

## Version 4.18

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### Overview

Version 4.18 update includes model year **2022** vehicle coverage and additional **ADAS** calibrations.

Over 10,000 new special tests & 2,838 new system applications included in this update.

Software and coverage feature details provided in these release notes.

### ***New Coverage Highlights (Coverage details start on Page 2)***

#### **MY2022 Additions:**

- **Acura** - TLX
- **BMW** - 228i Gran Coupe, Alpina B8 Gran Coupe, M8 Gran Coupe, X1, Z4
- **Buick** - Enclave
- **Cadillac** - Escalade, Escalade ESV
- **Chevrolet** - Blazer, Suburban, Tahoe, Traverse
- **GMC** - Yukon, Yukon XL
- **Honda** - Accord, CR-V, Passport, Ridgeline
- **Hyundai** - Accent
- **Jaguar** - E-Pace, F-Pace, F-Type
- **Jeep** - Compass, Gladiator, Grand Cherokee, Wrangler
- **Kia** - K5, Seltos, Soul
- **Land Rover** - Range Rover Velar
- **Lexus** - UX200, UX250h
- **Mini** - Cooper
- **Nissan** - Altima, GT-R, Kicks, Maxima, Murano
- **RAM** - 2500, 3500, ProMaster City
- **Subaru** - Forester
- **Toyota** - Highlander, Sequoia, Sienna, Tacoma
- **Special Test Additions** – multiple brands
- **ADAS Coverage:**
  - **Chrysler** – Coverage added for 2022MY Ram trucks
  - **Jeep** – Coverage added for 2022MY Compass, Gladiator and Wrangler

- **GM** – Coverage added for many 2022MY vehicles
- **Honda** – Coverage added for 2022MY Accord, CR-V, Passport and Ridgeline
- **Lexus** – Coverage added for 2022MY ES, GX and RX models
- **Nissan** – Coverage added for 2022MY Armada
- **Subaru** – Coverage added for 2022MY WRX STI
- **Toyota** – Coverage added for 2022MY Sienna
- **Audi** – Coverage added for many 2022MY vehicles, and 2020MY A3 Quattro
- **BMW** – Coverage added for many 2022MY vehicles, including Mini Cooper, and 2021MY 430i Gran Coupe
- **Volkswagen** – Coverage added for 2021MY ID.4

## ***New Coverage – USA Domestic***

### **Chrysler/Jeep/Ram Coverage**

- Added coverage for 98 new system applications

#### **295 new Adjustment type special tests:**

ABS0 Initialization, AFLS Calibration, Accessory Delay, Active Grill Shutter Replaced, ABS Bleed Brakes, ABS Initialization, Actuator Calibration, ABS Unit Bleed, Automatic Loudness, Brake Bleed (3 Channel), Brake Pedal Calibration, Calibration Routine, Change Country Code, Clear CAN BUFFER Count, AIS Adaptive Reset, Aisin QuickLearn, Auto Door Lock, Auto High Beam Demo Mode Test, Auto Door Unlock, Clear Learning Value, Closed Coupled Replacement, Bleed Brake Procedure, Bleed Brakes, Calibrate Liftgate, Clear DEF Pump Learned Offset Values, Clear Remote Start Abort Data, Clear Steering Pull Compensation, Clear Variable Line Pressure Counters, ASCM Initialization, Brake Bleed Procedure, Brake Fluid Replacement/Brake Fluid Reservoir Substitution, Check PCM VIN, Clear All Learned Seat Parameters, Change Language Preferences, Change Measurement Units, Channel Output Test, CAM Crank Relearn Routine, Clip Mode, Configure License Plate Size, Auto Door Lock Routine, Clear Engine Auto Restart Crank Counter, Clear Stored Accumulated Fuel Mass, Coolant Three Way Valve Replaced, Clear Last Remote Start Event Data, Clear TPM Sensor Rolls Test Results, Clutch Pedal Learn, Coolant Three Way Valve, Calibrate Tandem Master Cylinder Sensor, Clear TPM Sensor Warnings, DPF Pressure Sensor Reset, Drive Clutch Engage Test, Dual Alternator Enable/Disable, DPF Regen, Dual Fuel Tank Enable / Disable, ECU Replacement With Value Transfer, EGR Coolant Regeneration, Close Door Calibration, Current Cabin Equalization, EGR Low Pressure Learn, EGS Initialization, Enable/Disable Ambient Sensor, Exhaust Phaser 1 Cleaning, Exit Logistic Mode, Caliper EPB substitution, Clear Last VTA Trigger, Clear Remote Start Inhibit Data, ELSD Quicklearn, Enable/Disable Seatbelt Minder Chime, Engine Idle Shutdown Feature Enable/Disable, EPB Assembly Check, Exhaust Phaser 2 Cleaning, FCM Enable Emissions Rolls Test Mode, Clock Display, Country Code, DPF Replacement, Fire Protection System Activate, Front Caliper Substitution, Diesel Particulate Filter Regeneration, Driving Regeneration Request, High Temp Cabin Valve Cal/Test, Edit Address Book, Emissions Rolls Test Mode, Enable/Disable The Roll Bench Mode, ETC Pedal Learn, Hardware Reset, Horizontal Adjustment, Initializing ECU, Intake Phaser 1 Cleaning, IPC Proxi Configuration, Key FOB Identification, Headlamp Leveling, Low Temp Coolant Fill - Active Pump, Electric Park Brake Management, EMR Reset, Entry Time, Exit Shipping Mode, New Engine Installed, OCM System Verification Test, Oil Change Monitor Type, Open Door Calibration, Override Occupant Information, Initialize ABS, Initialize ORC, Fleet Pin Reset, Program Engine Serial Number, PTO RPM Adjustment, Key-On Reset, HVAC Update, IAC Reset, Initialize CVT, Flash Lamps with Lock, Front Brake Disc Substitution, Enable / Disable Vehicle Features, Enable Brake Pedal, Erase Calibration value storage, EGR System Test, Enable/Disable DRL, Quicklearn 62TE, Longitudinal And Lateral Sensor Calibration,

Manual DPF Regeneration, Market Selection, Mass Air Flow Sensor Initialization, Reset Adaptive Memory, Reset Adaptive Values, Reset Enhanced Automatic Oil Change Indicator, Reset Minimum TPS, Reset Parameters to Default, Reset VCM Adaptives, Gyro Offset, HVAC Actuator Calibration Test, Idle Shutdown Timer Adjustment, Multi-Channel Configuration Tone Test, Initialize All Fault EEPROM, Initialize Cluster Configuration w/o Odometer Affect, Injector Quantity Adjustment, Intake Phaser 2 Cleaning, Power-On Reset, Program Variant Coding, Proxi Configuration Alignment, Fuel Tank Size, Key Fobs Linked To Memory, KeySense PIN Reset, Light Rain Sensor Calibration, Rear Brake Disc Substitution(Continental), GSE Injector Adaptation, High Cut, Remote Keyless Entry Change, Remote Start Temporary Disable, Reset Adaptive Fuel, Reset ECU, Reset Fuel Pressure Limit Valve Accumulators, Reset Memory Adapter - All Adaptive Memory, Reset Memory Adapter - Minimum TPS, Reset of Lambda Values, Reset service Oil (for only Twinair), Reset Turbo Adaptives, SCR DEF Tank Fluid Level Filter Reset, Horn Duration, HVAC Door Recalibration, HVAC FGA Self Learning Motors Test, Initialization, Learn Latch Sector Home, Steering Angle Calibration, TCM Reset Learned Adaptives Routine, Microphone Output Short Test, Modify Volumetric Sensors Sensitivity, Microphone Tone Test, Module Reset, Turbo Actuator Pre-Align / Self Calibrate, Turn Off All VF Display Segments And Button Backlighting, Update Front and Rear Axle Nominal Tire Pressure Values, Idle Speed Set Point, Oil Change Light Reset, Oil Life Restore, Oil Service Reset, Pedal Adjustment, POI Menu, Power Latch Cinch Operation., Program Tire Size, Quicklearn Non RFE, Quicklearn RFE, Longitudinal Sensor Calibration, Low Temp Coolant Fill - Passive Pump, Mobile Desoot - No Minimum Required Soot Load, Most Recent Cool Down Test Results, SCR System Dosing Module Replacement, SCR System Tank or Pump Replacement, Seatbelt Alert System, Sensor Wiring Test, Set Max Vehicle Speed, Phone Number, PSDM Power Close Operation Status, PTO Settings, Quick Learn, Reset High Voltage Cable Open DTC, Reset Memory Adapter - Adaptive Numerator, Reset SCR Mileage Counter to 200 Miles, Reset Service Information, Pressure Sensor Calibration, Program Tire Sensor Identifications, PSDM Initiate Power Latch Cinch Operation, PSDM Initiate Power Latch Release Operation, Quick Learn Routine, RAM Active Air Box Calibration, Read Pinion Factor, Ramp Van Configuration, Reset Cam, Crank and Sync Record, Reset Error Free Operation Time to 40 Hours, SCR System Catalyst Reset, Set Axle Type, Reset H2O Lamp, Reset Memory Adapter - Engine Runtime, Reset Turbo Over Boost Counter, Reset Zero Fuel Quantity Calibration, Restore Customer Programmable Features, SCR System Pressure Line Replacement, Reset After Replacement Of Lambda Sensor, Reset Aftertreatment Trip Info Accumulators, Reset Duty Cycle Accumulators, System Air Mass/Pressure/Ride Height Readings, Set Pinion Factor, Settling Group Caliper and Brake Pads, Software Reset, Standardization, Reset Memory, Reset Module, Reset of SCR Long Term Adaptation Factor, Rollover Detection, SCR System After ECU Replacement Procedure, Seat Belts Alarm Enable, Tip Start Temporary Disable, Stereo Blend, TCC Break In, Tire Pressure Sensor Registration, TLC Learn, Service Procedures, Set Max Cruise Speed, Set Ride Height Level, Steering Angle Sensor Calibration, Turn off Gain Mode Override, Valve Body Solenoid Learn, View/Reset Duty Cycle Maps, View/Reset NAC After Treatment Over Temp Events, Update Pressure Thresholds, VGT Learn, VIN Lock, Intersection, Learn ETC, Write Pinion Factor, VG Turbo Cleaning Effective Validation, View/Reset DOC After Treatment Over Temp Events, VVL Cam Crank Relearn, Original VIN Lock, Light Rain Sensor Re-adaption, Manual Hard Drive Back-up, View/Reset DPF After Treatment Over Temp Events, Street Address, Non-Volatile Memory Reset, Tip Start Override, Production State, Proxi Configuration, Remote Start Override, Reset Camshaft Adaptives, Reset Clutch Capacity Adaption, Reset Memory Adapter - Fuel Adaptives, Reset Trip Information Accumulators, Rear Seat Audio, Reset Adaptives After Block Change, Reset Air-Fuel Adaptives, Reset Angle Offset, Reset Memory Adapter - Fuel ShutOff Reason, Reset Nox Absorber Counts Accumulators, Reset Regen Filter Timers, SCR System Wiring Harness Replacement, Snorkel Output Test, Tri Zone Actuator Calibration, VG Turbo Charger Cleaning Procedure, VGT Sector Gear Hysteresis Test, Clear Misfire TLC, Configure DRL, Crankshaft Pos. Variation Learn, Diesel Particulate Filter Replacement, SAS Initialization, Flash Reprogramming, Longitudinal G Sensor Calibration, P2262 Fault Diagnosis Test, Stationary Desoot (DPF

Regen), Store Learned TCU Adaptives, RDU Replacement, VGT Actuator PreAlign And Calibration, Write VIN, Reset Adaptive After Oil Change, Reset VVA Freeze Incorrect Request, Service DPF Regeneration Routine, Throttle Body Self-Learning,

### **2738 new Actuation type special tests:**

1st Gear Clutch Test (62TE), 2WD LED indicator, 3rd Gear Clutch Test (Non-RFE), 4 LOW, 4th Gear Brake Torque, 4th Gear Clutch Test (RFE), 4WD Auto, 4WD Lo LED indicator, A/C, ABS, ABS Safety lamp, AC Request, A-C Request, Activate TPM High Gain Mode, Actuate All Vents, Actuator Circuit Test, Air Bag, Air Bag Light, Air Condition, 2C Or 2-4 Solenoid, 2nd Gear Brake Torque, 2nd Gear Clutch Test (Non-RFE), 2nd Prime Brake Torque, 3rd Gear (UD/OD), 3rd Gear Clutch Test (62TE), 4C Solenoid State, 4th Gear Clutch Test (62TE), 4WD LED, A/C Pressure 5 Volt Supply, A/C Request, ABS (Anti-lock Brake System) safety indication, ABS Light, AC Discrete Output, AC Off For Vehicle Manoeuvring, Activate Fuel Lift Pump, Active Grill Shutter Test, Actuate All Heaters, Actuates Brake Trans Shift Interlock Sol, EOBD (Electronic On Board Diagnostic) failure indication, 1st Gear Clutch Test (RFE), 2nd Gear Clutch Slip Test, 2nd Prime Gear Clutch Test (RFE), 3rd Gear Clutch Test (RFE), 4th Gear Clutch Test (Non-RFE), 4th Row Ceiling Light, A/C Clutch Relay Control State, A-C Button, A-C Compressor Clutch Relay Control State, AC Condenser Fan, Active Exhaust Valve 1, Active Exhaust Valve 2, Actuator Test For SCR Device Relay, Adjustable Pedal Motor Output, Aftertreatment System Performance Test, Airbag failure indication, Air-Bag failure indication, Alarm/Doors Status Led, 2-3 Skip Shift Solenoid Control State, 2-4 Solenoid, 4WD Hi LED indicator, 4WD Neutral Telltale, A/C Compressor Relay, A/C Indicator, A/C Relay, A/C Variable Disp Compressor, AC Indicator, A-C INDICATOR, Adjustable Pedal Disable Relay, Air Bag Lamp, 1st Gear Clutch Slip Test, 1st Gear Clutch Test (Non-RFE), 2nd Gear Clutch Test (62TE), 2nd Gear Clutch Test (RFE), 3rd Gear Clutch Slip Test, 4C Solenoid, 4WD AWD LED indicator, A/C Select, ABS fault Lamp, AC Clutch Relay - Control State, AC Clutch Relay - Duty Cycle, AC Cooldown Test, AC Discrete, AC emergency shut off, A-C Select, Active Booster Solenoid, Actuate All Outputs, Actuate All Seat Heaters, Hill Holder system failure indication, 1st Gear (UD/LR), 1st Gear Brake Torque, 1st Row Ceiling Light, 2nd Row Ceiling Light, 4WD, 4wd Indicator Test, 4WD Low, A/C Compressor Clutch Relay Control State, Abs Failure Indicator, ABS Lamp, ABS Power Relay, Actuator Position, Actuator Test Time, Adjustable Pedal Position, All Doors-Central Locks, All Stop Lights, Alternator Field Control State, Alternator Voltage Control Lamp, Ambient Dimming, AMP Output Short Test, Antilock brake (ABS) failure indication, ASD Engine, ASD Relay Duty Cycle, ASR Button lamp, ASR-ESP Safety indication, ATMM Left Actuator Command -Hz, Auto Shutdown Relay, Automated Driver Door Open, Automatic Gear Box Fault Lamp, Auxiliary Coolant Pump, Auxiliary Coolant Pump Relay, Auxiliary Fuel Pump, Background LED Illumination Level, Background LED State, Backlight Control-Backlight PWM4, Backlight Control-LED Jewel Indicators excluding Auto, Backlight Control-Sapphire Blue HVAC Auto/Fan Off, Backlighting: Driver Temp Down, Pass Temp Down, Backlighting: Knob Halo White Backlighting, Backslide Window, Balance Level Settings, Battery LED 7, Battery LED 9, 2nd Prime Gear Clutch Slip Test, 2WD Rolls Mode, 3rd Gear Brake Torque, ABS (Antilock Braking System) fault Lamp, ABS Safety indication, ABS Static Test, ACC Enter In-Plant Mode, ACM Wake Up, Activate Driver and Passenger Head Restraints, Adjustable Pedal State, All ATM Off Test, All Doors/Central Locks, All Stop Lights W-Combined Rear Lighting, Alternator Full Field Test, Antenna Loop Test, Antenna Power, Autostick Test, BACK button, Backlight Control, Backlight Control-Backlight PWM1, Backlight Control-Backlight PWM2, Backlight Control-Display PWM, Battery Bad (Red), Battery LED 4, Battery LED 8, Bed Lamp, Boost Pressure, brake system failure indication (EBD included), BRAKE Text, Brake Torque 1st Gear, BTSI Solenoid, Buttons/Encoder Control-Button 16 (PTS), Blower Motor, Blue Temperature Bar, Boost Pressure Solenoid, Both Headlamps Max Low Position, Brake Indicator, Brake Light, Brake State Output, Brake system failure indication [BRAKE], Brake Torque 2nd Gear, BSM Longitudinal G Sensor Test, BTSI Coil Output Control, Button 7 (Spare), Buttons/Encoder Control-Button 19 (Rear Defrost), Buttons/Encoder Control-Button 2 (Driver Temp Up), Buttons/Encoder Control-Button 4 (Driver Temp Up),

Buttons/Encoder Control-Button 5 (AC), Buttons/Encoder Control-Rotary 1 Detents (Volume), Buttons/Encoder Control-Rotary 2 Detents (Fan), Buttons/Encoder Control-Rotary 3 Detents (Tune), Buzzer Control, Buzzer Output, Cabin Temperature Sensor, Canister Purge Solenoid Test, Cargo Lamp Output, Cargo Light, Ceiling Light, Ceiling Light Rear Left, Channel 11 Audio Control, Channel 6 Audio Control, Channel 9 Audio Control, CHMSLM Brake Light, Airbag Failure Indicator, Alarm/Doors Status/Deterrence LED, All Doors Locks, Alternator Field Duty Cycle, Ambient Illumination; Interior, AMP Output Tone Test, APM Status, Apply release brake rear left EPB, Apply release electric brake EPB, Atmosphere Valve Test, Audio Routing, Audio Test For Subwoofer Specific, Audio Video Signal Detection, Auto High beam headlamp indication, Auto Indicator, Auto Shutdown (ASD) #1 Relay Control State (Left Bank), Auto Shutdown (ASD) #2 Relay Control State (Right Bank), Backlight Control-Backlight PWM3, Backlight Control-Backlight PWM6, Backlight Control-Sapphire Blue Enter/Mute Knobs, Backlighting Test, Backup Alarm, Backup Lamps Test, Air Mode Motor, All Doors Unlock, All Indicators, Alternator Fault Lamp, Alternator Output Voltage Setpoint, Ambient Temperature, ANC Output Short Test, Apply release brake rear right EPB, Approach Light State, Auto Shutdown Test, Auto Wipers, Average Ambient Temperature, Backlight Control-Blue Driver/Passenger Temp Down, Backlight Control-LED Jewel Indicator auto, Backlight Control-Red Driver/Passenger Temp Up, Hazard, Baggage Lamps, Baro Read Solenoid Control State, Battery LED 2, Battery LED 6, Air Conditioner Shut Off (Clutch), Alarm-Doors Status-Deterrence LED, Alternator Current Limit, Alternator Field Control, Alternator Field Duty-Cycle, Alternator Test, Ambient Light, Amplifier Software Test, ASD Relay Control State (Left Bank), ATMM Left Actuator Command -%, Audio Test, AUTO Button, Auto Shutdown (ASD) Relay Control State, Auto Shutdown Relay Control State, Backlight Control-HVAC Recirc/AC/Front Def/Rear Def, Air Conditioner Relay Command, Air Spring Circuit Test, All Doors Lock, All LED And Sound, Anti-lock Brake System (ABS) safety indication, ASD Relay Control State, Auto Door Unlock Routine, AUTO LED, AutoApply function, Automated Driver Door Ajar Signal, 2-4 Solenoid State, 2nd Gear (UD/24), 2wd LED, 3rd Row Ceiling Light, 4WD Lock, A/C Clutch Test, A/C Fixed Disp Compressor, ABS Indicator Test, ABS Warning Light, Buttons/Encoder Control-Button 22 (Driver Temp Down), Buttons/Encoder Control-Button 9 (Eco), Cargo Lamp, Cassette Function Tests, Ceiling Light Front, Ceiling Light Rear Right, Central Unlock, Channel 2 Audio Control, Channel 3 Audio Control, Channel 4 Audio Control, Channel 7 Audio Control, Check Engine - MIL Lamp, Check Engine-MIL (Malfunction Indicator Lamp), Control All Solenoids, Coolant Good, Coolant High Temperature Auxiliary Electric Pump, Coolant Temp LED 7, Coolant Temp LED 8, Coolant Three Way Valve Test, Bass Level Settings, Battery LED 3, Battery Switch 3, Blower Motor Speed, Blue Cooled Seat Indicators, Blue Heated Seat Indicators, Brake Torque 2nd Prime Gear, Brake Warning Lamp, BSM State, Button 14 (Spare), Button 6 (Spare), Buttons/Encoder Control-Button 14 (ESP), Buttons/Encoder Control-Button 18 (Enter), Buttons/Encoder Control-Button 20 (Passenger Temp Down), Buttons/Encoder Control-Button 21 (Auto), Buttons/Encoder Control-Rotary 1 Direction (Volume), Canister Shut Off Valve, Canister Shut Off Valve Clocked, Catalyst Efficiency Test, CEGR H-Bridge Valve Duty Cycle, Ceiling Light Rear Left or Central, Check Engine MIL Lamp, Chiller Shut-off Valve, Chime, Air Mix Motor, All ATM On Test, All Relays Off, Anti-Theft Enable Status, ATMM Right Actuator Command -Hz, Backlight Control-Backlight PWM5, Backup Light, Bass Settings, Battery LED 1, Battery Voltage Output, Backlight Control-Sapphire Blue Knob Halo Rings, Backlight Control-Sapphire Blue Screen Off, Back Buttons, Backlighting: Driver Temp Up, Pass Temp Ujp., Balance Settings, Battery charge indication, Battery Disconnect, Battery Good (White), Battery Switch 2, Battery Voltage, Boost Low Pressure Actuator, Boost Pressure Actuator, Both Headlamps Max High Position, Brake Indicator Test, Brake Lamp, Brake Sys Fail Ind (EBD Included) - Park Brake Indication, BSM Wake Up, Button Indicators, Buttons/Encoder Control-Button 1 (Front Defrost), Buttons/Encoder Control-Button 10 (FCW), Buttons/Encoder Control-Button 13 (Screen Off), Buttons/Encoder Control-Button 17 (Mute), Buttons/Encoder Control-Rotary 4 Direction, Canister Purge Valve, Cargo Lamp Indicator Lamp, Center High Mount Stop Lamp, Channel 10 Audio Control, Channel 5 Audio Control, Charge Air Cooler Coolant Pump, Check PCM Odometer, CHMSL, Backlight

Control-Sapphire Blue Lower Row Switchbank Buttons, Backup Lights, Battery LED 5, Battery Switch 1, BCI LED Control, Brake pad wear indication, Brake Switch, Brake Torque 3rd Gear, Brk Sys fail Ind (EBD Included) - Park Brk Ind, BSM Static Test, Button 16 (Spare), Button 8 (Spare), Buttons/Encoder Control-Button 12 (Back), Buttons/Encoder Control-Button 3 (Fan Off), Buttons/Encoder Control-Rotary 3 Direction (Tune), Buttons/Encoder Control-Rotary 4 Detents, CARGO LIGHTS, Central Stop Lamp, Brake Torque Reverse Gear, BTSI Control, Button 11 (Spare), Buttons/Encoder Control-Button 23 (Recirc), Buttons/Encoder Control-Rotary 2 Direction (Fan), Cancel All Tests, Cargo Light Indicator, CD Function Tests, Center Stop Lamp, Central high mounted Stop Light, Channel 1 Audio Control, Channel 12 Audio Control, CHMSL Lamp, CNG Shut Off Relay, CNG/Gasoline Forced Fuel Type, Convenience/Reading Lamp, Coolant Temp LED 1, Coolant Temp LED 2, Coolant Temp LED 3, Coolant Temp LED 5, Coolant Temp LED 6, Coolant Temperature, Coolant Temperature Indicator, Cooled Seat Passenger Low Indicator, Courtesy Lamps, CP3 Metering Pump, Cyl 6 Deactivation Sol Cntrl State, Cylinder 1 Deactivation Solenoid Control State, DeadLock Relay, DEF (Reductant) Return Line Heater Test, DEF Reductant Doser Prime Override Test, Defrost Indicator, Airbag fault Lamp, Airbag Indicator Test, All Switches, Alternator Field Test Routine, Ambient dimming command, Antenna Power State, ASD Fuel System Test, ASD Relay Control State (Right Bank), ASR Warning Lamp, ASR-ESP Safety Lamp, Autocheck, Axle Locker 5 Volt Supply, BACKUP LIGHT L-R, Cooled Seat Driver High Indicator, Cooled Seat Passenger High Indicator, Cooler Bypass Valve, Cooling liquid temperature Indicator, Courtesy Lamp Fade Position, Cruise Control Activation, Cruise SC Power, Cyl 1 Deactivation Sol Cntrl State, Cylinder 3 UniAir valve command, Cylinder 4 Deactivation Solenoid, Cylinder Balance Test, Day Lights Left - Right, Day Lights Right, Day Run Light (DRL) Parking Light Left LED, Day Run Light (DRL) Parking Light Right, Day Run Light (DRL) Parking Turn Light Left, Daylights Left, Dedicated DRL Lamp Left, DEF (Reductant) Tank Heater Relay Test, Defrost, Diesel Cabin Heat 1, Diesel Cabin Heat 3, Diesel Fuel Heater, Diesel Fuel Heater Relay, Dimming Graphics LIN, Direct Gear Clutch Slip Test, Door Lock All, CHSML and Stop/Turn Lights, Clearance Identification Lights Relay, Close Door, Clutch Signal To ECM Output Control, Compressed Natural Gas, Convenience-Reading Lamp, Crankcase Ventilation, Cruise Lamp, Cruise Vacuum, Cylinder 2 UniAir valve command, Cylinder 7 Deactivation Solenoid Control State, Day Run Light (DRL) Parking Light Right LED, Daylights and Position Left, Dedicated DRL Lamp Right, DEF (Reductant) Suction Line Heater Test, DEF Reductant Doser Pump Override Test, Clutch Output, CNG Failure - Reserve, Comfort Closing&Opening, Compression Test, Compressor Current, Cooled EGR H-Bridge Valve System Test, Cooled Seat Driver Med Indicator, Cooled Seat Passenger Med Indicator, Cruise lamp test, Cyl 4 Deactivation Sol Cntrl State, Cylinder 1 UniAir valve command, Day Lights Left, Daylights Xenon Right, Brake System Failure Indicator / Parking Brake Indicator, Button LEDs, Button symbol Back-Light PWM Duty, Buzzer, Clutch Status Control, Cold Start Aid Driver 1 Output, Command Key Unlock, Diesel Cabin Heat 2, Diesel Cabin Heater #1, Diesel Cabin Heater #3, Disable Level Control, Doors status - deterrence LED, DPF Reset Option, Driver Cooled Seat, Driver Temp Down Button, Driver Zone Hot, Dump Valve, Duty Cycle Purge Solenoid, Easy Entry/Exit, E-CALL Backlight LED, ECO Button, DeadLock Relay-Independent Driver Door Unlock, Diesel Cabin Heat 1 State, Diesel Cabin Heater #2, Diesel Cabin Heater 2, Digital Inputs1 High Memory, Dimming display, Door Ajar Indicator Test, Door Ambient Light State, Door Courtesy Lamp State, Door Handle Power Control, Double Start Override Relay, DR Solenoid, Drive Motor B, Driver Door Unlock, Driver Doors Status - Deterrence LED, Driver heated seat relay command, DTI FUEL TRANSFER RLY, Duct Sensor -Floor Right, Duct Sensors -Panel Right, EBD (Electronic Brake Distribution) safety indication, EBD Safety Lamp, E-CALL Green Status LED, Door Status Led, Door-Boot-Bonnet Open Indication, DPF (Particulate Filter Lamp ) Lamp, DPF Lamp, D-Pillar Recline Switch rearward, Driver Temp Detents, DRL - Front Park Lights, DTI SPRCHRGR BPV MOTOR, Dual Speed Oil Pump Status, Duct Sensor -Panel Left, Dump valve command, EAC Compressor Speed Request, EBD Warning Light, EBL Status, ECVD Compressor PWM Command~ECVD Compressor PWM Command, EGR Duty Cycle, EGR Hi Pressure Motor Test, EGR Throttle Valve, Electric Vacuum Pump, Electric Wastegate Valve, Electronic Stability Control, Electronic

Stability Control Off, EMCC VLP Solenoid, CNG Injector Relay, Cold Start Aid Driver 1, Command Shift Lock, Coolant high temperature indication, Coolant Temp LED 4, Cooled Seat Driver Low Indicator, Cooling Valve Position, Crankcase Ventilation Heater, Cruise Vent Vacuum Combo, Cyl 7 Deactivation Sol Cntrl State, EGR Cooler Bypass, EGR DC Motor And Solenoid Valve, EGR Self Test Routine, Electric Seat Movimentation Relay, Electric Thermostat Heater Solenoid Duty Cycle, Electronic Traction Control (ETC), Emissions Rolls Test Mode Is Active, Enable Door Locks, Engine Check Lamp [MIL], EPB Function Lamp, ESC, ESC System Deactivation, ESIM Forced Monitor Test, ETC (Electronic throttle control) fault Lamp, ETC Failure Indication, EVAP Purge - Duty Cycle, Evap Sensor Temperature, Evaporator Temperature Sensor, Exhaust Brake Switch Lamp, Bilevel Indicator, Blind Spot Indicator State, Blue Lights, Brake Shift Interlock, Bussed SRS Indicator Lamp Request, Button 15 (Spare), Button 24 (Spare), Central high mounted Stop Light (CHMSL), Central Lock, Channel 8 Audio Control, Check Gauges Indicator Test, CHMSL Control, Control the steering column, Coolant Bad, Coolant Temp LED 9, Cruise Vent, Cylinder 6 Deactivation Solenoid Control State, D+ Repetition Relay Command, Day Lights, Daylights Halogen Left, Daylights Xenon Left, Dead Lock Relay, DEF (Reductant) Pressure Line Heater Test, Defrost - Floor Actuator Position, Diesel Cabin Heater 1, Diesel Cabin Heater 4, Door Ajar, Door Ajar Signal To Front Ceiling Dome, ECO, ECO LED, EGR Throttle Valve (Service), EGR Valve Actuator Test, Electric Power Steering Failure Indication, ELSD System Function Test, Engine Brake Driver Output, Engine Digital Fan 2, Engine Temp LEDs, EPB switch lamp, EPB Warning Light, ESC Button Lamp, ESC Indicator, ESC Malfunction Lamp, ESC OFF lamp, ESC ON-OFF Indicator, ESC Safety Lamp, ESP Light, ETC Lamp, EVAP Temp Target, Exhaust Gas Cooler Bypass Valve, Faceplate Controls-MUSIC TYPE, Engine Digital Fan 1, Engine Off Injector Toggle Test, Engine Temperature, Enter, Enter Button, ESC Disable Lamp, ESC Off, ESCL Unlock Control, ESP button, EVAP Purge Valve, Exhaust Brake, Exhaust Brake Yellow, Extend Mileage With SCR Active Faults, Exterior Lighting SW, F L Heat Seat Request - Output, Faceplate Controls-AUDIO Push Button or AUDIO, Faceplate Controls-Eject, Faceplate Controls-LOAD, Faceplate Controls-PRESET 4, Faceplate Controls-VR BUTTON, Fade Settings, Fan Clutch PWM Duty Cycle Output, Compressor Circuit Test, Convertible Top, Cool Down Test Routine, Coolant Over Temperature Indicator, Cooling Fan, Cruise Control System Indicator Test, Cylinder 4 UniAir valve command, D LED State, Day Run Light (DRL) Parking Light Left, Daylights Halogen Right, DEF Dosing Injection Quantity, Diesel Glow Plug 1, Door-Hood-Trunk Open Indication, Downstream O2 (1/2) Heater Duty Cycle, Downstream O2 (2/2) Heater Duty Cycle, D-Pillar Recline Switch forward, Drive Clutch Engage, Drive style 2 LED, Driver Door Ajar Signal To Manual Transmission Automated, Driver Horizontal Motor Output, Driver Mirror Vertical Motor, Driver Zone Cold, DTI LTR CLNT PMP, Duct Sensor - Floor Left, EC Mirror State, E-CALL Red Error LED, ECO-LPG-S&S-E-Costing LED Command, Electric Thermostat Heater Solenoid, Electric Transmission Oil Pump, Electronic Throttle Control Fault Lamp, Cylinder 4 Deactivation Solenoid Control State, Cylinder Performance, Day Run Light (DRL) Parking Turn Light Right, DEF (Reductant) Tank Heater Test, Diesel Cabin Heater 3, Dimming Graphics, Display Start Inhibit Data, Door Locks, Downstream O2 Response Monitor, Drive Away function, Drive Style 3 LED Command, Driver Door Ajar Signal To MTA (Manual Transmission Automated), Driver Front Riser Motor Output, Driver Recliner Motor Output, Driver Side Seat Belt, Driver Temp Rotary Direction, Driver Temp Up Button, DRL, Duct Sensor - Floor Right, Duct Sensor - Panel Left, Duct Sensor -Floor Left, Duct Sensors - Panel Right, Dump Valve Rear, Floor Defrost Mode Actuator Position, Floor Indicator, Fog Front Light Right, Fold/Unfold Mirrors, Frequency Step Selection Tuner FM2, Front Axle Disconnect LSD, Front Blower Speed, Front Collison Off, Front fog lamp indication, Front Left Heated Seat Indicator, Front Lock doors command, Front Mode Door Actuator Position, Front Refrigerant Shut-off Valve, Front Wash, Front Washer, Front Wiper (High-Low), Front Wiper (On-Off), Front/Rear Washer, Fuel Filter Water Level Warning Lamp, Fuel Injector 1 Control State, Fuel Injector 2, Fuel Injector 3, Fuel Injector 5, Fuel Injector 5 Control State, Fuel Injector 6, Fuel Injector 8 Control State, Fuel Level indicator, Fuel Pre Supply Pump, Fuel Pressure Override, Fuel Pump Control, F L Vent Seat Request - Output, F R Heat Seat Request - Output, Faceplate Controls, Faceplate Controls-EJECT or

OPEN/CLOSE, Faceplate Controls-FFW, Faceplate Controls-LIST, Faceplate Controls-Play, Faceplate Controls-PRESET 2, Faceplate Controls-SET UP, First Row Driver Seatbelt Buckle Sensor-Switch, Flasher - Rear backup Left Light, Flipper Glass 2, Fog Lamps, Frequency Step Selection, Front Ceiling Light, Front Collision Off, Front Fog Lamp, Front Fog Light Right, Front Left Flasher, Front Mode Potentiometer Knob Position, Front Parking Light, Front Right Flasher, Front Right Heated Seat Button, Front Wiper (High/Low), Front Wiper (On/Off), Front Wiper Low Speed, Front Wiper Relay, Front Wiper Test, Display Comfort, Dome lamp output test, Door Handle Verification Test, Door Status LED Command, Double Start Override Rly Cntrl State, Drive Indicator Test, Drive Motor A, Drive Style 2 LED Command, Driver Heated Seat, EBL Indicator, ECO Led Command, ECO ON-OFF Indicator, ECVD Compressor PWM Command, EGR DC Motor & Sol Vlv Recir Vlv, EGR Positioner, Disable Passenger Airbag Lamp Request, Display Dimming, Display Matrix, Door open Lamp, Downstream lambda probe heater command, Driver Mirror Horizontal Motor, Driver Rear Riser Motor Output, Drivers Window Control, Dual Speed Fuel Pump Relay, Dual Speed Oil Pump, Dump Valve Front Right, DVD Display Pattern, FUEL FILTER HEATER - PARK (L-R), Fuel filter water level warn lamp, Fuel Gauge, Fuel Injector, Fuel Injector 1, Fuel Injector 2 Control State, Fuel Injector 6 Control State, Fuel Injector 7, Fuel Injector 8, Fuel Pressure Override Test, Fuel Pressure Regulated O/P (Bar), Generator Full Field Test, Glow Plug, Glow plug indication (JTD), Hatch/Decklid Release, Head Rest Relay, Heated Steering Wheel Request - Output, HEV Belt-Driven Coolant Pump Clutch Relay, HEV Engine Belt-Driven Coolant Pump Clutch Relay, High Beam, High Beam Left, High Beam Light, High Beam Right, High Beams Lights Halogen, High Speed Fan, High Temp Aux Pump, High Temp Shut-off Valve, Hill Ascending Button, EGR Valve Solenoid Duty Cycle, Enable Hands Free Module, Enable sunroof unit, EPB Failure Lamp, EPB Service, ESC (Electronic Stability Control) Safety lamp, ESC (Electronic Stability Control) System Deactivation, ESC (Electronic Stability Control) system failure, ETC Indicator Test, Evap Sys Monitor Test Mode, Evaporator Temp Sensor, Exhaust Brake Auto Green, Exterior lamp out indicator, Externalcrown Light Rear Right LED, Faceplate Controls-MEDIA, Faceplate Controls-Mute, Faceplate Controls-NAV, Faceplate Controls-POWER ON Push Button, Fuel Quantity Solenoid, Fuel reserve indication, Functional LED Illumination Level, Gear Position, Glow plug indication - Cold Start inhibition, Glow Plugs Lamp (Diesel)-Cold Start Delay Inhibition, HCSS WAKEUP, Head Lamp Wash, Head Lamp Washer Relay, Headlamp Washer, Headlamp Washer Motor State, Heated Seat Driver High Indicator, Heated Seat Passenger Med Indicator, HEV Engine Aux Heater LIN Coolant Pump, HFM VR Phone Switch, HID Headlamps State, High Beam Indicator, High Beam Xenon with shutter, High Pressure Fuel Rail Test, High Voltage Battery Precharge Contactor Test, High Voltage Coolant Heater, Hill Ascending Indicator (Select Speed Lamp), Hill Hold Indicator, Hill-Holder Safety indication, Horizontal Motor, Horn, HPCR Duty Cycle Output, HVAC Cool Down Test, IAC Motor Closed 1 Test, IAC Valve Solenoid Control State, Ignition Coil 3 Test, Ignition Coil 4, Ignition RUN/ACC 2, Ignition RUN-ACC 1, Ignition RUN-ACC 2, Ignition Start 1, Ignition Unlock/Run/Start State, Indicator Control-Indicator 1 (Auto), Indicator Control-Indicator 10 (SSO), Indicator Control-Indicator 11 (PPA), Indicator Control-Indicator 12 (LDW), Indicator Control-Indicator 3 (Recirc), Indicator Control-Indicator 4 (Front Defrost), Indicator Control-Indicator 5 (Rear Defrost), Indicator Control-Rear Defrost Indicator, Indicator Dimming, Initiate P2BA9 SCR Refill Monitor, Injector 1, Injector Kill (#10), Injector Kill Test, Inlet Valve Left Front, Faceplate Controls-Prev, Faceplate Controls-SCAN, FAD Feedback Voltage, FET/Relays Test Status, First Pass Cool Down Test Results, Flipper Glass, Fog Light Led, Foot Well/Halo Lamps, Foot Well-Halo Lamps, Frequency Selection Japan, Frequency Step Selection Tuner AM-FM, Front Blower Potentiometer Knob Position, Front Ceiling Light - Inadvertent Lights, Front Driver Window Lifter Command Down, Front Lateral Right Turn Lights, Front Left Heated Seat Button, Front Mode (Defrost Door) Actuation, Front Mode 1 Defrost Actuator Position, Front Right Heated Seat Indicator, Front Riser Motor, Front Side Marker, Fuel Filter Heating, Fuel filter humidity indication (JTD), Inlet Valve Left Rear, Inlet Valve LF(Normally Open), Inlet Valve LR (Normally Open), Input Test, Intake Heater 2 Test, Intake MTV Solenoid Control State, Intake Throttle Duty Cycle Output, Internalcrown Light Rear Left LED, IP dimming command, Isolation Valve Front Left,



Isolation Valve Rear, Key In Lamp, Key LED, Key Pad Back Lighting, Key Removal Inhibit LOCK Control, Keypad Backlight Control, KeySense, KIN Start/Stop LED State, Lane Departure Warning ON-OFF Indicator, Latch Motor Release Direction, LC Solenoid, LED 4 High, LED Control-LED 5 (A/C), Left Rear Tail/Park Lamp, Left Air Catcher LED, Left Air Distribution Motor, Left Blend Actuator Degrees, Left Front Turn Lamp, Left Front Turn Lamp Output Status, Left Parking Lights, Fuel Injector 4, Fuel Injector Balance, Fuel Level Gauge, Fuel Level Sensor Fail, Fuel Metering Unit, Fuel Pump Relay Duty Cycle, Gas Injector Relay, Gear Selection, Generator Speed Threshold, Head Lamp Levelling, Headlamp Leveling Standard, Headlamp Leveling Switch, Headlamps And Miscellaneous Outputs, Heated Rear Window, Heated Seat LED, Heated Seat Passenger High Indicator, Heated Seat Passenger Low Indicator, Heated Steering Wheel indicator, Heated Steering Wheel~Heated Steering Wheel, HEV Fuel Tank Isolation Valve Solenoid, High beam headlamp indication, High Beam Lamp, High Beams, High Pressure Fuel System Test, High Speed Engine Cooling Fan Control, High Speed Rad Fan State, HVAC Self Test, Left Rear Turn/Stop Lamp, Left Signature Lamp, Left Solar Sensor Values, Left Temp Down Button, Left Turn Light indicator, Left Turn Lights, Left Turn Signal Indicator, Left Turn Signal Lamp, Left turn signal lamp indication, LF Heated Seat High, License Plate Lamp, License Plate Lights Command, Lift Pump Test, LIN Ultrasonic Sensors Check, Linear Solenoid B, Linear Solenoid D, Linear Solenoid F, Locate Learned Keys, Low Fuel, Low fuel lamp test, Main Left Temperature Actuator Position, Malfunction Indicator Lamp, Metering Unit Actuator, Minimum Engine Oil Pressure Lamp, Mirror Heat State, Mirror LED -ON-OFF, Mirror Puddle Lights, Mode 2 Def/Flr, Mode Button, Electronic Brake Distribution (EBD) safety indication, Electronic Stability Control (ESC) Indicator, Electronic Stability Control (ESC) OFF lamp indication, Engine RPM Control, Engine Running Injector Kill Test, Engine Speed Output, EQ Loudness Test, ESCL 12 Volt Feed Control, ESM Power Supply, ETC System Test, Evaporate Purge Control Solenoid Valve, Exhaust Gas Recirculation Valve, Extended After Run, Faceplate Controls- U CONNECT, Faceplate Controls-BACK, Faceplate Controls-Enter, Faceplate Controls-INFO, Faceplate Controls-Next, Faceplate Controls-PRESET 3, Faceplate Controls-PRESET 5, Faceplate Controls-Rewind, Faceplate Controls-Stop, FAD Lock Request, Motor Direction, Motorized Thermistor-Cabin Temp, Navigation Menu Control, O2 Heater Test, O2 Sensor Heater 1-1, O2 Sensor Heater 1-2, OBCM Wakeup, OBD Button 4 Pad 2, OBD Button 6 Pad 1, OBD Button 7 Pad 1, Oil Pressure Good, Oil Pressure Indicator Test, Oil Pressure LED 5, Oil Pressure LED 6, Outlet Valve Left Front, Outlet Valve Left Rear, Outlet Valve Rear Right, Outlet Valve Right Front, Outlet valve RR, Over-Drive Solenoid, Overdrive Switch Test, OverDrive Switch Test (RFE), Oxygen Sensor 1-1 Heater Duty-Cycle, Oxygen Sensor 1-2 Heater, Oxygen Sensor 1-2 Heater Duty-Cycle, Oxygen Sensor 2/2 Heater Duty Cycle, Oxygen Sensor 2-1 Heater, Oxygen Sensor 2-1 Heater Duty Cycle, Oxygen Sensor 2-2 Heater, Oxygen Sensor 2-2 Heater Duty-Cycle, I/O Control All-Red Lamp, Ignition Coil 1 Test, Ignition Coil 2, Ignition Coil 2, 3, Ignition Coil 5, Ignition Coil 6, Ignition RUN/START 1, Indicator Control-FCW Indicator, Indicator Control-Recirc Indicator, Indicator Lamp Airbag, Injector 1 coil command, Injector 4 coil command, Inlet Valve FL, Inlet Valve FR, Inlet Valve Left Front (Normally Open), Inlet valve RL activation, FCW Button, Fill Spring From Reservoir, Fog Lights, Fresh, Front Axle Lock Enable, Front Blend Actuator Position, Front Blower Control, Front Driver Window Lifter Command Up, Front DRL Light Xenon, Front Fog Lamps, Front Fog Light Left, Front Fog Lights, Front Fog Lights Lamp, Front Mode 1 Actuator Position, Front Mode 2 Panel Actuator Position, Front Mode Actuator Position, Front Unlock, Front Washer Motor, Front-Rear Washer, Fuel Injector 7 Control State, Fuel Pressure Regulator, P LED State, Park Indicator Test, Parking Position Lamp Indication, Passenger Airbag LED, Passenger Door Unlock, Passenger Doors Status - Deterrence LED, Passenger Heated Seat Relay, Passenger Seat Belt, Pedal Follower Mode, Pilot 2 (USV Rear, MCI Rear -Normally Open), Pilot Front (USV - Normally Closed), Pneumatic Intercooler Bypass, Position Lights, Power Windows, PPV1 Electro-Valve, PPVS Electro-Valve, Pre-Supply Pump, Priming 1 (HSV Front, LPF Front -Normally Closed), Priming 2 (HSV Rear, LPF Rear -Normally Closed), Proportional Purge Solenoid., PTC Cabin Heater 1 Status, PTC Cabin Heater 2 Status, PTC Heater Relay 1, PTC Heater Relay 3, PTO, PTS Button, Puddle light Driver (Door handle and door panel), Puddle light Passenger side, Pump, Intake Manifold Short

Runner Valve Solenoid, Intake Manifold Tuner, Intake Manifold Tuning Valve Solenoid, Intake Port Shut Off, Internal Night Lights, Internalcrown Light Rear Right LED, Inverter Enable, Inverter Status Indicator, I-P Illumination, IR Sensor Temperature, IRCM Heater, KIN ACC LED State, KIN RUN LED State, KIN Start-Stop LED State, L/U Solenoid Current, Lamp Control, Lamps Actuation-Left leveling actuator position, Latch Clutch Engage, Lateral Anti Tilt Sensor, Lateral Anti-tilt X Sensor, Leak Detection Pump, LED Control-LED 4 (recirc), LED Headlamp Leveling, LED Rear Defrost, Left Doors Unlock, Left High Beam State, Left Rear Stop Turn Lamp 1, Horizontal Motor Backward/Forward, Hvac Status Control, H-W Switched 12 V Supply, Idle RPM Test, Ignition Coil 3, Ignition Run, Ignition RUN/START, Immobilizer Antenna, Indicator Control-Indicator 2 (AC), Indicator Control-Indicator 8 (Traction Control), Indicator Lamp, Injector 3 coil command, Injector 4, Injector Kill (#6), Faceplate Controls-PRESET 6, Faceplate Controls-Remote Lock, Fan Climate Relay, Fan Clutch Test, Fan Rotary Detents, FET/Relays Test, Flasher - Rear backup Right Light, Flasher Rear - Lateral Right, Foot Well, Forward Collision Warning OFF, Frequency Selection International, Front Defrost, Front Off Road Camera Washer, Fuel Cap, Engine Warm Up, EPB (Electric park brake) Button Led, EPB (Electric park brake) Yellow lamp, EPS Indicator Lamp, ESC (Electronic Stability Control) fault-intervention Lamp, ESC (Electronic Stability Control) OFF (deactivation), Esc System Intervention / Failure Indication, EVCU Wake Up, Exhaust Gas Recirc Positioner, Exhaust Gas Recirculation Actuator, Externalcrown Light Rear Left LED, Faceplate Controls-FF or TUNE UP, Faceplate Controls-PRESET 1, Faceplate Controls-RADIO or RADIO/MEDIA, Faceplate Controls-RW or TUNE DOWN, Fader Level Settings, EGR Solenoid Test, EGR Valve Replaced, Electronic Stability Control Fault/intervention Lamp, Engine After Run Coolant Pump, Engine Oil Pump Valve, EOBD And Engine System Fault Lamp, EPB (Electric park brake) Red lamp, EPS (Electric Power Steering) fault Lamp, ESC (Elec Stability Ctrl) Sys Intervention - Fail Indication, ESC (Electronic Stability Control) Sys Intrvntn - fail Ind, ETC Throttle Follower Test, Evaporative Purge Valve Solenoid Duty Cycle, Evaporator Sensor Temperature, Exhaust emission control system indication, Exhaust VVT, Externally Controlled Variable Displacement (ECVD) Command (DC), Pump Control, Radiator Cooling Fan PWM Control State, Radiator Cooling Fan PWM Duty Cycle, Radiator Cooling Fan Relay 1 Control State, Radiator Cooling Fan Relay 1,2,3 Control State, Radiator Fan 2 Duty Cycle, Radio mode selection, Radio to enable speaker output, Ram Active Air Box Test, Range Select Downshift Test Routine, Range Select Upshift Voltage, Rear Axle Lock, Rear Blend Actuator Position, Rear Ceiling Light + Inadvertent Lights, Rear Ceiling Light 2nd Row, Rear Defrost Button, Rear Defrost State, Rear Fog Lamps, Rear Fog Light, Rear Left Position Light, Rear Reverse Light (Movable), Rear Selection Indicator, Rear Stop Lights (Movable), Rear Turn Lights Left EMEA, Left Rear Tail-Park Lamp, Left Reverse Lamp, Left Signal Mirrors/Side Repeaters (BUX), Left Signal Mirrors-Side Repeaters (BUX), Left Trailer Tow Turn-Stop Lamp, Left TT Turn Stop Lamp State, Left Turn Indicator, Left Turn Light, LIN Anti Tilt Sensor Check, Linear Solenoid 1, Linear Solenoid 2, Linear Solenoid A, Low Beam Lights, Low Beams, Low Speed Fan Relay, Manifold Tuning Valve Solenoid, Map/Glove Box/Vanity Lamps, Mechanical Function Control, Memory Recall - 1, Metering Unit, Micro Fan For Cabin Temperature Sensor, Minimum Engine Oil Pressure Indicator, Mirror LED Right State, Mirror Right LED State, Mode 1, Inlet Valve Front Right, Inlet valve rear left activation, Inlet Valve Right Rear, Inlet valve RR, Inlet Valve RR (Normally Open), Internal Led Night Lights, IOD RELAY ON LSD, IPC Self Test, KIN Antenna Power, L/U And SEL On Off Solenoid, LCD Symbols, LDP Solenoid, LDW Warning Indicator, LED Control-LED 1 (Auto Control), LED Control-LED 2 (EBL), Left Day Light Lamp, Left Heated Seat, Left Low Beam, Left Low Beam Lamp Driver Output State, Left Rear Fog Lamps, Left Rear Inlet Valve Solenoid, Left Rear Turn Lamp, Left Reverse Lamp State, Left Signal Mirrors Side Repeaters, Left Trailer Tow Turn/Stop Lamp, Fuel Injector 4 Control State, Fuel Level, Fuel Level LEDs, Fuel Level Output, Fuel Pump Relay Control State, Functional LED State, Gated Park ZFII Output, Gated Park ZFII Output Control, General Stop Function, Generator Field Test Mode, Generic Failure Monitoring Lamp, Glass Washer Rear, Glovebox Lamp Test, Glow Lamp, Glow Relay, Heater Rear Window, High Side For Diesel Filter Heater Relay Command, Recirc. Door Actuator Position, RED Heated Seat Indicators, Red Temperature Bar, Redundant Ignition RUN/START

Feed Output Control, Reverse Gear Clutch Slip Test, Reverse Gear Clutch Test (Non-RFE), Right Cushion Heat Seat Linear PWM Request -Output, Right Front Outlet Valve, Right Front Park Side Marker Lamp, Right Front Turn Lamp, Right HID Lamp, Right highbeam lamp, Right Rear Fog Lamps, Right Rear Tail/Park Lamp, Right Rear Turn/Stop Lamp, Right Seat Back Motor Adjustment, Right Signal Mirrors Side Repeaters, Right Temp Up Button, Right Ventilated Seat Upper Indicator, Roller Learning Shut-Off, RR Heated Seat High, Run Remote Start State, Satellite Digital Audio Radio Service (SDARS) Station Selection, SBMT, Flasher Front Right, Flasher Rear - Lateral Left, Fog Front Light Left, Front Blower Motor, Front Ceiling Light + Inadvertent Lights, Front Ceiling Light Command Enable, Front Defrost Indicator, Front Fog, Front Foglights, Front Left Turn Lamp, Front Parktronics, Front Passenger Airbag Inhibition, Front Passenger Window Lifter Command Down, Front Right Turn Lamp, Front Wiper, Gasoline, Generator Field Test, Generator Ramp Time, Heated Steering Wheel, Height Sensor Check, High Beam Relay, Horn Relay, Horn relay command, I/O Control All-Yellow Lamp, I/P Illumination, Ignition Coil 1, Ignition Coil 10, Ignition Coil 7, Ignition RUN 2, Ignition Run/Acc/SPAD State, Ignition RUN-START, Multiair VVA Solenoid 4, Mute, MUTE button, Neutral Gate Test, Neutral Gate Test (RFE), NO.1 INJECTOR, NVLD Evap Vent Sol Control State, NVLD Forced Monitor Test, O2 1/2 Heater Duty-Cycle, O2 Sensor Heater 1-1 Duty Cycle, OBCM Pilot Switched 12V Reference, OBD Button 4 Pad 1, Oil Pressure LED 2, Oil Pressure LED 8, ORC, Washer And Brake Shift Interlock, Outlet valve FR, Outlet valve front left activation, Outlet Valve Left Rear (Normally Closed), Outlet Valve Right Front (Normally Closed), Outlet valve RL, Outlet Valve RR (Normally Closed), Output Channel Test, Overdrive Off Lamp, Oxygen Sensor 1/1 Heater Control State, Oxygen Sensor 1-2 Heater Duty Cycle, Oxygen Sensor 2/2 Heater Control State, Passenger Airbag Disable Indicator Lamp Request, Passenger Airbag Disable Lamp, Passenger Blend Cold, Passenger Cooled Seat, Faceplate Controls-Menu, Faceplate Controls-Pause, Faceplate Controls-Power, Faceplate Controls-REPEAT PROMPT, Faceplate Controls-SAT, Fan Off Button, First Row Passengers Seatbelt Buckle Sensor-Switch, Flasher Front Left, Floor Defrost Mode Actuator Degrees, Fog Rear Light Or Second Backup Light, Front Blower State, FRONT DEFROST button, Front Driver window lifter command, Front Lateral Left Turn Lights, Front Passenger Window Lifter Command Up, Front Position Light Xenon, Indicator Control-A/C Indicator, Indicator Control-Front Defrost Indicator, Indicator Control-Indicator 9 (PTS), Indicator Control-LDW Indicator, Indicator Control-Park Sense Indicator, Injector 1 command, Injector 2 Test, Injector 5 Test, Injector 7, Injector Kill (#4), Inlet valve FR activation, Inlet valve front left activation, Inlet valve front right activation, Inlet Valve Left Rear (Normally Open), Inlet valve rear right activation, Inlet Valve RF (Normally Open), Inlet Valve Right Front (Normally Open), Inlet Valve Right Rear (Normally Open), Intake Air Throttle Actuator Test, Intake Manifold Short Runner Valve (SRV) Solenoid Control State, Intake Manifold Tuning Valve (MTV) Solenoid Control State, Passenger Occupant Detection Sensor (ODS), Passenger Temp Down Button, Passenger Temp Rotary Direction, PL Solenoid Current, PLGM Drive Motor-Close Direction, PLGM HE power ON, PLGM Latch Motor-Cinch Direction, PLGM Latch Motor-Release Direction, Police Passenger Un-Lock Motor, Position Light Relay, Power Mirror Feed Relay Control, PPPA, Pressure Switches, Pressure Wave Correction Deactivation, Priming valve 1 activation, Puddle Light Command Driver Side, Pump Motor Tests, Purge canister valve command, Purge Solenoid Duty Cycle, QVPM Enable Command, Rad Fan Motor (PWM) Signal, Radiator Cooling Fan PWM Duty-Cycle, Front Wiper High Speed, FS/LR Solenoid, Fuel Filter Heater, Fuel Gauge Gaugepoint, Fuel Gauge Test, Fuel injector 3 Control State, Fuel Pressure Solenoid, Generator Field, Generic failure indication, Generic Fault Lamp, Glass Washer Front, Glow Indicator Lamp, Glow Plugs Lamp, Hazard LED, Heated Rear Window Led Command, Heated Seat LED 2, Heated Steering Wheel Button, IRCM Relay Unlock Control, Isolation Valve Front Right, Key Solenoid Coil, KIN OFF LED State, Knob Lock State, Latch Motor, Latch Release Test, LED Control-LED 3 (Front defrost), LED Lock Inhibition Rear Widows Lifter, LED RF Heated Seat, Left (Front-Central-Rear) Turn Lights, Left Air Mix Servo Motor Target Position, Left Auxiliary High Beam, Left Backrest Heat Seat Linear PWM Request -Output, Left Front Inlet Valve, Left Front Outlet Valve, Left Heated Seat Lower Indicator, Left HID Lamp, Left High Beam, Left High Beam Shutter, Left

Low Beam Lamp, Left Rear Turn-Stop Lamp, Left Reartail-Park Lamp, Left Reverse Lamp 2, Left Stop Lamp, Left Temp Up Button, Left Temperature Door Position, Left Trailer Relay, Left Vent Seat Linear PWM Request -Output, License Plate Lights, Linear IAC Valve Control State, LOCK 4WD, Lock Doors Command, Lock Rear Doors Relay, Radiator Cooling Fan Rly 2 Cntrl State, Radiator Fan 1 Duty Cycle, Radiator Fan Relay 1 Control State, Radiator Fan Relay 2 Control State, Radio Volume, Rail Pressure, Range Select Upshift Test Routine, RE Rolls Test, Rear Axle Locker Command, Rear Defrost Button (EBL), Rear Fog T2 (Movable), Rear Right Turn Light, Rear Window Defrost Lamp, Rear Window Washer, Rear Window Wiper, Recirculation pump activation, Recliner, Recliner Motor, Red Heated Seat and Steering Wheel Indicators, Fuel Pump, Fuel Pump Test, Fuel System Run Up Test, Glow Plugs Lamp (diesel)-Cold Start Delay Inhibition, Governor 3-4 Shift Valve, HD Trailer Tow Park Lamp, Headlamp Delay Time, Headlamp Leveling Position, Heated Seat Driver Low Indicator, Heated Seat Driver Med Indicator, Heated Seat LED 1, Hi Speed Fan State, HID Output, HIGH SIDE POWER SEAT RELAY, Hill Descent Control Telltale, Longitudinal Anti Tilt Sensor, Low Engine Oil Level Indicator, Low Pressure Feed Vlv 2(Normal close), Low Temp Passive Pump, Low Washer Fluid Indicator Lamp, LR Solenoid, MIL Lamp, Minimum Air Flow Test, Mirror LED Left State, Mirror Reference Supply, Mirror Signal Lamp State, Mirror Vertical/Horizontal Direction, Mix Indicator, Mode, Mode 1 Panel, Mode 2 Defrost, Mode 2 Panel, Mode Selection, Night lighting command, N-Lock Solenoid State, NO.3 INJECTOR, NOx Sensor Replacement, NVLD solenoid Control State, O/D Off, OBD Button 1 Pad 2, OBD Button 3 Pad 1, OBD Button 6 Pad 2, Redundant Ignition RUN-START Feed Output Control, Return To Default Parameters, Reverse Gear Clutch Test (62TE), Reverse Gear Clutch Test (RFE), Reverse Lamp, Reverse Lockout Solenoid, Right (Front-Rear) Parking Lights, Right Doors Unlock, Right Front Outlet Valve Solenoid, Right Heated Seat, Right Low Beam, Right Rear Outlet Valve Solenoid, Right Rear Stop Turn Lamp 1, Right Signal Mirrors-Side Repeaters (BUX), Right Temp. Door Actuator Position, Right Temperature Selected, Right Trailer Relay, Right Turn Light, Right Turn Light Indicator, Right Turn Signal Lamp, Right turn signal lamp indication, RR Power Window, Satellite digital audio receiver (SDAR) station selection, SCR Inlet Temp Sensor Replacement, Hybrid Auxiliary Transmission Pump Fluid Supply Solenoid On, Ice Led, Idle Air Control Test, Ignition Coil 9, Ignition Run State, Ignition RUN/ACC 1, Ignition RUN/START - ABS Module, ESP Module, Ignition Switch Run/Start Position Circuit, Indicator Control-Indicator 7 (FCW), Initiate Power Close Operation, Injector 3 command, Injector 3 Test, Injector 4 command, Injector 6 Test, Injector 8, Heater Rear Mirror, HEV TPIM Inverter LIN Coolant Pump, High Beam Lamp Test, High Beam Lights, High Beams Lights, High Temp Cabin Valve Rotation, Hill-Holder Safety Lamp-Message, Hybrid Auxiliary Transmission Pump Pressure Enable, I/O Control All-Limp Home Mode active, IAC Motor Test, Ignition Coil 1, 4, Ignition Coil 8, Immobilizer Failure, In Motion Menu Control, Indicator Control-Auto Indicator, Indicator Control-Indicator 6 (ECO), Seat Belt, Seat Selector Switch Adjustment, Second Row Left Seatbelt Switch, Second Row Right Seatbelt Switch, Secondary Air Pump, Secondary Solenoid Current, Secondary/Thatchum Lock Motor, Seek Status Tuner AM-FM, Seek Status Tuner Digital Audio Broadcasting (DAB), Select Level Switches-Damping Mode Button, Set Radio Volume Step, Set Throttle Blade in Variable Position, Shift 2Wd, Shift Lever Position Test (62TE), Shift Solenoid 2, Shutoff Correction Quantity, Shutoff Injector Quantity, Skip Shift Solenoid, Small Leak Verification Test, Snow Plow Park Lamps, Snow Plow Switch 4, SPARE RELAY 1 LSD, Speed Control, Speed Control Vent Solenoid, Speed Control Vent Solenoid Control State, Speed Limiter Activation, Split Cooling Drive Duty Cycle, Spring Deflate to Reservoir, SRV Test, Injector Kill (#3), Injector Kill (#8), Inlet Metering Valve, Inlet Valve Front Left, Inlet Valve Rear Left, Instrument Panel Illumination Level Output, Insufficient engine oil level, Intake SRV Solenoid Control State, Inverter Enable Relay, KIN LED Control, Lamps Actuation-Right leveling actuator position, LCD Display, LED 4 Low, Left (Front-Rear) Parking Lights, Left DRL, Left DRL Light, Left Front Fog Lamps, Left Front Outlet Valve Solenoid, Left lowbeam, Left Rear Outlet Valve Solenoid, Left Recliner Switch, Left Seat Stow Motor Adjustment, Injector 2 coil command, Injector Kill (All Cylinders), Inlet Valve Rear Right, Key lock command, LDP System Test, Leak Detection Pump Forced Monitor Test, Left (Front/Central/Rear) Turn Lights, Left Front Park Lamp, Left Low Beam

State, Left Stepper Motor, LIAC Idle Speed, Lift Pump Driver Output, Liftgate Release, Starter Solenoid (High), Starter Solenoid High, Starter Status, Step Light, Stop All Actuators, Stop Lamp, Stop Parking Turn Lights Left 2, Stop/Start System Active, Stop-Start Button, Surge Solenoid Control State, SV1, Swing Gate Lock, Swing Gate Unlock, Swirl Actuator, Swirl Valve actuator Test, Switch On EPB Function Lamp, System Wiring Test, TAIL - SIDE MARKER RIGHT, TCC Pressure Control Solenoid, TCC/PTU Test, Telltale ABS, Telltale ESP, Telltale High Beam, Telltale Turn Right, Telltale - Drive, Telltale - ESC Off, Telltale - ESP Off, Telltale - Park, Telltale 4WD Low, Telltale Diesel Glow Plug Indicator, Telltale-Rear Axle Lock Mode, Telltale-Tire Pressure, Telltale-Tow Mode, Telltale-TRAC/ESP Off, Telltale-Upshift, Light Parking, LIN Siren Check, Linear Hall, Linear Solenoid G, Low Beam Left, Low Beam Lights Halogen, Low Beam Relay, Low Pressure Feed Valve 1, Low Pressure Feed Valve 2, Low Reverse Solenoid Mode Control, Low-Reverse Solenoid, LR Heated Seat High, LR Heated Seat Low, Main Relay, Main/Left Temp Selected, Malfunction Indicator Lamp Test, Memory Seat ECU Self Test, Min Air Idle Test, MIRROR PUDDLE LIGHT L-R, Mode Actuator (Mode 1), Motor Control Close Output, Move Seat To Suppliers Position, MS Solenoid, LIN Line Request Check, Linear Solenoid 3, Low Beam Xenon, LOW LED, Low Reverse Solenoid, Low Temp Active Pump, LPG Failure - Reserve, LR Power Window, Mechanical Controls, Mechanical Function Test, Memory Recall - 2, Mid Range Settings, Mirror Direction Control, Mirror Heater, Multiair VVA Solenoid 2, Navigation Display Control, Neutral, Neutral LED, Thatchum Lock Motor, Third Row Center Seatbelt Switch, Third Row Right Seatbelt Switch, Time Controlled Spring Fill, Timeout Time Paddle Shift Switches, Tire Pressure, Tire Pressure Load Switch Pressed, Tire Pressure Monitoring, Torque Coupling Control, TOW-HAUL, TPM Sensor Rolls Test, Trailer BU Lamps, Trailer Tail Lamp Relay, Transmission Clutch 1 Solenoid Enable, Transmission Clutch 2 Solenoid On, Transmission Clutch 4 Pressure, Transmission TCC DC Overdrive, Truck Cargo Lamps, Trunk Liftgate Release Solenoid, Trunk-Liftgate Ajar, Turn Front Light Right, Turn Right, Twilight Sensor Value, UGDO Power Supply, Universal Garage Door Opener Control, Unlock 1/Driver Lock, Unlock 2/Passenger Locks, Urea (Reductant) Tank Heater Actuator Test, HPCR Duty Cycle, Hybrid Auxiliary Transmission Pump Fluid Supply Solenoid Enable, IAC Motor Open 1 Test, Idle Speed Actuator, Idle Speed Setpoint, Ignition Run/Acc/PAD State, Ignition RUN/START - Diesel Glow Plug Relay/Module, Ignition RUN/START - ORC/OCM, Immobilizer Antenna Test, Immobilizer Lamp(Optional), Initiate Power Open Operation, Injector 2 command, Injector 3, Injector 6, O2 1/1 Heater Duty-Cycle, OBD Button 3 Pad 2, OBD PPPA - Pad 1, Odometer Transmit, Oil Pressure Lamp, Oil Pressure LED 3, Oil Pressure LED 9, Outlet valve FL activation, Outlet Valve RF (Normally Closed), Outlet valve RL activation, Overdrive Switch Test (Non-RFE), Panel Mode Actuator Position, PARK - SIGNATURE LEFT, PARK - SIGNATURE RIGHT, Park Pawl Actuator Control, Parking (Position) Lamp Control And Indication, Passenger Heated Seat, Pilot 1 (USV Front, MCI Front -Normally Open), Pilot 1 (USV1-Normally Open), Pilot Valve 2, Oil Pressure Bad, Oil Pressure LED 1, Oil Pressure Output, Open Door Test, Outlet Valve FL, Outlet Valve Front Right, Outlet Valve Left Front (Normally Closed), Outlet Valve Rear Left, Over Drive Solenoid, Oxygen Sensor 1/2 Heater Control State, Park Lamp Relay, Park Lamp State, Parking Assistant LED, Parking Lamp, Parking system not available, Passenger Mirror Horizontal Motor, Passenger Temp Up Button, Pedal Forward, Pedal Motor, Pedals Forward/Backward, Pilot 2 (USV2-Normally Open), Multiair VVA Solenoid 3, Neutral Indicator Test, Neutral Gate Test (62TE), Neutral Gate Test (Non-RFE), Night lights, NO.2 INJECTOR, OBCM HW Wakeup Output, OBD Button 1 Pad 1, OBD Button 5 Pad 1, OBD Button 5 Pad 2, OBD PPPA -Pad 2, Odometer VFD, Oil Pressure Gauge Test, Oil Pressure LED 4, Oil Pressure LED 7, Outlet Valve LF (Normally Closed), Outlet Valve Right Rear, Outlet Valve Right Rear (Normally Closed), Outlet valve RR activation, Output Short Test, Over Drive Solenoid On Time, Oxygen Sensor 1/1 Heater Duty Cycle, Oxygen Sensor 1-1 Heater, Oxygen Sensor 2/1 Heater Control State, Panel Illumination, Panel Illumination Test, Parttime LED, Passenger and Rear Doors Unlock, Passenger Temp Detents, PLGM Drive Motor-Open Direction, PLGM Engage Actuator - Engage Direction, PLGM Engage Latch Clutch, Power Heated Front Window, Power On and Disable User Inputs, PPV-K2 Clutch Electro-Valve, Pressure Control Solenoid Valve, Pressure Regulator Valve, PRNDL Indicator Test, PSDM Latch Motor-

Cinch Direction, Puddle Lamp State, Puddle light Rear Left (Door handle and door panel), Puddle light Rear Right (Door handle and door panel), Pump Motor Test, Purge Solenoid, Purge Valve Duty-Cycle, R LED State, R R Heat Seat Request - Output, Radiator Fan 2, Radiator Fan 3, Rail Pressure Control Test, Range Select Downshift Voltage, Rear Blower Relay, LF Power Window, Linear Solenoid 4, Linear Solenoid C, Low Beam Right, Low Fuel Lamp, Low Pressure Feed Vlv 1(Normal close), LSCM (Low Speed Collision Mitigation), M LED State, Main Left Temperature 2 Actuator Position, Main-Left Temp. Door Actuator Position, Manifold Short Runner Valve Solenoid, Master ePT Wake Up Output 1, Mirror Fold, Mirror Fold Window Control, Mirror LED -Day-Night, Mode 2, SCREEN OFF button, Seat belt unfastened Lamp, Secondary Air Solenoid, Secondary-Thatchum Lock Motor, Secondary-Thatchum Un-Lock Motor, Seek Up, Sensor Rolls Test, SERV LED, Service Transfer Case Indicator, Shift Lever Position Test (Non-RFE), Shift Lever Position Test (RFE), Shift Lock Command, Shift Solenoid 1, Shift Solenoid 6, Shift Solenoid A, Side Mirrors Heater Control, Smart Bar Command, Smartbar Motor Test, Snow Plow Switch #4, Snow Plow Switch 1, Sound Horn On Lock, SPARE LED LAMP DRIVER, PLGM Chime Output, Pneumatic Waste Gate, Power heated rear window, Power limitation function, PPPA ON-OFF Indicator, Pressure Value Correction Shut-Off, Priming 2 (HSV2-Normally Closed), Priming Front (HSV - Normally Closed), Proportional Purge Solenoid, PSDM HE Power On, PTC Cabin Heater 3 Status, PTS Indicator, PTS Switch Simulation, Puddle Light Command Passenger Side, Puddle Light Rear Driver(Door Handle And Door Panel), Pump Motor Relay, Purge Vapors Test, PWM Fan Actuation Test, R L Heat Seat Request - Output, Radiator Cooling Fan PWM Cntrl State, Radiator Fan 1, Radiator Fan PWM Duty Cycle, Radio, Radio Buzzer Control, Rear Fog, Rear fog lamp indication, Rear Fog Light / Side Marker Lights, Rear Fog Lights, Rear Fog Lights Lamp, Rear Mode 1 Actuator Position, Rear Parking Light - Side Markers, Rear Trunk light, Rear Wiper, Recirculation Door Actuator Position, Recirculation Motor, Recirculation Motor Position, Red Hazard Button, Reverse Lamp State, Position Lamp, Power (OFF), Power Inverter State, Pressure Control Relief Valve (PCR - Normally Closed), Priming 1 (HSV1-Normally Closed), PRNDL, PSDM Engage Clutch, PSDM Engage Latch Clutch, PSDM Initiate Power Open Operation, PTS ON-OFF Indicator, PTS Switch, Radiator Fan 2 Relay, Radiator Fan Duty Cycle, Radiator Jalousie ShutterPosition, Radiator-Condenser Cooling Fan Relay 1 Control State, Radiator-Condenser Cooling Fan Relay 2 Control State, Rail Pressure Sensor Replacement, Ram Box, Read VIN, Rear Blower Speed, Rear Blower Speed Output, Rear Blower State, Rear Department, Rear Fog Lamp Telltale, Rear Fog Lights Left T2 Movable, Rear Fog Lights Right T2 Movable, Rear I-Wipe State, Rear Left Turn Light, Rear Left window lifter command, Rear Mode Actuator Position, Rear Right Turn Lamp, Rear Turn Lights Right EMEA, Rear Wash, Rec Motor, RECIRC Indicator, Recirculation, Recirculation LED, Repetition driver door open for MTA (Robotic Gear), RF Power Window, Right Heated Seat Lower Indicator, Right Low Beam Incandescent, Right Rear Inlet Valve Solenoid, Right Reverse Lamp 2, Right Side Markers, Right Turn Indicator, Right Turn Signal Indicator, Right Ventilated Seat Lower Indicator, Screen Test Pattern, SDAR Station Selection, Secondary/Thatchum Un-Lock Motor, Service 4WD, Set Purge Solenoid Duty Cycle, Set Radio To Output, Shift Solenoid 5, Reverse Gear (REV/LR), RF Heated Seat High, Right (Front-Central-Rear) Turn Lights, Right Air Catcher LED, Right Backrest Heat Seat Linear PWM Request -Output, Right Front Fog Lamps, Right Front Park Lamp, Right High Beam Shutter, Right Parking Lights, Right Recliner Switch, Right Reverse Lamp, Right Reverse Lamp State, Right Signal Mirrors/Side Repeaters (BUX), Right Signature Lamp, Right Solar Sensor Values, Right Tail Running Lamps, Right Temp Down Button, Right Trailer Tow Turn/Stop Lamp, Right Trailer Tow Turn-Stop Lamp, Rotary 4 Detents, S/C Vent Solenoid Test, SBMT (Supply Battery Monitoring Time), SCR Relay Actuation Test, Rear Door Status LED, Rear Driver Floor Duct Sensor Temperature, Rear Fog Light or Second Backup Light, Rear Fog Light or Second Backup Light - Side Marker Lights, Rear Heated Window, Rear Parking Light / Side Markers, Rear Parking Lights Command, Rear Riser Motor, Rear Temp Door Actuator Position, RECIRC button, Redundant Ignition RUN-START Feed Output, Relay Rad Fan Motor, Side Markers Command, Sliding Door Open Test, Snow Plow Left Turn Lamp, Snow Plow Switch #3, Speaker Channel Isolation Test, Speedometer test, Starter Solenoid, Stop - Position Left Light 2, Stop

Light Right, Stop Parking Turn Lights Right 2, Sun Shade Control, Sunroof Temperature Sensor Voltage, Surge Valve Solenoid, Switchable Lamps and Trunk Lamp, Tail Gate Lock, Tail Gate Unlock, Seat Belt Light, Seat Position Recall, Secondary Locks, Set Engine RPM Test, Set Throttle Blade Position, Shift 4wd Lo, Side Marker Lamps, Snow Plow Switch 2, Snow Plow Switch 3, Spd Control Vent Valve Sol Cntrl State, SRS Indicator Lamp Request, SRS Lamp, Reverse Gear Light, Reverse Gear Lights, Reverse Indicator Test, Reverse Lockout Solenoid Control State, RF Heated Seat Low, RF Heated Seat Status, Right Auxiliary High Beam, Right DRL Light, Right High Beam, Right Low Beam Lamp, Right Rear Tail-Park Lamp, Right Reverse Lamp #2, Right Seat Latch Motor Adjustment, Right Temperature Actuator Position, Right Vent Seat Linear PWM Request -Output, RT-LT Sidemarkers-RT-LT Applique Parklamps, S/C Power Relay Test, SBMT -Supply Battery Monitoring Time, Seat Belt Lamp, T-Case Motor Solenoid Lock, TCM VIN Verification, Telltale Charging, Telltale Glow Plug, Telltale MIL, Telltale Tire Pressure Monitor, Telltale Turn Left, Telltale - Position Lamp, Telltale - Reverse, Telltale TPM, Telltale-Off Road Mode, Thermostat Drive Duty Cycle, Throttle Valve Auto Zero, Timeout Time Flash To Pass, TOPPER CHMSL, TPM Sensor Rolls, Trac Cntrl Outlet Vlv 1(Normal open), Traction Control Indicator, Traction Control Outlet Valve 2, Traction+, Transfer Case 4WD/Lock/Part Lamp, Transfer Case Low Lamp Request, Transfer Case Neutral Lamp Request, Transmission Clutch 2 Pressure Enable, Transmission Clutch 3 Solenoid Enable, Transmission Line Pressure Control, Transmission Y\_Valve Solenoid On, Transponder Antenna Power, Trigger Module Test, Trunk Opening Relay, Tuner Rotary Detents, Turn Left, Turn Light Front Right, Stop - Position - Turn Right Light 1, Stop - Position Left Light 1, Stop - Start System Active Indicator, Stop & Start LED, Stop / Start System Active Lamp, Stop And Start Led, Stop Light Left, Stop Parking Turn Lights Left 1, Stop-Start ON-OFF Indicator, Stop-Start System Active, Sunroof Abilitation, Sunroof Open, T Case Service Indicator Request, T-Case Motor-Motor Lock, T-Case Service Indicator Request, Telltale Airbag, Telltale ETC, Telltale Seat Belt, Telltale Sway Bar, Telltale VTA, Telltale - ESC, Telltale - Rear Fog, Telltale ESP/BAS, Telltale Trailer Tow, Telltale-AWD/4WD Fail, Telltale-Tire Pressure Monitor, Temperature Warning Lamp, Thermal System Enable, Thermistor Test, Third Row Left Seatbelt Switch, Tow-Haul Indicator, TPMS Generic Failure Monitoring Lamp, Tpms Indicator, Security VTA ind. Test, Seek Status, Seek Status Tuner DAB, Set Memory 1, Shift 4wd Hi, Shift Lock Coil Command, Shift Solenoid 3, Shift Solenoid 4, SIDE TURN RIGHT, Snow Plow Right Turn Lamp, Snow Plow Switch #1, Snow Plow Switch #2, Software Test, SPARE RELAY 2 LSD, Spd Control Servopower Rly Cntrl State, Speaker Quadrant Selection, Sport Led, Spring Deflate To Atmosphere, Start/Stop System, Steering Wheel Linear PWM Request -Output, TPMS Warning Light, Trac Cntrl Outlet Vlv 2(Normal open), Transfer Case AWD/Auto/Full Lamp, Transmission Clutch 4 Pressure Enable, Transmission Relay, Treble Level Settings, Truck Bed Lighting Leds, Trunk Light + Inadvertent Lights, Trunk Release Relay, Tuner Rotary Direction, Type Of Fuel Supply (Gasoline-Alternative Fuel), UConnect Live Apps Installation, UD Solenoid, Unlock Doors, Unlock Run -Start, Unlock RUN-START, Vacuum Cleaner Relay Driver, Vehicle Sway Yellow, VES Display Screen Control, VES Headphone Tone Test, Video Input Settings, View Angle, View Last Successful Remote Start Event Data, UGDO (Universal Garage Door Open) enable command, Unlock doors command, Unlock Driver Door On 1st Press, Upstream O2 (1/1) Heater Duty Cycle, Urea Dosing Valve Actuation Test, Vacuum Pump Relay, Variable Swirl Actuator, Variable Valve Timing, VVT Control Valve, Vehicle Sway Green, Vehicle Theft Alarm, VF Brightness Test, View Satellite Sensor Information, Voltmeter Gauge Test, Volume On-Off Button (Power On-Off), Wait To Start Lamp, Water Pump Charge Air Cooling, White Knob Indicators, Injector Kill (#7), Inlet Valve Right Front, Inlet valve RL, Instrument Panel Dimming, Intake Throttle Duty Cycle, Intake VVT, Inverter, Inverter Enable Command, Latch Cinch Test, Latch Motor Cinch Direction, LDP Pump Test, LED Bright Indicator, LED Intensity Output, LED LF Heated Seat, Left Cushion Heat Seat Linear PWM Request -Output, Left Front Park Side Marker Lamp, Left Headrest Dump, VTA Indicator LED, VVT Diagnostic, Wait To Start Indicator Test, Wastegate Solenoid Control State, Wastegate Solenoid Duty Cycle, Water In Fuel, White Backlighting Buttons, White Lower Halos, White Upper Halos, Window Control, Window State, Windshield Washer, Windshield wiper, Wiper Motor On / Off

Relay, WK Head Rest Relay, Variable Displacement AC Duty Cycle Control, VES to Radio Tone Test, View Remote Start Inhibit Data, Volume Rotary Detents, VVA Cylinder #4, Water In Fuel Filter Lamp Command, Wheel Speed Sensor Functional Test, White Backlighting Knob Buttons, White Backlighting Knob Indicators, Wind shield Wash, Window Heater Led, Yellow Rear Defrost Indicator, Yellow Recirc Indicator, Stop - Position - Turn Left Light 1, Stop - Position - Turn Left Light 2, Stop - Position Right Light 2, Stop Light, Stop Parking Lights Left, Stop Start Confirmation, Stop&Start LED Command, Stop-Start Indicator, Sunroof Close, Sway Bar 1, Sway Bar 2, TAIL - SIDE MARKER LEFT, Tail-Stop Lamp, T-Case Cluster Display, T-Case Mode Position Custom, T-Case Mode/Position-Standard, T-Case Motor Duty Cycle, T-Case Relay Drive Minus, Telltale 4WD Mode, Telltale Fog Front, Telltale Oil, Telltale-Cruise On, Throttle Valve, Throttle Valve Actuator, Tire Pressure Load Switch Indicator, Traction Control Outlet Valve 1, Move The Pedal, Mute Test, O2 Heater Tests, O2 Sensor Heater Bank 1 Sensor 1, O2 Sensor Heater Bank1 Sensor1, OBCM S2 Internal Switch, OBD Button 2 Pad 2, Oil Control Valve, Outlet valve FR activation, Outlet valve front right activation, Outlet Valve LR (Normally Closed), Oxygen Sensor 1-1 Heater Duty Cycle, Oxygen Sensor 2 Heater, Panel Mode Actuator Degrees, Parking (Position) Lamp / Low Beam Headlamp Indicator, Parking Brake And Low Brake Fluid, Passenger Blend Hot, Trans line pressure current enable, Trans Pump Test, Transmission Clutch 1 Pressure Enable, Transmission Clutch 3 Pressure, Transmission Clutch 3 Pressure Enable, Transmission Feed State, Transmission Overdrive, Trunk/Flipper Glass Release Motor, Trunk-Flipper Glass Release Motor, Tumble Generator Valve, Turn Light Front - Lateral Left, Turn Light Rear - Lateral Right, Turn On all VF Segments, Under Inflation Monitoring Lamp, Universal Garage Door Open, Unlock 1-Driver Lock, Upshift Indicator Lamp, Variable Displacement AC, Variable Speed Fuel Pump Test, Vehicle Speed Output, Vertical Front, VF Segments test, View Oil Dilution Mass Value, View Remote Start Abort Data, Left Heated Seat Upper Indicator, Left highbeam lamp, Left Rear Heated Seat Status, Left Side Markers, Left Turn Light Front-Lateral, Left Turn Signal, Left Ventilated Seat Upper Indicator, LF Heated Seat Status, Licence Plate Lights, Lift Pump Relay, Line Pressure Test, Linear IAC Valve Duty Cycle, Linear Solenoid E, Low Speed Rad Fan State, Main-Left Temperature Actuator Position, Map Lamp Indicator, Maximum Engine Cooling Temperature Lamp, Mid-Range Settings, MIL Diagnostic Lamp, Volume Rotary Direction, VVL Service Test, VVT Exhaust Phaser 2 Actuator, VVT Intake Phaser 1 Actuator, VVT Intake Phaser 2 Actuator, Wait Start Lamp Test, White Backlighting Channel 1, White Backlighting Channel 2, Windshield heater, Wiper motor high / low relay, Pilot Valve 1, Pilot valve 2 activation, Position Lamp Telltale, PPV2 Electro-Valve, PSDM Latch Motor- Release Direction, PTC Heater Request, Purge Duty Cycle, Radiator Cooling Fan Relay 2 Control State, Radiator Fan Relay 1 Duty Cycle, Radiator Fan Relay 2 Duty Cycle, Radiator Fan Relay Test, Radio Power On, Speed Control Servo Power Relay, Sport ON-OFF Indicator, Start & Stop LED, Starter Relay, Station Selection, STOP - STOP TURN LEFT, Sunroof Temperature Sensor Degrees, Tachometer, Telltale Low Coolant, Telltale-Coolant, Mode 2 Actuator Position (Defrost Panel Door), Motor Control Open Output, Motor RPM, Move Seat To Anti-Ship, Move Seat To Ship, Multiair VVA Solenoid 1, Neutral LED Indicator, NVLD solenoid Duty Cycle, O2 Sensor Heater 1-2 Duty Cycle, Open Loop Fuel Control, Outlet Valve Front Left, Oxygen Sensor 1 Heater, Rear Axle Lock Enable, Rear Blower Motor, Rear Defrost Indicator, Rear Driver Panel Duct Sensor Temperature, Rear Inlet Valve, Rear Left Turn Lamp, Rear Load Compartment Status LED Command, Rear Right Position Light, Rear Washer Motor, Red Brake Lamp, Thatchum Unlock Motor, Third Indicator Lamp, Tone Generator-Tone Selection, Tone Test, Trans high side driver 2 Enable, Trans high side driver 2 On, Transmission Overdrive DC Override, Transmission Service Cleaning Trigger, Turn Front Lateral Lights Right, Turn Signal Lamp State, Upstream O2 (2/1) Heater Duty Cycle, Variable Swirl Valve Shutoff, Oxygen Sensor 1/2 Heater Duty Cycle, Oxygen Sensor 2/1 Heater Duty Cycle, Oxygen Sensor 2-1 Heater Duty-Cycle, Oxygen Sensor 2-2 Heater Duty Cycle, Panel, Passenger Airbag (PAB) Status, Passenger Airbag Deactivation Lamp, Passenger Mirror Vertical Motor, PLGM Engage Actuator - Disengage Direction, Power Down, Power Fold Seat Disable Relay #1, Power Fold Seat Disable Relay #2, Priming Valve 1, Priming Valve 2, Proportional Surge Solenoid, PTC Heater Relay 2, Puddle light Driver



side, Puddle light Passenger (Door handle and door panel), Puddle Light Rear Passenger(Door Handle And Door Panel), Reverse Brake Torque, Right (Front/Central/Rear) Turn Lights, Right Blend Actuator Position, Right Day Light Lamp, Right Low Beam State, Right lowbeam, Right Rear Turn-Stop Lamp, Right Reartail-Park Lamp, Right TT Turn Stop Lamp State, Right Turn Lights, Radio Tone Test, Radio Volume Selection, Ready, Rear Blend Door Output, Rear Defrost LED, Rear Fog Lamp, Rear Lockout Indicator (Rear Panel), Rear Mode Door Output, Rear Outlet Valve, Rear Right And Left Tail T2 (Movable), Rear Right window lifter command, Rear Speed Sensor Supply, Recirc, Recirculation Pump, Vehicle Sway White, Vertical Rear, VFD Segments, Video Input, View Last VTA Trigger Cause Data, VSO Regeneration Command, VVA Cylinder #2, VVA Solenoids Pre-Energization, VVT Exhaust Phaser 1 Actuator, VVT Solenoid Control State, Window Hall Sense Supply, Window Switch Back Light Control, Yellow A/C and Auto Indicators, Repetition Driver Door Open For MTA (NCR), Right Blend Actuator Degrees, Right DRL, Right Front Inlet Valve, Right Front Inlet Valve Solenoid, Right Front Turn Lamp State, Right Headrest Dump, Right Heated Seat Upper Indicator, Right Rear Heated Seat Status, Right Rear Tail Light, Right Rear Turn Lamp, Right Seat Stow Motor Adjustment, Right Stepper Motor, Right Stop Lamp, Right Temp Actuator Position, S/C Servo Solenoid Test, Scala ind. Press. turbo, SDARS Internal Tone Generator, Seat belt lamp test, Seat Belt Warning Chime, Second Row Center Seatbelt Switch, Separation Valve (SV - Normally Open), Shift Lever Position, Side markers, Speed Control Vacuum Solenoid, Start - Remote Start State, STOP - STOP TURN RIGHT, SWAY BAR, Switch Illumination Actuation, Switch Illumination State, Tachometer test, T-Case Relay Drive Plus, Telltale Brake, Telltale Cruise, Temperature Gauge Test, Throttle Valve Span, Tilt Mirrors in Reverse, TPMS, Transmission Clutch 2 Solenoid Enable, Transmission Clutch 3 Solenoid On, Transmission Failure Indication, Transmission Oil Overtemperature, Transmission TCC, Transmission Y\_Valve Solenoid Enable, Trunk Latch Command relay, Trunk Light, Turn Front Lateral Lights Left, Turn Front Light Left, Turn Light Front - Lateral Right, Turn Signal Clicker, Underdrive Solenoid, Under-Drive Solenoid, Unlock 2-Passenger Locks, Vacuum Cleaner Power Saver Indicator, Vehicle Speed Cluster, VES Headphone Tone Test-Headphone 2, VFS Duty Cycle, VVA Cylinder #3, Washer Motor, Waste gate valve command, Water In Fuel Indicator, Window Lockout Switch Indicator, Windshield Washer Relay, Windshield Wiper Relay, Comfort Closing And Opening, Comfort Enable, Commando City, Convenience Lamps Load Shed, Cooling Fan Relay-High, Cooling Fan Relay-Low, Cruise Control Lamp, Day Lights Left -Right, Daylights and Position Right, Daylights Right, Diesel Cabin Heat 2 State, Diesel Glow Plug 2, Dome Lamp, Door Open Indicator, Drive style 3 LED, Run/Start Remote Start State, S&S LED command, Screen Off, Seat belt unfastened Warning cycle, Set Memory 2, Spd Control Vac Valve Sol Cntrl State, Dump Valve Front Left, EBL Relay, EL Illumination, Electric Fuel Pump, Electric Park Brake, Electronic Parking Brake (EPB) failure indication, Electronic Stability Control Deactivation Lamp, Engine Speed Cluster, EPB Button lamp, ESC (Electronic Stability Control) deactivation Lamp, ESC Sys Intrvntn - fail Ind HILL HOLDER Sys fail Ind, F R Vent Seat Request - Output, Faceplate Controls-AM FM, Faceplate Controls-AUX, Faceplate Controls-DISC, Faceplate Controls-SET, Faceplate Controls-TIME, First Indicator Test, Frequency Selection Domestic, Front Axle Disconnect HSD, Front Fog Lights Halogen, Front Passenger window lifter command, Fuel Level low, Fuel Pump Relay, Generator Full Field Mode, Glow Plug Relay Actuator, Headlamps On With Wipers, Heated Mirror, Heated Rear Window Relay, High Pressure Set Point, High Speed Fan Relay, Hybrid Auxiliary Transmission Pump Pressure, Hydraulic Fan, Ignition ACC/RUN/START 1, Ignition Coil 2 Test, Ignition RUN/START - NGC/GPEC, In Motion Menu, Injector 1 Test, Injector 2, Injector 4 Test, Injector 5, Injector Kill (#1), Injector Kill (#2), Injector Kill (#5), Injector Kill (#9), Inlet valve FL activation, Inlet valve RR activation, Instrument Panel Dimming, Instrument Panel Illumination, Intake Heater 1 Test, Inverter Switch, ITOS - Cabin Temperature, Key LED PWM Duty, Key Removal Inhibit UNLOCK Control, Key Symbol Back-Light PWM Duty, Lane Departure Warning - on not armed- on armed- on warning, LCD Back-Light PWM Duty, LED A/C, Left Blend Actuator Position, Left Front Inlet Valve Solenoid, Left Rear Turn Lights (EMEA), Left Rear Turn Signal Lamp Status, Left Seat Back Motor Adjustment, Left Seat Latch Motor Adjustment, Left Ventilated Seat

Lower Indicator, LF Heated Seat, LF Heated Seat Low, Low Fuel Level Lamp, Low Speed Fan State, LPG Led Command, Mid-Range Audio Level Settings, Minimum Airflow, Minimum engine oil pressure indication, Mirror Sense Power, Multi-Select Solenoid, N LED State, NO.4 INJECTOR, O/D Override Solenoid Test, Outlet valve rear left activation, Outlet valve rear right activation, Panel Door Actuator Position, Park Assist Switch Simulation, Parking (Position) Lamp Indication, Passenger Door Power Window, Passenger heated seat relay command, Pedal Rearward, Pilot valve 1 activation, Position Lights Lamp, Power Inverter Output, Priming valve 2 activation, Stop Parking Turn Lights Right 1, Stop&Start LED, Stop-Start Activation, Sunroof Enable, Switch On EPB Failure Lamp, T-Case Brake Shift Motor, T-Case Encoder Position, T-Case Feed PWM, Telltale Fog Rear, Telltale Low Fuel, Telltale - Park Lamp, Telltale-Cruise Mode, Telltale-Front Axle Lock Mode, Telltale-Full-Time 4WD, Temperature Gauge, TPMS (Tire Pressure Module), TPMS (Tyre Pressure Module System), Put Radio Into AM Mode, PWM Output, QPV K1 Clutch Electro-Valve, Radiator Cooling Fan Rly 1 Cntrl State, Rail Pressure Actuator, Rain and Automatic Lights Sensors Check, Rear Ceiling Light, Rear Ceiling Light - Inadvertent Lights, Rear Ceiling Light 1st Row, Rear Defrost, Rear Defrost EBL, Rear Park Assist Disable, Rear Temp Door Actuation Position, Transmission Clutch 1 Pressure, Transmission Clutch 1 Solenoid On, Transmission Clutch 2 Pressure, Transmission Line Pressure Enable, Transmission X\_Valve Solenoid Enable, Transmission X\_Valve Solenoid On, Treble Settings, Turn - Rear backup Left Light, Turn Light Front Left, Turn Light Rear - Lateral Left, Turn On all Telltales, Turn Rear Lateral Lights Right, Under Drive Solenoid Mode Control, Unlock lift gate, Upstream lambda probe heater command, Urea (Reductant) Pressure Line Heater Actuator Test, Vehicle Protection System Failure Lamp, VES Headphone Tone Test-Headphone 1, VF Display, VLP Solenoid, VOLTAGE STABILIZER STATUS LED, VSO, VVA Cylinder #1, Wind shield wiper, Window lifter commands enable, Window Lifter Switch Enable, Wiper On/Off State, Yellow Button Indicators, Yellow Lane Departure Warning Indicator, Recirculation Door Actuator Degrees, Right Rear Turn Lamp State, Right Rear Turn-Stop (NAFTA), Right Turn Signal, RR Heated Seat Low, S/C Indicator, S/C Vacuum Solenoid Test, SDU/ Electro-Pump, Seat Mode Switch Adjustment, Second Indicator Lamp, Self Test Routine, Set Oil Dilution Mass Value, Set Purge Valve Position, Shift Lever Position Test, Shift Neutral, SIDE TURN LEFT, Sliding Door Close Test, Speed Control Servo Output (B+ Source) Control State, Speed Control Vacuum Solenoid Control State, Speedometer, Stop - Position - Turn Right Light 2, Stop - Position Right Light 1, Stop Parking Lights Right, Sunroof Vent, SV2, Tailgate Ajar, T-Case Brake State, Telltale - Cargo Lamp, Telltale - Low, Telltale - Neutral, Temperature Gauge Gaugepoint, Tire Pressure Warning Lamp, Transfer Case Brake, Transfer Case Encoder, Transmission Clutch 4 Solenoid Enable, Transmission Clutch 4 Solenoid On, Transmission Over Temperature Indicator, Transmission Temperature, Trunk Release, Turn - Rear backup Right Light, Turn Rear Backup Left Light, Turn Rear Backup Right Light, VFD Illumination, Water In Fuel Indicator Test, Water Pump Control, Window lifter enable commands, Wiper Hi/Low State

## ***Ford Coverage***

### **21 new Adjustment type special test:**

Anti-Lock Brake System (ABS) Calibration, Brake System Pressure Bleeding, Battery Monitor System Reset, Climate Control System Actuators Calibration, Occupant Classification System Module (OCSM) Reset, LIN New Module Initialization - BCM, Misfire Monitor Neutral Profile Correction, Reset KAM, Relearn Vehicle Data, TPMS Sensor Training Mode, Power Window Initialization - Passenger Side, Steering Wheel Angle Trim, Transmission Characterization - 10R80 RWD, Power Window Initialization - Driver Side, Reset The Body Control Module (BCM), Reset the Outside Air Temperature Sensor Learned Values, Clear Transmission Adaptive Tables, Engine Oil Life Reset, LIN New Module Initialization - IPMB, Transmission Characterization - 6R140 RWD, Transmission Characterization - 6R80/100 RWD

### **194 new Actuation type special tests:**

\* Button, A-C Recirculating Servo Position Status, Active Grille Air Shutter -A- Position Commanded, Air Conditioning Compressor Commanded State, Active Grille Air Shutter -B- Position Commanded, Adaptive Front Lighting Fault, 4WD-AWD Front Axle Disconnect - Clutch Commanded State, 4WD-AWD Transfer Case Actuator -A- Requested Torque, ABS Warning Lamp, # Button, All Warning Lamps, Anti-Theft Horn Status, AUX (Auxiliary) Button, Air Mode Actuator, Airbag Warning Indicator, AM Button, Actuator Supply Voltage -B- Control State, Coolant Overtemp, Coolant Pump -A- Control Speed - Commanded, Blower Motor Speed, Brake System Fault Indicator Lamp, Brake-Shift Interlock, Center High Mounted Stop Lamp Output Control, Coolant Pump -B- Control Speed - Commanded, Courtesy Lamps, Auxiliary Blower Output, Auxiliary Transmission Fluid Pump Control % Speed - Commanded, Battery Pack Coolant Ctrl Valve A - Output Ckt Energized, Delayed Accessory Power, Coolant Pump -A- is Commanded On, Courtesy Puddle Step Lamps, Camera Power Control, Commanded Equivalence Ratio (Air To Fuel Mixture) Bank 2, Driver Heated Seat, ECO Mode, EGR Valve Position Desired, Engine Coolant Bypass Valve Control Output, Engine Coolant Bypass Valve -D- Commanded to be Energized, Cancel Button, CD Button, DC To DC Converter Enable, Desired Idle Speed (Rpm), Enter Button, EVAP Purge/Vent Control, Evaporative Emission Canister Purge Valve Duty Cycle, Engine Running Fuel Injector Control, Exhaust Heat Exchanger Bypass Valve A Control Signal Duty Cycle, Commanded Equivalence Ratio (Air to Fuel Mixture) Bank 1, Front Fog Lamp Indicator, FM Button, Door Ajar Warning Indicator, Driver Door Interior Lock-Unlock Latching Switch Status, Fuel Rail Pressure Desired, Engine Running Fuel Pressure Test, Hill Descent Control, Hybrid-EV Traction Battery Thermal System Operational Levels, KOEO Injector Buzz Self Test, Left Bottom Bolster Bladder Inflate Status, Left Front Defrost Output, Left Headlamp High Beam, High (LED) Status/Control, Left Side Bolster Bladder Inflate Status, Low Fuel Warning Indication, Electric Transmission Fluid Pump Control Duty Cycle - Commanded, EVAP Vapor Blocking Valve, Evaporative Emission Canister Vent Valve, Oil Pressure Low Indicator, Output State Control Of Torque Converter, Power Fold Mirror Activation Status, Preset 8 Button, KOER Glow Plug Self Test, Left Front Fog Lamp, Engine Coolant Bypass Valve -D- Output Status, Evaporative System Leak Detection Pump Commanded State, Fan Speed Desired, EVAP LDP Vac Sw Valve - Change Over From Vent To LDP, KOER Self Test, Left Rear Turn Signal Lamp Status, Left Turn Signal Lamp Status, Fuel Pump Relay, Generator Voltage Desired, Heater Control For HO2S 12 And HO2S 22, Right Headlamp High Beam, Front Window Down Output, Heater Control For HO2S 11 And HO2S 21, Front Blower Relay, Power Balance, Preset 0 Button, Prev-First (|<) Button, Fuel Gauge Indicator Control, Line Pressure Control Desired, Rear Temperature Flap Position, Fuel Fill Door Unlock Output - Commanded To Enable State, High Beam Indicator, Mid-Lumbar Bladder Inflate Status, Next-Last (>|) Button, Right Climate Seat Mode, Right Side Bolster Bladder Inflate Status, Info (Information) Button, Seat Cushion Bladder Inflate Status 2, Seek Left Button, Shift Solenoid Pressure Control E, Speed Control Cancel Switch, KOEO Self Test, Left Blend Door Position, Lamp Control, Left Climate Seat Mode, Left Rear Turn Signal-Trailer Relay Status, Low (LED) Status/Control, Max Defrost, Motor Electronics Coolant Pump, Low Washer Fluid Warning, Lower Lumbar Bladder Inflate Status, Traction Control Off Indicator, Transmission Forced Shift Control, On Demand Test, PCM WAKEUP LINE, Power Button, Preset 9 Button, Malfunction Indicator Lamp, Shift Solenoid Pressure Control B, Side Light Lamp, Preset 2 Button, Preset 6 Button, Preset 5 Button, Rear Fog Lamp Indicator, Right Rear Turn Signal Lamp Status, Right Turn Signal Lamp Status, Safety Belt Warning Lamp, Seat Cushion Bladder Inflate Status 4, Shift Solenoid Pressure Control A, Right Bottom Bolster Bladder Inflate Status, Right Front Fog Lamp, Right Rear Turn Signal-Trailer Relay Status, Start Button Mode Indicator Control, Seat Bladder Pump Status, Seek Right Button, Shift Solenoid F Commanded Current, Side Mirror Turn Signal Lamp Control, Speedometer, Reverse Lamp, Right Headlamp Low Beam, Run-Accessory Output Control, Side Mirror Heating Output Control, Volume, Key (Removal) Inhibit, Warning Lamp Status 1 - Charge Warning, Temperature Gauge, Traction Control Indicator, Load Shed Output Control, Menu Button, Rear Defrost (Heated Backlight), Transmission System MIL Fault, Upper Lumbar Bladder Inflate Status, Variable Camshaft Timing Intake Desired Angle, Passenger Heated Seat, Phone Button, Power

Point Output Relay, Preset 7 Button, Relative Compression, Right Blend Door Position, Right Front Defrost Output, Right Front Turn Signal Lamp Status, Rear (Hvac) Mode Control Input, Seat Cushion Bladder Inflate Status 1, Shift Solenoid Pressure Control C, Shift Solenoid Pressure Control D, Stop-Start, Tire Pressure Telltale Status, Variable Camshaft Timing Exhaust Angle Desired, Video Output, Shift Solenoid G Commanded Current, Spark Advance, Eject Button, Engine Oil Pressure Control Duty Cycle - Commanded, EVAP Leak Test, Front Park Lamps Output, Fuel Pump, HEV Ready Light, LED Backlighting, Left Front Turn Signal Lamp Status, Left Headlamp Low Beam, Low Pressure Fuel Leakdown Test, Preset 1 Button, Preset 3 Button, Preset 4 Button, Tachometer Gauge Indicator Control, Tone Button, Rear Blower Control, Rear Park Lamps Output, Seat Cushion Bladder Inflate Status 3, Torque Converter Clutch Solenoid Commanded Current, Turbo Boost Gauge Pointer Placement Command, Wiper Heater Output

## **General Motors Coverage**

- Added coverage for 395 new system applications

### **177 new Adjustment type special tests:**

Adaptive Pressure Control Learn, Adjustable Pedals Forward/Rearward, Actuator Recalibration, Adjustable Pedal Calibration, Ambient Air Temperature Calculation Reset, Automated Bleed, Brake Pressure Sensor Calibration, Cancel Camera Learn, Backup Battery Timer Reset, AfterBlow Option, Automated Brake Bleed, Clear Left Rear Window Learned Values, Brake System Plunger Pressure Rise Starting Point Learn, AWD Disabled-by-Malfunction Counter Reset, BARO Sensor Reset, Battery Sensor Module Learn, Brake Pedal Position Sensor Learn, Catalyst 1 Reset, Clear Active Pull Compensation Learned Limits, CAN Bus Configuration Learn, Catalyst, Clear Approach Detection Disable Reasons, Clear Driver Window Learned Values, Configure New Module, Control Module Reset, Copy And Paste TPM Information, Cylinder 4 Injector Flow Identifier Reprogram, Automatic Level Control Trimset, Cylinder 2 Injector Flow Identifier Reprogram, Clear Disable History Data, Clear Pedal Softstops, Clutch Pedal Position Learn, Cylinder 3 Injector Flow Identifier Reprogram, Cylinder 6 Injector Flow Identifier Reprogram, DC Charging Disabled Reset, Clear Passenger Window Learned Values, Clear Driver-Specific Steering Angles, DPF Service Regeneration, Driver Information Center Options, Engine Coolant Pump Data Reset, Clear Right Rear Window Learned Values, Clear Secured High Voltage DTCs, Clear Side Object Detection Disable History, Crankshaft Position Reluctor Ring Learn, Engine Coolant Control Valve Learn, Exhaust Flow Control Valve Learn, Clear Manufacturer Enable Counter, Crankshaft Pos Variation Learn, Engine Oil Life Reset, Exhaust After Treatment Fuel Injector Reset, Excessive Clutch Slip Data Reset, Cylinder 7 Injector Flow Identifier Reprogram, Door Lock / Unlock, Cylinder 1 Injector Flow Identifier Reprogram, Cylinder 8 Injector Flow Identifier Reprogram, Cylinder Deactivation Exhaust Flow Valve Learn, Fuel Composition Reset, Fuel Filter Life Reset, DPF Pressure Sensor Reset, Fuel Pump Driver Control Module Configuration, Heater Core Coolant Temperature Sensor Reset, Engine Air Filter Life Reset, Fuel Rail Pressure Relief Valve Learned Values Reset, Fuel Trim Reset, HO2S Heater Learn, HO2S Learned Values Reset, Hybrid/EV Battery Contactor Open Reasons Reset, Idle Learn Reset, Invalidate All Fobs, Learned Airflow Adapts Reset, Fuel Injection Small Quantity Data Reset, Gear Selector -N- Position Learn, Glow Plug Learn, Engine Block Coolant Valve Position Learn, EV Range Reset, Parking Assist Sensor Learn, Learn Pedals Softstops, HVAC Actuators Learn, Hybrid/EV Battery Pack Capacity Learn, Hybrid/EV Battery Pack Charging Adaptive Learn Reset, Rear Differential Hydraulic System Service Bleed, Heated Oxygen Sensor Heater Resistance Learned Values Reset, Reset Transmission Adapts, Hybrid/EV Battery Pack Data Reset, Idle Speed Adjustment, Park Brake Cable Replacement Procedure, Park Brake Calibration, Power Steering Softstops Reset, Program Key Fob 2, Fuel Pump Trim Reset, Fuel Injection Small Quantity Learning Odometer Reset, Gear Position Sensor Learn, Hands-Free Liftgate Sensor Control Module Calibration, Neutral Position Learning, NOx Catalyst

Reductant Loading Reset, Reset Particulate Filter, Reset Transmission Oil Life, Instant OAT Update, Learned Values Reset, Steering Wheel Angle Sensor Offset Calibration, Timing Belt Life Reset, HVAC Afterblow Configuration, Particulate Filter Pressure Sensor Reset, Passenger Presence Sensor Learn, O2 Heater Resistance Reset, PTO Engine Shutdown, Radio Favorites Reset, Range Actuator Correlation Learn, Setup New ROS, Setup SDM Part Number In BCM, Preset Transmission Adapts, Prime Fuel Pump, Program Key Fob 1, Remote Vehicle Speed Limiting Reset, RVS Disable History Reset, Reductant Injector Reset, Reset Diagnostic Counter, Steering Angle Sensor Calibration, Steering Gear Replacement Procedure, Reset High Voltage Disable Request After Crash Event Detected, Reset Teen Driver Key PIN, Transmission Clutch 2 Return Spring Learn, Steering Wheel Angle Sensor Learn, Setup New SDM, Steering Gear Learned Values Reset, Steering Wheel Angle Sensor Centering, Transmission Clutch 2 Volume Learn, Turbocharger Wastegate Learn, Intake System Learned Values Reset, NOx Sensor 1 Reset, NOx Sensor 2 Reset, Particulate Filter Regeneration, Particulate Filter Service Regeneration, Particulate Matter Sensor Service Regeneration, Transmission Clutch 5 Return Spring Learn, Power Steering Softstops Learn, PTO Options, NOx Absorber Catalyst Reset, NOx Catalyst Reset, Oil Life Reset, Range Actuator Learn, Throttle Body Idle Air Flow Compensation Reset, Tire Pressure Reset, Tire Pressure Sensor Registration, Transmission Clutch 1 Volume Learn, Transmission Clutch 3 Volume Learn, Transmission Clutch 4 Return Spring Learn, Transmission Service Fast Learn, Power Steering Pressure Sensor Learn, Program Key Fob 3, Program Key Fob 4, Reset PTO Inhibit and Disengage History, WLAN Password Reset, Yaw Rate Sensor Recalibration, Set Language, Transmission Clutch 3 Return Spring Learn, Transmission Clutch 5 Volume Learn, Turbocharger Learned Values Reset, Vehicle Longitudinal Accelerometer Sensor Learn, WLAN Service Set Identifier (SSID) Reset, Clear Softstops, Crankshaft Pos. Variation Learn, Cylinder 5 Injector Flow Identifier Reprogram, DPF/Catalyst 2 Reset, Exhaust Gas Temperature Sensor Reset, License Compliance Materials Download Error Counter Reset, Liftgate Maximum Open Position Learn, NOx Absorber Catalyst Data Reset, Tire Type/Pressure Selection, Transmission Adaptive Pressure Reset, Transmission Clutch 4 Volume Learn, Vehicle Dynamic Sensor Offset Calibration, Yaw Rate Sensor Reset, Reductant Fluid Tank Level Reset, Reductant System Data Reset, Steering Wheel Angle Sensor Reset, Yaw Rate Sensor Learn

### **781 new Actuation type special tests:**

A/C Clutch, A/C Compressor Clutch, ABS Pump Motor, ABS Right Front Solenoid Valves, Accessory Power Mode Indicator, Activate Rear Park Brake Service Position, 2WD High Indicator, ABS Right Rear Solenoid Valves, Accent Lighting 2, Accessory/Retained Accessory Power Relay, Active Grill Shutter Test, ABS Left Front Solenoid Valves, 14V Power Module Setpoint, 4WD Low Indicator, A/C Compressor Command, A/C Relay, A/C Request, ABS Motor Test, Accy/RAP Relay, Active Grill Air Shutter 2, Active Grill Air Shutter System, ABS Warning Lamp, AC Compressor Solenoid Valve, Accent Lighting 1, Accessory Power Relay, 4WD High Indicator, Active Antenna, Active Grill Air Shutter 1, All Shock Absorber Actuators, Auxiliary Transmission Fluid Pump, 1-2 Solenoid, 2-3 Solenoid, ABS Motor, Active Grille Air Shutter, Active Grille Air Shutter 2, Air Cleaner Monitor Setup, All Doors Lock, Auxiliary Engine Coolant Fan, Auxiliary Ignition Run Relay, Backup Park Lock Actuator Arming, Brake Hydraulics Test, Brake Transmission Shift Interlock Indicator, Brake Transmission Shift Interlock Solenoid Actuator, Air Inlet Door, ATC Range, Auto. Indicator - 4WD, Auxiliary Coolant Pump, Backup Lamps, Backup Park Lock Actuator Disarming, All Door Lock Unlock, Auxiliary Air Temperature Door, Backlight Dimming, Advanced Parking Assist Switch LED, Audio Tone, Auto. Indicator - 2WD, Autostart/Autostop, Auxiliary Transmission Fluid Pump Speed, ATC Neutral Indicator, Audio Source Control, Auxiliary Blower Motor, Auxiliary Coolant Pump Speed, Auxiliary Transmission Pump Relay, ABS Left Rear Solenoid Valves, Air Pump Relay, Clutch PC Solenoid 3, Blower Motor, Chime, All Status LEDs, Auxiliary Coolant Pump Relay, Auxiliary Mode Door, Battery Charging System Positive Contactor, Child Security Lock Indicator, Battery Charging System Efficiency Test, Cargo Lamp, Catalyst Test, Check High Voltage System Related DTCs, Blower Motor Speed Command, Brake Booster Electric Vacuum Pump, Camshaft Position Actuator,

Center I/P Speaker, Charge Air Cooler Coolant Pump Speed, Child Security Lock Motors, Clutch PC Solenoid 2, Compressor Test, Cooling Fan 1, Cylinder 3 (deactivation), Cylinder 6 Deactivation Solenoid, Cylinder Deactivation Performance Test, Cylinder Deactivation System, Cylinder Power Balance, Deactivate Brake Boost System, Deactivate Rear Park Brake Service Position, Air Recirculation Door Motor Direction, All Indicators, Auxiliary Blower Motor Speed Command, Auxiliary Engine Coolant Fan 2, Cooling Fan Motor, Cylinder 5, Cylinder 6, Cylinder 8, Cylinder Deactivation Control Valve, Cylinder 1 Injector Flow Identifier, Cylinder 7, Cylinder Deactivation Control Valve 4, Cooling Fan, Cooling Fan 2, Crankcase Ventilation Heater, Cylinder 2 Injector Flow Identifier, Cylinder 4, Cylinder 4 Deactivation Solenoid, Center High Mounted Stop Lamp, Charge Air Cooler Coolant Pump, Child Security Lock/Window Lockout Switch Indicator, Clutch PC Solenoid 4, CMP Actuator Solenoid, Disable All System Outputs, Door Dead Lock Lock/Unlock, Driver Seat Cushion Front Vertical Movement, EGR Control, DC Charge Port Lock, Diesel Intake Air Flow Control Valve Position, Display Check, Door Speaker - Left Rear, Driver Seat Cushion Rear Vertical Movement, Driver Seat Cushion Right Front Haptic Movement, Driver Seat Cushion Left Rear Haptic Movement, Driver Window Motor - Express, Engine Cooling Fan, Control Functions, Coolant Thermostat Heater and Cooling Fan, Courtesy Lamps, Engine Block Coolant Control Valve Position, Engine Block Coolant Valve, Engine Coolant Control Valve, Engine Coolant Control Valve Mode, Engine Coolant Fill, Engine Coolant Pump Relay, Engine Coolant Thermostat Heater, Engine Speed, EVAP Purge/Seal, Even Gear Clutch Control System Test, Even Gear Shift Fork Control System Test, Even Gear Shift Fork System Cleaning Procedure, Exhaust Aftertreatment Fuel Injector, Blower Motor Speed, Cancel Valet Mode, Center Brake Lamp, Cruise Inhibit, Cylinder 1 (Deactivation), EGR Valve 2, Engine Coolant Control Valve Position, Engine Coolant Pump, Engine Oil Pressure Control Valve, Erase Valet Mode Code, Exhaust CMP Actuator, Exterior Left Rear Door Handle Switch, Engine Hot Lamp, Engine Mount Actuator Output 1, Engine Oil Pressure Control Solenoid Valve, EVAP Service Bay Test, EVAP Vent Solenoid, Exhaust Camshaft Position Actuator Bank 1, Exhaust Camshaft Position Actuator Bank 2, Exhaust CMP Actuator Bank 2, Exhaust Flow Control Valve System, Exhaust Gas Recirculation Valve, Exterior Right Rear Door Handle Switch, Fan 1 and 2, Fan 1, 2 & 3, Fan Relay 1, Clutch PC Solenoid 5, CMP Actuator, Cylinder 4 Injector Flow Identifier, Cylinder Deactivation Exhaust Flow Control Valve, Depressurize Fuel System, Door Speaker - Right Rear, Driver Door Unlock, Driver Information Center Segments, Driver Seat Cushion Right Rear Haptic Movement, Driver Seat Horizontal Movement, Driver Seat Lumbar Support Vertical Movement, Driver Upper Seat Back, DRL, Cylinder 2, Cylinder 2 Deactivation Solenoid Value, Cylinder 3, Cylinder 7 Deactivation Solenoid, Depressurize System, Driver Seat Cushion Heating, Driver Window Motor, DTC B1000 Information, Fuel Pressure Control - Regulator 2, Fuel Pressure Regulator 1, Front Fog Lamps, Differential Clutch Control System Cleaning Procedure, Dimming, DPF Regeneration Enable, D-Pillar Speaker - Left Rear, Driver Seat - Blower Command, Driver Seat Cushion Left Front Haptic Movement, EGR Cooler Bypass Valve, EGR Valve, Digital Audio Broadcast Antenna, Display Test, Door Lock/Unlock, Door Speaker - Right Front, Driver Seat Back Horizontal Movement, Fuel Pressure, Fuel Pump Enable, Fuel Rail Pressure, Green Indicator, Hazard Lamps Switch Backlight, High Voltage Disabling, EAC Compressor Speed, Engage Front Axle, Engine Cooling Fan 2, EVAP Purge Solenoid, EVAP Purge Solenoid Valve, Exhaust CMP Actuator Sol. Bank 2, Exhaust Gas Recirculation, Exhaust Gas Recirculation Valve Position, Exterior Passenger Door Handle Switch, Glow Plug, Head-Up Display Pattern Check, Horn, Hybrid Electronics Coolant Pump, Hybrid/EV Battery Pack Heater Passive Isolation Test, Info Display Test, Fan Relays 1, 2 & 3, Fuel Control Loop Status, Intake Air Flow Valve Motor, Intake Cam Position Actuator Park Lock B2, Intake Camshaft Position Actuator Bank 2, Intake Camshaft Position Actuator Position, Internal Combustion Engine Autostart/Autostop, Left Daytime Running Lamp, Left Dedicated Daytime Running Lamp, Left Front Inlet Valve Solenoid, Left Front Shock Absorber Actuator, Left Low Beam, Left Rear Park Lamp, Fuel Injector Balance (All Cylinders), Fuel Pressure Regulator 2, Glow Plug Self-Test, Heater Core Pump, HO2S Test, Hybrid/EV Battery Negative Contactor, Left Rear Turn Signal Lamp, Left Rear Window Motor, Left Side Marker Lamp Command,

Left Stop Lamp, Left Tail Lamp, Left Temperature Door Position, LF Turn Signal, LR Turn Signal, MIL Lamp, Exhaust Aftertreatment Fuel Injector Flow Test, Exhaust Control Valve Position, Fan 1, O2 Sensor Heater Bank 2 Sensor 2, Hybrid/EV Battery Positive Contactor, Hydraulic System Leak Test, Fan Relays 2 & 3, Fuel Injector 1, Fuel Injector 2, Fuel Injector 3, Fuel Injector 4, Fuel Pressure Control - Regulator 1, Park Brake Cable Service Apply, Passenger Air Bag Off Indicator, Passenger Air Bag On Indicator, PC Solenoid 3, PC Solenoid 4, PC Solenoid 5, Puddle/Courtesy Lamp, Intake Camshaft Position Actuator Bank 1, Intake CMP Actuator, Intake CMP Actuator Solenoid Bank 2, LED Dimming, Left Assist Step Motor, Left Fog Lamp, Left Front Park Lamp/Daytime Running Lamp, Left Front Speaker Test, Left Headlamp Low Beam, Left Rear Outlet Valve Solenoid, Left Rear Seat Heating Indicator, Horn Relay, Hybrid/EV Battery Pack Coolant Pump, IAC RPM, Illuminate All Indicators, Fuel Fired Heater, Engine Mount Actuator Output 2, Engine Oil Type Setup, EVAP Purge Pump, Evaporative Emission Canister Vent Valve, EGR System Flow Deviation Service Bay Test, Electronic Limited Slip Differential, Engine Coolant Flow Control Valve Position, Engine Coolant Thermostat Heater and Cooling Fan, Engine Speed Control, EVAP Canister Purge Valve, EVAP Purge Solenoid Valve Leak Test, EVO Actuator, Exhaust CMP Actuator Solenoid 1, Exhaust Gas Recirculation Valve 2, Exhaust Pressure Regulator Valve Position, Exhaust Valve, Exterior Driver Door Handle Switch, Rear Cross Traffic Haptic Alert, Rear Up/Down, Rear Washer Relay, Line Pressure Hydraulic Control System Cleaning Procedure, Malfunction Indicator Lamp, Instrument Cluster Dimming, Intake Air Flow Valve Position, Intake Camshaft Pos Actuator Park Lock Solenoid B2, Intake CMP Actuator Solenoid, Intake CMP Actuator Solenoid Bank 1, Key Fob Button Test, Left High Beam, Left Park Brake Actuator, Left Park Lamps, Left Rear Shock Absorber Actuator, Left Rear Turn Signal/Brake Lamp, Left Rear Turn Signal/Stop Lamp, Left Rear Window, Left Rear Window Motor - Express, Fuel Pressure Control, Fuel System High Pressure Test (Engine Runs), Headlamp Leveling System Suspension Trim Position Learn, Headlamp Washer Relay, Heater Pump, HO2S Heater Sensor 2, Relay Test, Right Auxiliary Daytime Running Lamps, Right Brake Lamp, Right Cornering Lamp, Right Exterior Flood Lamp, Right Front Park Lamp, Right High Beam, Right Rear Seat Heating Indicator, Right Turn Signal, Front Axle Differential Lock High Control Relay, Front Window Motor, Heated Seat Indicators, High Beams, High Fuel Pressure Limiter Valve Test, High Side Driver 2, High Speed Wiper Relay, IAC Position, Oxygen Sensor 1-1 Heater, Park Brake Cable Service Release, Fan 2, Incandescent Dimming, Indicator Dimming, Info Display Dimming, Instrument Cluster Gauge Sweep, Intake CMP Actuator Bank 2, Intake/Single Camshaft Position Act Locating Pin Ctrl Vlv Test, Intake/Single Camshaft Position Actuator Locator Pin Ctrl Valve, Integrated Sw. Backlighting Test, Passenger Doors Unlock, Passenger Window Motor - Express, Pedals Forward/Rearward, Preferred Roaming List Update, Pressure Control Solenoid Valve 3, Front Up/Down, Fuel Injector Balance, Fuel Pressure Regulator, Fuel Pump Speed, Generator Regulator Setpoint, Glow Plugs, Lamp Tests, Lane Departure Warning Indicator, Left Backup Lamp, Left Front Corner, Left Low Beam/Daytime Running Lamp, Range Actuator, Rear Brake Caliper Piston Extend, Rear Brake Caliper Piston Retract, Rear Drive Clutch Solenoid Valve, Rearview Camera Display, Recline Forward/Backward, Fuel Heater, Fuel Pump, Fuel Pump 2 Relay, Fuel Transfer Pump, Gen-L Terminal, Head-Up Display Dimming Level, Lumbar Forward/Backward, Master Cylinder Pressure Test Data, Mirror Heater, Reductant Heater, Reductant Heater 1, Reductant Pump, Right Front Corner, Run/Start Power Mode Indicator, HO2S Bank 2 Sensor 2 - Heater, HVAC Ambient Temperature Display, HO2S Bank 1 Sensor 1 - Heater, HO2S Heater Sensor 1, Hybrid/EV Battery Pack Precharge Contactor Command, Seat Cushion Rear Vertical Movement, Seat Lumbar Support Horizontal Movement, Seat Lumbar Support Vertical Movement, Secondary Air Injection Valve, Security Indicator, Shift Fork 3, Shift Solenoid Valve 2, Shift Transmission, Shock Absorber Rear Right, Skip Shift Controls, Spark Retard, Intake Camshaft Pos Actuator Park Lock Solenoid B1, Intake Camshaft Position Actuator Locating Pin Ctrl Vlv Bank 2, Intake Manifold Runner Control Valve, Intake Manifold Tuning Valve Solenoid, Left Cornering Lamp, Left Front Turn Signal Lamp, Left Rear Damper Actuator, Left Rear Speaker Test, Left Brake Lamp, Left Exterior Flood Lamp, Left Lower Park/Daytime Running Lamp, Left Rear Corner, Left Temperature Door Motor Direction, Left

Turn Signal, Starter Motor, Steering Column Telescope In, Steering Column Telescope Out, Subwoofer - Rear, Left Trailer Turn Signal Lamp, Liftgate Window Unlatch, Line Pressure, Low Beams, Mirror Folding Control, MOST Communication Enable Circuit, Transmission Control Solenoid Valve 10, Transmission Control Solenoid Valve 14, Transmission Control Solenoid Valve 8, Transmission Cooling Fan Duty Cycle, Turbocharger 2 Wastegate, Hybrid/EV Battery Pack Heater Power, Inclination Sensor, Object Detection Alert Indicators, Odd Gear Clutch Hydraulic Control System Cleaning Procedure, Odd Gear Shift Fork Hydraulic Control System Cleaning Procedure, Parking Assist Switch LED, Passenger Seat Belt Tension Sensor, Oxygen Sensor 2-2 Heater, Passenger Mirror Fold, Pickup Bed Cargo Lamp, Odd Gear Shift Fork Control System Test, Passenger Seat - Blower Command, Passenger Seat Cushion Heating, Passenger Window Motor, PC Solenoid, Rear Axle Differential Lock Indicator, Rear Axle Differential Lock Low Control Relay, Lift Gate Module Open/Close Test, Loop Status, Low Beam Lamps, Lumbar Up/Down, MAF Sensor Supply Voltage, Mirror Up/Down, Shift Solenoid Valve, Shock Absorber Rear Left, Speaker - Left Rear, Pressure Control Solenoid Valve 2, Pressure Control Solenoid Valve 4, PTO Operation Mode, Pump Motor Tests, Rear Differential Clutch Motor Current, Rear Differential Hydraulic Line Fill, Reductant Purge Valve, Reverse Inhibit, Pressure Control Solenoid Valve, Pressure Control Solenoid Valve 5, Radio Tuner AM Frequency, Range Actuator Lock, Rear Fog Lamp(s) Relay, Rear Temperature Door Motor Direction, Reductant Heater 3, Right Lower Park/Daytime Running Lamp, Right Rear Turn Signal Lamp, RR Turn Signal, Satellite Antenna, Seat Belt Retractor Motor, Seat Horizontal Movement, Secondary Air Pump Control State, Sensor Supply Voltage, Shift Fork 4, Shock Absorber Front Left, Right Low Beam, Right Park Lamps, Right Rear Inlet Valve Solenoid, Right Rear Outlet Valve Solenoid, Right Rear Window, Right Temperature Door Motor Direction, Seat Back Horizontal Movement, Seat Back Side Bolster Movement, Rear Axle Differential Lock High Control Relay, Rear Cross Traffic Audible Alert, Rear Defogger, Rear Differential Clutch Solenoid Valve, Rear Inlet Valve Solenoid, Rear Mode Door Actuator Position, Rear Temperature Door Actuator Direction, Rear Wiper, Reductant Heater 2, Reductant Injection Quantity Test, Reductant Injector, Reductant System Leak Test, Shock Absorber Front Right, Speaker - Right Front, Speaker - Right Rear, Starter Pinion Solenoid Actuator Relay, Starter Relay, Shift Fork 1, Shift Lock Solenoid, Shift Solenoid 2, Speech Recognition, Right Front Mode Door Actuator Direction, Right Headlamp Low Beam, Right Rear Corner, Right Rear Shock Absorber Actuator, Right Rear Turn Signal/Stop Lamp, Seat Cushion Side Bolster Movement, TC Wastegate Solenoid, Temp. Door Position, Traction Control Left Rear Solenoid Valves, Transfer Case Range, Transmission Control Solenoid Valve 15 Current, Transmission Control Solenoid Valve 5, Transmission Control Solenoid Valve 5 Current, Transmission Control Solenoid Valve 7, Transmission Control Solenoid Valve 7 Current, Transmission Control Solenoid Valve 8 Current, Transmission Park Valve Lock Solenoid Actuator, Trunk Lamp, Turbocharger Wastegate Position, Starter Relay Control, TAC Motor, Tension Relief Gear, Throttle Position, Shift Fork 2, Speaker - Left Front, Traction Control Left Front Solenoid Valves, Transmission Control Solenoid Valve 4, Transmission Range Selector Controls Backlight Dimming, Transmission Range Selector Controls Indicator Dimming, Turbocharger/Supercharger Boost Control Position, Tweeter - Left Front, Windshield Wiper Motor Relay, Injector Enable (All Cylinders), Intake Camshaft Position Actuator, Intake Camshaft Position Actuator Park Lock Solenoid Valve Bk 1, IPC Gauge Sweep Test, Lane Departure Warning Switch, Left Auxiliary Daytime Running Lamps, Left Front Outlet Valve Solenoid, Left Front Park Lamp, Windshield Wiper High Speed Relay, Window Lockout Switch Indicator, Wiper Washer Motor, Stop Lamp, Suspension Position Sensor Trim Height, TCS Motor Test, Next Available Slot, O2 Sensor Heater Bank 1 Sensor 2, Outside Rear View Mirror Courtesy Lamp, Oxygen Sensor 1-2 Heater, Traction Control Right Front Solenoid Valves, Trailer Backup Lamps, Transmission Control Solenoid Valve 1, Transmission Control Solenoid Valve 1 Current, Transmission Control Solenoid Valve 12, Transmission Control Solenoid Valve 13, Transmission Control Solenoid Valve 15, Transmission Control Solenoid Valve 2, Transmission Control Solenoid Valve 3 Current, Transmission Control Solenoid Valve 4 Current, Transmission Gear, Turbocharger 2 Wastegate Position, Turbocharger Vane Position Actuator, Turbocharger Wastegate Actuator, Tweeter - Right Front,



Limited Slip Differential Clutch Control System Test, Line Pressure Control Solenoid Valve, Lock Rear Doors, Low Temperature Loop Coolant Pump, Mass Airflow Sensor, Passenger Door(s) Unlock, Passenger Seat Belt Reminder Indicator, PC Solenoid 2, Power Mode Timeout, Pressurize System, Radio Tuner FM Frequency, TCC Pressure Control Solenoid Valve - Dynamic Test, Temporarily Turn OFF Smooth Road Shake Compensation Func, Misfire Graph, O2 Sensor Heater Bank 1 Sensor 1, O2 Sensor Heater Bank 2 Sensor 1, Read LIN Bus Device ID Information, Rear Defog Request, Rear Fog Lamps, Throttle Sweep, Trailer Brake Duty Cycle, Trailer Brake Relay, Transmission Control Solenoid Valve 14 Current, Transmission Control Solenoid Valve 16, Transmission Control Solenoid Valve 6, Transmission Control Solenoid Valve 6 Current, Transmission Range, Transport Mode, Turbocharger Bypass Solenoid Valve, Update Air Temperature, Particulate Filter Regeneration Enable, Passenger Mirror Movement, Phone Call Test, Proactive Alerts, Red Indicator, Reductant System Malfunction Warning Service Bay Test, Right Dedicated Daytime Running Lamp, Right Front Inlet Valve Solenoid, Right Rear Brake/Park Lamp, Right Rear Speaker Test, Right Rear Turn Signal/Brake Lamp, Right Rear Window Motor - Express, Pump Motor, Rear Cross Traffic Visual Alert, Wait to Start Indicator, Wastegate Solenoid Duty Cycle, Reductant System Tamper Warning Service Bay Test, RF Turn Signal, Right Assist Step Motor, Right Daytime Running Lamp, Right Fog Lamp, Right Front Outlet Valve Solenoid, Right Front Park Lamp/Daytime Running Lamp, Right Front Shock Absorber Actuator, Right Front Speaker Test, Right Low Beam/Daytime Running Lamp, Right Park Brake Actuator, Right Rear Damper Actuator, Right Rear Park Lamp, Right Side Marker Lamp Command, Right Tail Lamp, Right Trailer Turn Signal Lamp, Seat Forward/Backward, Shift Fork 5, Shift Solenoid Valve 1, Steering Column Tilt Down, Steering Column Tilt Up, Stop/Start Select Switch Indicator, Synchro Selector Valve Control System Cleaning Procedure, TCC Enable Solenoid, TCC Pressure Control Solenoid Valve, TCC Pressure Control Solenoid Valve - Static Test, Trailer Park Lamps, Transmission Accumulator Solenoid Valve, Transmission Control Solenoid Valve 10 Current, Transmission Control Solenoid Valve 9, Transmission Control Solenoid Valve 9 Current, Transmission Line Pressure Control, Trunk Lid Unlatch, Window Lockout Indicator, Windshield Washer Pump, Compression Test, Cooling Fan 3, Courtesy Lamp, Cylinder 1, Cylinder 1 Deactivation Solenoid, Cylinder 3 Injector Flow Identifier, Cylinder 5 Injector Flow Identifier, Cylinder 6 Injector Flow Identifier, Cylinder Deactivation, Cylinder Deactivation Control Valve 2, Cylinder Deactivation Control Valve 3, Cylinder Deactivation Exhaust Control Valve Position, Door Courtesy Lamp State, Door Speaker - Left Front, D-Pillar Speaker - Right Rear, Driver Mirror Fold, Driver Mirror Movement, Driver Seat Lumbar Support Horizontal Movement, Seat Cushion Front Vertical Movement, Shift Transmission Gear, EGR Cooler Bypass Motor, Engine Controls Ignition Relay, Engine Controls Ignition Supply Voltage, EVAP Service Bay, Evaporative System, Even Gear Clutch Hydraulic Control System Cleaning Procedure, Exhaust Camshaft Position Actuator, Exhaust Camshaft Position Actuator Position, Exhaust CMP Actuator Solenoid Bank 1, Exhaust CMP Actuator Solenoid Bank 2, Fan Relay 2, Fog Lamps, Forward Collision Alert Switch, Front Axle Actuator, Front Axle Differential Lock Indicator, Front Axle Differential Lock Low Control Relay, Fuel Pump Relay, Fuel Trim Enable, GEN L-Terminal, Hands-Free Liftgate Sensor Lamp, Hands-Free Sensor Lamp Command, High Side Driver 1, HO2S Bank 1 Sensor 2 - Heater, HO2S Bank 2 Sensor 1 - Heater, Hybrid/EV Battery Pack Isolation Test, Idle Spark, Ignition Timing Retard, Inadvertent Load, Infrared Transmitter Power Control, Instrument Panel Illumination, Intake Cam Position Actuator Park Lock B1, Intake Manifold Runner Control Valve Actuator, Lamp Test, LED Backlight Dimming, Left Front Damper Actuator, Left Rear Brake/Park Lamp, Left Rear Inlet Valve Solenoid, License Plate Lamps, Line PC Solenoid, Mirror Fold, Mirror Left/Right, Mode Door Position, Nitrogen Oxides Catalytic Converter Reductant Loading Reset, Non-Integrated Backlighting Test, Odd Gear Clutch Control System Test, Oxygen Sensor 2-1 Heater, Parking Lamps, Power Take-off Relay, Starter Drive, Starter Motor Relay, TCC Control, TCC Control Solenoid, Trailer Fog Lamps, Rear Defrost, Rear Outlet Valve Solenoid, Transfer Case Clutch Engagement, Transmission Control Solenoid Valve 12 Current, Transmission Control Solenoid Valve 16 Current, Transmission Fluid Pressure Actuator, Transmission Park Lock Command, Transmission Park Value Lock Solenoid Actuator, Turbo Charger /

Super Charger Bypass Valve, Turbocharger Vane Position, Windshield Washer Relay, Wiper Relay, Regenerative Braking Status, RF motor apply, Right Backup Lamp, Right Front Damper Actuator, Right Front Turn Signal Lamp, Right Rear Window Motor, Right Stop Lamp, Right Temperature Door Position, Run Crank Relay, Sensor Supply Voltage Relay, Shift Solenoid 1, Steering Column Adjustment, Supercharger Bypass Solenoid Valve, Temporarily Turn OFF Active Pull Compensation Function, Torque Converter Clutch, Traction Control Right Rear Solenoid Valves, Transfer Case Clutch Identifier, Transmission Clutch Learn Status, Transmission Control Solenoid Valve 13 Current, Transmission Control Solenoid Valve 2 Current, Transmission Control Solenoid Valve 3, Transmission Park Lock Control System Test, Turbocharger/Supercharger 2 Bypass Valve, Vehicle Health Data Upload, Vehicle Level Control Compressor Relay, Vehicle Level Control Exhaust Valve, Wastegate Actuator, Windshield Wiper Relay

## ***New Coverage – USA Asian***

### ***Honda/Acura Coverage***

- Added coverage for 247 new system applications

#### **51 new Adjustment type special tests:**

ACM Reset, After a Vehicle Collision, Air Bleeding For Repair(ABS), All Sensor Calibration, Brake Pad Maintenance Mode, After Replacing Front Passenger Seat Components, Air Bleeding For Repair(TCS), All Sensors Learning, ATF Reset, Crank Pattern Learning., CVT Oil Pressure Learn Reset, Crank Pattern Clear, ECM/PCM Reset, Customize Reset, EPS Steering Angle Sensor Value Clear, ECU Activation, Differential Torque Setup, High Beam Support System Inspection, Engine Oil Life Reset, EPS Steering Sensor Value Clear, ODS Unit Initialization, Initialization, Reset, G-sensor Learning, Initialization by Mission Replacement, Sub Item 1 - Tire Rotation, Sub Item 5 - Engine Coolant, The Wheel Size Setup For Indirect TPMS, OPDS Initialization, Reset Of Assistant Side Window Position, Reset Of Rear Right Side Window Position, Reset Operation, Steering Angle Sensor Setup, SWS Initialization, Reset Of Rear Left Side Window Position, Tire Pressure Sensor Registration, Sub Item 2 - Filters/Drive Belt, Torque Sensor Learn, VSA Sensor Neutral Position Memorization, Manual returning Time, Pop Up Hood(PUH) Calibration, Sub Item 3 - Trans Fluid, Sub Item 6 - Rear Diff Fluid, Tire Pressure Sensor Registration With Activation Tool, Reset Of Driver Side Window Position, Sensor Calibration Test, Longitudinal G Sensor Neutral Point Learn, Stroke Sensor Learning, Replace TCM/PCM, Resolver Position Calibration, Sub Item 4 - Plugs/Timing Belt

#### **501 new Actuation type special tests:**

ACC Indicator Light, ADJ Motor, ABS Trouble Lamp, ACC Alarm Test, Accessory, ABS Solenoid Test, ABS Brake Light Relay/TSA Relay Test, Assistant Door Courtesy Light, Assistant Door Mirror Motor Right, Assistant Door Pocket Illumination Light, Assistant Side Power Window Motor Down, AT 1 Indicator Lamp, Battery Fan Mid Speed Test, A/C Clutch, ABS ESS Forced Indication, ACC Brake Actuator, ACC Information Display, Air Bypass Valve Control Solenoid (ABV), Assistant Remote Switch Illumination Light, AT D Position Indicator Light, AT P Indicator Lamp, Auto Lock Cancel Switch, Automatic Headlights, Automatic Returning Distance, Battery Fan Test, Brake light relay test, BSI Buzzer Status, BSI Unavailable, Clean Right Side Radar, All Injectors OFF, Assistant Door Mirror Motor Left, Assistant Door Mirror Motor Down, Assistants Inner Handle Illumination Light, AT 2 Indicator Lamp, AT D3 Indicator Lamp, AT N Indicator Lamp, AT R Indicator Lamp, ATF Temp Indicator Light, AFS Reflector, Assistant Side Power Window Motor Up, AT D Indicator Lamp, AT D3 Overdrive OFF Lamp, ABS VSA Test, ACC Relay, Clutch Pressure Control (Linear) Solenoid D, CMBS Brake, Communication Using

Trunk/Tailgate Antenna, BSI Fail Lamp, BSI System Status, Buzzer, Assistant Door Mirror Motor Up, AT Temp Lamp, AUTO STOP Indicator Lamp, Back Window Open Lamp, BSI System Fail, Clean Left Side Radar, BSI Indicator On, CARD BATT Indicator Turn On, Cargo Light Drive, Cargo Light Drive UV Only, Cruise Control Cancel History, DC Output Cabin Rear Antenna, Assistant Outer Handle Illumination Light, Battery Fan High Speed Test, Battery Fan Low Speed Test, CTM System Status, Daytime Running Light (Canada), Daytime Running Light Output, DC Output Driver Antenna, Detect Equipped Honda Body Systems, Clutch Pressure Control Solenoid C, Column Tilt Motor - Full Down, Communication Status Check, DC Output Front Passenger Antenna, DC Output Rear Driver Antenna, DC Output Trunk/Tailgate Antenna, Clutch Pressure Control (Linear) Solenoid A, Clutch Pressure Control Solenoid B, Cruise Main SW Lamp, Both Sides Engagement Clutch Coil Test, BUZZER Test, Charge LID Relay, Charging Trouble Lamp, Clutch Pressure Control Solenoid A, EBD Trouble Lamp, DC Output Cabin Middle Antenna, Display Do not have key, Driver Side Power Window Motor Down, Driver Door Pocket Illumination Light, Driver Door Power Window Motor - Down, Driver Inner Handle Illumination Light, Electric Current of Linear Solenoid DR, Electric Current of Linear Solenoid SC, Column Telescopic Motor - Full Up, Communication Using Cabin Middle Antenna, Communication Using Cabin Rear Antenna, Communication Using Driver Antenna, Communication Using Rear Driver Antenna, CS FS Antenna, Electric Current of Linear Solenoid DN, EVAP Solenoids Test, EXT F (Cabin Front Antenna), Brake Pad Exchange Mode, Communication Using Front Passenger Antenna, Cruise Operation Lamp, CTM Buzzer Status, CTM System Fail, DC Output Cabin Front Antenna, DC Output Rear Passenger, DC Output Trunk Room Antenna, Display No Card, ECO Indicator Lamp, Engine Tachometer, EXT FR DR (Driver's Antenna), EXT FR AS (Passenger's Antenna), EXT Side-Glass DR (Side-Glass Driver Antenna), Exterior BUZZER, Exterior Buzzer Output (Short Time), Clutch Pressure Control (Linear) Solenoid B, Clutch Pressure Control (Linear) Solenoid C, Communication Using Rear Passenger Antenna, Driver Door Mirror Motor Right, Driver Outer Handle Illumination Light, DWS/Indirect TPMS Parameter Configuration Message, Daytime Running Light Relay, Display Card Batt, Driver Door Lock Unlock Actuator, Driver Side Power Window Motor Up, Front And Rear ACM Solenoid, Front Defroster Relay, Fail Wipe Signal, FI Wakeup, Floor Light, Frontal Crash Detection Signal Output, Door Unlock Without Answer Back, Driver Door Mirror Motor Down, Door Lock Without Answer Back, Driver Remote Switch Illumination Light, DRL Relay, Fuel Lid, Hazard Flashers, Head Light High, Headlight Washer Motor, High Beam Operation Lamp, High Beam Support System Operation, Electric Current of Linear Solenoid CPC, EPS Indicator Lamp, EXT RR DR (Driver Side Rear Passenger's Antenna), Hazard Relays, Headlight Cleaner, Headrest Motor, IAC Valve 4, FCAN Authorized Flag, Foot Light, Forced Control Of Electric Current Of Linear Solenoid D, Front Fog Light, Interior Buzzer Output, Internal Buzzer ON, ISO Warning Light, Key Switch Out Line Turn To On, Left Front CAS Solenoid, Left Front Tire LCD Lamp, Left Power Sliding Door - Drive Motor - Close, Left Power Sliding Door - Release, Left Rear ABS solenoid, Left Rear Pulsar, Gear Shift, Left Side Indicator, Left Turn Signal Lamp, Lights Off Using Backup Line, Maintenance Position Front Wiper, Map Light Off, Engine Water Temperature Gauge, EU DRL, EXT R (Cabin Rear Antenna), EXT Side-Glass AS (Side-Glass Passenger Antenna), No Wipe Signal, Oil Pressure Trouble Lamp, IAC Valve 2, IGNTRX Line Turn To Low Level, IMT(IMRC) Activation, Initiator Operation Check, Forced Control Of Lockup Clutch, Forced non assist mode, Front Display - Backlight, Fuel Pump, Power Seat - Recline Motor - Full Backward, Power Seat - Slide Motor - Full Backward, Left BSI Radar Unavailable, Left Front ABS solenoid, Left Power Sliding Door - Clutch, IMA Battery Level Indicator, Immobilizer Lamp, Flash Right Side Indicator, Front Fog Lamp, Front Panel Module, Front Wiper Motor (Low), EXT RR AS (Passenger Side Rear Passenger's Antenna), Exterior Buzzer Output(Long Time), External Buzzer ON, EGR Test, Engine Check Lamp [MIL], EXT INTTRUNK (Trunk Room Antenna), EXT M (Cabin Middle Antenna), Purge Sol Cut Solenoid (PCS) - Open, Purge Sol=Close, Vent Sol=Close, Bypass Sol=Close, Purge Sol=Close, Vent Sol=Close, Bypass Sol=Open, Purge Sol=Close, Vent Sol=Open, Bypass Sol=Open, Rear Blower, Rear Differential Oil Pressure Sensor Check, Rear Fog Lamp, Left Rear Tire LCD Lamp, Left Side Engagement Clutch Coil Test, Light On Alarm, Lockup Clutch, Maintenance Indicator

Lamp, Memory Seat Indicator 2, Fuel Pump ON, Gate Light, Head Light, High Wipe Signal, Recall Memory Position, RF1 RXVCC, RF2 TXD Line, Right BSI Radar Unavailable, Right Front TCS Solenoid, Right Front VSA Solenoid, Right Rear Solenoid, Four Doors and Tailgate LCD lamp, Four WD Trouble Lamp, FR DEICER RLY, Front ACM Solenoid, Front Center Detection Result, Front Detection Sound Request, Front Wiper High Speed, Front/Rear ACM Solenoid, Fuel Pump OFF, Glass Hatch Open, Headlight Backup, IAC Valve 1, Ignition Key Light, Flash Left Side Indicator, FR-DEF Indicator, Front Left Detection Result, IMA ASST Level Indicator, PTG Motor Close, PTG Motor Open, Puddlelt, Front Wiper Low Speed, Green LED, Interior Light, Left And Right Parking Actuator Control, Left Front TCS Solenoid, Left Power Mirror Full Down, Left Power Mirror Full Left, LIN Washer, Lock/Unlock All Doors, Rear Defroster, Fuel Level Gauge, MA EPS Switching, Memory Buzzer, RF2 TXVCC, Right Power Sliding Door - Drive Motor - Close, Right Rear Power Window Motor - DOWN, Right Rear VSA Solenoid, IGNCONT Line, IMA CHRG Level Indicator, IMOCONT Line, IMS1 Output, IMT(IMRC) Test, SMART Indicator Turn On, SMART KEY OUT, Intermittent Wipe Signal, Left Power Sliding Door - Buzzer, Left Rear Power Window Motor - UP, Left Rear Power Window Motor Down, Left Slide Actuator, Intake VTC Test, Left Power Sliding Door - Closer Motor, Left Rear Power Window Motor Up, Left RR Slide Relay, Left Sliding Door Lock, Left Sliding Door Unlock, LF Tire Air Low Indicator, Light On Indicator, Meter Buzzer, Low Fuel Warning Lamp, Low Wipe Signal, Lumbar Horizontal Motor, No Rain Condition Signal, Tiptro Shift 5 Lamp, Tire Air Low Indicator, Turn On Left Side Alert, Two Way Valve Bypass Sol (2WBS), IAC Valve 3, Ignition Key In Alarm, IGNTX Line, Indicator, Passenger Door Power Window - Down, Occupied Signal Output, Park Brake Warning Chime, Power Seat - Slide Motor - Full Forward, Pressure Test, Rear Center Detection Result, Lights On Using Backup Line, Memory Indicator 1, Memory Seat Indicator 1, Meter Lighting Control, Shift Solenoid A, Power Seat - Front Up/Down Motor - Full Down, Power Seat - Front Up/Down Motor - Full Up, Power Seat - Rear Up/Down Motor - Full Down, Power Tailgate Clutch, PSD(left Side) Trouble Lamp, PTG Release, Purge Sol=Close, Vent Sol=Close, Purge Sol=Open, Vent Sol=Close, Bypass Sol=Open, Red LED, Purge Cut Solenoid (PCS) - Close, Purge Sol=Close, Vent Sol=Open, Bypass Sol=Close, Purge Sol=Open, Vent Sol=Close, Rear Left Door Courtesy Light, Rear Left Inner Handle Illumination Light, Rear Right Inner Handle Illumination Light, Rear Window Open Chime, S.U.E. Operation For AH-AWD, Self Check, Shift Solenoid D, RF Tire Air Low Indicator, RF1 TXVCC, Right Power Sliding Door - Closer Motor, Right Rear Power Window Motor Down, Right Rear Power Window Motor Up, Right RR Slide Relay, Rear Left Detection Result, Rear Right Detection Result, Rear Right Door Courtesy Light, Starter Switch Light, Seatbelt Indicator Lamp, Side or Rear Crash Detection Signal Output, Solenoid Valve Activation, Reverse Alarm, RF2 RXVCC, Right Power Mirror Full Up, Right Rear Pulser, Right Rear Tire LCD Lamp, Right Side Engagement Clutch Coil Test, Right Slide Actuator, Tiptro Shift 1 Lamp, Tiptro Shift 3 Lamp, Tailgate Open Chime, Seatbelt Alarm, Self Diag Test, Serial Line Status Check, SMART Lamp, Trunk (T/G), Unlock Trunk, Upper Park Position Front Wiper, Vehicle Speedometer, Vent Shut Solenoid Valve (VSV) - Close, Vent Shut Solenoid Valve (VSV) - Open, Interior Light Cut, Keyless Buzzer, Left Front Pulser, Work LT, VTEC Low VT Check, Tiptro Shift 4 Lamp, TP Position Check, No CARD Indicator Turn On, Trunk Open Lamp, Turbo Boost Control Solenoid V, Turn On Right Side Alert, Left Power Sliding Door - Drive Motor - Open, Left Rear VSA Solenoid, Light Control Trouble Lamp, Lockup Solenoid Test, LR Tire Air Low Indicator, MA EPS CONTROL ON/OFF, Memory Indicator 2, VSA Operation Lamp, VTEC Solenoid 1, Passenger Rear Door Courtesy Light, Power Window RLY Rr, Radiator Fan, Rain Condition Signal, Off-Board EVAP Test (Level 2) Support, TRIP Indication, TSA Relay Test, Parking Lights, Power Seat - Rear Up/Down Motor - Full Up, PTG Release Close, PTG-PTL Trouble Lamp, Right Front Solenoid, Right Power Mirror Full Right, Right Power Sliding Door - Buzzer, Right Power Sliding Door - Drive Motor - Open, Right Power Sliding Door - Release, Right Turn Signal Lamp, Rear Assistant Door Courtesy Light, Rear Defroster RLY, Rear Differential Air Purge, Rear Driver Door Courtesy Light, Rear Seat Switch Light, Rear Washer Motor, VTEC Solenoid 2, Returning Operation, RF1 TXD Line, RFAN on/off, Right Front Pulser, Right Front Tire LCD Lamp, Right Power Mirror Full Down, Right Power Sliding Door - Clutch, Right Side Indicator, RR Tire Air Low Indicator,

Shift Solenoid B, Shift Solenoid C, Store Memory Position, Sub Throttle, Sunroof Open, Tilt Mirror, TPMS Trouble Lamp, TPMS Warning Light, Traffic Channel, Turn On Right Side Indicator, VTEC Solenoid, VTEC Test, Warning light activation, Clear History Of Switch device, Climate Ctrl Check, Column Telescopic Motor - Full Down, Column Tilt Motor - Full Up, Communication Using Cabin Front Antenna, Communication Using Trunk Room Antenna, Door Lock, Lock Actuator, Door Lock, Unlock Actuator, Driver Door Courtesy Light, Driver Door Mirror Motor Left, Driver Door Mirror Motor Up, Driver Door Power Window Motor - Up, Driver Rear Door Courtesy Light, Self-Diagnostic Function, DRL System Trouble Lamp, DUAL Indicator, EGR Tests, Engine Running Injector Kill Test, EXT RT (Cabin Rear Tray Antenna), EXT TR (TRUNK Or TAIL-GATE Antenna), Exterior Buzzer Output, Front Right Detection Result, Front Washer Motor, Front Wiper Motor (High), G/Box Relay, Head Light (High), Head Light Low, Horn, IMA Warning Lamp, Immobilizer Indicator Turn On, IMS2 Output, Interior Small Light, keyless Check, Left Front Solenoid, Left Front VSA Solenoid, Left Power Mirror Full Right, Left Power Mirror Full Up, Left Rear Power Window Motor - DOWN, Left Rear Solenoid, LIN Wiper Assembled Position Operation, Memory Switch Illumination Light, Navigation LCD Display Segment, Passenger Door Power Window - Up, Power Seat - Recline Motor - Full Forward, Power Window Relay, Pressure Test Assistance mode, PSD(right Side) Trouble Lamp, System Check, Throttle Actuator Control Test, Purge Cut Solenoid (PCS), Purge Sol=Close, Vent Sol=Open, Rear ACM Solenoid, Rear Detection Sound Request, Rear Wiper Motor, Vent Shut Solenoid Valve (VSV), VSA Trouble Lamp, Warning Lamp, Waste Gate Solenoid (WGS), RECIRC Indicator, RF2 Unit RXVCC Power On, Right Front ABS solenoid, Right Power Mirror Full Left, Right Rear ABS solenoid, Right Rear Power Window Motor - UP, RR-DEF Indicator, Security Indicator, Security Net Line Turn To Low Level, Security Operation Lamp, Shift Lock Solenoid, Shift Solenoid E, S-Net Line, Sunroof Close, Tiptro Shift 2 Lamp, Tire Pressure Warning Lamp

## **Hyundai Coverage**

- Added coverage for 48 new system applications

### **18 new Adjustment type special tests:**

Air Bleeding Mode, Adaptive Value BackUp & Input (ECU replacement), Auto Detected Configuration Reset, Auto Detected Configuration Reset (ESP/ESC Only), Adaptive Value Backup & Input (ECU & Transfer Assy replacement), DCT Learning Function, HUD Calibration, Smart Key Code Saving, Neutralization Mode, TPMS Test, SAS CALIBRATION(CAN-ESP Only), Steering Angle Sensor (SAS) Calibration, SMK Status Information, Wheel Sensor ID Writing, Longitudinal G Sensor Calibration(HAC/DBC Only), TPMS Reception Rate Measuring Mode, Write VIN, WCT Reprogram

### **636 new Actuation type special tests:**

(LED) DRL Lamp RH, 3rd Gear Lamp, (LED) DRL Lamp LH, 1st Gear Lamp, 4th Gear Lamp, 12V Latch Relay OFF, A-C Compressor Relay, ACC Warning Buzzer, Activate Driver Side Antenna, Activate Hat Shelf Antenna, 12V Latch Relay ON, 3LH SBR Left Indicator, 3rd Row SBR Right Indicator(Optional), 6th Gear Lamp, A/C Compressor Test (ECV Type), Actuator Control - Apply, 5th Gear Lamp, 12V Relay OFF, 3rd Row SBR Left Indicator(Optional), AAF Relay, ACC Relay, Assist Mirror Position Up, Assist Seat Belt Indicator, Auto Defog Mode Door - Open, AV Tail, Activate Assist Side Antenna, Actuator Control - Release, Assist Mirror Position Left (Option), Assist Outside Mirror Right, Canister Shut Off Valve(Leak Test), Clamp Status IGN(Blue) LED Color illumination, Assist Mirror Position Down (Option), Auto Defog Mode Door - Close, Back Up Lamp, Back Up Lamp Relay, Assist Outside Mirror Down, Assist Power Window Down (Option), Assist Mirror Position Right, Assist Mirror Position Up (Option), Assist Outside Mirror Up, Assist Door Courtesy Lamp Output, Assist Mirror Position Down, Assist Mirror Position Right (Option), Assist Outside Mirror Left, Assist Power Window Up (Option), Assistant Side Outside Handle Antenna Output (Power and GND), ATM Solenoid, Auto Cut Relay, 12V Relay ON, 2nd

Gear Lamp, 3rd Row Center SBR Center Indicator, 3RH SBR Center Indicator, Central Door Lock Indicator, Central Door Lock Relay, COD N-O Relay 1 Control, Compressor Off, Console Mode Door - BI-Level, BCM Internal Buzzer Output, Central Door Unlock Relay, Charging Status LED (Green) On, Charging Status LED (Yellow) On, Child Lock Relay Output, All Door Lock Signal Output(to PTGM), Alt'L Signal Out, Assist Mirror Position Left, Auto Light Power, Canister Shut Off Valve Clocked(OBD-2 Only), Canister Shut Off Valve Toggling(OBD-2 Only), Charge Inlet Lock Relay, Bifunction Headlamp High LH Solenoid IPS Output, Burglar Horn Relay, Canister Purge Valve, Central Door Lock Switch Indicator Output, Child Unlock Relay Output, Battery Warning Lamp, Canister Shut Off Valve(OBD-2 Only), Clamp Status ACC(Amber) LED Color illumination, Console Mode Door - Vent, Console Temperature Air Mix Door 0%, Cruise Control Set Lamp(Auto Cruise Type Only), D Target Position, D\_DRL Relay, Assist Door Lock Indicator, Cornering Lamp Right Relay Output (Option), CVVT Exhaust, Dedicated DRL Output (Option), Def Door - Close, Clamp Status Off(Red) LED Color illumination, Compressor On, Dedicated DRL Left Output, Defogger - Deicer Relay, Console Off Door, Console On Door, Cornering Lamp Left Relay Output (Option), Courtesy Lamp RL Output, Cruise Control Main Lamp(Auto CruiseType Only), Cruise Control SET Lamp(Option), CVVT Intake, DBL(Dynamic Bending Light) Max(LH) Position, Canada DRL Relay, Charge Inlet Unock Relay, Drive Mode Door Open, Driver Heater Control, Driver Mode Door-DEF., Driver Mode Door-Floor, Driver Rear Door Courtesy Light, Driver Side Outside Handle Antenna Output (Power and GND), DBL(Dynamic Bending Light) Max(RH) Position, Door Unlock Relay, Driver Seat Heat Mode to the High, Drive Side Puddle Lamp, Driver Courtesy Lamp, Driver Door Lock, DRL Relay(Canada), Engine Check Lamp(MIL), Console Temperature Air Mix Door 100%, Console Temperature Air Mix Door 50%, Cornering Lamp LH Output, Cornering Lamp RH Output, Europe Cornering Lamp Right Relay Output, Event Indicate LED On-Off, Exterior Tail Lamp Left(Front and Rear) Output, Bifunction Headlamp High RH Solenoid IPS Output, Bumper Antenna Active, Console Mode Door - Floor, Dead Lock Relay, ESS Brake Lamp Relay(ESS Only), EV Charge Door Open Lamp Output, Exhaust Gas Recirculation Valve, Exterior Tail Lamp Right(FrontandRear) Output, Fan 1st, Fan2 2nd, Fan2 6th, Courtesy Lamp RR Output, DBC-HAC Brake Lamp Relay (DBC-HAC Only), Dedicated DRL Right Output, DRV-AST Power Window Enable Output, Def Door - Open, Defogger / Deicer Relay, Driver Door Unlock, Driver Door Unlock Relay (Option), FOB Key Status Information, Front Top-SVM View, Fuel Door Open, Fuel Pressure Ragulator (GDI Only), Fan 3rd, Fan1 2nd, Fan1 5th, Fan2 9th, Foot Lamp Output(Option), Front Deicer Relay, Front Fog Lamp Left Output, Front Indicate LED On-Off, Front Left Turn Signal Output, Front Top-AVM View, Door Lock Relay, Driver Mode Door-DEF, Driver Seat Belt Indicator, Driver Air Mix Door-100%, Driver Seat Vent Mode to the High, Fuel Pump Control(1st stage), Fuel Pump Relay, Glove Box Lamp Output, Hazard Relay, Head Lamp High Output, Head Lamp High Relay, Head Lamp Low Indicator, Heated Washer Nozzle Output, High Mounted Stop Lamp Output, Electric Shuttle Valve-Right Front, Electronic Waste Gate Valve (Turbo Only), EV Charge Door Open Relay, Exterior Tail Lamp Right(FrontRear) Output, Fuel Pump Relay(2nd stage), Haptic Steering Wheel Motor Output, Haptic Steering Wheel Output, Hazard Mode State for Turn Signal Lamp Sequential Mode, Head Lamp High Left Output, Head Lamp Washer Relay, Heated Handle Output, High Voltage Battery Heater Relay ON, HLL(Head Lamp Leveling) Min(Low) Position, HMI Mirror Alert Right LED Blinking, Ignition Coil Enable-Disable-#4, Injector Disable-Cylinder 3, Injector Disable-Cylinder 4, Injector Disable-Cylinder 8, Injector(DI) Disable-Cylinder 3, Fan 7th, Fan1 1st, Fan1 3rd, Fan2 STOP, Flasher Sound Relay(Option), Folding Mirror Relay, FPCM pressure control, Front Blower Fan Motor-3Step, Front Fog Cornering Lamp Left Output, Front Fog Lamp Output, Front Seat Heat Mode to the High, Interior Antenna 1, IOD Relay, Lamp Load Power Relay, Fuel Pump Relay for LPG, Head Lamp Low Left Output, HMI Mirror Alert Left LED ON, Horn Relay(NA), Manual HLLD Signal Output, Eject Button Control, EPB Apply RH and LH, External Buzzer, Fan 4th, Fan 6th, Move P/Seat To The Highest Position(FR Height), Move P/Seat To The Highest Position(RR Height), Move P/SEAT to the Last Position(Cushion Extension), OBC(On Board Charger) Relay(+) ON, Oil Change Warning Lamp, Oil Change Warning Lamp(Option), Ignition Coil Enable-Disable-#7, Fan1 4th, Fan1 Stop, Front Blower Fan

Motor-7Step, Front Blower Fan Motor-8Step, Fuel Door Open Solenoid Output, P Target Position, Passenger Mode Door - Floor, Power Supply to the IGN1-STARTER Relay of Main MCU, Power Window Relay (with Safety P-WDW Enable), Puddle Lamp Output, Inlet Valve-Left Front, Interior Mood Lamp Output, Lamp Control, IGN1 Relay, IGN2 Relay, Ignition Coil Enable-Disable-#3, Ignition Coil Enable-Disable-#8, Indicator ALL OFF, Injector Disable-Cylinder 1, Injector Disable-Cylinder 5, Injector Disable-Cylinder 6, Injector(DI) Disable-Cylinder 4, Fan 9th, FAN ON, Fan PWM, Fan2 1st, Fan2 4th, Fan2 8th, FOB Battery Indicator, Front Air Flow Door - 50%, Front Blower Fan Motor-2Step, Front Blower Fan Motor-Off, Front Fog and Cornering Lamp Left Output, Front Fog and Cornering Lamp Right Output, Front Right Turn Signal Output, Front Turn Signal Lamp Activation RH Output, Europe Cornering Lamp Left Relay Output, Exterior Tail Lamp Left(FrontandRear) Output, Exterior Tail Lamp Left(FrontRear) Output, Exterior Tail Lamp Right(Front and Rear) Output, External Buzzer Output, Fan 8th, Fan Motor Control-High Speed, Fan Motor Control-Low Speed, Fan1 8th, EGR Valve, Electric Shuttle Valve-Left Front, EPB Release RH and LH, ESS Lamp, R Target Position, Rad Fan Forced Operation, Rear Charge Door Lamp Output, Rear Curtain Up Output, Rear Driver Power Window Down Relay, Rear Driver Window Down, Rear Fog Lamp Relay, Rear Right Turn Signal Output, Rear Room Lamp Output, Rear Seat Belt Center Indicator, Rear Seat Warmer Right(Optional), Rear Top-SVM View, Mood Lamp 1 Output, Move DRIVE OUTSIDE MIRROR to the lowest position, Move P/SEAT to the Lowest Position(Head Rest), Move P-Seat To The Foremost Position (Slide), Move P-Seat to the Highest Position (RR Height), Move P-Seat to the Last Position (HeadRest Slide), Move P-Seat to the Lowest Position (FR Height), Inlet Valve-Left Rear, Interior Antenna #2 Output (Power and GND), Interior Antenna 2, LED Out, Fuel Lid Unlock Relay, Fuel Open Loop, Hat Shelf Antenna Output (Power and GND), HICM Relay, HLL(Head Lamp Leveling) Max(High) Position, HMI Switch LED, Horn Relay, Safety Power Window Enable, FPV Heater Relay Control, Front Air Flow Door - 0%, Front Blower Fan Motor-6Step, Front Charge Door Lamp Output, Front Fog Cornering Lamp Right Output, Front Fog Lamp Indicator, Front Fog Lamp Relay, Front Glass Heated Switch Indicator Output, Front Seat Vent Mode to the High, Front Turn Signal Lamp Activation LH Output, Front Washer Motor Output, Fuel Pump Relay(1st stage), Full AFLS BPC Test LED OFF, Head Lamp Low Right Output, Heated Washer Nozzle Relay, Navi Wakeup Signal Output, Norminal Idle Speed Offset, O2 Heater Rear (B2-S2), Oil Pressure Warning Lamp, Operate DRIVE SIDE WINDOW UP, Optional Rear Seat Warmer - Right, Passenger Air Mix Door-100%, Fan 2nd, Fan 5th, Fan Stop, Fan1 6th, Fan1 7th, Fan1 9th, Fan2 3rd, FDV Heater Relay Control, Foot Lamp Output, Front Blower Fan Motor-5Step, Front Bumper Antenna Output (Power and GND), Front Glass Heated Relay Output, Illumination, Immobilizer Lamp(Optional), Injector Disable-Cylinder 7, Injector(DI) Disable-Cylinder 2, Injector(MPI) Disable-Cylinder 3, Interior Lamp Autocut Relay Output(Optional), Perform Erase All Video File, Power Supply to the ACC Relay of Main MCU, HAC Brake Lamp Actuator, Head Lamp High Indicator, Head Lamp High Right Output, Head Lamp Leveling Min(Low) Position, Head Lamp Low Output, Key Hole Illumination, Key Interlock Solenoid(Manual Key Type), Key Out Indicator, Rear Air Flow Door - 100%, Rear Blower Fan Motor-1Step, Rear Blower Fan Motor-5Step, Rear Blower Fan Motor-Off, Rear Driver Power Window Up Relay, Rear LH Seat Heat Mode to the High, Rear View Switch Indicator Output, Front-SVM View, Hazard Indicator, Heated Handle Indicator, Luggage Lamp Relay, Main Relay(-) ON, Motor, Move P-Seat to the Highest Position (FR Height), RPAS Switch Indicator(Optional), HMI Mirror Alert Right LED ON, Ignition 3 Relay, Immobilizer Indicator, HMI Mirror Alert Left LED Blinking, Ignition Coil Enable-Disable-#1, Ignition Coil Enable-Disable-#5, Shift Control Solenoid Valve D(OD/C), Shift Control Solenoid Valve E(SS-A), Injector(DI) Disable-Cylinder 1, Intake Door - Recirc, Interior Mood Lamp Output (Option), Injector(MPI) Disable-Cylinder 1, Injector(MPI) Disable-Cylinder 4, Interior Antenna #3 (Trunk Antenna : Sedan Type) Output (Power, Lamp Control - EPB Warning Lamp, SSB BLUE LED, Static Bending LH Output (Option), Steering Warmer Switch Indicator Output, Sunroof Power Relay control(Optional), Tail Lamp Indicator, Tail Lamp Output, Tail Lamp Relay, LongTermLoad Cut Relay Output, LPG Lamp, Main Relay, Main Relay(-)(+), Precharge Relay OFF simultaneous, Main Relay(-), Precharge Relay ON simultaneous, Move

P/Seat To The Last Position(Recline), Move P/Seat To The Lowest Position(FR Height), Move P-Seat to the Foremost Position (Cushion Extension), Move P-Seat to the Foremost Position (Head Rest Slide), Move P-Seat to the Last Position (Cushion Extension), Mirror Folding Operation (Option), Mood Lamp 2 Output, Move DRIVE OUTSIDE MIRROR to the highest position, Move P/Seat To The Foremost Position(Slide), Move P-Seat to the Lowest Position (RR Height), Multimedia Load Power Relay, TPM Tread Lamp, TPMS Diagnostic Lamp, Turbo waste gate(WGT) valve, Turn LH Output, Turn RH Output, Turn Signal Sound Relay Output, Ignition Coil Enable-Disable-#2, Ignition Coil Enable-Disable-#6, Operate DRIVE SIDE UNFOLD, Outlet Valve-Right Rear, Over Speed Warning Indicator, Passenger Air Mix Door-0%, Passenger Mode Door - Vent, Oil Control Valve - Exhaust Bank 1(Option), Outlet Valve-Left Rear, Parking Brake Indicator, PAS Buzzer Output (RPAS Buzzer Output), Passenger Mode Door - Defog, Perform CPU(Video Recording and Display Output) On-Off, OBC Relay(+)-(-) ON Simultaneous, Oil Control Valve - Intake Bank1, Operate DRIVE SIDE FOLD, Operate DRIVE SIDE WINDOW AUTO DOWN, Outlet Valve-Right Front, Passenger Seat Vent Mode to the High, Power Window Relay, Quick Charger Relay(-) ON, Rear Assist Power Window Down Relay, Rear Assist Side Door Curtain Up(Only Windows Close Status), Rear Blower Fan Motor-7Step, Rear Curtain DN Output, Map Lamp Output, Mirror Unfolding Operation (Option), Move P/SEAT to the Foremost Position(Cushion Extension), Move P/Seat To The Lowest Position(RR Height), Move P-Seat to the Foremost Position (Recline), Move P-Seat to the Foremost Position (Shoulder), Shift Control Solenoid Valve B(2-6/B), Precharge Relay ON, Quick Charge Relay (+),(-), Main Relay (-), (+) ON (Normal Char, Rear Driver Side Door Curtain Up(Only Windows Close Status), Rear RH Seat Vent Mode to the High, Rear Top-AVM View, Precharge Relay ON, Main Relay (-), (+) ON (Normal sequence), Rear Assist Window Down, Read VIN, Rear Assist Side Door Curtain Down(Only Windows Close Status), Rear Driver Side Door Curtain Down(Only Windows Close Status), Rear Driver Window Up, Rear Fog Lamp Right Output, Rear Pocket Lamp(Both Left and Right), Rear Power Window Enable Output (Option), Rear Seat Belt Left Indicator, RVM Swich Indicator Output, SCC Warning Buzzer, Shift Control Solenoid Valve C(35R/C), Room Lamp Output, Rear Blower Fan Motor-2Step, Rear Driver B-PILLAR Door - 0%, Rear Fog Lamp Indicator, Rear Left Power Window Down (Option), Rear Left Power Window Up (Option), Rear Power Window LOCK, Rear RH Seat Heat Mode to the High, Rear Right Power Window Down (Option), Rear Seat Vent Mode to the High, Rear Seat Warmer Left(Option), Rear Wiper Relay (Option), SSB LED White, Stop Lamp Left-Right-HMSL Output (Option), SunRoof Power Relay control, Security LED Output, ShortTermLoad Cut Relay-IPS Output, SSB EMBER LED, SSB LED Amber, Right Outside Mirror-Folding, RL Door Unlock Relay, RL-RR Power Window Enable Output, SBL Function Test SBL LH ON, Turn Signal Lamp Front Left Output, SVM + DRVM(Driving Rear View Monitor), SVM + FrontLeft + FrontRight View, Shift Control Solenoid Valve A(UD/B), SSB Illumination, Starter Relay, Trunk Antenna, Variable Intake Solenoid(Option), Wiper Power Relay, Wiper Relay (for INT)[Wiper RLY With Wiper Power RLY], Inlet Valve-Right Rear, LampLoad AutoCut IPS Output, N Target Position, O2 Heater Front (B1-S1), Operate DRIVE SIDE WINDOW AUTO UP, PAS Indicator/RPAS OFF Indicator, Passenger Air Mix Door-50%, Turn right signal indicator, Luggage Lamp, Main Relay (+) ON, Main Relay Control (+), Main Relay(-), Precharge Relay, Simultaneously ON (Precharge se, Passenger Seat Heat Mode to the High, Pressure Control Solenoid (LP), Quick Charger Relay(-)(+) ON simultaneous, RAD FAN Operation, START OUTPUT, Move DRIVE OUTSIDE MIRROR to the most right position, Move P/Seat To The Last Position(SILDE), Move P-Seat to the Last Position (Recline), Operate DRIVE SIDE WINDOW DOWN, Optional Rear Seat Warmer - Left, Outlet Valve-Left Front, Rear Air Flow Door - 50%, Rear Assist Power Window Up Relay, Rear Assist Side Window Auto Up, Rear Assist Window Auto Down, Rear Driver Side Window Auto Up, Rear Fog Output, Rear Left Turn Signal Output, Rear Passenger B-PILLAR Door - 0%, Rear Right Power Window Up (Option), Rear Seat Heat Mode to the High, Rear Washer Motor, Rear Wiper Relay, Perform Event Recording, Power Supply to the IGN1-IGN2 Relay of Main MCU, RKE Tailgate Signal Output(to PTGM), RL Door Lock Relay, RPAS Switch Indicator (Option), Rear Air Flow Door - 0%, Rear Blower Fan Motor-3Step, Rear Blower Fan Motor-4Step, Rear Blower Fan Motor-8Step, Rear Bumper Antenna Output



(Power and GND), Rear Defogger Relay, Rear Fog Lamp Left Output, Rear LH Seat Vent Mode to the High, Rear Seat Belt Right Indicator, Window Lock to Driver Door Module, Wiper High Relay, Speaker Activation, SSB illumination Output (Power and GND), Start Inhibit Relay (Option), Start Relay, Static Bending LH Output, Static Bending RH Output, Static Bending RH Output (Option), Stop Lamp Right, Tailgate/Trunk Release Relay, Tailgate-Trunk Release Relay, TCS Valve-Right Front, Turn Signal Lamp Rear Left Output, Unfold Mirrors, Wiper Low Relay, Control All the LEDs, Control Solenoid Valve (VFS) A, Coolant 3Way Valve, Cooling Fan PWM, Cruise Control Main Lamp(Optional), Door Unlock Signal, Drive Mode Door Close, Driver Air Mix Door-50%, Driver Door Courtesy Lamp Output, Driver Door Unlock Relay, Driver Mode Door-Vent, SSB LED Blue/Red, Start Inhibit Relay, End Cell HTR Relay Control, EPB Release RH and LH, ETC Motor, Fan2 5th, Fan2 7th, Front Air Flow Door - 100%, Front Blower Fan Motor-1Step, Front Blower Fan Motor-4Step, Front Fog Lamp Right Output, Front Heated Glass Relay, Fuel Pressure Indicator Lamp(LPI), Fuel Pump Relay Control for LPG, Fuel Tank Isolation Valve Relay Open, Gasoline Lamp (Bi-Fuel), Gauge ON, Head Lamp Low Signal, High Pressure Fuel Pump Control, Indicator ALL ON, Injector Disable-Cylinder 2, Injector(MPI) Disable-Cylinder 2, Intake Door - Fresh, Interior Antenna #1 Output (Power and GND), ISG Lamp, Lamp Control - EPB Status Lamp, Main Relay Control (-), Main Relay(-), Main Relay(+) ON Normal Sequence, MAP Lamp, Mood Lamp 3 Output, Mood Lamp Output, Move DRIVE OUTSIDE MIRROR to the most left position, Move P/Seat To The Foremost Position(Recline), Move P/SEAT to the Highest Position(Head Rest), Move P-Seat to the Highest Position (Headrest), Move P-Seat to the Last Position (Shoulder), Move P-Seat To The Last Position (Slide), Move P-Seat to the Lowest Position (Headrest), O2 Heater Rear (B1-S2), OBC Relay(-) ON, Over speed indicator(Optional), PAS/RPAS Buzzer Output, Pocket Light Output(Optional), Power Supply to the IGN1 Relay of Main MCU, Steering Warmer Output, Stop Lamp Left, Tail Interior Lamp, Torque Converter Clutch Solenoid Valve, Quick Charger Relay(+) ON, Rear Blower Fan Motor-6Step, Rear Driver B-PILLAR Door - 100%, Rear Driver Window Auto Down, Rear Fog Lamp (Option), Rear Mood Lamp(Both Left and Right), Rear Passenger B-PILLAR Door - 100%, Rear Power Window LH Up Relay, Rear Washer Motor Output, Rear-SVM View, Turn Signal Lamp Rear Right Output, Variable Intake Manifold 1 (Option), Removal of air from engine clutch hydraulic pressure line, Right Outside Mirror-Unfolding, SSB LED OFF, Stop Lamp, Stop Lamp Left-Right, SVM + RearLeft + RearRight View, TCS Valve-Left Front, Turn Signal Lamp Front Right Output, Wiper Relay

## **Kia Coverage**

- Added coverage for 77 new system applications

### **18 new Adjustment type special tests:**

Adaptive Value Backup & Input (ECU & Transfer Assy replacement, Adaptive Value Backup & Input (ECU replacement), Auto Detected Configuration Reset, Air Bleeding Mode, Brake Pad Change Mode, Clutch Learning Read, Clutch Learning Reset, Clutch Learning Writing, HCU Air Bleeding Mode, Longitudinal G Sensor Calibration(HAC/DBC Only), WCT Reprogram, Write VIN, TPMS Test, Resetting Auto Trans Adaptive Values, Resetting Adaptive Values, DCT Learning Function, Reset Adaptive Values, Steering Angle Sensor (SAS) Calibration

### **683 new Actuation type special tests:**

1st Gear Lamp, 2nd Gear Lamp, Actuator Control - Release, 4th Gear Lamp, 4th Row SBR Center Indicator(Optional), A/C Compressor Relay, A/C Compressor Test (ECV Type), Actuator Control - Apply, 12V Latch Relay ON, 3rd Row SBR Left Indicator(Optional), 5th Gear Lamp, 12V Relay OFF, 12V Relay ON, 3rd Row Center SBR Center Indicator, AAF Relay, 12V Latch Relay OFF, 4th Row SBR Left Indicator(Optional), A-C Compressor Relay, (LED) DRL Lamp LH, 3rd Row SBR Center Indicator(Optional), 4WD Lamp Control, Assist BSD Indicator, Assist Mirror Position Up (Option), Assist Outside Mirror

Down, Assist Side Window Down, Battery Warning Lamp, (LED) DRL Lamp RH, 3rd Row SBR Right Indicator(Optional), Assist Outside Mirror Left, Assist Outside Mirror Up, Assist Power Window Down (Option), Assist Power Window Up (Option), Assistant Side Outside Handle Antenna Output (Power and GND), Burglar Horn Relay, BSD Indicator, Canister Shut Off Valve(OBD-2 Only), Clamp Status ACC(Amber) LED Color illumination, Assist Mirror Position Left (Option), Auto Defog Mode Door - Open, Auto Defog Mode Door - Close, AV Tail, Back Up Lamp, All Door Lock Signal Output(to PTGM), Alt'L Signal Out, Assist Side Window Auto Down, ATM Solenoid, Auto Light Power, Assist Door Lock Indicator, Assist Outside Mirror Right, Assist Seat Belt Indicator, Assist Side Window Up, 3rd Gear Lamp, 4th Row SBR Right Indicator(Optional), 6th Gear Lamp, Central Door Lock Indicator, Central Door Lock Switch Indicator Output, Charge Inlet Lock Relay, Clamp Status Off(Red) LED Color illumination, Compressor On, Console On Door, Charge Inlet Unock Relay, Assist Mirror Position Down (Option), Assist Mirror Position Right (Option), Assist Seat Belt Indicator (Option), Assist Side Window Auto Up, Auto Cut Relay, AWD Mode Select, Bifunction Headlamp High RH Solenoid IPS Output, Canister Shut Off Valve (OBD-2 Only), BCM Buzzer Output (Internal-External), Canister Shut Off Valve Clocked(OBD-2 Only), Canister Shut Off Valve(Leak Test), Central Door Unlock Relay, Charging Status LED (Green) On, Clamp Status IGN(Blue) LED Color illumination, Console Temperature Air Mix Door 100%, DBL(Dynamic Bending Light) Max(LH) Position, Dead Lock Relay, Assist Door Courtesy Lamp Output, Back Up Lamp Relay, Cooling Fan PWM, Cornering Lamp Left Relay Output (Option), Courtesy Lamp RL Output, Cruise Control Main Lamp(Auto CruiseType Only), Courtesy Lamp RR Output, Dedicated DRL Output (Option), Def Door - Close, Compressor Off, Console Mode Door - BI-Level, Central Door Lock Relay, Child Lock Relay Output, Driver Door Unlock, Dedicated DRL Right Output, Drive Side Puddle Lamp, Driver Courtesy Lamp, Driver Door Courtesy Lamp Output, Driver Door Lock, Driver Seat Vent Mode to the High, DRL Relay(Canada), Driver Seat Belt Indicator, Driver Seat Heat Mode to the High, Console Mode Door - Vent, Console Temperature Air Mix Door 0%, Coolant 3Way Valve, Cooler Switch On, Cruise Control Set Lamp(Auto Cruise Type Only), Electric water pump control., Electronic Waste Gate Valve (Turbo Only), EV Charge Door Open Relay, Exterior Tail Lamp Left(FrontandRear) Output, Exterior Tail Lamp Left(FrontRear) Output, Bifunction Headlamp High LH Solenoid IPS Output, Canister Purge Valve, Canister Shut Off Valve Toggling(OBD-2 Only), Charging Status LED (Yellow) On, Child Unlock Relay Output, Cornering Lamp Right Relay Output (Option), Cruise Control Main Lamp(Optional), Dedicated DRL Left Output, Electric Shuttle Valve-Left Front, Engine Check Lamp(MIL), ESS Lamp, Europe Cornering Lamp Right Relay Output (Option), Europe Cornering Lamp Left Relay Output (Option), EV Charge Door Open Lamp Output, Exterior Tail Lamp Rear Right Output, Fan 9th, Fan2 1st, Fan2 4th, Fan2 8th, Console Off Door, Cooler step 3 operation, DBL(Dynamic Bending Light) Max(RH) Position, Door Unlock Signal, Drive Mode Door Close, Driver Door Unlock Relay, Driver Heater Control, Driver Side Outside Handle Antenna Output (Power and GND), EGR Valve, D Target Position, D\_DRL Relay, Defogger - Deicer Relay, Drive Mode Door Open, Driver Air Mix Door-50%, Driver Mode Door-Floor, Driver Mode Door-Vent, Foot Lamp Output(Optional), Front Air Flow Door - 50%, Front Blower Fan Motor-2Step, Front Fog and Cornering Lamp Left Output, Front Turn Signal Lamp Activation RH Output, Fuel Door Open Solenoid Output, Fuel Lid Unlock Relay, Fan 1st, Fan 8th, Fan1 7th, Fan1 8th, Front Blower Fan Motor-6Step, Front Charge Door Lamp Output, Front Fog Lamp Output, Front Seat Heat Mode to the High, Front-SVM View, Defogger Indicator, Door Lock Relay, Driver Air Mix Door-0%, Driver Mode Door-DEF, Driver Mode Door-DEF., Fuel Open Loop, Fuel Pressure Indicator Lamp(LPI), Fuel Pressure Regulator (GDI Only), Head Lamp High Indicator, Head Lamp Low Right Output, Engine Check Lamp [MIL], EPB Releas RH and LH, EVAP Leakage Test, Exterior Tail Lamp Front Left Output, Fuel Pump Relay(2nd stage), Full AFLS BPC Test LED OFF, Hat Shelf Antenna Output (Power and GND), High Voltage Battery Heater Relay ON, HLL(Head Lamp Leveling) Max(High) Position, Horn Relay(NA), Ignition Coil Enable-Disable-#3, Ignition Coil Enable-Disable-#6, Ignition Coil Enable-Disable-#7, Ignition Coil Enable-Disable-#8, Immobilizer Indicator Lamp, Injector(DI) Disable-Cylinder 1, Fan PWM, Fan2 5th, Front Blower Fan Motor-1Step, Front Blower Fan Motor-4Step, Front Blower Fan Motor-8Step,

Front Glass Heated Relay Output, Fuel Pressure Indicator Lamp, Fuel Pump Control(1st stage), Gasoline Lamp (Bi-Fuel), Hazard Relay, Head Lamp High Left Output, Head Lamp High Output, Heated Handle Indicator(Optional), High Mounted Stop Lamp Output, Main Relay(-)(+), Precharge Relay OFF simultaneous, Mood Lamp 1 Output, EPB Release RH and LH, Exterior Tail Lamp Front Right Output, Fan Motor Control-High Speed, Move DRIVE OUTSIDE MIRROR to the highest position, Move P-Seat To The Foremost Position (Slide), Move P-Seat to the Last Position (Cushion Extension), Move P-Seat to the Lowest Position (RR Height), Navi Wakeup Signal Output, O2 Heater Rear (B1-S2), Oil Control Valve - Exhaust Bank 1, Oil Control Valve - Intake Bank1, Oil Pressure Warning Lamp, Operate DRIVE SIDE FOLD, Operate DRIVE SIDE WINDOW AUTO DOWN, Ignition Coil Enable-Disable-#4, Indicator ALL ON, Injector Disable-Cylinder 2, Fan1 9th, Fan2 3rd, Fan2 STOP, Folding Actuator Signal Output, Front Blower Fan Motor-5Step, Front Bumper Antenna Output (Power and GND), Front Deicer Relay, Front Right Side Window Auto Down, Front Top-SVM View, Front Washer Motor Output, Passenger Mode Door-Defrost, Perform Erase All Video File, Precharge Relay ON, Inlet Valve-Left Front, Inlet Valve-Right Front, Inlet Valve-Right Rear, Interior Antenna 3 (Trunk Antenna : Sedan Type), Lamp Control - EPB Warning Lamp, LampLoad AutoCut IPS Output, Ignition Coil Enable-Disable-#2, Immobilizer Lamp(Optional), Fan 2nd, Fan 7th, Fan Stop, Fan1 2nd, Fan2 2nd, Fan2 7th, Front Air Flow Door - 100%, Front Deicer and Rear Defogger Relay, Front Left Side Window Auto Up, Front Right Side Window Auto Up, EPB Apply RH and LH, ETC Motor, Event Indicate LED On-Off, Exterior Tail Lamp Left(Front and Rear) Output, Exterior Tail Lamp Rear Left Output, Fan 5th, FAN ON, Fan1 5th, Fan2 9th, Exhaust Gas Recirculation Valve, Exterior Tail Lamp Right(FrontandRear) Output, Exterior Tail Lamp Right(FrontRear) Output, Quick Charger Relay(-)(+) ON simultaneous, Read VIN, Rear Air Flow Door - 100%, Rear Air Mix(A) Door-50%, Rear Driver Power Window Up Relay, Rear Driver Window Up, Rear LH Seat Heat Mode to the High, Rear Pocket Lamp (Both Left and Right), Rear Power Window Enable Output (Option), Rear Right Side Door Curtain Up (Only Windows Close Status), Rear Seat Belt Left Indicator (Option), Rear Vent Door-Open, Mirror Select Left indicator, Move Assist Outside Mirror To The Most Left Position, Move Assist Outside Mirror To The Most Right Position, Move P-Seat to the Highest Position (Headrest), Move P-Seat to the Last Position (Height), Move P-Seat to the Last Position (Shoulder), Move P-Seat to the Last Position (Tilt), Injector(MPI) Disable-Cylinder 3, Intake Door - Recirc, Interior Lamp Autocut Relay Output(Optional), ISG Lamp, Key Hole Illumination (Manual Key Type), Lamp Control, Fuel Pump Relay, Hazard Mode State for Turn Signal Lamp Sequential Mode, Head Lamp Low Signal, Heated Handle Output(Optional), Heater Switch On, High Voltage Battery Heater Relay OFF, HLL(Head Lamp Leveling) Min(Low) Position, HMI Mirror Alert Left LED ON, RPAS Switch Indicator(Optional), Front Blower Fan Motor-Off, Front Fog Lamp Indicator, Front Fog Lamp Right Output, Front Indicate LED On-Off, Front Left Side Window Up, Front Left Turn Signal Output, Front Right Side Window Up, Haptic Steering Wheel Motor Output, Hazard Indicator, Head Lamp High Right Output, Head Lamp Leveling Min(Low) Position, Head Lamp Low Indicator, Head Lamp Low Output, Heated Washer Nozzle Output, HMI Mirror Alert Left LED Blinking, Ignition Coil 3, Oil Change Warning Lamp, Over speed indicator(Optional), Fan 3rd, Fan 6th, Fan Motor Control-Low Speed, Fan1 1st, Fan1 3rd, Fan1 4th, Fan1 Stop, FPCM pressure control, Front Blower Fan Motor-3Step, Front Blower Fan Motor-7Step, Front Fog and Cornering Lamp Right Output, Front Left Side Window Down, Front Right Side Window Down, Indicator ALL OFF, Injector(MPI) Disable-Cylinder 1, Injector(MPI) Disable-Cylinder 4, Interior Antenna #1 Output (Power and GND), Passenger Mode Door - Floor, Passenger Mode Door - Vent, Pocket Light Output(Optional), Power Supply to the IGN1-IGN2 Relay of Main MCU, Power Window Relay (with Safety P-WDW Enable), Puddle Lamp Output, Quick Charger Relay(+) ON, Front Turn Signal Lamp Activation LH Output, Fuel Door Open Solenoid Output (PHEV Only), Fuel Pump Relay(1st stage), Fuel Tank Isolation Valve Relay Open, Gauge ON, Hazard Lamp Relay (+RK), Interior Mood Lamp Output (Option), ISG Test(Optional), Rear Air Mix(A) Door-100%, Rear Blower Fan Motor-6Step, Rear Driver B-PILLAR Door - 100%, Rear Driver Window Down, Rear Left Side Window Auto Down (Option:Curtain Bottom Status), Rear Left Side Window Up (Option:Curtain Bottom Status), Rear Passenger B-PILLAR

Door - 0%, Rear Passenger B-PILLAR Door - 100%, Rear RH Seat Vent Mode to the High, Rear Right Door Lock Indicator Output, Rear Top-SVM View, Rear-SVM View, Fuel Pressure Ragulator (GDI Only), Fuel Pump Relay Control for LPG, Glove Box Lamp Output, HAC Brake Lamp Actuator, Haptic Steering Wheel Output, Head Lamp High Relay, Maintenance Mode - EPB-MOC Engaging, Move Assist Outside Mirror To The Lowest Position, Move P-Seat to the Foremost Position (HEIGHT), OBC(On Board Charger) Relay(+) ON, Safety Power Window Enable, HMI Mirror Alert Right LED Blinking, Ignition Coil 2, Ignition Coil 4, Indicator Output 100%, Injector Disable-Cylinder 3, Injector Disable-Cylinder 4, Injector Disable-Cylinder 8, Heated Washer Nozzle Relay, Heater step 3 operation, HICM Relay, High Pressure Fuel Pump Control, Horn Relay, Ignition Coil 1, Indicator Output 25%, Injector(DI) Disable-Cylinder 3, Injector(MPI) Disable-Cylinder 2, Inlet Valve-Left Rear, Lamp Control - EPB Status Lamp, Injector Disable-Cylinder 7, Injector(DI) Disable-Cylinder 2, Lamp Load Power Relay, Static Bending RH Output (Option), Stop Lamp Left-Right, Sunroof Enable Output, TCI Bypass Valve (Turbo Only), Main Relay(-), Main Relay(+) ON Normal Sequence, MAP Lamp, Mood Lamp Output, Move DRIVE OUTSIDE MIRROR to the most left position, Move P-Seat to the Foremost Position (Tilt), Move P-Seat To The Last Position (Slide), Move P-Seat to the Lowest Position (Headrest), Luggage Lamp, Main Relay, Main Relay (+) ON, Main Relay(-) ON, Main Relay(-), Precharge Relay, Simultaneously ON (Precharge se, Maintenance Mode - EPB-MOC Disengaging, Manual HLLD Signal Output, Move DRIVE OUTSIDE MIRROR to the lowest position, Move P-Seat to the Highest Position (FR Height), Move P-Seat to the Last Position (Footrest), Turn Signal Lamp Front Right Output, Ignition Coil Enable-Disable-#1, Injector Disable-Cylinder 1, Injector Disable-Cylinder 5, Injector Disable-Cylinder 6, OBC Relay(+) ON, Operate Assist Side Unfold, Operate DRIVE SIDE WINDOW UP, Over Speed Warning Indicator, Parking Brake Indicator, PAS Buzzer Output (RPAS Buzzer Output), Passenger Air Outlet Mode-Foot, Passenger Mode Door-Face, On-Off Solenoid A (SS-A), Openbed Cargo Lamp Output, Outlet Valve-Right Rear, Passenger Air Mix Door-0%, Passenger Air Mix Door-100%, Passenger Seat Heat Mode to the High, O2 Heater Front (B1-S1), O2 Heater Rear, P Target Position, Parking Release Actuator Control, Passenger Mode Door-Foot, Precharge Relay ON, Main Relay (-), (+) ON (Normal sequence), Rad Fan Forced Operation, Radiator Cooling Fan PWM, Rear Air Flow Door - 0%, Rear Blower Fan Motor-2Step, Luggage Lamp Relay, Motor, Move P-Seat to the Foremost Position (Footrest), Move P-Seat to the Foremost Position (Head Rest Slide), Move P-Seat to the Last Position (Recline), Security LED Output, Power Supply to the IGN1-STARTER Relay of Main MCU, R Target Position, Rear Driver B-PILLAR Door - 0%, Rear Fog Lamp Indicator, Rear Fog Lamp Relay (Option), Rear Left Side Courtesy Lamp, Rear RH Seat Heat Mode to the High, Rear Room Lamp Output, Rear Vent Door-Close, Rear Wiper Relay (Option), Removal of air from engine clutch hydraulic pressure line, Power Supply to the IGN1 Relay of Main MCU, Power Window Relay, Quick Charge Relay (+),(-), Main Relay (-), (+) ON (Normal Char, Quick Charger Relay(-)(+) OFF simultaneous, Rear Assist Power Window Down Relay, Rear Assist Power Window Up Relay, Rear Assist Window Auto Down, Rear Assist Window Down, Rear Charge Door Lamp Output, Rear Driver Side Window Auto Up, Rear Driver Window Auto Down, Rear Fog Lamp (Option), Rear Right Side Door Curtain Down (Only Windows Close Status), Rear Right Side Window Auto Down (Option:Curtain Bottom Status), Rear Right Side Window Up (Option:Curtain Bottom Status), Rear Seat Warmer Right(Option), Rear Wiper Relay, RVM Swich Indicator Output, Safety Power Window Sunroof Enable, SBL Function Test SBL LH ON, Rear Blower Fan Motor-7Step, Rear illumination, Rear Left Door Lock Indicator Output, Rear mode door - B-L, Rear Mood Lamp (Both Left and Right), Rear Power Window LH Up Relay, Rear Right Heater Switch On, Rear Right Power Window Up (Option), Rear Seat Belt Center Indicator (Option), ShortTermLoad Cut Relay-IPS Output, SSB illumination Output (Power and GND), Start Relay, Stop Lamp Right, RKE Tailgate Signal Output(to PTGM), Static Bending Light(RHD), Stop Lamp, Variable Intake Manifold 1 (Option), Wiper Power Relay, Wiper Relay (for INT)[Wiper RLY With Wiper Power RLY], Injector(DI) Disable-Cylinder 4, Intake Door - Fresh, Interior Antenna #2 Output (Power and GND), Interior Antenna #3 (Trunk Antenna : Sedan Type) Output (Power, Internal Buzzer, IOD Relay, Window Lock to Driver Door Module, Wiper High-Speed Relay [Wiper High RLY With

Wiper Power RLY], Waste Gate Valve (Turbo Only), Wiper Low-Speed Relay [Wiper Low RLY With Wiper Power RLY], Stop Lamp Left-Right-HMSL Output (Option), SVM + FrontLeft + FrontRight View, OBC Relay(-) ON, Oil Change Warning Lamp(Option), Oil Control Valve - Exhaust Bank 1(Option), Operate Assist Side Fold, Operate DRIVE SIDE WINDOW DOWN, Outlet Valve-Left Front, Outlet Valve-Left Rear, Passenger Air Outlet Mode-Defrost, Turn Signal Lamp Front Left Output, Turn Signal Lamp Rear Right Output, LPG Lamp, Map Lamp Output, Mirror Folding Operation (Option), Mirror Select Right indicator, Passenger Mode Door - Defog, Perform Event Recording, Pocket Light Output (Option), Static Bending Light(LHD), Steering Warmer Switch Indicator Output, Sunroof Power Relay control(Option), SVM + DRVM(Driving Rear View Monitor), Tail Lamp Indicator, Tail Lamp Output, Tailgate-Trunk Release Relay, Mirror Unfolding Operation (Option), Mood Lamp 2 Output, Mood Lamp 3 Output, Move Assist Outside Mirror To The Highest Position, Move P-Seat to the Foremost Position (Recline), Move P-Seat to the Highest Position (RR Height), Multimedia Load Power Relay, N Target Position, Norminal Idle Speed Offset, Oil Control Valve - Intake Bank 1, Operate DRIVE SIDE UNFOLD, Operate DRIVE SIDE WINDOW AUTO UP, Rear Air Mix(A) Door-0%, Rear Blower Fan Motor-3Step, Rear Blower Fan Motor-4Step, Rear Blower Fan Motor-8Step, Rear Bumper Antenna Output (Power and GND), Rear Defogger Relay, Rear Fog Lamp Left Output, Rear Fog Output, Rear Left Power Window Down (Option), Rear Left Power Window Up (Option), Rear Left Side Door Curtain Down (Only Windows Close Status), Rear mode door - Floor, Rear mode door - Vent, Rear Power Window LOCK, Rear Seat Belt Right Indicator (Option), Rear Seat Vent Mode to the High, Rear Seat Warmer Left(Option), Torque Converter Clutch Solenoid Valve, Turbo waste gate(WGT) valve, Turn Signal Sound Relay Output, RL Door Unlock Relay, RL-RR Power Window Enable Output, Puddle Pocket Lamp Output, Quick Charger Relay(-) ON, Rear Air Flow Door - 50%, Rear Assist Side Window Auto Up, Rear Fog Lamp Right Output, Rear Left Side Door Curtain Up (Only Windows Close Status), Rear Left Side Window Auto Up (Option:Curtain Bottom Status), Rear Left Side Window Down (Option:Curtain Bottom Status), Rear Left Turn Signal Output, Rear Right Side Courtesy Lamp, Rear Right Side Window Auto Up (Option:Curtain Bottom Status), Rear Right Side Window Down (Option:Curtain Bottom Status), Rear Right Turn Signal Output, Rear SBR Symbol Indicator Output(Option), Rear Seat Heat Mode to the High, Rear Washer Motor Output, Rear Wiper Output, Wiper Low Output, RL Door Lock Relay, Start Inhibit Relay, Steering Warmer Output, Stop Lamp Left, SVM + RearLeft + RearRight View, Turn Signal Sound Output, Variable Intake Solenoid(Option), Warning Message - Fired, Window Lock Indicator, Wiper High Relay Output, Console Mode Door - Floor, Console Temperature Air Mix Door 50%, Cornering Lamp LH Output, Cornering Lamp RH Output, Cruise Control SET Lamp(Option), Def Door - Open, Door Unlock Relay, Driver Air Mix Door-100%, Driver Door Unlock Relay (Option), Start inhibit Output, DRV-AST Power Window Enable Output, Electric Shuttle Valve-Right Front, ESS Brake Lamp Relay(ESS Only), Exhaust Gas Recirculation, Exterior Tail Lamp Right(Front and Rear) Output, External Buzzer Output, Fan 4th, Fan1 6th, Fan2 6th, Flasher Sound Relay(Option), Front Air Flow Door - 0%, Front Fog Cornering Lamp Left Output, Front Fog Cornering Lamp Right Output, Front Fog Lamp Left Output, Front Fog Lamp Relay, Front Glass Heated Switch Indicator Output, Front Left Side Window Auto Down, Front Right Turn Signal Output, Front Seat Vent Mode to the High, Fuel Door Lock Solenoid Output (PHEV Only), Fuel Pump Relay for LPG, Head Lamp Low Left Output, Head Lamp Washer Relay, HMI Mirror Alert Right LED ON, HMI Switch LED, Ignition 3 Relay, Ignition Coil Enable-Disable-#5, Illumination, Indirect Vent door, Interior Mood Lamp Output, Key Interlock Solenoid(Manual Key Type), LongTermLoad Cut Relay Output, Main Relay(-), Precharge Relay ON simultaneous, Move DRIVE OUTSIDE MIRROR to the most right position, Move P-Seat to the Foremost Position (Cushion Extension), Move P-Seat to the Foremost Position (Shoulder), Move P-Seat to the Foremost Position(Shoulder), Move P-Seat to the Last Position (HeadRest Slide), Move P-Seat to the Last Position(Shoulder), Move P-Seat to the Lowest Position (FR Height), O2 Heater Front, O2 Heater Rear (B2-S2), OBC Relay(+)-(-) ON Simultaneous, Openbed Box Lamp Output, Openbed Lamp Switch Indicator Output, Outlet Valve-Right Front, PAS Indicator (RPAS Off Indicator), Passenger Air Mix Door-50%, Passenger Air Outlet Mode-Face, Passenger Seat Vent

Mode to the High, Perform CPU (Video Recording and Display Output) On-Off, Perform ESCL Open Check, Power Supply to the ACC Relay of Main MCU, Start Inhibit Relay (Option), Storage Bos Lid Release Relay Output, TCS Valve-Left Front, TCS Valve-Right Front, Rear Blower Fan Motor-1Step, Rear Blower Fan Motor-5Step, Rear Blower Fan Motor-Off, Rear Driver Power Window Down Relay, Rear Left Heater Switch On, Rear LH Seat Vent Mode to the High, Rear Right Power Window Down (Option), Rear View Switch Indicator Output, Turn RH Output, Turn Signal Lamp Rear Left Output, VCM Motor(Option), Warning Message - Failure, Room Lamp Output, Static Bending LH Output (Option), Tail Interior Lamp, Tail Lamp Relay, Torque Coupling Control, Turn LH Output, Warm Bypass door, Wiper Low Relay Output

## ***Mazda Coverage***

### **5 new Actuation type special tests:**

BSM Illumination Mode, KOER Self Test, RCTA Buzzer Request, KOEO Self Test, On Demand Test

## ***Nissan/Infiniti Coverage***

- Added coverage for 1089 new system applications

### **237 new Adjustment type special tests:**

A/F Initial Learning, AFT Maintenance, After Camshaft Position Sensor Replacement, After Fuel Injector Replacement, After Fuel Rail Pressure Sensor Replacement, Air Bleeding - FL Line, Air Fuel Ratio Sensor, A/F Sensor Response Diagnosis Status B1, After Electric Throttle Control Actuator Replacement, A/F Sensor Response Diagnosis Status B2, Active Control Engine Mounting A, Active Control Engine Mounting B, Actuator Air Bleeding Pattern, BCM Diagnosis When the Door Lock Is Malfunctioning, Adjustment: Type Of Alarm Signal, After Crankshaft Position Sensor Replacement, Air Bleeding - FR Line, Air Bleeding - RL Line, Air Bleeding Pattern - RR Wheel, AP Position Learn Clear, Automatic Unlocking, After High Pressure Fuel Pump Replacement, Air Bleeding, Air Fuel Ratio Correction Value, Anti-Lock Out Set, Air Bleeding - RR Line, Auto Door Lock, Auto Park Inhibition, Auxiliary Gearbox Clutch Point Learning, After Clutch Pedal Switch Replacement, After Turbocharger Solenoid Valve Replacement, Air Bleed, Anti Theft Alarm Trigger Setting, AUTOMATIC DOOR UNLOCK SELECT, Automatic Lock/Unlock Set, Adaptives After Replacing Particulate Filter, After Turbocharger Replacement, Air Bleeding Pattern - RL Wheel, Cause of Auto Cancel 2, Clutch Pedal End Stroke, CLUTCH SENSOR RESET, CML Battery Discharge Current Integration Clear, Blind Spot Detection Shut-Off Requester Test, Clear Air-Fuel Ratio Learning, Clear ETC Learning, Clear E-VTC Op Learned Deviation Angle (Exh), Clear FFD, ALC Setting, Auto Light Logic Setting, Automatic Lock Setting, Cause of Auto Cancel 6, Battery Discharge Current Integration Clear, Blind Spot Detection Configuration, Blow Mode, Calibrate Yaw Rate Sensor, Cause of Auto Cancel 4, Cumulative Sub-Battery Discharge Current Clear, Automatic Door Locking, BCM Diagnosis When Engine Does Not Start, Blow Set, Decel G Sensor Calibration, Clsd Thl Pos Learn, Custom A/Light Setting, Communication Test With Key, Computer Programming, Check Fuel Lines, Door Motor Starting Position Reset, Door Open Detection Acoustic Alarm, Door unlocking Driver door/all doors, ECO Mode Reset Function, Door Unlocking Triggering Delay, Clear LPG Air-fuel Ratio Learning, Clutch Point Learning, Erase Memory Data, CC/SL Program, Conform CVTF Deterioration, EGR Control Valve Closed Position Learning, Electric Parking Brake System: Test Mode Procedure, Engine basis parts value 1 and 2 clear, Erase Statistic Memory, Erase Learning Value, Fine adjustment of PAS camera, top view, Finish Brake Pad Replacement, Electric Intake Valve Timing Control Learning, Diagnosis for Remote Engine Starter, Drain System Air Bleeding Pattern, Door Lock / Unlock, Dual battery relay voltage drop count data clear, High Pressure Fuel Pump Total Starts Counter Clear, FWD Clutch Point Learning, G Sensor Calibration, GPF Service Regeneration Reset Routine Execution, Idle Air Vol Learn, FEB Operation Mileage, Fine adjustment of DS camera, top

view, Front Camera Guidelines Correction, Lane Dep.Warning Camera Shut-Off Requ.Test, Fuel Pressure Release, Erase Calibration Data, Number of Starting 1, Ignition Battery Saver Set, Interior Light/Door Lock Interaction Setting, Key Acknowledgement Signal On Unlocking, Lane Departure Warning Camera Configuration, Horn With Keyless Lock, Illumination Delay Setting, Injection Pump Adaptive, Engine Brake Adjustment, Ethanol Concentration, EVAP System Close, Fine Adjustment Reversing Camera Top View, Electric O.P Air Bleeding, Engine Adaptive, Rear Lid Unlocking Triggering Delay, M/T Neutral Pos Learn, Key Acknowledgement Signal On Locking, Key Battery Flat Warning, Fuel Supply Prevention, Horn Chirp Setting, Regeneration of Gasoline Particulate Filter, REMO CONT ID REGIST, Reset Adaption To Factory Setting, Room Lamp Timer Setting, RTCV Actuator Calibrate, High Pressure Fuel Circuit Fault Finding, Oil Change Interval (OCS) Dilution, Fine Adjustment Front View Camera Top View, FRE Memory Set, Interval of Oil Change (OCS) Oxidation, Number of Starting 4, Reset Adaptation Values for Shift Operation, Reset Fuel Consumption Short Term Log, ID Read, ID Registration, Ignition Timing Adjustment, Ignition Timing (ADV), Set R-DEF Timer, Shift Drum Reference Position, Launch Control Counter Reset, Steering Angle Initialization, Stop/Start engine restart cause data recorder, Target Idle RPM Adjustment, Target IGN TIM ADJ, Temp Set Correct In Deg F, Levelizer Adjustment, Idle Air Volume Learn, Initialization Position Adjustment, Number of Starting 3, Panic Alarm Triggering Delay, Power Supply Air Bleeding Pattern 1, Longitudinal G Sensor Calibration, Self-Learning Cont, Set Temperature Correction, Programmed Values, Rear Door Window Open Detect. Acoustic Alarm, Reset Fuel And Timing Learn Tables, Program Key Fobs, Programming Selections/Engaging Zones, Reset Memory, Reset Vehicle Height Initial Value, Reversing Camera Guidelines Correction, Room Lamp On Timer Setting, Remo Cont ID Erase, Start Brake Pad Replacement, Start OBD test: O2 sensors, Starter Operation Count Clear, Stop/Start prohibit cause data recorder, Retained Power Setting, Target Ignition Timing Hold, Steering Angle Sensor Calibration, Teach-in Of Selection Range Sensor, Tire Pressure Sensor Registration, Set Rear Temperature Correction, Steering Angle Sensor Adjustment, VIN Registration, Usual Air Bleeding - RL Line, Wiper Speed Setting, Write Saved Data, Write Starter Operation Count, Write High Pressure Fuel Pump Total Starts Count, Write VIN, WRITE VIN(MANUAL INPUT), Stop/Start engine stall cause data recorder, Sub-Starter & Generator Oper Count Clear, Number of Starting Cycles, Trunk Open Set, Valve Flushing, Waste Gate Regulation, Pressure Sensor Initialization, Start OBD test: Catalytic converter, System Mode Change, Tcu Activate Setting, Usual Air Bleeding - FL Line, Valve Timing Offset Data Writing, Reset to Default Settings, Room Lamp Off Timer Setting, REC Memory Set, Waste Gate Actuator Position Learning Value Clear, REMO CONT ID CONFIR, Save Computer Data, Supercharger Magnet Clutch Engagement Count Clear, Upshifts, Valve Check, Valve Timing Offset Data Clear, Weight Classification Sensor Reset, Clear E-VTC Op Learned Angle (Exh), Clear Normal TAS Learning, CO Adjustment, DPF Regeneration, Save/Write Data for CPU Replace, SC Magnetic Clutch Engage Count Clear, Electric Oil Pump Air Bleeding, Engine Start by I-Key, Injection Timing, Lock/Unlock By I-Key, Misfire Count (Past), Misfire count (real-time), Multi Answer Back Setting, Number of Starting 2, Power Supply Air Bleeding Pattern 2, Programming Reinitialization, Starter Operation Counter Clear, R Lamp Timer Logic Setting, Usual Air Bleeding - All lines, V/T Control Learn, Valve Timing Adjustment, VVEL Position Sensor Adj Prepare, Rotary Position Sensor Learn, Solenoid VTC Operation Start Duty Learning, Target Evaporator Temperature Upper Limit Setting, Temp Set Correct In Deg C, Usual Air Bleeding - FR Line, Usual Air Bleeding - RR Line, Valve Calibration, Vcr Base Position Learning, Write Fuel Learn Value, Zero Point Reset Function

### **836 new Actuation type special tests:**

(TBD)Hand Free Warning, A-C INDICATOR, ACC Indicator Lamp, Active Curve Illumination, Advanced Homogeneous Direct Injection Angle, Air/Liquid Pump Of Camera, ABS Rear Left Hold Solenoid, ABS Rear Right Hold Solenoid, ABS Solenoid (SRLR), Active Curve Illumination Actuator Motor, Active Pedal, ADAS BUZZER, A-F Ratio Cntrl Stop & Stratified Chrg Cmb Trnsfr, (TBD)Epkb Request, 5TH BOW

SYSTEM, ABS Warning Light, Active Curve Illumination Position Sensor, (TBD)LDP L STEP, A/C Compressor Relay Control, AAC/V Output Duty, ABS Front Left Hold Solenoid, ABS Front Right Hold Solenoid, ABS Front Right Release Solenoid, ABS Rear Right Release Solenoid, ABS Solenoid, AC Compressor, ACC Indicator, Accumulator Zero Down, 4WD Warning Light, A/C Indicator, AC Compressor Relay, Active Grille Shutter, A/F Sensor Heater, Accelerator Pedal Actuator Test 1, Accelerator Pedal Actuator Test 2, Accy/RAP Relay, ALC Level, ATC 2 Disp, ATC 5 Disp, Back Door/Trunk Unlock, (TBD)EAP FAIL IND, (TBD)EPS Reaction Force Request, 12V BATTERY CHARGE W-L, Activate Demo Mode Of Exterior Lamp, ADAS Buzzer 2, ARS Warning Light, ATC 3 Disp, A-TRC(TRAC) Indicator Light, Auto ACC 1, Auto Stop Start, Brake Actuator 3 Mode 1, Brake Release, BSW On Indicator, Brake Actuator 2 Mode 1, Brake Operation, Brake Warning Light, BSI ON Indicator, BSI Warning Indicator, BSW Warning Lamp, BSW/BSI WARNING LAMP, BSW-BSI WARNING LAMP, Catalyst Exhaust Gas Upstream O2 Resistance Heater PWM, Check Activated Canister Shutoff Valve, Check Boost Pressure Control, Check Component Purging Pressure Control, Air Conditioner Relay Output, Air Inlet Control Flap On Front End Panel, Air Pump, ALL INDICATORS DRIVE, Ambient Lighting, Answer Back With I-Key Unlock, Anti Key Lock In Function, ARC Disp, Auto LSD Indicator Light, Back Door/Trunk Lock Relay, Air Bypass Valve Solenoid, Air Cond Rly, Air Inlet Flap, All LCD Segments, Assist Seat Lamp Test, Automatic Back Door, Air Pump Relay, Alternator Voltage, ARC Disp 2, AS Seat Lamp Test, AUTO ACC 2, Advanced Stratified Direct Injection Angle, ALC Disp, Ambient Lighting Orange, Back Dr Open Warn, 4WD AT Flow, A/C Compressor, AAC/V Output Step, ABS Front Left Release Solenoid, ABS Motor, Activate the Slip Indicator Light, Activate the Starter Cut Relay, Active Grille Air Shutter, AEB Disp, Camshaft Dephaser: Solenoid Valve Slide Movement, Camshaft Positioner, Charge Status Indicator 1, Charge Status Indicator 2, Check Deceleration Air Switchover Valve, Check Engine And AC With Integrated Control Fan Motor, Check Fuel High Pressure Circulation for Leak Tightness, Coolant Temperature, Brake SW, BSI Indicator On, Buzzer, Cargo Lamp Output, Check Cylinder Fuel Injectors For Leaks, Check Intake Port Shutoff Actuator Motor, Air Conditioner Test, All Shock Absorber, Alternator Duty, ANC Test Tone, ATC 1 Disp, Auto Mode, Battery Cooling, Battery Heater, Booster Solenoid, Brake Actuator 1 Mode 2, Brake Switch, Check Cylinder Fuel Injectors, Check Exhaust Camshaft Solenoid, BH Operated Light, Brake Actuator 2 Mode 3, Brake Actuator 3 Mode 3, Charge Air Cooler Cooling Electric Water Pump, Check Intake Camshaft Solenoid, Check Throttle Valve Actuator, Battery Saver, Boost Pressure, Brake Actuator 1 Mode 3, Brake Actuator 3 Mode 2, Canister Drain Cut Valve, Causes Of Engine Stop Prevention, Check Purging Switchover Valve, Clutch, Compressor, Continuously Variable Valve Timing Control Side Intake, DAB Indicator Light, ALL SEG, Alternator Duty Cycle, Antenna Self-Test, ATC 4 Disp, BCI Warning Indicator, BH Standby Indicator, Cooling Fan, Cornering Lamp Test, Door Lock, Command St Whl Forc, Crawl Control Light, C-SCV Target Step (Bank2), DCA Indicator, DC-DC Conv Duty, Courtesy Lamps, C-VTC Target Angle, Boot/Trunk Open, Brake Actuator 1 Mode 1, Brake Hold Disp, BSW-BSI INDICATOR DRIVE, BUZZER DRIVE, CHARGE STAT INDICATOR 2, CHARGE STAT INDICATOR 3, Charge Status Indicator 3, Check Coolant Pump Switchover Valve, Check Fuel Pressure And Temperature Sensor Rail Pressure, Check Fuel Tank Pressure Sensor, CNG Cylinder Shutoff Valve, DIG Power Balance Cylinder 6, Display: Test, Door Warning Test, EAPM Warning Lamp, EBS Relay, ECB Motor Relay2, ECB Solenoid (SLAFL) Valve Open, ECB Solenoid (SLAFR) Valve Open, ECB Solenoid (SLARR) Valve Open, ECB Solenoid (SLARR2), ECB Solenoid (SLRFL2), ECB Solenoid (SLRFR) Valve Open, ECB Solenoid (SLRRL) Valve Open, ECB Solenoid (SLRRL2), ECB Solenoid (SLRRR), DEF Line Heater Test, DIG Power Balance Cylinder 4, ECB Main Relay, ECB Main Relay 2, ECB Motor Relay, ECB Solenoid (SLAFL), ECB Solenoid (SLRFL), ECB Solenoid (SLRFL) Valve Open, ECB Solenoid (SLRFR2), ECB Solenoid (SLRRL) Valve Close, ECB Solenoid (SLRRR) Valve Open, Driver Seat, DSS Signal Buzzer, EAP SW LAMP, ECB Solenoid (SC2), ECB Solenoid (SLAFR2), ECB Solenoid (SLARR) Valve Close, ECB Solenoid (SLRFL) Valve Close, ECB Solenoid (SLRRR) Valve Close, ECB Solenoid (SSC), Electronic Throttle Control, ENG COOLANT TEMP, Engine Cranking, CORNERING LAMP, Electric Fan Override Test, Engine Mounting, Engine Start Request, EVAP Leak Mode8, EVAP Leak P1441, Exhaust Solenoid, Brake Actuator, Brake Actuator 2



Mode 2, Brake Hold Display, Canister Bleed Solenoid Valve, Catalyst Exhaust Gas Downstream O2 Resistance Heater PWM, Cause of Auto Cancel 1, CBV Position Override, CHARGE STAT INDICATOR 1, Check Coolant Thermostat Heating Element, Check Engine Oil Pump Valve, Check Mode, Check Quantity Control Valve, Check Valve Bypass Valve, Component Quantity Control Valve, Confirm Dongle ID, Coolant Circulation Switching S/V, C-SCV Target Step (Bank1), Daytime Running Light, DIG Power Balance Cylinder 3, DIG Power Balance Cylinder 5, ECB Solenoid (SMC), ECO Indicator Lamp, EGR Solenoid, Engine Coolant Bypass Valve, ETC Correction Valve, EVAP CNT Duty Valve Open, Exhaust Camshaft Set Point, Engine Fan Override Test, Engine Start, ETS S-V, Exhaust Camshaft Dephaser Solenoid Valve, Exhaust Valve Timing Control Solenoid Valve, Command Steering Angle, DEF Dosing Unit Override Test, Downhill Assist Control Light, DOWNSTREAM OXYGEN SENSOR HEATING, ECB Solenoid (SLAFR), ECB Solenoid (SLAFR) Valve Close, EGR Cut Solenoid, EGR VOL CONT-V, EGRC Solenoid Valve, DIG Power Balance Cylinder 7, Door Lock Ind, Door Lock Indicator, FR LH ABS Solenoid (ACT), Fr Wiper, Fuel Heater Relay, Fuel Pressure Solenoid Valve, FAN UNIT LOW SPEED, FL Tire Disp, FPCM, FR LH ABS SOLENOID(ACT), Front Right Solenoid, ECB Solenoid (SC1), ECB Solenoid (SCC), ECB Solenoid (SGH), ECB Solenoid (SLA), ECB Solenoid (SLARL), ECB Solenoid (SLARL2), ECB Solenoid (SLR) Valve Close, ECB Solenoid (SLRRL), ECB Solenoid (SRC), ECB Solenoid (SSA), ECO Tree, DIG Power Balance Cylinder 1, DIG Power Balance Cylinder 8, Door Handle Lamp Test, ECB Control Invalid, ECB Solenoid (SLAFL) Valve Close, ECB Solenoid (SLAFL2), ECB Solenoid (SLARL) Valve Close, ECB Solenoid (SLRFR), ECB Solenoid (SLRRR2), ECB Solenoid (SMC1), ECB Warning Indicator, EGR Cont (Mode 1), EGR Cont (Mode 3), FUEL-T TEMP SEN, Gas Pump Command State, HALF BACK DOOR, Head Lamp, Headlamp High, ECB Solenoid (SLA) Valve Close, ECB Solenoid (SLARL) Valve Open, ECB Solenoid (SLARR), ECB Solenoid (SLR), EGR Vol Cont/V, Engine Oil Pressure Control Solenoid Valve, ESS Active, Exit Light, Fuel Pump Relay, Fuel Pump Relay 3, Idle Target RPM, IGN KEY WARN ALM, Ignition Accessory Battery Saver, Ignition Key Warning Alarm, Ignition Timing (Mode 3), FAN UNIT HIGH SPEED, Flasher, Flex-Fuel Additional Solenoid Valve, Front Fog Lamp, F-S CHG RLY, Interior Lamp, Lane Departure Warning Display, LDP ON IND, LED LH INDICATOR, Fuel Lid Open Indicate, Glow Relay, Head Lamp High, Headlamp Low, Headlamp Washer, HEATING RESISTOR RELAY 2, High Beam Lamp Test, Horn Acknowledgement Signal, Horn Test, Levelizer Test, Lock Indicator, LOW BEAM TEST LEFT, Mode 1 DIG Power Balance Cylinder 2, Mode 1 DIG Power Balance Cylinder 3, Mode 3 DIG Power Balance Cylinder 3, Mode 3 DIG Power Balance Cylinder 4, Electric Parking Brake Activation, Engine Coolant Temperature, EXTERNAL LAMPS, Outside Buzzer, HYDRAULIC PRESSURE RELEASE, IACV-AAC/V Opening, Ignition Timing (Mode 1), Indicator, Injector Cylinder 4, Fan Unit High Speed Relay, Flasher test, FLYWHEEL TARGET PROGRAMMING, Footwell Lights, FR Fog lamp, Front Driver Window, Front Wiper Test, Fuel Flow Solenoid Valve, Fuel Pump, P Range, Panic Alarm, PKB Lock Control, Plug In Indicator, Power Balance (Cylinder #1), Power Balance (Cylinder #7), Power Window Remote Down Set, Pre Crash Brake OFF Light, PTC Relay-3, Inside Buzzer, Inspection Mode, Inspection Mode 5, INT LAMP, Intelligent Key Link, Interior Lamps, Interrupt Disp, LDP Buzzer, LDP Warning Indicator, HPCR Fuel Act Override, Ignition Cylinder 2, Ignition Relay, FL Shock Absorber, FR Shock Absorber, FR Tire Disp, Front Assist Window, Engine Sw Illumi, ESS Relay Active, Exhaust Air Flap, Exhaust Fuel Injector, Exterior Lamps, External Buzzer, Fan Duty Control, Electrical Control Engine Mount Motor, ETS Solenoid Control, EV SYSTEM W-L, E-VTC Target Angle (Exhaust), Exhaust Gas Recirculation Cooler Bypass Valve, Pump Check Pattern, Push Switch Indicator, READY Indicator Lamp, Rear Defogger Indicator, LOOK RELEASE, LPG Air Fuel Ratio Revision Value, Master Warning Active, Mode 1 DIG Power Balance Cylinder 4, Inspection Mode 1, INT V/T ASSIGN ANGLE, Intake Valve Timing Control Solenoid Valve, LDW Warning Indicator, Fuel Pump Control Module, Fuel Pump Relay 2, Fuel Rail Pressure, Fuel System Leakage Test, HDC DISP, Head Lamps, HORN LAMP, Remote Engine Starter, Retractable Mirror, Right Solenoid, RL Tire Disp, SCB/V Cont SOL/V, FR LH SOL, Front Buzzer, Fuel Rail Pressure Control Valve, Hazard Answer Back, Hazard Lamp, Horn-IPDM-E, Horn-Multi Remote Ent, Hydraulic Motor, ICC Buzzer, Ignition On Warning System, Oil Pressure Switch, Parking Lamp, Flex-Fuel Additional Pump, FR RH ABS

Solenoid (ACT), FR RH ABS SOLENOID(ACT), Front Left Solenoid, Illumination Dim Signal, Injection Pressure Regulator, Injector Cylinder 2, Inside ANT Diagnosis, Intake Manifold Pressure Solenoid, INTELLIGENT KEY LINK (CAN), PKB Full Release Control, PKB Release Control, Power Balance, Power Balance (Cylinder #6), Power Slide Door, POWER WINDOW (LH-RH), PTC Heater Relay 2, PTC Relay-2, Purg Vol Cont/V, Fuel Heater, FUEL METER DIAGNOSIS( ANALOG METER ), H/B Motor Relay, HDC Display, LDW On Indicator, LED, Radiator Fan Drive, Radiator Fan Output Hi, RCTA-BSW Indicator, Head Lamp Washer, HEAD LAMP(HI), Heater Valve Flow, LOW BEAM TEST RIGHT, LPG Shutoff Valve Relay, Mirror +5 V Test, MIRROR MOTOR LH, Mode 1 DIG Power Balance Cylinder 7, Mode 3 DIG Power Balance Cylinder 1, Mode 3 DIG Power Balance Cylinder 7, Motor Relay Control, Reverse Gear Reset Values Of Shift Operations, Rise Up Wiper Test, RR LH ABS SOLENOID(ACT), RR RH ABS Solenoid (ACT), RR Tire Disp, ID REGIST WARNING, Ign Cont2, Ignition Key In Alarm, Ignition Switch LED Power, Immobilizer Lamp, INDICATOR LAMP DRIVE, Injector Cylinder 3, Heater Relay Unit, HEATING RESISTOR RELAY 3, High Beam Assist Test, Horn, Ignition Cont2, Ignition Cylinder 3, Ignition Illumination, Ignition Timing, SCR Performance, Shift Spot Lamp Test, Slip Indicator Light, Solenoid Actuator Driving RR-RH, Solenoid Driving FR-LH, Solenoid Relay, INT V-T ASSIGN ANGLE, Intank Fuel Temperature Sensor, Lane Departure W/L, Injector-Cylinder 1, Inspection Mode 2, Inspection Mode 3, Key Fob Power Window Test, Left Exterior Mirror LED Test, Stop Lamp On Relay, Super Charger Clutch Relay, Swirl Control Valve, SYSTEM ON LAMP DRIVE, Target Electric Throttle Control Angle, Lock (Central Locking), Lock Operation, Low Beam Swivel Test Left, MAP/Baro SW/V, Mixture Ratio, Mode 1 DIG Power Balance Cylinder 8, Mode 3 DIG Power Balance Cylinder 8, Low-Beam Headlight Right, Meter Buzzer, Mode 3 DIG Power Balance Cylinder 6, Third O2 Sensor Heater, Third O2/S Diagnosis, UPSTREAM O2 SENSOR HEATING, Hv Battery Cooling Fan, HVAC Test, Ignition Cylinder 4, Ignition Key Gong, Ill Dim Signal, Indicat. Lamp VSC OFF, Parcel Shelf, Partial Load Operation Crankcase Ventilation Valve, OPTIC AXIS ACTIVE TEST~OPTIC AXIS ACTIVE TEST, Oxygen Sensor 1 Heater, P/REG CONT SOL/V, Parking Brake Full Release, Passenger Side Interior Lighting, PRVR Solenoid, Radiator Fan Relay, Rear Assist Window, Light On Alarm, Lock Doors, Mode 1 DIG Power Balance Cylinder 5, Secondary Air Cut Solenoid, Solenoid Actuator Driving FR-LH, Solenoid Driving RR-RH, PKB Light, PSD PBD Open Test, PTC Relay-1, PURG VOL CONT-V, Quick Charge Relay -, RAB Warning Lamp (Malfunction), Rear Driver Window, Rear Left Solenoid, Rear Window Defogger, Power Balance (Cylinder #4), Power Sliding Door, Programming Cl Touch Point, PTC Heater Relay 1, Quick Charge Relay +, Radiator Fan Output Lo, Read Tire Id, Rear Buzzer, Recycle Air Memory Switch, Roof, RR Shock Absorber, RR Wiper, RTCV Hysteresis Test, Security Horn, Reverse Lamp, REVERSE LAMP RLY, RR Fog Lamp, RUN FLAT TIRE W/L, Release Hand Warning, Siren, Stop Lamp Off Relay 2 Active, Stop Lamp ON Relay Active, Stratified Direct Injection Timing Angle, Stratified EGR Position, Stroke Simulator Cut Valve Pattern, Seat belt lamp test, Seat Belt Warn Test, SEAT LIFTER RR, SHIFTLOCK SOLENOID TEST, Short Cranking Output, Solenoid Actuator Driving FR 2 Wheels, Speed Sensor Function, Run Flat Tire Warning Buzzer, SCV Solenoid, Target Idle Speed, TPMS ID flat tire warn, TRAC Solenoid (SRMF), Turbocharger Boost Control Solenoid Valve, Turn Disp, Starter Cut Relay, Stationary Cornering Lamp Low, Switch Lamp, Switch Lamp~Switch Lamp, Target EGR Position, Target Equivalence Ratio Control, Shift Lock Solenoid, Speaker Mute Signal, Trac Motor Relay, Trunk Open Test, Trunk/Back Door, Turbocharger Wastegate Solenoid Valve, Valve Timing Sol, VENT CONTROL-V, VSC Warning Light, VSC/TRC Solenoid (SPFL), Unlock Passenger Door, Vehicle Security Horn, VEHICLE SECURITYT HORN, VIAS S-V-1, Voltage Control, Voltage Pattern Output, VSC OFF Indicator Light, VSP SPEAKER LH, Instrument Cluster Indicat. Lamps, Key Lock Solenoid, Key Reminder, Key Reminder Warn, Lamps, VSP SPEAKER RH, W/G, Yellow Lane Dep.Warnng.Indic. Lamp, V/T Assign Angle, VIAS S/V-1, VTC Solenoid, VVL Int & Exh Solenoid Simultaneous Drive, VVL Solenoid Exhaust, Warning Tone Gen. Roof Position, Window lifter, front, Stop Lamp Off Relay, Sub Fuel Cont Sol /V, Sub Fuel Pump Relay, TCV Power System Test, Theft Indicator, Tilt Motor, TRAC Solenoid (SPFL), TRAC Solenoid (SRCF), TRAC Solenoid (SRMR), Oxygen Sensor 2 Heater, Trunk, Trunk-back door, Turbocharging Solenoid Valve, Unlock Doors, VCR System, Left Solenoid, LIGHT WARN ALM, Low

Pressure Fuel Pump, Low-Beam Headlight Left, Malfunction Status Of Stop/Start System, VSC/TRC Solenoid (SMF), VSC/TRC Solenoid (SRMF), Warning Buzzer, Warning System Indicator, Wastegate Actuator, Window lifter, rear left, Pedal Motor, Power Balance (Cylinder #2), Power Balance (Cylinder #5), PPS Solenoid, Pre-Charge Pump, Pressure Control Solenoid C, Purging Switchover Valve, Quick Charge Permit Signal Circuit, Start/Stop Button Illumination, Steering Reaction Force Activation, TARGET EGR ANGLE, TC Bypass Valve, TC-SC BYPASS VALVE, Mode 1 DIG Power Balance Cylinder 6, Mode 3 DIG Power Balance Cylinder 5, Oil Pressure Sw, Optic Axis Active Test, Ready Indicator, Rear Left Reading Light, Rear O2 Diagnosis, Rear Right Solenoid, Throttle Valve Position Setpoint, Trunk/Glass Hatch Open, TUMBLE CONTROL VALVE~TUMBLE CONTROL VALVE, Unit Characteristics Data, PRES Regulator, Pressure Control Solenoid A, PROGRAMMING THROTTLE LIMITS, PTC Heater Relay 3, Reverse Warning, RL Shock Absorber, RR LH ABS Solenoid (ACT), RR RH ABS SOLENOID(ACT), Radiator Fan Relay Test, VIAS Solenoid, VSC/TRAC Solenoid, VSC/TRC Solenoid (SMR), VSC/TRC Solenoid (SRCF), VSC/TRC Solenoid (SRCR), VSC/TRC Solenoid (SRMR), VSP Speaker, Warning Lamp, Washer Fluid Pump Relay, YAW STEP R, Right Exterior Mirror LED Test, RR RH SOL, Security Indicator, Shift Solenoid B, Shift Solenoid C, Shift Solenoid E, Slow Mode, Solenoid Actuator Driving FR-RH, Solenoid Actuator Driving RR 2 Wheels, TANK FUEL TEMPERATURE SENSOR, Target Fan RPM, TELESCO MOTOR, THEFT IND, Thermostat Heater Control Solenoid Valve, Tire Pressure Indicator, Tire Pressure Warning Lamp, TPMS ID Registration Warning, Turbocharger Boost Control Actuator, Unlock Driver Door, Vent Control Valve, VVL Solenoid Intake, YAW STEP L, CNG Engine Shutoff Valve, Cruise Control-PCS-LKA Buzzer, Cylinder Cutout Test, DEF System Leak Test, DEF Tank Heater Test, DIG Power Balance Cylinder 2, Display: Headlamp Leveling, Drive Mode Test, Driver Side Interior Lighting, RUN FLAT TIRE W-L, RUN FLAT-T WARN BUZZER, SEAT LIFTER, SEAT LIFTER FR, SEAT SLIDE, Shift Solenoid A, Shift Solenoid D, Solenoid Driving RR, Solenoid Driving RR-LH, START Button Illumination, ECB Solenoid (SLRFR) Valve Close, ECB Solenoid (SMC/SRC/SCC), ECB Solenoid (SMC2), EGR Control Valve, Electric Water Pump, Electrical Control EGR Target Step, Engine Coolant Electric Water Pump, Engine Piloted Oil Pump, EVAP Canister Purge Control Solenoid Valve, EVAP Leak Diag, EXH V-T ASSIGN ANGLE, Exhaust Valve Timing Assign Angle, Fan Unit Low Speed Relay, Fog Lamp Override, FR RH SOL, Fresh Air Memory, Front Wiper, Fuel Flow Actuator, Fuel Injection, Fuel Return Valve, HEATING RESISTOR RELAY 1, High Pressure Circuit Leak Test, ICC Warning Lamp, Ignition Cont1, Ignition Cylinder 1, Ignition On Ind, Intake Duct S/V, Key Fob Low Battery Warning, LANE DEPARTURE W-L, LCD, Ldp On Indicator, Low Beam Swivel Test Right, Luggage Lamp Test, MEMORY SW INDCTR, Meter Lamp, MIRROR MOTOR RH, Mode 1 DIG Power Balance Cylinder 1, Mode 3 DIG Power Balance Cylinder 2, Motor Fan, MOTORIZED THROTTLE, Power Balance (Cylinder #3), Power Balance (Cylinder #8), Power Limitation Indicator, Power Window Down, Pressure Control Solenoid B, Step Lamp Test, Step Working Request, Stop Lamp, Stop light System Indicator Light, Supercharger Clutch Relay, SWIRL CONT SOL VALVE, TPMS LAMP WARN TEST, TRAC Solenoid (SPFR), TRAC Solenoid (SRCR), RAB Warning Lamp (Operation), Rear Defogger, Rear Right Reading Light, Trunk/Glass Hatch, Tumble Control Valve, Unlock Rear Doors, Valve, VC/V Bypass/V, VIAS S-V-2, Vibration Motor, VSC/TRC Solenoid (SPFR), Window lifter, rear right, Reverse Lamp Relay, ROOF STATE OUTPUT(AUDIO), ROOF SYSTEM, RR LH SOL, RR O2 Sensor Heater, Seat Reclining, Setting Initialize Completion Flag, SHIFTLOCK SORENOID TEST, Signal Check, Slide Door, Solenoid Actuator Driving RR-LH, Solenoid Driving FR-RH, Start Up Sound Speaker, Stop Current Command, Stop Lamp 1, Stop Lamp 2, Stop Lamp 3, Stop Lamp Off Relay 1 Active, Stop Light Relay, Tail Lamp, Tail Light, TPMS Warning Light, TRC OFF Indicator Light, Trunk-Luggage Lamp Test, Variable Duct Solenoid Output, Vehicle Disp, Vehicle Height Standard Position Forcing Return, VSC/TRAC Off Indicator Light, VSP Off Indicator, Water Temperature

## **Subaru Coverage**

- Added coverage for 29 new system applications

### **34 new Adjustment type special tests:**

Actuator Initialization, Clear AT Learning Value, ATF Deterioration Degree Indication, Auto Retractable Power Door Mirror Open & Close ON/OFF Setting, Auto Retractable Power Door Mirror Open Trigger Setting, AT learning mode, Camera Guide Line Settings, Diag Recorder Settings, Camera Caution Display Settings, Compressor Auto Mode, Initial Security Setting, Inspection Mode After ATF,T/M Exchange, Mode/All Flow, Mode/Vent II, Initial Button Setting, Idle Speed Adjustment, Record Clear, Foot/DEF Auto Mode, Foot/Def Automatic Fan Speed Increase Function, Fresh/Recircle Air Door Auto Mode, Reverse Interlocking Door Mirror ON/OFF Setting, System Initialization, Reverse Interlocking Door Mirror Last Memory ON/OFF Setting, Variable compressor break-in drive, Variable Flow Change Sol Duty Setting, Memory Initialization, Mode/Heat III, Reverse Interlocking Door Mirror Tilt Down Side Setting, RAB Operation Record Data, Simple Roughness Monitor, VSC(VDC) Centering Mode, VIN Entry, Steering Angle Sensor and Lateral G Sensor 0 Point, Tire Pressure Sensor Registration

### **235 new Actuation type special tests:**

AC Compressor Relay, Airbag Warning, A/T Oil Temperature, ABS Warning, A/C Relay, Airmix Dr Act Trgt Open Angle (Pass), A/C Compressor Relay, AAI Solenoid Valve, ABS Function Test, ABS Sequence Control Mode, Airmix Dr Act Trgt Open Angle (Drivers), All seat UNLOCK output, Alternator control mode, AWD, Blower Fan Level Setting, A/C Change Setting, Canister Purge Control Solenoid, AM Seek Up/Down, Ambient Temperature, Air Mix Door Actuator Target Open (Driver Side), AWD Linear Solenoid, Air Mix Door Actuator Target Open (Passenger Side), Auto Switch, AWD Mode Select, AWD Solenoid, All seats door warning, Active Grill Shutter Test, Color Check: White, Brake Maintenance Mode, AUTO switch mode setting, Brake Lamp Lighting Operation, Brightness, Brake Warning, Check E/G warning, Clutch Pressure Control Solenoid Valve, All Lamps, Ambient Air Temperature setting, Dealer Check Mode Procedure, Color Check: Black, Color Check: Green, D range display, Charge, Color Check: Blue, Color Check: Gradation, Door Mirror Indicator Active Test, Down range display, Driver Seat Sensor Power Supply, EGR Control, E/G remaining oil warning, EGR Valve, Compression monitor, ELCM pump, EPS Indicator Lamp, EPB Active, EPB Hill Hold, Color Check: Cross Talking, Coolant Circulation Valve Control, Diag Recorder Data output, Driver Seat Belt Reminder, Fuel efficiency gauge (ECO gauge) 1/4 scale command, EYESIGHT failure, Fresh/Rec Air Dr Act Trgt Open Angle, Dual-Range LO Indicator, Driver Door, Fuel Pump Relay, Fuel sender E-point command, HID auto leveler, Hill start assist OFF/failure indicator, Injection Stop Mode (Injector 1), Injection Stop Mode (Injector 3), Green LED Lighting, Left Steering Responsive Headlight, Lock-Up Duty Solenoid, Mode Door Actuator Opening Angle Target, ELCM switching valve, F&R Clutch Solenoid, Odometer numerical device display 9, IGN 1, Injector 6, FM Seek Up/Down, Fuel efficiency gauge (ECO gauge) MIN scale command, Horn Output, IGN 2, Injection Stop Mode (Injector 5), Fixed Idle Ignition Timing, Front Fog Lamp Indicator, Fuel efficiency gauge (ECO gauge) 3/4 scale command, Rear Fog Lamp Indicator, Meter F-scale command, L range display, HBA, Fuel Warning Lamp, Green LED Flashing, Green LED Off, HBA OFF/FAIL, Night Brightness Check: Standard, Noon Brightness Check: Dark, Noon Brightness Check: Standard, Odometer numerical device display 4, Oil Pressure, Illumination Lights Test, Immobilizer, Injector 5, Fuel efficiency gauge (ECO gauge) 1/2 scale command, Fuel efficiency gauge (ECO gauge) MAX scale command, Fuel Pump Control, LED Switch Lighting Test, Radiator Fan Relay, Rear Defogger, Rear Differential Inspection Mode, Recline Motor Backward, Red LED Flashing, Fuel Pump OFF, Fuel sender F-point command, Fuel Tank Sensor Control Valve, Meter 1/2 scale command, Noon Brightness Check: Most Dark, Odometer numerical device display 0, IGN 1/2, Injection Stop Mode (Injector 6), Injection Stop Mode (Injector 4), Shift Lock Solenoid, LANE OFF, Injector 1, In-Vehicle Air Temperature Setting, LED LO beam, lock actual. LOCK output, Low Fuel Warning Indication, Meter 1/4 scale command, Noon Brightness Check: Most Bright, TPMS Warning Light, Trip meter numerical device display 7, Turbocharger Wastegate Control, Turn Left Signal, Turn Right Signal, Injector 3, Part Number, Night

Brightness Check: Most Bright, Noon Brightness Check: Bright, Odometer numerical device display 6, Odometer numerical device display 7, Passenger Seat Sensor Power Supply, Primary Up Solenoid, Line Solenoid, Power Windows Tests, Red LED Lighting, Primary Down Solenoid, Red Led Off, Rear Left Door, Recline Motor Forward, Secondary Air Pump Relay, Sounder Output, Speedometer test, SRVD OFF, ROM ID, Temp Gauge: H-Lock, Trip meter numerical device display 9, Temp Gauge: H-Point, Temp Gauge: Intermediate Stability Indication, Temp Gauge: Z-Point, Secondary Air Combi Valve 1, Secondary Solenoid Current, SET Indicator, SRVD, Trip meter numerical device display 5, Up range display, VDC operation/failure indicator, Keyless Buzzer, Warning Lamp, Washer Fluid Low Indicator, Water temperature (COOL) indicator, Water temperature (HOT) warning, Temp Gauge: C-Lock, Night Brightness Check: Dark, No-key warning, Odometer numerical device display 3, P Range Display, Trip meter numerical device display 1, Meter 3/4 scale command, Position light, R range display, SRH OFF, Start SW Character Illumination Lighted, STSW, Temp Gauge: Dial 1 Instructions, Temp Gauge: Dial 2 Instructions, Night Brightness Check: Most Dark, Odometer numerical device display 1, Odometer numerical device display 2, Odometer numerical device display 8, Rear Right Door, Trunk open, Passenger Door, PCV Test, Range Display Test, Software version, Sub Fuel Pump Relay, Tachometer test, Temp Gauge: C-Point, Trip meter numerical device display 3, Trip meter numerical device display 4, Clutch PC Solenoid 2, Color Check: Red, Cruise Indicator, Diag Recorder Data delete, Seat Slide Backward, Seat Slide Forward, Secondary Air Combi Valve 2, Shift Indicator Lamp, Software Information, Fuel Pressure Solenoid, Heater Water Temperature Setting, High Beam Indicator, Injection Quantity Control, Injection Stop Mode (Injector 2), Injector 2, Injector 4, Meter E scale command, N range display, P-CR OFF, Steering lock power supply, Quantity of Sunload Setting, Trip meter numerical device display 0, Trip meter numerical device display 6, Trip meter numerical device display 8, Trunk Unlock Actuator, VDC Function Check Mode, Right Steering Responsive Headlight, Speaker On, Start SW Indicator Lighted (Green), Start SW Indicator Lighted (Orange), Trip meter numerical device display 2, Tuner Power Supply On (Indoor Tuner), VDC OFF indicator, Vent Valve

## ***Toyota/Lexus Coverage***

- Added coverage for 330 new system applications

### **644 new Adjustment type special tests:**

A/T Code Reset, aCol Function, Actuator Air Bleeding Pattern, Advanced Park Parallel Parking Control Area, AHS Operation Pattern Setting, AHS Operation Vehicle Speed Setting (Pattern2), Air Bleed, Air Bleeding - RL Line, Air Conditioner Switch Indicator Function, Air Outlet Servo Pulse (P), 3rd Center Seatbelt Warning Buzzer Function, 4th Center Seatbelt Warning Buzzer Function, A/C Operation Limit History Counter Clear, Activate The VSV For Air Bleed Control, Add Foot Air in FACE Mode, Advanced Parking Guidance Avoidance Distance, Advanced Parking Guidance Parallel Parking Area, 2 Steps Fade Out Control Function, 3rd Right Seatbelt Warning Buzzer Function, 4th Left Seatbelt Warning Buzzer Function, A/C Auto Switch Mode, A/C Control Mode Switching, Air Bleeding - RR Line, Air Purifier Auto Cancel, Advanced Illumination System Setting, Air Bleeding, 6MT Setting, 4th Right Seatbelt Warning Buzzer Function, Activate The VN Turbo Open Bank 1, Advanced Park Perpendicular Parking Control Area, Advanced Parking Guidance Perpendicular Parking, All Readiness, Auto Entry Cancel Setting, Auto Wiper, Automatic Locking Timeout Adjust, Back Door Opening Operation, 3rd Left Seatbelt Warning Buzzer Function, Automatic Door Unlock Function, Automatic Locking Time Adjust, Bad Weather Function, Body Control with Torque Demand, Bluetooth Connection History, BSM Slave Abnormal History, Air Conditioner Mode, Air Purifier, Approach Display OFF, Auto Lock, Backup Battery Replacement Reset, AHS Function, AHS Operation Vehicle Speed Setting (Pattern1), AHS Operation Vehicle Speed Setting (Pattern3), Air Bleeding Pattern - RR Wheel, Air Inlet Damper Targ Pulse, Auto Entry Cancel 2 Setting, Automatic Door Unlock Function when D-Door Open, Back Door P/W UP when

half-shut, AFS Function, Air Bleeding - FR Line, Ambient Temperature Adjustment, Ambient Temperature Shift, Audio Information Display Function, Auto Lock/Shift, Automatic Door Lock Function, Automatic Door Unlock Setting, Air Bleeding - FL Line, Air Bleeding Pattern - RL Wheel, Air Inlet Mode, All Unlock/Open-Close, Auto Fold Mirror, Auto Mode Start Function, Automatic Light Off Timing Setting, Back Door Power Window Up, Activate The EGR Valve Close Bank 1, AFS (Electronic Swivel) Function, Air Inlet Damper Mode, Battery Status Info Update, Blower Operation Setting (Stop&Start), Brightness Level Adjust (Canceling), BSM Approaching Vehicle Detection Timing Setting, BSM Master Abnormal History, BSM Mirror Indicator Brightness, Clearance Warning Buzzer Volume, ATF Thermal Degradation Estimate Reset, Auto Door Lock, Auto Door Lock Pattern Setting (Speed), Auto Rear Wiper in Reverse Setting, Auto Unlock/Shift, Automatic Locking Cancel Time Adjust, Body Ctrl with Torque Demand, BSM Buzzer Volume Adjust, Calibrate Yaw Rate Sensor, Camera Synchronous Error History, Center Console Spot Light, D Seat Lift Up Buckle Operation Function, AT Code Registration, Auto A/C, Auto LightOff Timer, Auto Lock Time, Automatic Door Lock Setting, Automatic Locking after Getting Out Function, Automatic Mirror Fold Setting, Back Door Power Window Down, Cruising Range Reset, D Seat Operation Interference Avoidance Function, D Window Auto Up, DEF(PSW/Lock) Mode Setting, Destination Setting, Detection of Vehicle, Door Key Linked Back P/W DOWN, Door Key Linked Back P/W UP, Door Lock Indicator Function, Closer Power Operation, D Side Cushion Support Operation Away Function, D Window Auto Down, Close ALL P/W Function, D Seat Lumbar Operation Away Function, D Seat Refresh Level Setting, Button Press Buzzer, Coming Home Light, Driver Seat Distance Adjust when Get Off, ECO Drive Indicator Light, Diagnostic Mode, Door Handle Lock Button, Door Lock Indicator Pattern Setting (IG OFF), Door Unlock Mode, Door Unlock Mode2, Door Unlock Sensor Touch Time Adjust, Double Door Unlock Setting, Driver Seat Lift Up Distance Adjust when Get Off, Door Open SW Operation Adjust, ECO Mode Control, Electric Parking Brake System: Test Mode Procedure, Compressor/Air Inlet DEF operation, Control Mode, CVT Oil Pressure Calibration, Electronic Swivel Function, Engine Revolution (For Judging Stable Combustion), Extended Headlight Lighting, Exterior Light Control, Brightness Level Adjust (Lowering), Clear Abnormal Operation History, Delay of Monitoring, Disp Ex ON Sen, Emblem Sensor Detection Sensitivity, Exterior Lights ON when Door Unlocked Function, Engine Start Indicator, Entry Unlock Twice Function, EV Mode Cruising Range Reset, EV System Start Indicator, Exterior Lights ON Function, FCTA Warning Timing State Stored 1, Compressor Mode, D Seat Lower Back Operation Away Function, D Seat Reclining Link Headrest F/R Length Function, D Seat Side Back Support Operation Away Function, Door Key P/W Down, Door Key Related Open, Driver Seat R&A Lumbar Support Oper, D Seat Lower Cushion Operation Away Function, Daylight Function, DCM Operation History, Door Key P/W Up, Door Key Related Close, Forced Actuator Refresh, Front Side Dist Sensor, FACE Wind Amount Adjust Function, FL Seat A/C and Heater Sensitivity Adjust, Foot/DEF Automatic Blow Up Function, Fr & Rr Buzzer Volume, Fr Sensor Onset Range, Front SW Auto Operation, Disp Ex OFF Sen, Door Lock Answerback Sound Setting, Driver Seatbelt Warning Buzzer Function, Driver Side Seatbelt Warning Buzzer, DRL Function, ECB Utility, ECO Drive Indicator Zone Display Function, ECO Drive Indicator Zone Display Function (Meter), ECO Mode Start Function, Door Auto Lock Timer Setting, Door Key Related Operation, Door Lock Indicator Pattern Setting (IG ON), Door Unlock with 1 Motion., Double Lock, Driver Seat R&A Pelvis Support Oper, ECO Drive Indicator Zone, ECU Data Initialization, Glass Hatch Open Function, ECO MODE Cancel, Efficient Ventilation Mode, Evaporator Control, Height Offset Rear Wheels, Illumination Module B2, FCTA Function ON/OFF State Stored, FL Neck Heater Auto Mode Adjustment, Flasher Sound Tone Setting, Integrated Current Value Initialization, Intrusion Sensor Reduction in Sensitivity Setting, Key Remind Sound, Kick Sensor Close & Lock Function, Lane Change Flashing Times Setting, Headlight in Conjunction with Wiper, Headlight Upper Shade Angle Setting, Left the Key Prevention Funct (Battery Remove), Light Auto OFF Delay Setting, Low Speed Wide Light Function, Mirror Foot Light Time/Exterior Light Time, Entry Delay Time, Object Not Moving 3s Buzz Vol, ODO Display Time After IG OFF Adjust, ICS SW Status Memory, Ignition Available Area Setting (Trunk Lid Type),

Illumination Module B1, Injection Timing, FCTA Warning Timing State Stored 3, P Window Auto Down From Driver, P/W Down W/ Transmit, P/W Up W/ Smart, P/W Wireless Ope Buzz, PBD Assist Open Operation, Pilot Injection Volume, Pilot Injection Volume Value, PKSB (P) Width Adjustment (Y Axis), PSD Buzzer Function (LH), PSD SW Operation (LH), PSD SW Operation (RL), PSD SW Operation (RR), PSD Wireless Function (RH), PSD Wireless SW Setting (LH), Interior Light Control, Interior Lights Lighting Timer Setting, IPA Perpendicular Parking Control Area, Lane CHG Flash CNT, HWD Auto Function, ID Registration/Tire Position Write, IG ON Key Out Warning, Illumination Module A1, Illumination Module B3, Illumination System, Factory Mode, FCTA Warning Timing State Stored 2, Fr & Rr Buzzer Freq, Front Center Seatbelt Warning Buzzer Function, Entry Delay, Exterior Lights Lighting Timer Setting, Exterior Lights ON when Approached Function, Exterior Lights ON when Door Opened Function, RCTAB Operation Timing Setting, Rear A/P HI Set, Rear Left Master SW Shade Function, Light Blink Clearance Lights at Unlock Function, Master Caution Display Function, Mirr-Foot-Lgt Unlocked/Exterior Light Unlocked, Intrusion Sensor 2 Sensitivity Level Adjust, Intrusion Sensor Sensitivity Level (Window Open), IPA Parallel Parking Control Area, Grille Shutter Initialization, Hazard Answer Back Function, High Voltage Fuse Accumulated Load History Reset, History Clear, RL Seat Heater Auto Function, RL Window Auto Down From Driver, RL Window Auto Up, RL Window Auto Up From Driver, RR Window Auto Up From Driver, Flasher Sound Volume Adjustment, Foot/DEF Auto Mode, Forget to Turn IG OFF Alarm Function, Halogen Lamp/HID, I/L when ACC OFF, Ignition Available Area Setting (Back Door Type), ODO Display Time After IG OFF Setting, Off-Road Guidance Indicator, Out-Handle-Lgt Approached, Out-Handle-Lgt Unlocked, Outside PSD SW Operation(RL), Filter Sensor, Flasher Sound Volume Adjust, Follow Me Home Lighting Time, Fr/Rr Seat Interference Avoidance Function (D), Front Passenger Side Seatbelt Warning Buzzer, Illumination Module A2, PKSB (O) Function, PKSB (P) Function, Power Steering ECU Initial Setting, Power Supply Air Bleeding Pattern 2, Pre Air Conditioner Defrosting Function, Provision of When Door is Half Open, PSD One Touch SW Adjust (LH), PSD One Touch SW Function (LH), Headlight ON in Conjunction with Wiper Function, Intrusion Sensor Function, Intrusion Sensor Sound Detection Function, IPA Obstacle Avoidance Distance, Lock Indicator Lighting Time Adjust, Rear Center Seatbelt Warning Buzzer Function, Rear Wiper INT Operation, Lost Communication Time Initialization, Memory Call Link Function, Remote Air Conditioner Stop Setting, Remote Door Lock Setting, RR Window Auto Up, Injection Timing Value, I/L ON W/Door Key Unlock, ICS Stop Distance, Ignition Available Area, Initialization, Scuff Plate Lamp linked to Smart, Seat Belt Warning, Seat Lift Up Distance Adjust, Seat position/Tilt & Telesco memory recall setting, Seat Travel Distance, Security control with mechanism key, Set Temperature Shift, Slide Roof Open Warning Function, Smart Back Door P/W Up, Intrusion Sensor Sensitivity Level, Ion Generate Control, Keep Sense Buzzer, Key Remind Volume, Inside Foot Light, Interior Lights ON Function, Intrusion Win Opened, Intuitive P/A Auto Mute Function, Kick Sensor Operation Function with ACC ON, Lane Change Flashing Times Adjust, Light Control Glass Voice Control Function, Stop PreA/C, Switch Grille Shutter Control Mode, Telematics Microphone Volume Adjust, Mirr-Foot-Lgt w/Master SW, Lighting (EXT): Headlight Assembly Adjustment, Multi Weather Light Function, Tire Circumference Setting, Trunk Lid Open Mode Function, Trunk Lid Operation by Electrical Key Function, Ultrasonic Sensor (Side) Alarm Detection Range, Illumination Module A4, One Motion with Unlock Door, Optical Disc Error History, Oxygen Supply, P Window Auto Down, Passive Mode (Security System), PBD Close SW Press Condition, PBD/Emblem Sensor Function, PCS Alarm Activation Distance Retention Setting 1, PCS Reminder Buzzer Sound, PKSA (O) Image Display when Away from the Obstacle, PKSA (O) Judgment of Obstacle on Course, PKSA (O) Switch State Stored, P/W Up W/ Transmit, Panic Alarm Function, Park Wait Time, Passenger Seatbelt Warning Buzzer Function, PBD Buzzer Tone, PBD Close SW Waiting Time, PBD One Motion, PBD SW Operation, PKSA (O) Auto Mute Function, PKSA (O) Forward Detection Image Display, Noise and Vibration Reduction, One Motion, Open Door Warning Function, Outside Air Mode Auto Switch Function, Outside PSD SW Operation(RR), Partition Lighting Adjust, PBD Power Operation, Power Back Door Opening Adjust, Projection Adjustment (Distortion), PSD Buzzer (RL), PSD Kick Sensor Sensitivity

Adjust (LH), PSD Preparation for Open Function, PSD SW Operating Condition Setting (RH), Rain Mode, Light Control, Light Control Glass Brightness Memory Function, Light up Clearance Lights Door Unlock Function, Memory Call Function, Scuff Plate Lamp linked to Door open, Seat Heater Auto Operation, Seat Switch Link Function, Security System, Sensitivity, Smart Back Door P/W Down, Software Error History, Power Saving Wait Time(Out Of Entry Range), Prevention of Key Left in Vehicle, Prohibition Flag of FHL Function, Projection Adjustment (Tilt), PSD Buzzer (LH), PSD Buzzer (RR), PSD One Touch SW Adjust (RH), PSD SW Operating Condition Setting (LH), PSD Wireless One Motion Function (LH), PSD Wireless One Motion Function (RH), PSD Wireless SW Setting (RH), Rear Right Master SW Shade Function, Rear Seatbelt Warning Buzzer Function, Rear Wiper Retract Time, Reset A/C Information, Reset Control Unit, Remote Air Conditioner Start Setting, Remote Eng Start Stop Setting (Trunk Lid Opened), Right Headlight Shade Angle Setting, RR Seat Heater Auto Function, Seat Move Distance, Servomotor Initialization, Shade Upper Area Lighting Function, Shift Lever R Signal Delay Time Adjust, Roof Opened Intrusion Function, Rr Corner Sensor Long Distance Detection (Shift R), RR Window Auto Down From Driver, Rear Curtain Open Relay, Refrigerant Pressure History Clear, Slide Link Hdrest Length Ctrl, Slide Roof Open Warning, Suggestion Service Function, Sedan/Wagon Setting, Side Sensor Onset Range, Speed Linked Automatic Door Unlock Function, Start Off Mode, Rr Corner Sensor Onset Range, Touch Panel Reaction Time Adjust (Multi Operation), Town Mode, Tunnel Beam Function, SUBARU/Toyota, Timing Adjustment of PSD Prep for Open Function, Total Warm-up Time Setting, Slide Roof Voice Control Function, Smart Back Door P/W ON Time, Trunk Lid Operation, Ultrasonic Sensor (Front Center) Detection Range, Ultrasonic Sensor (Rear Corner) Detection Range, Units By Region, Usual Air Bleeding - FL Line, Ultrasonic Sensor (Rear Center) Detection Range, Walk Away Lock after Getting Out Function, Wireless Buzzer Volume, Wireless PSD Operation (RL), Interior Footwell Lights Function, Interior Illumination Light 2 Function, Interior Illumination Light 3 Function, Intrusion Sensor 1 Sensitivity Level Adjust, Key Left in Vehicle Alarm Function, Key Low Battery Warning, Key Out Range Warning, Leave Buzzer Volume, Warning by Horn, Wireless Glass Hatch Open Operation Adjust, Wireless PSD Operation (RR), Wireless PSD SW Operation(RL), Usual Air Bleeding - FR Line, Voice Guidance Function, Wiper Specification Switch, Wireless Auto Lock, Wireless Lock Function with Doors Open, Wireless PBD Operation, Wireless PSD SW Operation (LH), Tacho Meter Mode, One Touch Open/Close SW Operation Setting (RL), P Window Auto Up From Driver, P/W Operation Buzzer W/ Transmit Function, Ultrasonic Sensor (Front Corner) Detection Range, Ultrasonic Sensor Actuation (Shift N), Unlock 2 Operation, User Support Service Function, Usual Air Bleeding - RL Line, Light Auto OFF Delay, Light up Clearance Lights at Door Unlock Function, Lighting Time, Linked Rear Wiper Washer, Wireless Buzzer Vol, Wireless Trunk Lid Open Operation Adjust, Wireless Unlock Twice Function, Passenger Take Key, PBD Assist Close Operation, PCS Operation State Retention Setting, PCS Warning Timing State Stored 3, PKSB (O) Target Stopping Distance, PKSB (P) Target Stopping Distance, PKSB (V) Function, PKSB (V) Sensitivity, Proposal Services Function, Proximity Sound Control (Vehicle Stationary), Proximity Sound Level Increase (Vehicle Starting), PSD Buzzer Function (RH), Start Indicator Function, Steering Heater Auto Function, Switch Oil Maintenance Display, Temporary Mute Function, Operation History Clear, Out-Handle-Lgt w/Master SW, RCTA Function, RCTAB Function, Rear Left Seatbelt Warning Buzzer Function, Rear Shade Delay Time, Rear Sunshade linked with Shift Lever R Funct, Rear SW Auto Operation, Rear Wiper Interval Speed, Recog ECU H Temp Hist Reset, Torque Sensor Adjustment, Touch Activation Over Threshold, Trunk Link with Door Lock, Turn by Turn Animation Function, PBD Buzzer Function, PBD Buzzer Volume Adjust, PCS Warning Sensitivity Retention Setting, Pilot Injection Volume Select Cylinder, PKSB (V) Operation Timing Setting, Power Supply Air Bleeding Pattern 1, Projection Adjustment (Keystone), Proposal Service Volume Adjust, Proximity Sound Volume Adjustment, PSD One Touch SW Function (RH), PSD Wireless Function (LH), Refrigerant Shortage Check, Reset Memory, Residential Area Mode Setting, Reverse Coupled Actuation Mirror Angle, Reverse Coupled Actuation Mirror Angle Setting, Reverse Range Front Sensor, RL Seat A/C and Heater Sensitivity Adjust, Room Light when Aprchd, Rear Curtain Close Relay, Video Device



Connection Check(mm), VSC/TRAC/4WD Control Prevention Mode, Warning by Glass Broken Sensor, Window Open Warning, Wiper Voice Control Function, Wireless Backdoor Open Operation Adjust, Wireless Control, Wireless Glass Hatch Open, Zero Point Calibration & Sensitivity Check, Response Time Adjust, R-pos to Rear Sun Shade COM, RR Seat A/C and Heater Sensitivity Adjust, S-Belt-Bkl-Lgt/ACC OFF, Scuff Plate Lamp linked to D-Door Unlock SW, Security Control with Mechanism Key Function, Sensitivity Adjust, Shift Linked Automatic Door Lock Function, Shift Linked Automatic Door Unlock Function, Slide Link Cushion Length Ctrl, Speed Limit Display Function, Speed Linked Automatic Door Lock Function, Start PreA/C, Steering Heater Sensitivity Adjust, Sudden Braking Notification Function, Temporary Mute Reset Speed Adjust, Ultrasonic Sensor (Side) Alarm Function, Unlock Key Twice, Usual Air Bleeding - All lines, Warm-up Time Setting, Window Open Warning Function, Wireless Buzzer Response Function, Wireless Power Back Door Open, Wireless PSD SW Operation(RR), Write VIN, Zero Point Calibration, D Seat Shoulder Operation Away Function, Daytime Running Light Function, Deceleration Sensor Zero Point Calibration, Double Door Lock Time Adjust, Drain System Air Bleeding Pattern, Driver Seat R&A Side Support Oper, S-Belt-Bkl-Lgt/Door Open, Seat Position Voice Control Function, Seatbelt Information Indicator, Security Alarm Setting, Shift Control Synchronization, Sonar Mode, Speed Alarm Buzzer Function, ECU Data Save And Write, Emission Gas Sensor Shift, Engine Switch Light Function, EPB Initialize, Exterior Light (Door Open), Fan speed increment control, Fr Corner Sensor Onset Range, FR Neck Heater Auto Mode Adjustment, FR Seat A/C and Heater Sensitivity Adjust, Fr Side Sens Actuation Setting, ICS Function, Illumination Module A3, Illumination Module B4, Key Low Battery Warning Function, Language, Learning Value Reset, Mirr-Foot-Lgt Approached/Exterior Light Approached, MT/AT Setting, Non P/R Range Rear Sensor, One Touch Open/Close SW Operation Setting (RR), Outside Door Handle Fold Adjust, P Window Auto Up, Panic Function, Park Wait Time Adjust, PCS Alarm Activation Distance Retention Setting 3, PCS Cooperate Function, PKSB Switch State Stored, Power Window Voice Control Function, Proposal Service Frequency Adjust, PSD Kick Sensor Sensitivity Adjust (RH), Start Switch Light Function, Starter Exchange, Step Light Lighting Time, Telematics Speaker Volume Adjust, R Wiper Stop Function at Back Door/Trunk Lid Open, RCTAB Sensitivity, Rear Right Seatbelt Warning Buzzer Function, Rear Seatbelt Warning Buzzer, Rear Wiper Washer Function, Rear Wiper with Reverse Setting, Unlock Key Twice Function, Usual Air Bleeding - RR Line, Valet Mode Cancel, Walk Away Lock after Getting Out Func (Closing), Warning by Horn Function, Reverse Buzzer Setting, Rewipe Function, RL Window Auto Down, Rr Sensor Onset Range, RR Window Auto Down, Scuff Plate Lamp linked to Wireless Key, Seat Airflow Mode Setting, Seat Blast Mode Setting, Sensor Condition N, S-FLOW Control Auto Function, Side Sensor Alarm Function, T1 RoomLamp BatterySave, Tail Remind Buzzer, Tail Remind Buzzer Function, Tire Pressure Sensor Registration, Traffic Sign Recognition Animation Function, Trunk Lid Linked with Door Lock Function, Trunk Lid Operation by Entry Function, Trunk Open Mode, Warning Time, Wireless Buzzer Resp, Wireless Buzzer Volume Setting, Wireless Control Function, Wireless Key Related Close, Wireless Key Related Open, Wireless Key Related Operation

### **1313 new Actuation type special tests:**

A/O Servo Pulse(F&R P), ABS Solenoid (SFRR), ABS Solenoid (SRLR), Activate Fuel Pressure Switching Valve, Activate Fuel Route Switching Valve Relay, Activate The Air Pump Heater, Activate The Fuel Pump Speed Control, Activate the Slip Indicator Light, Activate The Solenoid(Slp), Active TRC Indicator, AFS OFF Indicator, AHS LH High Beam, Air Mix Damper (Passenger Side), Air Suspension Indicator - N, 4LO Indicator, 4WD Lock Indicator, 4WD Warning Indicator, 4WD Warning Light, A/F Control, A/O Servo Pulse(Rr P), ABS Solenoid (SRRH), ABS Solenoid (SRRR), Accumulator Zero Down, Activate DSL Solenoid, Activate SLT Solenoid, Activate the Air Inlet Damper Target Pulse, Activate the Electric Heater1 Relay, Activate the Electric Heater3 Relay, Activate The FHL, Activate The Power Window, Activate the Solenoid (SL6), Activate The Solenoid (SLN), Activate The Vacuum Pump, Activate The VALVEMATIC After Warm Up, Activate The VSV For Canister Control, AFS Alarm Display, 4WD Indicator

(Yellow), A/M Servo Pulse(F&R D), A/O Servo Pulse(F&R D), ABS Solenoid (SFRH), Activate S1 Solenoid, Activate SL Solenoid, Activate SL5 Solenoid, Activate the Fuel Pressure Discharge, Activate The Heater Water Pump., Activate The VSV For Purge Cut, Activate The VSV For Swirl Control Valve, Activate The Water Flow Valve 3, Activate The Water Flow Valve 5, Activate Vent VSV, Air Conditioner Auto Indicator, Air Mix Damper (Driver Side), Air Outlet (Rear), Air Outlet Damper (Passenger Side), Air Outlet Damper (Rear), Air Suspension Indicator - HI, A/M Servo Pulse(F&R P), A/T Indicator Operation 1, A/T Oil Temperature Operation, ABS Rear Left Hold Solenoid, ABS Rear Right Hold Solenoid, ABS Solenoid (SRLH), Activate S4 Solenoid, Activate SL1 Solenoid, Activate SLU Solenoid, Activate the Engine Oil Pressure Control Valve, Activate the In-tank Fuel Pump Relay, Activate the Solenoid (SC3), Activate The Solenoid(Sc), Activate The VN Turbo Cleaning, Activate The Water Pump, AHS RH High Beam, 4WD AUTO Indicator, 4WD Indicator (Green), A/O Servo Pulse(Rr D), ABS Front Left Hold Solenoid, ABS Front Right Hold Solenoid, ABS Solenoid (SFLH), ABS Solenoid (SFLR), Activate DS1 Solenoid, Activate Lock Up, Activate S2 Solenoid, Activate SL4 Solenoid, Activate SR Solenoid, Activate the 4WD Lock Light, Activate The Fuel Filler Opener, Activate The Fuel Return Pipe Valve, Activate The Fuel Vapor-Containment Valve, Activate the Mirror Heater Relay, Activate The Pre-Stroke Control Valve, Activate the Rear AC Magnet Valve, Activate The Solenoid (SLG), Activate the Solenoid (SLS) MAX/MIN, Activate the TC Terminal, Activate The VSV For AICS, Activate The VSV For Intake Control, ACTIVE TRC Warning, 4WD Auto Mode Indicator, 4WD Control Prevention Mode, A/C Idle Up VSV, ABS Front Left Release Solenoid, ABS Warning Light, A-C Driving Demand, Access to Rear Seat Signal, Accumulator Valve, ACM Inhibit, Activate EGR Cooler Bypass VSV, Activate ST Solenoid, Activate The EGR Valve Close, Activate the Electric Heater2 Relay, Activate the EVAP Purge VSV, Activate The Fuel Pump2 Speed Control, Activate The LPG Solenoid Valve, Activate The VALVEMATIC Before Warm Up, Activate The VSV For Evap Control, Activate The VSV For Exhaust Brake, Active TRC Warning Indicator, ASL Indicator, Assist Fan, AST Indicator, A-T Indicator Operation (D), A-T Oil Temperature Warning, Auto High Beam Control Indicator, Auto High Beam Warning Indicator, Blower Level, ABS Indicator Lamp, ABS Rear Right Release Solenoid, Activate DPF Rejuvenate (PM), Activate DPF Rejuvenate (S), Activate SLS Solenoid, Activate the (Inverter) Water Pump, Activate The ACC Cut Relay, Activate The Coolant Water Route Switching Valve, Activate The Electric Water Pump, Activate The Emergency Solenoid Valve, Activate The Solenoid (SC1), Activate The Solenoid (SC2), Activate The Solenoid (SLC), Activate The Starter Relay, Activate The VSV For Fuel Pressure Up Control, Activate The VSV For Tank Bypass, Activate The VSV For Vent Valve, Activate The Water Flow Valve 4, Air Bypass Valve Solenoid, ASL Warning, A-T Indicator Operation (2), A-T Indicator Operation (3), A-T Indicator Operation (L), A-T Indicator Operation (N), Auto LSD Indicator, Automatic High Beam, Automatic High Beam Indicator, Automatic High Beam Indicator (Yellow), Back Door Select, Batt Cool Down Servo Targ Pls, Battery Magnetic Valve, BH Standby Light, BSM State, Blower Motor, Brake Hold Indicator, Brake Override Warning, BSM OFF Indicator, Air Outlet Rear FOOT (Passenger Side), Air Suspension Indicator - LO, A-TRC(TRAC) Indicator Light, Auto Power OFF Cancel, Air Inlet Damper (Rear), Air Suspension Indicator (HI), Air Suspension Indicator (N), A-T P Warning, Auto Air Conditioner Indicator, Auto Leveling Headlamp Indicator, Automatic High Beam Indicator (Green), AVS Sports Indicator, Advanced Parking Guidance Indicator, AFS Indicator (Malfunction) Display, Air Outlet (Front), Alternator Voltage Control, A-T Indicator Operation (Sport M), Auto Mode, Automatic High Beam Operation, Auxiliary Battery Charge Warning, Air Mix Servomotor Pulse D Side, Air Outlet Damper (Driver Side), Air Outlet DEF, ARS Warning Light, A-T Indicator Operation (P), A-T Indicator Operation (S), A-T Indicator Operation (Sport S), Auxiliary Battery Warning, AVS Comfort Indicator, 2nd START Indicator, 4WD Warning, A/T Indicator Operation 3, ABS Front Right Release Solenoid, ABS Solenoid, Accumulator Drive, Activate DS2 Solenoid, Activate S3 Solenoid, Activate SL2 Solenoid, Activate SL3 Solenoid, Activate the Circuit Relay, Activate the Coolant Water Route Switching Valve 2, Activate The Return Solenoid Valve, Activate the Solenoid (SLS) High/Low, Advice Display, Air Inlet, Air Mix Servo Targ Pulse(D), Air Outlet Rear FOOT (Driver Side), Air Outlet Servometer Pulse (D), Buzzer Operation (800hz, Vol S, W-O Damping), Color Test Screen (Red),

Compression Test, Control the Cylinder#7 Fuel Cut, Control the Engine Cooling Fan Duty Ratio, Control The Injection Volume(CNG), Control the Intake VVT OCV Duty Ratio Bank 2, Control the Shift Area (CVT), Control the Wastegate Valve Duty Ratio, BH Standby Indicator, BSM Indicator, Buzzer Operation (2.4khz, Vol L, W-O Damping), Catalyst OT Misfire Prevention F/C, Air Mix Damper (Rear), Air Mix Servo Targ Pulse(P), Ashtray Light, A-T Indicator Operation (B), Automated EVAP Test, Beep, Buzzer Operation (800hz, Vol L, W- Damping), Cent Consol Spot LGT, Center DIFF LOCK Indicator, Charge Warning Indicator, Check Display, Brake Indicator Lamp, BSM Switch Indicator (Night/ Moving), BSM Switch Indicator (Night/ Stopped), Buzzer, Buzzer Operation (1.6khz, Vol S, W-O Damping), Cancel Communication Function Pausing, Charge Indicator Lamp, Check Mode, Blind Spot Monitor Indicator, Brake Override Indicator, Brake Warning Light, BSM Switch Indicator (Daytime), Buzzer Operation (800hz, Vol L, W-O Damping), Buzzer Operation (800hz, Vol S, W- Damping), Ceiling Light, Charge Indicator, Charge Warning (Red), Check Engine Lamp, Color Test Screen (Blue), Control The A/C Cut Signal, Control The EGR System, Control The Electric Cooling Fan, Control The Exhaust Exterior Valve Angle, Control the Exhaust VVT OCV Duty Ratio Bank 1, Control the Exhaust VVT OCV Duty Ratio Bank 2, Control The Idle Fuel Cut Prohibit, Control The Injection Mode, Cool Air Bypass Damper (Passenger Side), Cool Air Bypass Pulse, Cornering Light, CRAWL Indicator, CRAWL Warning Indicator, Cushion Length, Damper Step RR, Air Purifier Mode, Air Purifier(Ion), Air Suspension Indicator (LO), A-T Indicator Operation (4), A-T Indicator Operation (R), Auto Light, Auto LSD Indicator Light, Auto Oil Supply System, Automatic High Beam Switch Light, BH Operated Light, Damper Step FR, Damper Step RL (Electric Current), Delivery Heater, Diesel Throttle Target Angle Bank 1, Disconnect System Function Check, Door Lock/Unlock Status Lamp, Clearance Light, Clearance Sonar Indicator (Daytime), Color Test Screen (White), Control The A/C Magnet Clutch, Control The Fuel Pump / Speed, Control The VVT Linear (Bank1), Cool A/M Servo Pulse(D), Coolant Cool Warning Lamp, Cooling Electric Expansion Valve, Courtesy SW Signal, Cruise Indicator (Yellow), Damper Step FL, DEF A/O Servo Pulse(D), Clearance Sonar Switch Activation, CNG Mode Indicator, Color Test Screen (Adjustment), Color Test Screen (Green), Control the Fuel Pump Duty Ratio, Control The Intercooler Water Pump, Control The Select Cylinder Fuel Cut, Control the Shift Position 4 Speed, Control the VVT-iE Linear (Bank 1), Cornering Light-Front Side Illuminate Light (Dim), Day/Night Time signal, Cargo Light, Clearance Sonar LCD Indicator, Diffuse Pulse(R), Door Lock, Door Open Warning, Downhill Assist Control Indicator, Drift From The Lane, Driver Side Seat Belt, Driver Side Seat Belt Warning, Dr-Seat Select, ECB Main Relay2, ECB Solenoid (SC2), ECB Solenoid (SLA) Valve Close, ECB Solenoid (SLAFL) Valve Close, ECB Solenoid (SLAFR), ECB Solenoid (SLARR) Valve Close, ECB Solenoid (SLRRR) Valve Close, ECB Warning Indicator, Diesel Throttle Target Angle, Display Mode, Door Unlock, Downhill Assist Control Warning, Drive Swivel Motor LH, ECB Control Invalid, ECB Solenoid (SLR) Valve Close, ECB Solenoid (SLRFL) Valve Close, ECB Solenoid (SLRFR) Valve Close, Downhill Assist Control Light, Drive Swivel Motor RH, ECB Motor Relay, ECB Solenoid (SLAFL), ECB Solenoid (SLAFL) Valve Open, ECB Solenoid (SLRFL), ECB Solenoid (SLRRL) Valve Close, ECB Solenoid (SMC/SRC/SCC), ECONO Indicator, Clearance Sonar Indicator (Night Running), Compression Check, Control the ACIS VSV Motor Duty Ratio, Control the Cylinder#2 Fuel Cut, Control the Cylinder#3 Fuel Cut, Control the Cylinder#4 Fuel Cut, Control the Cylinder#5 Fuel Cut, Control the Cylinder#8 Fuel Cut, Control The Injection Volume For A/F Sensor, Control The Shift Ratio (CVT), Control the VVT-iE Linear (Bank 2), Cool Air Bypass Damper (Driver Side), Courtesy Light, CRAWL Warning, EGR Cut VSV, Electrical Fan, EXO, Exterior Lighting SW, Brake Ejector VSV, Brake Warning, Buzzer Operation (2.0khz, Vol S, W-O Damping), Charge Warning, Check Engine Warning, Compressor Motor Relay, Control The All Cylinders Fuel Cut, Control The All Cylinders Fuel Cut(CNG), Control The EGR Step Position Bank 1, Control The ETCS Open/Close Fast Speed, Control The ETCS Open/Close Slow Speed, Control the Target Fuel Pressure Offset, Cool A/M Servo Pulse(P), Cruise Control-PCS-LKA Buzzer, Damper Step FL (Electric Current), Damper Step RL, D-Door Unlock, Defogger Control, Diesel Particulate Filter Warning, Diesel Throttle Target Angle 2, ECB Warning, EGR Step Position, Electric Water Heater, Exhaust Bypass VSV Control, Exhaust Gas VSV Control, Exhaust Solenoid2, Face A/O

Servo Pulse(D), EV Drive Indicator, EV Mode Indicator, Exhaust Solenoid1, Face A/O Servo Pulse(P), Face Direction Check, Compressor Target Speed, Connect The TC And TE1, Control The C/D, Control the Cylinder#1 Fuel Cut, Control the Cylinder#6 Fuel Cut, Control The EGR Step Position, Control the Electric Thermostat Duty Ratio, Control The Lock Up, Control the Motor/Generator Cooling Oil Pump, Control The Selected Cylinder Fuel Cut, Control the Transmission Oil Pump, Coolant Hot Warning Lamp, Crawl Control Light, D-4S (Injection Volume), Damper Step RR (Electric Current), DCM Firmware Update, Driver Side Door Open, D-Seat Select, EBS Relay, ECB Main Relay, ECB Solenoid (SCC), ECB Solenoid (SGH), ECB Solenoid (SLAFR) Valve Close, ECB Solenoid (SLARR2), ECB Solenoid (SLRRL) Valve Open, ECB Solenoid (SLRRR), ECB Solenoid (SMC1), ECB Solenoid (SMC-SRC-SCC), ECB Solenoid (SSA), Electric Heater1, Emergency Call Cancellation, D-4S (Fuel Cut), DAB Indicator Light, Defogger Relay Rear, Door Illumination 1, Door Illumination 2, D-Seat Outside Transmitter, Foot A/O Servo Pulse(D), Foot A/O Servo Pulse(P), Front Fog Light Relay, Front Right Seat Heater, Front Right Wheel Up/Down, Front Wheel Up by Accumulator, Fuel Consumption Meter Operation, Fuel Filler Opener, Fuel Gauge Operation For CNG (1-2), Fuel Gauge Operation For CNG (3-4), Fuel Gauge Operation For CNG (Warning), Fuel Lid Opener, Fuel Pump Duty Control, FL Wheel Up/Down, FR Wheel Up/Down, Front Air Mix Damper Control Servo Motor, Front Foot Light, Front Washer Relay, Fuel Cut Bank 2 For Idle, Delivery Shut Valve, Drive Swivel Motor RH RIGHT, DSS Signal Buzzer, Easy Access Buckle, ECB Motor Relay2, ECB Solenoid (SLARL) Valve Close, ECB Solenoid (SLARL) Valve Open, ECB Solenoid (SLARR) Valve Open, ECB Solenoid (SLRFR), ECB Solenoid (SLRFR) Valve Open, Drift From The Lane Indicator, Drift From The Lane Warning, ECB Solenoid (SLA), ECB Solenoid (SLARL), ECB Solenoid (SLARL2), ECB Solenoid (SLRFL2), ECB Solenoid (SLRRL), ECB Solenoid (SLRRL2), ECB Solenoid (SMC2), ECB Solenoid (SRC), ECT PWR Indicator, ECT SNOW Indicator, Fuel Gauge Operation (Sender E), Fuel Gauge Operation For CNG (Sender E), Fuel Leak Test, Glass Hatch Open, Head Up Display Indicator, Headlamp Indicator, Headlight Leveling Initialize Incomplete Display, Headlight Relay-Light Power Supply Relay, Headrest Motor, Heating Three-way Valve, High Beam Indicator, ECB Main Relay 2, ECB Solenoid (SC1), ECB Solenoid (SLAFL2), ECB Solenoid (SLAFR) Valve Open, ECB Solenoid (SLAFR2), ECB Solenoid (SLRRR) Valve Open, ECB Solenoid (SLRRR2), ECB Solenoid (SMC), ECB Warning Light, EGR Step Position #2 Control, Electric Heater2, Emission Pulse(R), Enforced Driving FHL Warning Trigger, EPB Control Switch, Extra High Beam, Fuel Pump Single Phase Energization, GLOW Warning, Hazard, H-B Motor Relay, Headlight Leveling Indicator Display, Heads Up Display Indicator, Height High Indicator, High Pressure Magnetic Valve, Indicator 4WD Lock, Indicator Condition, Indicator GLOW, Indicator Lamp Head, Indicator Ready(HV), Indicator Slip-OFF, IndicatorTEMS Sports, Infrared Signal Status, Injection Timing #2, Injection Timing #3, Fold/Unfold Mirrors, Front Footwell Lights, Front Gate Valve, Front Left Height Solenoid, Front Passenger Side Seat Belt, Inspection Mode, Interlocking Shift ON Display, ISC Step Position, LDA Control Indicator (Left), LDA Warning Indicator (Right), Fuel Gauge Operation (Warning), Fuel Indicator (CNG), Fuel Pump Single Phase Energization (W Phase), Headrest Front-Rear, Heater Valve, High Beam RH, High-Beam Headlights, HV System Indicator (MIN), HV-EV System Indicator (MAX), Light Control Switch (UP), Lithium Battery Check Indicator, Lock Display, Low Beam, Lower Back, LPG Indicator, Luggage Mode Indicator, Lumbar Middle, Meter Day Mode Switch, Meter Display (5), Meter Display (9), Electromagnetic Oil Pump, EPS Warning, Evaporator Magnetic Valve, Exhaust Shutter VSV, Exhaust Switching VSV, Motor Relay Control, Multi Display Select Switch, Multi Switch (Up), O/D Cut Signal, Off-road 2 Indicator (Nighttime), Oil Pressure Meter Operation (1-4), Oil Pressure Meter Operation (HIGH), Oxygen Drive, Hydrogen Leak Indicator, Indicat. Lamp O/D OFF, Indicat. Ready (EV), Indicator 4LO, Indicator AFS, Indicator Ctr DIFF LOCK, Indicator Lamp Beam, Indicator Lamp Coolant Cool, Indicator Lamp Washer, Indicator Park, Indicator Rear Differential LOCK, Indicator Ride Mode, Injection Timing #5, Injection Timing #6, Injection Timing #7, Injection Volume Control, Fr Control Rear Air Outlet Damper Servo Motor, FR Gas Spring Switch Valve, Front Deicer Relay, Front Left Air Outlet Damper Control Servo Motor, Front Right Air Mix Damper Control Servo Motor, Front Wiper Hi Operation, Front/Rear Buzzer, Fuel Indicator Lamp, Fuel Lid, PBD Motor, PCS Collision Alarm Buzzer,

PCS Warning, Power For BDoor Sens, Power For DR-Seat Sens, Power Windows, Pre-crash Indicator, Pr-Seat Outside Transmitter, Inside Trunk/Backdoor Transmitter, Interior Illumination Light1, INTUITIVE P-A LCD Indicator, LDA Control Indicator, LDA Warning Indicator, LED Headlamp Warning, Hot A/M Servo Pulse(D), HV-EV System Indicator (100%), HV-EV System Indicator (300%), iMT Indicator (Green), iMT Indicator (Yellow), Indicator 4WD AUTO, Indicator EV Mode, Indicator Key, Indicator Lamp Airbag, Indicator Lamp Coolant Hot, Indicator Lamp ECB, Indicator Lamp ECT PWR, Indicator TEMS Comfort, Injection Timing #8, Front Air Outlet Damper Control Servo Motor, Front Buzzer, Front Fog Light, Front Right Air Outlet Damper Control Servo Motor, Fr-Seat Inside Transmitter, Fuel Filter Indicator, Fuel Gauge Indicator, Fuel Gauge Operation (1-4), Fuel Gauge Operation (3-4), Fuel Gauge Operation (Full), EPB Auto OFF Indicator, EV System Warning Lamp, Electric Heater3, Emergency Exit Warning, EPB Warning Light, Extended Illumination 1, Extended Illumination 2, Radar Cruise Indicator, Rear DIFF LOCK Indicator, Rear Fog Lamp Indicator, Rear Gate Valve, Rear Inner Wheel Control Warning, Rear Washer, Left Turn Signal Light, Luggage Mode Indicator (Yellow), Lumbar Lift, Manual EVAP System Check, Meter Display (6), Mirror Auto Indicator (Night Running), Mirror Auto Indicator (Night Stopping), Mirror Heater, Inside Handle Light, Interior Illumination Light, Interior Panel Relay, Intrusion Sensor Power, Ion Generator, Latch Release Test, LDA Indicator, Fuel Lid Lock Relay, Fuel Pump Speed Control, H/B Motor Relay, Headlight High Beam, HICM System Check, High Beam Headlight, Hold Indicator, Reductant Discharge, Refrigerant Gas Volume Check, RL Wheel Up/Down, Flash Handle Fold, Four-Wheel Damping Force Full Hard, Four-Wheel Damping Force Full Soft, Front Evaporator Magnetic Valve, Front Passenger Side Door Open, Front Washer, Go to Dealer Indicator, HCAC VSV, Heat Exchange Shut Valve, High Voltage Electric Heater, HV System Indicator (MAX), HV Unit Hot Warning, HV-EV System Indicator (0%), HV-EV System Indicator (400%), HV-EV System Indicator (MIN), Hydrogen Leak Warning, IG OFF P/W Control Permission Output, Multi Channel SW, Not Available Display, OFF Road Guidance Warning, Off-road 2 Indicator (Daytime), Oil Pressure Meter Operation (3-4), Oil Pump, Outside Trunk/Backdoor Transmitter, Overheat Display, P Supply for Steering Lock, Panel Light, FL Gas Spring Switch Valve, Foot Light, Front Fog Lamp Indicator, Front Left Air Mix Damper Control Servo Motor, Front Left Solenoid, Front Left Wheel Up/Down, Front Right Height Solenoid, Front Right Solenoid, Indicat. A/T P, Indicator CRAWL, Indicator Downhill Assist Control, Indicator Lamp Back Door Open, Indicator Lamp oil Level, Indicator Lamp Rr FOG, Indicator Lamp Water Level, Indicator MMT E Mode, IndicatorHeadlamp Auto Leveling, Injection Timing #1, Instrument Panel Illumination, PBD Clutch, PKB Lock Control, Power For Tilt Sensor, Power Meter Operation, Power/Engine SW Light, PSD Motor, Radar Cruise Approach Alarm Buzzer, Front Wheel Up/Down, Front Wiper Lo Operation, Fuel Cap Reminder Warning, Fuel Gauge Operation (Empty), Fuel Gauge Operation (Sender F), Fuel Meter Operation, Fuel Meter Operation (Reductant), Fuel Vapor-Containment Valve, Headlight Cleaner, Headlight Relay, Headlight System Malfunction Display, Interlocking Shift OFF Display, LDA Buzzer, Light Control Switch (Single), RCTA Indicator, Rear A-C Mag Valve, Rear Air Mix Servo Target Pulse, Rear Blower Level, Rear Defogger, Rear Door Sunshade Down, Rear Left Seat Blower, Rear Left Solenoid, Rear Left Wheel Up/Down, Rear personal light, Fuel Cooler VSV, Fuel Filter Warning, Fuel Gauge Operation For CNG (1-4), Fuel Gauge Operation For CNG (Empty), Fuel Gauge Operation For CNG (Full), Fuel Gauge Operation For CNG (Sender F), Fuel Pressure Relief Valve Open, Fuel Pump Single Phase Energization (V Phase), Fuel Warning (CNG), Hazard Answer Back, HCAC System VSV, Head Light Hi, Heating Electric Expansion Valve, Height High Warning, High Beam LH, Low Pressure Magnetic Valve, Low Pressure Tank Solenoid, Lower Air Mix (Passenger Side), Luggage Compartment Light, Magnetic Clutch Relay, Maintenance Warning, Meter Display (All), Meter Display 1, Mirror Fold, Mirror Left/Right, Motor Relay, Multi Display Default Screen, Multi Switch (Top), Multi Switch Operation, Night Lighting, Refresh C4, Remote Engine Starter, Right Turn Signal Light, RL Wheel Air Bleeding Pattern, Hold Lamp, HV System Indicator (100%), HV System Indicator (200%), HWD Relay, Hybrid Battery Charge, ICS OFF Indicator, ICS OFF Warning, Indicat. Hold, Indicate AFS OFF Lamp, Indicator 2nd START, Indicator Brake Hold, Indicator Lamp Cruise, Indicator Lamp Slip, Indicator Lithium Charge,

Indicator Rear Door RH open, Indicator SIL, Indicator Timing Belt, Injection Volume, HV System Certification Mode Indicator, HV-EV System Indicator (-50%), IAC Duty Ratio, IG OFF P-W Control Permission Output, IGP Signal, Immobilizer Indicator, Indicat. INTUITIVE P/A LCD, Indicat. VSC OFF, Indicator ECONO, Indicator Lamp ECT SNOW, Indicator Lamp Rr Light, Indicator Lamp Tail, Indicator Oil Maintenance, Slip Control System, Speed Signal Input (40), Speedometer Operation (400km-H,400mph), Inside Handle Illumination, KDSS Indicator, Latch Release, Inside Luggage Tuner Power Supply ON, Intake Control VSV, Intercooler Water Pump Relay, Key Cylinder Illumination, LDA Warning Indicator (Left), Left High Beam, Left LDA Warning, Left Turn Signal Lamp, Steering Wheel Vibration, Step Light, Stop & Start Permit Cond (ABS), Stop & Start Precondition2 (Control), Stop And Start ON Indicator, Sub Fuel Gauge Operation (1-4), Sub Fuel Gauge Operation (Full), Tachometer Operation (Orpm), Telesco Operation, Left Turn Signal Indicator, Lifter Operation, Magnetic Valve Operation, Master Warning, Meter Display (3), Multi Display All (White), Lithium Battery Hot Indicator, M/H Bypass Hot Servo Pls, Maintenance Indicator Lamp, Memory Cancel Light, Meter Display (1), Meter Display (4), Meter Display (7), Meter Display (8), Meter Display 2, Mirror Fold Signal, Mirror Return Signal, Mirror Up/Down, Multi Switch (Down), Night View Indicator, TPMS Warning Light, Turbo Boost VSV Control, Turn Light LH Relay Operation, Turn Signal Indicator - Right, Hot A/M Servo Pulse(P), HV System Indicator (0%), HV System Indicator (300%), HV System Indicator (400%), Hybrid System Warning, Indicator EPS, Indicator For Lighting, Indicator Lamp Doors All open, Indicator Tail Cancel, Indicator Tire Pressure Warning System, Injection Timing #4, Injection Way Control, O-D OFF Indicator, ODO-TRIP Change Switch, Off-road 3 Indicator (Nighttime), Oil Pressure Meter Operation, Oil Pressure Meter Operation (1-2), Passenger Side Seat Belt Warning, PCS Approach Alarm Buzzer, Pelvis Support Operation, Off-road 3 Indicator (Daytime), Over Speed Indicator, Passenger Seat Operation Switch Indicator, PCS Buzzer, PKB Full Release Control, PKB Lock1, PKB Release Control, Multi Switch (Right), Off-road 4 Indicator (Daytime), Off-road 4 Indicator (Nighttime), P Range Indicator, PBD Close SW Light, PCS OFF Warning, Power For Intrusion Sensor2, PPS Indicator, Proximity Sound (Low Speed), PSD Buzzer, PSD Clutch, PSD Open Signal, PTC Heater, LKA Lane Out Alarm Buzzer, Low-Beam Headlights, Lower Cushion, Main Battery(HV) Indicator, Middle Pressure Magnetic Valve, Security Horn, Shift-By-Wire Warning, Side Cushion Support, Side Mirror Foot Light, Slip Warning, Smart System Warning, SOC Gauge (1-4), SOC Gauge (3-4), Solenoid Relay, Pinion Gear Plunger (Hood Close), Power Window SW LED, PPS Solenoid, Pre-Charge Pump, PSD Close, P-Seat Outside Transmitter, Rear Left Seat Heater, Rear Washer Relay, Reductant Tank Heater, Reductant Warning, Reductant Warning Indicator, Refresh C2, Release Display, Reverse Buzzer, Power Supply Air Bleeding Pattern2, Pre Crash Brake OFF Light, Pr-Seat Select, Pump Check Pattern, Rear A/M Servo Pulse(P), Rear Air Mix Damper Control Servo Motor, RCTA OFF Indicator, Rear Fog Light, Rear Right Height Solenoid, Rear Right Seat Heater, Reductant Pipe Heater, Reductant Purge, Relay for Interior Light Auto Cut Function, Right LDA Indicator, Rr Inner Wheel Control Warning, Security Horn 2, Reverse Gear Signal, Ride Mode Indicator, Right Turn Signal Lamp, RR Wheel Up/Down, Seat Backrest Recline, Seat Belt Indicator, Rear Buzzer, Rear Left Height Solenoid, Rear Leveling Solenoid, Rear Right Wheel Up/Down, Rear Seat Belt, Rear Wheel Up/Down, Refresh B1, Refresh B5, Side Back Support, SIL Indicator (Down), SOC Gauge (MIN), Speed Signal Input (0), Speed Signal Input (360), Speedometer Operation (0km-H,0mph), Speedometer Operation (240km-H,240mph), Stop And Start OFF Indicator, Tachometer Operation (2000rpm), Tachometer Operation (6000rpm), Sensitivity Check, Sliding Sunshade, SLS Pressure, SOC Gauge (MAX), SOC Warning Indicator, Solenoid(SB), Speed Meter Operation, Speed Signal Input (120), Speedometer Operation (40km-H,40mph), Right LDA Warning, Rr Inner Wheel Control Indicator, Tow Haul Indicator, TRAC Solenoid (SPFL), TRAC Solenoid (SRCF), TRAC Solenoid (SRMF), TRC(TRAC) Motor Relay, Stop & Start Buzzer, Sub Fuel Gauge Operation (Sender F), Tachometer Operation (3000rpm), Tachometer Operation (7000rpm), Tachometer Operation (9000rpm), Test The Turbo Charger Step Motor, Tilt Operation, Tire Pressure Indicator, Seat Heater Active Level, Secondary Air VSV Control, Self Power Siren, Side Support Operation, Signal Check, SIL Indicator (Up), SOC Gauge (1-2), Speedometer

Operation (200km-H,200mph), Speedometer Operation (320km-H,320mph), Speedometer Operation (360km-H,360mph), Speedometer Operation (80km-H,80mph), Trunk And Back-Door Open, Turn Light RH Relay Operation, Turn Signal Indicator - Left, Vehicle Horn, VN Turbo Open, Volt Meter Operation (12V), Volt Meter Operation (18V), VSC Warning Light, VSC/TRAC Off Indicator Light, VSC/TRC Indicator, VSC/TRC Solenoid (SMR), VSC/TRC Solenoid (SPFR), Variable Shade Beam LH, VGRS Warning, Volt Meter Operation (9V), VSC/TRC Solenoid (SMF), VSC/TRC Solenoid (SRCF), VSC/TRC Solenoid (SRCR), VSC-TRAC Solenoid (SPFL), Wiper Motor Lo, Intake VSV 2 Control, Intelligent Parking Assist Indicator, INTUITIVE P-A LCD OFF Indicator, KDSS Warning, LDA Steering Control Indicator, LDA Warning, VSC/TRC Solenoid (SRMR), Wiper Power Relay, Variable Shade Beam RH, VSC-TRAC Solenoid (SPFR), VSC-TRAC Solenoid (SRMR), VVT Exhaust Linear (Bank 2), VVT System (Bank 2), Wireless Door Lock Diag Mode, Stop & Start Permit Cond (Engine), Stratified Charge Combustion, Stroke Simulator Cut Valve Pattern, Swirl Control VSV, Tachometer Operation (8000rpm), Taillamp Indicator, Timer Switch (M), Timer Switch (Single), Tire Pressure Warning System Indicator, Navi CVT Indicator, OFF Road Guidance Indicator, Off-road 1 Indicator (Daytime), Overhead Tuner Power Supply ON, TRC OFF Indicator Light, TRC(TRAC) OFF Indicator Light, Upper Air Mix (Passenger Side), Variable Intake VSV Control, Vehicle Stop Warning, Left LDA Indicator, LH Mirror Up/Down, Lift Up Buckle, Light Control Glass Relay, Limited Power Indicator, Lower Air Mix (Driver Side), Lumbar Slide, Lumbar Upper, M/H Bypass Cool Servo Pls, Mirror Auto Indicator (Daytime), Mirror Return, VSC/TRAC Solenoid, VSC-TRAC Off Indicator Light, VSC-TRAC Solenoid (SMF), VSC-TRAC Solenoid (SMR), VSC-TRAC Solenoid (SRCF), VSC-TRAC Solenoid (SRMF), VVT Exhaust Linear (Bank 1), VVTL System (Bank 2), Washer Nozzle Heater, Water Temperature Meter Operation (120C,248F), Water Temperature Meter Operation (80C,176F), PBD Open/Close, Pedestrian Protection Warning, PKB Light, PKB Release1, Power Running Board Forced Retracting, Proximity Sound (Vehicle Stationary), Pump Motor Relay, Speed Signal Input (160), Speed Signal Input (320), Stop Lamp, Stop Lamp Relay, Stop light System Indicator Light, Sub Fuel Gauge Operation, Sub Fuel Gauge Operation (1-2), Sub Fuel Gauge Operation (3-4), Sub Fuel Gauge Operation (Sender E), Tachometer Operation (4000rpm), Tail OFF Indicator, Test The Turbo Charger Step Motor Bank 1, MMT E Mode Warning, Multi Switch (Back), Multi Switch (Enter), Off-road 1 Indicator (Nighttime), Off-Road Switch Light, Oil Level Warning, Oil Pressure Meter Operation (LOW), Open Door Warning, Rear Defogger Relay, Rear Door Sunshade Up, Rear Fog Lamp, Rear Fog Light Relay, Rear Inverter Cooling Fan, Rear Right Air Mix Damper Control Servo Motor, Rear Right Seat Blower, Rear Side Buckle Light, Rear Wiper Washer Motor Relay, Timer Switch (H), Trac Motor Relay, Trip Reset Switch, Variable Shade Beam LH/RH, Vehicle Proximity Notification System Warning, P Range Display, PBD Buzzer, PCS Warning Indicator, Proximity Sound Indicator, PSD Open, Reductant Pump Check (Backward), Refresh C1, Release Actuator, Reverse Signal, Right High Beam, Purge Dilution Valve Duty Bank 2, Rear Blower Motor, Rear Inner Wheel Control Indicator, Rear Light Indicator, Rear Right Solenoid, Rear Seat Lumbar Adjustment, Rear Wheel Up by Accumulator, Rear Wiper, Viscous Heater, Volt Meter Operation (15V), VSC Indicator Lamp, VSC OFF Indicator Light, VSC/TRC Solenoid (SPFL), VSC/TRC Solenoid (SRMF), VSC-TRC(TRAC) Solenoid, Washer Warning, Water Level Warning, Water Temperature Meter Operation (60C,140F), Refresh B2, Refresh B4, Refresh C3, Regulator Shut Valve, RH Mirror Up/Down, Right Turn Signal Indicator, Rr-Seat Inside Transmitter, Seat Memory Light, Shoulder, SOC Warning, Sound, Speed Alarm Buzzer, Speed Signal Input (240), Steering Heater Indicator (Yellow), Stop & Start Permit Cond (A/C), Stop Light Relay, Tachometer Operation (10000rpm), Tachometer Operation (5000rpm), Taillight Relay, Taillight-Clearance Light, Timer Switch (00), TRAC Solenoid (SPFR), TRAC Solenoid (SRCR), TRAC Solenoid (SRMR), Vehicle Approach Warning OFF Indicator, Volt Meter Operation (3V), Volt Meter Operation (6V), VSC-TRAC Solenoid (SRCR), Water Temperature Meter Operation (70C,158F), Clearance Light (+ Front Side Marker Light), Clearance Sonar Indicator (Night Stopping), Collision Door Lock Release, Color Test Screen (Black), Color Test Screen (Color Bars), Control the Intake VVT OCV Duty Ratio Bank 1, Control The Line Pressure Up, Control The VVT System (Bank1), Cool Air Bypass Pls(P), Cornering Lamp Test, Cornering Light-Front Side Illuminate

Light, Cruise Indicator, D-4S (A/F Control), Damper Step FR (Electric Current), Daytime Running Light, Dehumidification Magnetic Valve, Deicer Relay Front, Dimmer Signal, Door Lock Indicator, Double Lock Unset, Drive Swivel Motor LH LEFT, Drive The Leveling Motor, SCV Duty Ratio, Seat Slide Operation, Security Indicator, SET Indicator, Shock Detection Unlock, SLC Solenoid, Slide Roof, Smart System Indicator, Solenoid (SB), Solenoid(ST), Speed Signal Input (280), Speed Signal Input (400), Dr-Seat Outside Transmitter, DSU Solenoid, ECB Solenoid (SLARR), ECB Solenoid (SLR), ECB Solenoid (SLRFL) Valve Open, ECB Solenoid (SLRFR2), ECB Solenoid (SSC), ECO Mode Indicator, Flash Handle Return, Front Left Seat Blower, Front Left Seat Heater, Front Right Seat Blower, Front Sliding Sunshade, Front Vertical Operation, Fuel Gauge Operation (1-2), Fuel Injector Timing, Fuel Meter Operation (CNG), Fuel Pump - Duty Cycle, Fuel Pump Single Phase Energization (U Phase), Glass Hatch Open Operation, Go To Service Warning, HCAC VSV Check, Head Lamp Warning Indicator, Headlight Indicator, Headlight Leveling Indicator, Headlight Low Beam, HV System Indicator (-50%), HV Unit Hot Warning Indicator, HV-EV System Indicator (200%), Illuminated Entry System, Indicat. Lamp VSC OFF, Indicate. Pre-Collision, Indicator 4WD, Indicator Auto LSD, Indicator ECO, Indicator Height High, Indicator Lamp Fr FOG, Indicator Lamp Hood Door Open, Indicator Lamp Luggage Door Open, Indicator Lamp Oil Pressure, Indicator MMT M Mode, Indicator Navi CVT, Indicator Over Speed, Indicator Rear Door LH open, Indicator Sport(CVT Sport), Injection Timing Select Cylinder, Injector Compensation, Intake Air VSV Control, LDA Control Indicator (Right), LDA Indicator (White), LH Courtesy Light, Light Control Switch (DOWN), Lock Faulty Display, Low Beam Headlight, Lumbar Bottom, Meter Display (0), Meter Display (2), Mirror Heater Relay, Multi Switch (Left), Oil Pressure Warning, Outside Mirror Footwell Lights, Park Warning, PCS Crash Alarm Buzzer, PKB Haul Display, Power For PR-Seat Sens, Power For P-Seat Sens, PPS Warning, P-Seat Select, Steering Heater, Stoichiometric Ratio Combustion, Sub Fuel Gauge Operation (Empty), Target Fuel Pressure Control, Test the Turbo Charger Step Motor #2, Tire Pressure Light, Radar Cruise Indicator (Yellow), Radar Cruise Ready Indicator, Radar Cruise Stop Buzzer, RCD OFF Indicator, Ready Indicator, Rear Gate Solenoid, Rear Seat Belt Warning, Rear Wiper Operation, VSC TRC Indicator, VVT Linear (Bank 2), Water Pump, Water Temperature Meter Operation (127C,260F), Reductant Filling (Pressure Keep), Reductant Injection Valve, Refresh B3, RH Courtesy Light, RH Mirror Right/Left, RR Wheel Air Bleeding Pattern, SIL Down Indicator, SIL Up Indicator, Slip Indicator Light, Speed Signal Input (200), Speed Signal Input (80), Speedometer Operation (280km-H,280mph), Sport Indicator (CVT Sport), Starter (Hood Close), Starter Motor Drive Magnet Switch (Hood Close), Sub Fuel Tank VSV, Supercharger Control, Tachometer Operation, Test Mode, Turbo Pressure VSV, Upper Air Mix (Driver Side), Variable Shade Beam LH-RH, Volt Meter Operation (0V), VVTL System (Bank 1), Water Temperature Meter Operation, Water Temperature Meter Operation (50C,122F), Water Temperature Meter Operation (Middle), Wiper Motor Hi, Wireless Buzzer

## ***New Coverage – USA European***

### ***BMW/Mini Coverage***

- Added coverage for 296 new system applications

#### **351 new Adjustment type special tests:**

Activate intelligent alternator control, Activate Vehicle Mode, Adjust Wastegate Linkage, Activate/Deactivate Start/Stop Function, Activate/Stop/Status DSC Bleeding(VL), Adjusting The Electromotive Throttle Controller, Activate/Deactivate Transportation Mode, Activate/Stop/Status DSC Bleeding(Prepare), Air Spring Struts Installation/Removal, Activate HV battery charge cycle, A/C compressor run-in protection, Activate HUD, Activate power steering, Adjust Injectors - Injector Quantity Compensation-6 Cylinder, Activate/Stop/Status DSC Bleeding(HL), Activate/Stop/Status DSC



Bleeding(HR), Activate/Stop/Status DSC Bleeding(VR), Adaptation (10) / Long Adaptation (0A), Adaptation of immobilizer, Adapting Of Control Motors, Adjust Fuel Consumption Display Correction Factor, Audible Locking Confirmation, Automatic transmission oil level check, Battery Replacement, Register Aux.Batt, Bleeding Routine Right VA DX, Activate electric fuel pump, Adaptation for Lambda control, Adaptation Of Idle Speed, Adaptation thermostat map, Bleed, Bleed Cooling System, Bleeding Routine Left LI DX, Brake Fluid Flush Reminder (CBS) Reset, Camera functional test, Central electronics control unit reset, Air Mix Flap Initialization, Alarm Horn Adjustment, Analog Paddle Reset, Assembly Position Of Window Lifters, Auto. setting air damper control motors, Auto-Lock, Automatic transmission control unit reset, Average consumption display correction, Air Duct, Flap 1 Activation, Airbag Configuration, Ambient lighting: Automatic addressing, Basic Settings (04), Ambient lighting adaptation, Autom. transm. adaptation values reset, Auto-Unlock, Assistance Driving Light Activation/Deactivation Delay, Automatic Engine Start-Stop Function: Starter Exchange, Activate Parking Brake After Pad Replacement, Adaptation for idle actuator, Adaption Function Reset, Calibrate Stepper Motors, Comfort Turn Signals (Cycles), Connection Brake Lines, Battery Exchange Register, Bleed Fuel System, Bleeding Routine Left HA DX, Bluetooth interface activation/deactivation, Brake Pedal Pos. Sensor Zero Pos. Compensat., CAN Learning Messages Reset, Audible Unlocking Confirmation, Balance Value Of LL (idle) Program, Calibrate Acceleration Sensor, Basic Setting, Calibration Run of the Flap Motors, Brake Bleed Procedure, Classic Memory Reset, Clearing Adaptation Values, Deactivate HUD, Deactivate Transportation Mode, Auxiliary Battery (24V EPS) Exchange, Battery Replacement, Bleeding Routine Right RE DX, Comfort Operation (via Remote Control), Composition of High-volt Battery Unit: Read\_Out Serial Number, Deactivate intelligent alternator control, Clears the internal error memory of the sensor cluster, Charge air suspension struts, Diesel Particulate Filter Register Replacement, Drain air spring struts, Delete Adaptation Variable Camshaft Timing Control, DSC Brake Bleed Procedure, EME: Teach-in Parking Lock Module, Clear DTC Memory, Coding Data Reset Control, Coming Home Activation Time, Exhaust flap adaptation, Exhaust Gas Analysis Maintenance Reset, Bluetooth Activate/Deactivate, Charge condition HV battery history, Commissioning Electric Parking Brake, EPS: Steering Start-Up, Exhaust Gas Recirculation Valve Basic Setting, Exterior mirror test, CO Adjustment, Deactivate Parking Brake For Pad Replacement, Delete the personal profile, Diesel Particulate Filter Regeneration, Driver's Door Power Window Regulator Initialisation, EGR valve mounting position, Electrical Steering Column Adjustment Normalization, Drain Fuel Tank, DSC Sensor Adjustment, Front Right Air Spring Strut Test, Driving Dynamics Sensor Adjustment, ECU Reset, Diesel particulate filter regeneration run, Disassembly position of window lifters, Display And Reset Adaptation Values, Headlight range control functional test, Heating and AC Functions: Drain/Fill the Refrigerant Circuit, HV Battery Control Unit Initialization, Initialise puncture indicator, Initialization of Soft Top, Injection Quantity Compensation, Fill/Empty Pressure Accumulator, Front Driver/Pass Door Power Window Regulator Initialization, Instrument cluster: Date/time configuration, Electrical Steering Column Adjustment - Partial Normalization, Electrical Steering Column Adjustment Standardization, Initialization Of Both Rear Window Lifters, Injector quantity analysis 4-cylinder engine, Injector quantity analysis 6-cylinder engine, Front Left Air Spring Strut Test, Interior Monitoring Sensitivity, Idle Speed Adjust, Idling Quality, Initialization of all window lifters, Initializing the electric machine, Front Brake Pad Wear Indicator Reset, First initialization, LIN-bus Reset, Keyless entry: Deactivate/activate, Knock Sensor Adaptation, Fuel tank pressure sensor calibration, Rear-axle diff. lock motor wear data reset, Rear-axle differential lock wear data reset, Reset adaptation values air mass system, Reset Fuel Pressure Adaptation, Reset Lambda Sensor Adaptation Values, Reset mixture adaption, Reset Starter Lock, Reset trim control adaptation, Reset Vanos Adaptation Values, Footwell Lighting Dimming (With Open Door), Head Restraint Adjustment, High-voltage Battery:Read-Out History of Last Charg Procedure, Move to fitting position, MSA Starter Exchange/Reset, Octane Rating Adaptation, Inclination Sensor Sensitivity, Injector Adaptation, PDC Sensor Functional Test, Leaving Home Time, Rear Axle Air Spring Struts Test, Rear Left Air Spring Strut

Test, Rear Window & Outside Mirror Heater Activation Time, Fuel Consumption Display Adjustment, Fuel Tank Pressure Sensor Adjustment, Headlamp setting, Head-up display test, Longitudinal Acceleration Sensor Adjustment, Microphone Sensitivity Adjustment, Replace Injector3, Replace refrigerant, Reset EGR Adaptation Values, Reset Steering Angle Calibration, Reset Steering Angle Offset Values, Reset sum of alarm triggers, High-pressure pump adaptation, Initialize Power Window Regulators, Lateral Acceleration Sensor, Learn rotor position, Learned Values Reset, Learning of valve lift control end stops, State Inspection Reminder Reset, Steering column adjustment initialisation, Move to exhaust flap installation position, MSA: System Check, Log-in(11) Basic Settings(04), Log-in(11) Controller Coding(07), Log-in(11) or Coding II(11), Microfilter Reset, Neutral Position Sensor Adapting, Throttle Valve Basic Setting, Transfer Box - Calibration, Transfer Box (VTG): Replace Control Unit, Turbocharger adjustment, HVAC: Installation Position of Flap Motors, ICM Sensor Adjustment, Idle Adjustment, Initialize New Fuel Pump, Octane number adjustment 95 RON, Particle Filter Exchange, Particle Filter Replacement, Neutral position initialization, Rear Brake Pad Wear Indicator Reset, Log-in(11) Adaptation(10), Move the Exhaust Flap into Install Position, Selective (Single) Door Locking, Program idling speed, Rear Lid Basic Setting, Reset Adaptation Values, Reset Injector Adaptation Values, Reset knock control adaptation, Reset Rear Axis and Learned Can Message, Reset Start/Stop Counter, Reset steering wheel paddles, Reset swirl flap control adaptation values, Reset The Production Mode For The Fuel Pump Control Module, Read Out Measured Values For Automatic Transmission, Replace Injector4, Reset Adaptation Parameters, Reset Adaptation Value, Reset Auxiliary Heater Start Inhibit, Reset CAN adaptation values, Reset clutch adaptation values, Reset idle adaptation, Reset transmission adaptation values, Rear axle adaptation values reset, Reset Adaptations, Reset Catalytic Converter Adaptation, Spark duration diagnosis, Steering Angle Sensor Centering, Start Auto-address for Flap Motors, Reset VVT minimum lift adaptation, Resistances of airbag igniter circuits, Seat Control Unit Initialization, Throttle Valve Adaption, Transm. oil check after TC/mechatr. repl., Store Vehicle Reference Level, Teach-in Exhaust Flap Or Move It Into Installation Position, Settings, Spark duration diagnosis - 4 Cylinder, Steering Angle Sensor Calibration, TPMS/RDC - Reset Production Mode, Transportability High-voltage Battery Unit: Electric Assessment, Valvetronic Running-in Phase, Variant Encoding, Valvetronic: Start-Up, Variable tract intake manifold adaptation, Injector Quantity Adjustment, Inspection/Service Interval Reset, Learn Steering End Stop, Zero Speed Learning, Valve current adapting, Vent Brakes, Visual Comfort Operating/Closing Confirmation, Window Lifter Standard Initialization, Suction jet pump activation, Throttle Valve Adaptation, Tire Pressure Sensor Registration, Null Balancing, Steering Wheel Angle Sensor, ODPF Offset Value, Transfer Box - Replace Control Unit, Transmission - Oil Level Adjustments, Valve lift control end stop run-in, Load Regulation Adaptation, Window lifter motors: Adapting, Pressure Sensors, Rain Sensor Initialization, Steering Column Reset Counter For All Blocked Movements, Neutral position detection, Newly Address The Air Distribution Flap Motors, No-Load Current Test, Oil Service Reset, Rear Driver/Pass Side Door Pwr Window Regulator Initialization, Rear Right Air Spring Strut Test, Transmission oil level indicator, Transmission position P adaptation, Passenger Seat Normalization, Remote Control Adaptation, Replace Injector1, Reset accelerator position sensor, Reset after diesel partic. filter replacement, Reset Flywheel Adaption Values, Reset Learned CAN Message, Reset load adaptation, Reset Tone Setting, Reset transfer case oil wear data, Reset Transmission Adaption Values, Read airbag igniter circuits status, Visual Locking Confirmation, Reset Cooling Media Compressor Gen. 2.0, Reset electric fuel pump adaptation values, Reset uneven running segment times, Reset valve lift adaptation, Resetting adaptation values start/stop fct., Sensor Unit Zero Position Compensation, Slide/Tilt Sunroof Initialization, Steering Basic Setting, Steering column adjustment adaptation, Trailer coupling initialisation, Transfer Box: Repair, Valvetronic Limit Position Learning Mode, VANOS Adaptation, Windshield Wiper Service Position Adjustment, Control unit re-start, Controller Coding (07), Delete Adaptations, Spark Plug Maintenance Reset, Electric vacuum pump statistical data reset, Factory Mode, Footwell Lighting Dimming (with Terminal 58d), Frequency Counter Reset For Auto

Start-Stop MSA, Front Axle Air Spring Struts Test, Front Passenger's Door Power Window Regulator Initialisation, Headlight Washer Activation Delay, HV Battery Charge, Initialization Of Both Front Window Lifters, Learn Valvetronic Limit Positions, Manual trailer coupling Initialisation, Mixture Adaptation, Neutral Learning Mode, Perform Control-module Reset, Stochastic smooth running evaluation, Test spray nozzles / exterior mirror heating, Transfer Box Oil Change, RDC Initialization, Read identification of control units, Read out fuel quality counter, Rear wiper test reference run, Transfer case oil change, Transmission flush function, Tyre Pressure Sensor Adaptation, Registration starter exchange, Replace Injector2, Reset Adaptation Values And Versions, Reset Adaptions Variants, Reset after changing NOx sensor, Reset Control Unit, Reset Fuel Minimum Quantity Adaption, Reset Learning Function, Reset puncture indicator, Seat belt fastening assistance adaptation, Seat Occupancy Detection, Front Passenger, Selector lever control unit reset, Service Requirement Reset, Steering Angle Sensor Adjustment, Test DWA sensors, Test of transmission parking lock, Tire Pressure Sensor Adaptation, Transfer Case Calibration, Transfer case type encoding, Transmission setting adaptation, Variable camshaft timing adaptation, Windshield wiper test reference run

### **559 new Actuation type special tests:**

ABS Pump Activation Test (5 seconds), AC Control Panel Button - GBL Minus Right, AC Control Panel Button - GBL Plus Left, AC Control Panel Button - Auto Right, AC Control Panel Button - Rocker Minus, A/C Compressor Magnetic Coupling, AC Control Panel Button - ALL, Activate/Stop/Status DSC Pulse Valves(EVVL&EVVR), AC Control Panel Button - GBL Minus Left, AC Control Panel Button - Rocker Plus, AC Control Panel Button - UML AUC, Activate Fuel Pump, Activate SDARS, Actuate of the Blower Output Stage, Additional Water Pump for Low-temperature EGR Circuit, AC Control Panel Button - Auto Left, AC Control Panel Button - GBL Plus Right, AC Control Panel Button - HHS, AC Control Panel Button - MAX AC, Activate/Stop/Status DSC Pulse Valves(AVHL&AVHR), AC Compressor, Automatic Engine Stop Disable, ABS Pump Activation Test, AC Control Panel Button - Auto, AC Control Panel Button - KLIMA, AC Control Panel Button - LV Left, Activate/Stop/Status DSC Pulse Valves(AVVL&AVVR), Actuator Tests, Audio system self test, Backrest Head Adjustment, Boost Pressure Plate 1 Trigger, Brake flap Open/Close, Changing or readout of operating condition DCDC converter 1, Air Suspension Sensor Initialization, Auxiliary Water Pump, Balance analog inlet valve, Alarm System Light-Emitting Diode, AutoHold LED Control, Backrest Adjustment: Width, Air Valve 2, Alarm System Emergency Power Siren, Automatic dipped beam LED, Air Valve, AC Control Panel Button - DEFROST, AC Control Panel Button - LV Right, Activate/Stop/Status DSC Pulse Valves(EVHL&EVHR), Actuation, Electric Fuel Pump, Actuator Test, Additional EGR Cooler Bypass, Air Flow Control 2, Control Knob Counter-Clockw. Turn, Control The Electric Cooling Fan, Controlled Air Flow Control, Blinker, Left Front, Button Lighting, Backrest Adjustment, Balance analog MCI valves, Blower at 80%, Boost Pressure Regulator 1, Brake Line Mix-up test, Button LED, Blow Off Valve Exhaust Turbo Actuation, Central Locking Safe Function, Changing or readout of operating condition DCDC converter 2, Brake Light, Check Antennas, Clock Fuel Injector 1, Clock Fuel Injector 2, Diagnosis Module, Tank Leakage : Heating, BDC Terminal\_15 (de-)activation, Blinker, Right Front, Blinkers, Cooling System Ventilation, Daytime Driving Light, Deactivate Hard Disk Protection Mode, Diagnosis Module, Tank Leakage : Pump, Dim mirror, Display Control Test - Bit Pattern 2, Display Control Test - Bit Pattern 7, Cornering light(with AHL), Close Sliding Head Liner (ESH), Control Flap Motor Addressing - Direction of Movement, Control Tank Ventilation Valve, Cornering Light Functional Test, Cruise Control Marking Test, Blue Test Card, Boost Pressure Regulator 2, Brake Lights, Cent. Locking Full Veh. Unlocking, Clock Fuel Injector 4, Clutch Control, Clutch Function Test, Diagnosis Module, Tank Leakage : Valve, Display Control Test - Bit Pattern 1, Display Control Test - Bit Pattern 4, Display Control Test - Bit Pattern 5, Display Control Test - Bit Pattern 6, Display Test, Dynamic-Pressure Flap at 0%, Electric Coolant Pump, Clock Fuel Injector 5, Clock Fuel Injector 6, Close Slide / Tilt Sunroof (SHD), Clutch Function Test With Delete Angle, Clutch Test, Compression Test, Control Auxiliary Fan, Control Knob Clockwise Turn, Electric Coolant Pump (50%), Electronic Parking

Brake Service Mode Activation, Exhaust Flap, Exhaust Gas Recirculation, Exhaust Valve, Black Test Card, Center Stop Lamp, Centr. Lockg. Unlock Driver Door, Control Flap Motor Addressing - Emergency Activation, Control Valve In A/C Compressor, Defroster Flap 100%, Display: Pow. steering assistance, Electric Fan Actuation, Evaporative System Leak Check, Engine Oil Quantity, FBM 1 Test, FBM 3 Test, FBM 8 Sensoric Test, Control Flap Motor Addressing - Emergency Run Limit Position, Coolant System Ventilation, Cornering Light, Door Interior Handle Illumination, Display Control Test - Bit Pattern 3, Flap Motor Opening - Fan, Flap Motor Opening - Left Layer, Flap Motor Opening - Right Rear Layer, Front Driver Side Power Window Open, Front Left Seat Heater Button, Fuel Injector 1, Fuel Injector 4, Fuel Injector Off 4, Fuel Injector Off 6, FBM 5 Sensoric Test, FBM 6 Test, Flap Motor Opening - Bel Left, Flap Motor Opening - Right Rear Foot, Fog Light, Right, Footwell Flap, Front Left, at 0%, Front Right Seat Heater Button, Front Right Seat Heating Stage 1, Delete Coupled Bluetooth Devices, Determining The Injector, Driver Seat Normalization, EGR Bypass Flap, Display Control Test - Bit Pattern 8, Dynamic-Pressure Flap at 100%, E-Box Fan Control, Fuel Injector, Fuel Injector 5, Fuel Pressure Regulator, Fuel Tank Vent Valve, Gear Change Idle Speed Activation, Generator Control, Headlight Washer System, High-Beam Headlights, Electronic Parking Brake - Start-up, Electronic Ride Height Control (EHC): Ride Height Sensors, Fuel Pump Reset, Fuel Tank Ventilation Valve, High Pressure Pump Relay, Illumination (LED Auto Left) Control, Illumination (LED Auto) Control, Illumination (LED SH Left Down) Control, Illumination (LED SL Left Middle) Control, FBM 1 Sensoric Test, FBM 2 Test, FBM 4 Sensoric Test, Flap Motor Opening - Bel Right, Flap Motor Opening - Bel Right Outside, Footwell Flap, Rear Right, at 100%, Fresh Air and Recirculated Air Flap at 0%, Fresh Air and Recirculated Air Flap at 100%, Front Left Seat Heating, Fuel Injector 2, Fuel Injector Off 7, Fuel Pump (EKPS) Activation - 120 L/hr, Headlight Washer Pump, Horn Relay, HUD Full Brightness, Left-Rear Blinker, Lock (Central Locking), Lower Slide / Tilt Sunroof Glass (SHD), Mirror Heater, Mixed Air Flaps at 0%, Electric Fan Relay, Electronic Parking Brake Service Mode Deactivation, Emergency Loudspeaker Test, Engine Malfunction Lamp, Move right SMC to bottom left, Move SMC left to bottom left, Move SMC left to top right, OBD Readiness Values 1, Oil Pressure Control Trigger, Open Sliding Head Liner (ESH), IBS Current Measurement Control, Idle Speed Control Valve, Bank 1, IHKA Indicator Lights, Injection Valve 1 Control, Injection Valve 4 Control, Injector (1-4) off (Engine Running Injector KILL Test), Injector (7-12) off (Engine Running Injector KILL Test), FBM 2 Sensoric Test, Flap Motor Opening - Left Rear Layer, Flap Motor Opening - Right Layer, Front Driver Side Power Window Close, Front Left Seat Heating Stage 1, Front Left Seat Heating Stage 3, Front Right Seat Heating Stage 2, Fuel Pump Activation - Full Load, POL Test, Insulation Test of Cooling Media Compressor - Active Low-Side, LED high beam assistance, Illumination (LED AC Max) Control, Illumination (LED AUC) Control, Illumination (LED Auto Right) Control, Illumination (LED Defrost) Control, Illumination (LED SH Left Middle) Control, Injection Valve 5 Control, FKA indicator lights, Flap Motor Opening - Bel Left Middle, Flap Motor Opening - Left Foot, Flap Motor Opening - Left Rear Foot, Ended All Actuators Started with Diagnostic, Evaluate the Battery State of Charge, FBM 3 Sensoric Test, FBM 5 Test, FBM 6 Sensoric Test, FBM 8 Test, Electric Coolant Pump (95%), Electrical Fan, Electronics box, Electronics Box Fan, ESP Test, Exhaust Air Flap, Exterior mirror: System self-test, Pump Control, Rear Driver Side Power Window Open, Rear window lifter: Open, Fuel Quality Recognition, Green Test Card, High Pressure Compressor Bypass 1, High-Beam Headlight, Left, Reference Run AHL System Without Sensor, Flap Motor Opening - Bel Left Outside, Flap Motor Opening - Bel Right Middle, Flap Motor Opening - FL Fan, Flap Motor Opening - Right Foot, Fog Lights, Fold/Unfold Mirrors, Footwell Flap, Front Right, at 0%, Footwell Flap, Rear Left, at 0%, Footwell Flap, Rear Left, at 100%, Front Passenger Side Power Window Close, Front Passenger Side Power Window Open, Functional Display, High-Beam Headlight, Right, HV Battery Isolation Test, Move SMC left to bottom right, Parking brake run-in, FBM 7 Sensoric Test, Flap Motor Opening - FL Stau, Footwell Flap, Front Right, at 100%, Front Door Power Windows Regulator Initialisation, Front Left Seat Heating Stage 2, Front Right Seat Heating, Illumination (LED Right Seat Heating 2) Control, Illumination (LED UML) Control, Radiator Blind, Fuel Injector 3, Fuel Injector Off 1, Fuel Injector Off 3, Fuel Injector Off Test,

LED headlamp test, Left-Rear Power Window: Close, Left-Rear Power Window: Open, Rear center sun blind, Rear door security locking, Rear Driver and Passenger Window Regulator Initialization, Rear Left Fog Light, Rear window lifter: Close, Fuel Injector 6, Fuel Injector Off 2, Fuel Injector Off 8, Low-Beam Headlights, Motor Fan, Move SMC left to top left, Move SMC right to bottom right, Move SMC right to top left, Refrigerant Compressor, RL window lifter open and close, Horn, Illumination (LED HHS) Control, Illumination (LED SH Left Up) Control, Illumination (LED SH Right Down) Control, Injector (1-3) off (Engine Running Injector KILL Test), Illumination (LED Left Seat Heating 2) Control, Set Front Stratification Flaps to 0%, SHZH Dosing Pump, Side lights/daytime driving lights, front, Solenoid Valve - Tank Ventilation, Insulation Test of Cooling Media Compressor - Active High-Side, Lambda Probe Heating Before Kat (Bank1), Left Reversing Light, Injector (1-8) off (Engine Running Injector KILL Test), Instrument Cluster Self Test, Lambda Probe Heating Before Kat (Bank2), Left Brake Light, Switch On/Off Traffic Reports, Tail Light, TCU Interface Telephone Emergency, Left-Front Power Window: Open, Lock and Enable, Mirror Heating, Most 3DB, Locator Lighting, MIL Lamp, Move SMC right to top right, MSA Automatic Motor Start-Stop Disabling, MSA2 DEAK SAV, Test Tone With 10,000 Hz, Throttle Valve, Bank 1, Turn Indicator, Illumination (LED Left Seat Heating 3) Control, Illumination (LED Right Seat Heating 3) Control, Illumination (LED SH Right Up) Control, Illumination (LED SL Left Down) Control, Injector (1-6) off (Engine Running Injector KILL Test), Injector B1 (1-4) off (Engine Running Injector KILL Test), Injector B2 (5-8) off (Engine Running Injector KILL Test), Normal Sleep Mode, Open and Close Radiator Blind, Outlet Valve Rear Right, Open Window Front Passenger Side, Parking Brake: Workshop Mode, OBD Readiness Status, Open Slide / Tilt Sunroof glass (SHD), Open Window Drivers Side, Oxygen Sensor Heater Bank 1 Sensor 1, Oxygen Sensor Heater Bank 1 Sensor 2, Parking Lights, Right Front, Read Service Needs, Left-Front Power Window: Close, Lock All Doors, Lock Rear Doors, Malfunction Indicator Lamp Test, Servo Motor And Clutch Actuation, Set Front Footwell Flaps to 100%, Set Front Stratification Flaps to 100%, Simulate Pressing The Audio Buttons - Search Left, Smooth running evaluation - 4 Cylinder, Quantity control valve HDP5, Radiator Blind bottom, Rear Passenger Side Power Window Open, Rear Passenger's Door Power Window Regulator Initialisation, Rear Wiper, Reference run SMC with sensor, Raise Slide / Tilt Sunroof glass (SHD), Read HVB Serial Numbers, Rear Driver Side Power Window Close, Red Test Card, Release of Manual Shift Gate, Release Rear Window, Set Front Footwell Flaps to 0%, Reverse lights, Right Brake Light, Right-Rear Blinker, Rear left sun blind, Rear Lift / Lower Sequence, Reference Run AHL System With Sensor, Simulate Pressing The Audio Buttons - Search Right, Sound damper, Stratification Flap, Front Right, at 100%, Suppress Mirror Glare, Switch light, emergency flasher, System Self-Test, Tail Lights, Tank Ventilation Valve Actuation, Seat Height Adjustment, Front, Seat Ventilation Left Button, Set Temperature on AC Control - Left, SHZH Gluestift, Simulate Pressing The Audio Buttons - Mode, Solenoid Valve, Tank Ventilation, Speed Sensor Test, Right-Front Power Window: Close, Right-Front Power Window: Open, RR window lifter open and close, Run in Protection for A/C Compressor, Thermostat Control, Start Up High Voltage Battery, Stepper Motors Self Test, Throttle Control, Seat Ventilation Right Button, Set the Running-in Protection for Air-condition Compressor, Side Marker Light Test, Simulate Pressing The Audio Buttons - Eject, Smooth running test, Start-up EDC, Tuner Frequency 88.9 MHz, Turbocharger Coolant Pump, Unlock All Doors, Unlock Rear Lid, Ventilation Flap, Right, at 0%, Vanos Exhaust Valve, Ventilation Flap, Left, at 100%, Wheel Electronics - Warning and Calibration Data, Wheel Speed Sensor Functional Test, VTG Function Check, VVT (VANOS) Relief Relay, Water Pump Control, Windshield Washer Pump, Stratification Flap, Front Left, at 0%, Stratification Flap, Front Left, at 100%, Stratification Flap, Front Right, at 0%, Stratification Flap, Rear Left, at 100%, Sun Blind Down, Switch ON / OFF Night Vision Camera Lens Heater, Switch ON / Switch OFF Person Recognition, Switch On/Off Radio Data System, Throttle Valve, Time Controlled Sleep Mode, OBD Readiness Values 2, Output Check Control Gong, Unlock Rear Doors, Low-Beam Headlight, Right, LWR Reference Run, VVT Tests, Wheel Speed Sensor Supply, Wiper, Speed 1, Radiator Blind Top, Speed Cooling Media Compressor, Speed Sensor Connection, Start Relay, Start Station Search, Steering Wheel Vibration, Stop Control, Stratification

Flap, Rear Right, at 100%, Sun Blind Up, System Identification, Oil Change QMVH, Rear Fog Light, Rear Passenger Door Power Window Regulator Initialisation, Rear Right Fog Light, Rear Window Washer Pump, Rear Windscreen Wiper, Test Tone With 1000 Hz, Throttle Valve, Bank 2, Turn-Signal Indicator Light (Flashing To Indicate Defect), Vanos Outlet, Variable Intake System 1, Oxygen Sensor Heater Bank 2 Sensor 1, Oxygen Sensor Heater Bank 2 Sensor 2, Parking Brake Lock Test, Parking Brake: Initial Operation, Read Configuration, Read Out Battery Status, Rear Passenger Side Power Window Close, Rear-Window Defogger, Recirculation Valve Trigger, Water Heater Valve Right, Windscreen Washer, Right-Rear Power Window: Close, Right-Rear Power Window: Open, Seat Cushion Extension, Set Voltage BSD, Station Search For Strongest TV Channel, Supply DME Power, Switch cylinder correction, Test Card, Test CD/DVD ejection, Variable Intake System 2, Waste Gate Solenoid (WGS), Wiper, Speed 2, Clock Fuel Injector 3, Compressor Clutch, Crank Case Vent Heater, Defroster Flap at 0%, Display Test(Activate automatic rear A/C system first), Seat Adjustment/Seat Angle Down, Secondary Air Pump Control, SHZH Fuel Warm-Up, Simulate Pressing The Audio Buttons - On/Off, Simulate Pressing The Audio Buttons - TP, Smooth running evaluation, Exterior Mirror Self Test, FBM 4 Test, FKA Blower, Flap Motor Opening - Defrost, Flap Motor Opening - STAU Pressure, Fog Light, Left, Footwell Flap, Front Left, at 100%, Footwell Flap, Rear Right, at 0%, Front Blower, Front Right Seat Heating Stage 3, Fuel Injector Off 5, Fuel Pump, Fuel Pump Timeout, High Voltage Safety Status, Illumination (LED AC) Control, Illumination (LED All) Control, Illumination (LED Left Seat Heating 1) Control, Illumination (LED Right Seat Heating 1) Control, Injection Valve 2 Control, Injection Valve 3 Control, Injection Valve 6 Control, Interior Lighting, Issue Front PDC Signal Tone, Licence Plate Light, Low-Beam Headlight, Left, Measured Data Wheel Electronics, Mixed Air Flaps at 100%, No-Signal Test Screen, Oil Pressure Control, Oil Pressure Valve (Regulated Oil Pressure System) Control, Output Tests (03), Park Distance Control, Parking Lights, Left Front, Power Down, Pressure Sensor Trim, Pulse-wheel test, Stratification Flap, Rear Left, at 0%, Stratification Flap, Rear Right, at 0%, Temporary Activation and Temporary Deactivation, Test Tone With 100 Hz, Pump Motor, Read actual electric fuel pump, Re-Address, Rear Driver's Door Power Window Regulator Initialisation, Rear right sun blind, Turn-Signal Indicator Light (Normal Flashing), Two-stage brake light, Water Heater Valve Left, Wheel Electronics Measured Data, Reference run SMC without sensor, Right Reversing Light, Seat Adjustment/Seat Angle Up, Seat Fore-And-Aft Adjustment, Service Function Measured Data Wheel Electronics, Set Temperature on AC Control - Right, Start-up lane change warning sensors, Supply Injection, Ignition Relay HDPI, System Test, VANOS Inlet, Vanos Intake Valve, VDM: Study the Adjustment Value, Ventilation Flap, Left, at 0%, Ventilation Flap, Right, at 100%, Wastegate Valve, Windscreen Washer Pump, Wiper end position test, Wiper Service Position

## ***Jaguar Coverage***

- Added coverage for 64 new system applications

### **14 new Actuation type special tests:**

Automatic High Beam On-Off Status -Reverse Inhibit Active, Auto High Beam On-Off Status -Automatic High Beam Requested, Auto Hi Beam On-Of Stat -Electrochromatic Mir O-P Dark, Image Processing Control Module A On-Off Status -Fog Detected, Image Processing Ctrl Mod A On-Of Stat -Hand Traffic, Image Processing Ctrl Mod A On-Of Stat -Supply V Inhibit, Image Processing Ctrl Mod A On-Of Stat - Power Sup Inhibit, Image Processing Ctrl Mod A On-Of Stat -High Amb Light Inhbt, Image Processing Ctrl Mod A On-Of Stat -Camera Obstruction Det, Imag Proc Ctrl Mod A On-Of Stat -Leg Soci Auto Engi (SAE N Amr, Image Processing Ctrl Mod A On-Of Stat -High Temp Inhibit, Self Test - Camera System, Self Test - CEM System, Image Processing Control Module A On-Off Status -Speed Inhibit

## Land Rover Coverage

- Added coverage for 46 new system applications

### 141 new Actuation type special tests:

Auto High Beam On-Off Status -Automatic High Beam Requested, Automatic High Beam On-Off Status - Reverse Inhibit Active, Auto Hi Beam On-Of Stat -Electrochromatic Mir O-P Dark, Auxiliary Temperature Blend Motor -Left -Requested Position, Air Conditioning Status -Air Conditioning Clutch Engaged, Blower Speed Output, Auxiliary Temperature Blend Motor -Right -Requested Position, Blower Motor Relay, Climate Control Outputs -Right Seat Heater, Auxiliary Distribution Motor -Requested Position, Distribution Motor -Front Right -Requested Position, Door Mirror Lamps -Blind Spot Status LED, Climate Ctrl Outputs -Auxiliary Heater Cool Diverter Vlv, Climate Control Outputs -Heated Wiper Park, Climate Control Outputs -Rear Left Seat Heater, Distribution Motor -Front Left -Requested Position, Door Power Distribution -Door Power Output 1, Door Power Distribution -Door Power Output 2, Climate Control Outputs -In Vehicle Temperature Sensor Fan, Cool Air Bypass Motor -Requested Position, Exterior Door Handle -Handle Deploy Output, Exterior Door Handle -Handle Retract Output, Demanded Rear Blower Speed, Fuel Burning Heater Control Status -Flame, Fuel Burning Heater Ctrl Stat -Auxiliary Heater Telestart Inp, Distribution Motor -Rear -Requested Position, Door Mirror Lamps - Approach Lamp, Door Mirror Lamps -Blind Spot Alert LED, Heated Seat Target Temperature -Rear Right, Front Door Glass Window Up Output, Fuel Fired Booster Heater Ctrl Stat -Coolant Pump Cnf, Left Seat Heater, Lighting Status -Memory Status LED, Mirror Down, Mirror Fold-Back Motor Output, Image Processing Ctrl Mod A On-Of Stat -Power Sup Inhibit, Fresh-Recirculated Air Motor -Requested Position, Fuel Burning Heater Control Status -Overheat, Image Processing Ctrl Mod A On-Of Stat - Supply V Inhibit, Fuel Burning Heater Ctrl Stat -Aux Heater Fuel Type Is Dies, Mirror Left, Lamp Status - Side Turn Signal, Image Processing Control Module A On-Off Status -Speed Inhibit, Image Processing Ctrl Mod A On-Of Stat -Hand Traffic, Pos Temp Coefficient Heater -Output Stat -Heater 2, Fuel Fired Booster Heater Control Status -EMC Test Mode, Fuel Fired Booster Heater Control Status -Transport Mode, Fuel Burning Heater Control Status -Supplemental Heater, Mirror Up, Imag Proc Ctrl Mod A On-Of Stat -Leg Soci Auto Engi (SAE N Amr, Image Processing Ctrl Mod A On-Of Stat -Camera Obstruction Det, Image Processing Ctrl Mod A On-Of Stat -High Amb Light Inhbt, Image Processing Ctrl Mod A On-Of Stat -High Temp Inhibit, Seat Motor Outputs - Bank B -Motor 3 -Output 0, Seat Motor Outputs - Bank B -Motor 3 -Output 1, Seat Switch Status -Second Row Cushion Tilt Down Switch, Seat Switch Status -Second Row Memory 3 Switch, Mirror Fold-In Output, Temperature Blend Motor -Front Right - Measured Position, Image Processing Control Module A On-Off Status -Fog Detected, Mirror Heat, Mirror Right, Seat Digital Port Input Values - Digital Input -B2 -Switch 5, Seat Digital Port Input Values - Digital Input -B2 -Switch 6, Seat Motor Outputs - Bank B -Motor 1 -Output 1, Seat Motor Outputs - Bank C -Motor 2 -Output 1, Seat Status -Cushion Extend Switch -Rearward, Seat Status -Lumbar Up Switch, Seat Status -Seat Bolster Deflate Switch, Seat Switch Status -Second Row Lumbar Down Switch, Seat Switch Status -Second Row Memory Store Switch, Seat Switch Status -Second Row Upper Backrest Incline Switch, Seat Switch Status -Second Row Upper Backrest Recline Switch, Pos Temp Coefficient Heater -Output Stat -Heater 1, Seat Digital Port Input Values - Digital Input -B2 -Switch 7, Seat Motor Outputs - Bank A -Motor 2 -Output 0, Seat Motor Outputs - Bank B -Motor 2 -Output 0, Seat Motor Outputs - Bank B -Motor 2 -Output 1, Seat Motor Outputs - Bank D -Motor 2 -Output 0, Seat Switch Status -Second Row Head Restraint Down Switch, Seat Switch Status -Second Row Lumbar Up Switch, Rear Door Glass Window Down Output, Seat Digital Port Input Values - Digital Input -B2 -Switch 1, Seat Digital Port Input Values - Digital Input -B2 -Switch 10, Seat Motor Outputs - Bank A -Motor 3 -Output 0, Seat Motor Outputs - Bank B -Motor 4 -Output 1, Seat Motor Outputs - Bank C -Motor 1 -Output 0, Seat Motor Outputs - Bank D -Motor 1 -Output 1, Seat Switch Status -Second Row Lumbar Out Switch, Security System Status Indicator -Lock Status LED, Self Test - Camera System, Seat Digital Port Input

Values - Digital Input -B1 -Switch 2, Seat Digital Port Input Values - Digital Input -B2 -Switch 3, Seat Digital Port Input Values - Digital Input -B2 -Switch 8, Temperature Blend Motor -Front Right - Requested Position, Temperature Blend Motor -Rear Right -Requested Position, Seat Status -Head Restraint Up Switch, Seat Status -Seat Bolster Inflate Switch, Seat Switch Status -Front Row Head Restraint Rearward Switch, Seat Switch Status -Second Row Cushion Tilt Up Switch, Temperature Blend Motor -Rear Left -Requested Position, Rear Door Glass Window Up Output, Seat Digital Port Input Values - Digital Input -B2 -Switch 4, Seat Digital Port Input Values - Digital Input -B2 -Switch 9, Seat Motor Outputs - Bank A -Motor 4 -Output 1, Seat Motor Outputs - Bank B -Motor 4 -Output 0, Seat Motor Outputs - Bank D -Motor 1 -Output 0, Seat Switch Status -Front Row Upper Backrest Incline Switch, Seat Switch Status -Second Row Backrest Incline Switch, Seat Switch Status -Second Row Head Restraint Up Switch, Seat Switch Status -Second Row Memory 1 Switch, Seat Switch Status -Second Row Slide Rearward Switch, Climate Control Outputs -Rear Right Seat Heater, Climate Ctrl Outputs - Heating Vent A-C Air Intake Pollution, Door Blind Signal Status -Door Blind Down Output, Door Blind Signal Status -Door Blind Up Output, Seat Digital Port Input Values - Digital Input -B2 -Switch 2, Seat Motor Outputs - Bank A -Motor 1 -Output 1, Seat Motor Outputs - Bank A -Motor 3 -Output 1, Seat Motor Outputs - Bank B -Motor 1 -Output 0, Seat Motor Outputs - Bank C -Motor 1 -Output 1, Seat Motor Outputs - Bank C -Motor 2 -Output 0, Seat Status -Head Restraint Down Switch, Seat Status - Lumbar Out Switch, Seat Switch Status - Multi-Axes Passenger Seat Away Switch, Seat Switch Status - Front Row Upper Backrest Recline Switch, Seat Switch Status -Second Row Backrest Recline Switch, External Ambient Temperature, Front Door Glass Window Down Output, Heated Seat Target Temperature -Rear Left, Lighting Status -Exterior Door Handle LED, Seat Motor Outputs - Bank A - Motor 2 -Output 1, Seat Motor Outputs - Bank A -Motor 4 -Output 0, Seat Motor Outputs - Bank D - Motor 2 -Output 1, Seat Status -Cushion Extend Switch -Forward, Seat Status -Lumbar Down Switch, Seat Status -Lumbar In Switch, Seat Switch Status -Front Row Head Restraint Forward Switch, Seat Switch Status -Second Row Lumbar In Switch, Seat Switch Status -Second Row Memory 2 Switch, Seat Switch Status -Second Row Slide Forward Switch

## ***Mercedes Benz Coverage***

### **3 new Adjustment type special tests:**

Injector Coding - Quantity Adjustment, Injector Quantity Adjustment ( 8 Cyl ), Headlight Binning (Replacement)

### **1 new Actuation type special test:**

Display Of Coding Data

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