

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

## CIRCUIT DESCRIPTION

Refer to DTC P0401 (Exhaust Gas Recirculation Flow Insufficient Detected) 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 4,000 rpm 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 (Exhaust Gas Recirculation Flow Insufficient Detected) for the System Check Driving Pattern and Wiring Diagram.

## INSPECTION PROCEDURE

### TOYOTA hand-held tester

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

#### PREPARATION:

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

#### CHECK:

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

#### OK:

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

#### HINT:

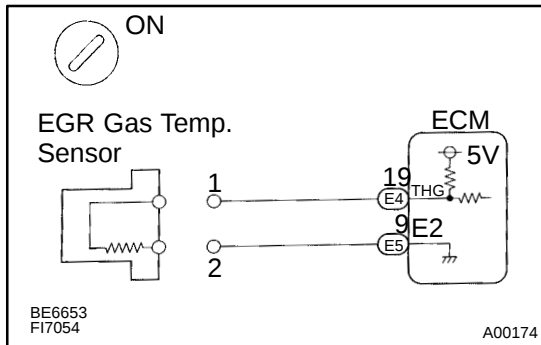
If there is a short circuit, the TOYOTA hand-held tester indicates Approx. 157.5°C (315.5°F).

**OK**

**Go to step 4.**

**NG**

## 2 Check for short in harness and ECM.



### PREPARATION:

Disconnect the EGR gas temp. sensor connector.

### CHECK:

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

### OK:

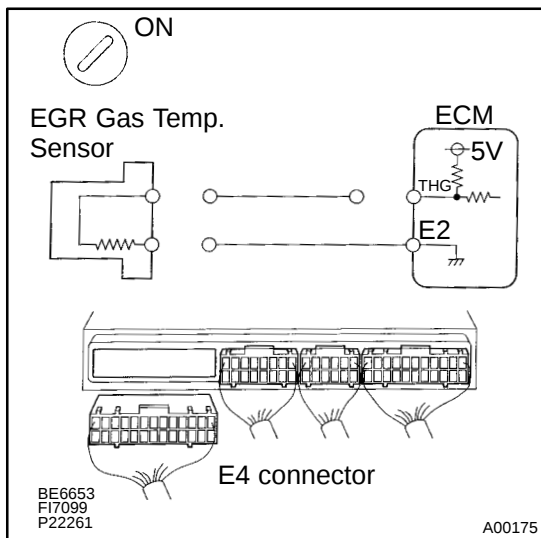
EGR gas temp.: 3.1°C (37.6°F)

OK

Replace EGR gas temp. sensor.

NG

## 3 Check for short in harness or ECM.



### PREPARATION:

(a) Remove the instrument panel speaker No.1 panel.

(See page [SF-65](#)).

(b) Disconnect the E4 connector of ECM.

### HINT:

EGR gas temp. sensor is disconnected.

### CHECK:

Read EGR gas temp. on the TOYOTA 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-28](#)).

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

OK

Check EGR valve (See page [EC-11](#)).

NG

5 Check operation of the VSV for EGR (See page [SF-60](#)).

NG

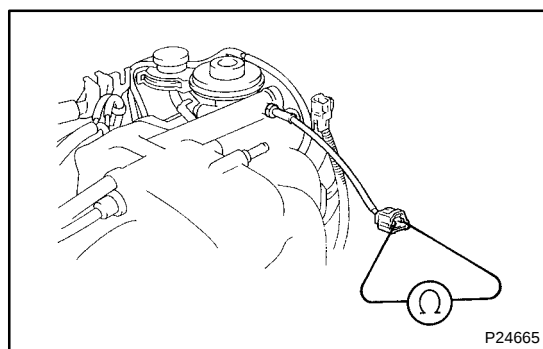
Replace VSV for EGR.

OK

Check for short in harness and connector between VSV and ECM (See page [IN-28](#)).

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

1 Check resistance of EGR gas temp. sensor (See page [DI-105](#)).



### PREPARATION:

Disconnect EGR gas temp. sensor connector.

### CHECK:

Measure resistance between terminals of EGR gas temp. 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 between EGR gas temp. sensor and ECM (See page [IN-28](#) ).

NG

Repair or replace harness or connector.

OK

**3** Check the VSV for EGR (See page [DI-69](#) , step 5).

OK

Check EGR valve (See page [EC-11](#) ).

NG

**4** Check operation of the VSV for EGR (See page [SF-60](#) ).

NG

Replace VSV for EGR.

OK

**5** Check for short in harness and connector between VSV and ECM (See page [IN-28](#) ).

NG

Repair or replace harness or connector.

OK

Check and replace ECM (See page [IN-28](#) ).