DATA LIST / ACTIVE TEST

1. DATA LIST

HINT:

Using the intelligent tester'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.

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Turn the tester on.
(d) Enter the following menus: DIAGNOSIS / OBD/ MOBD / ENGINE / DATA LIST.
(e) Check the value(s) by referring to the table below.

ENGINE

Item	Measurement Item / (Range) Display	Normal Condition	Diagnostic Note
A/C SIG	A/C signal / ON or OFF	ON: A/C ON OFF: A/C OFF	-
A/C MAG CLUTCH	A/C magnetic clutch relay / OFF, ON	ON: A/C magnetic clutch ON OFF: A/C magnetic clutch OFF	-

2. ACTIVE TEST

HINT:

Performing the intelligent tester's ACTIVE TEST allows relays, VSVs, actuators 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 in the ACTIVE TEST.

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Turn the tester on.
(d) Enter the following menus: DIAGNOSIS / OBD/ MOBD / AIR CONDITIONER / ACTIVE TEST.
(e) Perform the ACTIVE TEST by referring to the table below.

AC

AIR CONDITIONER

Item	Test Details / Display (Range)	Diagnostic Note
A/C MAG CLUTCH (Magnetic clutch relay)	Magnetic clutch relay / OFF, ON	-

DIAGNOSTIC TROUBLE CODE CHART

If malfunction code is displayed during the DTC check (sensor check), check the circuit listed for that code in the table below (Proceed to the page given for that circuit).

DTC No.	Detection Item	Trouble Area	Memory *5	See page
11 *1	Room Temperature Sensor Circuit	1. Cooler thermistor (Room temp. sensor) 2. A/C amplifier 3. Harness or connector between cooler thermistor (room temp. sensor) and A/C amplifier	Memorized (8.5 min. or more)	AC-26
12 *2	Ambient Temperature Sensor Circuit	1. Thermistor assembly (Ambient temp. sensor) 2. Harness or connector between thermistor assembly (ambient temp. sensor) and A/C amplifier 3. A/C amplifier	Memorized (8.5 min. or more)	AC-29
13	Evaporator Temperature Sensor Circuit	1. Cooler thermistor No. 1 (Evaporator temp. sensor) 2. Harness or connector between cooler thermistor No. 1 (evaporator temp. sensor) and A/C amplifier 3. A/C amplifier	Memorized (8.5 min. or more)	AC-32
14	Engine Coolant Temperature Communication Circuit	1. Harness or connector between ECM and A/C amplifier 2. ECM 3. A/C amplifier	-	AC-35
21 *3	Solar Sensor Circuit (Passenger Side)	1. Cooler (solar sensor) thermistor 2. Harness or connector between cooler (solar sensor) thermistor and A/C amplifier 3. A/C amplifier	Memorized (8.5 min. or more) (only when circuit is shorted)	AC-38
22 *4	Compressor Lock Sensor Circuit	1. Compressor drive belt 2. Compressor lock sensor 3. Cooler compressor assembly 4. Harness or connector between compressor lock sensor and A/C amplifier 5. A/C amplifier	-	AC-42
23	Pressure Switch Circuit	1. Pressure switch 2. A/C amplifier 3. Refrigerant pipe line 4. Harness or connector between pressure switch and A/C amplifier	-	AC-44
24 *3*6	Solar Sensor Circuit (Driver Side)	1. Cooler (Solar sensor) thermistor 2. Harness or connector between cooler (solar sensor) thermistor and A/C amplifier 3. A/C amplifier	Memorized (8.5 min. or more) (only when circuit is shorted)	AC-47

AC

DTC No.	Detection Item	Trouble Area	Memory *5	See page
31	Air Mix Damper Position Sensor Circuit (Passenger Side)	1. Damper servo sub-assembly (Air mix damper position sensor) 2. A/C amplifier 3. Harness or connector between damper servo sub-assembly (air mix damper position sensor) and A/C amplifier	Memorized (1 min. or more)	AC-50
32	Air Inlet Damper Position Sensor Circuit	1. Blower damper servo sub-assembly (Air inlet damper position sensor) 2. A/C amplifier 3. Harness or connector between blower damper servo sub-assembly (air inlet damper position sensor) and A/C amplifier	Memorized (1 min. or more)	AC-54
33	Air Outlet Damper Position Sensor Circuit	1. Mode damper servo sub-assembly (Air outlet damper position sensor) 2. A/C amplifier 3. Harness or connector between mode damper servo sub-assembly (air outlet damper position sensor) and A/C amplifier	Memorized (1 min. or more)	AC-57
36 *6	Air Mix Damper Position Sensor Circuit (Driver Side	1. Damper servo sub-assembly (Air mix damper position sensor) 2. A/C amplifier 3. Harness or connector between damper servo sub-assembly (air mix damper position sensor) and A/C amplifier	Memorized (1 min. or more)	AC-60
41	Air Mix Damper Control Servo Motor Circuit (Passenger Side)	1. Damper servo sub-assembly (Air mix damper control servo motor) 2. Harness or connector between damper servo sub-assembly (air mix damper control servo motor) and A/C amplifier 3. A/C amplifier	Memorized (15 sec.)	AC-64
42	Air Inlet Damper Control Servo Motor Circuit	1. Blower damper servo sub-assembly (Air inlet damper control servo motor) 2. Harness or connector between blower damper servo sub-assembly (Air inlet damper control servo motor) and A/C amplifier 3. A/C amplifier	Memorized (15 sec.)	AC-67
43	Air Outlet Damper Control Servo Motor Circuit	1. Mode damper servo sub-assembly (Air outlet damper control servo motor) 2. Harness or connector between mode damper servo sub-assembly (air outlet damper control servo motor) and A/C amplifier 3. A/C amplifier	Memorized (15 sec.)	AC-70

DTC No.	Detection Item	Trouble Area	Memory *5	See page
46 *6	Air Mix Damper Control Servo Motor Circuit (Driver Side)	1. Damper servo sub-assembly (Air mix damper control servo motor) 2. Harness or connector between damper servo sub-assembly (air mix damper control servo motor) and A/C amplifier 3. A/C amplifier	Memorized (15 sec.)	AC-73

HINT:

- *1: If the room temp. is approx. -18.6°C (-3.7°F) or lower, trouble code 11 may be output even though the system is normal.
- *2: If the ambient temp. is approx. -52.9°C (-61.4°F) or lower, a malfunction code may be output even though the system is normal.
- *3: If the check is performed in a dark place, DTC 21, 24 (solar sensor circuit) could be displayed.
- *4: Compressor lock (DTC 22) is indicated only for a existing malfunction.
  To confirm DTC 22, perform the following steps.
  (1) With the engine ON, enter the DTC check mode.
  (2) Press the R/F switch to enter actuator check mode, and set the operation to Step No. 3.
  (3) Press the AUTO switch to return to DTC check mode.
  (4) The DTC is displayed after approx. 3 sec.
- *5: The A/C amplifier memorizes the DTC of the respective malfunction which occurred within the period of the time indicated in the brackets.
- *6: DTC 24, 36 and 46 are indicated only for limited grade (right/left independent temperature control system).