

## Version 5.19

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### Overview

Version 5.19 update includes model year **2024** vehicle coverage and additional **ADAS** calibrations.

5k new special tests & 1392 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)***

#### **MY2024 Additions:**

- **Genesis** – Electrified G80, Electrified GV70, G70, G90, GV60
- **GMC** – Savana 4500
- **Hyundai** – Ionic 5, Ionic 6, Kona, Kona Electric, Palisade, Sante Fe, Sonata, Tucson
- **Kia** – Carnival, EV6, EV9, Niro, Niro EV, Seltos, Sorento, Soul, Sportage
- **Lexus** – GX550, LS500, RZ450e, TX350, TX500h, TX550+
- **Mitsubishi** – Outlander PHEV
- **Toyota** – Grand Highlander, Tacoma
- **Special Test Additions** – multiple brands
- **ADAS Coverage:**

#### **MY2016 Additions:**

- **Volkswagen** – Golf R

#### **MY2022 Additions:**

- **Porsche** – Cayenne

#### **MY2023 Additions:**

- **Lexus** – LX600
- **Porsche** – Cayenne, Macan

#### **MY2024 Additions:**

- **Chevrolet** – Silverado 2500HD, Silverado 3500HD
- **Ford** – F-150, Mustang, Mustang Mach-E, Police Interceptor
- **GMC** – Savanna 4500
- **Lexus** – LX600

## ***New Coverage – USA Domestic***

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

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

ABS Bleed Brakes, ABS Initialization, ABSO Initialization, Active Grill Shutter Replaced, Actuator Calibration, AFLS Calibration, Auto Door Lock, Auto Door Lock Routine, Auto High Beam Demo Mode Test, Automated Bleed, AUTOMATIC DOOR UNLOCK SELECT, Bleed Brakes, Brake Bleed (3 Channel), Brake Bleed Procedure, Brake Pedal Calibration, Brake Pedal Learn, Calibrate Liftgate, Calibration Routine, CAM Crank Relearn Routine, Change Country Code, Change Language Preferences, Change Measurement Units, Channel Output Test, Check PCM VIN, Clear All Learned Seat Parameters, Clear DEF Pump Learned Offset Values, Clear Engine Auto Restart Crank Counter, Clear Learning Value, Clear Stored Accumulated Fuel Mass, Clear TPM Sensor Rolls Test Results, Clear Variable Line Pressure Counters, Closed Coupled Replacement, Configure License Plate Size, Coolant Three Way Valve, Coolant Three Way Valve Replaced, Diesel Particulate Filter Regeneration, Diesel Particulate Filter Replacement, DPF Pressure Sensor Reset, DPF Regen, DPF Replacement, Driving Regeneration Request, Dual Alternator Enable/Disable, Dual Fuel Tank Enable / Disable, ECU Replacement With Value Transfer, EGR Coolant Regeneration, EGR Low Pressure Learn, EGR System Test, EGS Initialization, ELSD Quicklearn, Emissions Rolls Test Mode, Enable / Disable Vehicle Features, Enable/Disable Front Seat Video, Enable/Disable Seatbelt Minder Chime, Engine Idle Shutdown Feature Enable/Disable, EPB Service Procedures, ETC Pedal Learn, Exhaust Phaser 1 Cleaning, Exhaust Phaser 2 Cleaning, Exit in Plant Mode, Exit Shipping Mode, FCM Enable Emissions Rolls Test Mode, Fleet Pin Reset, Front Axle Disconnect Feature, Headlamp Leveling, High Temp Cabin Valve Cal/Test, HVAC Actuator Calibration Test, Hydraulic Prove Out Test, Idle Shutdown Timer Adjustment, Idle Speed Set Point, Initialize ABS, Initialize Cluster Configuration w/o Odometer Affect, Initialize CVT, Initialize ORC, Initializing ECU, Injector Quantity Adjustment, Intake Phaser 1 Cleaning, Intake Phaser 2 Cleaning, Key FOB Identification, Key Fobs Linked To Memory, KeySense PIN Reset, Learn ETC, Light Rain Sensor Calibration, Light Rain Sensor Re-adaption, Low Temp Coolant Fill - Active Pump, Low Temp Coolant Fill - Passive Pump, Manual DPF Regeneration, Manual Hard Drive Back-up, Manual Logistic Mode Procedure Enable, Mass Air Flow Sensor Initialization, Microphone Output Short Test, Microphone Tone Test, Mobile Desoot - No Minimum Required Soot Load, Most Recent Cool Down Test Results, Multi-Channel Configuration Tone Test, New Engine Installed, Non-Volatile Memory Reset, OCM System Verification Test, Oil Change Light Reset, Oil Change Monitor Type, Oil Life Restore, P2262 Fault Diagnosis Test, Program Engine Serial Number, Program Tire Sensor Identifications, Program Tire Size, Program Variant Coding, PTO RPM Adjustment, PTO Settings, Quick Learn, Quick Learn Routine, Quicklearn 62TE, Quicklearn Non RFE, Quicklearn RFE, RAM Active Air Box Calibration, Remote Start Temporary Disable, Reset Adaptive Values, Reset After Replacement Of Lambda Sensor, Reset Aftertreatment Trip Info Accumulators, Reset Clutch Capacity Adaption, Reset Duty Cycle Accumulators, Reset ECU, Reset Enhanced Automatic Oil Change Indicator, Reset Error Free Operation Time to 40 Hours, Reset Fuel Pressure Limit Valve Accumulators, Reset H2O Lamp, Reset High Voltage Cable Open DTC, Reset Injector Compensation Values, Reset Memory, Reset Memory Adapter - Adaptive Numerator, Reset Memory Adapter - All Adaptive Memory, Reset Memory Adapter - Engine Runtime, Reset Memory Adapter - Fuel Adaptives, Reset Memory Adapter - Fuel ShutOff Reason, Reset Memory Adapter - Minimum TPS, Reset Nox Absorber Counts Accumulators, Reset of Lambda Values, Reset of SCR Long Term Adaptation Factor, Reset Parameters to Default, Reset Regen Filter Timers, Reset SCR Mileage Counter to 200 Miles, Reset Trip Information Accumulators, Reset VCM Adaptives, Reset Zero Fuel Quantity Calibration, Resolver Offset Learn, Restore Customer Programmable Features, Rollover Detection, SCR DEF Tank Fluid Level Filter Reset, SCR System After ECU Replacement Procedure, SCR System Catalyst Reset, SCR System Dosing Module Replacement, SCR System Pressure

Line Replacement, SCR System Tank or Pump Replacement, SCR System Wiring Harness Replacement, Seatbelt Alert System, Sensor Wiring Test, Service DPF Regeneration Routine, Service Procedures, Set Axle Type, Set Max Cruise Speed, Set Max Vehicle Speed, Set Pinion Factor, Set Ride Height Level, Snorkel Output Test, Standardization, Stationary Desoot (DPF Regen), Store Learned TCU Adaptives, System Air Mass/Pressure/Ride Height Readings, TCC Break In, TCM Reset Learned Adaptives Routine, Tip Start Temporary Disable, Tire Pressure Sensor Registration, TLC Learn, Tri Zone Actuator Calibration, Turbo Actuator Pre-Align / Self Calibrate, Turn off Gain Mode Override, Update Pressure Thresholds, Valve Body Solenoid Learn, VG Turbo Charger Cleaning Procedure, VG Turbo Cleaning Effective Validation, VGT Actuator PreAlign And Calibration, VGT Learn, VGT Sector Gear Hysteresis Test, View/Reset DOC After Treatment Over Temp Events, View/Reset DPF After Treatment Over Temp Events, View/Reset Duty Cycle Maps, View/Reset NAC After Treatment Over Temp Events, VIN Lock, Write Pinion Factor, Write VIN

### **1706 new Actuation type special tests:**

1st Gear Brake Torque, 1st Gear Clutch Slip Test, 1st Gear Clutch Test (62TE), 1st Gear Clutch Test (Non-RFE), 1st Gear Clutch Test (RFE), 2/4 Clutch Volume Index Check, 2-3 Skip Shift Solenoid Control State, 2-4 Solenoid, 2-4 Solenoid State, 2C Or 2-4 Solenoid, 2nd Gear Brake Torque, 2nd Gear Clutch Slip Test, 2nd Gear Clutch Test (62TE), 2nd Gear Clutch Test (Non-RFE), 2nd Gear Clutch Test (RFE), 2nd Prime Brake Torque, 2nd Prime Gear Clutch Slip Test, 2nd Prime Gear Clutch Test (RFE), 3rd Gear Brake Torque, 3rd Gear Clutch Slip Test, 3rd Gear Clutch Test (62TE), 3rd Gear Clutch Test (Non-RFE), 3rd Gear Clutch Test (RFE), 4 Low Indicator, 4C Solenoid, 4C Solenoid State, 4th Gear Clutch Test (62TE), 4th Gear Clutch Test (Non-RFE), 4th Gear Clutch Test (RFE), 4WD, 4WD Auto, 4WD AUTO Indicator, 4WD Indicator, 4WD LED, 4WD Lock Indicator, 4WD Low, 4WD Neutral Indicator, A/C, A/C Clutch Relay Control State, A/C Compressor Clutch Relay Control State, A/C Fixed Disp Compressor, A/C Indicator, A/C Select, A/C Variable Disp Compressor, ABS, ABS Failure Lamp, ABS fault Lamp, ABS Lamp, ABS Light, A-C Button, AC Clutch Relay - Control State, A-C Compressor Clutch Relay Control State, AC Discrete, AC emergency shut off, AC Indicator, A-C INDICATOR, AC Off For Vehicle Manoeuvring, AC Request, A-C Request, A-C Select, ACC Enter In-Plant Mode, Activate Driver and Passenger Head Restraints, Activate Fuel Lift Pump, Activate TPM High Gain Mode, Active Booster Solenoid, Active Exhaust Valve 1, Active Exhaust Valve 2, Active Grill Shutter Test, Actuate All Heaters, Actuate All Seat Heaters, Actuate All Vents, Actuates Brake Trans Shift Interlock Sol, Actuator Position, Actuator Test For SCR Device Relay, Actuator Test For Scrdevrly, Actuator Test Of Urea Back Flow Pump Actuator, Adjustable Pedal Disable Relay, Adjustable Pedal State, Aftertreatment System Performance Test, Air Bag, Air Bag Lamp, Air Bag Light, Air Condition, Air Condition Relay Control, Air Conditioner Shut Off (Clutch), Air Dam Test, Air Suspension Leakdown Test, All Doors Locks, All Doors/Central Locks, All Doors-Central Locks, All Indicators, Alternator Current Limit, Alternator Field Control, Alternator Field Control State, Alternator Field Duty Cycle, Alternator Field Duty-Cycle, Alternator Field Test Routine, Alternator Full Field Test, Alternator Output Voltage Setpoint, Alternator Test, Alternator Voltage Control Lamp, Alternator Voltage Set Point Value, Ambient Temperature, AMP Output Short Test, ANC Output Short Test, Antenna Loop Test, Antenna Power, Antenna Power State, Anti-Theft Enable Status, APM Status, Approach Light State, ASD Relay Control State (Left Bank), ASD Relay Control State (Right Bank), Assist Call Button Green LED, Assist Call Button Red LED, Assist Call Green Day PWM, Assist Call Green LED Control PWM, Assist Call Green Night PWM, Assist Call Red Day PWM, Assist Call Red LED Control PWM, Assist Call Red Night PWM, ATMM Left Actuator Command -%, ATMM Left Actuator Command -Degrees, ATMM Left Actuator Command -Hz, ATMM Right Actuator Command -%, ATMM Right Actuator Command -Degrees, ATMM Right Actuator Command -Hz, Audio Routing, Audio Test, Audio Test For Subwoofer Specific, Audio Video Signal Detection, AUTO Button, Auto Door Unlock Routine, Auto Indicator, AUTO LED, Auto Shutdown (ASD) #1 Relay Control State (Left Bank), Auto Shutdown (ASD) #2 Relay Control State (Right Bank), Auto Shutdown (ASD) Relay Control State, Auto

Shutdown Relay, Auto Shutdown Relay Control State, Autostick Test, Auxiliary Coolant Pump, Auxiliary Fuel Pump, Average Ambient Temperature, AWD System Switch, BACK button, Background LED Illumination Level, Background LED State, Backlight 1 Level, Backlight 2 Level, Backlight 3 Level, Backlight 4 Level, Backlight 5 Level, Backlight 6 Level, Backlight 7 Level, Backlight 8 Level, Backlight Control, Backlight Control-Backlight PWM1, Backlight Control-Backlight PWM2, Backlight Control-Backlight PWM3, Backlight Control-Backlight PWM4, Backlight Control-Backlight PWM5, Backlight Control-Backlight PWM6, Backlight Control-Blue Driver/Passenger Temp Down, Backlight Control-Display PWM, Backlight Control-HVAC Recirc/AC/Front Def/Rear Def, Backlight Control-LED Jewel Indicator auto, Backlight Control-LED Jewel Indicators excluding Auto, Backlight Control-Red Driver/Passenger Temp Up, Hazard, Backlight Control-Sapphire Blue Enter/Mute Knobs, Backlight Control-Sapphire Blue HVAC Auto/Fan Off, Backlight Control-Sapphire Blue Knob Halo Rings, Backlight Control-Sapphire Blue Lower Row Switchbank Buttons, Backlight Control-Sapphire Blue Screen Off, Back Buttons, Backlighting Test, Backlighting: Driver Temp Down, Pass Temp Down, Backlighting: Driver Temp Up, Pass Temp Ujp., Backlighting: Knob Halo White Backlighting, Backup Alarm, Baggage Lamps, Balance Settings, Baro Read Solenoid Control State, Bass Settings, Battery Bad (Red), Battery Charge LEDs, Battery Coolant Heater, Battery Coolant Pump, Battery Good (White), Battery LED 1, Battery LED 2, Battery LED 3, Battery LED 4, Battery LED 5, Battery LED 6, Battery LED 7, Battery LED 8, Battery LED 9, Battery Voltage LEDs, Battery Voltage Output, Bed Lamp, Bilevel Indicator, Blind Spot Indicator State, Blower Motor, Blower Motor Speed, Blue Cooled Seat Indicators, Blue Heated Seat Indicators, Blue Temperature Bar, Boost Low Pressure Actuator, Boost Pressure, Boost Pressure Actuator, Boost Pressure Solenoid, Both Headlamps Max High Position, Both Headlamps Max Low Position, Brake Indicator, Brake Light, Brake State Output, Brake Switch, BRAKE Text, Brake Warning Lamp, BSM State, BTSI Coil Output Control, BTSI Control, BTSI Solenoid, Bussed SRS Indicator Lamp Request, Button 11 (Spare), Button 14 (Spare), Button 15 (Spare), Button 16 (Spare), Button 24 (Spare), Button 6 (Spare), Button 7 (Spare), Button 8 (Spare), Button Indicators, Buttons Control, Buttons/Encoder Control-Button 1 (Front Defrost), Buttons/Encoder Control-Button 10 (FCW), Buttons/Encoder Control-Button 12 (Back), Buttons/Encoder Control-Button 13 (Screen Off), Buttons/Encoder Control-Button 14 (ESP), Buttons/Encoder Control-Button 16 (PTS), Buttons/Encoder Control-Button 17 (Mute), Buttons/Encoder Control-Button 18 (Enter), Buttons/Encoder Control-Button 19 (Rear Defrost), Buttons/Encoder Control-Button 2 (Driver Temp Up), Buttons/Encoder Control-Button 20 (Passenger Temp Down), Buttons/Encoder Control-Button 21 (Auto), Buttons/Encoder Control-Button 22 (Driver Temp Down), Buttons/Encoder Control-Button 23 (Recirc), Buttons/Encoder Control-Button 3 (Fan Off), Buttons/Encoder Control-Button 4 (Driver Temp Up), Buttons/Encoder Control-Button 5 (AC), Buttons/Encoder Control-Button 9 (Eco), Buttons/Encoder Control-Rotary 1 Detents (Volume), Buttons/Encoder Control-Rotary 1 Direction (Volume), Buttons/Encoder Control-Rotary 2 Detents (Fan), Buttons/Encoder Control-Rotary 2 Direction (Fan), Buttons/Encoder Control-Rotary 3 Detents (Tune), Buttons/Encoder Control-Rotary 3 Direction (Tune), Buttons/Encoder Control-Rotary 4 Detents, Buttons/Encoder Control-Rotary 4 Direction, Buzzer Control, Buzzer Output, Cabin Temperature Sensor, Cargo Lamp, Cargo Light, Cargo Light Indicator, Catalyst Efficiency Test, CEGR H-Bridge Valve Duty Cycle, Center High Mount Stop Lamp, Center Stop Lamp, Central high mounted Stop Light (CHMSL), Channel 1 Audio Control, Channel 10 Audio Control, Channel 11 Audio Control, Channel 12 Audio Control, Channel 2 Audio Control, Channel 3 Audio Control, Channel 4 Audio Control, Channel 5 Audio Control, Channel 6 Audio Control, Channel 7 Audio Control, Channel 8 Audio Control, Channel 9 Audio Control, Charge Air Cooler Coolant Pump, Charge Port Command CAN, Charge Port Command Hard Wired, Charge Port Lock Motor, Charge Port Request Tester, Charge Port Un-Lock Motor, Check Engine - MIL Lamp, Check Engine MIL Lamp, Check Engine-MIL (Malfunction Indicator Lamp), Check PCM Odometer, Chiller Shut-off Valve, Chime, CHMSL Lamp, Close Door, Clutch Output, Clutch Signal To ECM Output Control, CNG Indicator, CNG Injector Relay, CNG Shut Off Relay, CNG/Gasoline Forced Fuel Type, Cold Start Aid Driver 1, Cold Start Aid Driver 1 Output, Compressed Natural Gas,

Compression Test, Compressor Circuit Test, Compressor Current, Control All Solenoids, Control the steering column, Convenience Lamps Load Shed, Convenience/Reading Lamp, Convenience-Reading Lamp, Convertible Top, Cool Down Test Routine, Coolant Bad Indicator, Coolant Fill, Coolant Fill Active Pump, Coolant Good Indicator, Coolant High Temperature Auxiliary Electric Pump, Coolant Temp LED 1, Coolant Temp LED 2, Coolant Temp LED 3, Coolant Temp LED 4, Coolant Temp LED 5, Coolant Temp LED 6, Coolant Temp LED 7, Coolant Temp LED 8, Coolant Temp LED 9, Coolant Temp LEDs, Coolant Temperature, Coolant Three Way Valve Test, Cooldown Test, Cooled EGR H-Bridge Valve System Test, Cooled Seat Driver High Indicator, Cooled Seat Driver Low Indicator, Cooled Seat Driver Med Indicator, Cooled Seat Passenger High Indicator, Cooled Seat Passenger Low Indicator, Cooled Seat Passenger Med Indicator, Cooler Bypass Valve, Cooling Valve Position, Courtesy Lamp Fade Position, Courtesy Lamps, CP3 Metering Pump, Crankcase Ventilation, Crankcase Ventilation Heater, Cyl 1 Deactivation Sol Cntrl State, Cyl 4 Deactivation Sol Cntrl State, Cyl 6 Deactivation Sol Cntrl State, Cyl 7 Deactivation Sol Cntrl State, Cylinder 1 Deactivation Solenoid Control State, Cylinder 4 Deactivation Solenoid, Cylinder 4 Deactivation Solenoid Control State, Cylinder 6 Deactivation Solenoid Control State, Cylinder 7 Deactivation Solenoid Control State, Cylinder Balance Test, Cylinder Performance, DC Clutch Volume Index Check, Dedicated DRL Lamp Left, Dedicated DRL Lamp Right, DEF (Reductant) Pressure Line Heater Test, DEF (Reductant) Return Line Heater Test, DEF (Reductant) Suction Line Heater Test, DEF (Reductant) Tank Heater Relay Test, DEF (Reductant) Tank Heater Test, DEF Dosing Injection Quantity, DEF Reductant Doser Prime Override Test, DEF Reductant Doser Pump Override Test, Defeat Engine ON, Defrost - Floor Actuator Position, Defrost Indicator, Diesel Cabin Heat 1, Diesel Cabin Heat 1 State, Diesel Cabin Heat 2, Diesel Cabin Heat 2 State, Diesel Cabin Heat 3, Diesel Cabin Heater #1, Diesel Cabin Heater #2, Diesel Cabin Heater #3, Diesel Cabin Heater 1, Diesel Cabin Heater 2, Diesel Cabin Heater 3, Diesel Cabin Heater 4, Diesel Fuel Heater Relay, Digital Inputs1 High Memory, Direct Gear Clutch Slip Test, Disable Level Control, Disable Passenger Airbag Lamp Request, Display Start Inhibit Data, Dome lamp output test, Door Ajar, Door Ambient Light State, Door Courtesy Lamp State, Door Handle Power Control, Door Handle Verification Test, Door Lock All, Double Start Override Relay, Downstream O2 Response Monitor, DPF Lamp, DPF Reset Option, D-Pillar Recline Switch forward, D-Pillar Recline Switch rearward, DR Solenoid, Driver Cooled Seat, Driver Door Unlock, Driver Heated Seat, Driver Side Seat Belt, Driver Temp Detents, Driver Temp Down Button, Driver Temp Rotary Direction, Driver Temp Up Button, DRL, DTI FUEL TRANSFER RLY, DTI LTR CLNT PMP, DTI SPRCHRGR BPV MOTOR, DTI VVL SOL1, DTI VVL SOL2, DTI VVL SOL3, DTI VVL SOL4, Dual Speed Fuel Pump Relay, Dual Speed Oil Pump, Dual Speed Oil Pump Status, Dual Tank Aux LP Relay, Duct Sensor - Floor Left, Duct Sensor - Floor Right, Duct Sensor - Panel Left, Duct Sensors -Panel Right, Duty Cycle Purge Solenoid, EAC Compressor Speed Request, Easy Entry/Exit, EBD Warning Light, EBL Indicator, EBL Status, EC Mirror State, E-CALL Backlight LED, E-Call Button Backlight LED, E-Call Button Green LED, E-Call Button Red LED, E-Call Green Day PWM, E-Call Green Night PWM, E-CALL Green Status LED, E-Call Red Day PWM, E-CALL Red Error LED, E-Call Red Night PWM, ECC Percent Max Torque, ECO, ECO Button, ECO Indicator, ECO ON-OFF Indicator, ECVD Compressor PWM Command, ECVD Compressor PWM Command~ECVD Compressor PWM Command, EGR Cooler Bypass, EGR DC Motor Sol Vlv Recir Vlv, EGR Duty Cycle, EGR Hi Pressure Motor Test, EGR Positioner, EGR Self Test Routine, EGR Throttle Valve, EGR Throttle Valve (Service), EGR Valve Actuator Test, EGR Valve Replaced, EGR Valve Solenoid Duty Cycle, EL Illumination, ELCM Forced Monitor Test, Electric Fuel Pump, Electric Motor Control, Electric Thermostat Heater, Electric Thermostat Heater Solenoid, Electric Thermostat Heater Solenoid Duty Cycle, Electric Transmission Oil Pump, Electric Vacuum Pump, Electric Wastegate Valve, Electronic Stability Control, Electronic Stability Control Off, ELSD System Function Test, EMCC VLP Solenoid, Emergency Call Backlight LED PWM, Emergency Call Green LED PWM, Emergency Call Red LED PWM, Emissions Failure Lamp, Emissions Rolls Test Mode Is Active, Enable Hands Free Module, Engine After Run Coolant Pump, Engine Check Lamp [MIL], Engine Digital Fan 1, Engine Digital Fan 2, Engine Off Injector Toggle Test, Engine RPM Control, Engine Running Injector Kill Test, Engine Speed Output,

Engine Temp LEDs, Engine Temperature, Engine Warm Up, Enter, Enter Button, Enter Plant Mode, EPB Auto Apply Control, EPB Drive Away Control, EPB Failure Lamp, EPB Function Lamp, EPB Service, EPB Switch Function LED, EPB Warning Light, EQ Loudness Test, ESC, ESC Disable Lamp, ESC Failure Lamp, ESC Indicator, ESC Malfunction Lamp, ESC Off, ESC OFF lamp, ESC ON-OFF Indicator, ESCL 12 Volt Feed Control, ESCL Unlock Control, ESIM Forced Monitor Test, ESM Power Supply, ESP button, ESP Light, ETC Indicator Test, ETC Lamp, ETC System Test, ETC Throttle Follower Test, EVAP Purge - Duty Cycle, EVAP Purge Valve, Evap Sensor Temperature, Evaporate Purge Control Solenoid Valve, Evaporator Sensor Temperature, Evaporator Temp Sensor, Evaporator Temperature Sensor, Exhaust Brake, Exhaust Brake Auto Green, Exhaust Brake Switch Lamp, Exhaust Brake Yellow, Exhaust Gas Cooler Bypass Valve, Exhaust Gas Recirc Positioner, Exhaust Gas Recirculation Actuator, Exhaust Gas Recirculation Valve, Exhaust VVT, Extend Mileage With SCR Active Faults, Extended After Run, Exterior Lighting SW, Faceplate Controls, Faceplate Controls- U CONNECT, Faceplate Controls-AM FM, Faceplate Controls-AUDIO Push Button or AUDIO, Faceplate Controls-AUX, Faceplate Controls-BACK, Faceplate Controls-DISC, Faceplate Controls-Eject, Faceplate Controls-EJECT or OPEN/CLOSE, Faceplate Controls-FF or TUNE UP, Faceplate Controls-INFO, Faceplate Controls-LIST, Faceplate Controls-LOAD, Faceplate Controls-MEDIA, Faceplate Controls-Menu, Faceplate Controls-MUSIC TYPE, Faceplate Controls-NAV, Faceplate Controls-POWER ON Push Button, Faceplate Controls-PRESET 1, Faceplate Controls-PRESET 2, Faceplate Controls-PRESET 3, Faceplate Controls-PRESET 4, Faceplate Controls-PRESET 5, Faceplate Controls-PRESET 6, Faceplate Controls-RADIO or RADIO/MEDIA, Faceplate Controls-REPEAT PROMPT, Faceplate Controls-RW or TUNE DOWN, Faceplate Controls-SAT, Faceplate Controls-SCAN, Faceplate Controls-SET, Faceplate Controls-SET UP, Faceplate Controls-TIME, Faceplate Controls-VR BUTTON, FAD Feedback Voltage, FAD Lock Request, FAD Supply Voltage, Fade Settings, Fan Clutch PWM Duty Cycle Output, Fan Clutch Test, Fan Off Button, Fan Rotary Detents, FCW Button, Feature Pin, Fill Spring From Reservoir, First Pass Cool Down Test Results, First Row Driver Seatbelt Buckle Sensor-Switch, First Row Passengers Seatbelt Buckle Sensor-Switch, Flipper Glass, Flipper Glass 2, Floor Defrost Mode Actuator Degrees, Floor Defrost Mode Actuator Position, Floor Indicator, Foot Well, Foot Well/Halo Lamps, Foot Well-Halo Lamps, Frequency Step Selection, Front Blend Actuator Position, Front Blower Control, Front Blower Motor, Front Blower Speed, Front Blower State, Front Collision Off, Front Collision Off, Front Defrost, FRONT DEFROST button, Front Defrost Indicator, Front Fog, Front Fog Lamps, Front Mode (Defrost Door) Actuation, Front Mode 1 Actuator Position, Front Mode 1 Defrost Actuator Position, Front Mode 2 Panel Actuator Position, Front Mode Actuator Position, Front Mode Door Actuator Position, Front Off Road Camera Washer, Front Parktronics, Front Refrigerant Shut-off Valve, Front Washer, Front Wiper (High/Low), Front Wiper (High-Low), Front Wiper (On/Off), Front Wiper (On-Off), Front/Rear Washer, Front-Rear Washer, FS/LR Solenoid, Fuel Filter Heater, Fuel Filter Heating, Fuel filter water level warn lamp, Fuel Filter Water Level Warning Lamp, Fuel Gauge, Fuel Gauge Gaugepoint, Fuel Injector, Fuel Injector 1, Fuel Injector 1 Control State, Fuel Injector 2, Fuel Injector 2 Control State, Fuel Injector 3, Fuel injector 3 Control State, Fuel Injector 4, Fuel Injector 4 Control State, Fuel Injector 5, Fuel Injector 5 Control State, Fuel Injector 6, Fuel Injector 6 Control State, Fuel Injector 7, Fuel Injector 7 Control State, Fuel Injector 8, Fuel Injector 8 Control State, Fuel Injector Balance, Fuel Injector Cleaning, Fuel Level LEDs, Fuel Level Output, Fuel Metering Unit, Fuel Metering Unit Actuator, Fuel Pre Supply Pump, Fuel Pressure Override, Fuel Pressure Override Test, Fuel Pressure Regulated O/P (Bar), Fuel Pressure Regulator, Fuel Pressure Regulator Valve, Fuel Pressure Solenoid, Fuel Pump, Fuel Pump Relay, Fuel Pump Relay Control State, Fuel Quantity Solenoid, Fuel System Run Up Test, Functional LED Illumination Level, Functional LED State, Gas Injector Relay, Gasoline Indicator, Gated Park ZFII Output, Gated Park ZFII Output Control, Gear Position, Gear Selection, Generator Full Field Mode, Generator Full Field Test, Generator Ramp Time, Generator Speed Threshold, Glass Washer Front, Glass Washer Rear, Glow Indicator Lamp, Glow Lamp, Glow Plug, Glow Plug Relay Actuator, Glow Relay, Governor 3-4 Shift Valve, Grid Test, Hatch/Decklid Release, Head Rest Relay, Headlamp Leveling Switch, Headlamp Washer, Heated Seat Driver High Indicator,

Heated Seat Driver Low Indicator, Heated Seat Driver Med Indicator, Heated Seat LED, Heated Seat Passenger High Indicator, Heated Seat Passenger Low Indicator, Heated Seat Passenger Med Indicator, Heated Steering Wheel, Heated Steering Wheel indicator, Heated Steering Wheel~Heated Steering Wheel, Height Sensor Check, HEV Belt-Driven Coolant Pump Clutch Relay, HEV Engine Aux Heater LIN Coolant Pump, HEV Engine Belt-Driven Coolant Pump Clutch Relay, HEV Fuel Tank Isolation Valve Solenoid, HEV TPIM Inverter LIN Coolant Pump, HFM VR Phone Switch, Hi Speed Fan State, HID Headlamps State, HID Output, High Beam, High Beam Indicator, High Beam Light, High Pressure Fuel Rail Test, High Pressure Fuel System Test, High Pressure Set Point, High Speed Engine Cooling Fan Control, High Speed Fan, High Speed Rad Fan State, High Temp Aux Pump, High Temp Cabin Valve Rotation, High Temp Coolant Fill - Aux Pump, High Temp Shut-off Valve, High Voltage Battery Precharge Contactor Test, High Voltage Coolant Heater, Hill Descent Control Telltale, Horizontal Motor Backward/Forward, Horn, HPCR Duty Cycle, HPCR Duty Cycle Output, HVAC Cool Down Test, HVAC Self Test, H-W Switched 12 V Supply, Hydraulic Fan, I/O Control All-Limp Home Mode active, I/O Control All-Red Lamp, I/P Illumination, IAC Valve Solenoid Control State, ICR-HCR Relay, Idle RPM Test, Idle Speed Setpoint, Ignition Coil 1, Ignition Coil 10, Ignition Coil 2, Ignition Coil 3, Ignition Coil 4, Ignition Coil 5, Ignition Coil 6, Ignition Coil 7, Ignition Coil 8, Ignition Coil 9, Ignition Run, Ignition Run - Acc 1, Ignition Run - Acc 2, Ignition Run - Start, Ignition Run State, Ignition RUN/ACC 1, Ignition RUN/ACC 2, Ignition Run/Acc/PAD State, Ignition Run/Acc/SPAD State, Ignition RUN/START, Ignition RUN-ACC 1, Ignition RUN-ACC 2, Ignition RUN-START, Ignition Unlock/Run/Start State, Immobilizer Antenna Test, In Motion Menu, Indicator Control-A/C Indicator, Indicator Control-Auto Indicator, Indicator Control-FCW Indicator, Indicator Control-Front Defrost Indicator, Indicator Control-Indicator 1 (Auto), Indicator Control-Indicator 10 (SSO), Indicator Control-Indicator 11 (PPA), Indicator Control-Indicator 12 (LDW), Indicator Control-Indicator 2 (AC), Indicator Control-Indicator 3 (Recirc), Indicator Control-Indicator 4 (Front Defrost), Indicator Control-Indicator 5 (Rear Defrost), Indicator Control-Indicator 6 (ECO), Indicator Control-Indicator 7 (FCW), Indicator Control-Indicator 8 (Traction Control), Indicator Control-Indicator 9 (PTS), Indicator Control-LDW Indicator, Indicator Control-Park Sense Indicator, Indicator Control-Rear Defrost Indicator, Indicator Control-Recirc Indicator, Indicator Dimming, Initiate P2BA9 SCR Refill Monitor, Injector 1, Injector 2, Injector 3, Injector 4, Injector 5, Injector 6, Injector 7, Injector 8, Injector Kill (#1), Injector Kill (#10), Injector Kill (#2), Injector Kill (#3), Injector Kill (#4), Injector Kill (#5), Injector Kill (#6), Injector Kill (#7), Injector Kill (#8), Injector Kill (#9), Injector Kill (All Cylinders), Injector Kill Test, Inlet Metering Valve, Inlet Valve FL, Inlet Valve FR, Inlet Valve Left Front, Inlet Valve Left Rear, Inlet Valve LF(Normally Open), Inlet Valve LR (Normally Open), Inlet Valve RF (Normally Open), Inlet Valve Right Front, Inlet Valve Right Rear, Inlet valve RL, Inlet valve RR, Inlet Valve RR (Normally Open), Input Test, Instrument Panel Illumination, Instrument Panel Illumination Level Output, Intake Air Throttle Actuator, Intake Air Throttle Actuator Test, Intake Manifold Short Runner Valve (SRV) Solenoid Control State, Intake Manifold Short Runner Valve Solenoid, Intake Manifold Tuner, Intake Manifold Tuning Valve (MTV) Solenoid Control State, Intake Manifold Tuning Valve Solenoid, Intake Port Shut Off, Intake Throttle Duty Cycle, Intake Throttle Duty Cycle Output, Intake VVT, Inverter Enable Relay, Inverter Status Indicator, IOD RELAY ON LSD, I-P Illumination, IPC Self Test, IR Sensor Temperature, IRCM Heater, IRCM Relay Unlock Control, ITOS - Cabin Temperature, Key Pad Back Lighting, Key Removal Inhibit LOCK Control, Key Removal Inhibit UNLOCK Control, Keypad Backlight Control, KeySense, KIN ACC LED State, KIN Antenna Power, KIN LED Control, KIN OFF LED State, KIN RUN LED State, KIN Start/Stop LED State, KIN Start-Stop LED State, Knob Lock State, L/U And SEL On Off Solenoid, L/U Solenoid Current, Lamps Actuation-Left leveling actuator position, Lamps Actuation-Right leveling actuator position, Lane Departure Warning ON-OFF Indicator, Latch Motor Cinch Direction, Latch Motor Release Direction, LC Clutch Volume Index Check, LC Solenoid, LCD Display, LDP Pump Test, LDP Solenoid, LDW Warning Indicator, Leak Detection Pump, Leak Detection Pump Forced Monitor Test, LED A/C, LED Control-LED 1 (Auto Control), LED Control-LED 2 (EBL), LED Control-LED 3 (Front defrost), LED Control-LED 4 (recirc), LED Control-LED 5 (A/C), LED Headlamp

Leveling, LED Intensity Output, LED LF Heated Seat, LED Rear Defrost, LED RF Heated Seat, LED Test - Damping Mode Automatic Active, LED Test - Damping Mode Hard / Sport Active, LED Test - Damping Mode Soft Active, Left Rear Tail/Park Lamp, Left Air Catcher LED, Left Auxiliary High Beam, Left Backrest Heat Seat Linear PWM Request -Output, Left Blend Actuator Degrees, Left Blend Actuator Position, Left Cushion Heat Seat Linear PWM Request -Output, Left Day Light Lamp, Left Floor Duct Sensor, Left Front Fog Lamps, Left Front Inlet Valve, Left Front Inlet Valve Solenoid, Left Front Outlet Valve, Left Front Outlet Valve Solenoid, Left Front Park Lamp, Left Front Turn Lamp, Left Front Turn Lamp Output Status, Left Headrest Dump, Left Heated Seat, Left Heated Seat Lower Indicator, Left Heated Seat Upper Indicator, Left HID Lamp, Left High Beam, Left High Beam Shutter, Left High Beam State, Left Low Beam, Left Low Beam State, Left Panel Duct Sensor, Left Rear AUX Turn Lamp, Left Rear Fog Lamps, Left Rear Heated Seat Status, Left Rear Inlet Valve Solenoid, Left Rear Outlet Valve Solenoid, Left Rear Tail-Park Lamp, Left Rear Turn Lamp, Left Rear Turn Lamp (BUX), Left Rear Turn Signal Lamp Status, Left Rear Turn/Stop Lamp, Left Rear Turn-Stop Lamp, Left Reartail-Park Lamp, Left Recliner Switch, Left Reverse Lamp, Left Reverse Lamp 2, Left Reverse Lamp State, Left Seat Back Motor Adjustment, Left Seat Latch Motor Adjustment, Left Seat Stow Motor Adjustment, Left Side Markers, Left Signal Mirrors/Side Repeaters (BUX), Left Signal Mirrors-Side Repeaters (BUX), Left Signature Lamp, Left Solar Sensor Values, Left Trailer Tow Turn/Stop Lamp, Left Trailer Tow Turn-Stop Lamp, Left TT Turn Stop Lamp State, Left Turn Signal Indicator, Left Vent Seat Linear PWM Request - Output, Left Ventilated Seat Lower Indicator, Left Ventilated Seat Upper Indicator, LF Antenna Verification Test, LF Heated Seat, LF Heated Seat High, LF Heated Seat Low, LF Heated Seat Status, LF Power Window, License Plate Lamp, License Plate Lamp WK -Right Rear Rail Lamp WD, Lift Pump Relay, Liftgate Release Motor, Lin Module Data, Line Pressure Test, Linear Hall, Linear Solenoid A, Linear Solenoid B, Linear Solenoid C, Linear Solenoid D, Linear Solenoid E, Linear Solenoid F, Linear Solenoid G, Locate Learned Keys, LOCK 4WD, Low Fuel, LOW LED, Low Pressure Feed Valve 1, Low Pressure Feed Valve 2, Low Pressure Feed Vlv 1(Normal close), Low Pressure Feed Vlv 2(Normal close), Low Reverse Solenoid, Low Reverse Solenoid Mode Control, Low Speed Fan State, Low Speed Rad Fan State, Low Temp Active Pump, Low Temp Passive Pump, Low Temp Passive Pump 1, Low Temp Passive Pump 2, Low-Reverse Solenoid, LR Clutch Volume Index Check, LR Heated Seat High, LR Heated Seat Low, LR Power Window, LR Solenoid, LSU Heater 1, Main Left Temperature 2 Actuator Position, Main Left Temperature Actuator Position, Main/Left Temp Selected, Main-Left Temp. Door Actuator Position, Main-Left Temperature Actuator Position, Malfunction Indicator Lamp, Manifold Short Runner Valve Solenoid, Manifold Tuning Valve Solenoid, Map/Glove Box/Vanity Lamps, Master Ept Wake Up Output, Master ePT Wake Up Output 1, Mechanical Controls, Memory Seat ECU Self Test, Metering Unit, Metering Unit Actuator, Mid-Range Settings, MIL Diagnostic Lamp, MIL Lamp, Minimum Airflow, Mirror Direction Control, Mirror Fold, Mirror Fold Window Control, Mirror Heat State, Mirror LED -Day-Night, Mirror LED Left State, Mirror LED -ON-OFF, Mirror LED Right State, Mirror Right LED State, Mirror Signal Lamp State, Mirror Vertical/Horizontal Direction, Mix Indicator, Mode, Mode 1, Mode 2, Mode 2 Actuator Position (Defrost Panel Door), Mode Selection, Motor A Control, Motor B Control, Motor Control Close Output, Motor Control Open Output, Motorized Thermistor-Cabin Temp, MS Solenoid, Multiair VVA Solenoid 1, Multiair VVA Solenoid 2, Multiair VVA Solenoid 3, Multiair VVA Solenoid 4, Mute, MUTE button, Mute Test, Navigation Display Control, Navigation Menu Control, Neutral, Neutral Gate Test (62TE), Neutral Gate Test (Non-RFE), Neutral Gate Test (RFE), Neutral LED, NOx Sensor Replacement, O2 Heater Test, O2 Sensor Heater 1-1, O2 Sensor Heater 1-1 Duty Cycle, O2 Sensor Heater 1-2, O2 Sensor Heater 1-2 Duty Cycle, O2 Sensor Heater Bank 1 Sensor 1, O2 Sensor Heater Bank1 Sensor1, O2 Sensor Heater Bank1 Sensor2, O2 Sensor Heater Bank2 Sensor1, O2 Sensor Heater Bank2 Sensor2, OBCM HW Wakeup Output, OBCM Pilot Switched 12V Reference, OBCM S2 Internal Switch, OBCM Wakeup, OBD Button 1 Pad 1, OBD Button 1 Pad 2, OBD Button 2 Pad 1, OBD Button 2 Pad 2, OBD Button 3 Pad 1, OBD Button 3 Pad 2, OBD Button 4 Pad 1, OBD Button 4 Pad 2, OBD Button 5 Pad 1, OBD Button 5 Pad 2, OBD Button 6 Pad 1, OBD Button 6 Pad 2, OBD Button 7 Pad 1, OBD PPPA

-Pad 1, OBD PPPA -Pad 2, OD Clutch Volume Index Check, Odometer VFD, Oil Pressure Bad, Oil Pressure Good, Oil Pressure Indicator Test, Oil Pressure Lamp, Oil Pressure LED 1, Oil Pressure LED 2, Oil Pressure LED 3, Oil Pressure LED 4, Oil Pressure LED 5, Oil Pressure LED 6, Oil Pressure LED 7, Oil Pressure LED 8, Oil Pressure LED 9, Oil Pressure LEDs, Oil Pressure Output, Open Door Test, Outlet Valve FL, Outlet valve FR, Outlet valve front left activation, Outlet valve front right activation, Outlet Valve Left Front, Outlet Valve Left Rear, Outlet Valve LF (Normally Closed), Outlet Valve LR (Normally Closed), Outlet valve rear left activation, Outlet valve rear right activation, Outlet Valve RF (Normally Closed), Outlet Valve Right Front, Outlet Valve Right Rear, Outlet valve RL, Outlet valve RR, Outlet Valve RR (Normally Closed), Output Channel Test, Over Drive Solenoid, Over Drive Solenoid On Time, Over-Drive Solenoid, Overdrive Switch Test, Overdrive Switch Test (Non-RFE), OverDrive Switch Test (RFE), Oxygen Sensor 1 Heater, Oxygen Sensor 1/1 Heater Control State, Oxygen Sensor 1/1 Heater Duty Cycle, Oxygen Sensor 1/2 Heater Control State, Oxygen Sensor 1/2 Heater Duty Cycle, Oxygen Sensor 1-1 Heater, Oxygen Sensor 1-1 Heater Duty Cycle, Oxygen Sensor 1-1 Heater Duty-Cycle, Oxygen Sensor 1-2 Heater, Oxygen Sensor 1-2 Heater Duty Cycle, Oxygen Sensor 1-2 Heater Duty-Cycle, Oxygen Sensor 2 Heater, Oxygen Sensor 2/1 Heater Control State, Oxygen Sensor 2/1 Heater Duty Cycle, Oxygen Sensor 2/2 Heater Control State, Oxygen Sensor 2/2 Heater Duty Cycle, Oxygen Sensor 2-1 Heater, Oxygen Sensor 2-1 Heater Duty Cycle, Oxygen Sensor 2-1 Heater Duty-Cycle, Oxygen Sensor 2-2 Heater, Oxygen Sensor 2-2 Heater Duty Cycle, Oxygen Sensor 2-2 Heater Duty-Cycle, Oxygen System Heater Test, Panel Door Actuator Position, Panel Mode Actuator Degrees, Panel Mode Actuator Position, Park Lamp State, Park Pawl Actuator Control, Parking Brake And Low Brake Fluid, Parttime LED, Passenger Airbag (PAB) Status, Passenger Airbag Disable Indicator Lamp Request, Passenger Airbag Disable Lamp, Passenger Airbag LED, Passenger Cooled Seat, Passenger Door Unlock, Passenger Heated Seat, Passenger Occupant Detection Sensor (ODS), Passenger Seat Belt, Passenger Temp Detents, Passenger Temp Down Button, Passenger Temp Rotary Direction, Passenger Temp Up Button, Pedal Follower Mode, Pedals Forward/Backward, Pilot 1 (USV Front, MCI Front -Normally Open), Pilot 1 (USV LF-RR, MCI LF-RR -Normally Open), Pilot 2 (USV Rear, MCI Rear -Normally Open), Pilot 2 (USV RF-LR, MCI RF-LR -Normally Open), Pilot Front (USV - Normally Closed), PL Solenoid Current, PLGM Chime Output, Pneumatic Intercooler Bypass, Pneumatic Waste Gate, Police Passenger Un-Lock Motor, Position Lamp, Position Lamp Telltale, Position Lights, Power (OFF), Power Down, Power Inverter Output, Power Mirror Feed Relay Control, Power On and Disable User Inputs, Power Side Step Module Actuation Test, PPPA, PPPA ON-OFF Indicator, Pressure Control Relief Valve (PCR - Normally Closed), Pressure Control Solenoid Valve, Pressure Regulator Valve, Pressure Value Correction Shut-Off, Pressure Wave Correction Deactivation, Pre-Supply Pump, Priming 1 (HSV Front, LPF Front -Normally Closed), Priming 1 (HSV LF-RR, LPF LF-RR -Normally Closed), Priming 2 (HSV Rear, LPF Rear -Normally Closed), Priming 2 (HSV RF-LR, LPF RF-LR -Normally Closed), Priming Front (HSV - Normally Closed), PRNDL, Proportional Purge Solenoid, Proportional Purge Solenoid., Proportional Surge Solenoid, PTC Cabin Heater 1 Actuation, PTC Cabin Heater 2 Actuation, PTC Cabin Heater 3 Actuation, PTC Heater Relay 1, PTC Heater Relay 2, PTC Heater Relay 3, PTO, PTS Button, PTS ON-OFF Indicator, PTS Switch Simulation, PTU Position, Puddle Lamp State, Pump, Pump Control, Pump Motor Relay, Pump Motor Test, Purge Solenoid Duty Cycle, Purge Vapors Test, PWM Fan Actuation Test, PWM Output, Radiator Cooling Fan PWM Cntrl State, Radiator Cooling Fan PWM Control State, Radiator Cooling Fan PWM Duty Cycle, Radiator Cooling Fan PWM Duty-Cycle, Radiator Cooling Fan Relay 1 Control State, Radiator Cooling Fan Relay 1,2,3 Control State, Radiator Cooling Fan Relay 2 Control State, Radiator Cooling Fan Rly 1 Cntrl State, Radiator Fan 1, Radiator Fan 1 Duty Cycle, Radiator Fan 2, Radiator Fan 2 Duty Cycle, Radiator Fan 2 Relay, Radiator Fan Duty Cycle, Radiator Fan PWM Duty Cycle, Radiator Jalousie ShutterPosition, Radiator-Condenser Cooling Fan Relay 1 Control State, Radiator-Condenser Cooling Fan Relay 2 Control State, Radio, Radio Tone Test, Radio Volume, Rail Pressure, Rail Pressure Actuator, Rail Pressure Control Test, Rail Pressure Sensor Replacement, Ram Active Air Box Test, Ram Box, Range Select Downshift Test Routine, Range Select Downshift

Voltage, Range Select Upshift Test Routine, Range Select Upshift Voltage, Read VIN, Ready, Rear Axle Lock, Rear Axle Locker Command, Rear Blend Actuator Position, Rear Blend Door Output, Rear Blower Motor, Rear Blower Speed, Rear Blower Speed Output, Rear Blower State, Rear Defrost Button, Rear Defrost Indicator, Rear Defrost State, Rear Driver Floor Duct Sensor Temperature, Rear Driver Panel Duct Sensor Temperature, Rear Fog, Rear Fog Lamp Telltale, Rear Fog Lamps, Rear Heated Window, Rear Inlet Valve, Rear I-Wipe State, Rear Lockout Indicator (Rear Panel), Rear Mode 1 Actuator Position, Rear Mode Actuator Position, Rear Mode Door Output, Rear Outlet Valve, Rear Park Assist Disable, Rear Selection Indicator, Rear Temp Door Actuation Position, Rear Temp Door Actuator Position, Rear Wiper, Recirc, RECIRC button, RECIRC Indicator, Recirc. Door Actuator Position, Recirculation Door Actuator Degrees, Recirculation Door Actuator Position, Recirculation LED, Recirculation Pump, Recirculation pump activation, Recliner, Red Brake Lamp, Red Hazard Button, Red Heated Seat and Steering Wheel Indicators, RED Heated Seat Indicators, Red Temperature Bar, Redundant Ignition RUN/START Feed Output Control, Redundant Ignition RUN-START Feed Output Control, Remote Start Antenna Test, Reverse Brake Torque, Reverse Gear Clutch Slip Test, Reverse Gear Clutch Test (62TE), Reverse Gear Clutch Test (Non-RFE), Reverse Gear Clutch Test (RFE), Reverse Lamp, Reverse Lockout Solenoid, Reverse Lockout Solenoid Control State, RF Heated Seat High, RF Heated Seat Low, RF Heated Seat Status, RF Power Window, Right Air Catcher LED, Right Auxiliary High Beam, Right Backrest Heat Seat Linear PWM Request -Output, Right Blend Actuator Degrees, Right Blend Actuator Position, Right Cushion Heat Seat Linear PWM Request -Output, Right Day Light Lamp, Right Floor Duct Sensor, Right Front Fog Lamps, Right Front Inlet Valve, Right Front Inlet Valve Solenoid, Right Front Outlet Valve, Right Front Outlet Valve Solenoid, Right Front Park Lamp, Right Front Turn Lamp, Right Front Turn Lamp State, Right Headrest Dump, Right Heated Seat, Right Heated Seat Lower Indicator, Right Heated Seat Upper Indicator, Right HID Lamp, Right High Beam, Right High Beam Shutter, Right Low Beam, Right Low Beam State, Right Panel Duct Sensor, Right Rear Fog Lamps, Right Rear Heated Seat Status, Right Rear Inlet Valve Solenoid, Right Rear Outlet Valve Solenoid, Right Rear Park Lamp, Right Rear Tail/Park Lamp, Right Rear Tail-Park Lamp, Right Rear Turn Lamp, Right Rear Turn Lamp (BUX), Right Rear Turn Lamp State, Right Rear Turn/Stop Lamp, Right Rear Turn-Stop Lamp, Right Reartail-Park Lamp, Right Recliner Switch, Right Reverse Lamp, Right Reverse Lamp #2, Right Reverse Lamp 2, Right Reverse Lamp State, Right Seat Back Motor Adjustment, Right Seat Latch Motor Adjustment, Right Seat Stow Motor Adjustment, Right Side Markers, Right Signal Mirrors/Side Repeaters (BUX), Right Signal Mirrors-Side Repeaters (BUX), Right Signature Lamp, Right Solar Sensor Values, Right Temp Actuator Position, Right Temp. Door Actuator Position, Right Temperature Actuator Position, Right Temperature Selected, Right Trailer Tow Turn/Stop Lamp, Right Trailer Tow Turn-Stop Lamp, Right TT Turn Stop Lamp State, Right Turn Signal Indicator, Right Vent Seat Linear PWM Request, Right Vent Seat Linear PWM Request -Output, Right Ventilated Seat Lower Indicator, Right Ventilated Seat Upper Indicator, Roller Learning Shut-Off, Rotary 4 Detents, Rotary 4 Direction, RR Heated Seat High, RR Heated Seat Low, RR Power Window, RT-LT Sidemarkers-RT-LT Applique Parklamps, Run Remote Start State, Run/Start Remote Start State, S/C Indicator, SCR Inlet Temp Sensor Replacement, SCR Relay Actuation Test, Screen Off, SCREEN OFF button, SDAR Station Selection, Seat Belt, Seat Belt Lamp, Seat Belt Light, Seat Mode Switch Adjustment, Seat Position Recall, Seat Selector Switch Adjustment, Second Row Center Seatbelt Switch, Second Row Left Seatbelt Switch, Second Row Right Seatbelt Switch, Secondary Air Pump, Secondary Air Solenoid, Secondary Locks, Secondary Solenoid Current, Secondary/Thatchum Lock Motor, Secondary/Thatchum Un-Lock Motor, Secondary-Thatchum Lock Motor, Secondary-Thatchum Un-Lock Motor, Seek Status, Select Level Switches-Damping Mode Button, Self Test Routine, Sensor Rolls Test, Separation Valve (SV - Normally Open), SERV LED, Service 4WD, Service Lamp, Set Engine RPM Test, Set Oil Dilution Mass Value, Set Purge Solenoid Duty Cycle, Set Purge Valve Position, Set Throttle Blade in Variable Position, Set Throttle Blade Position, Shift Lever Position Test, Shift Lever Position Test (62TE), Shift Lever Position Test (Non-RFE), Shift Lever Position Test (RFE), Shift Solenoid 1, Shift Solenoid 2, Shift Solenoid 3, Shift Solenoid 4, Shift Solenoid 5, Shift

Solenoid 6, Shift Solenoid A, Shutoff Correction Quantity, Shutoff Injector Quantity, Side Mirrors Heater Control, Skip Shift Solenoid, Small Leak Verification Test, Smart Bar Command, Snow Plow Left Turn Lamp, Snow Plow Park Lamps, Snow Plow Right Turn Lamp, Snow Plow Switch #1, Snow Plow Switch #2, Snow Plow Switch #3, Snow Plow Switch #4, Snow Plow Switch 1, Snow Plow Switch 2, Snow Plow Switch 3, Snow Plow Switch 4, Software Test, SPARE LED LAMP DRIVER, SPARE RELAY 1 LSD, SPARE RELAY 2 LSD, Speaker Channel Isolation Test, Speaker Quadrant Selection, Speed Control Servo Power Relay, Speed Control Vacuum Solenoid, Speed Control Vent Solenoid, Speedometer, Split Cooling Drive Duty Cycle, Sport ON-OFF Indicator, Spring Deflate To Atmosphere, Spring Deflate to Reservoir, SRS Indicator Lamp Request, SRS Lamp, SRV Test, Start - Remote Start State, Start/Stop System, Starter Relay, Starter Solenoid, Starter Solenoid (High), Starter Solenoid High, Starter Status, Steering Wheel Linear PWM Request -Output, Stop - Start System Active Indicator, Stop / Start System Active Lamp, Stop Start Confirmation, Stop/Start System Active, Stop-Start ON-OFF Indicator, Stop-Start System Active, Sun Shade Control, Surge Solenoid Control State, Sway Bar Indicator, Swing Gate Lock, Swing Gate Unlock, Swirl Actuator, Swirl Valve actuator Test, Switch Illumination State, Switch On EPB Failure Lamp, Switch On EPB Function Lamp, Switchable Lamps and Trunk Lamp, System Wiring Test, T Case Service Indicator Request, Tachometer, Tail Gate Lock, Tail Gate Unlock, T-Case Brake State, T-Case Mode/Position-Standard, T-Case Motor Duty Cycle, T-Case Motor Solenoid Lock, T-Case Motor-Motor Lock, T-Case Service Indicator Request, TCC Pressure Control Solenoid, TCM VIN Verification, Telltale 4WD Mode, Telltale ABS, Telltale Airbag, Telltale Brake, Telltale Charging, Telltale ESP, Telltale ETC, Telltale Fog Front, Telltale Fog Rear, Telltale Glow Plug, Telltale High Beam, Telltale Low Coolant, Telltale Low Fuel, Telltale MIL, Telltale Oil, Telltale Seat Belt, Telltale Sway Bar, Telltale Tire Pressure Monitor, Telltale Turn Left, Telltale Turn Right, Telltale VTA, Telltale - Cargo Lamp, Telltale - ESC, Telltale - ESC Off, Telltale - ESP Off, Telltale - Park, Telltale - Position Lamp, Telltale - Rear Fog, Telltale 4WD Low, Telltale Cruise, Telltale Diesel Glow Plug Indicator, Telltale ESP/BAS, Telltale TPM, Telltale Trailer Tow, Telltale-AWD/4WD Fail, Telltale-Coolant, Telltale-Cruise Mode, Telltale-Cruise On, Telltale-Front Axle Lock Mode, Telltale-Full-Time 4WD, Telltale-Off Road Mode, Telltale-Rear Axle Lock Mode, Telltale-Tire Pressure, Telltale-Tire Pressure Monitor, Telltale-Tow Mode, Telltale-TRAC/ESP Off, Telltale-Upshift, Temperature Gauge, Temperature Gauge Gaugepoint, Temporary Remote Start Disable, Thermal System Enable, Thermistor Test, Thermostat Drive Duty Cycle, Third Row Center Seatbelt Switch, Third Row Left Seatbelt Switch, Third Row Right Seatbelt Switch, Throttle Test, Throttle Valve, Throttle Valve Actuator, Throttle Valve Auto Zero, Throttle Valve Span, Tilt Mirrors in Reverse, Time Controlled Spring Fill, Timeout Time Flash To Pass, Timeout Time Paddle Shift Switches, Tire Pressure, Tire Pressure Load Switch Indicator, Tire Pressure Load Switch Pressed, Tire Pressure Monitoring, Tone Test, Topper Center Mounted Stop Lamp, TOPPER CHMSL, Torque Coupling Control, TOW-HAUL, Tow-Haul Indicator, TPM Sensor Rolls, TPM Sensor Rolls Test, Trac Cntrl Outlet Vlv 1(Normal open), Trac Cntrl Outlet Vlv 2(Normal open), Traction Control Outlet Valve 1, Traction Control Outlet Valve 2, Trailer Backup Lamps, Trailer BU Lamps, Trailer Tail Lamp Relay, Transfer Case 4WD/Lock/Part Lamp, Transfer Case AWD/Auto/Full Lamp, Transfer Case Low Lamp Request, Transfer Case Neutral Lamp Request, Transmission Component Tests, Transmission Overdrive, Transmission TCC, Transmission Temperature, Transmission Verification Test, Treble Settings, Trigger Module Test, Truck Bed Lighting Leds, Truck Cargo Lamps, Trunk Liftgate Release Solenoid, Trunk/Flipper Glass Release Motor, Trunk-Flipper Glass Release Motor, Trunk-Liftgate Ajar, Tumble Generator Valve, Tuner Rotary Detents, Tuner Rotary Direction, Turbo/VGT Component Replacement, Turn Left, Turn On all Telltales, Turn On all VF Segments, Turn Right, Turn Signal Clicker, Turn Signal Lamp State, Twilight Sensor Value, UConnect Live Apps Installation, UD Clutch Volume Index Check, UD Solenoid, UGDO Power Supply, Under Drive Solenoid Mode Control, Underdrive Solenoid, Under-Drive Solenoid, Universal Garage Door Opener Control, Unlock 1/Driver Lock, Unlock 1-Driver Lock, Unlock 2/Passenger Locks, Unlock 2-Passenger Locks, Unlock Driver Door On 1st Press, Unlock Run -Start, Unlock RUN-START, Urea (Reductant) Pressure Line Heater Actuaton Test, Urea (Reductant) Tank

Heater Actuator Test, Urea Dosing Valve Actuation Test, Vacuum Cleaner Power Saver Indicator, Vacuum Cleaner Relay Driver, Vacuum Cleaner Switch Backlight, Vacuum Pump Relay, Variable Displacement AC, Variable Displacement AC Duty Cycle Control, Variable Swirl Actuator, Variable Swirl Valve Shutoff, Variable Valve Timing, VVT Control Valve, Vehicle Speed Output, Vehicle Sway Green, Vehicle Sway White, Vehicle Sway Yellow, Vertical Front, Vertical Rear, VES Display Screen Control, VES Headphone Tone Test-Headphone 1, VES Headphone Tone Test-Headphone 2, VF Display, VF Segments test, VFD Illumination, VFS Duty Cycle, Video Input, View Last Successful Remote Start Event Data, View Last VTA Trigger Cause Data, View Oil Dilution Mass Value, View Remote Start Abort Data, View Remote Start Inhibit Data, View Satellite Sensor Information, View VTA Enable Data, VLP Solenoid, Volume Rotary Detents, Volume Rotary Direction, VTA Indicator LED, VVA Solenoids Pre-Energization, VVL Service Test, VVT Diagnostic, VVT Exhaust Phaser 1 Actuator, VVT Exhaust Phaser 2 Actuator, VVT Intake Phaser 1 Actuator, VVT Intake Phaser 2 Actuator, VVT Solenoid Control State, VVT Tests, Wait To Start Lamp, Wastegate Solenoid Control State, Wastegate Solenoid Duty Cycle, Water In Fuel, Water In Fuel Indicator, Water Pump Charge Air Cooling, Water Pump Control, White Backlighting Buttons, White Backlighting Channel 1, White Backlighting Channel 2, White Backlighting Knob Buttons, White Backlighting Knob Indicators, White Knob Indicators, White Lower Halos, White Upper Halos, Window Control, Window Hall Sense Supply, Window State, Wiper Hi/Low State, Wiper On/Off State, WK Head Rest Relay, Yellow A/C and Auto Indicators, Yellow Button Indicators, Yellow Fault Lamp, Yellow Lane Departure Warning Indicator, Yellow Rear Defrost Indicator, Yellow Recirc Indicator

## ***Ford/Lincoln Coverage***

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

Occupant Classification System Module (OCSM) Reset

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

On Demand Test

## ***General Motors Coverage***

- Added coverage for 13 new system applications

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

Adaptive Pressure Control Learn, Ambient Air Temperature Calculation Reset, Automated Brake Bleed, BARO Sensor Reset, Brake Pedal Position Sensor Learn, Brake Pressure Sensor Calibration, CAN Bus Configuration Learn, Clear Short Range Radar Sensor Vehicle Position, Configure New Module, Copy And Paste TPM Information, Crankshaft Pos Variation Learn, Engine Coolant Control Valve Learn, Engine Coolant Pump Data Reset, Engine Oil Life Reset, Fuel Pump Driver Control Module Configuration, Fuel Pump Trim Reset, Fuel Trim Reset, Heated Oxygen Sensor Heater Resistance Learned Values Reset, HO2S Heater Learn, HO2S Learned Values Reset, HVAC Actuators Learn, HVAC Afterblow Configuration, Idle Learn Reset, Intake System Learned Values Reset, Invalidate All Fobs, Particulate Filter Pressure Sensor Reset, Particulate Filter Regeneration, Program Key Fob 1, Program Key Fob 2, Program Key Fob 3, Program Key Fob 4, Reset Particulate Filter, Reset Teen Driver Key PIN, RVS Disable History Reset, Setup SDM Part Number In BCM, Steering Wheel Angle Sensor Centering, Steering Wheel Angle Sensor Learn, Throttle Body Idle Air Flow Compensation Reset, Timing Belt Life Reset, Tire Pressure Sensor Registration, Tire Pressure Sensor Signal Reset, Tire Type/Pressure Selection, Transmission Adaptive Pressure Reset, Transmission Clutch 1 Return Spring Learn, Transmission Clutch 1 Volume Learn, Transmission Clutch 2 Return Spring Learn, Transmission Clutch 2 Volume Learn, Transmission Clutch 3 Return Spring Learn, Transmission Clutch 3 Volume Learn, Transmission Clutch 4 Return Spring Learn, Transmission Clutch 4 Volume Learn, Transmission Clutch 5

Return Spring Learn, Transmission Clutch 5 Volume Learn, Transmission Service Fast Learn, Turbocharger Wastegate Learn, Vehicle Dynamic Sensor Offset Calibration, Yaw Rate Sensor Learn

**165 new Actuation type special tests:**

A/C Compressor Clutch, A/C Relay, ABS Left Front Solenoid Valves, ABS Left Rear Solenoid Valves, ABS Pump Motor, ABS Right Front Solenoid Valves, ABS Right Rear Solenoid Valves, Accessory/RAP Relay, Air Cleaner Monitor Setup, All Door Lock Unlock, Auxiliary Ignition Run Relay, Backup Lamps, Camshaft Position Actuator, Center High Mounted Stop Lamp, Central Stop Lamp, Compression Test, Control Functions, Courtesy Lamps, Cylinder Power Balance, Daytime Running Lamps, Depressurize Fuel System, Display Dimming, Display Test, Driver Seat Cushion Left Front Haptic Movement, Driver Seat Cushion Right Front Haptic Movement, Engine Controls Ignition Relay, Engine Controls Ignition Supply Voltage, Engine Coolant Control Valve Mode, Engine Coolant Control Valve Position, Engine Coolant Control Valve, Engine Coolant Fill, Engine Coolant Pump, Engine Cooling Fan, Engine Oil Pressure Control Solenoid Valve, Engine Oil Pressure, Engine Serial Number, Engine Speed Control, Engine Speed, Erase Valet Mode Code, EVAP Canister Purge Valve, EVAP Purge Pump, EVAP Purge/Seal, EVAP Service Bay Test, EVAP Vent Solenoid, Evaporative Emission Canister Vent Valve, Exhaust Camshaft Position Actuator Position, Exhaust Camshaft Position Actuator, Exterior Door Handle Courtesy Lamp Command, Fog Lamps, Forward Collision Alert Switch, Fuel Control Loop Status, Fuel Injector Balance, Fuel Pressure Regulator, Fuel Pressure, Fuel Pump Enable, Fuel Pump Speed, Fuel Pump, Fuel Rail Pressure, Fuel Trim Enable, GEN L-Terminal, Generator Regulator Setpoint, Hands-Free Sensor Lamp Command, High Beam, High Side Driver 1, High Side Driver 2, HO2S Bank 1 Sensor 2 - Heater, HO2S Bank 2 Sensor 1 - Heater, Horn Relay, Incandescent Dimming, Instrument Cluster Gauge Sweep, Intake Camshaft Position Actuator Position, Intake Camshaft Position Actuator, Key Fob Button Test, Lane Departure Warning Indicator, Lane Departure Warning Switch, LED Backlight Dimming, Left Backup Lamp, Left Daytime Running Lamp, Left Front Turn Lamp, Left Front Turn Signal Lamp, Left Rear Turn Signal Lamp, Left Stop Lamp, Left Turn Signal, License Plate Lamps, Low Beams, LR Turn Signal, Malfunction Indicator Lamp, Mass Airflow Sensor, Next Available Slot, O2 Sensor Heater Bank 1 Sensor 1, O2 Sensor Heater Bank 2 Sensor 2, Object Detection Alert Indicators, Oxygen Sensor 1-1 Heater, Oxygen Sensor 2-1 Heater, Parking Assist Switch LED, Parking Lamps, Passenger Air Bag Off Indicator, Passenger Air Bag On Indicator, Passenger Seat Belt Reminder Indicator, Proactive Alerts, Rear Cross Traffic Audible Alert, Rear Cross Traffic Visual Alert, Rear Fog Lamp, RF Turn Signal, Right Backup Lamp, Right Daytime Running Lamp, Right Front Turn Signal Lamp, Right Rear Turn Signal Lamp, Right Stop Lamp, Right Turn Signal, RR Turn Signal, Run Crank Relay, Seat Back Horizontal Movement, Seat Back Side Bolster Movement, Seat Cushion Front Vertical Movement, Seat Cushion Rear Vertical Movement, Seat Cushion Side Bolster Movement, Seat Horizontal Movement, Seat Lumbar Support Horizontal Movement, Seat Lumbar Support Vertical Movement, Shift Lock Solenoid, Shift Transmission Gear, Shift Transmission, Spark Retard, Starter Drive, Starter Motor, Starter Relay, TCC Control Solenoid, TCC Pressure Control Solenoid Valve, Throttle Actuator Control Valve, Throttle Position, Throttle Sweep, Torque Converter Clutch, Traction Control Left Front Solenoid Valves, Traction Control Left Rear Solenoid Valves, Traction Control Right Front Solenoid Valves, Traction Control Right Rear Solenoid Valves, Transmission Accumulator Solenoid Valve, Transmission Clutch Learn Status, Transmission Control Solenoid Valve 1 Current, Transmission Control Solenoid Valve 1, Transmission Control Solenoid Valve 2 Current, Transmission Control Solenoid Valve 2, Transmission Control Solenoid Valve 3 Current, Transmission Control Solenoid Valve 3, Transmission Control Solenoid Valve 4 Current, Transmission Control Solenoid Valve 4, Transmission Control Solenoid Valve 5 Current, Transmission Control Solenoid Valve 5, Transmission Control Solenoid Valve 6 Current, Transmission Control Solenoid Valve 6, Transmission Control Solenoid Valve 7 Current, Transmission Control Solenoid Valve 7, Transmission Control Solenoid Valve 8 Current, Transmission Control Solenoid Valve 8, Transmission Control Solenoid Valve 9, Transmission Fluid Pressure Actuator, Transport Mode, Turbo Charger /

Super Charger Bypass Valve, Turbocharger Wastegate Actuator, Turbocharger Wastegate Position, Windshield Washer Pump, Windshield Wiper Motor Relay, Windshield Wiper Relay, Wiper Washer Motor

## ***New Coverage – USA Asian***

### ***Hyundai/Genesis Coverage***

- Added coverage for 689 new system applications

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

12V Battery SOC Calibration, ACU Variant Coding, Adaptive Value Backup Input (ECU Transfer Assy replacement at once), Adaptive Value Backup Input (ECU replacement), Air Bleeding Mode, Auto Detected Configuration (ESC Only), Auto Detected Configuration Reset, Brake Pad Change Mode, CLU Variant Coding, Clutch Learning Reset, ESC Variant Coding, HCU Air Bleeding Mode, iMEB Actuator Initialization, Longitudinal G Sensor Calibration(HAC/DBC Only), Multiplicative Injection Time Correction for All Cylinders, Multiplicative Injection Time Correction for Cylinder1, Multiplicative Injection Time Correction for Cylinder2, Multiplicative Injection Time Correction for Cylinder3, Multiplicative Injection Time Correction for Cylinder4, Multiplicative Injection Time Correction for Group(B) All Cylin, Multiplicative Injection Time Correction for Group(B) Cylinder2, Multiplicative Injection Time Correction for Group(B) Cylinder3, Pedal Travel Sensor (PTS) Calibration, Pressure Sensor Calibration, Purge Solenoid Valve Opening Additive Correction, Reset of Injector Q-stat Adaptation, Resetting Adaptive Values, Resetting Auto Trans Adaptive Values, Resetting E-CVVT Values, SAHLS Sensor Origin Point Setting, Seat Limit Position Setting, TPMS Reception Rate Measuring Mode, TPMS Test, Variant Coding (Backup Input), WCT Reprogram, Write VIN

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

(LED) DRL Lamp LH, (LED) DRL Lamp RH, 12V Latch Relay OFF, 12V Latch Relay ON, 1st Gear Lamp, 2nd Gear Lamp, 3D View, 3rd Gear Lamp, 3rd Row Center SBR Center Indicator, 3rd Row SBR Center Indicator(Option), 3rd Row SBR Left Indicator(Option), 3rd Row SBR Right Indicator(Option), 4th Gear Lamp, 4th Row SBR Center Indicator(Option), 4th Row SBR Left Indicator(Option), 4th Row SBR Right Indicator(Option), 5th Gear Lamp, 6th Gear Lamp, A/C Compressor Relay, A/C Compressor Test (ECV Type), AAF Control - Close, AAF Control - Open, AAF Forced Operation - Auto, AAF Forced Operation - Close, AAF Forced Operation - Open, AAF Relay, A-C Compressor Relay, Activation Switch LED, Actuator Control - Apply, Actuator Control - Release, AEWP Control - PWM Type, After Blower USM Set Off, After Blower USM Set On, All Door Lock Signal Output(to PTGM), All LEDs, All Mood Lamp Blue LED Test, All Mood Lamp Green LED Test, All Mood Lamp Red LED Test, All Mood Lamp White LED Test, Alternator Control, Alternator Test, Alt'L Signal Out, Assist BSD Indicator, Assist Door Courtesy Lamp Output, Assist Door Lock Indicator, Assist Mirror Position Down (Option), Assist Mirror Position Left (Option), Assist Mirror Position Right (Option), Assist Mirror Position Up (Option), Assist Outside Mirror Down, Assist Outside Mirror Left, Assist Outside Mirror Right, Assist Outside Mirror Up, Assist Power Window Down (Option), Assist Power Window Up (Option), Assist Seat Belt Indicator (Option), Assist Seat Belt Indicator, Assist Side Window Auto Down, Assist Side Window Auto Up, Assist Side Window Down, Assist Side Window Up, Assistant Side Outside Handle Antenna Output (Power and GND), ATM Solenoid, Auto Cut Relay, Auto Defog Mode Door - Close, Auto Defog Mode Door - Open, Auto Light Power, Auxiliary Fuel Injector for Flexible fuel, Auxiliary Fuel Pump for Flexible fuel, AV Tail, AVM + FrontLeft + FrontRight View, AVM + RearLeft + RearRight View, Back Up Lamp, Battery Cool EXV(Electric expansion valve), Battery Cool Valve(Evaporator), Battery Coolant Valve Operation Mode1

(Combined Mode) ON, Battery Coolant Valve Operation Mode1 (Separated Mode) ON, Battery EWP Operation Mode for Degassing and Circulation, Battery Warning Lamp, BCM Buzzer Output (Internal/External), BCM Buzzer Output (Internal-External), Bifunction Headlamp High LH Solenoid IPS Output, Bifunction Headlamp High RH Solenoid IPS Output, Bolster Left/Right Deflation, Bolster Left/Right Inflation, BSD Indicator, Burglar Horn Relay, Canister Purge Valve, Canister Shut Off Valve (OBD-2 Only), Canister Shut Off Valve Clocked(OBD-2 Only), Canister Shut Off Valve Toggling(OBD-2 Only), Canister Shut Off Valve(Leak Test), Canister Shut Off Valve(OBD-2 Only), CDA Control Solenoid Valve - EX, B1, CDA Control Solenoid Valve - EX, B2, CDA Control Solenoid Valve - IN, B1, CDA Control Solenoid Valve - IN, B2, Cell Balancing Deactivate, Central Door Lock Indicator, Central Door Lock Relay, Central Door Lock Switch Indicator Output, Central Door Unlock Relay, Chageover Valve, Changeover Valve, Charge Inlet Lock Relay, Charge Inlet Unock Relay, Charging Status LED (Green) On, Charging Status LED (Yellow) On, Child Lock Relay Output, Child Unlock Relay Output, Clamp Status ACC(Amber) LED Color illumination, Clamp Status IGN(Blue) LED Color illumination, Clamp Status Off(Red) LED Color illumination, Clutch Actuator Position Control, Clutch Actuator Voltage Control, CNG Bi-Fuel Fuel Change, CNG Shut sol valve in Fuel Tank, Compressor Off, Compressor On, Console Mode Door - Vent, Console Off Door, Console On Door, Console Temperature Air Mix Door 0%, Console Temperature Air Mix Door 100%, Console Temperature Air Mix Door 50%, Control Solenoid Valve (VFS) A, Coolant 3Way Valve, COOLANT VALVE - 3WAY (HTR) - Close, COOLANT VALVE - 3WAY (HTR) - Open, Cooler step 3 operation, Cooling Fan PWM, Cornering Lamp Left Relay Output (Option), Cornering Lamp LH Output, Cornering Lamp RH Output, Cornering Lamp Right Relay Output (Option), Courtesy Lamp RL Output, Courtesy Lamp RR Output, CPP(Canister Puge Pump) Control, Cruise Control Main Lamp(Auto CruiseType Only), Cruise Control Main Lamp(Option), Cruise Control Set Lamp(Auto Cruise Type Only), Cruise Control SET Lamp(Option), CVVD Intake, CVVT Exhaust, CVVT Intake, D Target Position, D\_DRL Relay, Damper Clutch Solenoid (DCC), Dead Lock Relay, Dedicated DRL Left Output, Dedicated DRL Output (Option), Dedicated DRL Right Output, Def Door - Close, Def Door - Open, Defogger - Deicer Relay, Defogger Indicator, DEHUM VALVE - EXV (DEHUMI) Valve Close, DEHUM VALVE - EXV (DEHUMI) Valve Open, Differential Pressure Valve, Disconnecter Disengage, Disconnecter Engage, Door Lock Indicator, Door Lock Relay, Door Unlock Relay, Drive Side Puddle Lamp, Driver Air Mix Door-0%, Driver Air Mix Door-100%, Driver Air Mix Door-50%, Driver Courtesy Lamp, Driver Door Courtesy Lamp Output, Driver Door Lock, Driver Door Unlock Relay (Option), Driver Door Unlock Relay, Driver Door Unlock, Driver Heater Control, Driver Mode Door-DEF, Driver Mode Door-DEF., Driver Mode Door-Floor, Driver Mode Door-Vent, Driver Rear Door Courtesy Light, Driver Seat Belt Indicator, Driver Seat Heat Mode to the High, Driver Seat Vent Mode to the High, Driver Side Outside Handle Antenna Output (Power and GND), Driver Side Repeater, DRL Relay(Canada), DRV/AST Power Window Enable Output, DRV-AST Power Window Enable Output, DRVM (Driving Rear View Monitor), EGR Valve, ELCM Change Over Value(COV) Control, ELCM Pump Control, Electric Oil Pump (for HEV), Electric Oil Pump, Electric Shuttle Valve-Left Front, Electric Shuttle Valve-Right Front, Electric water pump control., Electrically Controlled Water Pump (Option), Electrically Controlled Water Pump, Electronic Expansion Valve (Battery Chiller) - Close, Electronic Expansion Valve (Battery Chiller) - Open, Electronic Expansion Valve (Heat Pump) - Close, Electronic Expansion Valve (Heat Pump) - Open, Electronic Expansion Valve (Recever Drier) - Close, Electronic Expansion Valve (Recever Drier) - Open, Electronic Waste Gate Valve (Turbo Only), Electronically Controlled Water Pump(CWP), EMS Wakeup Output, Engine Check Lamp [MIL], Engine Check Lamp(MIL), Engine Clutch Control Solenoid (for HEV), Engine Coolant Filling Mode, EPB Apply RH and LH, EPB Release RH and LH, ESS control, ESS Lamp, ETC Motor, EV Charge Door Open Lamp Output, EV Charge Door Open Relay, EVAP Leak Test, EVAP Leakage Test, Event Indicate LED On-Off, EVP, EWP Max RPM Operation, Exhaust Flap(EF), Exhaust Gas Recirculation Valve, Exhaust Gas Recirculation, Exterior Tail Lamp Front Left Output, Exterior Tail Lamp Front Right Output, Exterior Tail Lamp Left(Front and Rear) Output, Exterior Tail Lamp Rear Left Output, Exterior Tail Lamp Rear Right Output, Exterior Tail Lamp Right(Front and Rear) Output, External Buzzer Output, Fan Motor Control-

High Speed, Fan Motor Control-Low Speed, FAN ON, Fan PWM, Fan1 1st, Fan1 2nd, Fan1 3rd, Fan1 4th, Fan1 5th, Fan1 6th, Fan1 7th, Fan1 8th, Fan1 9th, Fan1 Stop, Flasher Sound Relay(Optional), Flow Stop Valve, Folding Actuator Signal Output, Foot Lamp Output(Optional), FPCM pressure control, Front Air Flow Door - 0%, Front Air Flow Door - 100%, Front Air Flow Door - 50%, Front BLDC Blower Motor 0RPM, Front BLDC Blower Motor 1000RPM, Front BLDC Blower Motor 1500RPM, Front BLDC Blower Motor 2000RPM, Front BLDC Blower Motor 2500RPM, Front BLDC Blower Motor 500RPM, Front BLDC Blower Motor MAX RPM, Front Blower Fan Motor-1Step, Front Blower Fan Motor-2Step, Front Blower Fan Motor-3Step, Front Blower Fan Motor-4Step, Front Blower Fan Motor-5Step, Front Blower Fan Motor-6Step, Front Blower Fan Motor-7Step, Front Blower Fan Motor-8Step, Front Blower Fan Motor-Off, Front Bumper Antenna Output (Power and GND), Front Charge Door Lamp Output, Front Deicer Relay, Front Fog and Cornering Lamp Left Output, Front Fog and Cornering Lamp Right Output, Front Fog Lamp Indicator, Front Fog Lamp Left Output, Front Fog Lamp Output, Front Fog Lamp Relay, Front Fog Lamp Right Output, Front Glass Heated Relay Output, Front Glass Heated Switch Indicator Output, Front Indicate LED On-Off, Front Left Side Window Auto Down, Front Left Side Window Auto Up, Front Left Side Window Down, Front Left Side Window Up, Front Left Turn Signal Output, Front Right Side Window Auto Down, Front Right Side Window Auto Up, Front Right Side Window Down, Front Right Side Window Up, Front Right Turn Signal Output, Front Seat Heat Mode to the High, Front Seat Vent Mode to the High, Front Top-AVM View, Front Top-SVM View, Front Turn Signal Lamp Activation LH Output, Front Turn Signal Lamp Activation RH Output, Front Washer Motor Output, Front-AVM View, Front-Full View, Front-Left View, Front-Right View, Front-SVM View, Front-Wide View, Frunk Lamp Output, Fuel Door Lock Solenoid Output (PHEV Only), Fuel Door Open Solenoid Output (PHEV Only), Fuel Door Open Solenoid Output, Fuel Open Loop, Fuel Pressure Indicator Lamp(LPI), Fuel Pressure Indicator Lamp, Fuel Pressure Ragulator (GDI Only), Fuel Pressure Regulator (GDI Only), Fuel Pump Control(1st stage), Fuel Pump Control(2nd stage), Fuel Pump Control, Fuel Pump Relay Control for LPG, Fuel Pump Relay for LPG, Fuel Pump Relay(1st stage), Fuel Pump Relay(2nd stage), Fuel Pump Relay, Fuel Tank Isolation Valve Relay Open, Fuel Tank Isolation Valve, Gasoline Lamp (Bi-Fuel), Gauge ON, Glove Box Lamp Output, HAC Brake Lamp Actuator, Handle Fold - Left Side, Handle Fold - Right Side, Haptic Steering Wheel Motor Output, Haptic Steering Wheel Output, Hat Shelf Antenna Output (Power and GND), Hazard Indicator, Hazard Mode State for Turn Signal Lamp Sequential Mode, Hazard Relay, Head Lamp High Indicator, Head Lamp High Left Output, Head Lamp High Output, Head Lamp High Relay, Head Lamp High Right Output, Head Lamp Leveling Min(Low) Position, Head Lamp Low Indicator, Head Lamp Low Left Output, Head Lamp Low Output, Head Lamp Low Right Output, Head Lamp Low Signal, Head Lamp Washer Relay, Head Lamp Welcome Command, Heated Handle Indicator(Optional), Heated Handle Output(Optional), Heated Washer Nozzle Output, Heated Washer Nozzle Relay, Heater step 3 operation, HICM Activate Diagnostics, HICM Relay, High Mounted Stop Lamp Output, High Pressure Fuel Pump Control, High Pressure Fuel Pump Control2, High Voltage Battery Heater Relay ON, HLL(Head Lamp Leveling) Max(High) Position, HLL(Head Lamp Leveling) Middle(Center) Position, HLL(Head Lamp Leveling) Min(Low) Position, HMI Mirror Alert Left LED Blinking, HMI Mirror Alert Left LED ON, HMI Mirror Alert Right LED Blinking, HMI Mirror Alert Right LED ON, HMI Switch LED, Horn Relay(NA), Horn Relay, HV PTC OFF, HV PTC ON(Min.), Idle Speed Actuator, Ignition 3 Relay, Ignition Coil 1, Ignition Coil 2, Ignition Coil 3, Ignition Coil 4, Ignition Coil Enable-Disable-#1, Ignition Coil Enable-Disable-#2, Ignition Coil Enable-Disable-#3, Ignition Coil Enable-Disable-#4, Ignition Coil Enable-Disable-#5, Ignition Coil Enable-Disable-#6, Ignition Coil Enable-Disable-#7, Ignition Coil Enable-Disable-#8, Illumination, iMEB Valve Control-Line Split Valve, iMEB Valve Control-MCV(#2), iMEB Valve Control-MCV(#5), iMEB Valve Control-MCV(#6), iMEB Valve Control-Pedal Simulator Valve, iMEB Valve Control-Release Control Valve, iMEB Valve Control-Wheel Split Valve, Immobilizer Lamp(Optional), Indicator ALL OFF, Indicator ALL ON, Indicator Output 100%, Indicator Output 25%, Indirect Vent door, Injector Disable-Cylinder 1, Injector Disable-Cylinder 2, Injector Disable-Cylinder 3, Injector Disable-Cylinder 4, Injector Disable-Cylinder 5, Injector Disable-Cylinder 6,

Injector Disable-Cylinder 7, Injector Disable-Cylinder 8, Injector(DI) Disable-Cylinder 1, Injector(DI) Disable-Cylinder 2, Injector(DI) Disable-Cylinder 3, Injector(DI) Disable-Cylinder 4, Injector(MPI) Disable-Cylinder 1, Injector(MPI) Disable-Cylinder 2, Injector(MPI) Disable-Cylinder 3, Injector(MPI) Disable-Cylinder 4, Inlet Valve-Front Left Control, Inlet Valve-Front Right Control, Inlet Valve-Left Front, Inlet Valve-Left Rear, Inlet Valve-Rear Left Control, Inlet Valve-Rear Right Control, Inlet Valve-Right Front, Inlet Valve-Right Rear, Intake Door - Fresh, Intake Door - Recirc, Interior Antenna #1 Output (Power and GND), Interior Antenna #2 Output (Power and GND), Interior Antenna #3 (Trunk Antenna : Sedan Type) Output (Power, Interior Lamp Autocut Relay Output(Optional), Interior Mood Lamp Output (Option), Interior Mood Lamp Output, Internal Buzzer, IOD Relay, ISG Lamp, ISG Test(Optional), Isolation Detection Circuit Deactivate, ITM Valve, Key Hole Illumination (Manual Key Type), Key Interlock Solenoid(Manual Key Type), Lamp Control - EPB Status Lamp, Lamp Control - EPB Warning Lamp, Lamp Control, Lamp Load Power Relay, LampLoad AutoCut IPS Output, LongTermLoad Cut Relay Output, LPG Cut Valve for Fuel Rail, LPG Cut Valve for Fuel Tank, LPG Fuel Pump PWM, LPG Lamp, Luggage Lamp Relay, Luggage Lamp, Lumbar Deflation, Lumbar Inflation, Lumbar Middle/Lower Inflation, Upper Deflation, Lumbar Upper/Middle Inflation, Lower Deflation, Main Relay (+) ON, Main Relay(-) ON, Main Relay(-)(+), Precharge Relay OFF simultaneous, Main Relay(-), Precharge Relay, Simultaneously ON (Precharge se, Main Relay, Maintenance mode - EPB/MOC disengaging, Manual HLLD Signal Output, Map Lamp Output, Mirror Folding Operation (Option), Mirror LED Left, Mirror LED Right, Mirror Select Left indicator, Mirror Select Right indicator, Mirror Unfolding Operation (Option), Mood Lamp 1 Output, Mood Lamp 2 Output, Mood Lamp 3 Output, Mood Lamp Output, Motor, Move ASSIST OUTSIDE MIRROR to the highest Position, Move ASSIST OUTSIDE MIRROR to the lowest Position, Move ASSIST OUTSIDE MIRROR to the most left Position, Move ASSIST OUTSIDE MIRROR to the most right Position, Move Assist Outside Mirror To The Highest Position, Move Assist Outside Mirror To The Lowest Position, Move Assist Outside Mirror To The Most Left Position, Move Assist Outside Mirror To The Most Right Position, Move DRIVE OUTSIDE MIRROR to the highest position, Move DRIVE OUTSIDE MIRROR to the lowest position, Move DRIVE OUTSIDE MIRROR to the most left position, Move DRIVE OUTSIDE MIRROR to the most right position, Move P/Seat to the Foremost Position (Headrest), Move P/Seat to the Foremost Position (Height), Move P/Seat to the Foremost Position (Recline), Move P/SEAT to the Foremost Position(Cushion Extension), Move P/Seat To The Foremost Position(Recline), Move P/Seat To The Foremost Position(Slide), Move P/Seat To The Highest Position(FR Height), Move P/SEAT to the Highest Position(Head Rest), Move P/Seat To The Highest Position(RR Height), Move P/Seat to the Last Position (Tilt), Move P/SEAT to the Last Position(Cushion Extension), Move P/Seat To The Last Position(Recline), Move P/Seat To The Last Position(SILDE), Move P/Seat To The Lowest Position(FR Height), Move P/SEAT to the Lowest Position(Head Rest), Move P/Seat To The Lowest Position(RR 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 Foremost Position (Recline), Move P-Seat to the Foremost Position (Shoulder), Move P-Seat To The Foremost Position (Slide), Move P-Seat to the Highest Position (FR Height), Move P-Seat to the Highest Position (Headrest), Move P-Seat to the Highest Position (RR Height), Move P-Seat to the Last Position (Cushion Extension), Move P-Seat to the Last Position (HeadRest Slide), Move P-Seat to the Last Position (Recline), Move P-Seat to the Last Position (Shoulder), Move P-Seat To The Last Position (Slide), Move P-Seat to the Lowest Position (FR Height), Move P-Seat to the Lowest Position (Headrest), Move P-Seat to the Lowest Position (RR Height), Move Steering Column At The Longest Position (Tele), Move Steering Column To The Lowest Position (Tilt), Multimedia Load Power Relay, N Target Position, Navi Wakeup Signal Output, Norminal Idle Speed Offset, O2 Heater Front (B1-S1), O2 Heater Front (B2-S1), O2 Heater Front, O2 Heater Rear (B1-S2), O2 Heater Rear (B2-S2), O2 Heater Rear, OBC Relay(-) ON, OBC Relay(+) ON, OBC Relay(+)/(-) ON Simultaneous, OBC Wake up Output, Oil Change Warning Lamp(Optional), Oil Change Warning Lamp, Oil Control Valve - Exhaust Bank 1(Optional), Oil Control Valve - Exhaust Bank 1, Oil Control Valve - Exhaust Bank2, Oil Control Valve - Intake Bank 1, Oil Control Valve - Intake Bank1, Oil Control Valve -

Intake Bank2, Oil Pressure Warning Lamp, On/Off Solenoid A (SS-A), Openbed Box Lamp Output, Openbed Cargo Lamp Output, Openbed Lamp Switch Indicator Output, Operate Assist Side Fold, Operate Assist Side Unfold, Operate DRIVE SIDE FOLD, Operate DRIVE SIDE UNFOLD, Operate DRIVE SIDE WINDOW AUTO DOWN, Operate DRIVE SIDE WINDOW AUTO UP, Operate DRIVE SIDE WINDOW DOWN, Operate DRIVE SIDE WINDOW UP, Outlet Valve-Front Left Control, Outlet Valve-Front Right Control, Outlet Valve-Left Front, Outlet Valve-Left Rear, Outlet Valve-Rear Left Control, Outlet Valve-Rear Right Control, Outlet Valve-Right Front, Outlet Valve-Right Rear, Over speed indicator(Optional), Over Speed Warning Indicator, P Target Position, Parasitic Current Auto-Block IPS, Parking Brake Indicator, PAS Buzzer Output (RPAS Buzzer Output), PAS Indicator (RPAS Off Indicator), Passenger Air Mix Door-0%, Passenger Air Mix Door-100%, Passenger Air Mix Door-50%, Passenger Mode Door - Defog, Passenger Mode Door - Floor, Passenger Mode Door - Vent, Passenger Seat Heat Mode to the High, Passenger Seat Vent Mode to the High, Perform CPU (Video Recording and Display Output) On-Off, Perform Erase All Video File, Perform Event Recording, Pocket Light Output (Option), Pocket Light Output(Optional), Power Supply to the ACC Relay of Main MCU, Power Supply to the IGN1 Relay of Main MCU, Power Supply to the IGN1/IGN2 Relay of Main MCU, Power Supply to the IGN1/STARTER Relay of Main MCU, Power Supply to the IGN1-IGN2 Relay of Main MCU, Power Supply to the IGN1-STARTER Relay of Main MCU, Power Window Relay, Precharge Relay ON, Precharge Relay ON, Main Relay (-), (+) ON (Normal sequence), Pressure Control Solenoid (LP), Pressure Control Solenoid Valve A(Line Pressure), Pressure Control Solenoid Valve(VFS) 'A', PSB Retraction Test for Equipment RH, Puddle Lamp Output, Puddle Pocket Lamp Output, Quick Charge Relay (+),(-), Main Relay (-), (+) ON (Normal Char, Quick Charger Relay(-) ON, Quick Charger Relay(-)(+) ON simultaneous, Quick Charger Relay(+) ON, R Target Position, Radiator Cooling Fan PWM, Radiator Fan Forced Operation, Radiator shutter 1 - Auto test, Radiator shutter 1 - Close test, Radiator shutter 1 - Open test, Read VIN, Rear Air Flow Door - 0%, Rear Air Flow Door - 100%, Rear Air Flow Door - 50%, Rear Air Mix Door-0%, Rear Air Mix Door-100%, Rear Air Mix Door-50%, Rear Air Mix(A) Door-0%, Rear Air Mix(A) Door-100%, Rear Air Mix(A) Door-50%, Rear Assist Power Window Down Relay, Rear Assist Power Window Up Relay, Rear Assist Side Door Curtain Down(Only Windows Close Status), Rear Assist Side Door Curtain Up(Only Windows Close Status), Rear Assist Side Window Auto Up, Rear Assist Window Auto Down, Rear Assist Window Down, Rear Blower Fan Motor-1Step, Rear Blower Fan Motor-2Step, Rear Blower Fan Motor-3Step, Rear Blower Fan Motor-4Step, Rear Blower Fan Motor-5Step, Rear Blower Fan Motor-6Step, Rear Blower Fan Motor-7Step, Rear Blower Fan Motor-8Step, Rear Blower Fan Motor-Off, Rear Bumper Antenna Output (Power and GND), Rear Charge Door Lamp Output, Rear Curtain Down Output [Rear Curtain Hall Sensor Power Output, Rear Curtain Down Output, Rear Curtain Up Output [Rear Curtain Hall Sensor Power Output(O, Rear Curtain Up Output, Rear Defogger Relay, Rear Driver B-PILLAR Door - 0%, Rear Driver B-PILLAR Door - 100%, Rear Driver Power Window Down Relay, Rear Driver Power Window Up Relay, Rear Driver Side Door Curtain Down(Only Windows Close Status), Rear Driver Side Door Curtain Up(Only Windows Close Status), Rear Driver Side Window Auto Up, Rear Driver Window Auto Down, Rear Driver Window Down, Rear Driver Window Up, Rear Fog Lamp (Option), Rear Fog Lamp Indicator, Rear Fog Lamp Left Output, Rear Fog Lamp Relay (Option), Rear Fog Lamp Right Output, Rear illumination, Rear Left Door Lock Indicator Output, Rear Left Power Window Down (Option), Rear Left Power Window Up (Option), Rear Left Side Courtesy Lamp, Rear Left Side Door Curtain Down (Only Windows Close Status), Rear Left Side Door Curtain Up (Only Windows Close Status), Rear Left Side Window Auto Down (Option:Curtain Bottom Status), Rear Left Side Window Auto Up (Option:Curtain Bottom Status), Rear Left Side Window Down (Option:Curtain Bottom Status), Rear Left Side Window Up (Option:Curtain Bottom Status), Rear Left Turn Signal Output, Rear LH Seat Heat Mode to the High, Rear LH Seat Vent Mode to the High, Rear mode door - B-L, Rear mode door - Floor, Rear mode door - Vent, Rear Mood Lamp (Both Left and Right), Rear Mood Lamp(Both Left and Right), Rear Passenger B-PILLAR Door - 0%, Rear Passenger B-PILLAR Door - 100%, Rear Pocket Lamp (Both Left and Right), Rear Pocket Lamp(Both Left and Right), Rear Power Window Enable Output

(Option), Rear Power Window LH Up Relay, Rear RH Seat Heat Mode to the High, Rear RH Seat Vent Mode to the High, Rear Right Door Curtain Down (Only Rear Right Power window Clos, Rear Right Door Lock Indicator Output, Rear Right Power Window Down (Option), Rear Right Power Window Up (Option), Rear Right Side Courtesy Lamp, Rear Right Side Door Curtain Down (Only Windows Close Status), Rear Right Side Door Curtain Up (Only Windows Close Status), Rear Right Side Window Auto Down (Option:Curtain Bottom Status), Rear Right Side Window Auto Up (Option:Curtain Bottom Status), Rear Right Side Window Down (Option:Curtain Bottom Status), Rear Right Side Window Up (Option:Curtain Bottom Status), Rear Right Turn Signal Output, Rear Room Lamp Output, Rear SBR Symbol Indicator Output(Option), Rear Seat Belt Center Indicator (Option), Rear Seat Belt Left Indicator (Option), Rear Seat Belt Right Indicator (Option), Rear Seat Heat Mode to the High, Rear Seat Vent Mode to the High, Rear Seat Warmer Left(Option), Rear Seat Warmer Right(Option), Rear Temp Cool Door - 0%, Rear Temp Cool Door - 100%, Rear Temp Cool Door - 50%, Rear Temp Warm Door - 0%, Rear Temp Warm Door - 100%, Rear Temp Warm Door - 50%, Rear Top-AVM View, Rear Top-SVM View, Rear View Switch Indicator Output, Rear Washer Motor Output, Rear Wiper Relay (Option), Rear Wiper Relay, Rear-AVM View, Rear-Left View, Rear-Right View, Rear-SVM View, Rear-Wide View, Refrigerant 2Way Valve - #1 OFF, Refrigerant 2Way Valve - #1 ON, Refrigerant 2Way Valve - #2 OFF, Refrigerant 2Way Valve - #2 ON, Refrigerant 3Way Valve - #1 OFF, Refrigerant 3Way Valve - #1 ON, Refrigerant 3Way Valve - #2 OFF, Refrigerant 3Way Valve - #2 ON, RKE Tailgate Signal Output(to PTGM), RL Door Lock Relay, RL Door Unlock Relay, Room Lamp Output, RPAS Switch Indicator(Option), RVM Swich Indicator Output, Safety ECU Enable Output (High), Safety Power Window Enable, Safety Power Window Sunroof Enable, SAHLS Actuator 20%, SAHLS Actuator 80%, SBL Function Test SBL LH ON, Security LED Output, Security LED, Selection Injector Group(A) of Engine Idle state for Dual Injec, Shift Control Solenoid Valve (28/B), Shift Control Solenoid Valve (37R/C), Shift Control Solenoid Valve (46/C), Shift Control Solenoid Valve (OD and LR), Shift Control Solenoid Valve (UD/C), Shift Control Solenoid Valve A(UD/B), Shift Control Solenoid Valve A(UD/C), Shift Control Solenoid Valve A(UD-B), Shift Control Solenoid Valve B(2-6/B), Shift Control Solenoid Valve B(2-6-B), Shift Control Solenoid Valve C(35R/C), Shift Control Solenoid Valve C(35R-C), Shift Control Solenoid Valve D(OD/C), Shift Control Solenoid Valve D(OD-C), Shift Control Solenoid Valve E(SS-A), ShortTermLoad Cut Relay/IPS Output, ShortTermLoad Cut Relay-IPS Output, Solenoid Thermal Expansion Valve - Close, Solenoid Thermal Expansion Valve - Open, SSB illumination Output (Power and GND), Start Inhibit Relay (Option), Start Inhibit Relay, Start Relay, Static Bending LH Output (Option), Static Bending RH Output (Option), Steering Warmer Output, Steering Warmer Switch Indicator Output, Stop Lamp Left, Stop Lamp Left/Right/HMSL Output (Option), Stop Lamp Left-Right-HMSL Output (Option), Stop Lamp Right, Stop Lamp, Storage Bos Lid Release Relay Output, Sunroof Enable Output, Sunroof Power Relay control(Option), SVM + DRVM(Driving Rear View Monitor), SVM + FrontLeft + FrontRight View, SVM + RearLeft + RearRight View, System Identification, Tail Interior Lamp, Tail Lamp Indicator, Tail Lamp Output, Tail Lamp Relay, Tailgate/Trunk Release Relay, Tailgate-Trunk Release Relay, TCI Bypass Valve (Turbo Only), TCI Bypass Valve(Turbo Only), TCS Valve-Left Front, TCS Valve-Right Front, Torque Converter Clutch Solenoid Valve, Turbo dump(ReCirculation) Valve (RCV), Turbo waste gate(WGT) valve, Turn LH Output, Turn RH Output, Turn Signal Lamp Front Left Output, Turn Signal Lamp Front Right Output, Turn Signal Lamp Rear Left Output, Turn Signal Lamp Rear Right Output, Turn Signal Sound Output, Turn Signal Sound Relay Output, Vacuum Pump (ELCM), Variable Exhaust Flap, Variable Force Solinoid Valve - Exhaust Bank1 test, Variable Force Solinoid Valve - Intake Bank1 test, Variable Intake Manifold 1 (Option), Variable Intake Solenoid(Option), Variable Oil Pump Solenoid, VCM Motor (Option), VCM Motor(Option), VESS Sound Play (5 Sec), VESS Sound Play (Until Stop Command), VVL Control Solenoid Valve - EX, B1, VVL Control Solenoid Valve - EX, B2, VVL Control Solenoid Valve - IN, B1, VVL Control Solenoid Valve - IN, B2, Warm Bypass door, Waste Gate Valve (Turbo Only), Window Lock Indicator, Window Lock to Driver Door Module, Wiper High-Speed Relay [Wiper High RLY With

Wiper Power RLY], Wiper Low-Speed Relay [Wiper Low RLY With Wiper Power RLY], Wiper Power Relay, Wiper Relay (for INT)[Wiper RLY With Wiper Power RLY]

## **Kia Coverage**

- Added coverage for 435 new system applications

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

12V Battery SOC Calibration, ACU Variant Coding, Adaptive Value Backup Input (ECU Transfer Assy replacement at once), Adaptive Value BackUp Input (ECU replacement), Air Bleeding Mode, Assembly Check(ECU Replacement), Auto Detected Configuration (ESC Only), Auto Detected Configuration Reset, Body Sensor Reset, Brake Pad Change Mode, CLU Variant Coding, Clutch Learning Reset, ESC Variant Coding, HCU Air Bleeding Mode, iMEB Actuator Initialization, Longitudinal G Sensor Calibration(HAC/DBC Only), Multiplicative Injection Time Correction for All Cylinders, Multiplicative Injection Time Correction for Cylinder1, Multiplicative Injection Time Correction for Cylinder2, Multiplicative Injection Time Correction for Cylinder3, Multiplicative Injection Time Correction for Cylinder4, Multiplicative Injection Time Correction for Group(B) All Cylin, Multiplicative Injection Time Correction for Group(B) Cylinder2, Multiplicative Injection Time Correction for Group(B) Cylinder3, Pedal Travel Sensor (PTS) Calibration, Pressure Sensor Calibration, Purge Solenoid Valve Opening Additive Correction, Reset Adaptive Values, Reset of Injector Q-stat Adaptation, Resetting Adaptive Values, Resetting Auto Trans Adaptive Values, Resetting E-CVVT Values, SAHLS Sensor Origin Point Setting, Seat Limit Position Setting, TPMS Reception Rate Measuring Mode, TPMS Test, WCT Reprogram, Write VIN

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

(LED) DRL Lamp LH, (LED) DRL Lamp RH, 12V Latch Relay OFF, 12V Latch Relay ON, 1st Gear Lamp, 2nd Gear Lamp, 3D View, 3rd Gear Lamp, 3rd Row Center SBR Center Indicator, 3rd Row SBR Center Indicator(Optional), 3rd Row SBR Left Indicator(Optional), 3rd Row SBR Right Indicator(Optional), 4th Gear Lamp, 4th Row SBR Center Indicator(Optional), 4th Row SBR Left Indicator(Optional), 4th Row SBR Right Indicator(Optional), 5th Gear Lamp, 6th Gear Lamp, A/C Compressor Relay, A/C Compressor Test (ECV Type), AAF Control - Close, AAF Control - Open, AAF Forced Operation - Auto, AAF Forced Operation - Close, AAF Forced Operation - Open, AAF Relay, A-C Compressor Relay, Activation Switch LED, Actuator Control - Apply, Actuator Control - Release, AEWP Control - PWM Type, After Blower USM Set Off, After Blower USM Set On, All Door Lock Signal Output(to PTGM), All LEDs, All Mood Lamp Blue LED Test, All Mood Lamp Green LED Test, All Mood Lamp Red LED Test, All Mood Lamp White LED Test, Alternator Control, Alternator Test, Alt'L Signal Out, Assist BSD Indicator, Assist Door Courtesy Lamp Output, Assist Door Lock Indicator, Assist Mirror Position Down (Option), Assist Mirror Position Left (Option), Assist Mirror Position Right (Option), Assist Mirror Position Up (Option), Assist Outside Mirror Down, Assist Outside Mirror Left, Assist Outside Mirror Right, Assist Outside Mirror Up, Assist Power Window Down (Option), Assist Power Window Up (Option), Assist Seat Belt Indicator (Option), Assist Seat Belt Indicator, Assist Side Window Auto Down, Assist Side Window Auto Up, Assist Side Window Down, Assist Side Window Up, Assistant Side Outside Handle Antenna Output (Power and GND), ATM Solenoid, Auto Cut Relay, Auto Defog Mode Door - Close, Auto Defog Mode Door - Open, Auto Light Power, AV Tail, AVM + FrontLeft + FrontRight View, AVM + RearLeft + RearRight View, Back Up Lamp, Battery Coolant Valve Operation Mode1 (Combined Mode) ON, Battery Coolant Valve Operation Mode1 (Seperated Mode) ON, Battery EWP Operation Mode for Degassing and Circulation, Battery Warning Lamp, BCM Buzzer Output (Internal/External), BCM Buzzer Output (Internal-External), Bifunction Headlamp High LH Solenoid IPS Output, Bifunction Headlamp High RH Solenoid IPS Output, BSD Indicator, Burglar Horn Relay, Canister Purge Valve, Canister Shut Off Valve (OBD-2 Only), Canister

Shut Off Valve Clocked(OBD-2 Only), Canister Shut Off Valve Toggling(OBD-2 Only), Canister Shut Off Valve(Leak Test), Canister Shut Off Valve(OBD-2 Only), CDA Control Solenoid Valve - EX, B1, CDA Control Solenoid Valve - EX, B2, CDA Control Solenoid Valve - IN, B1, CDA Control Solenoid Valve - IN, B2, Cell Balancing Deactivate, Central Door Lock Indicator, Central Door Lock Relay, Central Door Lock Switch Indicator Output, Central Door Unlock Relay, Charge Inlet Lock Relay, Charge Inlet Unock Relay, Charging Status LED (Green) On, Charging Status LED (Yellow) On, Child Lock Relay Output, Child Unlock Relay Output, Clamp Status ACC(Amber) LED Color illumination, Clamp Status IGN(Blue) LED Color illumination, Clamp Status Off(Red) LED Color illumination, CNG Bi-Fuel Fuel Change, CNG Shut sol valve in Fuel Tank, Compressor Off, Compressor On, Console Mode Door - Vent, Console Off Door, Console On Door, Console Temperature Air Mix Door 0%, Console Temperature Air Mix Door 100%, Console Temperature Air Mix Door 50%, Control Solenoid Valve (VFS) A, Coolant 3Way Valve, COOLANT VALVE - 3WAY (HTR) - Close, COOLANT VALVE - 3WAY (HTR) - Open, Cooler step 3 operation, Cooling Fan PWM, Cornering Lamp Left Relay Output (Option), Cornering Lamp LH Output, Cornering Lamp RH Output, Cornering Lamp Right Relay Output (Option), Courtesy Lamp RL Output, Courtesy Lamp RR Output, CPP(Canister Puge Pump) Control, Cruise Control Main Lamp(Auto CruiseType Only), Cruise Control Main Lamp(Optional), Cruise Control Set Lamp(Auto Cruise Type Only), Cruise Control SET Lamp(Optional), CVVD Intake, CVVT Exhaust, CVVT Intake, D Target Position, D\_DRL Relay, Dead Lock Relay, Dedicated DRL Left Output, Dedicated DRL Output (Option), Dedicated DRL Right Output, Def Door - Close, Def Door - Open, Defogger - Deicer Relay, Defogger Indicator, DEHUM VALVE - EXV (DEHUMI) Valve Close, DEHUM VALVE - EXV (DEHUMI) Valve Open, Differential Pressure Valve, Disconnecter Disengage, Disconnecter Engage, Door Lock Indicator, Door Lock Relay, Door Unlock Relay, Drive Side Puddle Lamp, Driver Air Mix Door-0%, Driver Air Mix Door-100%, Driver Air Mix Door-50%, Driver Courtesy Lamp, Driver Door Courtesy Lamp Output, Driver Door Lock, Driver Door Unlock Relay (Option), Driver Door Unlock Relay, Driver Door Unlock, Driver Heater Control, Driver Mode Door-DEF, Driver Mode Door-DEF., Driver Mode Door-Floor, Driver Mode Door-Vent, Driver Seat Belt Indicator, Driver Seat Heat Mode to the High, Driver Seat Vent Mode to the High, Driver Side Outside Handle Antenna Output (Power and GND), Driver Side Repeater, DRL Relay(Canada), DRV/AST Power Window Enable Output, DRV-AST Power Window Enable Output, DRVM (Driving Rear View Monitor), EGR Valve, ELCM Change Over Value(COV) Control, ELCM Pump Control, Electric Oil Pump (for HEV), Electric Oil Pump, Electric Shuttle Valve-Left Front, Electric Shuttle Valve-Right Front, Electric water pump control., Electrically Controlled Water Pump (Option), Electronic Expansion Valve (Battery Chiller) - Close, Electronic Expansion Valve (Battery Chiller) - Open, Electronic Expansion Valve (Heat Pump) - Close, Electronic Expansion Valve (Heat Pump) - Open, Electronic Expansion Valve (Recever Drier) - Close, Electronic Expansion Valve (Recever Drier) - Open, Electronic Waste Gate Valve (Turbo Only), EMS Wakeup Output, Engine Check Lamp [MIL], Engine Check Lamp(MIL), Engine Clutch Control Solenoid (for HEV), Engine Coolant Filling Mode, EPB Apply RH and LH, EPB Release RH and LH, ESS Lamp, ETC Motor, EV Charge Door Open Lamp Output, EV Charge Door Open Relay, EVAP Leakage Test, EVP, EWP Max RPM Operation, Exhaust Gas Recirculation Valve, Exhaust Gas Recirculation, Exterior Tail Lamp Front Left Output, Exterior Tail Lamp Front Right Output, Exterior Tail Lamp Left(Front and Rear) Output, Exterior Tail Lamp Rear Left Output, Exterior Tail Lamp Rear Right Output, Exterior Tail Lamp Right(Front and Rear) Output, External Buzzer Output, Fan Motor Control-High Speed, Fan Motor Control-Low Speed, FAN ON, Fan PWM, Fan1 1st, Fan1 2nd, Fan1 3rd, Fan1 4th, Fan1 5th, Fan1 6th, Fan1 7th, Fan1 8th, Fan1 9th, Fan1 Stop, Flasher Sound Relay(Optional), Flow Stop Valve, Folding Actuator Signal Output, Foot Lamp Output(Optional), FPCM pressure control, Front Air Flow Door - 0%, Front Air Flow Door - 100%, Front Air Flow Door - 50%, Front BLDC Blower Motor 0RPM, Front BLDC Blower Motor 1000RPM, Front BLDC Blower Motor 2000RPM, Front BLDC Blower Motor 2500RPM, Front BLDC Blower Motor 500RPM, Front BLDC Blower Motor MAX RPM, Front Blower Fan Motor-1Step, Front Blower Fan Motor-2Step, Front Blower Fan Motor-3Step, Front Blower Fan Motor-4Step, Front Blower Fan Motor-5Step, Front Blower Fan Motor-6Step, Front Blower Fan Motor-7Step, Front

Blower Fan Motor-8Step, Front Blower Fan Motor-Off, Front Bumper Antenna Output (Power and GND), Front Charge Door Lamp Output, Front Deicer Relay, Front Fog and Cornering Lamp Left Output, Front Fog and Cornering Lamp Right Output, Front Fog Lamp Indicator, Front Fog Lamp Left Output, Front Fog Lamp Output, Front Fog Lamp Relay, Front Fog Lamp Right Output, Front Glass Heated Relay Output, Front Glass Heated Switch Indicator Output, Front Left Side Window Auto Down, Front Left Side Window Auto Up, Front Left Side Window Down, Front Left Side Window Up, Front Left Turn Signal Output, Front Right Side Window Auto Down, Front Right Side Window Auto Up, Front Right Side Window Down, Front Right Side Window Up, Front Right Turn Signal Output, Front Seat Heat Mode to the High, Front Seat Vent Mode to the High, Front Top-AVM View, Front Top-SVM View, Front Turn Signal Lamp Activation LH Output, Front Turn Signal Lamp Activation RH Output, Front Washer Motor Output, Front-Full View, Front-Left View, Front-Right View, Front-SVM View, Front-Wide View, Front-Lamp Output, Fuel Door Lock Solenoid Output (PHEV Only), Fuel Door Open Solenoid Output (PHEV Only), Fuel Door Open Solenoid Output, Fuel Open Loop, Fuel Pressure Indicator Lamp(LPI), Fuel Pressure Indicator Lamp, Fuel Pressure Regulator (GDI Only), Fuel Pressure Regulator (GDI Only), Fuel Pump Control(1st stage), Fuel Pump Control(2nd stage), Fuel Pump Control, Fuel Pump Relay Control for LPG, Fuel Pump Relay for LPG, Fuel Pump Relay(1st stage), Fuel Pump Relay(2nd stage), Fuel Pump Relay, Fuel Tank Isolation Valve Relay Open, Fuel Tank Isolation Valve, Gasoline Lamp (Bi-Fuel), Gauge ON, Glove Box Lamp Output, HAC Brake Lamp Actuator, Handle Fold - Left Side, Handle Fold - Right Side, Haptic Steering Wheel Motor Output, Haptic Steering Wheel Output, Hat Shelf Antenna Output (Power and GND), Hazard Indicator, Hazard Mode State for Turn Signal Lamp Sequential Mode, Hazard Relay, Head Lamp High Indicator, Head Lamp High Left Output, Head Lamp High Output, Head Lamp High Relay, Head Lamp High Right Output, Head Lamp Leveling Min(Low) Position, Head Lamp Low Indicator, Head Lamp Low Left Output, Head Lamp Low Output, Head Lamp Low Right Output, Head Lamp Low Signal, Head Lamp Washer Relay, Head Lamp Welcome Command, Heated Handle Indicator(Optional), Heated Handle Output(Optional), Heated Washer Nozzle Output, Heated Washer Nozzle Relay, Heater step 3 operation, HICM Activate Diagnostics, HICM Relay, High Mounted Stop Lamp Output, High Pressure Fuel Pump Control, High Pressure Fuel Pump Control2, HLL(Head Lamp Leveling) Max(High) Position, HLL(Head Lamp Leveling) Middle(Center) Position, HLL(Head Lamp Leveling) Min(Low) Position, Horn Relay(NA), Horn Relay, HV PTC OFF, HV PTC ON(Min.), Idle Speed Actuator, Ignition 3 Relay, Ignition Coil 1, Ignition Coil 2, Ignition Coil 3, Ignition Coil 4, Ignition Coil Enable-Disable-#1, Ignition Coil Enable-Disable-#2, Ignition Coil Enable-Disable-#3, Ignition Coil Enable-Disable-#4, Ignition Coil Enable-Disable-#5, Ignition Coil Enable-Disable-#6, Ignition Coil Enable-Disable-#7, Ignition Coil Enable-Disable-#8, Illumination, iMEB Valve Control-Line Split Valve, iMEB Valve Control-MCV(#2), iMEB Valve Control-MCV(#5), iMEB Valve Control-MCV(#6), iMEB Valve Control-Pedal Simulator Valve, iMEB Valve Control-Release Control Valve, iMEB Valve Control-Wheel Split Valve, Immobilizer Lamp(Optional), Indicator ALL OFF, Indicator ALL ON, Indirect Vent door, Injector Disable-Cylinder 1, Injector Disable-Cylinder 2, Injector Disable-Cylinder 3, Injector Disable-Cylinder 4, Injector Disable-Cylinder 5, Injector Disable-Cylinder 6, Injector Disable-Cylinder 7, Injector Disable-Cylinder 8, Inlet Valve-Front Left Control, Inlet Valve-Front Right Control, Inlet Valve-Left Front, Inlet Valve-Left Rear, Inlet Valve-Rear Left Control, Inlet Valve-Rear Right Control, Inlet Valve-Right Front, Inlet Valve-Right Rear, In-Line mode - Apply-Release, Intake Door - Fresh, Intake Door - Recirc, Interior Antenna #1 Output (Power and GND), Interior Antenna #2 Output (Power and GND), Interior Antenna #3 (Trunk Antenna : Sedan Type) Output (Power, Interior Lamp Autocut Relay Output(Optional), Interior Mood Lamp Output (Option), Internal Buzzer, IOD Relay, ISG Lamp, ISG Test(Optional), Isolation Detection Circuit Deactivate, ITM Valve, Key Hole Illumination (Manual Key Type), Key Interlock Solenoid(Manual Key Type), Lamp Control - EPB Status Lamp, Lamp Control - EPB Warning Lamp, Lamp Control, Lamp Load Power Relay, LampLoad AutoCut IPS Output, LongTermLoad Cut Relay Output, LPG Cut Valve for Fuel Rail, LPG Cut Valve for Fuel Tank, LPG Fuel Pump PWM, LPG Lamp, Luggage Lamp Relay, Luggage Lamp, Main Relay (+) ON, Main Relay(-) ON, Main Relay(-)(+), Precharge Relay OFF

simultaneous, Main Relay(-), Precharge Relay, Simultaneously ON (Precharge se, Main Relay, Maintenance mode - EPB/MOC disengaging, Maintenance Mode - EPB-MOC Disengaging, Maintenance Mode - EPB-MOC Engaging, Manual HLLD Signal Output, Map Lamp Output, Mirror Folding Operation (Option), Mirror LED Left, Mirror LED Right, Mirror Select Left indicator, Mirror Select Right indicator, Mirror Unfolding Operation (Option), Mood Lamp 1 Output, Mood Lamp 2 Output, Mood Lamp 3 Output, Mood Lamp Output, Motor, Move Assist Outside Mirror To The Highest Position, Move Assist Outside Mirror To The Lowest Position, Move Assist Outside Mirror To The Most Left Position, Move Assist Outside Mirror To The Most Right Position, Move DRIVE OUTSIDE MIRROR to the highest position, Move DRIVE OUTSIDE MIRROR to the lowest position, Move DRIVE OUTSIDE MIRROR to the most left position, Move DRIVE OUTSIDE MIRROR to the most right position, Move P/Seat to the Foremost Position (Height), Move P/Seat to the Foremost Position (Recline), Move P/SEAT to the Foremost Position(Cushion Extension), Move P/Seat To The Foremost Position(Recline), Move P/Seat To The Foremost Position(Slide), Move P/Seat To The Highest Position(FR Height), Move P/SEAT to the Highest Position(Head Rest), Move P/Seat To The Highest Position(RR Height), Move P/Seat to the Last Position (Tilt), Move P/SEAT to the Last Position(Cushion Extension), Move P/Seat To The Last Position(Recline), Move P/Seat To The Last Position(SILDE), Move P/Seat To The Lowest Position(FR Height), Move P/SEAT to the Lowest Position(Head Rest), Move P/Seat To The Lowest Position(RR 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 Foremost Position (Recline), Move P-Seat to the Foremost Position (Shoulder), Move P-Seat To The Foremost Position (Slide), Move P-Seat to the Highest Position (FR Height), Move P-Seat to the Highest Position (Headrest), Move P-Seat to the Highest Position (RR Height), Move P-Seat to the Last Position (Cushion Extension), Move P-Seat to the Last Position (HeadRest Slide), Move P-Seat to the Last Position (Recline), Move P-Seat to the Last Position (Shoulder), Move P-Seat To The Last Position (Slide), Move P-Seat to the Lowest Position (FR Height), Move P-Seat to the Lowest Position (Headrest), Move P-Seat to the Lowest Position (RR Height), Move Steering Column At The Longest Position (Tele), Move Steering Column To The Lowest Position (Tilt), Multimedia Load Power Relay, N Target Position, Navi Wakeup Signal Output, Norminal Idle Speed Offset, O2 Heater Front, O2 Heater Rear, OBC Relay(-) ON, OBC Relay(+) ON, OBC Relay(+)/(-) ON Simultaneous, OBC Wake up Output, Oil Change Warning Lamp(Option), Oil Change Warning Lamp, Oil Control Valve - Exhaust Bank 1(Option), Oil Control Valve - Exhaust Bank 1, Oil Control Valve - Exhaust Bank2, Oil Control Valve - Intake Bank 1, Oil Control Valve - Intake Bank1, Oil Control Valve - Intake Bank2, Oil Pressure Warning Lamp, On/Off Solenoid A (SS-A), Openbed Box Lamp Output, Openbed Cargo Lamp Output, Openbed Lamp Switch Indicator Output, Operate Assist Side Fold, Operate Assist Side Unfold, Operate DRIVE SIDE FOLD, Operate DRIVE SIDE UNFOLD, Operate DRIVE SIDE WINDOW AUTO DOWN, Operate DRIVE SIDE WINDOW AUTO UP, Operate DRIVE SIDE WINDOW DOWN, Operate DRIVE SIDE WINDOW UP, Outlet Valve-Front Left Control, Outlet Valve-Front Right Control, Outlet Valve-Left Front, Outlet Valve-Left Rear, Outlet Valve-Rear Left Control, Outlet Valve-Rear Right Control, Outlet Valve-Right Front, Outlet Valve-Right Rear, Over speed indicator(Option), Over Speed Warning Indicator, P Target Position, Parasitic Current Auto-Block IPS, Parking Brake Indicator, PAS Buzzer Output (RPAS Buzzer Output), PAS Indicator (RPAS Off Indicator), Passenger Air Mix Door-0%, Passenger Air Mix Door-100%, Passenger Air Mix Door-50%, Passenger Mode Door - Defog, Passenger Mode Door - Floor, Passenger Mode Door - Vent, Passenger Seat Heat Mode to the High, Passenger Seat Vent Mode to the High, Perform Erase All Video File, Perform Event Recording, Pocket Light Output (Option), Power Operation Request LH, Power Supply to the ACC Relay of Main MCU, Power Supply to the IGN1 Relay of Main MCU, Power Supply to the IGN1/IGN2 Relay of Main MCU, Power Supply to the IGN1/STARTER Relay of Main MCU, Power Supply to the IGN1-IGN2 Relay of Main MCU, Power Supply to the IGN1-STARTER Relay of Main MCU, Power Window Relay (with Safety P-WDW Enable), Power Window Relay, Precharge Relay ON, Precharge Relay ON, Main Relay (-), (+) ON (Normal sequence), Pressure Control Solenoid (LP), Pressure Control Solenoid Valve(VFS) A, Pressure

Control Solenoid Valve(VFS) 'A', PSB Retraction Test for Equipment RH, Puddle Lamp Output, Puddle Pocket Lamp Output, Quick Charge Relay (+),(-), Main Relay (-), (+) ON (Normal Char, Quick Charger Relay(-) ON, Quick Charger Relay(-)(+) ON simultaneous, Quick Charger Relay(+) ON, R Target Position, Radiator Cooling Fan PWM, Radiator Fan Forced Operation, Radiator shutter 1 - Auto test, Radiator shutter 1 - Close test, Radiator shutter 1 - Open test, Read VIN, Rear Air Flow Door - 0%, Rear Air Flow Door - 100%, Rear Air Flow Door - 50%, Rear Air Mix Door-0%, Rear Air Mix Door-100%, Rear Air Mix Door-50%, Rear Air Mix(A) Door-0%, Rear Air Mix(A) Door-100%, Rear Air Mix(A) Door-50%, Rear Assist Power Window Down Relay, Rear Assist Power Window Up Relay, Rear Blower Fan Motor-1Step, Rear Blower Fan Motor-2Step, Rear Blower Fan Motor-3Step, Rear Blower Fan Motor-4Step, Rear Blower Fan Motor-5Step, Rear Blower Fan Motor-6Step, Rear Blower Fan Motor-7Step, Rear Blower Fan Motor-8Step, Rear Blower Fan Motor-Off, Rear Bumper Antenna Output (Power and GND), Rear Charge Door Lamp Output, Rear Curtain Down Output [Rear Curtain Hall Sensor Power Output, Rear Curtain Down Output, Rear Curtain Up Output [Rear Curtain Hall Sensor Power Output(O, Rear Curtain Up Output, Rear Defogger Relay, Rear Driver B-PILLAR Door - 0%, Rear Driver B-PILLAR Door - 100%, Rear Driver Power Window Down Relay, Rear Driver Power Window Up Relay, Rear Fog Lamp (Option), Rear Fog Lamp Indicator, Rear Fog Lamp Left Output, Rear Fog Lamp Relay (Option), Rear Fog Lamp Right Output, Rear illumination, Rear Left Door Lock Indicator Output, Rear Left Power Window Down (Option), Rear Left Power Window Up (Option), Rear Left Side Courtesy Lamp, Rear Left Side Door Curtain Down (Only Windows Close Status), Rear Left Side Door Curtain Up (Only Windows Close Status), Rear Left Side Window Auto Down (Option:Curtain Bottom Status), Rear Left Side Window Auto Up (Option:Curtain Bottom Status), Rear Left Side Window Down (Option:Curtain Bottom Status), Rear Left Side Window Up (Option:Curtain Bottom Status), Rear Left Turn Signal Output, Rear LH Seat Heat Mode to the High, Rear LH Seat Vent Mode to the High, Rear mode door - B-L, Rear mode door - Floor, Rear mode door - Vent, Rear Mood Lamp (Both Left and Right), Rear Passenger B-PILLAR Door - 0%, Rear Passenger B-PILLAR Door - 100%, Rear Pocket Lamp (Both Left and Right), Rear Power Window Enable Output (Option), Rear Power Window LH Up Relay, Rear RH Seat Heat Mode to the High, Rear RH Seat Vent Mode to the High, Rear Right Door Lock Indicator Output, Rear Right Power Window Down (Option), Rear Right Power Window Up (Option), Rear Right Side Courtesy Lamp, Rear Right Side Door Curtain Down (Only Windows Close Status), Rear Right Side Door Curtain Up (Only Windows Close Status), Rear Right Side Window Auto Down (Option:Curtain Bottom Status), Rear Right Side Window Auto Up (Option:Curtain Bottom Status), Rear Right Side Window Down (Option:Curtain Bottom Status), Rear Right Side Window Up (Option:Curtain Bottom Status), Rear Right Turn Signal Output, Rear Room Lamp Output, Rear SBR Symbol Indicator Output(Option), Rear Seat Belt Center Indicator (Option), Rear Seat Belt Left Indicator (Option), Rear Seat Belt Right Indicator (Option), Rear Seat Heat Mode to the High, Rear Seat Vent Mode to the High, Rear Seat Warmer Left(Option), Rear Seat Warmer Right(Option), Rear Temp Cool Door - 0%, Rear Temp Cool Door - 100%, Rear Temp Cool Door - 50%, Rear Temp Warm Door - 0%, Rear Temp Warm Door - 100%, Rear Temp Warm Door - 50%, Rear Top-AVM View, Rear Top-SVM View, Rear View Switch Indicator Output, Rear Washer Motor Output, Rear Wiper Relay (Option), Rear Wiper Relay, Rear-Left View, Rear-Right View, Rear-SVM View, Rear-Wide View, Refrigerant 2Way Valve - #1 OFF, Refrigerant 2Way Valve - #1 ON, Refrigerant 2Way Valve - #2 OFF, Refrigerant 2Way Valve - #2 ON, Refrigerant 3Way Valve - #1 OFF, Refrigerant 3Way Valve - #1 ON, Refrigerant 3Way Valve - #2 OFF, Refrigerant 3Way Valve - #2 ON, RKE Tailgate Signal Output(to PTGM), RL Door Lock Relay, RL Door Unlock Relay, Room Lamp Output, RPAS Switch Indicator(Option), RVM Swich Indicator Output, Safety ECU Enable Output (High), Safety Power Window Enable, Safety Power Window Sunroof Enable, SAHLS Actuator 20%, SAHLS Actuator 80%, SBL Function Test SBL LH ON, Security LED Output, Security LED, Selection Injector Group(A) of Engine Idle state for Dual Injec, Shift Control Solenoid Valve (28/B), Shift Control Solenoid Valve (37R/C), Shift Control Solenoid Valve (46/C), Shift Control Solenoid Valve (OD and LR), Shift Control Solenoid Valve (UD/C), Shift Control Solenoid Valve A(UD/B), Shift Control Solenoid Valve A(UD-B), Shift Control

Solenoid Valve B(2-6/B), Shift Control Solenoid Valve B(2-6-B), Shift Control Solenoid Valve C(35R/C), Shift Control Solenoid Valve C(35R-C), Shift Control Solenoid Valve D(OD/C), Shift Control Solenoid Valve D(OD-C), Shift Control Solenoid Valve E(SS-A), Shift Solenoid A (Primary), Shift Solenoid B (Secondary), Shift Solenoid C (Clutch), ShortTermLoad Cut Relay/IPS Output, ShortTermLoad Cut Relay-IPS Output, Solenoid Thermal Expansion Valve - Close, Solenoid Thermal Expansion Valve - Open, SSB illumination Output (Power and GND), Start Inhibit Relay (Option), Start Inhibit Relay, Start Relay, Static Bending LH Output (Option), Static Bending RH Output (Option), Steering Warmer Output, Steering Warmer Switch Indicator Output, Stop Lamp Left, Stop Lamp Left/Right/HMSL Output (Option), Stop Lamp Left-Right-HMSL Output (Option), Stop Lamp Right, Stop Lamp, Storage Bos Lid Release Relay Output, Sunroof Enable Output, Sunroof Power Relay control(Optional), SVM + DRVM(Driving Rear View Monitor), SVM + FrontLeft + FrontRight View, SVM + RearLeft + RearRight View, System Identification, Tail Interior Lamp, Tail Lamp Indicator, Tail Lamp Output, Tail Lamp Relay, Tailgate/Trunk Release Relay, Tailgate-Trunk Release Relay, TCI Bypass Valve (Turbo Only), TCI Bypass Valve(Turbo Only), TCS Valve-Left Front, TCS Valve-Right Front, Torque Converter Clutch Solenoid Valve, Turbo dump(ReCirculation) Valve (RCV), Turbo waste gate(WGT) valve, Turn LH Output, Turn RH Output, Turn Signal Lamp Front Left Output, Turn Signal Lamp Front Right Output, Turn Signal Lamp Rear Left Output, Turn Signal Lamp Rear Right Output, Turn Signal Sound Output, Turn Signal Sound Relay Output, Vacuum Pump (ELCM), Variable Exhaust Flap, Variable Force Solinoid Valve - Exhaust Bank1 test, Variable Force Solinoid Valve - Intake Bank1 test, Variable Intake Manifold 1 (Option), Variable Intake Solenoid(Optional), Variable Oil Pump Solenoid, VCM Motor(Optional), VESS Sound Play (5 Sec), VESS Sound Play (Until Stop Command), VVL Control Solenoid Valve - EX, B1, VVL Control Solenoid Valve - EX, B2, VVL Control Solenoid Valve - IN, B1, VVL Control Solenoid Valve - IN, B2, Warm Bypass door, Waste Gate Valve (Turbo Only), Window Lock Indicator, Window Lock to Driver Door Module, Wiper High-Speed Relay [Wiper High RLY With Wiper Power RLY], Wiper Low-Speed Relay [Wiper Low RLY With Wiper Power RLY], Wiper Power Relay, Wiper Relay (for INT)[Wiper RLY With Wiper Power RLY]

## ***Mitsubishi Coverage***

- Added coverage for 25 new system applications

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

ALC Setting, Blind Spot Detection Configuration, Blind Spot Detection Shut-Off Requester Test, Decel G Sensor Calibration, Fine Adjustment Front View Camera Top View, Fine adjustment of DS camera, top view, Fine adjustment of PAS camera, top view, Fine Adjustment Reversing Camera Top View, Finish Brake Pad Replacement, Front Camera Guidelines Correction, Initialization Position Adjustment, Lane Dep.Warning Camera Shut-Off Requ.Test, Lane Departure Warning Camera Configuration, Reset Adaption To Factory Setting, Reversing Camera Guidelines Correction, Start Brake Pad Replacement, Steering Angle Initialization, System Mode Change, Valve Calibration, Valve Check, Valve Flushing

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

ABS Motor, Actuator 1 (Rear Mode), Actuator 2 (Right Blend), AEB Disp, Air Pump, Air/Liquid Pump Of Camera, ALC Disp, ALC Level, ALL INDICATORS DRIVE, All Shock Absorber, ARC Disp 2, ARC Disp, ARC operation indication, ATC 1 Disp, ATC 2 Disp, ATC 3 Disp, ATC 4 Disp, ATC 5 Disp, Automatic Brake Hold Lamp Active, Automatic Brake Hold SW Lamp Active, Brake Actuator 1 Mode 1, Brake Actuator 1 Mode 2, Brake Actuator 1 Mode 3, Brake Actuator 2 Mode 1, Brake Actuator 2 Mode 2, Brake Actuator 2 Mode 3, Brake Actuator 3 Mode 1, Brake Actuator 3 Mode 2, Brake Actuator 3 Mode 3, Brake Hold Disp, Brake Hold Display, Brake Operation, Brake Release, BSW/BSI INDICATOR DRIVE, BSW-BSI INDICATOR DRIVE, BUZZER DRIVE, Chassis No/VIN Writing, Command St Whl Forc, Command Steering

Angle, Door Mirror LED LH, Door Mirror LED RH, ESS Active, ESS Relay Active, External Buzzer, FL Shock Absorber, FL Tire Disp, FR LH ABS Solenoid (ACT), FR LH ABS SOLENOID(ACT), FR LH SOL, FR RH ABS Solenoid (ACT), FR RH ABS SOLENOID(ACT), FR RH SOL, FR Shock Absorber, FR Tire Disp, Front Left Solenoid, Front Right Solenoid, HDC DISP, HDC Display, INDICATOR LAMP DRIVE, Indicator, Interrupt Disp, Lane Departure Warning Display, LED LH INDICATOR, Left Exterior Mirror LED Test, Master Warning Active, PB SW indicator ON, RCTA-BSW Indicator, READY Indicator Lamp, Rear Left Solenoid, Rear Right Solenoid, Right Exterior Mirror LED Test, RL Shock Absorber, RL Tire Disp, RR LH ABS Solenoid (ACT), RR LH ABS SOLENOID(ACT), RR LH SOL, RR RH ABS Solenoid (ACT), RR RH ABS SOLENOID(ACT), RR RH SOL, RR Shock Absorber, RR Tire Disp, Stop Lamp Off Relay 1 Active, Stop Lamp Off Relay 2 Active, Stop Lamp ON Relay Active, Stop Lamp On Relay, SYSTEM ON LAMP DRIVE, TPMS Reset Instructions, Turn Disp, Turn display (LH), Turn display (RH), Vehicle Disp, VMC left turning operation indication, VMC Right turning operation indication, Warning Buzzer, Washer Fluid Pump Relay, Yellow Lane Dep.Warnng.Indic. Lamp

## **Toyota/Lexus Coverage**

- Added coverage for 230 new system applications

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

2 Steps Fade Out Control Function, 3rd Center Seatbelt Warning Buzzer Function, 3rd Left Seatbelt Warning Buzzer Function, 3rd Right Seatbelt Warning Buzzer Function, 4th Center Seatbelt Warning Buzzer Function, 4th Left Seatbelt Warning Buzzer Function, 4th Right Seatbelt Warning Buzzer Function, A/C Auto Switch Mode, A/C Operation Limit History Counter Clear, A/T Code Reset, aCol Function, Activate The EGR Valve Close Bank 1, Activate The VN Turbo Open Bank 1, Add Foot Air in FACE Mode, Advanced Park Parallel Parking Control Area, Advanced Park Perpendicular Parking Control Area, AFS Function, AHS Function, AHS Operation Vehicle Speed Setting (Pattern1), AHS Operation Vehicle Speed Setting (Pattern2), AHS Operation Vehicle Speed Setting (Pattern3), Air Bleeding, Air Conditioner Switch Indicator Function, Air Inlet Damper Mode, Air Inlet Damper Targ Pulse, Air Inlet Mode, Air Outlet Servo Pulse (P), Air Purifier Auto Cancel, Air Purifier, All Readiness, Ambient Temperature Adjustment, Ambient Temperature Shift, AT Code Registration, Audio Information Display Function, Auto Door Lock Pattern Setting (Speed), Auto Door Lock, Auto Entry Cancel 2 Setting, Auto Entry Cancel Setting, Auto LightOff Timer, Auto Mode Start Function, Automatic Door Lock Function, Automatic Door Lock Setting, Automatic Door Unlock Function when D-Door Open, Automatic Door Unlock Setting, Automatic Light Off Timing Setting, Automatic Mirror Fold Setting, Backup Battery Replacement Reset, Battery Status Info Update, Blower Operation Setting (StopStart), Bluetooth Connection History, Body Control with Torque Demand, Brightness Level Adjust (Canceling), Brightness Level Adjust (Lowering), Button Press Buzzer, Camera Synchronous Error History, Clear Abnormal Operation History, Clearance Warning Buzzer Volume, Closer Power Operation, Coming Home Light, Compressor Mode, Compressor/Air Inlet DEF operation, CVT Oil Pressure Calibration, D Seat Lift Up Buckle Operation Function, D Seat Lower Back Operation Away Function, D Seat Lower Cushion Operation Away Function, D Seat Lumbar Operation Away Function, D Seat Operation Interference Avoidance Function, D Seat Reclining Link Headrest F/R Length Function, D Seat Refresh Level Setting, D Seat Shoulder Operation Away Function, D Seat Side Back Support Operation Away Function, D Side Cushion Support Operation Away Function, Daytime Running Light Function, DCM Operation History, DEF(PSW/Lock) Mode Setting, Diagnostic Mode, Door Auto Lock Timer Setting, Door Lock Answerback Sound Setting, Door Lock Indicator Function, Door Lock Indicator Pattern Setting (IG OFF), Door Lock Indicator Pattern Setting (IG ON), Door Open SW Operation Adjust, Door Unlock Sensor Touch Time Adjust, Door Unlock with 1 Motion, Driver Seat Distance Adjust when Get Off, Driver Seat Lift Up Distance Adjust when Get Off, Driver Seat RA Lumbar Support Oper, Driver Seat RA

Pelvis Support Oper, Driver Seat RA Side Support Oper, Driver Seatbelt Warning Buzzer Function, DRL Function, ECO Drive Indicator Zone Display Function (Meter), ECO Drive Indicator Zone Display Function, ECO MODE Cancel, ECO Mode Control, ECO Mode Start Function, ECU Data Initialization, ECU Data Save And Write, Efficient Ventilation Mode, Electronic Swivel Function, Emblem Sensor Detection Sensitivity, Emission Gas Sensor Shift, Entry Delay Time, Entry Unlock Twice Function, EPB Initialize, EV Mode Cruising Range Reset, Evaporator Control, Extended Headlight Lighting, Exterior Lights Lighting Timer Setting, Exterior Lights ON Function, Exterior Lights ON when Approached Function, Exterior Lights ON when Door Opened Function, Exterior Lights ON when Door Unlocked Function, FACE Wind Amount Adjust Function, Fan speed increment control, FCTA Function ON/OFF State Stored, FCTA Warning Timing State Stored 1, FCTA Warning Timing State Stored 2, FCTA Warning Timing State Stored 3, Filter Sensor, FL Neck Heater Auto Mode Adjustment, FL Seat A/C and Heater Sensitivity Adjust, Flasher Sound Volume Adjust, Foot/DEF Auto Mode, Foot/DEF Automatic Blow Up Function, Forced Actuator Refresh, Forget to Turn IG OFF Alarm Function, FR Neck Heater Auto Mode Adjustment, FR Seat A/C and Heater Sensitivity Adjust, Fr/Rr Seat Interference Avoidance Function (D), Fr/Rr Seat Interference Avoidance Function (P), Front Center Seatbelt Warning Buzzer Function, Glass Hatch Open Function, Grille Shutter Initialization, Hazard Answer Back Function, Headlight ON in Conjunction with Wiper Function, Height Offset Rear Wheels, High Voltage Fuse Accumulated Load History Reset, HWD Auto Function, Ignition Available Area Setting (Back Door Type), Ignition Available Area Setting (Trunk Lid Type), Initialization, Injection Timing Value, Injection Timing, Instr-Panel Interference Avoidance Function (P), Integrated Current Value Initialization, Interior Footwell Lights Function, Interior Illumination Light 2 Function, Interior Illumination Light 3 Function, Interior Lights Lighting Timer Setting, Interior Lights ON Function, Intrusion Sensor 1 Sensitivity Level Adjust, Intrusion Sensor 2 Sensitivity Level Adjust, Intrusion Sensor Reduction in Sensitivity Setting, Intrusion Sensor Sensitivity Level (Window Open), Intrusion Sensor Sensitivity Level, Intrusion Sensor Sound Detection Function, Intrusion Win Opened, Ion Generate Control, IPA Obstacle Avoidance Distance, IPA Parallel Parking Control Area, IPA Perpendicular Parking Control Area, Key Left in Vehicle Alarm Function, Key Low Battery Warning Function, Kick Sensor Close Lock Function, Kick Sensor Operation Function with ACC ON, Lane Change Flashing Times Adjust, Left the Key Prevention Funct (Battery Remove), Light Auto OFF Delay Setting, Light Blink Clearance Lights at Unlock Function, Light Control Glass Brightness Memory Function, Light Control Glass Voice Control Function, Light up Clearance Lights at Door Unlock Function, Lock Indicator Lighting Time Adjust, Lost Communication Time Initialization, Manual Fr/Rr Seat Interference Avoidance Function, Master Caution Display Function, Memory Call Function, Memory Call Link Function, Multi Weather Light Function, Noise and Vibration Reduction, ODO Display Time After IG OFF Adjust, One Motion with Unlock Door, One Motion, One Touch Open/Close SW Operation Setting (RL), One Touch Open/Close SW Operation Setting (RR), Open Door Warning Function, Operation History Clear, Optical Disc Error History, Ottoman Return Position, Outside Air Mode Auto Switch Function, Outside PSD SW Operation(RL), Outside PSD SW Operation(RR), Oxygen Supply, P Auto Operation Interference Avoidance Function, P Seat Auto Switch Return Function, P Seat Lift Up Buckle Operation Function, P Seat Lower Back Operation Away Function, P Seat Lower Cushion Operation Away Function, P Seat Lumbar Operation Away Function, P Seat Operation Interference Avoidance Function, P Seat Pressure Correction Function, P Seat RA Return Operation Function, P Seat Reclining Link Headrest F/R Length Function, P Seat Refresh Level Setting, P Seat Shoulder Operation Away Function, P Seat Side Back Support Operation Away Function, P Side Cushion Support Operation Away Function, P/W Operation Buzzer W/ Transmit Function, Panic Function, Park Wait Time Adjust, Passenger Seat RA Lumbar Support Oper, Passenger Seat RA Pelvis Support Oper, Passenger Seat RA Side Support Oper, Passenger Seatbelt Warning Buzzer Function, Passive Mode (Security System), PBD Assist Close Operation, PBD Assist Open Operation, PBD Buzzer Function, PBD Buzzer Tone, PBD Buzzer Volume Adjust, PBD Close SW Press Condition, PBD Close SW Waiting Time, PBD One Motion, PBD Power Operation, PBD SW Operation, PBD/Emblem Sensor Function, PCS Cooperate Function, PCS

Reminder Buzzer Sound, PCS Warning Timing State Stored 3, Pilot Injection Volume Select Cylinder, Pilot Injection Volume Value, Pilot Injection Volume, PKSA (O) Auto Mute Function, PKSA (O) Forward Detection Image Display, PKSA (O) Image Display when Away from the Obstacle, PKSA (O) Judgment of Obstacle on Course, PKSA (O) Switch State Stored, PKSB (O) Function, PKSB (O) Target Stopping Distance, PKSB (P) Function, PKSB (P) Target Stopping Distance, PKSB (P) Width Adjustment (Y Axis), PKSB (V) Function, PKSB (V) Operation Timing Setting, PKSB (V) Sensitivity, PKSB Switch State Stored, Power Back Door Opening Adjust, Power Saving Wait Time(Out Of Entry Range), Power Steering ECU Initial Setting, Power Window Voice Control Function, Pre Air Conditioner Defrosting Function, Projection Adjustment (Distortion), Projection Adjustment (Keystone), Projection Adjustment (Tilt), Proposal Service Frequency Adjust, Proposal Service Volume Adjust, Proposal Services Function, PSD Buzzer (LH), PSD Buzzer (RL), PSD Buzzer (RR), PSD SW Operation (LH), PSD SW Operation (RL), PSD SW Operation (RR), P-Seat Auto Pattern, R Wiper Stop Function at Back Door/Trunk Lid Open, RA Ottoman Operation, Rain Mode, Rear A/P HI Set, Rear Center Seatbelt Warning Buzzer Function, Rear Left Master SW Shade Function, Rear Left Seatbelt Warning Buzzer Function, Rear Right Master SW Shade Function, Rear Right Seatbelt Warning Buzzer Function, Rear Seat Interference Avoidance Function (P), Rear Seatbelt Warning Buzzer Function, Rear Sunshade linked with Shift Lever R Funct, Rear Wiper Washer Function, Rear Wiper with Reverse Setting, Refrigerant Pressure History Clear, Refrigerant Shortage Check, Relax with Ottoman Up, Relax with P-Seat Lift, Relax with P-Seat Slides, Remote Air Conditioner Start Setting, Remote Air Conditioner Stop Setting, Remote Door Lock Setting, Reset A/C Information, Reset Memory, Response Time Adjust, Return with Passenger Seat, Reverse Buzzer Setting, Reverse Coupled Actuation Mirror Angle Setting, RL Back View Auto Memory Operation Function, RL Back View Memory Operation Slide Pos Setting, RL Business Mode Operation Site Change Function, RL Door Open Return Auto Function, RL Door Open Return Reinstatement Auto Function, RL Entertain Mode Operation Site Change Function, RL Entertain Mode P-Seat Target Position Setting, RL Interference Avoidance Operation Area Setting, RL Manual Ottoman Close Finish Buzzer Function, RL Memory Operation Ottoman Position Setting, RL Occupant Condition Setting, RL Ottoman Operation Buzzer Function, RL Pressure Correction Function, RL Refresh Spot Heater Upper Limit Temp Setting, RL Relaxation Mode Operation Site Change Function, RL Riding Position Operation Function, RL Seat A/C and Heater Sensitivity Adjust, RL Seat Back Finish Buzzer Function, RL Seat Back Operation Order Change Setting, RL Seat Heater Auto Function, RL Seat Lift Up Buckle Operation Function, RL Seat Operation Site Change Function, RL Warmth Refresh Heater Level Setting, RR Back View Auto Memory Operation Function, RR Back View Memory Operation Slide Pos Setting, RR Business Mode Operation Site Change Function, RR Door Open Return Auto Function, RR Door Open Return Reinstatement Auto Function, RR Entertain Mode Operation Site Change Function, RR Manual Ottoman Close Finish Buzzer Function, RR Memory Operation Ottoman Position Setting, RR Occupant Condition Setting, RR Ottoman Operation Buzzer Function, RR Pressure Correction Function, RR Refresh Spot Heater Upper Limit Temp Setting, RR Relaxation Mode Operation Site Change Function, RR Riding Position Operation Function, RR Seat A/C and Heater Sensitivity Adjust, RR Seat Back Finish Buzzer Function, RR Seat Back Operation Order Change Setting, RR Seat Heater Auto Function, RR Seat Lift Up Buckle Operation Function, RR Seat Operation Site Change Function, RR Warmth Refresh Heater Level Setting, Seat Airflow Mode Setting, Seat Blast Mode Setting, Seat Heater Auto Operation, Seat Position Voice Control Function, Seat position/Tilt Telesco memory recall setting, Seat Switch Link Function, Seat Travel Distance, Security Control with Mechanism Key Function, Sensitivity Adjust, Servomotor Initialization, Set Temperature Shift, S-FLOW Control Auto Function, Shift Lever R Signal Delay Time Adjust, Shift Linked Automatic Door Lock Function, Shift Linked Automatic Door Unlock Function, Slide Link Cushion Length Ctrl, Slide Link Hdrest Length Ctrl, Slide Roof Open Warning Function, Slide Roof Voice Control Function, Software Error History, Speed Alarm Buzzer Function, Speed Limit Display Function, Speed Linked Automatic Door Lock Function, Speed Linked Automatic Door Unlock Function, Start Indicator Function, Start Off Mode, Start Switch Light Function, Starter Exchange, Steering Heater

Auto Function, Steering Heater Sensitivity Adjust, Switch Battery Type, Switch Grille Shutter Control Mode, Switch Oil Maintenance Display, T1 RoomLamp BatterySave, Tail Remind Buzzer Function, Telematics Microphone Volume Adjust, Telematics Speaker Volume Adjust, Tire Circumference Setting, Tire Pressure Sensor Registration, Torque Sensor Adjustment, Touch Activation Over Threshold, Town Mode, Traffic Sign Recognition Animation Function, Trunk Lid Linked with Door Lock Function, Trunk Lid Open Mode Function, Trunk Lid Operation by Electrical Key Function, Trunk Lid Operation by Entry Function, Tunnel Beam Function, Turn by Turn Animation Function, Ultrasonic Sensor (Front Center) Detection Range, Ultrasonic Sensor (Front Corner) Detection Range, Ultrasonic Sensor (Rear Center) Detection Range, Ultrasonic Sensor (Rear Corner) Detection Range, Ultrasonic Sensor (Side) Alarm Detection Range, Ultrasonic Sensor (Side) Alarm Function, Ultrasonic Sensor Actuation (Shift N), Unlock Key Twice Function, Valet Mode Cancel, Video Device Connection Check(mm), Voice Guidance Function, VSC/TRAC/4WD Control Prevention Mode, Walk Away Lock after Getting Out Func (Closing), Walk Away Lock after Getting Out Function, Warning by Glass Broken Sensor, Warning by Horn Function, Warning by Horn, Window Open Warning Function, Wiper Specification Switch, Wiper Voice Control Function, Wireless Backdoor Open Operation Adjust, Wireless Buzzer Response Function, Wireless Buzzer Volume Setting, Wireless Control Function, Wireless Glass Hatch Open Operation Adjust, Wireless Lock Function with Doors Open, Wireless PBD Operation, Wireless Power Back Door Open, Wireless PSD Operation (RL), Wireless PSD Operation (RR), Wireless PSD SW Operation (LH), Wireless PSD SW Operation(RL), Wireless PSD SW Operation(RR), Wireless Trunk Lid Open Operation Adjust, Wireless Unlock Twice Function, Zero Point Calibration

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

2nd START Indicator, 4LO Indicator, 4WD AUTO Indicator, 4WD Auto Mode Indicator, 4WD Control Prevention Mode, 4WD Indicator (Green), 4WD Indicator (Yellow), 4WD Lock Indicator, 4WD Warning Light, 4WD Warning, A/M Servo Pulse(FR D), A/M Servo Pulse(FR P), A/O Servo Pulse(FR D), A/O Servo Pulse(FR P), A/O Servo Pulse(Rr D), A/O Servo Pulse(Rr P), ABS Warning, A-C Driving Demand, Accumulator Drive, Accumulator Valve, ACM Inhibit, Activate S1 Solenoid, Activate S2 Solenoid, Activate S3 Solenoid, Activate S4 Solenoid, Activate SL Solenoid, Activate SL1 Solenoid, Activate SL2 Solenoid, Activate SL3 Solenoid, Activate SL4 Solenoid, Activate SL5 Solenoid, Activate SLT Solenoid, Activate SLU Solenoid, Activate SR Solenoid, Activate the (Inverter) Water Pump, Activate the 4WD Lock Light, Activate the Air Inlet Damper Target Pulse, Activate the Charger Cooling Fan, Activate the Circuit Relay, Activate the Coolant Water Route Switching Valve 2, Activate The Coolant Water Route Switching Valve, Activate the Electric Heater1 Relay, Activate the Electric Heater2 Relay, Activate the Electric Heater3 Relay, Activate The Electric Water Pump, Activate the Engine Oil Pressure Control Valve, Activate the EVAP Purge VSV, Activate The Fuel Filler Opener, Activate the Fuel Pressure Discharge, Activate The Fuel Vapor-Containment Valve, Activate The Heater Water Pump., Activate the Mirror Heater Relay, Activate the Rear AC Magnet Valve, Activate the Slip Indicator Light, Activate The Solenoid (SC1), Activate The Solenoid (SC2), Activate the Solenoid (SC3), Activate the Solenoid (SL6), Activate The Solenoid (SLC), Activate The Solenoid (SLG), Activate the Solenoid (SLS) High/Low, Activate the Solenoid (SLS) MAX/MIN, Activate The Solenoid(Sc), Activate The Solenoid(Slp), Activate the TC Terminal, Activate The Vacuum Pump, Activate The VSV For Intake Control, Activate The VSV For Swirl Control Valve, Activate The VSV For Vent Valve, Activate The Water Pump, Active TRC Indicator, ACTIVE TRC Warning, Adjustable Seat, Advanced Parking Guidance Indicator, AFS Indicator (Malfunction) Display, AFS OFF Indicator, AHS LH High Beam, AHS RH High Beam, Air Bypass Valve Solenoid, Air Inlet Damper (Rear), Air Inlet Damper Control Servo Motor, Air Inlet, Air Mix Damper (Driver Side), Air Mix Damper (Passenger Side), Air Mix Damper (Rear), Air Mix Servo Targ Pulse(D), Air Mix Servo Targ Pulse(P), Air Mix Servomotor Pulse D Side, Air Outlet (Front), Air Outlet (Rear), Air Outlet Damper (Driver Side), Air Outlet Damper (Passenger Side), Air Outlet Damper (Rear), Air Outlet DEF, Air Outlet Rear FOOT (Driver Side), Air Outlet Rear FOOT (Passenger Side), Air Outlet Servometer Pulse (D), Air

Purifier Mode, Air Purifier(Ion), Air Suspension Indicator (HI), Air Suspension Indicator (LO), Air Suspension Indicator (N), Airbag Warning, All Indicator, Alternator Voltage Control, Ashtray Light, ASL Indicator, ASL Warning, Assist Fan, AST Indicator, A-T Indicator Operation (2), A-T Indicator Operation (3), A-T Indicator Operation (4), A-T Indicator Operation (B), A-T Indicator Operation (D), A-T Indicator Operation (L), A-T Indicator Operation (N), A-T Indicator Operation (P), A-T Indicator Operation (R), A-T Indicator Operation (S), A-T Indicator Operation (Sport M), A-T Indicator Operation (Sport S), A-T Oil Temperature Warning, A-T P Warning, Audio / Heater IG, Audio / Heater Power Supply, Auto Air Conditioner Indicator, Auto Leveling Headlamp Indicator, Auto LSD Indicator, Auto Power OFF Cancel, Automatic High Beam Indicator (Green), Automatic High Beam Indicator (Yellow), Automatic High Beam Switch Light, Auxiliary Battery Warning, AVS Comfort Indicator, AVS Sports Indicator, Back Door Sensor Power Supply, Backup Relay, Batt Cool Down Servo Targ Pls, Battery Magnetic Valve, Beep, Blower Level, Blower Motor, BR2-BL2 Heater, BR5-BL5 Heater, Brake Hold Indicator, Brake Override Warning, Brake Warning, BSM Indicator, BSM OFF Indicator, BSM Warning, Buzzer For Accessory Output, Buzzer Operation (1.6khz, Vol S, W-O Damping), Buzzer Operation (2.0khz, Vol S, W-O Damping), Buzzer Operation (2.4khz, Vol L, W-O Damping), Buzzer Operation (800hz, Vol L, W-Damping), Buzzer Operation (800hz, Vol L, W-O Damping), Buzzer Operation (800hz, Vol S, W-Damping), Buzzer Operation (800hz, Vol S, W-O Damping), Buzzer, Cancel Communication Function Pausing, Cargo Light, Center DIFF LOCK Indicator, Charge Indicator, Charge Warning (Red), Charge Warning, Check Engine Warning, Check Mode, Check The Cylinder Compression, Clearance Light (+ Front Side Marker Light), CNG Mode Indicator, Collision Door Lock Release, Color Test Screen (Adjustment), Color Test Screen (Black), Color Test Screen (Blue), Color Test Screen (Color Bars), Color Test Screen (Green), Color Test Screen (Red), Color Test Screen (White), Compression Test, Compressor Motor Relay, Compressor Target Speed, Connect The TC And TE1, Control the ACIS VSV Motor Duty Ratio, Control The ACM Inhibit, Control The EGR Step Position Bank 1, Control The EGR Step Position, Control the Electric Thermostat Duty Ratio, Control the Engine Cooling Fan Duty Ratio, Control The ETCS Open/Close Fast Speed, Control The ETCS Open/Close Slow Speed, Control the Exhaust VVT OCV Duty Ratio Bank 1, Control the Exhaust VVT OCV Duty Ratio Bank 2, Control The Fuel Pump Duty Ratio (Brushless), Control the Fuel Pump Duty Ratio, Control The Injection Mode, Control The Injection Volume For A/F Sensor, Control the Intake VVT OCV Duty Ratio Bank 1, Control the Intake VVT OCV Duty Ratio Bank 2, Control the Motor/Generator Cooling Oil Pump, Control The Select Cylinder Fuel Cut, Control the Shift Area (CVT), Control the Target Fuel Pressure Offset, Control the Transmission Oil Pump, Control the Wastegate Valve Duty Ratio, Cool A/M Servo Pulse(D), Cool A/M Servo Pulse(P), Cool Air Bypass Damper (Driver Side), Cool Air Bypass Damper (Passenger Side), Cool Air Bypass Pls(P), Cool Air Bypass Pulse, Coolant Cool Warning Lamp, Coolant Hot Warning Lamp, Cooling Electric Expansion Valve, Cornering Light-Front Side Illuminate Light (Dim), Cornering Light-Front Side Illuminate Light, Courtesy Light, Courtesy SW Signal, CRAWL Indicator, CRAWL Warning, Cruise Indicator (Yellow), Cruise Indicator, Cushion Length, D-4S (A/F Control), D-4S (Fuel Cut), D-4S (Injection Volume), Damper Step FL (Electric Current), Damper Step FL, Damper Step FR (Electric Current), Damper Step FR, Damper Step RL (Electric Current), Damper Step RL, Damper Step RR (Electric Current), Damper Step RR, Daytime Running Light, DCM Firmware Update, D-Door Unlock, DEF A/O Servo Pulse(D), Defogger Relay Rear, Dehumidification Magnetic Valve, Deicer Relay Front, Delivery Heater, Diesel Particulate Filter Warning, Diesel Throttle Target Angle Bank 1, Diffuse Pulse(R), Dimmer Signal, Disconnect System Function Check, Door Illumination 1, Door Illumination 2, Door Lock Indicator, Door Lock, Door Open Warning, Door Unlock, Double Lock Unset, Downhill Assist Control Indicator, Downhill Assist Control Warning, Drift From The Lane Indicator, Drift From The Lane Warning, Driver Seat Sensor Power Supply, Driver Side Seat Belt Warning, Easy Access Buckle, ECB Main Relay, ECB Solenoid (SLA), ECB Solenoid (SLR), ECB Utility, ECB Warning, ECO Mode Indicator, ECONO Indicator, ECT PWR Indicator, ECT SNOW Indicator, Electric Heater1, Electric Heater2, Electric Heater3, Electric Water Heater, Electrical Fan, Electromagnetic Oil Pump, Emergency Call Cancellation,

Emergency Exit Warning, Emission Pulse(R), EPB Auto OFF Indicator, EPB Control Switch, EPS Warning, EV Drive Indicator, EV Mode Indicator, Evaporator Magnetic Valve, Exhaust Solenoid1, Exhaust Solenoid2, EXO, Extended Illumination 1, Extended Illumination 2, Face A/O Servo Pulse(D), Face A/O Servo Pulse(P), FL Gas Spring Switch Valve, FL Wheel Up/Down, Flash Handle Fold, Flash Handle Return, Fold/Unfold Mirrors, Foot A/O Servo Pulse(D), Foot A/O Servo Pulse(P), Foot Light, Four-Wheel Damping Force Full Hard, Four-Wheel Damping Force Full Soft, Fr Control Rear Air Outlet Damper Servo Motor, FR Gas Spring Switch Valve, FR Wheel Up/Down, Front Air Mix Damper Control Servo Motor, Front Air Outlet Damper Control Servo Motor, Front Buzzer, Front Deicer Relay, Front Evaporator Magnetic Valve, Front Fog Lamp Indicator, Front Fog Light, Front Footwell Lights, Front Gate Valve, Front Left Air Mix Damper Control Servo Motor, Front Left Air Outlet Damper Control Servo Motor, Front Left Height Solenoid, Front Left Seat Blower, Front Left Seat Heater, Front Left Solenoid, Front Left Wheel Up/Down, Front Right Air Mix Damper Control Servo Motor, Front Right Air Outlet Damper Control Servo Motor, Front Right Height Solenoid, Front Right Seat Blower, Front Right Seat Heater, Front Right Solenoid, Front Right Wheel Up/Down, Front Vertical Operation, Front Vertical, Front Washer Relay, Front Wheel Up by Accumulator, Front Wheel Up/Down, Front Wiper Hi Operation, Front Wiper Lo Operation, Fuel Cap Reminder Warning, Fuel Filter Warning, Fuel Gauge Indicator, Fuel Gauge Operation (1-2), Fuel Gauge Operation (1-4), Fuel Gauge Operation (3-4), Fuel Gauge Operation (Empty), Fuel Gauge Operation (Full), Fuel Gauge Operation (Sender E), Fuel Gauge Operation (Sender F), Fuel Gauge Operation (Warning), Fuel Gauge Operation For CNG (1-2), Fuel Gauge Operation For CNG (1-4), Fuel Gauge Operation For CNG (3-4), Fuel Gauge Operation For CNG (Empty), Fuel Gauge Operation For CNG (Full), Fuel Gauge Operation For CNG (Sender E), Fuel Gauge Operation For CNG (Sender F), Fuel Gauge Operation For CNG (Warning), Fuel Lid Lock Relay, Fuel Pump - Duty Cycle, Fuel Pump Single Phase Energization, Fuel Warning (CNG), Glass Hatch Open, GLOW Warning, Go To Service Warning, Green Indicator, Hard Switch Lighting, Head Up Display Indicator, Headlamp Indicator, Headlight Leveling Indicator Display, Headlight Leveling Initialize Incomplete Display, Headlight Relay, Headlight Relay-Light Power Supply Relay, Headlight System Malfunction Display, Headrest Front-Rear, Headrest Motor, Heat Exchange Shut Valve, Heater Valve, Heating Electric Expansion Valve, Heating Three-way Valve, Height Control Prohibition Switch, Height High Indicator, Height High Warning, High Beam Headlight, High Beam Indicator, High Pressure Magnetic Valve, High Voltage Electric Heater, Hold Indicator, Hot A/M Servo Pulse(D), Hot A/M Servo Pulse(P), HV System Indicator (0%), HV System Indicator (100%), HV System Indicator (200%), HV System Indicator (300%), HV System Indicator (400%), HV System Indicator (-50%), HV System Indicator (MAX), HV System Indicator (MIN), HV Unit Hot Warning, HV-EV System Indicator (0%), HV-EV System Indicator (100%), HV-EV System Indicator (200%), HV-EV System Indicator (300%), HV-EV System Indicator (400%), HV-EV System Indicator (-50%), HV-EV System Indicator (MAX), HV-EV System Indicator (MIN), HWD Relay, Hybrid Battery Charge, Hybrid Battery Heater Relay, Hybrid System Warning, Hydrogen Leak Warning, ICS OFF Warning, IG OFF P-W Control Permission Output, Illuminated Entry System, Immobilizer Indicator, iMT Indicator (Green), iMT Indicator (Yellow), Injection Timing Select Cylinder, Injection Volume, Injector Compensation, Inside Handle Illumination, Inside Handle Light, Inside Luggage Tuner Power Supply, Inspection Mode, Intercooler Water Pump Relay, Interior Illumination Light, Intrusion Sensor Power, Intrusion Sensor, INTUITIVE P-A LCD Indicator, INTUITIVE P-A LCD OFF Indicator, Ion Generator, KDSS Warning, Key Cylinder Illumination, Latch Release Test, Latch Release, LDA Indicator (White), LDA Indicator, LDA Steering Control Indicator, LDA Warning, LED Headlamp Warning, Left LDA Indicator, Left LDA Warning, Left Turn Signal Indicator, Lift Up Buckle, Lifter Operation, Light Control Glass Relay, Light Control Switch (DOWN), Light Control Switch (Single), Light Control Switch (UP), Limited Power Indicator, Lithium Battery Check Indicator, Lithium Battery Hot Indicator, Low Beam Headlight, Low Beam, Low Pressure Magnetic Valve, Low Pressure Tank Solenoid, Lower Air Mix (Driver Side), Lower Air Mix (Passenger Side), Lower Back, Lower Cushion, LPG Indicator, Luggage Mode Indicator (Yellow), Luggage Mode Indicator, Lumbar Bottom, Lumbar Lift, Lumbar Middle, Lumbar Slide, Lumbar Upper,

M/H Bypass Cool Servo Pls, M/H Bypass Hot Servo Pls, Magnetic Clutch Relay, Magnetic Valve Operation, Maintenance Warning, Master Warning, Memory Cancel Light, Meter Day Mode Switch, Meter Display (0), Meter Display (1), Meter Display (2), Meter Display (3), Meter Display (4), Meter Display (5), Meter Display (6), Meter Display (7), Meter Display (8), Meter Display (9), Meter Display (All), Middle Pressure Magnetic Valve, Mirror Fold Signal, Mirror Heater Relay, Mirror Heater, Mirror Left/Right, Mirror Return Signal, Mirror Up/Down, MMT E Mode Warning, Motor Relay Control, Motor Relay, Multi Display All (White), Multi Display Default Screen, Multi Display Select Switch, Multi Switch (Back), Multi Switch (Down), Multi Switch (Enter), Multi Switch (Left), Multi Switch (Right), Multi Switch (Top), Multi Switch (Up), Navi CVT Indicator, Night Lighting, Night View Indicator, O-D OFF Indicator, ODO-TRIP Change Switch, OFF Road Guidance Indicator, OFF Road Guidance Warning, Oil Level Warning, Oil Pressure Meter Operation (1-2), Oil Pressure Meter Operation (1-4), Oil Pressure Meter Operation (3-4), Oil Pressure Meter Operation (HIGH), Oil Pressure Meter Operation (LOW), Oil Pressure Warning, Oil Pump, Ottoman Short-Long, Ottoman, Outside Mirror Footwell Lights, Over Speed Indicator, Overhead Tuner Power Supply, P Range Indicator, Pager For Accessory Output, Panel Light, Park Warning, Parking Brake Service Mode, Passenger Seat Operation Switch Indicator, Passenger Seat Sensor Power Supply, Passenger Side Seat Belt Warning, PBD Buzzer, PBD Close SW Light, PBD Clutch, PBD Motor, PBD Open/Close, PCS OFF Warning, PCS Warning, Pedestrian Protection Warning, Pelvis Support Operation, Pinion Gear Plunger (Hood Close), Power For Intrusion Sensor2, Power For Tilt Sensor, Power Window SW LED, PPS Warning, Prohibit the Catalyst OT Misfire Prevent Fuel Cut, Prohibit the Idle Fuel Cut, Protection Relay, PSD Buzzer, PSD Close, PSD Clutch, PSD Motor, PSD Open Signal, PSD Open, PTC Heater, Pump Motor Relay, R/L Selection SW Left Indicator Full, R/L Selection SW Left Indicator Red, R/L Selection SW Right Indicator Full, R/L Selection SW Right Indicator Red, Radar Cruise Indicator (Yellow), Radar Cruise Indicator, RCD OFF Indicator, RCTA Indicator, RCTA OFF Indicator, Ready Indicator, Rear A/M Servo Pulse(P), Rear A-C Mag Valve, Rear Air Mix Damper Control Servo Motor, Rear Air Mix Servo Target Pulse, Rear Blower Level, Rear Blower Motor, Rear Buzzer, Rear Defogger Relay, Rear DIFF LOCK Indicator, Rear Door Sunshade Down, Rear Door Sunshade Up, Rear Driver Side Sensor Power Supply, Rear Fog Lamp Indicator, Rear Fog Light, Rear Gate Solenoid, Rear Gate Valve, Rear Inner Wheel Control Indicator, Rear Inner Wheel Control Warning, Rear Inverter Cooling Fan, Rear Left Height Solenoid, Rear Left Seat A/C Auto Indicator Full, Rear Left Seat A/C Auto Indicator Red, Rear Left Seat A/C Indicator Full, Rear Left Seat A/C Indicator Red, Rear Left Seat Blower, Rear Left Seat Heater, Rear Left Solenoid, Rear Left Wheel Up/Down, Rear Leveling Solenoid, Rear Light Indicator, Rear Passenger Side Sensor Power Supply, Rear Right Air Mix Damper Control Servo Motor, Rear Right Height Solenoid, Rear Right Seat A/C Auto Indicator Full, Rear Right Seat A/C Auto Indicator Red, Rear Right Seat A/C Indicator Full, Rear Right Seat A/C Indicator Red, Rear Right Seat A/C Level Indicator Red, Rear Right Seat Blower, Rear Right Seat Heater, Rear Right Solenoid, Rear Right Wheel Up/Down, Rear Seat Belt Warning, Rear Seat Lumbar Adjustment, Rear Washer Relay, Rear Wheel Up by Accumulator, Rear Wheel Up/Down, Rear Wiper Operation, Red Indicator, Reductant Discharge, Reductant Filling (Pressure Keep), Reductant Injection Valve, Reductant Pipe Heater, Reductant Pump Check (Backward), Reductant Purge, Reductant Tank Heater, Reductant Warning, Refresh B1, Refresh B2, Refresh B3, Refresh B4, Refresh B5, Refresh BL1, Refresh BL2, Refresh BL3, Refresh BL4, Refresh BL5, Refresh BR1, Refresh BR2, Refresh BR3, Refresh BR4, Refresh BR5, Refresh C1, Refresh C2, Refresh C3, Refresh C4, Refresh C5, Refrigerant Gas Volume Check, Relay for Interior Light Auto Cut Function, Release Actuator, Reverse Signal, Ride Mode Indicator, Right Front Seat Heater, Right LDA Indicator, Right LDA Warning, Right Turn Signal Indicator, RL Wheel Up/Down, RR Wheel Up/Down, Seat Backrest Recline, Seat Heater Active Level, Seat Memory Light, Seat Slide Operation, Security Horn 2, Security Horn, Security Indicator, Self Power Siren, SET Indicator, Shift-By-Wire Warning, Shoulder, Side Back Support, Side Cushion Support, Side Support Operation, Signal Check, SIL Indicator (Down), SIL Indicator (Up), Slip Warning, Smart System Indicator, Smart System Warning, SOC Gauge (1-2), SOC Gauge (1-4), SOC Gauge (3-4), SOC Gauge (MAX), SOC Gauge (MIN),

SOC Warning, Solenoid Relay, Speed Signal Input (0), Speed Signal Input (120), Speed Signal Input (160), Speed Signal Input (200), Speed Signal Input (240), Speed Signal Input (280), Speed Signal Input (320), Speed Signal Input (360), Speed Signal Input (40), Speed Signal Input (400), Speed Signal Input (80), Speedometer Operation (0km-H,0mph), Speedometer Operation (120km-H,120mph), Speedometer Operation (160km-H,160mph), Speedometer Operation (200km-H,200mph), Speedometer Operation (240km-H,240mph), Speedometer Operation (280km-H,280mph), Speedometer Operation (320km-H,320mph), Speedometer Operation (360km-H,360mph), Speedometer Operation (400km-H,400mph), Speedometer Operation (40km-H,40mph), Speedometer Operation (80km-H,80mph), Sport Indicator (CVT Sport), Start SW Light Power Supply, Starter (Hood Close), Starter Motor Drive Magnet Switch (Hood Close), Steering Heater Indicator (Yellow), Steering Heater, Stop Start Buzzer, Stop Start Permit Cond (A/C), Stop Start Permit Cond (ABS), Stop Start Permit Cond (Battery), Stop Start Permit Cond (Engine), Stop Start Precondition2 (Control), Stop And Start OFF Indicator, Stop And Start ON Indicator, Stop Lamp Relay, Sub Fuel Gauge Operation (1-2), Sub Fuel Gauge Operation (1-4), Sub Fuel Gauge Operation (3-4), Sub Fuel Gauge Operation (Empty), Sub Fuel Gauge Operation (Full), Sub Fuel Gauge Operation (Sender E), Sub Fuel Gauge Operation (Sender F), Tachometer Operation (0rpm), Tachometer Operation (10000rpm), Tachometer Operation (2000rpm), Tachometer Operation (3000rpm), Tachometer Operation (4000rpm), Tachometer Operation (5000rpm), Tachometer Operation (6000rpm), Tachometer Operation (7000rpm), Tachometer Operation (8000rpm), Tachometer Operation (9000rpm), Taillamp Indicator, Taillight-Clearance Light, Temporary Vehicle Start Up, Test The Turbo Charger Step Motor Bank 1, Timer Switch (00), Timer Switch (H), Timer Switch (M), Timer Switch (Single), Timing Belt Warning, Tire Pressure Warning System Indicator, Tow Haul Indicator, Trip Reset Switch, Upper Air Mix (Driver Side), Upper Air Mix (Passenger Side), Vehicle Approach Warning OFF Indicator, Vehicle Horn, Vehicle Proximity Notification System Warning, Vehicle Stop Warning, VGRS Warning, Viscous Heater, Volt Meter Operation (0V), Volt Meter Operation (12V), Volt Meter Operation (15V), Volt Meter Operation (18V), Volt Meter Operation (3V), Volt Meter Operation (6V), Volt Meter Operation (9V), VSC OFF Indicator, VSC TRC Indicator, Washer Nozzle Heater, Washer Warning, Water Level Warning, Water Pump, Water Temperature Meter Operation (110C,230F), Water Temperature Meter Operation (120C,248F), Water Temperature Meter Operation (127C,260F), Water Temperature Meter Operation (50C,122F), Water Temperature Meter Operation (60C,140F), Water Temperature Meter Operation (70C,158F), Water Temperature Meter Operation (80C,176F), Water Temperature Meter Operation (Middle), Wiper Power Relay, Wireless Buzzer

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