

DATA LIST/ACTIVE TEST

1. DATA LIST

HINT:

From the DATA LIST displayed on the hand-held tester, you can read the value of the display, sensor, actuator and so on without parts removal. Reading the DATA LIST as the first step of troubleshooting is one way to shorten labor time.

- Connect the hand-held tester to the DLC3.
- Turn the power switch to the ON position.
- From the display on the tester, select the "DATA LIST".

DATA LIST / AIR CONDITIONER:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
ROOM TEMP	Room temperature sensor / min.: -6.5°C (20.3°F) max.: 57.25°C (135.05°F)	Actual room temperature is displayed	Open in the circuit: -6.5°C (20.3°F) Short in the circuit: 57.25°C (135.05°F)
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	Open in the circuit: -23.3°C (-9.94°F) Short in the circuit: 65.95°C (150.71°F)
EVAP TEMP	Evaporator temperature sensor / min.: -29.7°C (-21.46°F) max.: 59.55°C (139.19°F)	Actual evaporator temperature is displayed	Open in the circuit: -29.7°C (-21.46°F) Short in the circuit: 59.55°C (139.19°F)
SOLAR SENS-D	Solar sensor (Driver side) / min.: 0 max.: 255	Increases as brightness increases	Open in the circuit: 0 Short in the circuit: 255
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	–
SET TEMP-D	Set temperature (Driver side) / min.: 0 max.: 255	The same contents as a setting temperature display part are displayed	–
ESTIMATE TEMP-D	Estimated temperature (Driver side) / min.: -358.4°C (-613.12°F) max.: 358.4°C (677.12°F)	Damper is at "MAX. COOL": -358.4°C (-613.12°F) Damper is at "MAX. HOT": 358.4°C (677.12°F)	–
A/M DAMP POS-D	Air mix damper position (Driver side) / min.: -14% max.: 113.5%	Damper is at "MAX. COOL": -10.0% Damper is at "MAX. HOT": 100.0% or 71.0%	–
A/O DAMP POS	Air outlet damper position / min.: -14% max.: 113.5%	Damper is at "FACE": -10.0% Damper is at "FACE/FOOT": 12.0% Damper is at "FOOT" (Manual): 33.5% or 69.0% Damper is at "FOOT" (Auto): 49.0% or 69.0% Damper is at "FACE/DEF": 69.0% or 95.0% Damper is at "DEF": 110.0%	Open in the circuit: 50.0%
A/I DAMP POS	Air inlet damper position / min.: -14% max.: 113.5%	Damper is at "RECIRCULATION": -1.0% Damper is at "FRESH": 110.0% Damper is at "HALF-RECIRCULATION": 20.0 to 102.0%	Open in the circuit: 50.0%

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
A/M DAMP TARG-D	Air mix damper target position (Driver side) / min.: -14% max.: 113.5%	Damper is at "MAX. COOL": -10.0% Damper is at "MAX. HOT": 100.0% or 71.0%	-
A/O DAMP TARG	Air outlet damper target position / min.: -14% max.: 113.5%	Damper is at "FACE": -10.0% Damper is at "FACE/FOOT": 12.0% Damper is at "FOOT" (Manual): 33.5% or 69.0% Damper is at "FOOT" (Auto): 49.0% or 69.0% Damper is at "FACE/DEF": 69.0% or 95.0% Damper is at "DEF": 110.0%	Open in the circuit: 50.0%
A/I DAMP TARG	Air inlet damper target position / min.: -14% max.: 113.5%	Damper is at "RECIRCULATION": -1.0% Damper is at "FRESH": 110.0% Damper is at "HALF-RECIRCULATION": 20.0 to 102.0%	Open in the circuit: 50.0%
HAND FREE TEL	Hands free telephone / OFF, ON	-	-
BLOWER LEVEL	Blower motor speed level / min.: Level 0 max.: 31	Increases in the range between 0 and 31 as the speed increases.	-
AMBI TEMP	Adjusted ambient temperature / min.: -30.8°C (-23.44°F) max.: 50.8°C (123.44°F)	-	-
SET TEMP SHIFT	Shift set temperature /+2C, +1C, NORMAL, -1C, -2C	Customized value will be displayed	-
AIR INLET MODE	Air inlet mode / AUTO, MANUAL	Customized value will be displayed	-
COMPRESSOR MODE	Compressor mode / AUTO, MANUAL	Customized value will be displayed	-
COMPRS/DEF OPER	Compressor / DEF operation mode / LINK, NORMAL	Customized value will be displayed	-
FOOT AIR LEAK	Foot air leak / ON, OFF	Customized value will be displayed	-
AUTO BLOW UP	Foot / DEF automatic blow up function / ON, OFF	Customized value will be displayed	-
FOOT/DEF MODE	Foot / DEF auto mode / ON, OFF	Customized value will be displayed	-
AMBIENT TMP SFT	Ambient temperature shift / +3C, +2C, +1C, NORMAL, -1C, 2C, 3C	Customized value will be displayed	-
DESTINATION	Destination/ DOMEST, USA, EUROPE, AUSTRAL, MIDEAST, NO INFO	Changes with destinations	-
DESTINATION	Destination/ DOMEST, USA, EUROPE, AUSTRAL, MIDEAST, NO INFO	Changes with destinations	-
HUMIDITY SENS	Humidity sensor / min.: 0% max.: 100%	Actual room humidity is displayed	-
COMPRS SPD	Compressor speed / min.: 0 rpm max.: 65,535 rpm	Displays actual rotation speed in the range between 0 rpm and 7,500 rpm	-
COMPRS TARG SPD	Compressor target speed / min.: 0 rpm max.: 65,535 rpm	Displays target rotation speed in the range between 0 rpm and 7,500 rpm	-
#CODES	Number of trouble codes / min.: 0 max.: 255	Number of DTCs will be displayed	-

2. ACTIVE TEST

HINT:

Performing the ACTIVE TEST using the hand-held tester allows the relay, VSV, actuator 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 hand-held tester during the ACTIVE TEST.

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the power 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
BIOWER MOTOR	Blower motor / min.: 0 max.: 31	–
AIR MIX DAMP-D	Air mix damper (Driver side) / min.: -14% max.: 113.5%	–
A/O MODE DAMP-D	Air outlet damper position (Driver side) / min.: -14% max.: 113.5%	–
A/I DAMP-LINEAR	Air inlet damper position (linear) / min.: -14% max.: 113.5%	–
Comprs Targ Spd	Compressor target speed / min.: 0 max.: 255	–
DEFOGGER RLY-R	Defogger relay (Rear) / OFF, ON	–
WATER PUMP RLY	Water pump / OFF, ON	–
ELECTRICAL FAN	Electrical fan / OFF, ON	–
DEFOGGER RLY-R	Defogger relay (Rear) / OFF, ON	–
A/C MAG CLUTCH	Magnetic Clutch Relay / OFF, ON	–
WATER PUMP RLY	Water pump / OFF, ON	–
ELECTRICAL FAN	Electrical fan / OFF, ON	–