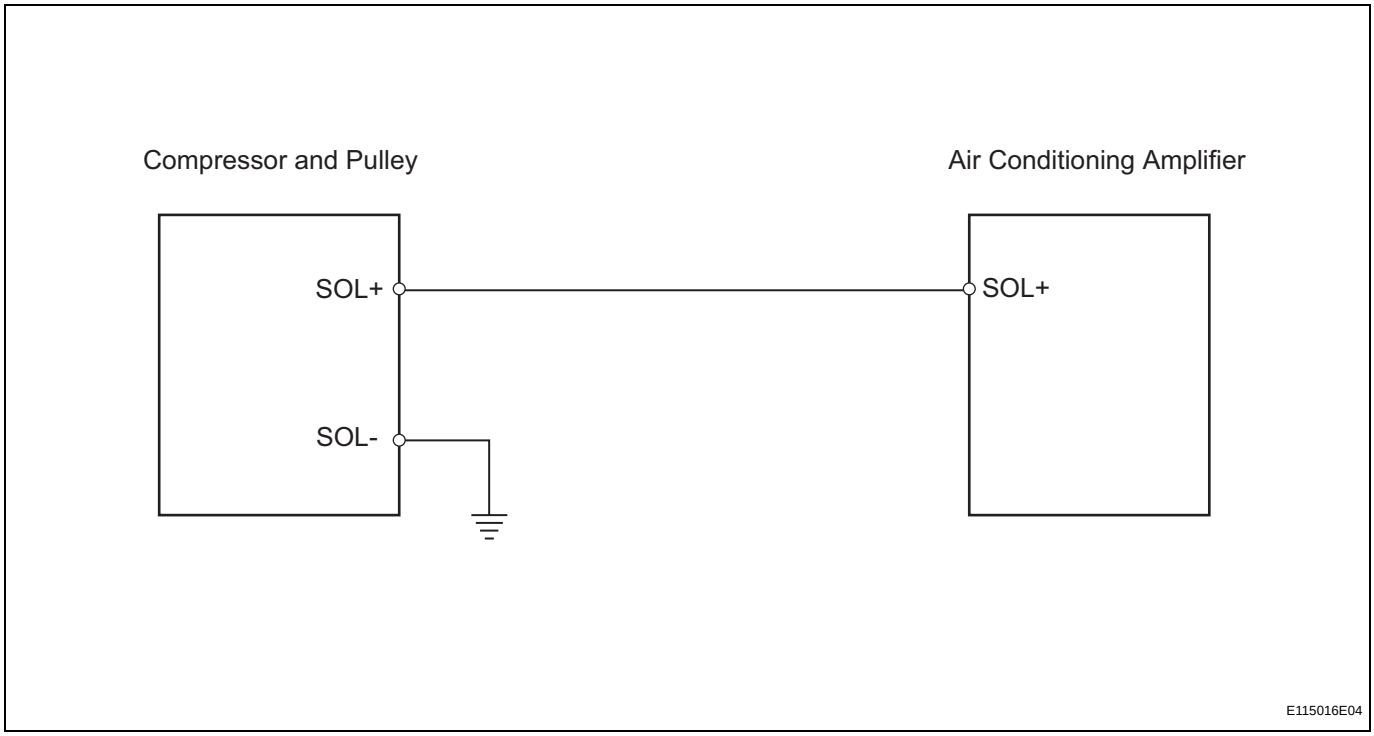
DTC	B1451/51	**Compressor Solenoid Circuit** (2005/11-2006/01)

DESCRIPTION

In this circuit, the compressor receives a refrigerant compression demand signal from the air conditioning amplifier. Based on this signal, the compressor changes the degree of refrigerant compression.

DTC No.	DTC Detection Condition	Trouble Area
B1451/51	Open or short in solenoid of externally changeable compressor circuit	• Compressor and pulley • Harness and connector between air conditioning amplifier and compressor and pulley • Air conditioning amplifier

WIRING DIAGRAM



AC

INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER (REG CTRL CURRNT)

(a) Connect the intelligent tester (with CAN VIM) to the DLC3.
(b) Turn the ignition switch ON and turn the intelligent tester main switch ON.
(c) Select the items below in the DATA LIST, and read the value displayed on the intelligent tester.

Air conditioning amplifier

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
REG CTRL CURRNT	Regulator control current / Min.: 0 A Max.: 0.997 A	Value changes between 0 A and 0.997 A in accordance with compressor and pulley operation	-

OK:

The display is as specified in the normal condition column.

Result

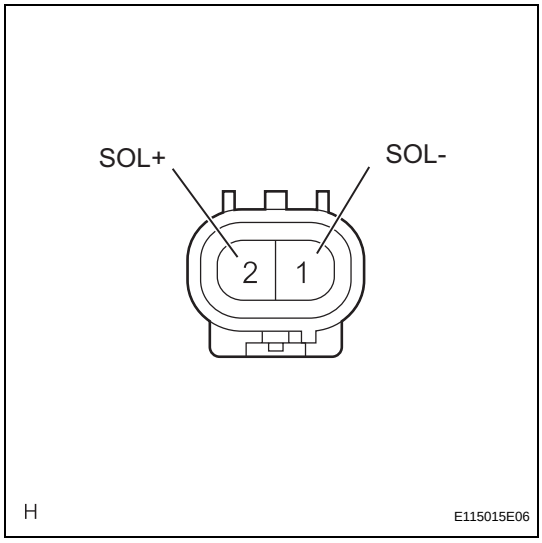
Result	Proceed to
NG	A
OK (Checking from the PROBLEM SYMPTOMS TABLE)	B
OK (Checking from the DTC)	C

B → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

C → **REPLACE AIR CONDITIONING AMPLIFIER**

A

2 INSPECT COMPRESSOR AND PULLEY



(a) Disconnect the compressor and pulley.
(b) Measure the resistance of the connector.

Standard resistance

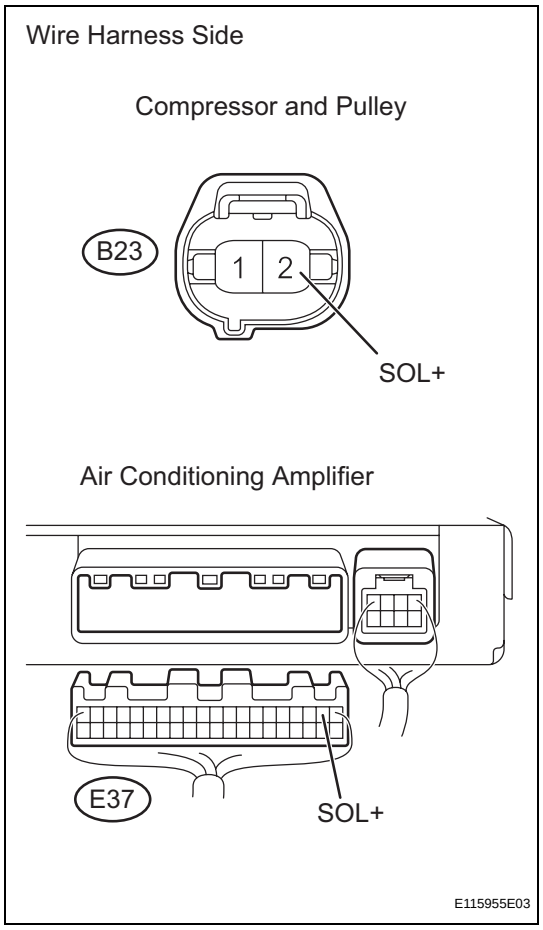
Tester Connection	Condition	Specified Condition
1 (SOL-) - 2 (SOL+)	25°C (77°F)	10.1 to 11.1 Ω

NG → **REPLACE COMPRESSOR AND PULLEY**

OK

AC

3 CHECK WIRE HARNESS (COMPRESSOR AND PULLEY - AIR CONDITIONING AMPLIFIER)



(a) Disconnect the B23 compressor and pulley connector.
(b) Disconnect the E37 amplifier connector.
(c) Measure the resistance of the wire harness side connectors.

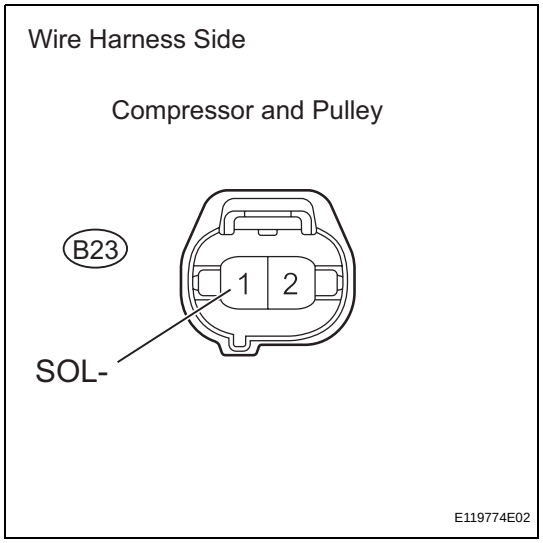
Standard resistance

Tester Connection	Specified Condition
B23-2 (SOL+) - E37-2 (SOL+)	Below 1 Ω
B23-2 (SOL+) - Body Ground	1 MΩ or higher

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

4 CHECK WIRE HARNESS (COMPRESSOR AND PULLEY - BODY GROUND)



(a) Disconnect the B23 compressor and pulley connector.
(b) Measure the resistance of the wire harness side connector.

Standard resistance

Tester Connection	Specified Condition
B23-1 (SOL-) - Body ground	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

AC

OK

REPLACE AIR CONDITIONING AMPLIFIER