



BOSCH

Bosch ADS Software Update – February 2024

Ver 5.16

<https://www.boschdiagnostics.com/diagnostic-systems>

Version 5.16 update includes more model year **2024** vehicle coverage and additional **ADAS** calibrations.

3,757 new special tests & 358 new system applications included in this update.

Software and coverage feature details provided in these release notes.



ADS X

ADS

Coverage Highlights (More Details start on Page 2)

2024 Coverage added – DTC, Data support and Bi-Directional functions

- **Ford** – Explorer, F-450 Super Duty, F-550 Super Duty
- **Lexus** – IS300, IS350
- **Lincoln** – Corsair, Nautilus
- **Mazda** – CX-5, CX-30, CX-50, CX-90, Mazda3
- **Nissan** – Z
- **Toyota** – GR86, Prius Prime

Multiple Models and Years Coverage added - Bi-Directional functions

ADAS* – New ADAS calibration coverage:

- **2022 Coverage:**
 - Subaru – Forester, WRX
 - Volvo – V60 Cross Country
- **2023 Coverage:**
 - Lexus – IS500, LC500, LC500h, LX600, NX250, NX350, NX350h, NX450h+, RX350, RX350h, UX250h
 - Lincoln – Corsair
 - Subaru – Forester, WRX
- **2024 Coverage:**
 - Cadillac – XT4
 - Chevrolet – Trailblazer
 - Ford – Explorer, F-150 Lighting
 - GMC – Sierra 2500HD, Sierra 3500HD, Yukon XL
 - Jeep – Compass, Grand Cherokee L
 - Lexus – IS500, LC500, LC500h, NX250, RX350, RX350h, UX250h
 - Mazda – Mazda3, CX-30, CX-5, CX-50
 - Nissan – Versa
 - RAM – 5500
 - Toyota – Corolla Cross, Prius, Prius AWD-e, Prius Prime

**All Dynamic ADAS calibrations are included in standard ADS Tool Subscription. Static calibrations that require ADAS targets and fixtures require additional ADAS Subscription used with ADS 625/625X.*

New Coverage Details – USA Domestic

New Chrysler/Dodge/Jeep/Ram Coverage

155 new Adjustment type special tests:

ABS Bleed Brakes, ABS Initialization, ABSO Initialization, Active Grill Shutter Replaced, Actuator Calibration, AFLS Calibration, AMP Non ANC Qualifier, Anti Theft Override Test, Auto Door Lock, Auto High Beam Demo Mode Test, Automated Bleed, Bleed Brakes, Brake Pedal Calibration, Brake Pedal Learn, Calibration Routine, CAM Crank Relearn Routine, Change Country Code, Channel Output Test, Check PCM VIN, Clear All Learned Seat Parameters, Clear DEF Pump Learned Offset Values, Clear Engine Auto Restart Crank Counter, Clear Learning Value, Clear Misfire TLC, Clear Stored Accumulated Fuel Mass, Clear TPM Sensor Rolls Test Results, Clear Variable Line Pressure Counters, Closed Coupled Replacement, Clutch Pedal Learn, Configure License Plate Size, Coolant Three Way Valve, Coolant Three Way Valve Replaced, Diesel Particulate Filter Regeneration, DPF Pressure Sensor Reset, DPF Regen, DPF Replacement, Driving Regeneration Request, Dual Alternator Enable/Disable, Dual Fuel Tank Enable / Disable, ECU Replacement With Value Transfer, EGR Coolant Regeneration, EGR Low Pressure Learn, EGR System Test, EGS Initialization, Emissions Rolls Test Mode, Enable / Disable Vehicle Features, Enable/Disable Seatbelt Minder Chime, Engine Idle Shutdown Feature Enable/Disable, EPB Service Procedures, Exhaust Phaser 1 Cleaning, Exhaust Phaser 2 Cleaning, Exit in Plant Mode, Exit Shipping Mode, FCM Enable Emissions Rolls Test Mode, Fleet Pin Reset, Front Axle Disconnect Feature, Headlamp Leveling, High Temp Cabin Valve Cal/Test, HVAC Actuator Calibration Test, Idle Shutdown Timer Adjustment, Initialize ABS, Initialize Cluster Configuration w/o Odometer Affect, Initialize CVT, Initialize ORC, Injector Quantity Adjustment, Intake Phaser 1 Cleaning, Intake Phaser 2 Cleaning, Key FOB Identification, Key Fobs Linked To Memory, KeySense PIN Reset, Learn ETC, Light Rain Sensor Calibration, Low Temp Coolant Fill - Active Pump, Low Temp Coolant Fill - Passive Pump, Manual Logistic Mode Procedure Enable, Mass Air Flow Sensor Initialization, Microphone Output Short Test, Microphone Tone Test, Most Recent Cool Down Test Results, New Engine Installed, Non-Volatile Memory Reset, OCM System Verification Test, Oil Change Light Reset, Oil Change Monitor Type, Oil Life Restore, Program Engine Serial Number, Program Tire Sensor Identifications, Program Tire Size, Program Variant Coding, PTO RPM Adjustment, PTO Settings, Quick Learn, Quicklearn 62TE, Quicklearn Non RFE, Quicklearn RFE, RAM Active Air Box Calibration, Remote Start Temporary Disable, Reset Adaptive After Oil Change, Reset Adaptive Memory, Reset Adaptive Values, Reset Adaptives After Block Change, Reset After Replacement Of Lambda Sensor, Reset Air-Fuel Adaptives, Reset Camshaft Adaptives, Reset Clutch Capacity Adaption, Reset ECU, Reset Enhanced Automatic Oil Change Indicator, Reset Error Free Operation Time to 40 Hours, Reset H2O Lamp, Reset High Voltage Cable Open DTC, Reset Injector Compensation Values, Reset Memory, Reset of Lambda Values, Reset of SCR Long Term Adaptation Factor, Reset Parameters to Default, Reset SCR Mileage Counter to 200 Miles, Reset VCM Adaptives, Reset VVA Freeze Incorrect Request, Reset Zero Fuel Quantity Calibration, Resolver Offset Learn, Rollover Detection, SCR DEF Tank Fluid Level Filter Reset, SCR System After ECU Replacement Procedure, SCR System Catalyst Reset, SCR System Dosing Module Replacement, SCR System Pressure Line Replacement, SCR System Tank or Pump Replacement, SCR System Wiring Harness Replacement, Sensor Wiring Test, Service Procedures, Set Axle Type, Set Max Cruise Speed, Set Max Vehicle Speed, Set Ride Height Level, Snorkel Output Test, Standardization, Stationary Desoot (DPF Regen), Store Learned TCU Adaptives, System Air Mass/Pressure/Ride Height Readings, TCC Break In, TCM Reset Learned Adaptives Routine, Tip Start Temporary Disable, Tire Pressure Sensor Registration, TLC Learn, TPM Sensor Test, Turbo Actuator Pre-Align / Self Calibrate, Turn off Gain Mode

Override, Update Pressure Thresholds, Valve Body Solenoid Learn, VGT Learn, VGT Sector Gear Hysteresis Test, View/Reset Duty Cycle Maps, VIN Lock, Write Pinion Factor, Write VIN

1306 new Actuation type special tests:

1st Gear Clutch Test (62TE), 1st Gear Clutch Test (Non-RFE), 1st Gear Clutch Test (RFE), 2/4 Clutch Volume Index Check, 2-3 Skip Shift Solenoid Control State, 2-4 Solenoid, 2-4 Solenoid State, 2C Or 2-4 Solenoid, 2nd Gear Clutch Test (62TE), 2nd Gear Clutch Test (Non-RFE), 2nd Gear Clutch Test (RFE), 2nd Prime Gear Clutch Test (RFE), 3rd Gear Clutch Test (62TE), 3rd Gear Clutch Test (Non-RFE), 3rd Gear Clutch Test (RFE), 4 Low Indicator, 4C Solenoid, 4C Solenoid State, 4th Gear Clutch Test (62TE), 4th Gear Clutch Test (Non-RFE), 4th Gear Clutch Test (RFE), 4WD, 4WD Auto, 4WD AUTO Indicator, 4WD Indicator, 4WD LED, 4WD Lock Indicator, 4WD Low, 4WD Neutral Indicator, A/C, A/C Compressor Clutch Relay Control State, A/C Relay, A/C Select, ABS, ABS fault Lamp, ABS Lamp, ABS Light, A-C Button, A-C Compressor Clutch Relay Control State, AC emergency shut off, AC Indicator, A-C INDICATOR, AC Off For Vehicle Manoeuvring, AC Request, A-C Request, A-C Select, ACC Enter In-Plant Mode, Activate Driver and Passenger Head Restraints, Activate Fuel Lift Pump, Activate TPM High Gain Mode, Active Exhaust Valve 1, Active Exhaust Valve 2, Active Grill Shutter Test, Actuate All Heaters, Actuate All Seat Heaters, Actuate All Vents, Actuator Position, Actuator Test For SCR Device Relay, Actuator Test For Scrdevrly, Actuator Test Of Urea Back Flow Pump Actuator, Adjustable Pedal Disable Relay, Aftertreatment System Performance Test, Air Bag, Air Bag Lamp, Air Bag Light, Air Condition, Air Condition Relay Control, Air Dam Test, Air Suspension Leakdown Test, Alarm/Doors Status/Deterrence LED, All Doors/Central Locks, All Doors-Central Locks, Alternator Current Limit, Alternator Field Control State, Alternator Field Duty Cycle, Alternator Field Duty-Cycle, Alternator Output Voltage Setpoint, Alternator Test, Alternator Voltage Set Point Value, Ambient Temperature, AMP Output Short Test, AMP Output Tone Test, ANC Output Short Test, Antenna Power, APM Status, Approach Light State, Assist Call Button Green LED, Assist Call Button Red LED, Assist Call Green Day PWM, Assist Call Green LED Control PWM, Assist Call Green Night PWM, Assist Call Red Day PWM, Assist Call Red LED Control PWM, Assist Call Red Night PWM, ATMM Left Actuator Command -%, ATMM Left Actuator Command -Degrees, ATMM Left Actuator Command - Hz, ATMM Right Actuator Command -%, ATMM Right Actuator Command -Degrees, ATMM Right Actuator Command -Hz, Audio Routing, Audio Test, Audio Test For Subwoofer Specific, Audio Video Signal Detection, AUTO Button, Auto Indicator, AUTO LED, Auto Shutdown (ASD) #1 Relay Control State (Left Bank), Auto Shutdown (ASD) #2 Relay Control State (Right Bank), Auto Shutdown (ASD) Relay Control State, Auto Shutdown Relay Control State, Auxiliary Coolant Pump, Auxiliary Fuel Pump, Average Ambient Temperature, BACK button, Background LED Illumination Level, Background LED State, Backlight 1 Level, Backlight 2 Level, Backlight 3 Level, Backlight 4 Level, Backlight 5 Level, Backlight 6 Level, Backlight 7 Level, Backlight 8 Level, Backlight Control, Backlight Control-Backlight PWM1, Backlight Control-Backlight PWM2, Backlight Control-Backlight PWM3, Backlight Control-Backlight PWM4, Backlight Control-Backlight PWM5, Backlight Control-Backlight PWM6, Backlight Control-Blue Driver/Passenger Temp Down, Backlight Control-Display PWM, Backlight Control-HVAC Recirc/AC/Front Def/Rear Def, Backlight Control-LED Jewel Indicator auto, Backlight Control-LED Jewel Indicators excluding Auto, Backlight Control-Red Driver/Passenger Temp Up, Hazard, Backlight Control-Sapphire Blue Enter/Mute Knobs, Backlight Control-Sapphire Blue HVAC Auto/Fan Off, Backlight Control-Sapphire Blue Knob Halo Rings, Backlight Control-Sapphire Blue Lower Row Switchbank Buttons, Backlight Control-Sapphire Blue Screen Off, Back Buttons, Backlighting: Driver Temp Down, Pass Temp Down, Backlighting: Driver Temp Up, Pass Temp Ujp., Backlighting: Knob Halo White Backlighting, Backup Alarm, Baggage Lamps, Balance Settings, Bass Settings, Battery Bad (Red), Battery Charge LEDs, Battery Coolant Heater, Battery Coolant Pump, Battery Good (White), Battery LED 1, Battery LED 2, Battery LED 3, Battery LED 4, Battery LED 5, Battery LED 6,

Battery LED 7, Battery LED 8, Battery LED 9, Battery Voltage LEDs, Battery Voltage Output, Bed Lamp, Blind Spot Indicator State, Blower Motor Speed, Blue Cooled Seat Indicators, Blue Heated Seat Indicators, Blue Temperature Bar, Boost Low Pressure Actuator, Boost Pressure, Boost Pressure Actuator, Both Headlamps Max High Position, Both Headlamps Max Low Position, Brake Indicator, Brake Light, Brake State Output, Brake Switch, BRAKE Text, Brake Warning Lamp, BSM State, BTSI Coil Output Control, BTSI Control, BTSI Solenoid, Button 11 (Spare), Button 14 (Spare), Button 15 (Spare), Button 16 (Spare), Button 24 (Spare), Button 6 (Spare), Button 7 (Spare), Button 8 (Spare), Button Indicators, Buttons/Encoder Control-Button 1 (Front Defrost), Buttons/Encoder Control-Button 10 (FCW), Buttons/Encoder Control-Button 12 (Back), Buttons/Encoder Control-Button 13 (Screen Off), Buttons/Encoder Control-Button 14 (ESP), Buttons/Encoder Control-Button 16 (PTS), Buttons/Encoder Control-Button 17 (Mute), Buttons/Encoder Control-Button 18 (Enter), Buttons/Encoder Control-Button 19 (Rear Defrost), Buttons/Encoder Control-Button 2 (Driver Temp Up), Buttons/Encoder Control-Button 20 (Passenger Temp Down), Buttons/Encoder Control-Button 21 (Auto), Buttons/Encoder Control-Button 22 (Driver Temp Down), Buttons/Encoder Control-Button 23 (Recirc), Buttons/Encoder Control-Button 3 (Fan Off), Buttons/Encoder Control-Button 4 (Driver Temp Up), Buttons/Encoder Control-Button 5 (AC), Buttons/Encoder Control-Button 9 (Eco), Buttons/Encoder Control-Rotary 1 Detents (Volume), Buttons/Encoder Control-Rotary 1 Direction (Volume), Buttons/Encoder Control-Rotary 2 Detents (Fan), Buttons/Encoder Control-Rotary 2 Direction (Fan), Buttons/Encoder Control-Rotary 3 Detents (Tune), Buttons/Encoder Control-Rotary 3 Direction (Tune), Buttons/Encoder Control-Rotary 4 Detents, Buttons/Encoder Control-Rotary 4 Direction, Buzzer Control, Cabin Temperature Sensor, Cargo Lamp, Cargo Light, Cargo Light Indicator, Catalyst Efficiency Test, CEGR H-Bridge Valve Duty Cycle, Center High Mount Stop Lamp, Center Stop Lamp, Central high mounted Stop Light (CHMSL), Channel 1 Audio Control, Channel 10 Audio Control, Channel 11 Audio Control, Channel 12 Audio Control, Channel 2 Audio Control, Channel 3 Audio Control, Channel 4 Audio Control, Channel 5 Audio Control, Channel 6 Audio Control, Channel 7 Audio Control, Channel 8 Audio Control, Channel 9 Audio Control, Charge Air Cooler Coolant Pump, Charge Port Command CAN, Charge Port Command Hard Wired, Charge Port Lock Motor, Charge Port Request Tester, Charge Port Un-Lock Motor, Check Engine - MIL Lamp, Check Engine MIL Lamp, Check Engine-MIL (Malfunction Indicator Lamp), Check PCM Odometer, Chiller Shut-off Valve, CHMSL Lamp, Clutch Signal To ECM Output Control, CNG Indicator, CNG Injector Relay, CNG Shut Off Relay, CNG/Gasoline Forced Fuel Type, Cold Start Aid Driver 1, Cold Start Aid Driver 1 Output, Compressed Natural Gas, Compression Test, Compressor Circuit Test, Compressor Current, Control All Solenoids, Control the steering column, Convenience/Reading Lamp, Convenience-Reading Lamp, Coolant Bad Indicator, Coolant Fill, Coolant Fill Active Pump, Coolant Good Indicator, Coolant High Temperature Auxiliary Electric Pump, Coolant Temp LED 1, Coolant Temp LED 2, Coolant Temp LED 3, Coolant Temp LED 4, Coolant Temp LED 5, Coolant Temp LED 6, Coolant Temp LED 7, Coolant Temp LED 8, Coolant Temp LED 9, Coolant Temp LEDs, Coolant Temperature, Coolant Three Way Valve Test, Cooldown Test, Cooled EGR H-Bridge Valve System Test, Cooled Seat Driver High Indicator, Cooled Seat Driver Low Indicator, Cooled Seat Driver Med Indicator, Cooled Seat Passenger High Indicator, Cooled Seat Passenger Low Indicator, Cooled Seat Passenger Med Indicator, Cooler Bypass Valve, Cooling Valve Position, Courtesy Lamps, Crankcase Ventilation, Crankcase Ventilation Heater, Cyl 1 Deactivation Sol Cntrl State, Cyl 6 Deactivation Sol Cntrl State, Cyl 7 Deactivation Sol Cntrl State, 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, Cylinder Balance Test, DC Clutch Volume Index Check, Dedicated DRL Lamp Left, Dedicated DRL Lamp Right, DEF (Reductant) Pressure Line Heater Test, DEF (Reductant) Tank Heater Test, DEF Dosing Injection Quantity, DEF Reductant Doser Prime Override Test, DEF Reductant Doser Pump Override Test, Diesel Cabin Heat 1, Diesel Cabin Heat

2, Diesel Cabin Heat 3, Diesel Cabin Heater #1, Diesel Cabin Heater #2, Diesel Cabin Heater #3, Diesel Cabin Heater 1, Diesel Cabin Heater 2, Diesel Cabin Heater 3, Diesel Cabin Heater 4, Diesel Fuel Heater Relay, Digital Inputs1 High Memory, Disable Level Control, Disable Passenger Airbag Lamp Request, Display Start Inhibit Data, Door Ambient Light State, Door Courtesy Lamp State, Door Handle Power Control, Door Handle Verification Test, Double Start Override Relay, DPF Lamp, DPF Reset Option, DR Solenoid, Driver Cooled Seat, Driver Heated Seat, Driver Side Seat Belt, Driver Temp Detents, Driver Temp Down Button, Driver Temp Rotary Direction, Driver Temp Up Button, DRL, DTI FUEL TRANSFER RLY, DTI LTR CLNT PMP, DTI SPRCHRGR BPV MOTOR, DTI VVL SOL1, DTI VVL SOL2, DTI VVL SOL3, DTI VVL SOL4, Dual Speed Fuel Pump Relay, Dual Speed Oil Pump, Dual Speed Oil Pump Status, Dual Tank Aux LP Relay, Duct Sensor - Floor Left, Duct Sensor - Floor Right, Duct Sensor - Panel Left, Duct Sensors -Panel Right, Duty Cycle Purge Solenoid, EAC Compressor Speed Request, Easy Entry/Exit, EBL Status, EC Mirror State, E-CALL Backlight LED, E-Call Button Backlight LED, E-Call Button Green LED, E-Call Button Red LED, E-Call Green Day PWM, E-Call Green Night PWM, E-CALL Green Status LED, E-Call Red Day PWM, E-CALL Red Error LED, E-Call Red Night PWM, ECO, ECO Button, ECO Indicator, ECO ON-OFF Indicator, ECVD Compressor PWM Command, ECVD Compressor PWM Command~ECVD Compressor PWM Command, EGR Cooler Bypass, EGR DC Motor Sol Vlv Recir Vlv, EGR Duty Cycle, EGR Hi Pressure Motor Test, EGR Positioner, EGR Throttle Valve, EGR Valve Actuator Test, EGR Valve Replaced, EGR Valve Solenoid Duty Cycle, ELCM Forced Monitor Test, Electric Motor Control, Electric Thermostat Heater, Electric Thermostat Heater Solenoid, Electric Thermostat Heater Solenoid Duty Cycle, Electric Transmission Oil Pump, Electric Vacuum Pump, Electric Wastegate Valve, Electronic Stability Control, Electronic Stability Control Off, EMCC VLP Solenoid, Emergency Call Backlight LED PWM, Emergency Call Green LED PWM, Emergency Call Red LED PWM, Emissions Rolls Test Mode Is Active, Engine After Run Coolant Pump, Engine Check Lamp [MIL], Engine Digital Fan 1, Engine Digital Fan 2, Engine Off Injector Toggle Test, Engine RPM Control, Engine Running Injector Kill Test, Engine Speed Output, Engine Temp LEDs, Engine Temperature, Engine Warm Up, Enter, Enter Button, Enter Plant Mode, EPB Failure Lamp, EPB Service, EPB Warning Light, EQ Loudness Test, ESC, ESC Disable Lamp, ESC Indicator, ESC Malfunction Lamp, ESC Off, ESC ON-OFF Indicator, ESCL 12 Volt Feed Control, ESCL Unlock Control, ESIM Forced Monitor Test, ESM Power Supply, ESP button, ESP Light, ETC Indicator Test, ETC Lamp, ETC System Test, ETC Throttle Follower Test, EVAP Purge Valve, Evaporator Sensor Temperature, Evaporator Temp Sensor, Evaporator Temperature Sensor, Exhaust Brake, Exhaust Brake Auto Green, Exhaust Brake Yellow, Exhaust Gas Cooler Bypass Valve, Exhaust Gas Recirculation Valve, Extend Mileage With SCR Active Faults, Faceplate Controls-Eject, FAD Feedback Voltage, FAD Lock Request, FAD Supply Voltage, Fade Settings, Fan Clutch PWM Duty Cycle Output, Fan Clutch Test, Fan Off Button, Fan Rotary Detents, FCW Button, Feature Pin, Fill Spring From Reservoir, First Pass Cool Down Test Results, First Row Driver Seatbelt Buckle Sensor-Switch, First Row Passengers Seatbelt Buckle Sensor-Switch, Flipper Glass 2, Foot Well, Foot Well/Halo Lamps, Foot Well-Halo Lamps, Freeze Current State, Frequency Step Selection, Front Blower Control, Front Blower Motor, Front Blower Speed, Front Collision Off, Front Collison Off, Front Defrost, FRONT DEFROST button, Front Defrost Indicator, Front Fog, Front Fog Lamps, Front Mode 1 Actuator Position, Front Mode 1 Defrost Actuator Position, Front Mode 2 Panel Actuator Position, Front Mode Actuator Position, Front Mode Door Actuator Position, Front Off Road Camera Washer, Front Refrigerant Shut-off Valve, Front Washer, Front Wiper (High/Low), Front Wiper (High-Low), Front Wiper (On/Off), Front Wiper (On-Off), Front/Rear Washer, Front-Rear Washer, Fuel Filter Heater, Fuel Filter Heating, Fuel filter water level warn lamp, Fuel Filter Water Level Warning Lamp, Fuel Injector, Fuel Injector 1, Fuel Injector 1 Control State, Fuel Injector 2, Fuel Injector 2 Control State, Fuel Injector 3, Fuel injector 3 Control State, 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 Injector Balance, Fuel Injector Cleaning, Fuel Level LEDs, Fuel Level Output, Fuel Metering Unit, Fuel Metering Unit Actuator, Fuel Pre Supply Pump, Fuel Pressure Override, Fuel Pressure Regulated O/P (Bar), Fuel Pressure Regulator, Fuel Pressure Regulator Valve, Fuel Pump, Fuel Pump Relay, Fuel Pump Relay Control State, Fuel System Run Up Test, Functional LED Illumination Level, Functional LED State, Gas Injector Relay, Gasoline Indicator, Gated Park ZFII Output, Gated Park ZFII Output Control, Gear Position, Gear Selection, Generator Ramp Time, Generator Speed Threshold, Glow Lamp, Glow Plug, Glow Relay, Grid Test, Head Rest Relay, Headlamp Washer, Heated Seat Driver High Indicator, Heated Seat Driver Low Indicator, Heated Seat Driver Med Indicator, Heated Seat Passenger High Indicator, Heated Seat Passenger Low Indicator, Heated Seat Passenger Med Indicator, Heated Steering Wheel, Heated Steering Wheel indicator, Heated Steering Wheel~Heated Steering Wheel, Height Sensor Check, 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 Beam, High Beam Indicator, High Beam Light, High Pressure Fuel Rail Test, High Pressure Fuel System Test, High Speed Engine Cooling Fan Control, High Speed Fan, High Speed Fan Relay, High Temp Aux Pump, High Temp Cabin Valve Rotation, High Temp Coolant Fill - Aux Pump, High Temp Shut-off Valve, High Voltage Battery Precharge Contactor Test, High Voltage Coolant Heater, Horizontal Motor, Horizontal Motor Backward/Forward, Horn, HPCR Duty Cycle, HPCR Duty Cycle Output, HVAC Cool Down Test, HVAC Self Test, I/O Control All-Limp Home Mode active, I/O Control All-Red Lamp, I/P Illumination, ICR-HCR Relay, Idle RPM Test, Ignition Coil 1, Ignition Coil 10, Ignition Coil 2, Ignition Coil 3, Ignition Coil 4, Ignition Coil 5, Ignition Coil 6, Ignition Coil 7, Ignition Coil 8, Ignition Coil 9, Ignition Run, Ignition Run - Acc 1, Ignition Run - Acc 2, Ignition Run - Start, Ignition RUN/ACC 1, Ignition RUN/ACC 2, Ignition RUN/START, Ignition RUN-ACC 1, Ignition RUN-ACC 2, Ignition RUN-START, Immobilizer Antenna Test, In Motion Menu, Indicator Control-A/C Indicator, Indicator Control-Auto Indicator, Indicator Control-FCW Indicator, Indicator Control-Front Defrost Indicator, Indicator Control-Indicator 1 (Auto), Indicator Control-Indicator 10 (SSO), Indicator Control-Indicator 11 (PPA), Indicator Control-Indicator 12 (LDW), Indicator Control-Indicator 2 (AC), Indicator Control-Indicator 3 (Recirc), Indicator Control-Indicator 4 (Front Defrost), Indicator Control-Indicator 5 (Rear Defrost), Indicator Control-Indicator 6 (ECO), Indicator Control-Indicator 7 (FCW), Indicator Control-Indicator 8 (Traction Control), Indicator Control-Indicator 9 (PTS), Indicator Control-LDW Indicator, Indicator Control-Park Sense Indicator, Indicator Control-Rear Defrost Indicator, Indicator Control-Recirc Indicator, Initiate P2BA9 SCR Refill Monitor, Injector Kill Test, Inlet Metering Valve, Inlet Valve FL, Inlet Valve FR, Inlet Valve Left Front, Inlet Valve Left Rear, Inlet Valve LF(Normally Open), Inlet Valve LR (Normally Open), Inlet Valve RF (Normally Open), Inlet Valve Right Front, Inlet Valve Right Rear, Inlet valve RL, Inlet valve RR, Inlet Valve RR (Normally Open), Input Test, Instrument Panel Illumination Level Output, Intake Air Throttle Actuator, Intake Air Throttle Actuator 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, Intake Port Shut Off, Intake Throttle Duty Cycle, Intake Throttle Duty Cycle Output, Inverter Enable Relay, Inverter Status Indicator, IOD RELAY ON LSD, I-P Illumination, IPC Self Test, IRCM Heater, IRCM Relay Unlock Control, ITOS - Cabin Temperature, Key Pad Back Lighting, Keypad Backlight Control, KeySense, KIN ACC LED State, KIN Antenna Power, KIN LED Control, KIN OFF LED State, KIN RUN LED State, KIN Start/Stop LED State, KIN Start-Stop LED State, Knob Lock State, L/U And SEL On Off Solenoid, L/U Solenoid Current, Lamps Actuation-Left leveling actuator position, Lamps Actuation-Right leveling actuator position, Lane Departure Warning ON-OFF Indicator, LC Clutch Volume Index Check, LC Solenoid, LDP Solenoid, LDW Warning Indicator, Leak Detection Pump, Leak Detection Pump Forced Monitor Test, LED Control-LED 1 (Auto Control), LED Control-LED 2 (EBL), LED Control-LED 3 (Front defrost), LED Control-LED 4

(recirc), LED Control-LED 5 (A/C), LED Test - Damping Mode Automatic Active, LED Test - Damping Mode Hard / Sport Active, LED Test - Damping Mode Soft Active, Left Rear Tail/Park Lamp, Left Air Catcher LED, Left Auxiliary High Beam, Left Backrest Heat Seat Linear PWM Request -Output, Left Cushion Heat Seat Linear PWM Request -Output, Left Day Light Lamp, Left Floor Duct Sensor, Left Front Fog Lamps, Left Front Park Lamp, Left Front Turn Lamp, Left HID Lamp, Left High Beam, Left High Beam Shutter, Left Low Beam, Left Panel Duct Sensor, Left Rear AUX Turn Lamp, Left Rear Fog Lamps, Left Rear Tail-Park Lamp, Left Rear Turn Lamp, Left Rear Turn Lamp (BUX), Left Rear Turn/Stop Lamp, Left Rear Turn-Stop Lamp, Left Reartail-Park Lamp, Left Reverse Lamp, Left Reverse Lamp 2, Left Reverse Lamp State, Left Side Markers, Left Signal Mirrors/Side Repeaters (BUX), Left Signal Mirrors-Side Repeaters (BUX), Left Signature Lamp, Left Solar Sensor Values, Left Trailer Tow Turn/Stop Lamp, Left Trailer Tow Turn-Stop Lamp, Left Turn Signal Indicator, Left Vent Seat Linear PWM Request -Output, LF Antenna Verification Test, License Plate Lamp, License Plate Lamp WK -Right Rear Rail Lamp WD, Lift Pump Relay, Liftgate Release Motor, Lin Module Data, Linear Hall, Linear Solenoid A, Linear Solenoid B, Linear Solenoid C, Linear Solenoid D, Linear Solenoid E, Linear Solenoid F, Linear Solenoid G, Locate Learned Keys, LOCK 4WD, Low Fuel, LOW LED, Low Pressure Feed Valve 1, Low Pressure Feed Valve 2, Low Pressure Feed Vlv 1(Normal close), Low Pressure Feed Vlv 2(Normal close), Low Reverse Solenoid, Low Speed Fan Relay, Low Temp Active Pump, Low Temp Passive Pump, Low Temp Passive Pump 1, Low Temp Passive Pump 2, Low-Reverse Solenoid, LR Clutch Volume Index Check, LR Solenoid, LSU Heater 1, Main Left Temperature Actuator Position, Main/Left Temp Selected, Main-Left Temp. Door Actuator Position, Main-Left Temperature Actuator Position, Malfunction Indicator Lamp, Master Ept Wake Up Output, Master ePT Wake Up Output 1, Memory Seat ECU Self Test, Metering Unit, Metering Unit Actuator, Mid-Range Settings, MIL Lamp, Mirror Direction Control, Mirror Fold, Mirror Fold Window Control, Mirror Heat State, Mirror LED -Day-Night, Mirror LED Left State, Mirror LED -ON-OFF, Mirror LED Right State, Mirror Right LED State, Mirror Signal Lamp State, Mirror Vertical/Horizontal Direction, Mode, Mode 1, Mode 2, Mode 2 Actuator Position (Defrost Panel Door), Mode Selection, Motor A Control, Motor B Control, Motorized Thermistor-Cabin Temp, MS Solenoid, Multiair VVA Solenoid 1, Multiair VVA Solenoid 2, Multiair VVA Solenoid 3, Multiair VVA Solenoid 4, Mute, MUTE button, Mute Test, Navigation Menu Control, Neutral, Neutral Gate Test (62TE), Neutral Gate Test (Non-RFE), Neutral Gate Test (RFE), Neutral LED, NOx Sensor Replacement, O2 1/1 Heater Duty-Cycle, O2 1/2 Heater Duty-Cycle, O2 Heater Test, O2 Sensor Heater Bank1 Sensor1, O2 Sensor Heater Bank1 Sensor2, O2 Sensor Heater Bank2 Sensor1, O2 Sensor Heater Bank2 Sensor2, OBCM Wakeup, OBD Button 1 Pad 1, OBD Button 1 Pad 2, OBD Button 2 Pad 1, OBD Button 2 Pad 2, OBD Button 3 Pad 1, OBD Button 3 Pad 2, OBD Button 4 Pad 1, OBD Button 4 Pad 2, OBD Button 5 Pad 1, OBD Button 5 Pad 2, OBD Button 6 Pad 1, OBD Button 6 Pad 2, OBD Button 7 Pad 1, OBD PPPA -Pad 1, OBD PPPA -Pad 2, OD Clutch Volume Index Check, Oil Pressure Bad, Oil Pressure Good, Oil Pressure Lamp, Oil Pressure LED 1, Oil Pressure LED 2, Oil Pressure LED 3, Oil Pressure LED 4, Oil Pressure LED 5, Oil Pressure LED 6, Oil Pressure LED 7, Oil Pressure LED 8, Oil Pressure LED 9, Oil Pressure LEDs, Oil Pressure Output, Outlet Valve FL, Outlet valve FR, Outlet valve front left activation, Outlet valve front right activation, Outlet Valve Left Front, Outlet Valve Left Rear, Outlet Valve LF (Normally Closed), Outlet Valve LR (Normally Closed), Outlet valve rear left activation, Outlet valve rear right activation, Outlet Valve RF (Normally Closed), Outlet Valve Right Front, Outlet Valve Right Rear, Outlet valve RL, Outlet valve RR, Outlet Valve RR (Normally Closed), Over Drive Solenoid, Over Drive Solenoid On Time, Over-Drive Solenoid, Overdrive Switch Test, Overdrive Switch Test (Non-RFE), OverDrive Switch Test (RFE), Oxygen Sensor 1 Heater, Oxygen Sensor 1/1 Heater Control State, Oxygen Sensor 1/1 Heater Duty Cycle, Oxygen Sensor 1/2 Heater Control State, Oxygen Sensor 1/2 Heater Duty Cycle, Oxygen Sensor 1-1 Heater Duty-Cycle, Oxygen Sensor 1-2 Heater Duty-Cycle, Oxygen Sensor 2 Heater, Oxygen Sensor 2/1 Heater Control State, Oxygen Sensor 2/1 Heater Duty Cycle, Oxygen Sensor 2/2 Heater Control

State, Oxygen Sensor 2/2 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 System Heater Test, Park Pawl Actuator Control, Parking Brake And Low Brake Fluid, Parttime LED, Passenger Airbag (PAB) Status, Passenger Airbag LED, Passenger Cooled Seat, Passenger Heated Seat, Passenger Occupant Detection Sensor (ODS), Passenger Seat Belt, Passenger Temp Detents, Passenger Temp Down Button, Passenger Temp Rotary Direction, Passenger Temp Up Button, Pedals Forward/Backward, Pilot 1 (USV Front, MCI Front - Normally Open), Pilot 1 (USV LF-RR, MCI LF-RR -Normally Open), Pilot 2 (USV Rear, MCI Rear - Normally Open), Pilot 2 (USV RF-LR, MCI RF-LR -Normally Open), Pilot Front (USV - Normally Closed), PL Solenoid Current, Pneumatic Intercooler Bypass, Pneumatic Waste Gate, Police Passenger Un-Lock Motor, Position Lamp, Position Lamp Telltale, Position Lights, Power (OFF), Power Down, Power Mirror Feed Relay Control, Power On and Disable User Inputs, Power Side Step Module Actuation Test, PPPA, PPPA ON-OFF Indicator, Pressure Control Relief Valve (PCR - Normally Closed), Pressure Control Solenoid Valve, Pressure Regulator Valve, Pressure Value Correction Shut-Off, Pre-Supply Pump, Priming 1 (HSV Front, LPF Front -Normally Closed), Priming 1 (HSV LF-RR, LPF LF-RR -Normally Closed), Priming 2 (HSV Rear, LPF Rear -Normally Closed), Priming 2 (HSV RF-LR, LPF RF-LR -Normally Closed), Priming Front (HSV - Normally Closed), Proportional Purge Solenoid, Proportional Purge Solenoid., Proportional Surge Solenoid, PTC Cabin Heater 1 Actuation, PTC Cabin Heater 2 Actuation, PTC Cabin Heater 3 Actuation, PTC Heater Relay 1, PTC Heater Relay 2, PTC Heater Relay 3, PTO, PTS Button, PTS ON-OFF Indicator, PTS Switch Simulation, Puddle Lamp State, Pump, Pump Control, Purge Solenoid Duty Cycle, Purge Valve Duty-Cycle, Purge Vapors Test, PWM Fan Actuation Test, PWM Output, 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 1,2,3 Control State, Radiator Cooling Fan Relay 2 Control State, Radiator Fan 1 Duty Cycle, Radiator Fan 2 Duty Cycle, Radiator Fan Duty Cycle, Radiator Jalousie ShutterPosition, Radiator-Condenser Cooling Fan Relay 1 Control State, Radiator-Condenser Cooling Fan Relay 2 Control State, Radio, Radio Volume, Rail Pressure, Rail Pressure Sensor Replacement, Ram Active Air Box Test, Ram Box, Range Select Downshift Test Routine, Range Select Downshift Voltage, Range Select Upshift Test Routine, Range Select Upshift Voltage, Read VIN, Ready, Rear Axle Lock, Rear Axle Locker Command, Rear Blower Speed, Rear Blower State, Rear Defrost Button, Rear Defrost Indicator, Rear Fog, Rear Fog Lamps, Rear Heated Window, Rear Mode 1 Actuator Position, Rear Wiper, Recirc, RECIRC button, RECIRC Indicator, Recirc. Door Actuator Position, Recirculation Door Actuator Position, Recirculation LED, Recirculation Pump, Recirculation pump activation, Recliner, Recliner Motor, Red Brake Lamp, Red Hazard Button, Red Heated Seat and Steering Wheel Indicators, RED Heated Seat Indicators, Red Temperature Bar, Redundant Ignition RUN/START Feed Output Control, Redundant Ignition RUN-START Feed Output Control, Remote Start Antenna Test, Reverse Gear Clutch Test (62TE), Reverse Gear Clutch Test (Non-RFE), Reverse Gear Clutch Test (RFE), Reverse Lockout Solenoid, Reverse Lockout Solenoid Control State, Right Air Catcher LED, Right Auxiliary High Beam, Right Backrest Heat Seat Linear PWM Request -Output, Right Cushion Heat Seat Linear PWM Request -Output, Right Day Light Lamp, Right Floor Duct Sensor, Right Front Fog Lamps, Right Front Park Lamp, Right Front Turn Lamp, Right HID Lamp, Right High Beam, Right High Beam Shutter, Right Low Beam, Right Panel Duct Sensor, Right Rear Fog Lamps, Right Rear Park Lamp, Right Rear Tail/Park Lamp, Right Rear Tail-Park Lamp, Right Rear Turn Lamp, Right Rear Turn Lamp (BUX), Right Rear Turn/Stop Lamp, Right Rear Turn-Stop Lamp, Right Reartail-Park Lamp, Right Reverse Lamp, Right Reverse Lamp #2, Right Reverse Lamp 2, Right Reverse Lamp State, Right Side Markers, Right Signal Mirrors/Side Repeaters (BUX), Right Signal Mirrors-Side Repeaters (BUX), Right Signature Lamp, Right Solar Sensor Values, Right Temp Actuator Position, Right Temp. Door Actuator Position, Right Temperature

Actuator Position, Right Temperature Selected, Right Trailer Tow Turn/Stop Lamp, Right Trailer Tow Turn-Stop Lamp, Right Turn Signal Indicator, Right Vent Seat Linear PWM Request, Right Vent Seat Linear PWM Request -Output, Roller Learning Shut-Off, Rotary 4 Detents, Rotary 4 Direction, RT-LT Sidemarkers-RT-LT Applique Parklamps, SCR Inlet Temp Sensor Replacement, SCR Relay Actuation Test, Screen Off, SCREEN OFF button, SDAR Station Selection, Seat Belt, Seat Belt Lamp, Seat Belt Light, Seat Position Recall, Second Row Center Seatbelt Switch, Second Row Left Seatbelt Switch, Second Row Right Seatbelt Switch, Secondary Air Pump, Secondary Air Solenoid, Secondary Solenoid Current, Secondary/Thatchum Lock Motor, Secondary/Thatchum Un-Lock Motor, Secondary-Thatchum Lock Motor, Secondary-Thatchum Un-Lock Motor, Seek Status, Seek Status Tuner AM-FM, Seek Status Tuner DAB, Select Level Switches-Damping Mode Button, Self Test Routine, Sensor Rolls Test, Separation Valve (SV - Normally Open), SERV LED, Service Lamp, Set Engine RPM Test, Set Radio Volume Step, Shift Lever Position Test (62TE), Shift Lever Position Test (Non-RFE), Shift Lever Position Test (RFE), Shift Solenoid 1, Shift Solenoid 2, Shift Solenoid 3, Shift Solenoid 4, Shift Solenoid 5, Shift Solenoid 6, Shift Solenoid A, Shutoff Correction Quantity, Shutoff Injector Quantity, Side Mirrors Heater Control, Skip Shift Solenoid, Small Leak Verification Test, Smart Bar Command, Snow Plow Left Turn Lamp, Snow Plow Park Lamps, Snow Plow Right Turn Lamp, Snow Plow Switch #1, Snow Plow Switch #2, Snow Plow Switch #3, Snow Plow Switch #4, Snow Plow Switch 1, Snow Plow Switch 2, Snow Plow Switch 3, Snow Plow Switch 4, Software Test, SPARE LED LAMP DRIVER, SPARE RELAY 1 LSD, SPARE RELAY 2 LSD, Speaker Quadrant Selection, Split Cooling Drive Duty Cycle, Sport ON-OFF Indicator, Spring Deflate To Atmosphere, Spring Deflate to Reservoir, SRS Indicator Lamp Request, SRS Lamp, SRV Test, Start/Stop System, Starter Relay, Starter Solenoid, Starter Solenoid (High), Starter Solenoid High, Starter Status, Steering Column, Steering Wheel Linear PWM Request -Output, Stop - Start System Active Indicator, Stop / Start System Active Lamp, Stop All Actuators, Stop Start Confirmation, Stop/Start System Active, Stop-Start ON-OFF Indicator, Stop-Start System Active, Sun Shade Control, Surge Solenoid Control State, Surge Valve Solenoid, Sway Bar Indicator, Swing Gate Lock, Swing Gate Unlock, Swirl Valve actuator Test, Switch Illumination State, Switch On EPB Failure Lamp, Switch On EPB Function Lamp, System Wiring Test, T Case Service Indicator Request, Tail Gate Lock, Tail Gate Unlock, T-Case Motor Duty Cycle, T-Case Motor Solenoid Lock, T-Case Motor-Motor Lock, T-Case Service Indicator Request, TCC Pressure Control Solenoid, TCM VIN Verification, Telltale ABS, Telltale Airbag, Telltale Brake, Telltale Charging, Telltale ESP, Telltale Fog Front, Telltale Glow Plug, Telltale High Beam, Telltale MIL, Telltale Seat Belt, Telltale Tire Pressure Monitor, Telltale Turn Left, Telltale Turn Right, Telltale - ESC, Telltale - ESC Off, Telltale - ESP Off, Telltale - Park, Telltale - Position Lamp, Telltale - Rear Fog, Telltale ESP/BAS, Telltale-Tire Pressure, Telltale-Tire Pressure Monitor, Telltale-Tow Mode, Temporary Remote Start Disable, Thermal System Enable, Thermistor Test, Thermostat Drive Duty Cycle, Third Row Center Seatbelt Switch, Third Row Left Seatbelt Switch, Third Row Right Seatbelt Switch, Throttle Test, Throttle Valve, Throttle Valve Actuator, Tilt Mirrors in Reverse, Time Controlled Spring Fill, Timeout Time Flash To Pass, Timeout Time Paddle Shift Switches, Tire Pressure, Tire Pressure Monitoring, Tone Test, Topper Center Mounted Stop Lamp, TOPPER CHMSL, Torque Coupling Control, TOW-HAUL, Tow-Haul Indicator, TPM Sensor Rolls Test, Trac Cntrl Outlet Vlv 1(Normal open), Trac Cntrl Outlet Vlv 2(Normal open), Traction Control Outlet Valve 1, Traction Control Outlet Valve 2, Trailer Backup Lamps, Trailer BU Lamps, Trailer Tail Lamp Relay, Transfer Case 4WD/Lock/Part Lamp, Transfer Case AWD/Auto/Full Lamp, Transfer Case Low Lamp Request, Transfer Case Neutral Lamp Request, Transmission Component Tests, Transmission Verification Test, Treble Settings, Truck Bed Lighting Leds, Truck Cargo Lamps, Trunk/Flipper Glass Release Motor, Trunk-Flipper Glass Release Motor, Tumble Generator Valve, Tuner Rotary Detents, Tuner Rotary Direction, Turbo/VGT Component Replacement, Turn Left, Turn Right, Turn Signal Lamp State, Twilight Sensor Value, UConnect Live Apps Installation, UD Clutch Volume Index Check, UD Solenoid,

UGDO Power Supply, Underdrive Solenoid, Under-Drive Solenoid, Unlock 1/Driver Lock, Unlock 1-Driver Lock, Unlock 2/Passenger Locks, Unlock 2-Passenger Locks, Unlock Run -Start, Unlock RUN-START, Urea (Reductant) Pressure Line Heater Actuation Test, Urea (Reductant) Tank Heater Actuation Test, Urea Dosing Valve Actuation Test, Vacuum Cleaner Power Saver Indicator, Vacuum Cleaner Relay Driver, Vacuum Cleaner Switch Backlight, Vacuum Pump Relay, Variable Displacement AC, Variable Swirl Actuator, Variable Swirl Valve Shutoff, Variable Valve Timing, VVT Control Valve, Vehicle Speed Output, Vehicle Sway Green, Vehicle Sway White, Vehicle Sway Yellow, Vertical Front, Vertical Rear, VES Display Screen Control, VES Headphone Tone Test-Headphone 1, VES Headphone Tone Test-Headphone 2, Video Input, View Last Successful Remote Start Event Data, View Last VTA Trigger Cause Data, View Remote Start Abort Data, View Remote Start Inhibit Data, View Satellite Sensor Information, View VTA Enable Data, VLP Solenoid, Volume Rotary Detents, Volume Rotary Direction, VTA Indicator LED, VVA Cylinder #1, VVA Cylinder #2, VVA Cylinder #3, VVA Cylinder #4, 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, VVT Tests, Wastegate Solenoid Control State, Wastegate Solenoid Duty Cycle, Water In Fuel, Water Pump Charge Air Cooling, White Backlighting Buttons, White Backlighting Channel 1, White Backlighting Channel 2, White Backlighting Knob Buttons, White Backlighting Knob Indicators, White Knob Indicators, White Lower Halos, White Upper Halos, Window Control, Window State, WK Head Rest Relay, Yellow A/C and Auto Indicators, Yellow Button Indicators, Yellow Fault Lamp, Yellow Lane Departure Warning Indicator, Yellow Rear Defrost Indicator, Yellow Recirc Indicator

New Ford/Lincoln Coverage

- Added coverage for 124 new system applications

16 new Adjustment type special tests:

ABS Service Bleed, Battery Monitor System Reset, Clear Transmission Adaptive KAM Tables, Do Not Use The Transmission Adaptive KAM Tables, Engine Oil Life Reset, Factory Keyless Entry Code, Initialize Adaptive KAM Tables, IVD Sensors Calibration, Misfire Monitor Neutral Profile Correction (Crank Relearn), Relearn Vehicle Data, Reset KAM, Steering Angle Sensor Calibration, Stop Trans-Adaptive Learning And Measure Slip Time, TPMS Sensor Training Mode, Transmission Characterization - 6R140 RWD, Transmission Characterization - 6R80/100 RWD

265 new Actuation type special tests:

% Of Total Fuel Mass To Be Delivered By Direct Inj -Commanded, (Cruise) Resume Switch, (Cruise) Set- Switch, (Cruise) Set+ Switch, (EVAP) Vapor Blocking Valve, 3RD Row Left Speaker Status, 3RD Row Right Speaker Status, 4WD-AWD Power Transfer Unit - Clutch Commanded State, 4WD-AWD Power Transfer Unit - High Level Strategy Commanded, 4WD-AWD Rear Differential Unit Actuator -A- Requested Torque, ABS Pump Motor Control, ABS Warning Lamp, A-C Distribution Valve A Output Ckt Commanded Energized, A-C Distribution Valve B Output Ckt Commanded Energized, A-C Recirculating Servo Position Status, Accessory Delay Relay Circuit, Active Grille Air Shutter -A- Position Commanded, Actuator Supply Voltage -B- Control State, Adaptive Cruise Distance Gap (-) Switch, Adaptive Cruise Distance Gap (+) Switch, Adaptive Front Lighting Fault, Air Conditioning Clutch Engaged, Air Conditioning Compressor Command State, Air Conditioning Compressor Commanded State, Air Mode Actuator, Airbag Warning Indicator, All Door Lock, All Door Unlock, All Injectors Disabled, All Warning Lamps, Antilock Braking System Power Relay Output Status, Anti-Theft Horn Status, Anti-Theft Indicator Lamp Control, Backward Pedal Position Control, Battery Pack Coolant Ctrl Valve A - Output Ckt Energized, Blower Motor Speed, Brake Shift Interlock, Brake System Fault Indicator Lamp, Brake-Shift Interlock, Cabin Coolant

Heater Control, Cabin Heater Diverter Valve, Camera Power Control, Center 2 Speaker Status, Center High Mounted Stop Lamp Output Control, Center Speaker Status, Center Tweeter Status, Check Fuel Cap Indicator Lamp Command, Command of diverter valve - Battery pack, Commanded Equivalence Ratio (Air to Fuel Mixture) Bank 1, Commanded Equivalence Ratio Air To Fuel Mixture Bank 1, Commanded Equivalence Ratio Air To Fuel Mixture Bank 2, Converter Pressure Control, Coolant Overtemp, Coolant Pump -A- is Commanded On, Coolant Pump -B- Control Speed - Commanded, Courtesy Lamps, Courtesy Puddle Step Lamps, Cruise Control Lamp, DC To DC Converter Enable, DC-DC Enable Status, Delayed Accessory Power, Desired Camshaft Angle For All Banks, Desired Engine Cooling Fan Speed, Desired Generator Voltage, Desired Idle Speed (Rpm), Desired Line Pressure Control, Dimmable Backlighting, Dimmer Switch Input Status, Disable/Enable Easy Entry, Driver Door Unlock, Driver Heated Seat, ECO Mode, EGR Valve Position Desired, Engine Coolant Bypass Valve Control Output, Engine Coolant Bypass Valve -D- Commanded to be Energized, Engine Coolant Bypass Valve -D- Output Status, Engine Coolant Pump Speed - Commanded, Engine Idle Shutdown Extended, Engine Oil Pressure Control Duty Cycle - Commanded, Engine Revolutions Per Minute, Engine Running Fuel Injector Control, EVAP Canister Vent Valve, EVAP LDP Vac Sw Valve - Change Over From Vent To LDP, EVAP Leak Test, EVAP Purge/Vent Control, Evaporative Emission Canister Purge Valve Duty Cycle, Evaporative Emission Canister Vent Valve, Evaporative System Leak Detection Pump Commanded State, Fan control high speed, Fan control low speed, Fan Speed Desired, Firm Shift, Floor Lamp Output Circuit, FM Radio Band, Fog Lamp, Forward Pedal Position Control, Front Motor Up, Front Blower Relay, Front Fog Lamp Indicator, Fuel Fill Door Unlock Output - Commanded To Enable State, Fuel Gauge Indicator Control %, Fuel Gauge Indicator Control, Fuel Pump Relay, Fuel Pump, Fuel Rail Pressure Desired, Gear Command By Output State Control, Gear Display 1, Generator 2 Voltage Desired, Generator Lamp, Generator Voltage Desired, Heater Control For HO2S 11 And HO2S 21, Heater Control For HO2S 12 And HO2S 22, HEV Ready Light, High Beam Indicator, Horizontal Motor Backward, Horizontal Motor Forward, Horn, Hybrid-EV Traction Battery Thermal System Operational Levels, Hybrid-EV Wake Up - Commanded, Instrument Cluster Trailer Indicator, Intake Manifold Runner Control, Interior Lighting Circuit, Key (Removal) Inhibit, Key Pad Back Lighting, KOEO Self Test, KOER Self Test, Lamp Control, LED Backlighting, Left Blend Door Position, Left Cursor Left Arrow, Left Cursor OK Button, Left Front Fog Lamp, Left Front Inlet Valve State, Left Front Mid Range Speaker Status, Left Front Mirror Turn Signal Lamp Status, Left Front Outlet Valve State, Left Front Speaker Status, Left Front Turn Lamp Output Status, Left Front Turn Signal Lamp Status, Left Front Tweeter Status, Left Hand High Beam Circuit, Left Headlamp High Beam, Left Headlamp Low Beam, Left Rear Inlet Valve State, Left Rear Outlet Valve State, Left Rear Speaker Status, Left Rear Turn Signal Lamp Status, Left Rear Turn Signal-Trailer Relay Status, Left Rear Tweeter Status, Left Turn Signal Lamp Status, Line Pressure Control Desired, Line Pressure Control Measured In Current, Load Shed Output Control, Low Beam Circuit Status Left Front, Low Beam Circuit Status Right Front, Low Fuel Warning Indication, Low Washer Fluid Warning, Lumbar Forward Motor Control, Malfunction Indicator Lamp, Max Defrost, Mirror Puddle Lamps, Motor Electronics Coolant Pump, Oil Pressure Low Indicator, Oil Pressure, On Demand Test, One Touch Start Status, One-Touch Start Status, Output State Control Of Torque Converter, Over Drive (O-D) off, Park Brake Applied Lamp, Parking Lamp, Passenger Heated Seat, PATS Radio Frequency Transmit Status, PCM WAKEUP LINE, Power Balance, Power Point Output Relay, Rear Center Speaker Status, Rear Defrost (Heated Backlight), Rear Fog Lamp Indicator, Rear Motor Down, Rear Motor Up, Rear Park Lamps Output, Recline Motor Backward, Recline Motor Forward, Relative Compression, Reverse Lamp, Right Blend Door Position, Right Front Fog Lamp, Right Front Inlet Valve State, Right Front Mid Range Speaker Status, Right Front Mirror Turn Signal Lamp Status, Right Front Outlet Valve State, Right Front Speaker Status, Right Front Turn Lamp Output Status, Right Front Turn Signal Lamp Status, Right Front Tweeter Status, Right Headlamp High Beam, Right Headlamp Low Beam, Right Rear

Inlet Valve State, Right Rear Outlet Valve State, Right Rear Speaker Status, Right Rear Turn Signal Lamp Status, Right Rear Turn Signal-Trailer Relay Status, Right Rear Tweeter Status, Right Turn Signal Lamp Status, Run-Accessory Output Control, Safety Belt Warning Lamp, Seat Tilt Down Motor Control, Shift Solenoid F Commanded Current, Shift Solenoid Pressure Control A, Shift Solenoid Pressure Control B, Shift Solenoid Pressure Control C, Shift Solenoid Pressure Control D, Shift Solenoid Pressure Control E, Side Light Lamp, Side Mirror Turn Signal Lamp Control, Smart Window Control, Sounder Output Request, Spark Advance - Control State, Spark Advance, Speaker - Left Front, Speaker - Left Rear, Speaker - Right Front, Speaker - Right Rear, Speed Control (ASLD) Switch, Speed Control Actuator Switch Off, Speed Control Actuator Switch On, Speed Control Cancel Switch, Speed Control Cancel-Resume Switch, Speed Control Gap Switch, Speed Control On-Off Cancel Switch, Speed Control On-Off Switch, Speedometer, Spotlight Mirror Output, Start Button Mode Indicator Control, Starter Motor Control Output Detected, Stop-Start, Subwoofer 2 Status, Subwoofer Speaker Status, Subwoofer Status, Tachometer Gauge Indicator Control, Tachometer, Temperature Gauge, Third Row Left Speaker Status, Third Row Power Fold Seat Output, Third Row Right Speaker Status, Tire Pressure Telltale Status, Torque Converter Clutch Solenoid Commanded Current, Traction Assist Right Control Valve Status, Traction Control Indicator, Traction Control Off Indicator, Trans Hydraulic Accumulator Sol Ckt - Commanded Energized, Transmission System (Mil) Fault, Transmission System MIL Fault, Transmission Temperature Gauge Pointer Position, Turbocharger Bypass Valve 1, Turbocharger Wastegate, Variable Camshaft Timing Exhaust Angle Desired, Variable Camshaft Timing Intake Desired Angle, Vehicle Mode, Voltmeter Pointer Placement Command, Volume Adjustment Program, Volume, Warning Lamp Status 1 - Charge Warning, White Lighting Circuit

New GM Coverage

13 new Adjustment type special tests:

Backup Battery Timer Reset, Fuel Pump Trim Reset, Fuel Trim Learn, Fuel Trim Reset, Pilot Injection Balance Procedure, Prime Fuel Pump, Rear Gate Driver Information Center Message Reset, Steering Wheel Angle Sensor Centering, Steering Wheel Angle Sensor Learn, Steering Wheel Angle Sensor Reset, Transmission Adaptive Pressure Reset, Transmission Service Fast Learn, Vehicle Dynamic Sensor Offset Calibration

71 new Actuation type special tests:

Balance Rate Monitor, Cylinder Power Balance >1500, Desired Rail Pressure, Exhaust Aftertreatment Fuel Injector, Fuel Control Loop Status, Fuel Injector 1 Flow Control, Fuel Injector 2 Flow Control, Fuel Injector 3 Flow Control, Fuel Injector 4 Flow Control, Fuel Injector Balance (All Cylinders), Fuel Injector Balance 1, Fuel Injector Balance 2, Fuel Injector Balance 3, Fuel Injector Balance 4, Fuel Injector Balance 5, Fuel Injector Balance 6, Fuel Injector Balance 7, Fuel Injector Balance 8, Fuel Injector Test 1, Fuel Injector Test 2, Fuel Injector Test 3, Fuel Injector Test 4, Fuel Lift Pump Relay, Fuel Pressure Control - Regulator 1, Fuel Pressure Control - Regulator 2, Fuel Pressure Control, Fuel Pressure, Fuel Pump, Fuel System High Pressure Test (Engine Runs), Fuel System High Pressure Test, Fuel Temperature, Fuel Transfer Pump, Head-Up Display Pattern Check, High Fuel Pressure Limiter Valve Test, High Side Driver 1, High Side Driver 2, Ignition On/Start Switch Circuit, Illuminate All Indicators, Injector Flow Control (All Cylinders), Injector Pulse (All Cylinders), Pilot Injector Stop, Proactive Alerts, Seat Back Horizontal Movement, Seat Back Side Bolster Movement, Seat Belt Retractor Motor, Seat Cushion Front Vertical Movement, Seat Cushion Rear Vertical Movement, Seat Horizontal Movement, Seat Lumbar Support Horizontal Movement, Seat Lumbar Support Vertical Movement, Shift Transmission Gear, Steering Column Adjustment, Torque Converter Clutch, Transmission Control Solenoid Valve 1 Current, Transmission Control Solenoid Valve 1, Transmission Control Solenoid Valve 2 Current,

Transmission Control Solenoid Valve 2, Transmission Control Solenoid Valve 3 Current, Transmission Control Solenoid Valve 3, Transmission Control Solenoid Valve 4 Current, Transmission Control Solenoid Valve 4, Transmission Control Solenoid Valve 5 Current, Transmission Control Solenoid Valve 5, Transmission Control Solenoid Valve 6 Current, Transmission Control Solenoid Valve 6, Transmission Control Solenoid Valve 7 Current, Transmission Control Solenoid Valve 7, Transmission Control Solenoid Valve 8 Current, Transmission Control Solenoid Valve 8, Transmission Control Solenoid Valve 9, Transmission Fluid Pressure Actuator

New Coverage Details – USA Asian

New Hyundai/Genesis Coverage

62 new Actuation type special tests:

Auto Defog Mode Door - Close, Auto Defog Mode Door - Open, Compressor Off, Compressor On, Console Off Door, Console On Door, Console Temperature Air Mix Door 0%, Console Temperature Air Mix Door 100%, Console Temperature Air Mix Door 50%, Driver Air Mix Door-0%, Driver Air Mix Door-100%, Driver Air Mix Door-50%, Driver Mode Door-DEF, Driver Mode Door-Floor, Driver Mode Door-Vent, Front Air Flow Door - 0%, Front Air Flow Door - 100%, Front Air Flow Door - 50%, Front Blower Fan Motor-1Step, Front Blower Fan Motor-2Step, Front Blower Fan Motor-3Step, Front Blower Fan Motor-4Step, Front Blower Fan Motor-5Step, Front Blower Fan Motor-6Step, Front Blower Fan Motor-7Step, Front Blower Fan Motor-8Step, Front Blower Fan Motor-Off, Indirect Vent door, Intake Door - Fresh, Intake Door - Recirc, Passenger Air Mix Door-0%, Passenger Air Mix Door-100%, Passenger Air Mix Door-50%, Passenger Mode Door - Defog, Passenger Mode Door - Floor, Passenger Mode Door - Vent, Rear Air Flow Door - 0%, Rear Air Flow Door - 100%, Rear Air Flow Door - 50%, Rear Air Mix Door-0%, Rear Air Mix Door-100%, Rear Air Mix Door-50%, Rear Air Mix(A) Door-0%, Rear Air Mix(A) Door-100%, Rear Air Mix(A) Door-50%, Rear Blower Fan Motor-1Step, Rear Blower Fan Motor-2Step, Rear Blower Fan Motor-3Step, Rear Blower Fan Motor-4Step, Rear Blower Fan Motor-5Step, Rear Blower Fan Motor-6Step, Rear Blower Fan Motor-7Step, Rear Blower Fan Motor-8Step, Rear Blower Fan Motor-Off, Rear Driver B-PILLAR Door - 0%, Rear Driver B-PILLAR Door - 100%, Rear mode door - B-L, Rear mode door - Floor, Rear mode door - Vent, Rear Passenger B-PILLAR Door - 0%, Rear Passenger B-PILLAR Door - 100%, Warm Bypass door

New Mazda Coverage

- Added coverage for 145 new system applications

New Mitsubishi Coverage

26 new Adjustment type special tests:

ALC Setting, All Sensor Calibration, Blind Spot Detection Configuration, Blind Spot Detection Shut-Off Requester Test, Decel G Sensor Calibration, Fine Adjustment Front View Camera Top View, Fine adjustment of DS camera, top view, Fine adjustment of PAS camera, top view, Fine Adjustment Reversing Camera Top View, Finish Brake Pad Replacement, Front Camera Guidelines Correction, G Sensor Calibration, Initialization Position Adjustment, Lane Dep.Warning Camera Shut-Off Requ.Test, Lane Departure Warning Camera Configuration, Lateral G Sensor Calibration, Master Cylinder Pressure Calibration, Reset Adaption To Factory Setting, Reversing

Camera Guidelines Correction, SAS Calibration, Start Brake Pad Replacement, Steering Angle Initialization, System Mode Change, Valve Calibration, Valve Check, Valve Flushing

102 new Actuation type special tests:

ABS Motor, AEB Disp, Air Pump, Air/Liquid Pump Of Camera, ALC Disp, ALC Level, ALL INDICATORS DRIVE, All Shock Absorber, ARC Disp 2, ARC Disp, ARC operation indication, ATC 1 Disp, ATC 2 Disp, ATC 3 Disp, ATC 4 Disp, ATC 5 Disp, Automatic Brake Hold Lamp Active, Automatic Brake Hold SW Lamp Active, Brake Actuator 1 Mode 1, Brake Actuator 1 Mode 2, Brake Actuator 1 Mode 3, Brake Actuator 2 Mode 1, Brake Actuator 2 Mode 2, Brake Actuator 2 Mode 3, Brake Actuator 3 Mode 1, Brake Actuator 3 Mode 2, Brake Actuator 3 Mode 3, Brake Hold Disp, Brake Hold Display, Brake Operation, Brake Release, BSW/BSI INDICATOR DRIVE, BSW-BSI INDICATOR DRIVE, BUZZER DRIVE, Command St Whl Forc, Command Steering Angle, Door Mirror LED LH, Door Mirror LED RH, Engine TCL Drive, ESS Active, ESS Relay Active, ESS Test Mode, External Buzzer, FL Shock Absorber, FL Tire Disp, FR LH ABS Solenoid (ACT), FR LH ABS SOLENOID(ACT), FR LH SOL, FR RH ABS Solenoid (ACT), FR RH ABS SOLENOID(ACT), FR RH SOL, FR Shock Absorber, FR Tire Disp, Front Left Solenoid, Front Left Wheel ABS Drive, Front Left Wheel TCL Drive, Front Right Solenoid, Front Right Wheel ABS Drive, Front Right Wheel TCL Drive, HDC DISP, HDC Display, INDICATOR LAMP DRIVE, Indicator, Interrupt Disp, Lane Departure Warning Display, LED LH INDICATOR, Left Exterior Mirror LED Test, Left Rear Wheel ABS Drive, Left Rear Wheel TCL Drive, Master Warning Active, PB SW indicator ON, RCTA-BSW Indicator, READY Indicator Lamp, Rear Left Solenoid, Rear Right Solenoid, Right Exterior Mirror LED Test, Right Rear Wheel ABS Drive, Right Rear Wheel TCL Drive, RL Shock Absorber, RL Tire Disp, RR LH ABS Solenoid (ACT), RR LH ABS SOLENOID(ACT), RR LH SOL, RR RH ABS Solenoid (ACT), RR RH ABS SOLENOID(ACT), RR RH SOL, RR Shock Absorber, RR Tire Disp, Stop Lamp Off Relay 1 Active, Stop Lamp Off Relay 2 Active, Stop Lamp ON Relay Active, Stop Lamp On Relay, SYSTEM ON LAMP DRIVE, Turn Disp, Turn display (LH), Turn display (RH), Vehicle Disp, VMC left turning operation indication, VMC Right turning operation indication, Warning Buzzer, Washer Fluid Pump Relay, Yellow Lane Dep.Warng.Indic. Lamp

New Nissan/Infiniti Coverage

- Added coverage for 30 new system applications

214 new Adjustment type special tests:

A/F Initial Learning, A/F Sensor Response Diagnosis Status B1, A/F Sensor Response Diagnosis Status B2, Active Control Engine Mounting A, Active Control Engine Mounting B, Adaptives After Replacing Particulate Filter, Adjustment: Type Of Alarm Signal, AFT Maintenance, After Camshaft Position Sensor Replacement, After Clutch Pedal Switch Replacement, After Crankshaft Position Sensor Replacement, After Electric Throttle Control Actuator Replacement, After Fuel Injector Replacement, After Fuel Rail Pressure Sensor Replacement, After High Pressure Fuel Pump Replacement, After Turbocharger Replacement, After Turbocharger Solenoid Valve Replacement, Air Bleeding, Air Fuel Ratio Correction Value, Air Fuel Ratio Sensor, ALC Setting, Anti Theft Alarm Trigger Setting, Anti-Lock Out Set, AP Position Learn Clear, Auto Door Lock, Auto Light Logic Setting, Auto Park Inhibition, Automatic Door Lock/Unlock Setting, Automatic Door Locking, AUTOMATIC DOOR UNLOCK SELECT, Automatic Lock Setting, Automatic Unlocking, Auxiliary Gearbox Clutch Point Learning, Battery Discharge Current Integration Clear, BCM Diagnosis When Engine Does Not Start, BCM Diagnosis When the Door Lock Is Malfunctioning, Blind Spot Detection Configuration, Blind Spot Detection Shut-Off Requester Test, Blow Mode, Blow Set, Cause of Auto Cancel 2, Cause of Auto Cancel 4, Cause of Auto Cancel 6, CC/SL Program, Check Fuel Lines, Clear Air-Fuel Ratio Learning, Clear ETC Learning, Clear E-VTC Op Learned Angle

(Exh), Clear E-VTC Op Learned Deviation Angle (Exh), Clear FFD, Clear LPG Air-fuel Ratio Learning, Clear Normal TAS Learning, Clsd Thl Pos Learn, Clutch Pedal End Stroke, Clutch Point Learning, CLUTCH SENSOR RESET, CML Battery Discharge Current Integration Clear, CO Adjustment, Communication Test With Key, Computer Programming, Conform CVTF Deterioration, Cumulative Sub-Battery Discharge Current Clear, Custom A/Light Setting, Decel G Sensor Calibration, Diagnosis for Remote Engine Starter, Door Lock / Unlock, Door Motor Starting Position Reset, Door Open Detection Acoustic Alarm, Door unlocking Driver door/all doors, Door Unlocking Triggering Delay, DPF Regeneration, Dual battery relay voltage drop count data clear, ECO Mode Reset Function, EGR Control Valve Closed Position Learning, Electric Intake Valve Timing Control Learning, Electric Oil Pump Air Bleeding, Engine Adaptive, Engine basis parts value 1 and 2 clear, Engine Brake Adjustment, Engine Start by I-Key, Erase Calibration Data, Erase Learning Value, Erase Memory Data, Erase Statistic Memory, Ethanol Concentration, EVAP System Close, FEB Operation Mileage, Fine Adjustment Front View Camera Top View, Fine adjustment of DS camera, top view, Fine adjustment of PAS camera, top view, Fine Adjustment Reversing Camera Top View, Finish Brake Pad Replacement, FRE Memory Set, Front Camera Guidelines Correction, Fuel Pressure Release, Fuel Supply Prevention, FWD Clutch Point Learning, G Sensor Calibration, Gas Sensor Adjustment, GPF Service Regeneration Reset Routine Execution, High Pressure Fuel Circuit Fault Finding, High Pressure Fuel Pump Total Starts Counter Clear, Horn With Keyless Lock, ID Read, ID Registration, Idle Air Volume Learn, Ignition Battery Saver Set, Ignition Timing (ADV), Ignition Timing Adjustment, Illumination Delay Setting, Initialization Position Adjustment, Injection Pump Adaptive, Injection Timing, Interior Light/Door Lock Interaction Setting, Interval of Oil Change (OCS) Oxidation, Key Acknowledgement Signal On Locking, Key Acknowledgement Signal On Unlocking, Key Battery Flat Warning, Lane Dep.Warning Camera Shut-Off Requi.Test, Lane Departure Warning Camera Configuration, Launch Control Counter Reset, Levelizer Adjustment, Lock/Unlock By I-Key, Longitudinal G Sensor Calibration, M/T Neutral Pos Learn, Misfire Count (Past), Misfire count (real-time), Multi Answer Back Setting, Number of Starting 1, Number of Starting 2, Number of Starting 3, Number of Starting 4, Number of Starting Cycles, Oil Change Interval (OCS) Dilution, Panic Alarm Triggering Delay, Pressure Sensor Initialization, Program Key Fobs, Programmed Values, Programming Reinitialization, Programming Selections/Engaging Zones, R Lamp Timer Logic Setting, Rear Door Window Open Detect. Acoustic Alarm, Rear Lid Unlocking Triggering Delay, REC Memory Set, Regeneration of Gasoline Particulate Filter, REMO CONT ID CONFIR, Remo Cont ID Erase, REMO CONT ID REGIST, Reset Adaptation Values for Shift Operation, Reset Adaption To Factory Setting, Reset Fuel And Timing Learn Tables, Reset Fuel Consumption Short Term Log, Reset to Default Settings, Reset Vehicle Height Initial Value, Retained Power Setting, Reversing Camera Guidelines Correction, Room Lamp Off Timer Setting, Room Lamp On Timer Setting, Room Lamp Timer Setting, Rotary Position Sensor Learn, RTCV Actuator Calibrate, Save Computer Data, Save/Write Data for CPU Replace, SC Magnetic Clutch Engage Count Clear, Self-Learning Cont, Set R-DEF Timer, Set Rear Temperature Correction, Set Temperature Correction, Shift Drum Reference Position, Solenoid VTC Operation Start Duty Learning, Start Brake Pad Replacement, Start OBD test: Catalytic converter, Start OBD test: O2 sensors, Starter Operation Count Clear, Starter Operation Counter Clear, Steering Angle Initialization, Steering Angle Sensor Adjustment, Stop/Start engine restart cause data recorder, Stop/Start engine stall cause data recorder, Stop/Start prohibit cause data recorder, Sub-Starter Generator Oper Count Clear, Supercharger Magnet Clutch Engagement Count Clear, System Mode Change, Target Evaporator Temperature Upper Limit Setting, Target Idle RPM Adjustment, Target IGN TIM ADJ, Target Ignition Timing Hold, Tcu Activate Setting, Teach-in Of Selection Range Sensor, Temp Set Correct In Deg C, Temp Set Correct In Deg F, Tire Pressure Sensor Registration, Upshifts, V/T Control Learn, Valve Calibration, Valve Check, Valve Flushing, Valve Timing Adjustment, Valve Timing Offset Data Clear, Valve Timing Offset Data Writing, Vcr Base Position Learning, VIN Registration, VVEL Position Sensor Adj Prepare, Waste

Gate Actuator Position Learning Value Clear, Waste Gate Regulation, Weight Classification Sensor Reset, Wiper Speed Setting, Write Fuel Learn Value, Write High Pressure Fuel Pump Total Starts Count, Write Saved Data, Write Starter Operation Count, WRITE VIN(MANUAL INPUT), Write VIN, Zero Point Calibration

771 new Actuation type special tests:

(TBD)EAP FAIL IND, (TBD)Epkb Request, (TBD)EPS Reaction Force Request, (TBD)Hand Free Warning, (TBD)LDP L STEP, 12V BATTERY CHARGE W-L, 4WD AT Flow, 5TH BOW SYSTEM, A/C Compressor Relay Control, A/C Compressor, A/C Indicator, A/F Sensor Heater, AAC/V Output Duty, AAC/V Output Step, ABS Motor, AC Compressor Relay, AC Compressor, A-C INDICATOR, ACC Indicator Lamp, ACC Indicator, Accelerator Pedal Actuator Test 1, Accelerator Pedal Actuator Test 2, Accy/RAP Relay, Activate Demo Mode Of Exterior Lamp, Activate the Starter Cut Relay, Active Grille Air Shutter, Active Grille Shutter, Active Pedal, ADAS Buzzer 2, ADAS BUZZER, Advanced Homogeneous Direct Injection Angle, Advanced Stratified Direct Injection Angle, AEB Disp, A-F Ratio Cntrl Stop Stratified Chrg Cmb Trnsfr, Air Bypass Valve Solenoid, Air Cond Rly, Air Conditioner Relay Output, Air Conditioner Test, Air Inlet Control Flap On Front End Panel, Air Inlet Flap, Air Pump Relay, Air Pump, Air/Liquid Pump Of Camera, ALC Disp, ALC Level, ALL INDICATORS DRIVE, All LCD Segments, All Light, ALL SEG, All Shock Absorber, Alternator Duty Cycle, Alternator Duty, Alternator Voltage, Ambient Light 1, Ambient Light 2, Ambient Light 3, Ambient Light 4, Ambient Light 5, Ambient Light 6, Ambient Light 7, Ambient Light 8, ANC Test Tone, Answer Back With I-Key Unlock, Antenna Self-Test, Anti Key Lock In Function, ARC Disp 2, ARC Disp, ARC operation indication, AS Seat Lamp Test, Assist Seat Lamp Test, ATC 1 Disp, ATC 2 Disp, ATC 3 Disp, ATC 4 Disp, ATC 5 Disp, Auto ACC 1, AUTO ACC 2, Auto retractable door mirror, Auto Stop Start, Automatic Back Door, Automatic Brake Hold Lamp Active, Automatic Brake Hold SW Lamp Active, Back Door open Test, Battery Cooling, Battery Heater, Battery Saver, BCI Warning Indicator, Boost Pressure, Booster Solenoid, Boot/Trunk Open, Brake Actuator 1 Mode 1, Brake Actuator 1 Mode 2, Brake Actuator 1 Mode 3, Brake Actuator 2 Mode 1, Brake Actuator 2 Mode 2, Brake Actuator 2 Mode 3, Brake Actuator 3 Mode 1, Brake Actuator 3 Mode 2, Brake Actuator 3 Mode 3, Brake Actuator, Brake Hold Disp, Brake Hold Display, Brake Operation, Brake Release, Brake SW, Brake Switch, BSI Indicator On, BSI ON Indicator, BSI Warning Indicator, BSW Indicator LH, BSW Indicator RH, BSW On Indicator, BSW Warning Lamp, BSW/BSI INDICATOR DRIVE, BSW/BSI WARNING LAMP, BSW-BSI INDICATOR DRIVE, BSW-BSI WARNING LAMP, BUZZER 1 (ADAS), BUZZER 1 (CCM), BUZZER 2 (ADAS), BUZZER 2 (CCM), BUZZER 3 (ADAS), BUZZER 3 (CCM), BUZZER 4 (ADAS), BUZZER 4 (CCM), BUZZER DRIVE, Buzzer, Camshaft Dephaser: Solenoid Valve Slide Movement, Camshaft Positioner, Canister Bleed Solenoid Valve, Canister Drain Cut Valve, Cargo Lamp Output, Catalyst Exhaust Gas Downstream O2 Resistance Heater PWM, Catalyst Exhaust Gas Upstream O2 Resistance Heater PWM, Cause of Auto Cancel 1, Causes Of Engine Stop Prevention, CBV Position Override, Charge Air Cooler Cooling Electric Water Pump, CHARGE STAT INDICATOR 1, CHARGE STAT INDICATOR 2, CHARGE STAT INDICATOR 3, Charge Status Indicator 1, Charge Status Indicator 2, Charge Status Indicator 3, Check Activated Canister Shutoff Valve, Check Boost Pressure Control, Check Component Purging Pressure Control, Check Coolant Pump Switchover Valve, Check Coolant Thermostat Heating Element, Check Cylinder Fuel Injectors For Leaks, Check Cylinder Fuel Injectors, Check Deceleration Air Switchover Valve, Check Engine And AC With Integrated Control Fan Motor, Check Engine Oil Pump Valve, Check Exhaust Camshaft Solenoid, Check Fuel High Pressure Circulation for Leak Tightness, Check Fuel Pressure And Temperature Sensor Rail Pressure, Check Fuel Tank Pressure Sensor, Check Intake Camshaft Solenoid, Check Intake Port Shutoff Actuator Motor, Check Purging Switchover Valve, Check Quantity Control Valve, Check Throttle Valve Actuator, Check Valve Bypass Valve, CNG Cylinder Shutoff Valve, Command St Whl Forc, Command Steering Angle, Component Quantity Control Valve, Compressor, Confirm Dongle

ID, Continuously Variable Valve Timing Control Side Intake, Coolant Circulation Switching S/V, Coolant Temperature, Cooling Fan, Cornering Lamp Test, CORNERING LAMP, C-SCV Target Step (Bank1), C-SCV Target Step (Bank2), C-VTC Target Angle, Cylinder Cutout Test, Daytime Running Light, DCA Indicator, DC-DC Conv Duty, DEF Dosing Unit Override Test, DEF Line Heater Test, DEF System Leak Test, DEF Tank Heater Test, DIG Power Balance Cylinder 1, DIG Power Balance Cylinder 2, DIG Power Balance Cylinder 3, DIG Power Balance Cylinder 4, DIG Power Balance Cylinder 5, DIG Power Balance Cylinder 6, DIG Power Balance Cylinder 7, DIG Power Balance Cylinder 8, Display: Headlamp Leveling, Display: Test, Door Handle Lamp Test, Door Lock Ind, Door Lock Indicator, Door lock status indicator, Door Lock, Door Mirror LED LH, Door Mirror LED RH, Door Warning Lamp, DOWNSTREAM OXYGEN SENSOR HEATING, Drive Mode Test, Drive Power Distribute Torque, Driver Door Lamp, Driver Seat, EAP SW LAMP, EAPM Warning Lamp, ECO Indicator Lamp, ECO Tree, EGR Cont (Mode 1), EGR Cont (Mode 3), EGR Control Valve, EGR Cut Solenoid, EGR Solenoid, EGR Vol Cont/V, EGR VOL CONT-V, EGRC Solenoid Valve, Electric Fan Override Test, Electric Parking Brake Activation, Electric Water Pump, Electrical Control EGR Target Step, Electrical Control Engine Mount Motor, Electronic Throttle Control, ENG COOLANT TEMP, Engine Coolant Bypass Valve, Engine Coolant Electric Water Pump, Engine Coolant Temperature, Engine Fan Override Test, Engine Mounting, Engine Oil Pressure Control Solenoid Valve, Engine Piloted Oil Pump, ENGINE SPEED OUTPUT TEST, Engine Start Request, Engine Start, Engine Sw Illumi, ESS Active, ESS Relay Active, ETC Correction Valve, ETS Solenoid Control, ETS S-V, EV SYSTEM W-L, EVAP Canister Purge Control Solenoid Valve, EVAP CNT Duty Valve Open, EVAP Leak Diag, EVAP Leak Mode8, EVAP Leak P1441, E-VTC Target Angle (Exhaust), EXH V-T ASSIGN ANGLE, Exhaust Air Flap, Exhaust Camshaft Dephaser Solenoid Valve, Exhaust Camshaft Set Point, Exhaust Fuel Injector, Exhaust Gas Recirculation Cooler Bypass Valve, Exhaust Solenoid, Exhaust Valve Timing Assign Angle, Exhaust Valve Timing Control Solenoid Valve, Exterior Lamps, External Buzzer, EXTERNAL LAMPS, Fan Duty Control, Fan Unit High Speed Relay, FAN UNIT HIGH SPEED, Fan Unit Low Speed Relay, FAN UNIT LOW SPEED, FL Shock Absorber, FL Tire Disp, Flasher test, Flasher, FLAT TIRE WARNING, Flex-Fuel Additional Pump, Flex-Fuel Additional Solenoid Valve, FLYWHEEL TARGET PROGRAMMING, Fog Lamp Override, FPCM, FR Fog lamp, FR LH ABS Solenoid (ACT), FR LH ABS SOLENOID(ACT), FR LH SOL, FR RH ABS Solenoid (ACT), FR RH ABS SOLENOID(ACT), FR RH SOL, FR Shock Absorber, FR Tire Disp, Fr Wiper, Fresh Air Memory, Front Assist Window, Front Buzzer, Front Driver Window, Front Fog Lamp, Front lamp, Front Left Solenoid, Front Right Solenoid, Front window defogger (driver side), Front window defogger (passenger side), Front Wiper Test, Front Wiper, F-S CHG RLY, Fuel Flow Actuator, Fuel Flow Solenoid Valve, Fuel Heater Relay, Fuel Heater, Fuel Injection, Fuel Lid Open Indicate, FUEL LID OPEN, FUEL METER DIAGNOSIS(ANALOG METER), Fuel Pressure Solenoid Valve, Fuel Pump Control Module, Fuel Pump Relay 2, Fuel Pump Relay 3, Fuel Pump Relay, Fuel Pump, Fuel Rail Pressure Control Valve, Fuel Rail Pressure, Fuel Return Valve, Fuel Shutoff Valve 1, Fuel Shutoff Valve 2, Fuel Shutoff Valve 3, Fuel Shutoff Valve, Fuel Supply Pump Override Test, Fuel System Leakage Test, FUEL-T TEMP SEN, Gas Pump Command State, Glow Relay, HALF BACK DOOR, Hazard Answer Back, Hazard Lamp, HDC DISP, HDC Display, Head Lamp High, Head Lamp Washer, HEAD LAMP(HI), Head Lamp, Head Lamps, Headlamp High, Headlamp Low, Headlamp Washer, Heater Relay Unit, Heater Valve Flow, HEATING RESISTOR RELAY 1, HEATING RESISTOR RELAY 2, HEATING RESISTOR RELAY 3, High Beam Assist Test, High Beam Lamp Test, High Pressure Circuit Leak Test, Horn Acknowledgement Signal, Horn Chirp Test, HORN LAMP, Horn Test, Horn, Horn-IPDM-E, Horn-Multi Remote Ent, HPCR Fuel Act Override, Hv Battery Cooling Fan, HVAC Test, Hydraulic Control, HYDRAULIC PRESSURE RELEASE, IACV-AAC/V Opening, ICC Buzzer, ICC Warning Lamp, ID REGIST WARNING, Idle Target RPM, Ign Cont2, IGN KEY WARN ALM, Ignition Accessory Battery Saver, Ignition Cont1, Ignition Cont2, Ignition Cylinder 1, Ignition Cylinder 2, Ignition Cylinder 3, Ignition Cylinder 4, Ignition Illumination, Ignition Key Gong,

Ignition Key In Alarm, Ignition Key Warning Alarm, Ignition On Ind, Ignition On Warning System, Ignition Relay, Ignition Switch LED Power, Ignition Timing (Mode 1), Ignition Timing (Mode 3), Ignition Timing, Ill Dim Signal, Illumination Dim Signal, Immobilizer Lamp, INDICATOR LAMP DRIVE, Indicator, Injection Pressure Regulator, Injector Cylinder 2, Injector Cylinder 3, Injector Cylinder 4, Injector-Cylinder 1, Inside ANT Diagnosis, Inside Buzzer, Instrument Cluster Indic. Lamps, INT LAMP, INT V/T ASSIGN ANGLE, INT V-T ASSIGN ANGLE, Intake Duct S/V, Intake Manifold Pressure Solenoid, Intake Valve Timing Control Solenoid Valve, Intank Fuel Temperature Sensor, INTELLIGENT KEY LINK (CAN), Intelligent Key Link, Interior Lamp, Interior Lamps, Interrupt Disp, Key Fob Low Battery Warning, Key Fob Power Window Test, Key Lock Solenoid, Key Reminder Warn, Key Reminder, Lamps, Lane Departure W/L, Lane Departure Warning Display, LANE DEPARTURE W-L, LCD, LDP Buzzer, LDP ON IND, Ldp On Indicator, LDP Warning Indicator, LDP Warning Lamp, LDW On Indicator, LDW Warning Indicator, LDW Warning Lamp, LED LH INDICATOR, LED, Left Exterior Mirror LED Test, Left Solenoid, Levelizer Test, Lifting motor, Light On Alarm, LIGHT WARN ALM, Lock (Central Locking), Lock Doors, Lock Indicator, Lock Operation, Low Beam Swivel Test Left, Low Beam Swivel Test Right, LOW BEAM TEST LEFT, LOW BEAM TEST RIGHT, Low Pressure Fuel Pump, Low-Beam Headlight Left, Low-Beam Headlight Right, LPG Air Fuel Ratio Revision Value, LPG Shutoff Valve Relay, Luggage Lamp Test, Lumbar support (Up-Down) motor, Malfunction Status Of Stop/Start System, MAP/Baro SW/V, Master Warning Active, Memory Indicator 1, Memory Indicator 2, MEMORY SW INDCTR, Meter Buzzer, Meter Lamp, Mirror +5 V Test, MIRROR MOTOR LH, MIRROR MOTOR RH, Mixture Ratio, Mode 1 DIG Power Balance Cylinder 1, Mode 1 DIG Power Balance Cylinder 2, Mode 1 DIG Power Balance Cylinder 3, Mode 1 DIG Power Balance Cylinder 4, Mode 1 DIG Power Balance Cylinder 5, Mode 1 DIG Power Balance Cylinder 6, Mode 1 DIG Power Balance Cylinder 7, Mode 1 DIG Power Balance Cylinder 8, Mode 3 DIG Power Balance Cylinder 1, Mode 3 DIG Power Balance Cylinder 2, Mode 3 DIG Power Balance Cylinder 3, Mode 3 DIG Power Balance Cylinder 4, Mode 3 DIG Power Balance Cylinder 5, Mode 3 DIG Power Balance Cylinder 6, Mode 3 DIG Power Balance Cylinder 7, Mode 3 DIG Power Balance Cylinder 8, Motor Fan, MOTORISED THROTTLE, Oil Pressure Sw, Oil Pressure Switch, Optic Axis Active Test, Outside Air Temperature Diagnosis, Outside Buzzer, Oxygen Sensor 1 Heater, Oxygen Sensor 2 Heater, P Range, P/REG CONT SOL/V, Panic Alarm, Parcel Shelf, Parking Brake Full Release, Parking Lamp, Partial Load Operation Crankcase Ventilation Valve, Passenger Door Lamp, PB SW indicator ON, PBD, Pedal Motor, Plug In Indicator, Power Balance (Cylinder #1), Power Balance (Cylinder #2), Power Balance (Cylinder #3), Power Balance (Cylinder #4), Power Balance (Cylinder #5), Power Balance (Cylinder #6), Power Balance (Cylinder #7), Power Balance (Cylinder #8), Power Balance, Power Limitation Indicator, Power Slide Door, Power Sliding Door, POWER WINDOW (LH-RH), Power Window Down, Power Window Remote Down Set, PRES Regulator, Pressure Control Solenoid A, Pressure Control Solenoid B, Pressure Control Solenoid C, Programming CI Touch Point, PROGRAMMING THROTTLE LIMITS, PRVR Solenoid, PSD PBD Open Test, PTC Heater Relay 1, PTC Heater Relay 2, PTC Heater Relay 3, PTC Relay-1, PTC Relay-2, PTC Relay-3, Purg Vol Cont/V, PURG VOL CONT-V, Purging Switchover Valve, Push Switch Indicator, Quick Charge Permit Signal Circuit, Quick Charge Relay +, Quick Charge Relay -, RAB Warning Lamp (Malfunction), RAB Warning Lamp (Operation), Radiator Fan Drive, Radiator Fan Output Hi, Radiator Fan Output Lo, Radiator Fan Relay Test, Radiator Fan Relay, RCTA-BSW Indicator, Read Tire Id, READY Indicator Lamp, Ready Indicator, Rear Assist Window, Rear Buzzer, Rear Defogger Indicator, Rear Defogger, Rear Driver Window, Rear Left Door Lamp, Rear Left Solenoid, Rear O2 Diagnosis, Rear Right Door Lamp, Rear Right Solenoid, Rear Window Defogger, Rear Wiper, Reclining motor, Recycle Air Memory Switch, Release Hand Warning, Remote Engine Starter, Retractable Mirror, Reverse Gear Reset Values Of Shift Operations, Reverse Lamp Relay, REVERSE LAMP RLY, Reverse Lamp, Reverse Warning, Right Exterior Mirror LED Test, Right Solenoid, Rise Up Wiper Test, RL Shock Absorber, RL Tire Disp, ROOF LATCHED LH-RH, ROOF

STATE OUTPUT(AUDIO), ROOF SYSTEM, Roof, RR Fog Lamp, RR LH ABS Solenoid (ACT), RR LH ABS SOLENOID(ACT), RR LH SOL, RR O2 Sensor Heater, RR RH ABS Solenoid (ACT), RR RH ABS SOLENOID(ACT), RR RH SOL, RR Shock Absorber, RR Tire Disp, RR Wiper, RTCV Hysteresis Test, RUN FLAT TIRE W/L, Run Flat Tire Warning Buzzer, RUN FLAT TIRE W-L, RUN FLAT-T WARN BUZZER, SCB/V Cont SOL/V, SCR Performance, SCV Solenoid, Seat belt lamp test, Seat Belt Warn Test, SEAT LIFT, SEAT LIFTER FR, Seat Lifter Front, Seat Lifter Rear, SEAT LIFTER RR, SEAT LIFTER, Seat Reclining, SEAT SLIDE, Secondary Air Cut Solenoid, Security Horn, Security Indicator, Setting Initialize Completion Flag, Shift Lock Solenoid, Shift Solenoid A, Shift Solenoid B, Shift Solenoid C, Shift Solenoid D, Shift Solenoid E, Shift Spot Lamp Test, SHIFTLOCK SOLENOID TEST, SHIFTLOCK SORENOID TEST, Short Cranking Output, Siren, Sliding motor, Slow Mode, SOFT TOP SYSTEM, Solenoid Actuator Driving FR 2 Wheels, Solenoid Actuator Driving FR-LH, Solenoid Actuator Driving FR-RH, Solenoid Actuator Driving RR 2 Wheels, Solenoid Actuator Driving RR-LH, Solenoid Actuator Driving RR-RH, Solenoid Driving FR-LH, Solenoid Driving FR-RH, Solenoid Driving RR, Solenoid Driving RR-LH, Solenoid Driving RR-RH, Sonar buzzer, Speaker Mute Signal, Speed Sensor Function, START Button Illumination, Start Up Sound Speaker, Starter Cut Relay, Stationary Cornering Lamp Low, Steering Reaction Force Activation, Step Lamp Test, Stop Current Command, Stop Lamp 1, Stop Lamp 2, Stop Lamp 3, Stop Lamp Off Relay 1 Active, Stop Lamp Off Relay 2 Active, Stop Lamp Off Relay, Stop Lamp ON Relay Active, Stop Lamp On Relay, Stop Lamp, Stop Light Relay, Stop start OFF switch indicator, STORAGE LID, Stratified Direct Injection Timing Angle, Stratified EGR Position, Sub Fuel Cont Sol /V, Sub Fuel Pump Relay, Super Charger Clutch Relay, Super Lock, Supercharger Clutch Relay, SWIRL CONT SOL VALVE, Swirl Control Valve, Switch lamp 2, Switch lamp 3, Switch Lamp, SYSTEM ON LAMP DRIVE, Tail Lamp, Tail Light, TANK FUEL TEMPERATURE SENSOR, TARGET EGR ANGLE, Target EGR Position, Target Electric Throttle Control Angle, Target Equivalence Ratio Control, Target Fan RPM, Target Idle Speed, TC Bypass Valve, TC-SC BYPASS VALVE, TCV Power System Test, TELESCO MOTOR, THEFT IND, Theft Indicator, Thermostat Heater Control Solenoid Valve, Thigh support motor, Third O2 Sensor Heater, Third O2/S Diagnosis, Throttle Valve Position Setpoint, Tilt Motor, Tire Pressure Warning Lamp, TPMS ID flat tire warn, TPMS ID Registration Warning, TPMS LAMP WARN TEST, Truck Relay Test, Truck Unlock Test, Trunk Locall Identifier, Trunk Open Test, TRUNK OPENER, Trunk/Back Door, Trunk/Glass Hatch Open, Trunk/Glass Hatch, Trunk-back door, TRUNK-GLASS HATCH, Trunk-Luggage Lamp Test, Trunk-luggage lamp, Tumble Control Valve, TUMBLE CONTROL VALVE~TUMBLE CONTROL VALVE, Turbocharger Boost Control Actuator, Turbocharger Boost Control Solenoid Valve, Turbocharger Wastegate Solenoid Valve, Turbocharging Solenoid Valve, Turn Disp, Turn display (LH), Turn display (RH), TURN SIGNAL LAMP LEFT, TURN SIGNAL LAMP RIGHT, Unit Characteristics Data, Unlock Doors, Unlock Driver Door, Unlock Passenger Door, Unlock Rear Doors, UPSTREAM O2 SENSOR HEATING, V/T Assign Angle, Valve Tests, Valve Timing Sol, Variable Duct Solenoid Output, VC/V Bypass/V, VCR System, Vehicle Disp, Vehicle Height Standard Position Forcing Return, Vehicle Security Horn, VEHICLE SECURITYT HORN, Vent Control Valve, VENT CONTROL-V, VIAS S/V-1, VIAS Solenoid, VIAS S-V-1, VIAS S-V-2, Vibration Motor, VMC left turning operation indication, VMC Right turning operation indication, Voltage Control, Voltage Pattern Output, VSP Off Indicator, VSP SPEAKER LH, VSP SPEAKER RH, VSP Speaker, VTC Solenoid, VVL Int Exh Solenoid Simultaneous Drive, VVL Solenoid Exhaust, VVL Solenoid Intake, W/G, Warning Buzzer, Warning Lamp, Warning System Indicator, Warning Tone Gen. Roof Position, Washer Fluid Pump Relay, Wastegate Actuator, Water Pump 1, Water Temperature, Welcome Light, Window lifter, front, Window lifter, rear left, Window lifter, rear right, YAW STEP L, YAW STEP R, Yellow Lane Dep.Warng.Indic. Lamp

New Subaru Coverage

3 new Adjustment type special tests:

Auto Wiper at startup Setting, Rear blower fan level, Wiper link Auto Light Setting

7 new Actuation type special tests:

All Indicator, BSM Warning, Speedometer Operation (120km-H,120mph), Speedometer Operation (160km-H,160mph), Timing Belt Warning, VSC OFF Indicator, Water Temperature Meter Operation (110C,230F)

New Toyota/Lexus Coverage

- Added coverage for 59 new system applications

219 new Adjustment type special tests:

2 Steps Fade Out Control Function, 3rd Center Seatbelt Warning Buzzer Function, 3rd Left Seatbelt Warning Buzzer Function, 3rd Right Seatbelt Warning Buzzer Function, 4th Center Seatbelt Warning Buzzer Function, 4th Left Seatbelt Warning Buzzer Function, 4th Right Seatbelt Warning Buzzer Function, A/C Auto Switch Mode, A/C Operation Limit History Counter Clear, A/T Code Reset, Activate The EGR Valve Close Bank 1, Activate The VN Turbo Open Bank 1, Advanced Park Parallel Parking Control Area, Advanced Park Perpendicular Parking Control Area, Air Bleeding, All Readiness, Ambient Temperature Adjustment, AT Code Registration, Audio Information Display Function, Auto Door Lock Pattern Setting (Speed), Auto Entry Cancel 2 Setting, Auto Entry Cancel Setting, Automatic Door Lock Function, Automatic Door Lock Setting, Automatic Door Unlock Function when D-Door Open, Automatic Door Unlock Setting, Automatic Light Off Timing Setting, Automatic Mirror Fold Setting, Backup Battery Replacement Reset, Battery Status Info Update, Body Control with Torque Demand, Brightness Level Adjust (Canceling), Brightness Level Adjust (Lowering), Clear Abnormal Operation History, Clearance Warning Buzzer Volume, CVT Oil Pressure Calibration, Daytime Running Light Function, DCM Operation History, Door Auto Lock Timer Setting, Door Lock Answerback Sound Setting, Door Lock Indicator Function, Door Lock Indicator Pattern Setting (IG OFF), Door Lock Indicator Pattern Setting (IG ON), Door Open SW Operation Adjust, Door Unlock Sensor Touch Time Adjust, Driver Seat Distance Adjust when Get Off, Driver Seat Lift Up Distance Adjust when Get Off, Driver Seatbelt Warning Buzzer Function, DRL Function, ECO Drive Indicator Zone Display Function (Meter), ECO Drive Indicator Zone Display Function, ECO Mode Control, Efficient Ventilation Mode, Entry Unlock Twice Function, EPB Initialize, EV Mode Cruising Range Reset, Evaporator Control, Extended Headlight Lighting, Exterior Lights Lighting Timer Setting, Exterior Lights ON Function, Exterior Lights ON when Approached Function, Exterior Lights ON when Door Opened Function, Exterior Lights ON when Door Unlocked Function, Fan speed increment control, Flasher Sound Volume Adjust, Forced Actuator Refresh, Forget to Turn IG OFF Alarm Function, Front Center Seatbelt Warning Buzzer Function, Glass Hatch Open Function, Grille Shutter Initialization, Hazard Answer Back Function, Headlight ON in Conjunction with Wiper Function, High Voltage Fuse Accumulated Load History Reset, Ignition Available Area Setting (Back Door Type), Ignition Available Area Setting (Trunk Lid Type), Initialization, Injection Timing Value, Injection Timing, Interior Footwell Lights Function, Interior Illumination Light 2 Function, Interior Illumination Light 3 Function, Interior Lights Lighting Timer Setting, Interior Lights ON Function, Intrusion Sensor 1 Sensitivity Level Adjust, Intrusion Sensor 2 Sensitivity Level Adjust, Intrusion Sensor Reduction in Sensitivity Setting, Intrusion Sensor Sensitivity Level (Window Open), Intrusion Sensor Sound Detection Function, Ion Generate Control, IPA Obstacle Avoidance Distance, IPA Parallel Parking Control Area, IPA Perpendicular Parking Control Area, Key Left in Vehicle Alarm Function, Key Low Battery Warning Function, Kick Sensor Operation Function with ACC ON, Lane Change Flashing Times Adjust, Left the Key Prevention Funct (Battery Remove), Light Auto OFF Delay Setting, Light Blink Clearance Lights at Unlock Function, Light Control Glass Brightness Memory Function, Light Control Glass Voice Control Function, Light up Clearance Lights at Door Unlock Function, Lock

Indicator Lighting Time Adjust, Lost Communication Time Initialization, Master Caution Display Function, Memory Call Function, Noise and Vibration Reduction, ODO Display Time After IG OFF Adjust, Open Door Warning Function, Operation History Clear, Outside Air Mode Auto Switch Function, P/W Operation Buzzer W/ Transmit Function, Panic Function, Park Wait Time Adjust, Passenger Seatbelt Warning Buzzer Function, PCS Cooperate Function, Pilot Injection Volume Select Cylinder, Pilot Injection Volume Value, Pilot Injection Volume, PKSA (O) Auto Mute Function, PKSA (O) Forward Detection Image Display, PKSA (O) Image Display when Away from the Obstacle, PKSA (O) Judgment of Obstacle on Course, PKSA (O) Switch State Stored, PKSB (O) Function, PKSB (O) Target Stopping Distance, PKSB (P) Function, PKSB (P) Target Stopping Distance, PKSB (P) Width Adjustment (Y Axis), PKSB (V) Function, PKSB (V) Operation Timing Setting, PKSB (V) Sensitivity, PKSB Switch State Stored, Power Saving Wait Time(Out Of Entry Range), Power Steering ECU Initial Setting, Power Window Voice Control Function, Projection Adjustment (Distortion), Projection Adjustment (Keystone), Projection Adjustment (Tilt), Proposal Service Frequency Adjust, Proposal Service Volume Adjust, Proposal Services Function, R Wiper Stop Function at Back Door/Trunk Lid Open, Rear Center Seatbelt Warning Buzzer Function, Rear Left Seatbelt Warning Buzzer Function, Rear Right Seatbelt Warning Buzzer Function, Rear Seatbelt Warning Buzzer Function, Rear Sunshade linked with Shift Lever R Funct, Rear Wiper Washer Function, Rear Wiper with Reverse Setting, Refrigerant Pressure History Clear, Refrigerant Shortage Check, Remote Air Conditioner Start Setting, Remote Air Conditioner Stop Setting, Remote Door Lock Setting, Reset Memory, Response Time Adjust, Reverse Buzzer Setting, Reverse Coupled Actuation Mirror Angle Setting, Seat Airflow Mode Setting, Seat Position Voice Control Function, Seat position/Tilt Telesco memory recall setting, Security Control with Mechanism Key Function, Sensitivity Adjust, Servomotor Initialization, Set Temperature Shift, S-FLOW Control Auto Function, Shift Lever R Signal Delay Time Adjust, Shift Linked Automatic Door Lock Function, Shift Linked Automatic Door Unlock Function, Slide Roof Open Warning Function, Slide Roof Voice Control Function, Speed Alarm Buzzer Function, Speed Limit Display Function, Speed Linked Automatic Door Lock Function, Speed Linked Automatic Door Unlock Function, Start Indicator Function, Start Switch Light Function, Switch Battery Type, Switch Grille Shutter Control Mode, Switch Oil Maintenance Display, Tail Remind Buzzer Function, Telematics Microphone Volume Adjust, Telematics Speaker Volume Adjust, Tire Circumference Setting, Tire Pressure Sensor Registration, Torque Sensor Adjustment, Touch Activation Over Threshold, Traffic Sign Recognition Animation Function, Trunk Lid Linked with Door Lock Function, Trunk Lid Open Mode Function, Trunk Lid Operation by Electrical Key Function, Trunk Lid Operation by Entry Function, Turn by Turn Animation Function, Ultrasonic Sensor (Front Center) Detection Range, Ultrasonic Sensor (Front Corner) Detection Range, Ultrasonic Sensor (Rear Center) Detection Range, Ultrasonic Sensor (Rear Corner) Detection Range, Ultrasonic Sensor (Side) Alarm Detection Range, Ultrasonic Sensor (Side) Alarm Function, Ultrasonic Sensor Actuation (Shift N), Unlock Key Twice Function, Voice Guidance Function, Walk Away Lock after Getting Out Func (Closing), Walk Away Lock after Getting Out Function, Warning by Horn Function, Window Open Warning Function, Wiper Specification Switch, Wiper Voice Control Function, Wireless Backdoor Open Operation Adjust, Wireless Buzzer Response Function, Wireless Buzzer Volume Setting, Wireless Control Function, Wireless Glass Hatch Open Operation Adjust, Wireless Lock Function with Doors Open, Wireless Trunk Lid Open Operation Adjust, Wireless Unlock Twice Function, Zero Point Calibration, Zero Point Sensor Calibration

509 new Actuation type special tests:

2nd START Indicator, 4LO Indicator, 4WD AUTO Indicator, 4WD Indicator (Green), 4WD Indicator (Yellow), 4WD Lock Indicator, 4WD Warning, ABS Warning, A-C Driving Demand, ACM Inhibit, Activate S1 Solenoid, Activate S2 Solenoid, Activate S3 Solenoid, Activate S4 Solenoid, Activate SL Solenoid, Activate SL1 Solenoid, Activate SL2 Solenoid, Activate SL3 Solenoid, Activate SL4

Solenoid, Activate SL5 Solenoid, Activate SLT Solenoid, Activate SLU Solenoid, Activate SR Solenoid, Activate the (Inverter) Water Pump, Activate the Charger Cooling Fan, Activate the Circuit Relay, Activate the Coolant Water Route Switching Valve 2, Activate The Coolant Water Route Switching Valve, Activate The Electric Water Pump, Activate the Engine Oil Pressure Control Valve, Activate the EVAP Purge VSV, Activate The Fuel Filler Opener, Activate the Fuel Pressure Discharge, Activate The Fuel Vapor-Containment Valve, Activate The Solenoid (SC1), Activate The Solenoid (SC2), Activate the Solenoid (SC3), Activate the Solenoid (SL6), Activate The Solenoid (SLC), Activate The Solenoid (SLG), Activate the Solenoid (SLS) High/Low, Activate the Solenoid (SLS) MAX/MIN, Activate The Solenoid(Sc), Activate The Solenoid(Slp), Activate the TC Terminal, Activate The Vacuum Pump, Activate The VSV For Intake Control, Activate The VSV For Swirl Control Valve, Activate The VSV For Vent Valve, Active TRC Indicator, ACTIVE TRC Warning, Advanced Parking Guidance Indicator, AFS OFF Indicator, Air Bypass Valve Solenoid, Air Inlet Damper Control Servo Motor, Air Suspension Indicator (HI), Air Suspension Indicator (LO), Air Suspension Indicator (N), Airbag Warning, All Indicator, Alternator Voltage Control, ASL Indicator, ASL Warning, AST Indicator, A-T Indicator Operation (2), A-T Indicator Operation (3), A-T Indicator Operation (4), A-T Indicator Operation (B), A-T Indicator Operation (D), A-T Indicator Operation (L), A-T Indicator Operation (N), A-T Indicator Operation (P), A-T Indicator Operation (R), A-T Indicator Operation (S), A-T Indicator Operation (Sport M), A-T Indicator Operation (Sport S), A-T Oil Temperature Warning, A-T P Warning, Auto Air Conditioner Indicator, Auto Leveling Headlamp Indicator, Auto LSD Indicator, Auto Power OFF Cancel, Automatic High Beam Indicator (Green), Automatic High Beam Indicator (Yellow), Automatic High Beam Switch Light, Auxiliary Battery Warning, AVS Comfort Indicator, AVS Sports Indicator, Back Door Sensor Power Supply, Beep, Blower Level, Brake Hold Indicator, Brake Override Warning, Brake Warning, BSM Indicator, BSM OFF Indicator, BSM Warning, Buzzer Operation (1.6khz, Vol S, W-O Damping), Buzzer Operation (2.0khz, Vol S, W-O Damping), Buzzer Operation (2.4khz, Vol L, W-O Damping), Buzzer Operation (800hz, Vol L, W- Damping), Buzzer Operation (800hz, Vol L, W-O Damping), Buzzer Operation (800hz, Vol S, W- Damping), Buzzer Operation (800hz, Vol S, W-O Damping), Cancel Communication Function Pausing, Cargo Light, Center DIFF LOCK Indicator, Charge Indicator, Charge Warning (Red), Charge Warning, Check Engine Warning, Check Mode, CNG Mode Indicator, Collision Door Lock Release, Color Test Screen (Adjustment), Color Test Screen (Black), Color Test Screen (Blue), Color Test Screen (Color Bars), Color Test Screen (Green), Color Test Screen (Red), Color Test Screen (White), Compression Test, Connect The TC And TE1, Control the ACIS VSV Motor Duty Ratio, Control The ACM Inhibit, Control The EGR Step Position Bank 1, Control The EGR Step Position, Control the Electric Thermostat Duty Ratio, Control the Engine Cooling Fan Duty Ratio, Control The ETCS Open/Close Fast Speed, Control The ETCS Open/Close Slow Speed, Control the Exhaust VVT OCV Duty Ratio Bank 1, Control the Exhaust VVT OCV Duty Ratio Bank 2, Control The Fuel Pump Duty Ratio (Brushless), Control the Fuel Pump Duty Ratio, Control The Injection Mode, Control The Injection Volume For A/F Sensor, Control the Intake VVT OCV Duty Ratio Bank 1, Control the Intake VVT OCV Duty Ratio Bank 2, Control the Motor/Generator Cooling Oil Pump, Control the Shift Area (CVT), Control the Target Fuel Pressure Offset, Control the Transmission Oil Pump, Control the Wastegate Valve Duty Ratio, Coolant Cool Warning Lamp, Coolant Hot Warning Lamp, Cooling Electric Expansion Valve, CRAWL Indicator, CRAWL Warning, Cruise Indicator (Yellow), Cruise Indicator, D-4S (A/F Control), D-4S (Fuel Cut), D-4S (Injection Volume), Daytime Running Light, DCM Firmware Update, D-Door Unlock, Delivery Heater, Diesel Particulate Filter Warning, Diesel Throttle Target Angle Bank 1, Dimmer Signal, Door Lock, Door Open Warning, Door Unlock, Downhill Assist Control Indicator, Downhill Assist Control Warning, Drift From The Lane Indicator, Drift From The Lane Warning, Driver Seat Sensor Power Supply, Driver Side Seat Belt Warning, ECB Main Relay, ECB Solenoid (SLA), ECB Solenoid (SLR), ECB Utility, ECB Warning, ECO Mode Indicator, ECONO Indicator, ECT PWR Indicator, ECT SNOW Indicator, Electrical Fan, Emergency Call Cancellation,

Emergency Exit Warning, EPB Auto OFF Indicator, EPB Control Switch, EPS Warning, EV Drive Indicator, EV Mode Indicator, EXO, Extended Illumination 1, Extended Illumination 2, Fr Control Rear Air Outlet Damper Servo Motor, Front Air Mix Damper Control Servo Motor, Front Air Outlet Damper Control Servo Motor, Front Buzzer, Front Deicer Relay, Front Evaporator Magnetic Valve, Front Fog Lamp Indicator, Front Fog Light, Front Footwell Lights, Front Left Air Mix Damper Control Servo Motor, Front Left Air Outlet Damper Control Servo Motor, Front Left Seat Blower, Front Left Seat Heater, Front Right Air Mix Damper Control Servo Motor, Front Right Air Outlet Damper Control Servo Motor, Front Right Seat Heater, Front Washer Relay, Front Wiper Hi Operation, Front Wiper Lo Operation, Fuel Cap Reminder Warning, Fuel Filter Warning, Fuel Gauge Indicator, Fuel Gauge Operation (1-2), Fuel Gauge Operation (1-4), Fuel Gauge Operation (3-4), Fuel Gauge Operation (Empty), Fuel Gauge Operation (Full), Fuel Gauge Operation (Sender E), Fuel Gauge Operation (Sender F), Fuel Gauge Operation (Warning), Fuel Gauge Operation For CNG (1-2), Fuel Gauge Operation For CNG (1-4), Fuel Gauge Operation For CNG (3-4), Fuel Gauge Operation For CNG (Empty), Fuel Gauge Operation For CNG (Full), Fuel Gauge Operation For CNG (Sender E), Fuel Gauge Operation For CNG (Sender F), Fuel Gauge Operation For CNG (Warning), Fuel Lid Lock Relay, Fuel Pump - Duty Cycle, Fuel Pump Single Phase Energization, Fuel Warning (CNG), Glass Hatch Open, GLOW Warning, Go To Service Warning, Green Indicator, Head Up Display Indicator, Headlamp Indicator, Headlight Relay-Light Power Supply Relay, Heater Valve, Heating Electric Expansion Valve, Height High Indicator, Height High Warning, High Beam Headlight, High Beam Indicator, High Pressure Magnetic Valve, Hold Indicator, HV System Indicator (0%), HV System Indicator (100%), HV System Indicator (200%), HV System Indicator (300%), HV System Indicator (400%), HV System Indicator (-50%), HV System Indicator (MAX), HV System Indicator (MIN), HV Unit Hot Warning, HV-EV System Indicator (0%), HV-EV System Indicator (100%), HV-EV System Indicator (200%), HV-EV System Indicator (300%), HV-EV System Indicator (400%), HV-EV System Indicator (-50%), HV-EV System Indicator (MAX), HV-EV System Indicator (MIN), Hybrid Battery Charge, Hybrid Battery Heater Relay, Hybrid System Warning, Hydrogen Leak Warning, ICS OFF Warning, IG OFF P-W Control Permission Output, Illuminated Entry System, Immobilizer Indicator, iMT Indicator (Green), iMT Indicator (Yellow), Infrared Signal Status, Initial Axis Adjust Value Display, Injection Timing Select Cylinder, Injection Volume, Injector Compensation, Inside Luggage Tuner Power Supply, Inspection Mode, Intercooler Water Pump Relay, INTUITIVE P-A LCD Indicator, INTUITIVE P-A LCD OFF Indicator, Ion Generator, KDSS Warning, Key Cylinder Illumination, LDA Indicator (White), LDA Indicator, LDA Steering Control Indicator, LDA Warning, LED Headlamp Warning, Left LDA Indicator, Left LDA Warning, Left Turn Signal Indicator, Light Control Glass Relay, Light Control Switch (DOWN), Light Control Switch (Single), Light Control Switch (UP), Limited Power Indicator, Lithium Battery Check Indicator, Lithium Battery Hot Indicator, Low Beam Headlight, Low Pressure Magnetic Valve, LPG Indicator, Luggage Mode Indicator (Yellow), Luggage Mode Indicator, Maintenance Warning, Master Warning, Meter Day Mode Switch, Meter Display (0), Meter Display (1), Meter Display (2), Meter Display (3), Meter Display (4), Meter Display (5), Meter Display (6), Meter Display (7), Meter Display (8), Meter Display (9), Meter Display (All), Mirror Fold Signal, Mirror Return Signal, MMT E Mode Warning, Motor Relay, Multi Display All (White), Multi Display Default Screen, Multi Display Select Switch, Multi Switch (Back), Multi Switch (Down), Multi Switch (Enter), Multi Switch (Left), Multi Switch (Right), Multi Switch (Top), Multi Switch (Up), Navi CVT Indicator, Night View Indicator, O-D OFF Indicator, ODO-TRIP Change Switch, OFF Road Guidance Indicator, OFF Road Guidance Warning, Oil Level Warning, Oil Pressure Meter Operation (1-2), Oil Pressure Meter Operation (1-4), Oil Pressure Meter Operation (3-4), Oil Pressure Meter Operation (HIGH), Oil Pressure Meter Operation (LOW), Oil Pressure Warning, Outside Mirror Footwell Lights, Over Speed Indicator, Overhead Tuner Power Supply, P Range Indicator, Panel Light, Park Warning, Parking Brake Service Mode, Passenger Seat Sensor Power Supply, Passenger Side Seat Belt Warning, PCS Buzzer, PCS OFF Warning, PCS Warning,

Pedestrian Protection Warning, PPS Warning, Prohibit the Catalyst OT Misfire Prevent Fuel Cut, Prohibit the Idle Fuel Cut, PTC Heater, Radar Cruise Indicator (Yellow), Radar Cruise Indicator, RCD OFF Indicator, RCTA Indicator, RCTA OFF Indicator, Ready Indicator, Rear Air Mix Damper Control Servo Motor, Rear Blower Level, Rear Buzzer, Rear Defogger Relay, Rear DIFF LOCK Indicator, Rear Driver Side Sensor Power Supply, Rear Fog Lamp Indicator, Rear Fog Light, Rear Inner Wheel Control Indicator, Rear Inner Wheel Control Warning, Rear Left Seat Heater, Rear Light Indicator, Rear Passenger Side Sensor Power Supply, Rear Right Air Mix Damper Control Servo Motor, Rear Right Seat Heater, Rear Seat Belt Warning, Rear Washer Relay, Rear Wiper Operation, Red Indicator, Reductant Discharge, Reductant Filling (Pressure Keep), Reductant Injection Valve, Reductant Pipe Heater, Reductant Pump Check (Backward), Reductant Purge, Reductant Tank Heater, Reductant Warning, Refrigerant Gas Volume Check, Relay for Interior Light Auto Cut Function, Reverse Signal, Ride Mode Indicator, Right LDA Indicator, Right LDA Warning, Right Turn Signal Indicator, Security Horn, Security Indicator, Self Power Siren, SET Indicator, Shift-By-Wire Warning, Signal Check, SIL Indicator (Down), SIL Indicator (Up), Slip Warning, Smart System Indicator, Smart System Warning, SOC Gauge (1-2), SOC Gauge (1-4), SOC Gauge (3-4), SOC Gauge (MAX), SOC Gauge (MIN), SOC Warning, Solenoid Relay, Speed Signal Input (0), Speed Signal Input (120), Speed Signal Input (160), Speed Signal Input (200), Speed Signal Input (240), Speed Signal Input (280), Speed Signal Input (320), Speed Signal Input (360), Speed Signal Input (40), Speed Signal Input (400), Speed Signal Input (80), Speedometer Operation (0km-H,0mph), Speedometer Operation (120km-H,120mph), Speedometer Operation (160km-H,160mph), Speedometer Operation (200km-H,200mph), Speedometer Operation (240km-H,240mph), Speedometer Operation (280km-H,280mph), Speedometer Operation (320km-H,320mph), Speedometer Operation (360km-H,360mph), Speedometer Operation (400km-H,400mph), Speedometer Operation (40km-H,40mph), Speedometer Operation (80km-H,80mph), Sport Indicator (CVT Sport), Start SW Light Power Supply, Steering Heater Indicator (Yellow), Steering Heater, Stop And Start OFF Indicator, Stop And Start ON Indicator, Stop Lamp Relay, Sub Fuel Gauge Operation (1-2), Sub Fuel Gauge Operation (1-4), Sub Fuel Gauge Operation (3-4), Sub Fuel Gauge Operation (Empty), Sub Fuel Gauge Operation (Full), Sub Fuel Gauge Operation (Sender E), Sub Fuel Gauge Operation (Sender F), Tachometer Operation (0rpm), Tachometer Operation (10000rpm), Tachometer Operation (2000rpm), Tachometer Operation (3000rpm), Tachometer Operation (4000rpm), Tachometer Operation (5000rpm), Tachometer Operation (6000rpm), Tachometer Operation (7000rpm), Tachometer Operation (8000rpm), Tachometer Operation (9000rpm), Taillamp Indicator, Taillight-Clearance Light, Temporary Vehicle Start Up, Test The Turbo Charger Step Motor Bank 1, Timer Switch (00), Timer Switch (H), Timer Switch (M), Timer Switch (Single), Timing Belt Warning, Tire Pressure Warning System Indicator, Tow Haul Indicator, Trip Reset Switch, Vehicle Approach Warning OFF Indicator, Vehicle Horn, Vehicle Proximity Notification System Warning, Vehicle Stop Warning, VGRS Warning, Volt Meter Operation (0V), Volt Meter Operation (12V), Volt Meter Operation (15V), Volt Meter Operation (18V), Volt Meter Operation (3V), Volt Meter Operation (6V), Volt Meter Operation (9V), VSC OFF Indicator, VSC TRC Indicator, Washer Nozzle Heater, Washer Warning, Water Level Warning, Water Pump, Water Temperature Meter Operation (110C,230F), Water Temperature Meter Operation (120C,248F), Water Temperature Meter Operation (127C,260F), Water Temperature Meter Operation (50C,122F), Water Temperature Meter Operation (60C,140F), Water Temperature Meter Operation (70C,158F), Water Temperature Meter Operation (80C,176F), Water Temperature Meter Operation (Middle), Wiper Power Relay, Wireless Buzzer

New BMW/Mini Coverage

6 new Adjustment type special tests:

Front driver assistance camera: Restart, Front left short-range radar sensor: Restart, Front right short-range radar sensor: Restart, Rear left short-range radar sensor: Restart, Rear right short-range radar sensor: Restart, Reset Control Unit

8 new Actuation type special tests:

Check control message, Display: F. act.n. ready to warn, Display: F.act. and ready to warn, Ext.mirror lane change ass.indic., Front camera heating, Heated Windshield Camera Area, Lane change warning function, Steering Wheel Vibration

New Land Rover Coverage

4 new Adjustment type special tests:

Inspection/Service Interval Reset, Oil Service Reset, State Inspection Reminder Reset, Time Interval Reset

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