust Aftertreatment Fuel Injector Flow Test, Exhaust Camshaft Position Actuator, Exhaust Camshaft Position Actuator Bank 2, Exhaust CMP Actuator, Exhaust CMP Actuator Bank 1, Exhaust CMP Actuator Bank 2, Exhaust CMP Actuator Solenoid, Exhaust CMP Actuator Solenoid 1, Exhaust CMP Actuator Solenoid Bank 1, Exhaust CMP Actuator Solenoid Bank 2, Exhaust CMP Actuator Solenoid Valve Bank 1, Exhaust Flow Control Valve System, Exhaust Gas Recirculation , Fan Relay 1, Fan Relays 1, 2 & 3, Fan Relays 2 & 3, Fuel Injector Balance, Fuel Mode Select Switch Indicator, Fuel Pressure, Fuel Pressure Regulator, Fuel Pressure Regulator 1, Fuel Pump, Fuel Pump Enable, Fuel Pump Relay, Fuel Pump Speed, Fuel Rail Pressure, Fuel Tank Pressure Test, Fuel Temperature, Fuel Trim Enable, GEN L-Terminal, Glow Plug, High Pressure Fuel Cut-Off Solenoid Valve, HO2S Bank 1 Sensor 1 - Heater, HO2S Bank 1 Sensor 2 - Heater,

HO2S Bank 2 Sensor 1 - Heater, HO2S Bank 2 Sensor 2 - Heater, HO2S Heater Bank 1 Sensor 1, HO2S Heater Bank 1 Sensor 2, HO2S Heater Bank 2 Sensor 1, HO2S Heater Bank 2 Sensor 2, HO2S Heater Sensor 1, HO2S Heater Sensor 2, HO2S Test, Idle Ignition Timing, Idle Spark, Instrument Panel Illumination, Intake Air Flow Valve Motor, Intake Air Flow Valve Position, Intake Air Heater, Intake Camshaft Position Actuator, Intake Camshaft Position Actuator Bank 2, Intake Camshaft Position Actuator Park Lock Solenoid Valve, Intake Camshaft Position Actuator Park Lock Test, Intake CMP Actuator, Intake CMP Actuator Bank 1, Intake CMP Actuator Bank 2, Intake CMP Actuator Solenoid, Intake CMP Actuator Solenoid Bank 1, Intake CMP Actuator Solenoid Bank 2, Intake Rocker Arm Solenoid Valve 1, Intake Rocker Arm Solenoid Valve 2, Loop Status, Low Pressure Fuel Cut-Off Solenoid Valve, LPG Cut-Off Solenoid Valves, LPG Vaporizer Relay 2, LPG Vaporizer Relay 3, LPG Warm-Up Mode Indicator, MAF Sensor Supply Voltage Low Side Driver, Malfunction Indicator Lamp, Modulated Main Pressure Control Solenoid, O2 Sensor Heater Bank 1 Sensor 1, O2 Sensor Heater Bank 1 Sensor 2, O2 Sensor Heater Bank 2 Sensor 1, O2 Sensor Heater Bank 2 Sensor 2, Oxygen Sensor Heater, Reductant Fluid Quality Test, Reductant Heater 1, Reductant Heater 2, Reductant Heater 3, Reductant Injection Quantity Test, Reductant Injector, Reductant Pump, Reductant Purge Valve, Reductant System Leak Test, Reductant System Malfunction Warning Service Bay Test, Requested Torque, Reverse Inhibit, Secondary Air Injection Pump Relay, Secondary Air Injection Solenoid Valve, Secondary Air Injection Valve, Secondary Air Pump Control State, Skip Shift Controls, Spark Retard, Starter Pinion Solenoid Actuator Relay, Starter Relay, Supercharger Bypass Solenoid Valve, TC Vane Pos. Ctrl. Solenoid, TC Wastegate Solenoid, Throttle Position, Throttle Sweep, Transmission Accumulator Solenoid Valve, Turbo Charger, Turbocharger Bypass Solenoid Valve, Turbocharger Bypass Valve 1, Turbocharger Bypass Valve 2, Turbocharger Vane Position, Turbocharger Wastegate Solenoid Valve Bank 1, Turbocharger Wastegate Solenoid Valve Bank 2, Wait To Start Lamp, Wastegate Solenoid Duty Cycle

- **Hybrid** - 14V Power Module Fan, 14V Power Module Setpoint, Autostart/Autostop, Auxiliary Transmission Fluid Pump Speed, Auxiliary Transmission Pump Relay, Battery Charging System Negative Contactor, Battery Charging System Positive Contactor, Battery Energy Control Module, Check High Voltage System Related DTCs, Cooling Fan Motor, DC Charge Port Lock, Drive Motor Coolant Pump Relay, Drive Motor Speed, EAC Compressor Speed, Exhaust Heat Exchanger Exhaust Bypass Valve, Fuel Fill Door Lock, Hybrid Electronics Coolant Pump, Hybrid/EV Battery DC Charging Positive Contactor, Hybrid/EV Battery Multifunction Contactor, Hybrid/EV Battery Negative Contactor, Hybrid/EV Battery Pack Coolant Control Solenoid Valve, Hybrid/EV Battery Pack Coolant Pump, Hybrid/EV Battery Pack Cooling Fan, Hybrid/EV Battery Pack Heater Passive Isolation Test, Hybrid/EV Battery Pack Heater Power, Hybrid/EV Battery Pack Isolation Test, Hybrid/EV Battery Pack Precharge Contactor Command, Hybrid/EV Battery Pack Precharge Transistor, Hybrid/EV Battery Positive Contactor, Hybrid/EV Powertrain Control Module, ICE Only Mode, Line PC Solenoid, Pass. Comp. Heater Coolant Control Solenoid Valve, PC Solenoid 2, PC Solenoid 3, PC Solenoid 4, PC Solenoid 5, Regenerative Braking Status, Vent Refuel System
 - **Transmission** - Line PC Solenoid, PC Solenoid tests, Shift Solenoid tests, TCC Control Solenoid, TCC Enable Solenoid, TCC Pressure Control Solenoid tests
 - **ABS/Parking Brake** - ABS Motor, ABS Relay Test, Brake Booster Electric Vacuum Pump, Park Brake Cable Service Apply, Park Brake Cable Service Release, Rear Brake Caliper Piston Extend, Rear Brake Caliper Piston Retract, Solenoid tests
 - **Safety/Airbag** – Lamp/Indicator tests
 - **Transfer Case** - Pump Motor Tests, Range Actuator, Rear Drive Clutch Solenoid Valve, Lamp tests, Transfer Case Clutch
-

- **Suspension** - All Shock Absorber Actuators, Depressurize System, Pressurize System, Shock Absorber tests, Suspension Position Sensor Trim Height
- **Instrument Cluster** - Display Test, Dimming tests, Instrument Cluster Gauge Sweep, Lamp tests
- **Climate/HVAC** - A/C Compressor, A/C Request, Air Inlet Door, Air Recirculation Door, Blower Motor, Mode Door tests
- **Body Control** - Lamp and Buzzer/Warning tests, Door Lock tests, Wiper tests, Washer tests
- **Seat** – Lumbar tests, Horizontal Movement tests, Vertical Movement tests

Updated Diagnostic Information for the following:

- PCM Connector Pin Information (B.O.B) for 2017-2018MY
-

New Coverage Details – USA Asian

New Honda Acura Coverage

- New coverage for 2019MY vehicles and systems
- Added coverage for 247 new systems
- Added coverage for 1,905 new vehicle-ecu combinations

New Mazda Coverage

- New coverage for 2019MY vehicles and systems
- ADAS dynamic camera calibrations for 2017-2018 vehicles
- Added coverage for 99 new systems
- Added coverage for 99 new vehicle-ecu combinations

New Adjustment type special tests including:

- **ADAS** - Forward Sensing Camera Calibration - Dynamic

97 new Actuation type special tests including:

- **Engine/PCM** - Desired RPM, Engine Oil Pressure Solenoid Valve tests, EVAP Leak Test, Fan tests, Fuel Injector tests, Fuel Pump, Vehicle Drive Device Function Test Mode, Wastage Valve Position
- **Transmission** - Electric Oil Pump tests, Pressure Control Solenoid Current – Commanded, Shift Solenoid tests, Torque Converter Clutch Solenoid Current
- **ABS/Brakes** – Inlet Valve tests, Outlet Valve tests, Pump Motor Supply, Stability Control Valve tests, Traction Control Valve tests
- **Instrument Cluster** - Lamp tests , Speedometer, Tachometer
- **Body Control** - Lamp and Buzzer/Warning tests, Window tests, Door Lock tests, Wiper/Washer tests
- **Others** - tests for SMART START UNIT

New Mitsubishi Coverage

- ADAS dynamic camera calibrations for 2014-2016 vehicles

New Nissan/Infiniti Coverage

- New coverage for 2019MY vehicles and systems
- Added coverage for 102 new systems
- Added coverage for 677 new vehicle-ecu combinations

24 new Actuation type special tests including:

- **Engine/PCM** - Cooling Fan
- **ABS/Brakes** - ABS Motor, Parking Brake Full Release
- **Climate (HVAC)** - HVAC Test
- **Body Control** – Flasher, Front Wiper, Horn, Motor Fan

New Subaru Coverage

- New coverage for 2019MY vehicles and systems
 - Added coverage for 103 new systems
 - Added coverage for 277 new vehicle-ecu combinations
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New Toyota/Lexus Coverage

- New coverage for 2019MY vehicles and systems
- Added coverage for 250 new systems
- Added coverage for 1,883 new vehicle-ecu combinations

4 new Adjustment type special tests including:

- **Steering** - Torque Sensor Adjustment
- **ADAS** - BSM Master Abnormal History, BSM Slave Abnormal History

58 new Actuation type special tests including:

- **Engine/PCM** - Control the Exhaust VVT OCV Duty Ratio Bank tests, Control the Fuel Pump Duty Ratio, Control The Injection Volume For A/F Sensor, Control the Intake VVT OCV Duty Ratio Bank tests, Control the Target Fuel Pressure Offset, Injection Volume, Control ETCS Open/Close tests, EGR Step Position #2 Control, Injection Timing tests
- **Climate (HVAC)** - A/M Servo Pulse tests, A/O Servo Pulse tests, Air Mix Servo Targ Pulse tests, Air Purifier Mode, Assist Fan, Blower Motor, Cool A/M tests, Cool Air Bypass tests, Defogger Relay Rear, Deicer Relay Front, Face A/O Servo Pulse tests, Foot A/O Servo Pulse tests, Hot A/M Servo Pulse tests, M/H Bypass tests, Rear A/M Servo Pulse, Rear Blower Motor

Special test fixes/improvements:

- 2014 RX350 ELECTRIC POWER STEERING - fixed Torque Sensor Adjustment test not working properly
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New Coverage Details – USA European

New Alfa Romeo Coverage

- New coverage for 2019MY vehicles and systems
- Added coverage for 54 new systems
- Added coverage for 99 new vehicle-ecu combinations

New Audi Coverage

52 new Adjustment type special tests including:

- **ABS/Brakes** - Basic Setting / Bleeding Brake System, Basic Setting Of Cut-Out Valves, Basic Setting Of Intake Valves, Basic Setting Steering Angle Sensor
- **Safety/Airbag** - Basic Setting Seat Occupied Recognition, Null Balance Seat Occupied Recognition
- **Body Control** - Adaptation Acknowledgement Comfort Locking, Adaptation Acoustic Feedback When Locking, Adaptation Acoustic Feedback When Unlocking, Adaptation ATAS Alarm Delay, Adaptation Automatic Locking, Adaptation Automatic Unlocking, Adaptation Coming Home Function, Adaptation Flashing Cycles For Convenience Turn Signal Feature, Adaptation Headlamp Washer System, Adaptation Inclination Sensor Sensitivity, Adaptation Interior Monitoring Sensitivity, Adaptation Leaving Home Function, Adapting Battery Monitoring (Sounder), Deactivate Factory Mode

6 new Actuation type special tests including:

- **ABS/Brakes** – ESP Road Test, Roller Test Bench Mode
- **Others** – tests for CAN GATEWAY (19)

New BMW / Mini Coverage

- ADAS dynamic camera calibrations for 2008-2017 vehicles
- Added coverage for 118 new vehicle-ecu combinations

11 new Adjustment type special tests including:

- **Engine/PCM** - Injector Quantity Adjustment, Reset Adaptation Parameters, Reset EGR Adaptation Values, Reset fuel minimum quantity adaption, Reset mixture adaption, Reset uneven running segment times, Throttle Adaptation
- **Transmission** - Display And Reset Adaptation Values
- **Steering** - Steering Basic Setting
- **Instrument Cluster** – Service Requirement Reset
- **ADAS** - KAFAS Camera Calibration

5 new Actuation type special tests including:

- **Engine/PCM** - Fuel Quality Recognition, Solenoid Valve - Tank Ventilation
- **Safety/Restraint** - Seat Occupancy Detection, Front Passenger
- **Transfer Case** - Transfer Box - Replace Control Unit
- **Climate (HVAC)** - HVAC- Newly Address the Air Distribution Flap Motors

New Fiat Coverage

- New coverage for 2019MY vehicles and systems
- Added coverage for 98 new systems
- Added coverage for 129 new vehicle-ecu combinations

New Volkswagen Coverage

52 new Adjustment type special tests including:

- **ABS/Brakes** - Basic Setting / Bleeding Brake System, Basic Setting Of Cut-Out Valves, Basic Setting Of Intake Valves, Basic Setting Steering Angle Sensor
- **Safety/Airbag** - Basic Setting Seat Occupied Recognition, Null Balance Seat Occupied Recognition
- **Body Control** - Adaptation Acknowledgement Comfort Locking, Adaptation Acoustic Feedback When Locking, Adaptation Acoustic Feedback When Unlocking, Adaptation ATAS Alarm Delay, Adaptation Automatic Locking, Adaptation Automatic Unlocking, Adaptation Coming Home Function, Adaptation Flashing Cycles For Convenience Turn Signal Feature, Adaptation Headlamp Washer System, Adaptation Inclination Sensor Sensitivity, Adaptation Interior Monitoring Sensitivity, Adaptation Leaving Home Function, Adapting Battery Monitoring (Sounder), Deactivate Factory Mode

6 new Actuation type special tests including:

- **ABS/Brakes** – ESP Road Test, Roller Test Bench Mode
- **Others** – tests for CAN GATEWAY (19)

Other fixes/improvements:

- 2012 Jetta AIRBAG - fixed communication issues

New Volvo Coverage

- ADAS dynamic camera calibrations for 2008-2017 vehicles

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