

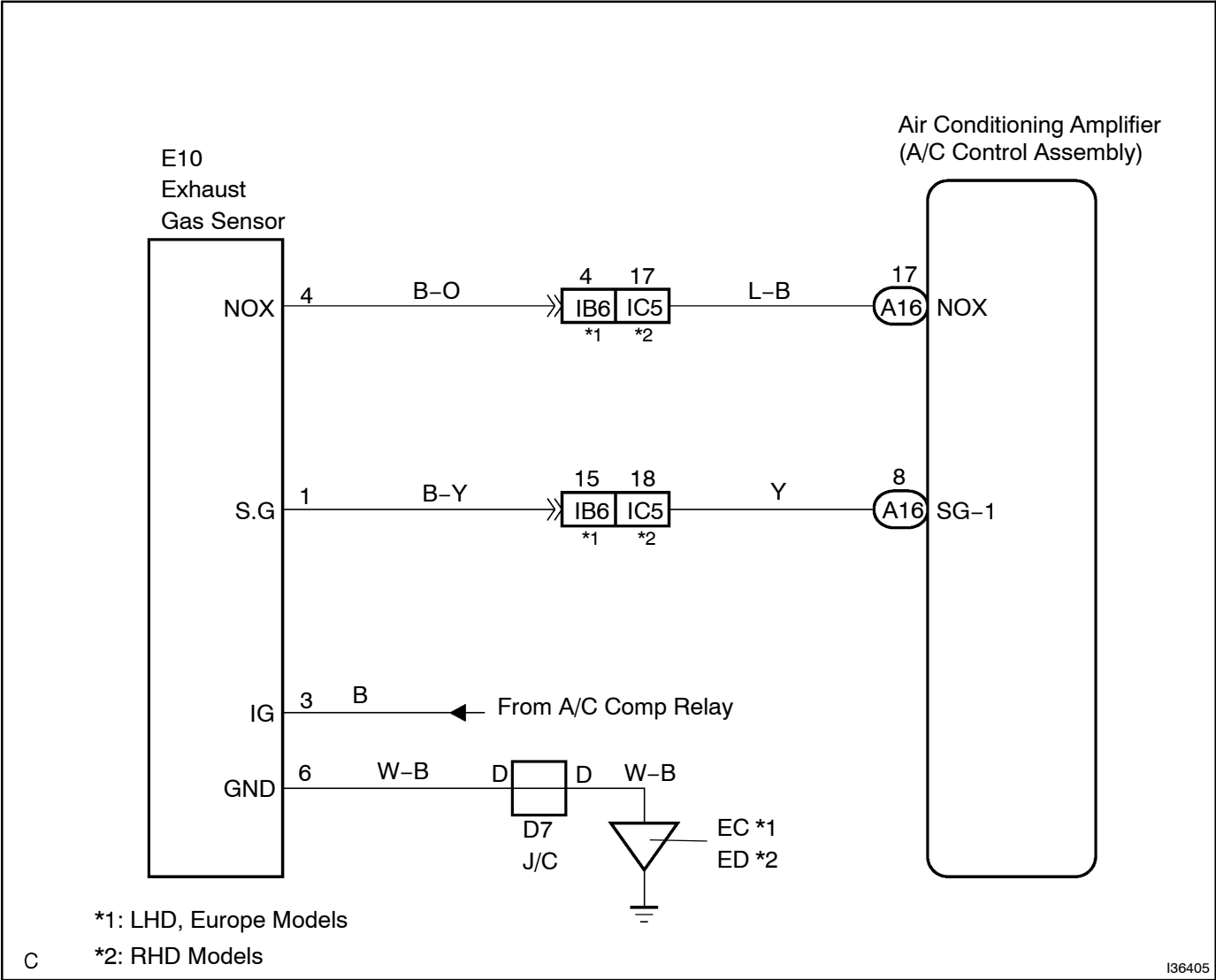
DTC	B1461	EMISSION GAS NOX SENSOR CIRCUIT
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CIRCUIT DESCRIPTION

This sensor detects the exhaust gas (NOx) outside the vehicle and sends a signal to the A/C amplifier.

DTC No.	Detection Item	Trouble Area
B1461	Emission gas Nox sensor circuit (Open or short)	- Exhaust gas sensor (Emission gas Nox sensor) - Harness or connector between exhaust gas sensor (Emission gas Nox sensor) and A/C amplifier - A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

1 READ VALUE ON INTELLIGENT TESTER II

- (a) Connect the intelligent tester II to the DLC3.
- (b) Turn the ignition switch to the ON position and push the intelligent tester II main switch on.
- (c) Select the item below in the DATA LIST, and read the display on the intelligent tester II.

DATA LIST / AIR CONDITIONER:

Item	Measure 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 in- creases	-

OK:

The display is as specified in the normal condition.

Result:

NG	A
OK (Checking from the PROBLEM SYMPTOM TABLE)	B
OK (Checking from the DTC)	C

B

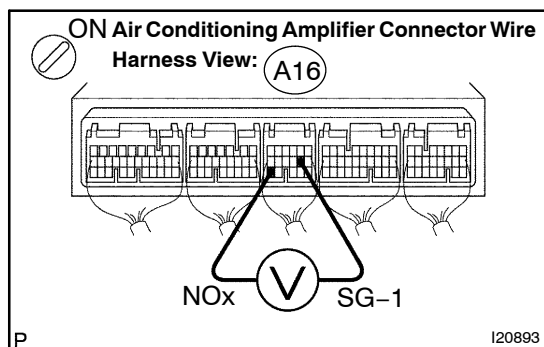
**PROCEED TO NEXT CIRCUIT INSPECTION
SHOWN IN PROBLEM SYMPTOMS TABLE
(SEE PAGE 05-778)**

C

**REPLACE AIR CONDITIONING AMPLIFIER
(SEE PAGE 55-16)**

A

2 INSPECT AIR CONDITIONING AMPLIFIER(NOX - SG-1)



- Remove the A/C amplifier with connectors still connected.
- Turn the ignition switch to the ON position.
- Measure the voltage according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A16-17 (NOX) - A16-8 (SG-1)	Ignition switch ON at 10 to 35°C (50 to 95°F)	1.0 to 4.5 V

HINT:

As the temperature increases, the voltage decreases.

Result:

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

B

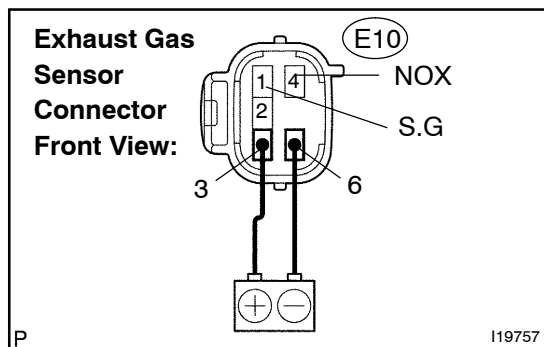
**PROCEED TO NEXT CIRCUIT INSPECTION
SHOWN IN PROBLEM SYMPTOMS TABLE
(SEE PAGE 05-778)**

C

**REPLACE AIR CONDITIONING AMPLIFIER
(SEE PAGE 55-16)**

A

3 INSPECT EXHAUST GAS SENSOR



- Remove the exhaust gas sensor.
- After keeping to apply battery voltage between terminals 3 and 6 for more than 120 seconds, measure the resistance between terminals 1 and 2.
- Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
E10-1 (S.G) - E10-4 (NOX)	at 10 to 35°C (50 to 95°F)	5 to 100 kΩ

HINT:

When the sensor is exposed to the exhaust gas, the resistance goes down.

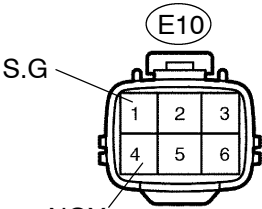
NG

REPLACE EXHAUST GAS SENSOR

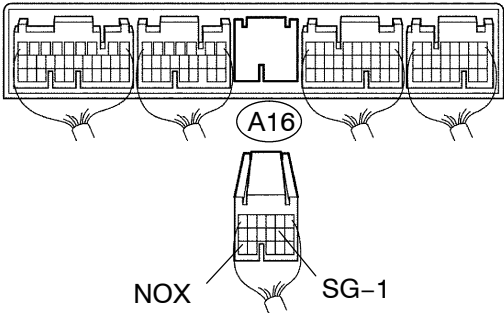
OK

4 **CHECK HARNESS AND CONNECTOR(AIR CONDITIONING AMPLIFIER – EXHAUST GAS SENSOR) (SEE PAGE 01-44)**

**Exhaust Gas Sensor Connector
Front View:**



**Air Conditioning Amplifier Connector
Wire Harness View:**



(a) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A16-17 (NOX) – E10-4 (NOX)	Always	Below 1 Ω
A16-8 (SG-1) – E10-1 (S.G)	Always	Below 1 Ω
A16-17 (NOX) – Body ground	Always	10 kΩ or higher
A16-8 (SG-1) – Body ground	Always	10 kΩ or higher

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE AIR CONDITIONING AMPLIFIER (SEE PAGE 55-16)