DTC	B1451/51	Compressor Solenoid Circuit

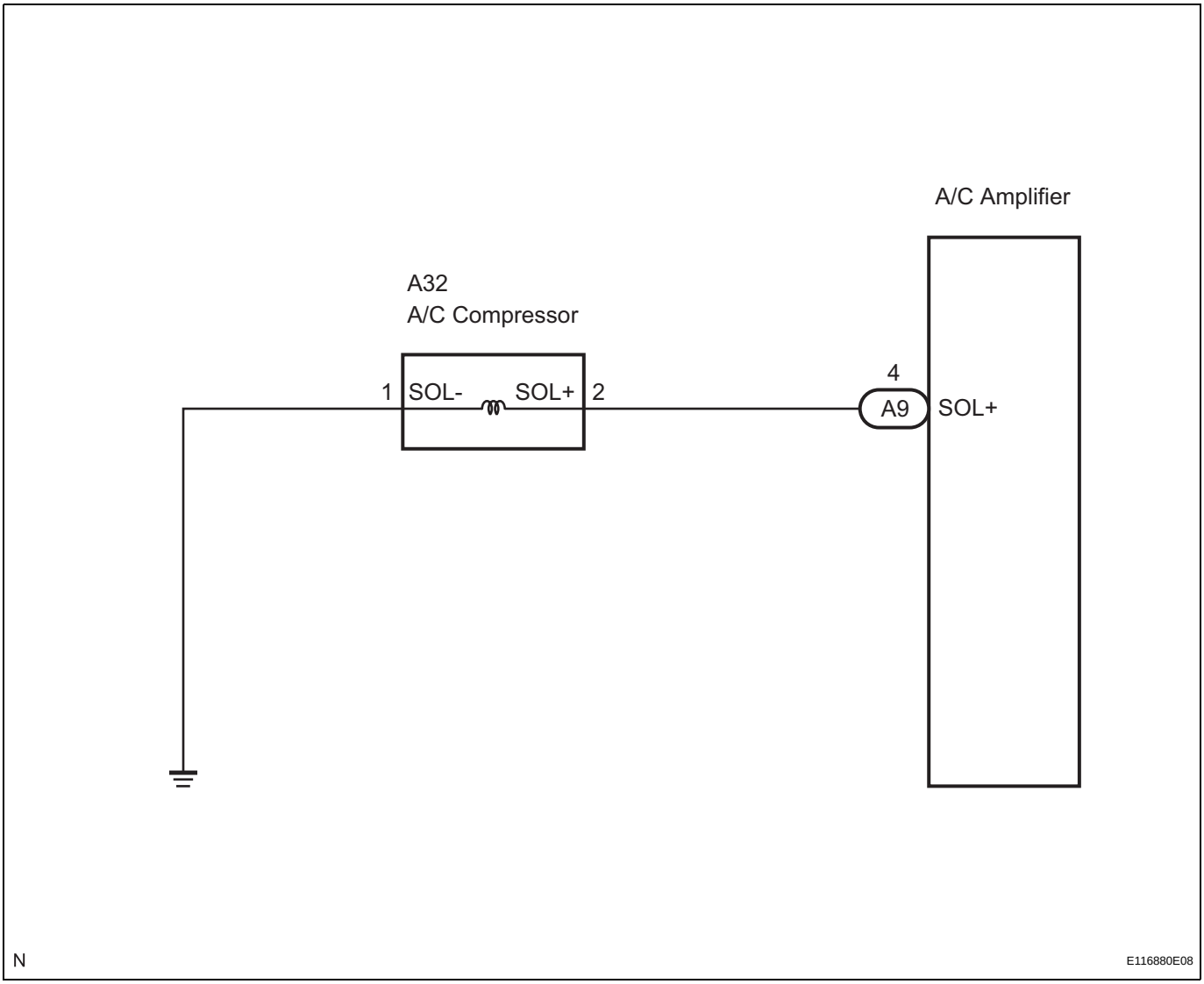
DESCRIPTION

In this circuit, the compressor receives a refrigerant compression demand signal from the A/C amplifier. Based on this signal, the compressor changes the amount of compressor output.

DTC No.	DTC Detection Condition	Trouble Area
B1451/51	Open or short in solenoid of externally changeable compressor circuit	• A/C compressor • Harness or connector between A/C amplifier and solenoid of externally changeable compressor • A/C amplifier

AC

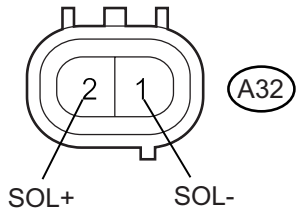
WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT A/C COMPRESSOR

Component without harness connected:
(A/C Compressor)



H E116970E11

(a) Disconnect the A/C compressor connector.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
A32-2 (SOL+) - A32-1 (SOL-)	20°C (68°F)	10 to 11 Ω

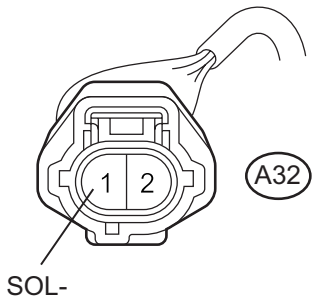
AC

NG → **REPLACE A/C COMPRESSOR**

OK

2 CHECK HARNESS AND CONNECTOR (A/C COMPRESSOR - BODY GROUND)

Front view of wire harness connector:
(to A/C Compressor)



H E116971E16

(a) Disconnect the A/C compressor connector.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

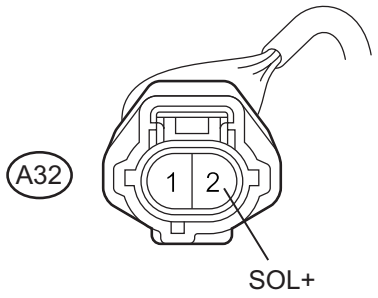
Tester Connection	Condition	Specified Condition
A32-1 (SOL-) - Body ground	Always	Below 1 Ω

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

OK

3	CHECK HARNESS AND CONNECTOR (A/C COMPRESSOR - A/C AMPLIFIER)

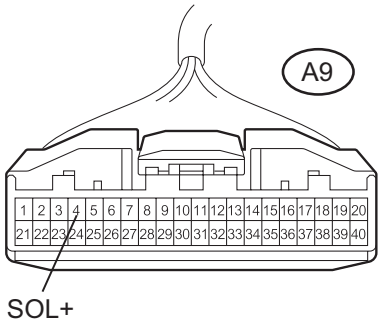
Front view of wire harness connector:
(to A/C Compressor)



H E116971E17

(a) Disconnect the A/C compressor connector.

Front view of wire harness connector:
(to A/C Amplifier)



H E143742E43

(b) Disconnect the A/C amplifier connector.
(c) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
A9-4 (SOL+) - A32-2 (SOL+)	Always	Below 1 Ω
A9-4 (SOL+) - Body ground	Always	10 kΩ or higher

Result

Result	Proceed to
NG	A
OK (When troubleshooting according to the PROBLEM SYMPTOMS TABLE)	B
OK (When troubleshooting according to the DTC)	C

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

C → **REPLACE A/C AMPLIFIER**

A

REPAIR OR REPLACE HARNESS OR CONNECTOR