# DATA LIST / ACTIVE TEST

## 1. READ DATA LIST

HINT:

Using the intelligent tester to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) Read the DATA LIST according to the display on the tester.

**LASER CRUISE:**



| Tester Display | Measurement Item/Range | Normal Condition | Diagnostic Note |
|---|---|---|---|
| ACCEL REQUEST | Accelerator request signal / min.: -2621.44 k/h/s, max.: 2621.36 k/h/s | No vehicle in front | - |
| VEHICLE DISTANC | Laser sensor / min.: 0 m (0 ft.), max.: 255 m (836.65 ft.) | Distance to vehicle in front | - |
| L/C OPTION FLAG | Dynamic laser cruise option flag / NO or YES | YES: Dynamic laser cruise control system can be used<br>NO: Dynamic laser cruise control system cannot be used | - |
| DISTANCE TIME | Vehicle distance time setting condition / SHRT, MID, LONG, NO | Vehicle-to-vehicle distance selected by steering pad switch (distance control switch) | - |
| O/D CUT RQST | O/D cut request / NOT REQ or REQUEST | NOT REQ: Idling | - |
| 3RD SHIFT DOWN | Shift down request to 3rd gear / NOT REQ or REQUEST | NOT REQ: Idling | - |
| 4TH SHIFT DOWN | Shift down request to 4th gear / NOT REQ or REQUEST | NOT REQ: Idling | - |
| ALARM RQST | Alarm request signal / NOT REQ or REQUEST | REQUEST: When beeping<br>NOT REQ: When not beeping | - |
| THROTTLE CLOSE | All throttle close request / NOT REQ or REQUEST | ON: REQUEST<br>OFF: NOT REQUEST | - |
| BRAKE CTRL RQST | Brake control request / NOT REQ or REQUEST | ON: REQUEST<br>OFF: NOT REQUEST | - |
| TARG DECL SLOPE | Cruise target deceleration slope / 0.03, 0.06, 0.11, 0.15 | 0.03, 0.06, 0.11, 0.15 | - |
| VEHICLE SPD | Vehicle speed sensor / min.: 0 km/h (0 mph), max.: 255 km/h (158 mph) | Actual vehicle speed | - |
| MEMORY SPD | Cruise control memorized speed / min.: 0 km/h (0 mph), max.: 200 km/h (125 mph) | Memorized speed: Cruise control activated | - |
| THROTTLE | Throttle opening angle / min.: 0°, max.: 125° | Actual demanded throttle angle | - |
| CRUISE CONTROL | Cruise control system active condition / ON or OFF | ON: Cruise control activated<br>OFF: Cruise control deactivated | - |
| MAIN SW (MAIN) | Main switch signal (Main CPU) / ON or OFF | ON: Main switch on<br>OFF: Main switch off | "3" |
| MAIN SW (SUB) | Main switch signal (Sub CPU) / ON or OFF | ON: Main switch on<br>OFF: Main switch off | "3" |

| Tester Display | Measurement Item/Range | Normal Condition | Diagnostic Note |
|---|---|---|---|
| CCS READY M | Cruise control system standby condition (Main CPU) / ON or OFF | Each time main switch is pushed, ON/OFF changes | "1" |
| CCS READY S | Cruise control system standby condition (Sub CPU) / ON or OFF | Each time main switch is pushed, ON/OFF changes | "1" |
| CCS INDICATOR M | Cruise indicator signal (Main CPU) / ON or OFF | ON: "CRUISE" on<br>OFF: "CRUISE" off | "2" |
| CCS INDICATOR S | Cruise indicator signal (Sub CPU) / ON or OFF | ON: "CRUISE" on<br>OFF: "CRUISE" off | "2" |
| CANCEL SW | CANCEL switch signal / ON or OFF | ON: CANCEL switch on<br>OFF: CANCEL switch off | - |
| SET/COAST SW | SET/COAST switch signal / ON or OFF | ON: - (COAST)/SET switch on<br>OFF: - (COAST)/SET switch off | - |
| RES/ACC SW | RES/ACC switch signal / ON or OFF | ON: + (ACCEL)/RES (RESUME) switch on<br>OFF: + (ACCEL)/RES (RESUME) switch off | - |
| STP LIGHT SW M | Stop light switch signal (Main CPU) / ON or OFF | ON: Brake pedal depressed<br>OFF: Brake pedal released | - |
| STP LIGHT SW S2 | Stop light switch signal (Sub CPU) / ON or OFF | ON: Brake pedal depressed<br>OFF: Brake pedal released | - |
| STP LIGHT SW M S1 | Stop light switch signal (Sub CPU) / ON or OFF | ON: Brake pedal depressed<br>OFF: Brake pedal released | - |
| CCS OPER STATUS | Transmission range sensor signal / ON or OFF | ON: Shift lever in D or 4 position<br>OFF: Shift lever except in D or 4 position | - |
| VSC FAIL SAFE | VSC fail-safe flag / ON or OFF | - | - |

HINT:
"3" is OK, but "1" is NG → ECM failure
"1" is OK, but "2" is NG → DTC output or ECM failure
"3" is OK, but cruise indicator does not turn on → Indicator, wire harness, or ECM failure

**2. ACTIVE TEST**

HINT:
Using the intelligent tester to perform Active Tests allows relays, VSVs, actuators and other items to be operated without removing any parts. This non-intrusive functional inspection can be very useful because intermittent operation may be discovered before parts or wiring is disturbed. Performing Active Tests early in troubleshooting is one way to save diagnostic time. Data List information can be displayed while performing Active Tests.

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) According to the display on the tester, perform the "ACTIVE TEST".
HINT:
The ignition switch must be turned to the ON position to proceed with the Active Test using an intelligent tester.

**ABS/TRAC/VSC:**

| Tester Display | Test Part | Control Range | Diagnostic Note |
|---|---|---|---|
| VSC / BR WARN BUZ | Skid control buzzer | ON / OFF | Buzzer can be heard |

**METER:**

| Tester Display | Test Part | Control Range | Diagnostic Note |
|---|---|---|---|
| CRUISE INDIC | "CRUISE" indicator light | BLINK / OFF | - |
| L-CRUISE DISP | Multi-information display | ON / OFF | - |
| L-CRS CHECK IND | Master warning light | ON / OFF | - |
| L-CRS READY IND | "READY" indicator light | ON / OFF | - |
| L-CRS NORMAL | "NORM" indicator light | ON / OFF | - |