

# Bosch ADS Software Update – July 2024

## Ver 5.20

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

Version 5.20 update includes more model year **2024** vehicle coverage and additional **ADAS** calibrations.

3.5K new special tests and new system applications included in this update.

Software and coverage feature details provided in these release notes.



ADS X

ADS

## Coverage Highlights (More Details start on Page 2)

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

- **BMW** – 228i Gran Coupe (F44), 228i xDrive Gran Coupe (F44), 230i (G42), 230i xDrive (G42), 330e (G20), 330e xDrive (G20), 330i (G20), 330i xDrive (G20), 430i (G22/G23), 430i Gran Coupe (G26), 430i xDrive (G22/G23), 430i xDrive Gran Coupe (G26), 740i (G70), 750e xDrive (G70), 760i xDrive (G70), 840i (G14/G15), 840i Gran Coupe (G16), 840i xDrive (G14/G15), 840i xDrive Gran Coupe (G16), Alpina B8 Gran Coupe (G16)
- **Mazda** – MX5 Miata
- **Mini** – Cooper (F55/F56/F57), Cooper (F56), Cooper (F56/F57), Cooper Clubman (F54), Cooper Countryman (F60)
- **Volvo** – C40 Recharge, S60, S90, V60, V60 Cross Country, V60 Cross Country, XC40, XC40 Recharge, XC60, XC90
- **ADAS\*\*** – New ADAS calibration coverage:
- **2017-2023 Coverage:**
  - Genesis\* – G90 (2017-2022) (HKRU subscription only)
  - Mitsubishi – Outlander PHEV
  - Volvo – all remaining models
- **2024 Coverage:**
  - BMW – All Models (all functions except Forward Camera)
  - Hyundai\* – Palisade (HKRU subscription only)
  - Kia\* – Seltos (HKRU subscription only)
  - Mazda – MX-5 Miata
  - Mini – All Models
  - Mitsubishi – Outlander PHEV
  - Subaru – Forester
  - Toyota – Grand Highlander, Tundra
  - Volvo – all models

\*ADS 525X/625X only for bi-directional functions for Hyn/Kia/Gen

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

## New Coverage Details – USA Domestic

### New Chrysler/Dodge/Jeep/Ram Coverage

#### 24 new Adjustment type special tests:

Actuator Calibration, Automatic Addressing, Calibrate Liftgate, Check PCM VIN, Clutch Sensor Calibration Mode, DTCM Replacement, EPB Service Procedures, Exhaust Phaser 1 Cleaning, Exhaust Phaser 2 Cleaning, Hard Stop Search, HVAC Actuator Calibration Test, Hydraulic Prove Out Test, Intake Phaser 1 Cleaning, Intake Phaser 2 Cleaning, Learn ETC, Motor Position Learn, Non-Volatile Memory Reset, Proxi Configuration Alignment, Quick Learn, Range Position Sensor Reset, Reset Enhanced Automatic Oil Change Indicator, Seat Calibration, TLC Learn

#### 436 new Actuation type special tests:

EOBD (Electronic On Board Diagnostic) failure indication, 2nd Row Blend Door 1, 2nd Row Blend Door 2, 2nd Row Blend Door 3, 2nd Row Blend Door 4, 2nd Row Center Seat Backrest Release Actuator, 2nd Row Headrest Release Switch, 2nd Row LT Easy Entry-Exit Switch 2, 2nd Row LT Latch Switch, 2nd Row LT Seat Backrest Release Actuator, 2nd Row LT Seat Easy Entry Release Actuator, 2nd Row LT Seat Fold Switch, 2nd Row LT Seat Headrest Release Actuator, 2nd Row Mode Door 1, 2nd Row Mode Door 2, 2nd Row RT Easy Entry-Exit Switch 2, 2nd Row RT Latch Switch, 2nd Row RT Seat Backrest Release Actuator, 2nd Row RT Seat Easy Entry Release Actuator, 2nd Row RT Seat Fold Switch, 2nd Row RT Seat Headrest Release Actuator, 2WD Rolls Mode, 2WD Test Mode, 3rd Row Fold-Unfold Switch 1 Left, 3rd Row Fold-Unfold Switch 1 Right, 3rd Row Fold-Unfold Switch 2 Left, 3rd Row Fold-Unfold Switch 3 Left, 3rd Row Fold-Unfold Switch 3 Right, 3rd Row Headrest Release, 3rd Row Headrest Release Switch, 3rd Row LT Recline Switch FWD, 3rd Row LT Recline Switch RWD, 3rd Row LT Seat Folding Motor 1, 3rd Row LT Seat Folding Motor 2, 3rd Row LT Seat Headrest Release Actuator, 3rd Row Mode Door 1 Actuator Position, 3rd Row Mode Door 2 Actuator Position, 3rd Row RT Recline Switch FWD, 3rd Row RT Recline Switch RWD, 3rd Row RT Seat Folding Motor 1, 3rd Row RT Seat Folding Motor 2, 3rd Row RT Seat Headrest Release Actuator, A/C Request, Abs Failure Indicator, ABS Failure Lamp, A-C INDICATOR, A-C Request, Actuate All Heaters, Actuate All Vents, Aero LED, Aero Level, Airbag failure indication, Airbag Fault Indicator, All LEDs On, Ambient Lamp, Antilock brake (ABS) failure indication, Approach Light State, AUTO Button, Auto High Beam Indicator, Auto Indicator, Auxiliary Coolant Pump, AVAC Motor Central Position, AVAC Motor Down Most Position, AVAC Motor Up Most Position, Background LED Illumination Level, Backup Lamp Left, Backup Lamp Right, Balance Settings, Bass Settings, Battery Coolant Heater, Battery Coolant Pump, Blower Down Button, Blower Motor Speed, Blower Up Button, Brake Failure Indicator, Brake system failure indication [BRAKE], BSM State, BTSI, Buzzer Control, Cabin Temperature Sensor, Camera Washer, CEGR H-Bridge Valve Duty Cycle, Central high mounted Stop Light (CHMSL), Central Lock (Pass Side), CENTRAL LOCK PASSENGER, Channel 1 Audio Control, Channel 1 Audio Output Status, Channel 10 Audio Control, Channel 10 Audio Output Status, Channel 11 Audio Control, Channel 11 Audio Output Status, Channel 12 Audio Control, Channel 12 Audio Output Status, Channel 13 Audio Output Status, Channel 14 Audio Output Status, Channel 15 Audio Output Status, Channel 16 Audio Output Status, Channel 17 Audio Output Status, Channel 18 Audio Output Status, Channel 19 Audio Output Status, Channel 2 Audio Control, Channel 2 Audio Output Status, Channel 20 Audio Output Status, Channel 21 Audio Output Status, Channel 22 Audio Output Status, Channel 23 Audio Output Status, Channel 24 Audio Output Status, Channel 3 Audio Control, Channel 3 Audio Output Status, Channel 4 Audio Control, Channel 4 Audio Output Status, Channel 5 Audio Control, Channel 5 Audio Output Status, Channel 6 Audio Control, Channel 6 Audio Output Status, Channel 7 Audio Control, Channel 7 Audio Output Status, Channel 8 Audio Control, Channel 8 Audio Output Status, Channel 9 Audio Control, Channel 9

Audio Output Status, CHARGE PLUG LOCK, CHARGE PLUG UNLOCK, Charge Port Command CAN, Charge Port Command Hard Wired, Charge Port Request Tester, Check Engine (MIL) Lamp, Command Key Unlock, Command Shift Lock, Compressor Cool Down, Compressor Current, Compressor Running, Control the steering column, Coolant High Temperature Auxiliary Electric Pump, Cooled EGR H-Bridge Valve System Test, Courtesy Lamp 2, Cushion Extender Motor, DEADLOCK-SECONDARY LOCK (FT), DEADLOCK-SECONDARY LOCK (RR), Defeat Engine ON, Diesel Fuel Heater Relay, Direct Backlight, Door Ajar Indicator, Door Handle Power Control, Door Open, Vehicle Does Not Lower, Door Puddle Lamp State, DOWN Select Button, Driver Door Ajar, DRIVER DOOR LOCK LED, Driver Door Lock-Unlock, Driver Temp Down Button, Driver Temp Up Button, DRIVER UNLOCK, DRL Lamp, DTCM Efficiency Position, Duty Cycle Purge Solenoid, EBD Warning Light, EC Mirror State, ECM WAKEUP, Electric Vacuum Pump, Emissions Failure Lamp, EMTC Encoder Power Return, EMTC Encoder Power Supply (5V), EPB Auto Apply Control, EPB Drive Away Control, EPB Failure Lamp, EPB Function Lamp, EPB Switch Function LED, ESC Failure Lamp, ESC OFF lamp, ETC Throttle Follower Test, Evaporator Sensor Temperature, External Temperature, Externally Controlled Variable Displacement (ECVD) Command (DC), FAD Power Output, FAD Request Output, Fade Settings, Fan Control, Fast Down Leveling Test, Fault Message F1 -Service Air Suspension, Fog Lamp, Freeze Current State, Frequency Step Selection, Front Defrost Indicator, Front Mode Door Actuator Position, Front Vertical Motor, Front Wiper Hi Speed, Front Wiper Low-Int Speed, Front-Rear Washer, Fuel Door Lock, FUEL DOOR UNLOCK, Fuel Injector 1 Control State, Fuel Injector 2 Control State, Fuel injector 3 Control State, Fuel Injector 4 Control State, Fuel Pump Relay Control State, GATED PARK RELAY, Gear Lever Position Display Test, Haptic Motor, Head Rest Actuation, Headlamp Washer, Heated Seat Automatic Addressing, Heated Steering Wheel PWM Control, Heater EBL, HEV Engine Belt-Driven Coolant Pump Clutch Relay, HEV Fuel Tank Isolation Valve Solenoid, High beam headlamp indication, High Beam Indicator, High Beam Light, Hood Ajar, Horizontal Headrest Motor, Horizontal Motor, Horn, HSD 21W 1, HSD 21W 2, HSD 21W 3, HSD 21W 4, HSD FOR LED 1, HSD FOR LED 2, HSD RELAY 1, HSD RELAY 2, HSD RELAY 3, HSD RELAY 4, HSD RELAY 5, HSD RELAY 6, HSD RELAY 8, HUD Lighting Level, HVAC A-C Indicator, HVAC AUTO Indicator, HVAC Front DEF Indicator, HVAC Mode Button, HVAC Rear DEF Indicator, HVAC REC Indicator, HVAC SYNC Indicator, In Motion Menu, Indicator Channel, Indicator LED Illumination Level, Interior Ambient Lighting, Interior Convenience Lamps, Interior Convenience Lamps 2, Interior Convenience Lamps 3, Interior Panel Dimming Lamps, Interior Panel Dimming Lamps 2, Interior Vanity Lamps, Inverter, IP Run 1, IP Run 3, IP Run Start 1, IP Run Start 2, Key lock command, Keypad Backlight Control, KIN OFF LED, KIN RUN LED, KIN Start-Stop Button (SSB) LED, Knob LED control, LED Intensity Output, Left Backup Lamp, Left Daytime Running Lamp, Left Front Fog Lamp, Left Front Park Lamps, Left Front Side Marker, Left Front Turn Signal, Left High Beam Lamp, Left High Beam Shutter, Left Low Beam-HID, Left Rear Door Lock-Unlock, Left Rear Fog Lamp, Left Rear Park Lamp, Left Rear Turn Lamp, Left Signature Lamp, Left Stop-Turn Lamp, Left Turn Light Status, Left Turn Signal Lamp, Left turn signal lamp indication, Level Not Permitted, License Plate Lamps, Load Level, Low Beam Light, Low Temp Passive Pump 1, Low Temp Passive Pump 2, Lower LED, Lowering, LR Door Ajar, LR DOOR LOCK LED, LSD FOR LED 3, Main-Left Temp. Door Actuator Position, Main-Left Temp. Door Position, Middle LED, Mid-Range Settings, Mirror Direction Control, Mirror Fold, Mirror Heat State, Mirror LED Left State, Mirror Right LED State, Mode Button, Mode Door 1 (Panel), Mode Door 2 (Defrost-Demist), Mode Door 3 (Floor), Mode Selection, Motor Brake State, OFF Button, Offroad Level 1, Offroad Level 2, Open-Close, OPTIONAL HSD 1 PWM, OPTIONAL HSD 2 PWM, ORC RELAY CONTROL, Oxygen Sensor 1-1 Heater Duty-Cycle, Oxygen Sensor 1-2 Heater Duty-Cycle, Park Lamp Rear Left, Park Lamp Rear Right, Park LED, Park Light, Park Mode Level, Park Mode Pending, Passenger Door Ajar, PASSENGER DOOR LOCK LED, Passenger Door Lock-Unlock, Passenger Temp Up Button, Pedals, Permanent Static System Fault, Purge Vapors Test, Radiator Cooling Fan PWM Control

State, Radiator Cooling Fan PWM Duty-Cycle, Radio Mute Button, Radio Screen OFF Button, Radio Volume, Raising, Raising Lowering Interrupted, Rear Blower CFM, Rear Defrost Indicator, Rear Fog Light Status, Rear Heated Window, Rear Left Position Light Status, Rear Left Window Manual Mode, Rear Right Position Light, Rear Right Turn Lamp, Rear Right Window Manual Mode, Rear Vertical Motor, Rear Wiper, RECIRC Indicator, Recirc. Door Actuator Position, Recliner Motor, Reduce Speed, Reverse Gear Light Status, Right Backup Lamp, Right Daytime Running Lamp, Right Front Door Handle Power, Right Front Fog Lamp, Right Front Park Lamps, Right Front Side Marker, Right Front Turn Signal, Right High Beam, Right High Beam Shutter, Right Low Beam-HID, Right Rear Door Handle Power, Right Rear Door Lock LED, Right Rear Door Lock-Unlock, Right Rear Fog Lamp, Right Rear Park Lamp, Right Signature Lamp, Right Stop-Turn Lamp, Right Temp. Door Actuator Position, Right Turn Light, Right Turn Signal Lamp, Right turn signal lamp indication, RPS Power Supply (5V), RR Door Ajar, Run, Run Acc 2, Run-Start 1, SDAR Station Selection, Seat belt unfastened Lamp, Seek Status, Seek Status Tuner AM-FM, Seek Status Tuner DAB, Self Test, Service Air Suspension, See Dealer Now -(Red Lamp), Set Engine RPM Test, Shift Lock Command, ShiftLock, Short Term Control Motor Current, Side Marker, Smart Bar Command, Speaker Quadrant Selection, SRS Indicator Lamp Request, Standard Vehicle Level, Starter, Steering Column, Stop Light Status, Stop-Turn Lamp Left, Stop-Turn Lamp Right, SUNROOF MOTOR, Surge Solenoid Control State, System Disabled (Tire Jack Mode), System Temporarily Not Available, T-Case Motor Brake HSD Output, T-Case Motor Brake LSD Duty Cycle, T-Case Motor Direction, T-Case Motor Duty Cycle, Temperature Down Button, Temperature Up Button, Top LED, TPMS, TPMS Generic Failure Lamp, Transfer Case Clutch Torque, Transponder Antenna Power, Treble Settings, Trunk Door Handle Power, Trunk-Gate, Turn Light, Turn Signal Lamp State, UGDO, Under Inflation Lamp, Unlock Left Rear, Unlock Left Rear Door, Unlock Right Rear, Unlock Right Rear Door, Unlock RUN-START, UP Select Button, Vehicle Speed Output, Vehicle Speed-RPM, Vehicle Theft Alarm, Vertical Front, Vertical Headrest Motor, Vertical Rear, Video Input, VTA Lamp, VVT Exhaust Phaser 1 Actuator, VVT Intake Phaser 1 Actuator, Washer Camera, Window Hall Sense Supply, Window State, Windshield Heater Relay, Yellow Fault Lamp

## New GM Coverage

### 3 new Adjustment type special tests:

Clear Manufacturer Enable Counter, Control Module Reset, Reset Teen Driver Key PIN

### 10 new Actuation type special tests:

Chime, Control Functions, Erase Valet Mode Code, Info Display Test, Rearview Camera Display, Seat Back Horizontal Movement, Seat Cushion Front Vertical Movement, Seat Cushion Rear Vertical Movement, Seat Horizontal Movement, Steering Column Adjustment

## New Coverage Details – USA Asian

### New Honda/Acura Coverage

#### 1 new Adjustment type special tests:

TCU Setup

### New Hyundai/Genesis Coverage

#### 9 new Adjustment type special tests:



Air Bleeding Mode, Body Sensor Reset, EPS Type Recognition, Longitudinal G Sensor Calibration(HAC/DBC Only), Reset Adaptive Values, Seat Limit Position Setting, Vehicle Name Writing, Wheel Sensor ID Writing, Write VIN

### 301 new Actuation type special tests:

(LED) DRL Lamp LH, (LED) DRL Lamp RH, 3LH SBR Left Indicator, 3RH SBR Center Indicator, A/C Compressor Relay, ACC Relay, Activate Assist Side Antenna, Activate Driver Side Antenna, Activate Hat Shelf Antenna, Active Air Flap Test, Actuator Control - Apply, Actuator Control - Release, AFLS AIMG Mode, All Door Lock Signal Output(to PTGM), Alternator Test, Assist Door Lock, Assist Door Unlock, Assist Heater Control, Assist Seat Belt Indicator, ASSIST SIDE COURTESY LAMP, Assist Side Puddle Lamp, Assist Side Repeater, Assist Window Auto Up, ATM Solenoid, Auto Cut RLY, Auto Light Power, AV Tail, Back Up Lamp Output, Back Up Light On/Off, BCM Internal Buzzer Output, Bumper Antenna Active, Burglar Horn Relay, Canister Purge Valve, Canister Shut Off Valve (OBD-2 Only), Canister Shut Off Valve Clocked(OBD-2 Only), Central Door Lock Indicator, Central Door Lock Relay, Central Door Lock Switch Output, Central Door Unlock Relay Output, Central Door Unlock Relay, Charging Status LED (Green) On, Charging Status LED (Yellow) On, Cruise Control Main Lamp(Optional), Cruise Control SET Lamp(Optional), Current FOB Key Check, D\_DRL Relay, DBL(Dynamic Bending Light) Max Position-LH, DBL(Dynamic Bending Light) Max Position-RH, DBL(Dynamic Bending Light) Middle Position-Center, Dead Lock Relay, Dedicated DRL Output, Defogger / Deicer Relay, Door Lock Relay, Door Unlock Relay, Drive Side Puddle Lamp, Driver Courtesy Lamp, Driver Door Lock, Driver Door Unlock Relay, Driver Door Unlock, Driver Heater Control, Driver Power Window Switch Autol Up Output, Driver Rear Door Courtesy Light, Driver Seat Belt Indicator, DRL Relay(Canada), Electric water pump control., Engine Check Lamp [MIL], Engine Coolant Filling Mode, EPB Status Lamp - OFF, EPB Status Lamp - ON, EPB Warning Lamp - OFF, EPB Warning Lamp - ON, ETC Motor, Europe Cornering Lamp Left Relay Output, Europe Cornering Lamp Right Relay Output, EVAP Leakage Test, Exhaust Gas Recirculation, External Buzzer, Fan Motor Control-High Speed, Fan Motor Control-Low Speed, Flasher Sound Relay(Optional), FOB Battery Indicator, FOB Key Status Information, Folding Mirror Relay, Foot Lamp Output, Front Deicer Relay, Front Fog Lamp Indicator, Front Fog Lamp Output, Front Fog Lamp Relay, Front Washer Motor Output, Fuel Lid Lock Motor, Lock, Fuel Lid Lock Motor, Unlock, Fuel Pressure Indicator Lamp, Fuel Pressure Regulator (GDI Only), Fuel Pump Relay, Full AFLS BPS Test Class C, Full AFLS BPS Test Class E, Full AFLS BPS Test Class E1, Full AFLS BPS Test Class E2, Full AFLS BPS Test Class HIGH, Full AFLS BPS Test Class V, Full AFLS BPS Test Class W, Full AFLS BPS Test LED OFF, Glove Box Lamp Output, Hazard Indicator, Hazard Relay, Head Lamp High Indicator, Head Lamp High Output, Head Lamp High Relay, Head Lamp Leveling Max(High) Position, Head Lamp Leveling Min(Low) Position, Head Lamp Low Indicator, Head Lamp Low Output, Head Lamp Low Signal, Head Lamp Washer Relay, Heated Handle Indicator, Heated Handle Output, High Mounted Stoplamp Control, HLL(Head Lamp Leveling) Middle(Center) Position, Horn Relay(NA), Horn Relay, IGN1 Relay, IGN2 Relay, Ignition Coil 1, Ignition Coil 2, Ignition Coil 3, Ignition Coil 4, Ignition Coil Enable-Disable-#5, Ignition Coil Enable-Disable-#6, Ignition Coil Enable-Disable-#7, Ignition Coil Enable-Disable-#8, Illumination, Immobilizer Indicator, Indicator ALL OFF, Indicator ALL ON, Initialization of rear Door Curtains, 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, Interior Antenna 1, Interior Antenna 2, Interior Lamp Autocut Relay Output(Optional), Interior Mood Lamp Output, IOD Relay, Key Hole Illumination, Key Interlock Solenoid(Manual Key Type), Key Out Indicator, Lamp Control, Lamp Load Power Relay, Left Stop Lamp, Luggage Lamp Relay, Luggage Lamp, Main Relay, Maintenance Mode - Apply Motor LH(Caliper Type Only), Maintenance Mode - Apply Motor RH(Caliper Type Only), Maintenance Mode - Apply(Cable Type Only), Maintenance Mode - Release Motor LH(Caliper

Type Only), Maintenance Mode - Release Motor RH(Caliper Type Only), Maintenance Mode - Release(Cable Type Only), Manual HLLD Signal Output, Manually Active Air Flap - Close, Manually Active Air Flap - Open, MAP Lamp, 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 (Slide), 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(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(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 (Footrest), Move P-Seat to the Last Position (Footrest), Move Steering Column At The Longest Position (Tele), Move Steering Column At The Shortest Position (Tele), Move Steering Column To The Highest Position (Tilt), Move Steering Column To The Lowest Position (Tilt), Multimedia Load Power Relay, Navi Wakeup Signal Output, O2 Heater Front, O2 Heater Rear, Oil Change Warning Lamp, Oil Control Valve - Exhaust Bank 1, Oil Control Valve - Exhaust Bank2, Oil Control Valve - Intake Bank 1, Oil Control Valve - Intake Bank2, Operate ASSIST SIDE FOLD, Operate ASSIST SIDE UNFOLD, Operate Assist Side Window Auto Down, Operate Assist Side Window Down, Operate Assist Side Window Up, 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, Optional Rear Seat Warmer - Left, Optional Rear Seat Warmer - Right, Over Speed Warning Indicator, Parking Brake Indicator, Parking Release Actuator Control, PAS Indicator/RPAS OFF Indicator, PAS/RPAS Buzzer Output, Pocket Light Output(Option), Power Window Relay, PSB Retraction Test for Equipment LH, PSB Retraction Test for Equipment LRRH, PSB Retraction Test for Equipment RH, Puddle Lamp Output, Radiator Cooling Fan PWM, Read VIN, 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 Assist Window Up, Rear Curtain DN Output, Rear Curtain Up Output, Rear Defogger 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 Indicator, Rear Fog Lamp Relay, Rear Fog Lamp, Rear Left Cooler Switch On, Rear Left Heater Switch On, Rear Mood Lamp(Both Left and Right), Rear Pocket Lamp(Both Left and Right), Rear Power Window LH Up Relay, Rear Right Cooler Switch On, Rear Right Heater Switch On, Rear Room Lamp Output, Rear Seat Belt Center Indicator, Rear Seat Belt Left Indicator, Rear Seat Belt Right Indicator, Rear Washer Motor, Rear Wiper Relay, Right Stop Lamp, RKE Tailgate Signal Output(to PTGM), Room Lamp Output, RPAS Switch Indicator (Option), Safety Power Window Enable, SBL Function Test SBL LH ON, SBL Function Test SBL ON(ALL), SBL Function Test SBL RH ON, Security Indicator (Option), Security LED Output, SSB Illumination, SSB LED Amber, SSB LED Blue/Red, SSB LED OFF, SSB LED White, Start Inhibit Relay, Starter Relay, Static Bending LH Output, Static Bending RH Output, Stop Lamp Left/Right, Stop Lamp, SunRoof Power Relay control, Tail Interior Lamp, Tail Lamp Indicator, Tail Lamp Output, Tailgate/Trunk Release Relay, TCI Bypass Valve (Turbo Only), Trunk Antenna, Turn LH Output, Turn RH Output, Unfold Mirrors, User Option, Variable Intake Solenoid(Option), VCM Motor(Option), Waste Gate Valve (Turbo

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Only), Window Lock to Assist Door Module, Window Lock to Driver Door Module, Wiper High Relay, Wiper Low Relay, Wiper Relay

## New Kia Coverage

### 15 new Adjustment type special tests:

Auto Detected Configuration Reset, 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, Purge Solenoid Valve Opening Additive Correction, Reset Adaptive Values, Reset of Injector Q-stat Adaptation, Resetting Adaptive Values, Resetting E-CVVT Values, Write VIN

### 293 new Actuation type special tests:

(LED) DRL Lamp LH, (LED) DRL Lamp RH, 3rd Row Center SBR Center Indicator, 3rd Row SBR Left Indicator(Optional), 3rd Row SBR Right Indicator(Optional), A/C Compressor Relay, AAF Control - Close, AAF Control - Open, AAF Relay, A-C Compressor Relay, AEWP Control - PWM Type, AFLS AIMG Mode, All Door Lock Signal Output(to PTGM), Alternator Control, Alternator Test, Alt'L Signal Out, Assist Mirror Position Down (Option), Assist Mirror Position Left (Option), Assist Mirror Position Right (Option), Assist Mirror Position Up (Option), Assist Seat Belt Indicator (Option), Assist Seat Belt Indicator, ATM Solenoid, Auto Light Power, AV Tail, Back Up Lamp Output, Battery Warning Lamp, 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, Central Door Lock Indicator, Central Door Lock Relay, Central Door Lock Switch Output, Central Door Unlock Relay Output, Central Door Unlock Relay, CNG Bi-Fuel Fuel Change, CNG Shut sol valve in Fuel Tank, Cooling Fan PWM, Cornering Lamp Left Relay Output (Option), Cornering Lamp Right Relay Output (Option), 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\_DRL Relay, DBL(Dynamic Bending Light) Max Position-LH, DBL(Dynamic Bending Light) Max Position-RH, DBL(Dynamic Bending Light) Middle Position-Center, Dead Lock Relay, Defogger Indicator, Differential Pressure Valve, Driver Door Unlock Relay, Driver Power Window Switch Autol Up Output, Driver Seat Belt Indicator, DRL Relay(Canada), EGR Valve, ELCM Change Over Value(COV) Control, ELCM Pump Control, Electric water pump control., Electrically Controlled Water Pump (Option), Electronic Waste Gate Valve (Turbo Only), EMS Wakeup Output, Engine Check Lamp [MIL], Engine Check Lamp(MIL), Engine Coolant Filling Mode, ETC Motor, EV Charge Door Open Lamp Output, EV Charge Door Open Relay, EVAP Leakage Test, Exhaust Gas Recirculation Valve, Exhaust Gas Recirculation, External Buzzer Output, Fan Motor Control-High Speed, Fan Motor Control-Low Speed, Fan PWM, Flasher Sound Relay(Optional), Flow Stop Valve, Foot Lamp Output(Optional), FPCM pressure control, Front Fog Lamp Indicator, Front Fog Lamp Relay, Front Left Turn Signal Output, Front Right Turn Signal Output, Front Washer Motor Output, 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, Full AFLS BPS Test Class C, Full AFLS BPS Test Class E, Full AFLS BPS Test Class E1, Full AFLS BPS Test Class E2, Full AFLS BPS Test Class HIGH, Full AFLS BPS Test Class V, Full AFLS BPS Test Class W, Full AFLS BPS Test LED OFF, Gasoline Lamp (Bi-Fuel), Gauge ON, Glove Box Lamp Output, Haptic Steering Wheel Output, Hazard Relay, Head Lamp High Indicator, Head Lamp High Output, Head Lamp Leveling Max(High) Position, Head Lamp Leveling Min(Low) Position, Head Lamp Low Indicator, Head Lamp Low Output, Head Lamp Low Signal, Head Lamp Washer Relay, Heated Handle Indicator(Optional), Heated Handle Output(Optional), Heated Washer Nozzle Output, Heated Washer Nozzle Relay, High Pressure Fuel Pump Control, High Pressure Fuel Pump Control2, HLL(Head Lamp Leveling) Middle(Center) Position, Horn Relay(NA), Horn Relay, Idle Speed Actuator, 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, Immobilizer Lamp(Optional), Indicator ALL OFF, Indicator ALL ON, 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, Interior Lamp Autocut Relay Output(Optional), Interior Mood Lamp Output (Option), Internal Buzzer, IOD Relay, ISG Lamp, ISG Test(Optional), ITM Valve, Key Hole Illumination (Manual Key Type), Key Interlock Solenoid(Manual Key Type), Lamp Load Power Relay, LPG Cut Valve for Fuel Rail, LPG Cut Valve for Fuel Tank, LPG Fuel Pump PWM, LPG Lamp, Luggage Lamp Relay, Main Relay, Manual HLLD Signal Output, Map Lamp Output, Mirror Folding Operation (Option), Mirror Unfolding Operation (Option), Mood Lamp 1 Output, Mood Lamp 2 Output, Mood Lamp 3 Output, Move P/Seat to the Foremost Position (Recline), Move P/Seat to the Foremost Position (Slide), Move P/Seat to the Last Position (Tilt), Move P/Seat to the Lowest Position (FR Height), Multimedia Load Power Relay, Navi Wakeup Signal Output, Norminal Idle Speed Offset, O2 Heater Front (B1-S1), O2 Heater Front, O2 Heater Rear (B1-S2), O2 Heater Rear, 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, Over speed indicator(Optional), Over Speed Warning Indicator, Parking Brake Indicator, PAS Buzzer Output (RPAS Buzzer Output), PAS Indicator (RPAS Off Indicator), Puddle Lamp Output, Radiator Cooling Fan PWM, Radiator shutter 1 - Auto test, Radiator shutter 1 - Close test, Radiator shutter 1 - Open test, Read VIN, Rear Assist Power Window Down Relay, Rear Assist Power Window Up Relay, Rear Curtain Down Output, Rear Curtain Up Output, Rear Driver Power Window Down Relay, Rear Driver Power Window Up Relay, Rear Fog Lamp Indicator, Rear Fog Lamp Relay (Option), Rear Left Turn Signal Output, Rear Power Window LH Up Relay, Rear Right Turn Signal Output, Rear Room Lamp Output, Rear Seat Belt Center Indicator (Option), Rear Seat Belt Left Indicator (Option), Rear Seat Belt Right Indicator (Option), Rear Seat Warmer Left(Optional), Rear Seat Warmer Right(Optional), Rear Washer Motor Output, Rear Wiper Relay, RKE Tailgate Signal Output(to PTGM), Room Lamp Output, RPAS Switch Indicator(Optional), RVM Swich Indicator Output, Safety ECU Enable Output (High), Safety Power Window Enable, SBL Function Test SBL LH ON, SBL Function Test SBL ON(ALL), SBL Function Test SBL RH ON, Security Indicator (Option), Security LED Output, Selection Injector Group(A) of Engine Idle state for Dual Injec, Start Inhibit Relay, Start Relay, Static Bending LH Output (Option), Static Bending RH Output (Option), Stop Lamp, Sunroof Power Relay control(Optional), System Identification, Tail Interior Lamp, Tail Lamp Indicator, Tail Lamp Output, Tail Lamp Relay, TCI Bypass Valve (Turbo Only), TCI Bypass Valve(Turbo Only), Turbo dump(ReCirculation) Valve (RCV), Turbo waste gate(WGT) valve, Turn



LH Output, Turn RH Output, Turn Signal Sound Relay Output, Variable Exhaust Flap, Variable Force Solenoid Valve - Exhaust Bank1 test, Variable Force Solenoid Valve - Intake Bank1 test, Variable Intake Manifold 1 (Option), Variable Intake Solenoid(Option), Variable Oil Pump Solenoid, VCM Motor(Option), VVL Control Solenoid Valve - EX, B1, VVL Control Solenoid Valve - EX, B2, VVL Control Solenoid Valve - IN, B1, VVL Control Solenoid Valve - IN, B2, Waste Gate Valve (Turbo Only), 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]

## New Mazda Coverage

- Added coverage for 18 new system applications

## New Nissan/Infiniti Coverage

### 195 new Adjustment type special tests:

A/F Initial Learning, A/F Sensor Response Diagnosis Status B1, A/F Sensor Response Diagnosis Status B2, Active Control Engine Mounting A, Active Control Engine Mounting B, Adaptives After Replacing Particulate Filter, AFT Maintenance, After Camshaft Position Sensor Replacement, After Clutch Pedal Switch Replacement, After Crankshaft Position Sensor Replacement, After Electric Throttle Control Actuator Replacement, After Fuel Injector Replacement, After Fuel Rail Pressure Sensor Replacement, After High Pressure Fuel Pump Replacement, After Turbocharger Replacement, After Turbocharger Solenoid Valve Replacement, Air Bleeding, Air Fuel Ratio Correction Value, Air Fuel Ratio Sensor, ALC Setting, Anti Theft Alarm Trigger Setting, Anti-Lock Out Set, AP Position Learn Clear, Auto Door Lock, Auto Light Logic Setting, Auto Park Inhibition, Automatic Door Lock/Unlock Setting, AUTOMATIC DOOR UNLOCK SELECT, Automatic Lock Setting, Auxiliary Gearbox Clutch Point Learning, Battery Discharge Current Integration Clear, BCM Diagnosis When Engine Does Not Start, BCM Diagnosis When the Door Lock Is Malfunctioning, Blind Spot Detection Configuration, Blind Spot Detection Shut-Off Requester Test, Blow Mode, Blow Set, Cause of Auto Cancel 2, Cause of Auto Cancel 4, Cause of Auto Cancel 6, CC/SL Program, Check Fuel Lines, Clear Air-Fuel Ratio Learning, Clear ETC Learning, Clear E-VTC Op Learned Angle (Exh), Clear E-VTC Op Learned Deviation Angle (Exh), Clear FFD, Clear LPG Air-fuel Ratio Learning, Clear Normal TAS Learning, Clsd Thl Pos Learn, Clutch Pedal End Stroke, Clutch Point Learning, CML Battery Discharge Current Integration Clear, CO Adjustment, Computer Programming, Conform CVTF Deterioration, Cumulative Sub-Battery Discharge Current Clear, Custom A/Light Setting, Decel G Sensor Calibration, Diagnosis for Remote Engine Starter, Door Lock / Unlock, Door Motor Starting Position Reset, DPF Regeneration, Dual battery relay voltage drop count data clear, ECO Mode Reset Function, EGR Control Valve Closed Position Learning, Electric Intake Valve Timing Control Learning, Electric Oil Pump Air Bleeding, Engine Adaptive, Engine basis parts value 1 and 2 clear, Engine Brake Adjustment, Engine Start by I-Key, Erase Calibration Data, Erase Learning Value, Erase Memory Data, Erase Statistic Memory, Ethanol Concentration, EVAP System Close, FEB Operation Mileage, Fine Adjustment Front View Camera Top View, Fine adjustment of DS camera, top view, Fine adjustment of PAS camera, top view, Fine Adjustment Reversing Camera Top View, Finish Brake Pad Replacement, FRE Memory Set, Front Camera Guidelines Correction, Fuel Pressure Release, Fuel Supply Prevention, FWD Clutch Point Learning, G Sensor Calibration, Gas Sensor Adjustment, GPF Service Regeneration Reset Routine Execution, High Pressure Fuel Circuit Fault Finding, High Pressure Fuel Pump Total Starts Counter Clear, Horn With Keyless Lock, ID Read, ID Registration, Idle Air Volume Learn, Ignition Battery Saver Set, Ignition Timing (ADV), Ignition Timing Adjustment, Illumination Delay

Setting, Initialization Position Adjustment, Injection Pump Adaptive, Injection Timing, Interior Light/Door Lock Interaction Setting, Interval of Oil Change (OCS) Oxidation, Lane Dep.Warning Camera Shut-Off Requ.Test, Lane Departure Warning Camera Configuration, Launch Control Counter Reset, Lock/Unlock By I-Key, Longitudinal G Sensor Calibration, M/T Neutral Pos Learn, Misfire Count (Past), Misfire count (real-time), Multi Answer Back Setting, Number of Starting 1, Number of Starting 2, Number of Starting 3, Number of Starting 4, Number of Starting Cycles, Oil Change Interval (OCS) Dilution, Program Key Fobs, Programmed Values, Programming Reinitialization, Programming Selections/Engaging Zones, R Lamp Timer Logic Setting, REC Memory Set, Regeneration of Gasoline Particulate Filter, REMO CONT ID CONFIR, Remo Cont ID Erase, REMO CONT ID REGIST, Reset Adaptation Values for Shift Operation, Reset Adaption To Factory Setting, Reset Fuel And Timing Learn Tables, Reset Fuel Consumption Short Term Log, Reset to Default Settings, Retained Power Setting, Reversing Camera Guidelines Correction, Room Lamp Off Timer Setting, Room Lamp On Timer Setting, Room Lamp Timer Setting, Rotary Position Sensor Learn, RTCV Actuator Calibrate, Save Computer Data, Save/Write Data for CPU Replace, Save/Write VIN Data, SC Magnetic Clutch Engage Count Clear, Self-Learning Cont, Set R-DEF Timer, Set Rear Temperature Correction, Set Temperature Correction, Shift Drum Reference Position, Solenoid VTC Operation Start Duty Learning, Start Brake Pad Replacement, Start OBD test: Catalytic converter, Start OBD test: O2 sensors, Starter Operation Count Clear, Starter Operation Counter Clear, Steering Angle Initialization, Stop/Start engine restart cause data recorder, Stop/Start engine stall cause data recorder, Stop/Start prohibit cause data recorder, Sub-Starter Generator Oper Count Clear, Supercharger Magnet Clutch Engagement Count Clear, System Mode Change, Target Evaporator Temperature Upper Limit Setting, Target Idle RPM Adjustment, Target IGN TIM ADJ, Target Ignition Timing Hold, Tcu Activate Setting, Teach-in Of Selection Range Sensor, Temp Set Correct In Deg C, Temp Set Correct In Deg F, Tire Pressure Sensor Registration, Upshifts, V/T Control Learn, Valve Calibration, Valve Check, Valve Flushing, Valve Timing Adjustment, Valve Timing Offset Data Clear, Valve Timing Offset Data Writing, Vcr Base Position Learning, VIN Registration, VVEL Position Sensor Adj Prepare, Waste Gate Actuator Position Learning Value Clear, Waste Gate Regulation, Wiper Speed Setting, Write Fuel Learn Value, Write High Pressure Fuel Pump Total Starts Count, Write Saved Data, Write Starter Operation Count, WRITE VIN(MANUAL INPUT), Write VIN

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

(TBD)EAP FAIL IND, (TBD)Epkb Request, (TBD)EPS Reaction Force Request, (TBD)Hand Free Warning, (TBD)LDP L STEP, (TBD)OH Steeringheaterreq, 4WD AT Flow, A/C Compressor Relay Control, A/C Compressor, A/C Indicator, A/F Sensor Heater, AAC/V Output Duty, AAC/V Output Step, ABS Motor, AC Compressor Relay, AC Compressor, A-C INDICATOR, ACC Indicator, Accy/RAP Relay, Activate Demo Mode Of Exterior Lamp, Activate the Starter Cut Relay, Active Grille Air Shutter, Active Grille Shutter, Active Pedal, ADAS Buzzer 2, ADAS BUZZER, Advanced Homogeneous Direct Injection Angle, Advanced Stratified Direct Injection Angle, AEB Disp, A-F Ratio Cntrl Stop Stratified Chrg Cmb Trnsfr, Air Bypass Valve Solenoid, Air Cond Rly, Air Conditioner Relay Output, Air Conditioner Test, Air Inlet Control Flap On Front End Panel, Air Inlet Flap, Air Pump Relay, Air Pump, Air/Liquid Pump Of Camera, ALC Disp, ALC Level, ALL INDICATORS DRIVE, All LCD Segments, ALL SEG, All Shock Absorber, Alternator Duty Cycle, Alternator Duty, Alternator Voltage, ANC Test Tone, Answer Back With I-Key Unlock, Anti Key Lock In Function, ARC Disp 2, ARC Disp, ARC operation indication, AS Seat Lamp Test, Assist Seat Lamp Test, ATC 1 Disp, ATC 2 Disp, ATC 3 Disp, ATC 4 Disp, ATC 5 Disp, Auto ACC 1, AUTO ACC 2, Auto retractable door mirror, Auto Stop Start, Automatic Back Door, Automatic Brake Hold Lamp Active, Automatic Brake Hold SW Lamp Active, Back Door open Test, Battery Saver, BCI Warning Indicator, Boost Pressure, Booster Solenoid, Boot/Trunk Open, Brake Actuator 1 Mode 1, Brake Actuator 1 Mode 2, Brake Actuator 1 Mode 3, Brake Actuator 2 Mode 1, Brake Actuator 2 Mode 2,

Brake Actuator 2 Mode 3, Brake Actuator 3 Mode 1, Brake Actuator 3 Mode 2, Brake Actuator 3 Mode 3, Brake Actuator, Brake Hold Disp, Brake Hold Display, Brake Operation, Brake Release, Brake SW, Brake Switch, BSI Indicator On, BSI ON Indicator, BSI Warning Indicator, BSW Indicator LH, BSW Indicator RH, BSW On Indicator, BSW Warning Lamp, BSW/BSI INDICATOR DRIVE, BSW/BSI WARNING LAMP, BSW-BSI INDICATOR DRIVE, BSW-BSI WARNING LAMP, BUZZER 1 (ADAS), BUZZER 1 (CCM), BUZZER 2 (ADAS), BUZZER 2 (CCM), BUZZER 3 (ADAS), BUZZER 3 (CCM), BUZZER 4 (ADAS), BUZZER 4 (CCM), BUZZER DRIVE, Buzzer, Camshaft Dephaser: Solenoid Valve Slide Movement, Camshaft Positioner, Canister Bleed Solenoid Valve, Canister Drain Cut Valve, Cargo Lamp Output, Catalyst Exhaust Gas Downstream O2 Resistance Heater PWM, Catalyst Exhaust Gas Upstream O2 Resistance Heater PWM, Cause of Auto Cancel 1, Causes Of Engine Stop Prevention, CBV Position Override, Charge Air Cooler Cooling Electric Water Pump, Check Activated Canister Shutoff Valve, Check Boost Pressure Control, Check Component Purging Pressure Control, Check Coolant Pump Switchover Valve, Check Coolant Thermostat Heating Element, Check Cylinder Fuel Injectors For Leaks, Check Cylinder Fuel Injectors, Check Deceleration Air Switchover Valve, Check Engine And AC With Integrated Control Fan Motor, Check Engine Oil Pump Valve, Check Exhaust Camshaft Solenoid, Check Fuel High Pressure Circulation for Leak Tightness, Check Fuel Pressure And Temperature Sensor Rail Pressure, Check Fuel Tank Pressure Sensor, Check Intake Camshaft Solenoid, Check Intake Port Shutoff Actuator Motor, Check Purging Switchover Valve, Check Quantity Control Valve, Check Throttle Valve Actuator, Check Valve Bypass Valve, CNG Cylinder Shutoff Valve, Command St Whl Forc, Command Steering Angle, Component Quantity Control Valve, Compressor, Confirm Dongle ID, Continuously Variable Valve Timing Control Side Intake, Coolant Circulation Switching S/V, Coolant Temperature, Cooling Fan, Cornering Lamp Test, CORNERING LAMP, C-SCV Target Step (Bank1), C-SCV Target Step (Bank2), C-VTC Target Angle, Cylinder Cutout Test, Daytime Running Light, DCA Indicator, DEF Dosing Unit Override Test, DEF Line Heater Test, DEF System Leak Test, DEF Tank Heater Test, DIG Power Balance Cylinder 1, DIG Power Balance Cylinder 2, DIG Power Balance Cylinder 3, DIG Power Balance Cylinder 4, DIG Power Balance Cylinder 5, DIG Power Balance Cylinder 6, DIG Power Balance Cylinder 7, DIG Power Balance Cylinder 8, Door Handle Lamp Test, Door Lock Ind, Door Lock Indicator, Door lock status indicator, Door Lock, Door Mirror LED LH, Door Mirror LED RH, Door Warning Lamp, DOWNSTREAM OXYGEN SENSOR HEATING, Drive Mode Test, Drive Power Distribute Torque, Driver Seat, EAP SW LAMP, EAPM Warning Lamp, EGR Cont (Mode 1), EGR Cont (Mode 3), EGR Control Valve, EGR Cut Solenoid, EGR Solenoid, EGR Vol Cont/V, EGR VOL CONT-V, EGRC Solenoid Valve, Electric Fan Override Test, Electric Parking Brake Activation, Electric Water Pump, Electrical Control EGR Target Step, Electrical Control Engine Mount Motor, Electronic Throttle Control, ENG COOLANT TEMP, Engine Coolant Bypass Valve, Engine Coolant Electric Water Pump, Engine Coolant Temperature, Engine Fan Override Test, Engine Mounting, Engine Oil Pressure Control Solenoid Valve, Engine Piloted Oil Pump, ENGINE SPEED OUTPUT TEST, Engine Start Request, Engine Start, Engine Sw Illumi, ESS Active, ESS Relay Active, ETC Correction Valve, ETS Solenoid Control, ETS S-V, EVAP Canister Purge Control Solenoid Valve, EVAP CNT Duty Valve Open, EVAP Leak Diag, EVAP Leak Mode8, EVAP Leak P1441, E-VTC Target Angle (Exhaust), EXH V-T ASSIGN ANGLE, Exhaust Air Flap, Exhaust Camshaft Dephaser Solenoid Valve, Exhaust Camshaft Set Point, Exhaust Fuel Injector, Exhaust Gas Recirculation Cooler Bypass Valve, Exhaust Valve Timing Assign Angle, Exhaust Valve Timing Control Solenoid Valve, Exterior Lamps, External Buzzer, EXTERNAL LAMPS, Fan Duty Control, Fan Unit High Speed Relay, FAN UNIT HIGH SPEED, Fan Unit Low Speed Relay, FAN UNIT LOW SPEED, FL Shock Absorber, FL Tire Disp, Flasher test, Flasher, FLAT TIRE WARNING, Flex-Fuel Additional Pump, Flex-Fuel Additional Solenoid Valve, FLYWHEEL TARGET PROGRAMMING, Fog Lamp Override, FPCM, FR Fog lamp, FR Left SEAT Heater, 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 Right SEAT Heater, FR Shock Absorber, FR Tire Disp, Fr Wiper, Fresh Air Memory, Front Assist Window, Front Buzzer, Front Driver Window, Front Fog Lamp, Front lamp, Front Left Solenoid, Front Right Solenoid, Front window defogger (driver side), Front window defogger (passenger side), Front Wiper Test, Front Wiper, Fuel Flow Actuator, Fuel Flow Solenoid Valve, Fuel Heater Relay, Fuel Heater, Fuel Injection, Fuel Lid Open Indicate, FUEL LID OPEN, FUEL METER DIAGNOSIS( ANALOG METER ), Fuel Pressure Solenoid Valve, Fuel Pump Control Module, Fuel Pump Relay 2, Fuel Pump Relay 3, Fuel Pump Relay, Fuel Pump, Fuel Rail Pressure Control Valve, Fuel Rail Pressure, Fuel Return Valve, Fuel Shutoff Valve 1, Fuel Shutoff Valve 2, Fuel Shutoff Valve 3, Fuel Shutoff Valve, Fuel Supply Pump Override Test, Fuel System Leakage Test, FUEL-T TEMP SEN, Gas Pump Command State, Glow Relay, HALF BACK DOOR, Hazard Answer Back, Hazard Lamp, HDC DISP, HDC Display, Head Lamp High, Head Lamp Washer, HEAD LAMP(HI), Head Lamp, Head Lamps, Headlamp High, Headlamp Low, Headlamp Washer, Heater Valve Flow, HEATING RESISTOR RELAY 1, HEATING RESISTOR RELAY 2, HEATING RESISTOR RELAY 3, High Beam Lamp Test, High Pressure Circuit Leak Test, Horn Chirp Test, HORN LAMP, Horn Test, Horn, Horn-IPDM-E, Horn-Multi Remote Ent, HPCR Fuel Act Override, HVAC Test, Hydraulic Control, IACV-AAC/V Opening, ICC Buzzer, ICC Warning Lamp, ID REGIST WARNING, Idle Target RPM, Ign Cont2, IGN KEY WARN ALM, Ignition Accessory Battery Saver, Ignition Cont1, Ignition Cont2, Ignition Cylinder 1, Ignition Cylinder 2, Ignition Cylinder 3, Ignition Cylinder 4, Ignition Illumination, Ignition Key In Alarm, Ignition Key Warning Alarm, Ignition On Ind, Ignition Relay, Ignition Switch LED Power, Ignition Timing (Mode 1), Ignition Timing (Mode 3), Ignition Timing, Ill Dim Signal, Illumination Dim Signal, Immobilizer Lamp, INDICATOR LAMP DRIVE, Indicator, Injection Pressure Regulator, Injector Cylinder 2, Injector Cylinder 3, Injector Cylinder 4, Injector-Cylinder 1, Inside ANT Diagnosis, Inside Buzzer, INT LAMP, INT V/T ASSIGN ANGLE, INT V-T ASSIGN ANGLE, Intake Duct S/V, Intake Manifold Pressure Solenoid, Intake Valve Timing Control Solenoid Valve, Intank Fuel Temperature Sensor, INTELLIGENT KEY LINK (CAN), Intelligent Key Link, Interior Lamp, Interior Lamps, Interrupt Disp, Key Fob Low Battery Warning, Key Fob Power Window Test, Key Reminder Warn, Key Reminder, Lamps, Lane Departure W/L, Lane Departure Warning Display, LANE DEPARTURE W-L, LCD, LDP Buzzer, LDP ON IND, Ldp On Indicator, LDP Warning Indicator, LDP Warning Lamp, LDW On Indicator, LDW Warning Indicator, LDW Warning Lamp, LED LH INDICATOR, LED, Left Exterior Mirror LED Test, Left Solenoid, Lifting motor, Light On Alarm, LIGHT WARN ALM, Lock Indicator, Low Pressure Fuel Pump, LPG Air Fuel Ratio Revision Value, LPG Shutoff Valve Relay, Luggage Lamp Test, Malfunction Status Of Stop/Start System, MAP/Baro SW/V, Master Warning Active, Meter Buzzer, Meter Lamp, Mirror +5 V Test, Mixture Ratio, Mode 1 DIG Power Balance Cylinder 1, Mode 1 DIG Power Balance Cylinder 2, Mode 1 DIG Power Balance Cylinder 3, Mode 1 DIG Power Balance Cylinder 4, Mode 1 DIG Power Balance Cylinder 5, Mode 1 DIG Power Balance Cylinder 6, Mode 1 DIG Power Balance Cylinder 7, Mode 1 DIG Power Balance Cylinder 8, Mode 3 DIG Power Balance Cylinder 1, Mode 3 DIG Power Balance Cylinder 2, Mode 3 DIG Power Balance Cylinder 3, Mode 3 DIG Power Balance Cylinder 4, Mode 3 DIG Power Balance Cylinder 5, Mode 3 DIG Power Balance Cylinder 6, Mode 3 DIG Power Balance Cylinder 7, Mode 3 DIG Power Balance Cylinder 8, Motor Fan, MOTORISED THROTTLE, Oil Pressure Sw, Oil Pressure Switch, Optic Axis Active Test, Outside Air Temperature Diagnosis, Outside Buzzer, Oxygen Sensor 1 Heater, Oxygen Sensor 2 Heater, P Range, P/REG CONT SOL/V, Panic Alarm, Parcel Shelf, Parking Lamp, Partial Load Operation Crankcase Ventilation Valve, PB SW indicator ON, PBD, Power Balance (Cylinder #1), Power Balance (Cylinder #2), Power Balance (Cylinder #3), Power Balance (Cylinder #4), Power Balance (Cylinder #5), Power Balance (Cylinder #6), Power Balance (Cylinder #7), Power Balance (Cylinder #8), Power Balance, Power Slide Door, Power Sliding Door, Power Window Down, Power Window Remote Down Set, PRES Regulator, Pressure Control Solenoid A, Pressure Control Solenoid B, Pressure Control Solenoid C, Programming CI Touch Point, PROGRAMMING THROTTLE LIMITS, PRVR Solenoid, PSD PBD Open Test, PTC Heater



Relay 1, PTC Heater Relay 2, PTC Heater Relay 3, PTC Relay-1, PTC Relay-2, PTC Relay-3, Purg Vol Cont/V, PURG VOL CONT-V, Purging Switchover Valve, Push Switch Indicator, RAB Warning Lamp (Malfunction), RAB Warning Lamp (Operation), Radiator Fan Drive, Radiator Fan Output Hi, Radiator Fan Output Lo, Radiator Fan Relay Test, Radiator Fan Relay, RCTA-BSW Indicator, Read Tire Id, READY Indicator Lamp, Rear Assist Window, Rear Buzzer, Rear Defogger Indicator, Rear Defogger, Rear Driver Window, Rear Left Solenoid, Rear O2 Diagnosis, Rear Right Solenoid, Rear Wiper, Recycle Air Memory Switch, Release Hand Warning, Remote Engine Starter, Retractable Mirror, Reverse Gear Reset Values Of Shift Operations, Reverse Lamp, Reverse Warning, Right Exterior Mirror LED Test, Right Solenoid, Rise Up Wiper Test, RL Shock Absorber, RL Tire Disp, Roof, RR Fog Lamp, RR LH ABS Solenoid (ACT), RR LH ABS SOLENOID(ACT), RR LH SOL, RR O2 Sensor Heater, RR RH ABS Solenoid (ACT), RR RH ABS SOLENOID(ACT), RR RH SOL, RR Shock Absorber, RR Tire Disp, RR Wiper, RTCV Hysteresis Test, RUN FLAT TIRE W/L, Run Flat Tire Warning Buzzer, RUN FLAT TIRE W-L, RUN FLAT-T WARN BUZZER, SCB/V Cont SOL/V, SCR Performance, SCV Solenoid, Seat belt lamp test, Seat Belt Warn Test, Secondary Air Cut Solenoid, Security Horn, Security Indicator, Shift Lock Solenoid, Shift Solenoid A, Shift Solenoid B, Shift Solenoid C, Shift Solenoid D, Shift Solenoid E, Shift Spot Lamp Test, SHIFTLCK SOLENOID TEST, Short Cranking Output, Siren, Solenoid Actuator Driving FR 2 Wheels, Solenoid Actuator Driving FR-LH, Solenoid Actuator Driving FR-RH, Solenoid Actuator Driving RR 2 Wheels, Solenoid Actuator Driving RR-LH, Solenoid Actuator Driving RR-RH, Solenoid Driving FR-LH, Solenoid Driving FR-RH, Solenoid Driving RR, Solenoid Driving RR-LH, Solenoid Driving RR-RH, Sonar buzzer, Speaker Mute Signal, Speed Sensor Function, Starter Cut Relay, Stationary Cornering Lamp Low, Steering Reaction Force Activation, Step Lamp Test, Stop Current Command, Stop Lamp 1, Stop Lamp 2, Stop Lamp 3, Stop Lamp Off Relay 1 Active, Stop Lamp Off Relay 2 Active, Stop Lamp ON Relay Active, Stop Lamp On Relay, Stop Lamp, Stop Light Relay, Stop start OFF switch indicator, Stratified Direct Injection Timing Angle, Stratified EGR Position, Sub Fuel Cont Sol /V, Sub Fuel Pump Relay, Super Charger Clutch Relay, Super Lock, Supercharger Clutch Relay, SWIRL CONT SOL VALVE, Swirl Control Valve, Switch lamp 2, Switch lamp 3, Switch Lamp, SYSTEM ON LAMP DRIVE, Tail Lamp, Tail Light, TANK FUEL TEMPERATURE SENSOR, TARGET EGR ANGLE, Target EGR Position, Target Electric Throttle Control Angle, Target Equivalence Ratio Control, Target Fan RPM, Target Idle Speed, TC Bypass Valve, TC-SC BYPASS VALVE, TCV Power System Test, THEFT IND, Theft Indicator, Thermostat Heater Control Solenoid Valve, Thigh support motor, Third O2 Sensor Heater, Third O2/S Diagnosis, Throttle Valve Position Setpoint, Tire Pressure Warning Lamp, TPMS ID flat tire warn, TPMS ID Registration Warning, TPMS LAMP WARN TEST, Truck Relay Test, Truck Unlock Test, Trunk Locall Identifier, Trunk Open Test, Trunk/Back Door, Trunk/Glass Hatch Open, Trunk/Glass Hatch, Trunk-back door, TRUNK-GLASS HATCH, Trunk-Luggage Lamp Test, Trunk-luggage lamp, Tumble Control Valve, TUMBLE CONTROL VALVE~TUMBLE CONTROL VALVE, Turbocharger Boost Control Actuator, Turbocharger Boost Control Solenoid Valve, Turbocharger Wastegate Solenoid Valve, Turbocharging Solenoid Valve, Turn Disp, Turn display (LH), Turn display (RH), TURN SIGNAL LAMP LEFT, TURN SIGNAL LAMP RIGHT, Unit Characteristics Data, UPSTREAM O2 SENSOR HEATING, V/T Assign Angle, Valve Tests, Valve Timing Sol, Variable Duct Solenoid Output, VC/V Bypass/V, VCR System, Vehicle Disp, Vehicle Security Horn, VEHICLE SECURITYT HORN, Vent Control Valve, VENT CONTROL-V, VIAS S/V-1, VIAS Solenoid, VIAS S-V-1, VIAS S-V-2, Vibration Motor, VMC left turning operation indication, VMC Right turning operation indication, VTC Solenoid, VVL Int Exh Solenoid Simultaneous Drive, VVL Solenoid Exhaust, VVL Solenoid Intake, W/G, Warning Buzzer, Warning Lamp, Warning System Indicator, Washer Fluid Pump Relay, Wastegate Actuator, Water Temperature, YAW STEP L, YAW STEP R, Yellow Lane Dep.Warnng.Indic. Lamp

## New Toyota/Lexus Coverage

### 217 new Adjustment type special tests:

2 Steps Fade Out Control Function, 3rd Center Seatbelt Warning Buzzer Function, 3rd Left Seatbelt Warning Buzzer Function, 3rd Right Seatbelt Warning Buzzer Function, 4th Center Seatbelt Warning Buzzer Function, 4th Left Seatbelt Warning Buzzer Function, 4th Right Seatbelt Warning Buzzer Function, A/C Auto Switch Mode, A/C Operation Limit History Counter Clear, A/T Code Reset, Activate The EGR Valve Close Bank 1, Activate The VN Turbo Open Bank 1, Advanced Park Parallel Parking Control Area, Advanced Park Perpendicular Parking Control Area, Air Bleeding, All Readiness, Ambient Temperature Adjustment, AT Code Registration, Audio Information Display Function, Auto Door Lock Pattern Setting (Speed), Auto Door Lock, Auto Entry Cancel 2 Setting, Auto Entry Cancel Setting, Auto LightOff Timer, 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, Brightness Level Adjust (Canceling), Brightness Level Adjust (Lowering), Clearance Warning Buzzer Volume, Coming Home Light, CVT Oil Pressure Calibration, Daytime Running Light Function, DCM Operation History, Door Auto Lock Timer Setting, Door Lock Indicator Function, Door Lock Indicator Pattern Setting (IG OFF), Door Lock Indicator Pattern Setting (IG ON), Door Open SW Operation Adjust, Door Unlock Sensor Touch Time Adjust, Driver Seat Distance Adjust when Get Off, Driver Seat Lift Up Distance Adjust when Get Off, Driver Seatbelt Warning Buzzer Function, DRL Function, ECO Drive Indicator Zone Display Function (Meter), ECO Drive Indicator Zone Display Function, ECO Mode Control, Efficient Ventilation Mode, Entry Unlock Twice Function, EPB Initialize, Evaporator Control, Extended Headlight Lighting, Exterior Lights Lighting Timer Setting, Exterior Lights ON Function, Exterior Lights ON when Approached Function, Exterior Lights ON when Door Opened Function, Exterior Lights ON when Door Unlocked Function, Fan speed increment control, Flasher Sound Volume Adjust, Forced Actuator Refresh, Forget to Turn IG OFF Alarm Function, Front Center Seatbelt Warning Buzzer Function, Glass Hatch Open Function, Grille Shutter Initialization, Hazard Answer Back Function, Headlight ON in Conjunction with Wiper Function, Ignition Available Area Setting (Back Door Type), Ignition Available Area Setting (Trunk Lid Type), Initialization, Injection Timing Value, Injection Timing, 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 Sound Detection Function, Ion Generate Control, IPA Obstacle Avoidance Distance, IPA Parallel Parking Control Area, IPA Perpendicular Parking Control Area, Key Left in Vehicle Alarm Function, Key Low Battery Warning Function, Kick Sensor Operation Function with ACC ON, Lane Change Flashing Times Adjust, Left the Key Prevention Funct (Battery Remove), Light Auto OFF Delay Setting, Light Blink Clearance Lights at Unlock Function, Light Control Glass Brightness Memory Function, Light Control Glass Voice Control Function, Light up Clearance Lights at Door Unlock Function, Lock Indicator Lighting Time Adjust, Lost Communication Time Initialization, Master Caution Display Function, Memory Call Function, Noise and Vibration Reduction, ODO Display Time After IG OFF Adjust, Open Door Warning Function, Operation History Clear, Outside Air Mode Auto Switch Function, P/W Operation Buzzer W/ Transmit Function, Panic Function, Park Wait Time Adjust, Passenger Seatbelt Warning Buzzer Function, PCS Cooperate Function, Pilot Injection Volume Select Cylinder, Pilot Injection Volume Value, Pilot Injection Volume, PKSA (O) Auto Mute Function, PKSA (O) Forward Detection Image Display, PKSA (O) Image Display when Away from the Obstacle, PKSA (O) Judgment of Obstacle on Course, PKSA (O) Switch State Stored, PKSB (O) Function, PKSB (O) Target Stopping Distance, PKSB (P) Function, PKSB (P) Target Stopping Distance, PKSB (P) Width

Adjustment (Y Axis), PKSB (V) Function, PKSB (V) Operation Timing Setting, PKSB (V) Sensitivity, PKSB Switch State Stored, Power Saving Wait Time(Out Of Entry Range), Power Steering ECU Initial Setting, Power Window Voice Control Function, Projection Adjustment (Distortion), Projection Adjustment (Keystone), Projection Adjustment (Tilt), Proposal Service Frequency Adjust, Proposal Service Volume Adjust, Proposal Services Function, R Wiper Stop Function at Back Door/Trunk Lid Open, Rear Center Seatbelt Warning Buzzer Function, Rear Left Seatbelt Warning Buzzer Function, Rear Right Seatbelt Warning Buzzer Function, Rear Seatbelt Warning Buzzer Function, Rear Sunshade linked with Shift Lever R Funct, Rear Wiper Washer Function, Rear Wiper with Reverse Setting, Refrigerant Pressure History Clear, Refrigerant Shortage Check, Remote Air Conditioner Start Setting, Remote Air Conditioner Stop Setting, Remote Door Lock Setting, Reset A/C Information, Reset Memory, Response Time Adjust, Reverse Buzzer Setting, Reverse Coupled Actuation Mirror Angle Setting, Seat Airflow Mode Setting, Seat Position Voice Control Function, Seat position/Tilt Telesco memory recall setting, Security Control with Mechanism Key Function, Sensitivity Adjust, Servomotor Initialization, Set Temperature Shift, S-FLOW Control Auto Function, Shift Lever R Signal Delay Time Adjust, Shift Linked Automatic Door Lock Function, Shift Linked Automatic Door Unlock Function, Slide Roof Open Warning Function, Slide Roof Voice Control Function, Speed Alarm Buzzer Function, Speed Limit Display Function, Speed Linked Automatic Door Lock Function, Speed Linked Automatic Door Unlock Function, Start Indicator Function, Start Switch Light Function, Starter Exchange, 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, Touch Activation Over Threshold, Traffic Sign Recognition Animation Function, Trunk Lid Linked with Door Lock Function, Trunk Lid Open Mode Function, Trunk Lid Operation by Electrical Key Function, Trunk Lid Operation by Entry Function, Turn by Turn Animation Function, Ultrasonic Sensor (Front Center) Detection Range, Ultrasonic Sensor (Front Corner) Detection Range, Ultrasonic Sensor (Rear Center) Detection Range, Ultrasonic Sensor (Rear Corner) Detection Range, Ultrasonic Sensor (Side) Alarm Detection Range, Ultrasonic Sensor (Side) Alarm Function, Ultrasonic Sensor Actuation (Shift N), Unlock Key Twice Function, Voice Guidance Function, Walk Away Lock after Getting Out Func (Closing), Walk Away Lock after Getting Out Function, Warning by Horn Function, Window Open Warning Function, Wiper Specification Switch, Wiper Voice Control Function, Wireless Backdoor Open Operation Adjust, Wireless Buzzer Response Function, Wireless Buzzer Volume Setting, Wireless Control Function, Wireless Glass Hatch Open Operation Adjust, Wireless Lock Function with Doors Open, Wireless Trunk Lid Open Operation Adjust, Wireless Unlock Twice Function, Zero Point Calibration

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

2nd START Indicator, 4LO Indicator, 4WD AUTO Indicator, 4WD Indicator (Green), 4WD Indicator (Yellow), 4WD Lock Indicator, 4WD Warning, ABS Warning, A-C Driving Demand, Accumulator Drive, 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 Circuit Relay, Activate the Coolant Water Route Switching Valve 2, Activate The Coolant Water Route Switching Valve, Activate The Electric Water Pump, Activate the Engine Oil Pressure Control Valve, Activate the EVAP Purge VSV, Activate The Fuel Filler Opener, Activate the Fuel Pressure Discharge, Activate The Fuel Vapor-Containment Valve, Activate The Heater Water Pump., Activate The Solenoid (SC1), Activate The Solenoid (SC2), Activate the Solenoid (SC3), Activate the Solenoid (SL6), Activate The Solenoid (SLC), Activate The Solenoid (SLG), Activate the Solenoid (SLS) High/Low, Activate the Solenoid (SLS) MAX/MIN, Activate The Solenoid(Sc), Activate The Solenoid(Slp), Activate the TC Terminal, Activate The Vacuum Pump, Activate The VSV For Intake Control, Activate The VSV For Swirl

Control Valve, Activate The VSV For Vent Valve, Active TRC Indicator, ACTIVE TRC Warning, Advanced Parking Guidance Indicator, AFS OFF Indicator, Air Bypass Valve Solenoid, Air Inlet Damper Control Servo Motor, Air Suspension Indicator (HI), Air Suspension Indicator (LO), Air Suspension Indicator (N), Airbag Warning, All Indicator, Alternator Voltage Control, ASL Indicator, ASL Warning, AST Indicator, A-T Indicator Operation (2), A-T Indicator Operation (3), A-T Indicator Operation (4), A-T Indicator Operation (B), A-T Indicator Operation (D), A-T Indicator Operation (L), A-T Indicator Operation (N), A-T Indicator Operation (P), A-T Indicator Operation (R), A-T Indicator Operation (S), A-T Indicator Operation (Sport M), A-T Indicator Operation (Sport S), A-T Oil Temperature Warning, A-T P Warning, Auto Air Conditioner Indicator, Auto Leveling Headlamp Indicator, Auto LSD Indicator, Auto Power OFF Cancel, Automatic High Beam Indicator (Green), Automatic High Beam Indicator (Yellow), Automatic High Beam Switch Light, Auxiliary Battery Warning, AVS Comfort Indicator, AVS Sports Indicator, Back Door Sensor Power Supply, Beep, Blower Level, Brake Hold Indicator, Brake Override Warning, Brake Warning, BSM Indicator, BSM OFF Indicator, BSM Warning, Buzzer Operation (1.6khz, Vol S, W-O Damping), Buzzer Operation (2.0khz, Vol S, W-O Damping), Buzzer Operation (2.4khz, Vol L, W-O Damping), Buzzer Operation (800hz, Vol L, W- Damping), Buzzer Operation (800hz, Vol L, W-O Damping), Buzzer Operation (800hz, Vol S, W- Damping), Buzzer Operation (800hz, Vol S, W-O Damping), Cancel Communication Function Pausing, Cargo Light, Center DIFF LOCK Indicator, Charge Indicator, Charge Warning (Red), Charge Warning, Check Engine Warning, Check Mode, Check The Cylinder Compression, 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), Control the ACIS VSV Motor Duty Ratio, Control The ACM Inhibit, Control The Cylinder Fuel Cut, 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 Select Cylinder Fuel Cut, Control the Shift Area (CVT), Control the Target Fuel Pressure Offset, Control the Wastegate Valve Duty Ratio, Coolant Cool Warning Lamp, Coolant Hot Warning Lamp, Cooling Electric Expansion Valve, CRAWL Indicator, CRAWL Warning, Cruise Indicator (Yellow), Cruise Indicator, D-4S (A/F Control), D-4S (Fuel Cut), D-4S (Injection Volume), Daytime Running Light, DCM Firmware Update, D-Door Unlock, Delivery Heater, Diesel Particulate Filter Warning, Diesel Throttle Target Angle Bank 1, Dimmer Signal, Door Lock, Door Open Warning, Door Unlock, Downhill Assist Control Indicator, Downhill Assist Control Warning, Drift From The Lane Indicator, Drift From The Lane Warning, Driver Seat Sensor Power Supply, Driver Side Seat Belt Warning, ECB Main Relay, ECB Solenoid (SLA), ECB Solenoid (SLR), ECB Utility, ECB Warning, ECO Mode Indicator, ECONO Indicator, ECT PWR Indicator, ECT SNOW Indicator, Electrical Fan, Electromagnetic Oil Pump, Emergency Call Cancellation, Emergency Exit Warning, EPB Auto OFF Indicator, EPB Control Switch, EPS Warning, EV Drive Indicator, EV Mode Indicator, EXO, Extended Illumination 1, Extended Illumination 2, Fr Control Rear Air Outlet Damper Servo Motor, Front Air Mix Damper Control Servo Motor, Front Air Outlet Damper Control Servo Motor, Front Buzzer, Front Deicer Relay, Front Evaporator Magnetic Valve, Front Fog Lamp Indicator, Front Fog Light, Front Footwell Lights, Front Left Air Mix Damper Control Servo Motor, Front Left Air Outlet Damper Control Servo Motor, Front Left Seat Blower, Front Left Seat Heater, Front Right Air Mix Damper Control Servo Motor, Front Right Air Outlet Damper Control Servo Motor, Front Washer Relay, Front Wiper Hi Operation, Front Wiper Lo Operation, Fuel Cap Reminder Warning, Fuel Filter Warning, Fuel Gauge Indicator, Fuel Gauge Operation (1-2), Fuel Gauge Operation (1-4), Fuel Gauge Operation (3-4), Fuel Gauge Operation (Empty), Fuel Gauge



Operation (Full), Fuel Gauge Operation (Sender E), Fuel Gauge Operation (Sender F), Fuel Gauge Operation (Warning), Fuel Gauge Operation For CNG (1-2), Fuel Gauge Operation For CNG (1-4), Fuel Gauge Operation For CNG (3-4), Fuel Gauge Operation For CNG (Empty), Fuel Gauge Operation For CNG (Full), Fuel Gauge Operation For CNG (Sender E), Fuel Gauge Operation For CNG (Sender F), Fuel Gauge Operation For CNG (Warning), Fuel Lid Lock Relay, Fuel Pump - Duty Cycle, Fuel Pump Single Phase Energization, Fuel Warning (CNG), Glass Hatch Open, GLOW Warning, Go To Service Warning, Green Indicator, Head Up Display Indicator, Headlamp Indicator, Headlight Relay-Light Power Supply Relay, Heater Valve, Heating Electric Expansion Valve, Height High Indicator, Height High Warning, High Beam Headlight, High Beam Indicator, High Pressure Magnetic Valve, Hold Indicator, HV System Indicator (0%), HV System Indicator (100%), HV System Indicator (200%), HV System Indicator (300%), HV System Indicator (400%), HV System Indicator (-50%), HV System Indicator (MAX), HV System Indicator (MIN), HV Unit Hot Warning, HV-EV System Indicator (0%), HV-EV System Indicator (100%), HV-EV System Indicator (200%), HV-EV System Indicator (300%), HV-EV System Indicator (400%), HV-EV System Indicator (-50%), HV-EV System Indicator (MAX), HV-EV System Indicator (MIN), Hybrid 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 Luggage Tuner Power Supply, Intercooler Water Pump Relay, INTUITIVE P-A LCD Indicator, INTUITIVE P-A LCD OFF Indicator, Ion Generator, KDSS Warning, Key Cylinder Illumination, LDA Indicator (White), LDA Indicator, LDA Steering Control Indicator, LDA Warning, LED Headlamp Warning, Left LDA Indicator, Left LDA Warning, Left Turn Signal Indicator, Light Control Glass Relay, Light Control Switch (DOWN), Light Control Switch (Single), Light Control Switch (UP), Limited Power Indicator, Lithium Battery Check Indicator, Lithium Battery Hot Indicator, Low Beam Headlight, Low Pressure Magnetic Valve, LPG Indicator, Luggage Mode Indicator (Yellow), Luggage Mode Indicator, Maintenance Warning, Master Warning, Meter Day Mode Switch, Meter Display (0), Meter Display (1), Meter Display (2), Meter Display (3), Meter Display (4), Meter Display (5), Meter Display (6), Meter Display (7), Meter Display (8), Meter Display (9), Meter Display (All), Mirror Fold Signal, Mirror Return Signal, MMT E Mode Warning, Motor Relay, Multi Display All (White), Multi Display Default Screen, Multi Display Select Switch, Multi Switch (Back), Multi Switch (Down), Multi Switch (Enter), Multi Switch (Left), Multi Switch (Right), Multi Switch (Top), Multi Switch (Up), Navi CVT Indicator, Night View Indicator, O-D OFF Indicator, ODO-TRIP Change Switch, OFF Road Guidance Indicator, OFF Road Guidance Warning, Oil Level Warning, Oil Pressure Meter Operation (1-2), Oil Pressure Meter Operation (1-4), Oil Pressure Meter Operation (3-4), Oil Pressure Meter Operation (HIGH), Oil Pressure Meter Operation (LOW), Oil Pressure Warning, Oil Pump, Outside Mirror Footwell Lights, Over Speed Indicator, Overhead Tuner Power Supply, P Range Indicator, Panel Light, Park Warning, Parking Brake Service Mode, Passenger Seat Sensor Power Supply, Passenger Side Seat Belt Warning, PCS OFF Warning, PCS Warning, Pedestrian Protection Warning, Pinion Gear Plunger (Hood Close), PPS Warning, Prohibit the Catalyst OT Misfire Prevent Fuel Cut, Prohibit the Idle Fuel Cut, PTC Heater, Radar Cruise Indicator (Yellow), Radar Cruise Indicator, RCD OFF Indicator, RCTA Indicator, RCTA OFF Indicator, Ready Indicator, Rear Air Mix Damper Control Servo Motor, Rear Blower Level, Rear Buzzer, Rear Defogger Relay, Rear DIFF LOCK Indicator, Rear Driver Side Sensor Power Supply, Rear Fog Lamp Indicator, Rear Fog Light, Rear Inner Wheel Control Indicator, Rear Inner Wheel Control Warning, Rear Left Seat Heater, Rear Light Indicator, Rear Passenger Side Sensor Power Supply, Rear Right Air Mix Damper Control Servo Motor, Rear Right Seat Heater, Rear Seat Belt Warning, Rear Washer Relay, Rear Wiper Operation, Red Indicator, Reductant Discharge, Reductant Filling (Pressure Keep), Reductant Injection Valve, Reductant Pipe Heater, Reductant Pump Check (Backward), Reductant Purge, Reductant Tank Heater, Reductant Warning, Refrigerant Gas Volume Check, Relay for Interior Light Auto Cut Function, Reverse Signal, Ride

Mode Indicator, Right Front Seat Heater, Right LDA Indicator, Right LDA Warning, Right Turn Signal Indicator, Security Horn, Security Indicator, Self Power Siren, SET Indicator, Shift-By-Wire Warning, Signal Check, SIL Indicator (Down), SIL Indicator (Up), Slip Warning, Smart System Indicator, Smart System Warning, SOC Gauge (1-2), SOC Gauge (1-4), SOC Gauge (3-4), SOC Gauge (MAX), SOC Gauge (MIN), SOC Warning, Solenoid Relay, Speed Signal Input (0), Speed Signal Input (120), Speed Signal Input (160), Speed Signal Input (200), Speed Signal Input (240), Speed Signal Input (280), Speed Signal Input (320), Speed Signal Input (360), Speed Signal Input (40), Speed Signal Input (400), Speed Signal Input (80), Speedometer Operation (0km-H,0mph), Speedometer Operation (120km-H,120mph), Speedometer Operation (160km-H,160mph), Speedometer Operation (200km-H,200mph), Speedometer Operation (240km-H,240mph), Speedometer Operation (280km-H,280mph), Speedometer Operation (320km-H,320mph), Speedometer Operation (360km-H,360mph), Speedometer Operation (400km-H,400mph), Speedometer Operation (40km-H,40mph), Speedometer Operation (80km-H,80mph), Sport Indicator (CVT Sport), Start SW Light Power Supply, 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 (1000rpm), 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, Test The Turbo Charger Step Motor Bank 1, Timer Switch (00), Timer Switch (H), Timer Switch (M), Timer Switch (Single), Timing Belt Warning, Tire Pressure Warning System Indicator, Tow Haul Indicator, Trip Reset Switch, Vehicle Approach Warning OFF Indicator, Vehicle Horn, Vehicle Proximity Notification System Warning, Vehicle Stop Warning, VGRS Warning, Volt Meter Operation (0V), Volt Meter Operation (12V), Volt Meter Operation (15V), Volt Meter Operation (18V), Volt Meter Operation (3V), Volt Meter Operation (6V), Volt Meter Operation (9V), VSC OFF Indicator, VSC TRC Indicator, Washer Nozzle Heater, Washer Warning, Water Level Warning, Water Pump, Water Temperature Meter Operation (110C,230F), Water Temperature Meter Operation (120C,248F), Water Temperature Meter Operation (127C,260F), Water Temperature Meter Operation (50C,122F), Water Temperature Meter Operation (60C,140F), Water Temperature Meter Operation (70C,158F), Water Temperature Meter Operation (80C,176F), Water Temperature Meter Operation (Middle), Wiper Power Relay, Wireless Buzzer

## New Coverage Details – USA European

### New BMW/Mini Coverage

- Added coverage for 996 new system applications

#### 727 new Adjustment type special tests:

Acoustic test signal, Activate power steering, Additional brake light, Air conditioner control motors: Adapting, Air flap 1, Air recirculation flap position, Airbag configuration, Airbag: Read configuration,

All Lamps, Audio system: Reset the sound settings, Backrest adjustment to front, Backup lamp, Central electronics control unit reset, Central locking Deadlock release, CM footrest tilt downward, CM footrest tilt upward, Delete Bluetooth device list, DS window-lifter motor: Opening, Electric power steering adaptation, Front axle air spring struts test, Front left short-range radar sensor: Restart, Front left side light lamp, Front right short-range radar sensor: Restart, Function BACK button, Gear change idle speed activation, Head restraint adjustment, Head restraint adjustment: Down, Headlamp: System self-test, Head-up displ. demonstration mode, Head-up display test, Head-up display: Test pattern, Increase temperature on left, Increase traffic news volume, Infotainment/multimedia control unit: Audio frequency test, Injector cylinder 3: Deactivation, Injector cylinder 6: Deactivation, Injector quantity adjustment, Int.mirror auto.det.displ. dimmed, Left cornering light, Left exterior mirror down, Left thermo cup holder: Heating function, Left turn signal indicator, Lower sun roof, Lumbar support adjustment, Lumbar adjustment, up, Microphone sensitivity adjustment, Open power windows DS rear, Operating unit, Proximity light, Radiator fan, Rear air conditioner: Set the specified temperature to 16 Å°C, Rear left short-range radar sensor: Restart, Rear lid basic setting, Rear lid: Close, Rear right turn signal indicator: Actuation, Reset mixture adaption, Retract mirror, Retract spoiler, Right exterior mirror to right, Right exterior mirror up, Right thermo cup holder: Heating function, Seat angle adjustment, up, Seat fore-and-aft adjtm. To front, Seat ventilation: Stage 3, Start Bluetooth detection, Steering wheel heating, Steering wheel heating indicator lamp, Suction jet pump activation, Sun roof: Opening, Switch on radio, Switch on TP, System self-test, Test DWA sensors, Trailer coupling initialisation, Window lifter standard initialization, Windshield wiper park position, Activate intelligent alternator control, Activate WLAN, Adaptation of idle speed, Air conditioner control motors: Service position activation, Anti-theft alarm LED, Audio frequency 1000 Hz, Audio system: Reset the basic volume, Brake light: Actuation, Button LEDs, Close power windows DS rear, Close power windows PS rear, Control target temperature 28 Å°C, Coolant thermostat, Daytime driving light, Deactivate WLAN, Display test, Dynamic flashing, Electric power steering: Restart, Emblem camera, Extend spoiler, Front driver assistant cam. static adaptation, Fuel level indicator, Gong: Warning, Headlamp control unit: Restart, Headlights, Horn relay, Instrument cluster display: Test pattern, Left headlight range control motor: Actuation, Loudspeaker: Default setting for all volume values, Lumbar support adjustment To front, Lumbar support adjustment To rear, Open sun blind, Rain sensor control lamp, Rear fog light, Rear left sun blind, Rear-lid motor opening function, Reduce traffic news volume, Right dipped beam, Right main beam, Right short-range camera: Test pattern, Roof operating unit control unit: Restart, Seat adjustment/seat angle up, Seat ventilation: Stage 2, Seatback width adj. narrower, Seatback width adjustment wider, Sel. lever module fct. indicator, Sky sun roof: Close, Sleep mode activation, Switch on RDS, Test pattern 1, Test pattern 2, Trailer brake light, Trailer coupling: Install information, Trailer reversing light, Window lifter motors: Adapting, Activate Auto P, Activate electric fuel pump, Alarm system LED, Ambient light: Automatic addressing, Brake light, Central driver assistance control unit: Restart, Cylinder 6 shutoff, Dipped beam, Driving sensor control unit: Restart, DS window-lifter motor: Close, ESP sensor unit adaptation, Exhaust flap adaption, Front short-range camera: Test pattern, Fuel level indicator 50 %, Function MEDIA - button, Hazard warning system, Headlamp fan actuation, Head-up display: Switching off, Injector cylinder 4: Deactivation, Left dipped beam, Left exterior mirror to left, Left exterior mirror to right, Left thermo cup holder: Cooling function, Left trailer side light lamp, Manual-selector-gate lock, Mid-range radar sensor (MRR): Restart, Move to exhaust flap installation position, Muting, Muting Active Sound Design int., Neck-level heating left level 3, Parking light actuation on one side, Radiator fan: Actuation, Rain/light sensor: Adapting, Raise sun roof, Rear axle air spring struts test, Resistances of airbag igniter circuits, Retract trailer coupling, Right headlight range control motor: Actuation, Right rear lights control unit: Restart, Seat ext. adj. backward, Seat heating: Stage 3, Seat height adjustment Down, SOS - loudspeaker - test, Steering column adjustment downwards, Switch North, Tank electronics: Restart, Trailer rear fog light, Washer pump, headlights,

Activate/deactivate transportation mode, Actuation Wastegate valve, Adaptive brake light (ABL): Flashing function, Air suspension compressor, Auto-hold button LED, Calibrate acceleration sensor, Check control message, Continuous turn signal, Deactivate RDS, Deactivate transportation mode, Electrochromic mirror dimming, Front driver assistance camera: Restart, Front left turn signal indicator, Front radar sensor: Dynamic adaptation, Gateway: Restart, Injector cylinder 1: Deactivation, Left exterior mirror short-range camera: Test pattern, Left lane change assistant warning lamp, Left thermo cup holder (LED green), Left thermo cup holder (LED red), Lens heating actuation, Main beam, NAV button function, Neutral position detection, Parking light, Pedestrian detection, Registration starter exchange, Reset transfer case oil wear data, Right daytime driving light, Right turning light, Running gear control unit: Restart, Seat angle adjustment, down, Seat heating: Stage 2, Self-test, Steering basic setting, Steering column adjustment upwards, Touchpad: Activation, Vertical headlamp servomotor, Activation/deactivation presentation mode, Adaptation thermostat map, Air flap control motor actuation, Audio frequency 10000 Hz, Close charge connection flap, CM monitor tilt up, Electric fuel pre-supply pump: Actuation, Fill/empty pressure accumulator, Front right short-range radar sensor: Dynamic adaptation, Front windscreen washer pump, Infotainment/multimedia display: Test pattern, no signal, Instrument cluster: Date/time configuration, Left daytime driving light, Left headlight range control, Left parking light, Lift sunroof, Light function: Coming Home function, Lock (central locking), Neck-level heating right level 2, PS window-lifter motor: Opening, Read configuration, Read service needs, Rear left air spring strut test, Rear right seat heating stage 3, Rear right short-range radar sensor: Restart, Rear right sun shade, Rear-lid motor closing function, Right reversing light, Seatback head adj. rearwards, Steering column adjustment adaptation, Store vehicle reference level, Transfer case oil change, Transmission oil pump: Reset adaptation values, Unlock filler neck compart. lid, Variable camshaft timing adaptation, Activate alarm system (3 sec.), Air spring struts installation/removal, Backrest adjustment to rear, Close load compartment cover, Activate antenna 1, Activate antenna 3, Activate vehicle mode, Adaption of cameras, Automatic transmission oil level check, Disable Bluetooth interface, Display: F.act. and ready to warn, Drain fuel tank, Driver seat left armrest heating, Front camera heating, Front fog light, Front left air spring strut test, Front radar sensor static setting, Front radar sensor: Static adaptation, Function OPTION button, Green function lamp, Head restraint adjustm. to front, Head-up display: Switch off test pattern, Heated rear window relay, Instrument cluster: Restart, Keyless entry: Deactivate/activate, Main beam assistant system self-test, Open load compartment cover, Rear right air spring strut test, Reset sound settings, Right parking light, Right thermo cup holder (LED blue), Right turn signal indicator, Seat control unit initialization, Seat cushion extension, Selector lever search lighting, Side marker lamps, A/C air distribution flap test, A/C compressor run-in protection, Air mix flap, Airbag control unit: Restart, Alarm horn, Audio frequency 100 Hz, Backrest head adjustment, Basic setting, Blower motor: Rotational speed, Bluetooth interface activation/deactivation, CM monitor tilt downward, Delete personal data, Diesel particulate filter regeneration run, Display: Test, Eject DVD, Electric fuel pump 120 l/h, Emission warning lamp (MIL), Extend mirror, Extend trailer coupling, Front driver assist. cam. dynamic adaptation, Front footwell lighting, Front parking aid warning buzzer, Front reading light, Front right air spring strut test, Front right side light lamp, Fuel level/consumption 0%, Function NAV/MAP button, Function PUSH button, Headlight fan, Head-up display: Activation, Head-up display: Green test pattern, Indic. lamps. le/ri faulty flash, Infotainment/multimedia control unit: Restart, Injector cylinder 2: Deactivation, Instrument cluster lamps: Red, Instrument cluster lamps: Yellow, Lane change warning function, Laser headlamp: System self-test, Left exterior mirror LED test, Left trailer indicator, MENU button function, Mirror heating, Neck-level heating right level 1, On-board computer display: Test pattern, Fuel evaporation regeneration valve, Function \*/FAV button, Instrument cluster lamps: Green, Loudspeaker test, PS window-lifter motor: Close, Rear right turn signal indicator, Reset sum of alarm triggers, Rev counter, Right headlight range control, Right trailer side light lamp, Window heating: Camera range, Wiper: Stage 1,



Activation/deactiv. auto shut-down term.15, Automatic parking lock: Deactivate, Steering wh.vibr.(lane cha. ass.), Strongest-station autom. search, Sun roof adaptation, Switch off TP, Wiper: Stage 2, A/C compressor adaptation, ACC display, Airbag control unit (Airbag igniter circuits): Read status, Airbag indicator light OFF, Audio system self test, Battery replacement, Close sun blind, Cooling blower: Actuation, Cruise control display SET, Display colour blue, Electric fuel pump, Head restraint adjustment: Up, Headlight range control functional test, Headlight washer pump, High-pressure pump adaption, Increase temperature on right, Learning of valve lift control end stops, LEDs, Left side marker lamps, Open rear lid contact switch, Operating unit button illuminat., Position lighting, Radio station search Up, Read airbag igniter circuits status, Rear air conditioner: Set the specified temperature to 28 Å°C, Reduce temperature on left, Reset fuel minimum quantity adaption, Reset transmission adaption values, Right exterior mirror short-range camera: Test pattern, Right thermo cup holder (LED red), Right thermo cup holder: Cooling function, Seat heating: Stage 1, Seat ventilation: Stage 1, Selector lever control unit reset, Service requirement reset, Side marker light, Steering wheel vibration, Touchpad: Deactivation, Trailer tail light, Turn signal indicator, Ultrasonic sensor, Anti-theft alarm system: Alarm triggering, Audio/telematics system reset, Autom. transm. adaptation values reset, Automatic A/C display, Boost pressure actuator, Cylinder 5 shutoff, Deactivate intelligent alternator control, Display colour black, Display on/off, DVD emergency eject, Engine start/stop button (switch illumination): Output, Digital service booklet: Save the entry, Front blower motor, Left main beam, Left turning light, Long-range radar sensor (LRR): Restart, Parking aid button: Button illumination, Read out fuel quality counter, Rear center sun blind, Rear left parking light, Rear left seat heating stage 3, Rear left short-range radar sensor: Dynamic adaptation, Rear left turn signal indicator, Rear left turn signal indicator: Actuation, Reduce temperature on right, Reset adaptation parameters, Reset control unit, Seat height adjustment Up, Seatback head adjustment forwards, Supplementary heater: Reset starter interlock, Test screen, Turning light, Control target temperature 16 Å°C, Puddle lamp, Replace refrigerant, Seat ext. adj. forward, Valve lift control end stop run-in, Fuel tank pressure sensor calibration, Head-up display: Image settings configuration, 2nd row passenger compartment light, Activate antenna 2, Airbag control unit (Airbag igniter circuits): Read resistance values, Black test pattern, Change to AM/FM range, Current fuel consumption, Display colour green, Electric fuel pump control unit: Restart, External noise actuator, Footwell flaps, Frequency range switching FM, Green test pattern, Injector cylinder 5: Deactivation, Left turn signal indicator lamp, Muting external E-Sound, Muting internal E-Sound, Neck-level heating right level 3, Neutral position initialization, Red function lamp, Red test pattern, Reset VVT minimum lift adaptation, Right side marker lamps, Seat fore-and-aft adjustment, Databus signals sw.mod. deact., Direction indicator: Continuous lighting status, Front left short-range radar sensor: Dynamic adaptation, Front right turn signal indicator, Hands-free rear lid opening, Head-up display: White test pattern, Left exterior mirror up, RADIO button function, Read identification of control units, Right exterior mirror down, Right exterior mirror LED test, Right lane change assistant warning lamp, Set frequency 88.9 MHz, Steering column adjustment to rear, Switch South, Switch West, Acoustic trans. elec. rear lid, Backrest adjustment, Blue test pattern, Center console control panel: Resetting, Control unit reset, Cornering light functional test, Deactivate Bluetooth recognition, Display brightness test, Electric coolant pump, Front left seat heating, Fully retract spoiler, Hazard warning button illum. actuat., Head restraint adjustment to rear, High Beam Lamp, Left short-range camera: Test pattern, Mirror fold-in/fold-out, Neutral position sensor adapting, Oil temperature indicator lamp, Online service button, Open power windows PS rear, Read actual electric fuel pump, Rear window wiper relay, Adapting of control motors, Average consumption display correction, Coolant temperature gauge, Display test, text, Ext.mirror lane change ass.indic., Exterior mirror: System self-test, Fan actuation, Horn, Instrument cluster system self-test, Lambda sensor heater 2 (bank 1), Lumber adjustment, down, Muting Active Sound Design ext., Neck-level heating left level 1, Open electric sliding headliner, Left thermo cup holder (LED blue), Neck-level

heating left level 2, Rear short-range radar sensors: Dynamic adaptation, Right turn signal indicator lamp, Search illumination, Switch off digital radio tuner, Activate/deactivate start/stop function, Audio system control unit: Restart, Defrost flaps, Disassembly position of window lifters, Electric fuel pump (60 l/h), Function TEL button, Head-up display: Blue test pattern, Left rear lights control unit: Restart, Mixture adaption, Muting entertainment electronics, Oil temperature indicator, Reset flywheel adaption values, Air conditioner control motors: Adapt positions to the system <Air-conditioning system>, Air-conditioning system control unit reset, Automatic transmission control unit reset, Backrest adjustment: Width, Button LED, Camera functional test, Control lamps, Default setting of all volume values, Display: F. act.n. ready to warn, Divert air solenoid valve, Enable Bluetooth interface, Front right seat heating, Head-up display self-test, Indic. lamps. le/ri normal flash, Manual trailer coupling Initialisation, PDC sensor functional test, Rear window washer pump, Reset after diesel partic. filter replacement, Reset electric fuel pump adaptation values, Reset valve lift adaptation, Stop lamp: Coming Home function, Transmission control unit: Restart, Right exterior mirror to left, Steering column adjustment to front, Start station search, Stop lamps, Transmission oil level indicator, HV batt.charger connector locking, Ref. run headlight range control, Reset camera calibration, Reset uneven running segment times, Right cornering light, Seat adjustment/seat angle down, Seat fore-and-aft adjust. To rear, Seat height adjustment, front, Side light, Spark duration diagnosis, Sun roof: Close, Switch off traffic news, Switch on digital radio tuner, Transmission position P adaptation, TV signal, Washer jet heater, Reversing camera heating, Reversing camera: Test pattern, Right trailer indicator, Settings, Test CD/DVD ejection, Throttle valve basic setting, Windshield wiper service position adjustment, Transfer case: Specified torque, Switch info display off/on, Switch on traffic news, Right thermo cup holder (LED green), Smooth running evaluation, Speed indicator, Sun roof initialization, Switch East, Throttle valve: Actuation 100 %, Reset transmission oil service life, Battery (high-voltage): Restart, HV battery isolation test, LED (flashing blue), Transfer case control motor, LED (flashing red), Refrigerant shut-off valve, Battery (high-voltage): Diagnosing state, Open charge connection flap, Interval display service: Resetting, Rear side light, Double clutch transmission control unit.: Adapting, Muting of external noises activ., Rear right parking light, Rear right short-range radar sensor: Dynamic adaptation, Autom. transm. adaptation values adapt., Battery (high-voltage): Reading out the current capacity, SOH (State of Health), Electric drive control: Restart, Electric vacuum pump statistical data reset, Interval display service: Read identification of the components <Control units>, Selector drum control motor: Adapting, HV battery charging module: Restart, HV battery cooling system valve, Learn rotor position, Battery (48V): Cell evaluation, Exhaust flap control motor, LED (steady green), Shut-off injector 12, Battery replacement, register aux.batt, LED (off), LED (steady blue), Veh. ele. sys. (48V) volt. manag. CU: Restart, Battery management control unit (48V): Restart, Selector lever module: Restart, Starter generator (48V): Restart, HV battery charge, LED (flashing orange), LED (steady white), Shut-off injector 11, Turbocharger adjustment, Pelvic support adjustment, Rear short-range radar sensor: Adapting, Air supply solen. valve Massage 4, Back massage + upper-body mobil., Battery management control unit (48V): Activate/deactivate removal of voltage, Air supply solen.valve Massage 5, Lumbar massage, Rear-axle centre position setting, Rear-axle diff. lock motor wear data reset, Rear-axle differential lock wear data reset, Shut-off injector 9, Shut-off Injector 8, Upper lordosis air cushion, Lower lordosis air cushion, Air supply solen. valve Massage 1, Workout, Back massage, Upper-body mobilisation, Whole-body mobilisation, Shut-off injector 10, Air supply solen.valve Massage 3, Left active seat air cushion, Pump motor, Back massage + whole-body mobil., Air supply solen. valve Massage 2, Right active seat air cushion, Shut-off Injector 7, Shoulder massage, Engine fan control, Exhaust flap solenoid valve, Reset start/stop counter, Actuation Wastegate valve 2, Tank leak unit solenoid valve, Electr. vacuum pump (brake), Fuel pressure control valve, Actuation of indicator lamps, Activate Kleer module, Initialization of all window lifters, Reversing mirror adjustment, Suppress mirror glare, Switch off display, Initializing the electric machine, Key adaptation, Passenger compartment

lighting, Reset auxiliary heater start inhibit, Close window, Deactivate Kleer module, Eject CD, Air mix flap initialization, Left and right turning light, Rear right display: Brightness, Steering column adjustment initialisation, Rear blower motor, Selector lever position illumination, Turn signal lamps, Windshield blower motor, Rear left display: Brightness, AdBlue circuit system drainage, AdBlue system: Draining, Test AdBlue metering valve spray pattern, Driver side mirror adjustment, Heated rear window, Switch on display, Metered quantity measurement, Reset the assembly mode, Ambient lighting, Ambient lighting adaptation, Bleed fuel system, EGR valve mounting position, Auto. setting air damper control motors, Exterior mirror test, Heating valve, Engine control unit: Restart, Reset adaptation values air mass system, Move to fitting position, Steering column height adjustment, Assembly position of window lifters, Selector lever lock, Passive tank line connection vent, Read AdBlue tank level values, Display test white/orange, AdBlue delivery module: Resetting, AdBlue pump initialisation, Dry test AdBlue dosing valve, Engine control unit: Reset adaptation values, Registration after SCR CAT change, Passenger side mirror adjustment, AdBlue system: Bleeding, Bypass Door, Reset after AdBlue exchange adaptation, SCR-tank system initialisation, Swirl flap, AdBlue circuit: Flushing process, AdBlue metering module: Resetting, Exhaust gas treatment control unit: Deactivate assembly mode, Exhaust gas treatment control unit: Restart, Reset start inhibit due to lack of AdBlue, SCR catalytic converter reset, AdBlue tank: Check tank level, Cooling system: Bleeding, Engine: Reset (engine start inhibit due to lack of operating fluid <Urea solution (AdBlue)>), Reset exhaust sensor adaptation, Reset SCR tank system adaptation, Bleed cooling system

## New Volvo Coverage

- Added coverage for 192 new system applications

### 192 new Adjustment type special tests:

Activate parking brake after pad replacement, Adapting of control motors, Auxiliary/supplementary heating: Read/reset the history data of the function <Preconditioning>, Auxiliary/supplementary heating: Test, Front DS door trim ambient light., Front PS door storage comp. lighting, Front right turn signal indicator, Front windscreen washer pump, HV battery coolant solenoid valve, Interval display service: Resetting, Left trailer side light lamp, Longitudinal acceleration sensor, Lateral acceleration sensor: Adaptation, Radiator fan 2 speed 50%, Radiator fan motor 1: Actuation 15 %, Radiator fan motor 2: Actuation 15 %, Rear DS ext. door handle lighting, Right trailer side light lamp, Battery (12V): Resetting, Battery separation relay (48V): Deactivate/activate, ESP sensor unit adaptation, Front PS door trim ambient light., Front PS exit lighting, Front right fog headlight, Front side marker lights, Ignition lock: Check locking, Ignition lock: Release locking, Mixture correction reset, Neutral position sensor: Adapting, Read central electronics control unit config., Rear DS door stor. comp. lighting, Rear DS exit lighting, Rear left parking light, Rear PS door storage comp. light., Windscreen wiper, A/C refrigerant circuit test, Activate air suspension, Battery (high-voltage): Battery contact test, Battery (high-voltage): Initialising after replacing the component <Battery (high-voltage)> or the component <High-voltage battery module>, Blind spot warning lamp, Central driver assistance control unit: Deactivating the production mode, Cooling blower: Actuation, Deactivate parking brake for pad replacement, Exhaust gas differential pressure sensor: Resetting, Front DS door storage comp. lighting, HV battery coolant pump, Level sensors: Setting, Number plate light, Radiator blind adaptation, Rear fog light, Refrigerant circuit: Service mode activation/deactivation, Reset control unit, Rotor position sensor test, Seat memory button lighting, Additional brake light, Air conditioner control motors: Service position activation, Air mix flap initialization, Front driver assistance camera, Front radar sensor: Dynamic adaptation, Front DS ext. door handle light., Read out airbag crash data, Shock absorber solenoid valve test, Tank flap control motor, Trailer brake lights, Washer jet heater, Auxiliary/supplementary heating: Fill and bleed the component <Fuel supply pipe>, Battery (high-voltage): Adjust SOH (State of Health),

Battery (high-voltage): Battery voltage test, Battery (high-voltage): Reading out the current capacity, SOH (State of Health), Battery (high-voltage): Readout of the current capacity, Calibrate acceleration sensor, Electric coolant pump: Actuation 50 %, Electric drive control: Coolant circuit filling, Electric parking brake: Actuator test, Front DS exit lighting, Front left turn signal indicator, Front right window lifter adaptation, Headlamp washer relay, High-voltage battery heating module: Test, HV battery charging module: Transfer vehicle identification number (VIN), Instrument illumination, Lambda sensor (bank 1, sensor 1) reset, Learning of rear lid maximum open position, Read out crash data, Rear PS exit lighting, Rear right window lifter adaptation, Reset ALCOGUARD, Sun roof: Close, Backup lamp, Coolant pump (Drive train coolant circuit), Engine control unit: Misfiring, read out values, Engine control unit: Reset the crash recognition, Engine start/stop data read-out, Entry light, Footwell lamps, Fuel pump, Lambda sensor (bank 1, sensor 2) reset, Level control activation/deactivation, Open sun blind, Sun shade adaptation, Supplementary heater: Reset starter interlock, Tank leak diagn. pump vent valve, Trailer reversing light, Yaw rate sensor: Adapting, Brake-pedal position sensor: Adapting, Commissioning mode, Cooling system: Bleeding, Front PS ext. door handle light., HV battery cell voltage equalization, Leak test, Left trailer turn signal indicator, Rear DS door CL button LED, Rear left window lifter adaptation, Control unit calibration, Rear PS door switch actuation, Trailer rear fog light, Rear PS door trim ambient light., Rear right parking light, Right trailer turn signal indicator, START button illumination, Camshaft timing control: Resetting, Charge air compressor: Resetting, Display Reversing camera, Electric drive motor (Rear axle): Reset and adapt, Engine oil level check, ESP hydraulic-system bleeding, MIL Lamp, Rear left turn signal indicator, Sun roof adaptation, Air conditioner control motors: Adapting, Battery (high-voltage): Battery temperature test, Battery replacement, Button illumination 1, Close sun blind, Commissioning electric parking brake, Engine control unit: Read out knock counter, Engine control unit: Reset engine oil level, Front DS door CL button LED, Front left window lifter adaptation, Fuel high-pressure system reset, Gasoline particulate filter: Resetting, HV charging connection test, Injector reset, Coolant pump (Interior coolant circuit), Delete navigation maps, Front left fog headlight, Radiator fan 1 speed 50%, Radiator fan 1 speed 90%, Refrigerant shut-off valve (Air-conditioning system), Electro-hydraulic brake system activation, Front PS door CL button LED, HV battery charge, Luggage compartment lighting, Open glove box, Power supply relay, Rear lid power latchg.sys./unlock, Rear PS door CL button LED, Resetting electric fuel pump, Rotor position reset, Stop lamps, Sun roof: Opening, Throttle valve control unit reset, Wastegate solenoid: Resetting, Battery contact fault counter reset, Electric coolant pump: Actuation 100 %, Engine stop data read-out, Fresh/recirculated-air flap 100%, HV battery isolation test, Rear window washer pump, Rear right turn signal indicator, Rear window wiper relay, Tyre pressure indicator reset, Activate service position, Top speed configuration, Rear DS door trim ambient light., Front left parking light, Front right parking light, Headlamp setting: Information, Seat memory button LED, Mixture correction: Read out values, Radiator-fan relay, Rear PS ext. door handle light., Reset fuel service life, Hazard warning switch LED, Rear DS door switch actuation, Rear lid: Close, Running board light, Transfer case calibration, Horn relay, Radiator fan 2 speed 90%, Engine start data read-out, Drain fuel tank, HV battery cooling switching valve, Transfer case pump vent

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