

DTC	P0402	Exhaust Gas Recirculation Flow Excessive Detected
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CIRCUIT DESCRIPTION

Refer To Exhaust Gas Recirculation Flow Insufficient Detected on page [DI-75](#).

DTC No.	DTC Detecting Condition	Trouble Area
P0402	EGR gas temp. sensor value is high during EGR cut-off when engine is cold (Race engine at about 4,000 rpm without load so that vacuum is applied to port E) (2 trip detection logic)	<ul style="list-style-type: none"> • EGR valve stuck open • EGR VSV open malfunction • Open in VSV circuit for EGR • Short in EGR gas temp. sensor circuit • ECM
	EGR valve is always open (2 trip detection logic)	

See DTC P0401 for SYSTEM CHECK DRIVING PATTERN and WIRING DIAGRAM.

INSPECTION PROCEDURE

LEXUS hand-held tester:

1	Connect the LEXUS hand-held tester and read EGR gas temperature value.
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PREPARATION:

- Connect the LEXUS hand-held tester to the DLC3.
- Turn ignition switch ON and LEXUS hand-held tester main switch ON.

CHECK:

Read EGR gas temperature on the LEXUS hand-held tester.

OK:

EGR gas temp.: 150°C (302°F) or less. (Not immediately after driving)

HINT:

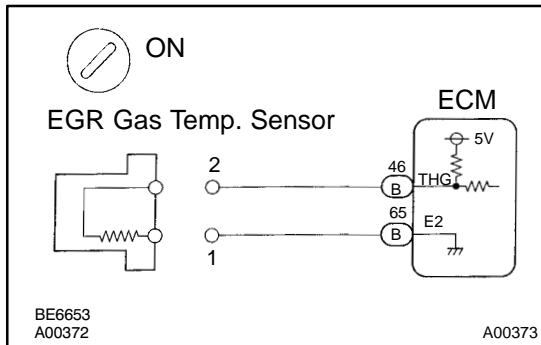
If there is a short circuit, the LEXUS hand-held tester indicates 159.3°C (318.7°F).

OK

Go to step 4.

NG

2 Check for short in harness and ECM.



PREPARATION:

Disconnect the EGR gas temperature sensor connector.

CHECK:

Read EGR gas temperature on the LEXUS hand-held tester.

OK:

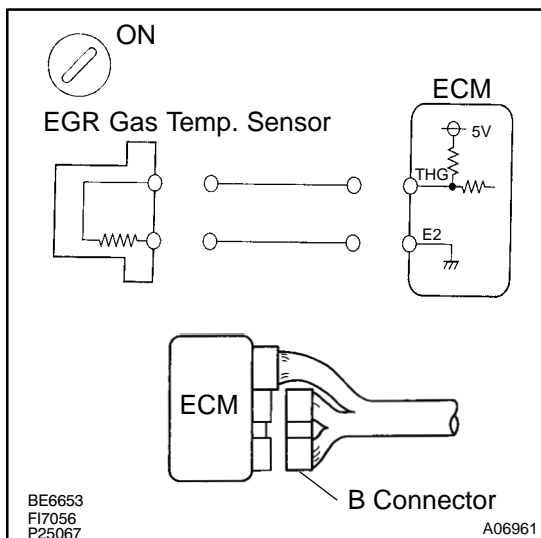
EGR gas temp.: 3.1°C (37.6°F)

OK

Replace EGR gas temp. sensor.

NG

3 Check for short in harness or ECM.



PREPARATION:

(a) Disconnect the B connector from ECM (See page [DI-18](#)).

HINT:

EGR gas temp. sensor is disconnected.

(b) Turn ignition switch ON.

CHECK:

Read EGR gas temp. on the LEXUS hand-held tester.

OK:

EGR gas temp.: 3.1°C (37.6°F)

OK

Repair or replace harness or connector.

NG

Check and replace ECM (See page [IN-29](#)).

4 Check the VSV for EGR (See page DI-75, step 5).

OK

Check EGR valve (See page EC-8).

NG

5 Check operation of the VSV for EGR (See page SF-67).

NG

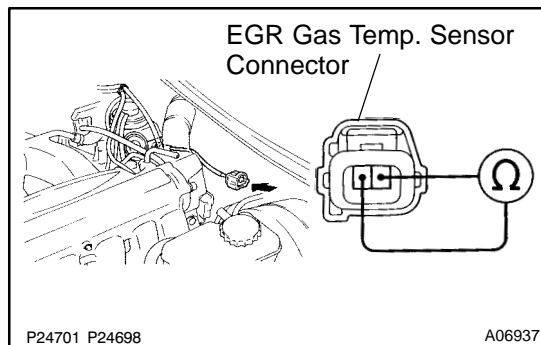
Replace VSV for EGR.

OK

Check for short in harness and connector between VSV and ECM (See page IN-29).

OBDII scan tool (excluding LEXUS hand-held tester)

1 Check resistance of EGR gas temp. sensor.



PREPARATION:

Disconnect EGR gas temp. sensor connector.

CHECK:

Measure resistance between terminals of EGR gas temp. sensor connector.

OK:

Resistance: 2.5 kΩ or more.
(Not immediately after driving)

HINT:

If there is short circuit, ohmmeter indicates 200 Ω or less.

NG

Replace EGR gas temp. sensor.

OK

2 Check for short in harness and connector between EGR gas temp. sensor and ECM (See page [IN-29](#)).

NG

Repair or replace harness or connector.

OK

3 Check the VSV for EGR (See page [DI-75](#), step 5).

OK

Check EGR valve (See page [EC-8](#)).

NG

4 Check operation of the VSV for EGR (See page [SF-67](#)).

NG

Replace VSV for EGR.

OK

5 Check for short in harness and connector between VSV and ECM (See page [IN-29](#)).

NG

Repair or replace harness or connector.

OK

Check and replace ECM (See page [IN-29](#)).