

DATA LIST/ACTIVE TEST

1. READ DATA LIST

HINT:

Using the intelligent tester II's Data List allows switch, sensor, actuator and other item values to be read without removing any parts. Reading the Data List early in troubleshooting is one way to save time.

- Connect the intelligent tester II to the DLC3.
- Turn the ignition switch ON.
- Read the Data List according to the display on the tester.

ECM (cruise control ECU):

Item	Measurement/Item/ Display (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 Distance	Millimeter wave radar sensor/ min.: 0 m (0 ft), max.: 255 m (836.65 ft)	Distance to vehicle in front	—
L/C Option Flag	Dynamic radar cruise option flag/ NO or YES	YES: Vehicle-to-vehicle distance mode NO: Constant speed mode	—
Car Dist Time Setting	Car distance time setting condition / SHORT, MID, LONG, NO	Vehicle selected by steering pad switch modulator (distance control switch)	—
O/D Cut Request	O/D cut request/ Not Request or Request	Not Request: Idling	—
Shift Down Rqst to 3rd	Shift down request to 3rd gear/ Not Request or Request	Not Request: Idling	—
Shift Down Rqst to 4th	Shift down request to 4th gear/ Not Request or Request	Not Request: Idling	—
Alarm Request	Alarm request signal/ Not Request or Request	Request: When beeping Not Request: When not beeping	—
All Throttle Close Rqst	All throttle close request/ ON or OFF	ON: Request OFF: Not request	—
Brake Control Request	Brake control request/ ON or OFF	ON: Request OFF: Not request	—
Targ Decl Slope	Cruise target deceleration slope/ 0.045, 0.06, 0.11, 0.20	0.045, 0.06, 0.11, 0.20	—
CCS Vehicle Spd	Vehicle speed sensor/ min.: 0 km/h (0 mph), max.: 255 km/h (158 mph)	Actual vehicle speed	—
CCS Mem Vehicle Spd	Cruise control memorized speed/ min.: 0 km/h (0 mph), max.: 255 km/h (158 mph)	Memorized speed: Cruise control activated	—
Throttle Opening Angle	Required throttle opening angle/ min.: 0 deg, max.: 125 deg	Required throttle opening angle: Cruise control activated	—
Cruise Request Torque	Cruise Request Torque/ min.: -1024 N·m, max.: 1016 N·m	—	—
Cruise Control	Cruise control system active condition/ ON or OFF	ON: Cruise control activated OFF: Cruise control inactivated	—
Main SW M-CPU	Main switch signal (Main CPU)/ ON or OFF	ON: Main switch ON (pushed on) OFF: Main switch OFF (pushed off)	A
Main SW S-CPU	Main switch signal (Sub CPU)/ ON or OFF	ON: Main switch ON (pushed on) OFF: Main switch OFF (pushed off)	A

Item	Measurement/Item/ Display (Range)	Normal Condition	Diagnostic Note
CCS Ready M-CPU	Cruise control system standby condition (Main CPU)/ ON or OFF	ON to OFF: Change ON/OFF each time main switch is pushed.	B
CCS Ready S-CPU	Cruise control system standby condition (Sub CPU)/ ON or OFF	ON to OFF: Change ON/OFF each time main switch is pushed.	B
CCS Indicator M-CPU	Cruise indicator signal (Main CPU)/ ON or OFF	ON: "CCS READY" ON OFF: "CCS READY" OFF	C
CCS Indicator S-CPU	Cruise indicator signal (Sub CPU)/ ON or OFF	ON: "CCS READY" ON OFF: "CCS READY" OFF	C
Cancel Switch	CANCEL switch signal/ ON or OFF	ON: CANCEL switch ON OFF: CANCEL switch OFF	–
SET/COAST Switch	SET/COAST switch signal/ ON or OFF	ON: SET/COAST switch ON OFF: SET/COAST switch OFF	–
RES/ACC Switch	RES/ACC switch signal/ ON or OFF	ON: RES/ACC switch ON OFF: RES/ACC OFF	–
Stp Light switch M-CPU	Stop lamp switch signal (Main CPU)/ ON or OFF	ON: Brake pedal depressed OFF: Brake pedal released	–
Stp Light switch S1-CPU	Stop lamp switch signal (Sub CPU)/ ON or OFF	ON: Brake pedal depressed OFF: Brake pedal released	–
Stp Light switch S2-CPU	Stop lamp switch signal (Sub CPU)/ ON or OFF	ON: Brake pedal depressed OFF: Brake pedal released	–
Shift D Position	PNP switch signal (D position)/ ON or OFF	ON: Shift lever on D OFF: Shift lever not on D	–
VCS Fail Safe Flag	VSC fail-safe flag/ ON or OFF	–	–

HINT:

- A is OK, but B is NG → ECM failure
- B is OK, but C is NG → DTC output or ECM failure
- A is OK, but CRUISE main indicator lamp does not turn on → Indicator, wire harness, or ECM failure

STEERING PAD SWITCH MODULATOR (MULTI-INFORMATION DISPLAY CONTROL SWITCH):

Item	Measurement/Item/ Display (Range)	Normal Condition	Diagnostic Note
Meter Multi Dsp2 SW	Steering pad switch (DISP2) signal/ ON or OFF	ON to OFF: Change ON/OFF each time steering pad switch (DISP2) switch is pushed	–

2. PERFORM ACTIVE TEST

HINT:

Performing the the intelligent tester II's Active Test allows relay, VSV, actuator and other items to be operated without removing any parts. Performing the Active Test early in troubleshooting is one way to save time. The DATA LIST can be displayed during the ACTIVE TEST.

- (a) Connect the intelligent tester II to the DLC3.
- (b) Turn the ignition switch ON.
- (c) Perform the Active Test according to the display on the tester.

HINT:

The ignition switch must be turned ON to proceed to the Active Test using the intelligent tester II.

Combination meter assy (Combination meter ECU):

Item	Normal Condition	Diagnostic Note
Indicat. Lamp Cruise	"CRUISE" indicator is ON/OFF	–
Indicat. Radar Cruise Display	Graphic area is ON/OFF	*
Indicat. Lamp L–Cruise Check	"CHECK CRUISE SYSTEM" indicator is ON/OFF	–
Indicat. Lamp L–Cruise Ready	"RADAR READY" indicator is ON/OFF	–

HINT:

*: The entire graphic area in the combination meter will light up.