

DATA LIST/ACTIVE TEST

1. DATA LIST

HINT:

From the DATA LIST displayed on the intelligent tester II, you can read the values of the displays, sensors, actuators and so on without parts removal. Reading the DATA LIST as the first step of troubleshooting is one way to shorten labor time.

- (a) Connect the intelligent tester II to the DLC3.
- (b) Turn the ignition switch to the ON position.
- (c) From the display on the tester, select the "DATA LIST".

DATA LIST / AIR CONDITIONER:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
Room temperature sensor (Room Temp)	Room temperature sensor / min.: -6.5°C (20.3°F) max.: 57.25°C (126.95°F)	Actual room temperature is displayed	-
Ambient temperature sensor (Ambi Temp Sens)	Ambient temperature sensor / min.: -23.3°C (-9.94°F) max.: 65.95°C (150.71°F)	Actual ambient temperature is displayed	-
Evaporator temperature sensor (Evap Temp)	Evaporator temperature sensor / min.: -29.7°C (-21.46°F) max.: 59.55°C (139.19°F)	Actual evaporator temperature is displayed	-
Solar sensor (D side) (Solar Sens-D)	Solar sensor (Driver side) / min.: 0 max.: 255	Increases as brightness increases (Driver side)	-
Solar sensor (P side) (Solar Sens-P)	Solar sensor (Passenger side) / min.: 0 max.: 255	Increases as brightness increases (Passenger side)	-
Engine coolant temperature (Coolant Temp)	Engine coolant temperature / min.: 1.3°C (34.34°F) max.: 90.55°C (194.99°F)	Actual engine coolant temperature is displayed while the engine is warmed up	-
Duct sensor (D side) (Duct Temp-D)	Duct sensor (Driver side) / min.: -12.7°C (9.14°F) max.: 76.55°C (169.79°F)	Actual duct temperature is displayed (Driver side)	-
Duct sensor (P side) (Duct Temp-P)	Duct sensor (Passenger side) / min.: -12.7°C (9.14°F) max.: 76.55°C (169.79°F)	Actual duct temperature is displayed (Passenger side)	-
Set temperature (D side) (Set Temp-D)	Set temperature (Driver side) / min.: 0 max.: 255	Actual set temperature is displayed (Driver side)	-
Set temperature (P side) (Set Temp-P)	Set temperature (Passenger side) / min.: 0 max.: 255	Actual set temperature is displayed (Passenger side)	-
Estimated temperature (D side) (Estimate Temp-D)	Estimated temperature (Driver side) / min.: -358.4°C (-613.12°F) max.: 358.4°C (677.12°F)	Actual estimated temperature is displayed (Driver side)	-
Estimated temperature (P side) (Estimate Temp-P)	Estimated temperature (Passenger side) / min.: -358.4°C (-613.12°F) max.: 358.4°C (677.12°F)	Actual estimated temperature is displayed (Passenger side)	-
Air inlet damper position (A/I Damp Pos)	Air inlet damper position / min.: -14% max.: 113.5%	RECIRCULATION: Approx. 0% FRESH: Approx. 100%	-
Cool air bypass damper position (D side) (A/B Damp Pos-D)	Cool air bypass damper position (Driver side) / min.: -14% max.: 113.5%	Open: Approx. 0% SHUT: APPROX. 100%	-
Cool air bypass damper position (P side) (A/B Damp Pos-P)	Cool air bypass damper position (Passenger side) / min.: -14% max.: 113.5%	Open: Approx. 0% SHUT: APPROX. 100%	-

DIAGNOSTICS – AIR CONDITIONING SYSTEM

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
Air inlet damper target position (A/I Damp Targ)	Air inlet damper target / min.: -14% max.: 113.5%	RECIRCULATION: Approx. 0% FRESH: Approx. 100% HARF-RECIRCULATION: 43 to 99.5 %	-
Air mix servomotor target step (D side) (Air Mix Step-D)	Air mix servomotor target step (Driver side) / min.: 257 step max.: 1571 step	MAX COOL: Approx. 257 step MAX HOT: Approx. 1,571 step	-
Air mix servomotor target step (P side) (Air Mix Step-P)	Air mix servomotor target step (Passenger side) / min.: 257 step max.: 1571 step	MAX COOL: Approx. 257 step MAX HOT: Approx. 1,571 step	-
Air outlet servomotor target step (D side) (Air Out Step-D)	Air outlet servomotor target step (Driver side) / min.: 274 step max.: 2060 step	FACE: Approx. 274 step DEF: Approx. 2,060 step	-
Air outlet servomotor target step (P side) (Air Out Step-P)	Air outlet servomotor target step (Passenger side) / min.: 274 step max.: 2060 step	FACE: Approx. 274 step DEF: Approx. 2,060 step	-
Hand free telephone (Hand Free Tel)	Hand free telephone / OFF, ON	-	-
Blower motor speed level (Blower Level)	Blower motor speed level / min.: 0 level max.: 31 level	Increases in the range between 0 and 31 as the speed increase	-
Adjusted ambient temperature (Ambi Temp)	Adjusted ambient temperature / min.: -30.8°C (-23.44°F) max.: 50.8°C (123.44°F)	-	-
+B abnormal low voltage counter (Low Volt Count)	+B abnormal low voltage / min.: 0 times max.: 255 times	-	-
Emission gas sensor (Emiss Gas Sens)	Emission gas / min.: 0 V max.: 255 V	Increases as the gas amount increases	-
Shift set temperature (Set Temp Shift)	Shift set temperature / +2C, +1C, NORMAL, -1C, -2C	Customized value will be displayed	-
Air inlet mode (Air Inlet Mode)	Air inlet mode / AUTO, MANUAL	Customized value will be displayed	-
Compressor mode (Compressor Mode)	Compressor mode / AUTO, MANUAL	Customized value will be displayed	-
Compressor/DEF operation mode (Comprs/Def Oper)	Compressor / DEF operation mode / LINK, NORMAL	Customized value will be displayed	-
Motor initialize after IG sw being turned OFF (Motor Initialaiz)	Motor initialize after IG SW being turned OFF	Customized value will be displayed	-
Evaporator control (Evap Ctrl)	Evaporator control / AUTO, MANUAL	Customized value will be displayed	-
Emission gas sensor shift (Gas Sens Shift)	Emission Gas Sensor Shift / MU MORE, MORE, LI MORE, NORMAL, LI LESS, LESS, MU LESS	Customized value will be displayed	-
Swing resister auto mode (Auto Mode)	Swing resister auto mode / AUTO, MANUAL	Customized value will be displayed	-
Button press buzzer (Button Prs Buz)	Button press buzzer / ON, OFF	Customized value will be displayed	-
Filter sensor (Filter Sens)	Filter sensor / LESS, NORMAL, MORE	Customized value will be displayed	-
Foot air leak (Foot Air Leak)	Foot air leak / ON, OFF	Customized value will be displayed	-
Destination (Destination)	Destination / DOMEST, USA, EUROPE, AUSTRAL, MIDEAST, NO INFO	Changes with destinations	-
Rear solar sensor (Rear Solar Sens)	Rear solar sensor / min.: 0 max.: 255	Changes depending on brightness	-

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
Emission gas Nox sensor (Nox Gas Sens)	Emission gas Nox sensor / min.: 0 max.:255	Increases as the gas amount increases	-
Regulator pressure sensor (Reg Press Sens)	Regulator pressure sensor / min.: 0 max.: 255	Actual regulator pressure is displayed	-
Filter flow volume (Filter Flow Vol)	Filter flow volume / min.: 0 max.: 65535	Actual filter flow volume is displayed	-
Regulator control current (Reg Ctrl Currnt)	Regulator control current / min.: 0 A max.: 255 A	-	-
Humidity sensor (Humidity Sens)	Humidity sensor / min.: 0% max.: 100%	Actual room humidity is displayed	-
Number of trouble codes (#Codes)	Number of Trouble Codes / min.: 0 max.: 255	Number of DTCs will be displayed	-

DATA LIST / ENGINE AND ECT / ALL:

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
A/C signal (A/C Sig)	A/C signal/ ON or OFF	A/C ON: ON	-

2. ACTIVE TEST**HINT:**

Performing the ACTIVE TEST using the intelligent tester II allows the relays, VSV, actuators and so on to operate without parts removal. Performing the ACTIVE TEST as the first step of troubleshooting is one way to shorten labor time.

It is possible to display the DATA LIST on the intelligent tester II during the ACTIVE TEST.

- (a) Connect the intelligent tester II to the DLC3.
- (b) Turn the ignition switch to the ON position.
- (c) From the display on tester, perform the "ACTIVE TEST".

ACTIVE TEST / AIR CONDITIONER:

Item	Test Details / Display (Range)	Diagnostic Note
Actuator check (Actuator check)	Actuator check / OFF, ON	-