

|            |              |                                                          |
|------------|--------------|----------------------------------------------------------|
| <b>DTC</b> | <b>P0402</b> | <b>Exhaust Gas Recirculation Flow Excessive Detected</b> |
|------------|--------------|----------------------------------------------------------|

## CIRCUIT DESCRIPTION

Refer to DTC P0401 on page [DI-69](#).

| 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 4.000rpm without load so that vacuum is applied to port E)<br>(2 trip detection logic) | <ul style="list-style-type: none"> <li>• EGR valve stuck open</li> <li>• EGR VSV open malfunction</li> <li>• Open in VSV circuit for EGR</li> <li>• Short in EGR gas temp. sensor circuit</li> <li>• ECM</li> </ul> |
|         | EGR valve is always open (2 trip detection logic)                                                                                                                                      |                                                                                                                                                                                                                     |

Refer to DTC P0401 for the System Check Driving Pattern and Wiring Diagram.

## INSPECTION PROCEDURE

### LEXUS hand-held tester

|          |                                                                         |
|----------|-------------------------------------------------------------------------|
| <b>1</b> | <b>Connect the LEXUS hand-held tester and read EGR gas temp. value.</b> |
|----------|-------------------------------------------------------------------------|

#### PREPARATION:

- Remove the fuse cover on the instrument panel.
- Connect the LEXUS hand-held tester to the DLC3.
- Turn the ignition switch ON and push the LEXUS hand-held tester main switch ON.

#### CHECK:

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

#### OK:

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

#### HINT:

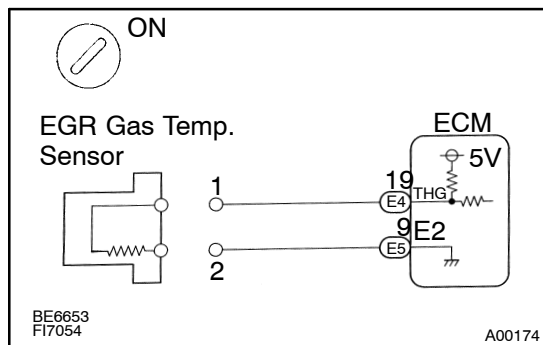
If there is a short circuit, the LEXUS hand-held tester indicates Approx. 157.6°C (315.5°F).

**OK**

**Go to step 4.**

**NG**

## 2 Check for short in harness and ECM.



### PREPARATION:

Disconnect the EGR gas temperature sensor connector.

### CHECK:

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

### OK:

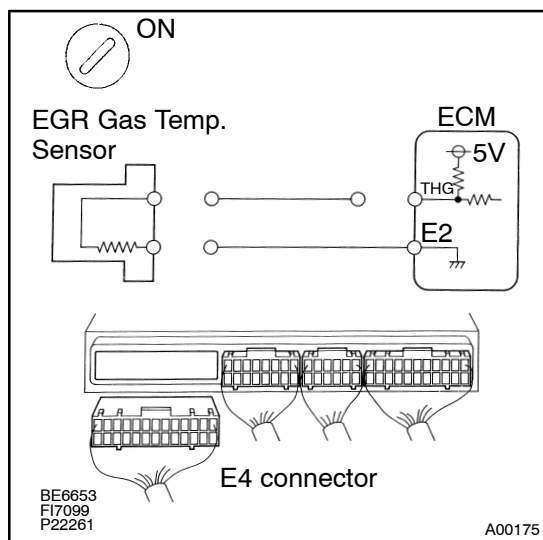
**EGR gas temperature: 3.1 °C (37.6 °F)**

OK

**Replace EGR gas temp. sensor.**

NG

## 3 Check for short in harness or ECM.



### PREPARATION:

(a) Remove the instrument panel speaker No.1 panel.  
(See page [SF-63](#)).

(b) Disconnect the E4 connector of ECM.

### HINT:

EGR gas temperature sensor is disconnected.

### CHECK:

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

### OK:

**EGR gas temperature: 3.1 °C (37.6 °F)**

OK

**Repair or replace harness or connector.**

NG

**Check and replace ECM (See page [IN-27](#)).**

4 Check the VSV for EGR (See page [DI-69](#)).

OK

Check EGR valve (See page [EC-10](#)).

NG

5 Check operation of the VSV for EGR (See page [SF-57](#)).

NG

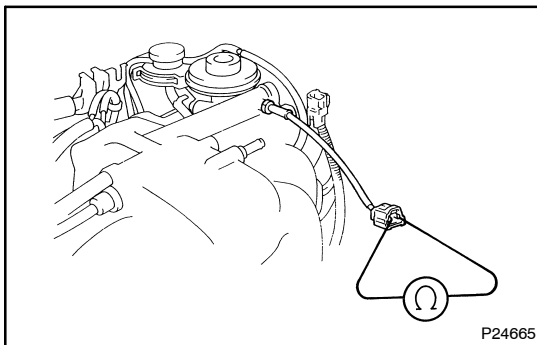
Replace VSV for EGR.

OK

Check for short in harness and connector between VSV and ECM (See page [IN-27](#)).

## OBD II scan tool (excluding LEXUS hand-held tester)

1 Check resistance of EGR gas temp. sensor .



### PREPARATION:

Disconnect EGR gas temperature sensor connector.

### CHECK:

Measure the resistance between terminals of EGR gas temperature sensor connector.

### OK:

**Resistance: 2.5 k $\Omega$  or more**  
**(Not immediately after driving)**

### HINT:

If there is short circuit, ohmmeter indicates 200  $\Omega$  or less.

NG

Replace EGR gas temp. sensor.

OK

|   |                                                                                                          |
|---|----------------------------------------------------------------------------------------------------------|
| 2 | Check for short in harness and connector EGR gas temp. sensor and ECM (See page <a href="#">IN-27</a> ). |
|---|----------------------------------------------------------------------------------------------------------|

NG

Repair or replace harness or connector.

OK

|   |                                                          |
|---|----------------------------------------------------------|
| 3 | Check the VSV for EGR (See page <a href="#">DI-69</a> ). |
|---|----------------------------------------------------------|

OK

Check EGR valve (See page [EC-10](#)).

NG

|   |                                                                       |
|---|-----------------------------------------------------------------------|
| 4 | Check operation of the VSV for EGR (See page <a href="#">SF-57</a> ). |
|---|-----------------------------------------------------------------------|

NG

Replace VSV for EGR.

OK

|   |                                                                                                 |
|---|-------------------------------------------------------------------------------------------------|
| 5 | Check for short in harness and connector between VSV and ECM (See page <a href="#">IN-27</a> ). |
|---|-------------------------------------------------------------------------------------------------|

NG

Repair or replace harness or connector.

OK

Check and replace ECM (See page [IN-27](#)).