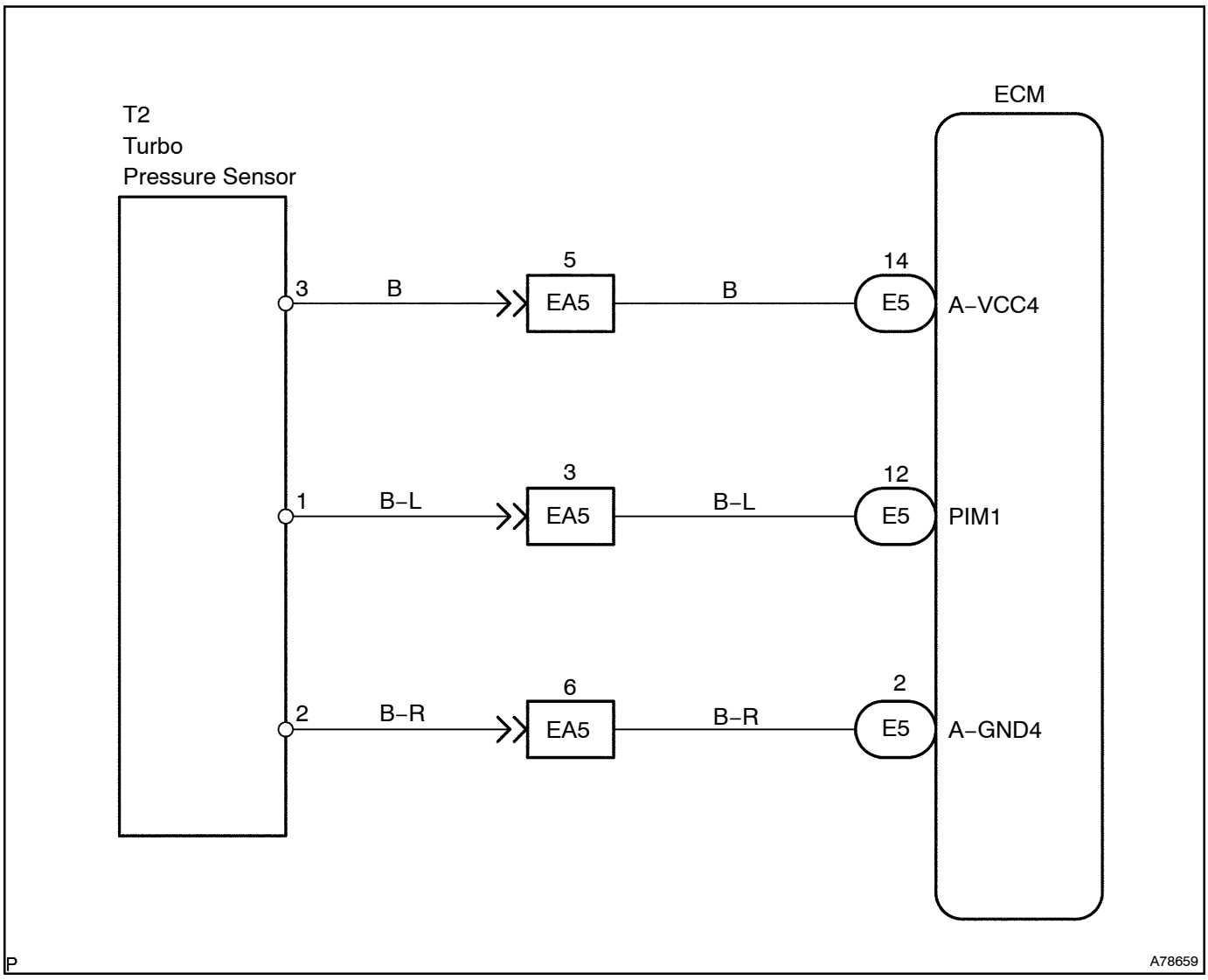
DTC	35	TURBO PRESSURE SENSOR CIRCUIT MALFUNCTION

CIRCUIT DESCRIPTION

The turbo pressure sensor is connected to the intake manifold. The ECM detects the intake manifold pressure as a voltage by this sensor. The ECM uses the intake manifold pressure signal for correction of injection volume control and injection timing control. The VSV for the turbo pressure sensor switches the atmospheric ptessure in the turbo pressure sensor to the intake manifold pressure. The turbo pressure sensor monitors both the atmospheric pressure and intake manifold pressure and transmits the output voltage to the ECM. Then, the ECM uses this atmospheric pressure value for correcting the injection volume.

DTC No.	DTC Detection Condition	Trouble Area
35	Open or short in turbo pressure sensor circuit for 1 sec. or more	• Open or short in turbo pressure sensor circuit • Turbo pressure sensor • Open or short in VSV for turbo pressure sensor circuit • VSV for turbo pressure sensor • Turbocharger • ECM

WIRING DIAGRAM

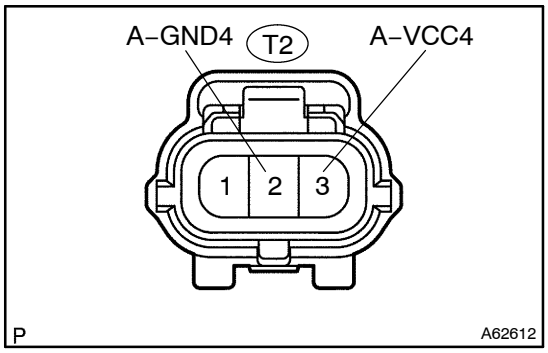


INSPECTION PROCEDURE

HINT:

If DTCs 22, 35 and 39 are output simultaneously, terminal A–GND4 (sensor ground) may be open.

1	CHECK TURBO PRESSURE SENSOR



(a) Inspect the power source voltage of the turbo pressure sensor.
  (1) Disconnect the T2 sensor connector.
  (2) Turn the ignition switch ON.
  (3) Using a voltmeter, measure the voltage between terminals A–VCC4 and A–GND4 of the T2 connector.

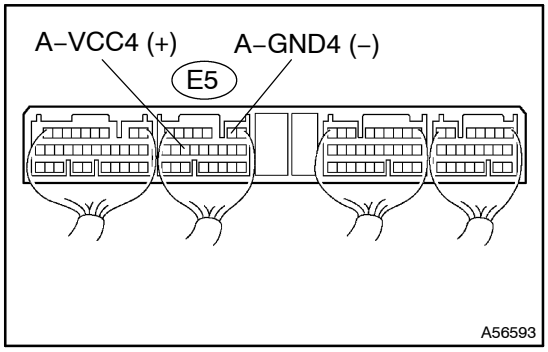
  Voltage: 4.5 – 5.5 V
  (4) Turn the ignition switch OFF.
  (5) Reconnect the T2 sensor connector.

(b) Inspect the power output of the turbo pressure sensor (See page 10–14).

OK → **REPLACE TURBO PRESSURE SENSOR**

NG

2	CHECK ECM (VOLTAGE)



(a) Turn the ignition switch ON.

(b) Check the voltage between the terminals.

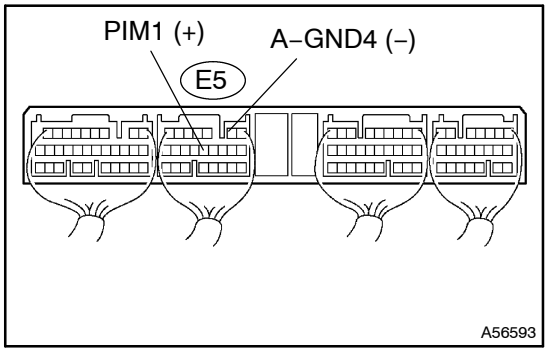
Voltage:

Symbols (Terminal No.)	Voltage
A–VCC4 (E5–14) ⇔ A–GND4 (E5–2)	4.5 – 5.5 V

NG → **CHECK AND REPLACE ECM (See page 01–27)**

OK

3 CHECK ECM (VOLTAGE)



(a) Turn the ignition switch ON.
(b) Check the voltage between the terminals of the ECM connector.

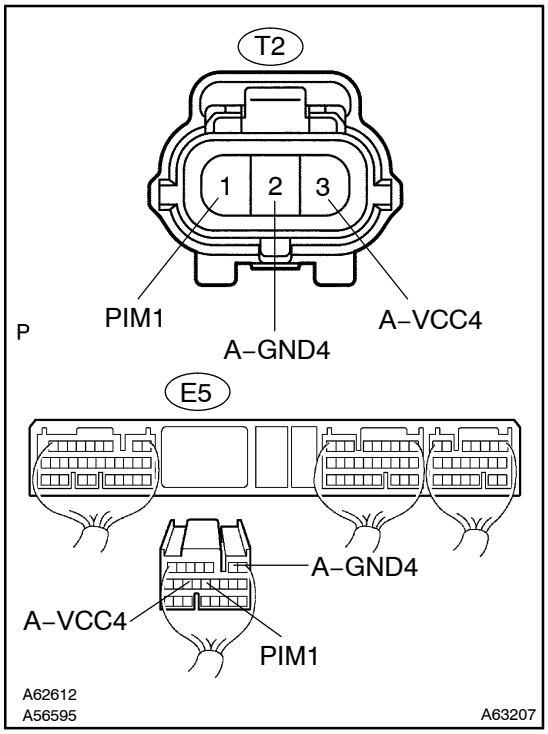
Voltage:

Symbols (Terminal No.)	Voltage
PIM1 (E5–12) ⇔ A–GND4 (E5–2)	0.2 – 4.8 V

OK → **CHECK AND REPLACE ECM (See page 01–27)**

NG

4 CHECK WIRE HARNESS (ECM ⇔ TURBO PRESSURE SENSOR)



(a) Disconnect the T2 turbo pressure sensor connector.
(b) Disconnect the E5 ECM connector.
(c) Check the continuity between the terminals of the turbo pressure sensor and ECM connectors.

Continuity (Check for open):

Symbols (Terminal No.)	Standard
PIM1 (1) ⇔ PIM1 (E5–12)	Continuity
A–VCC4 (3) ⇔ A–VCC4 (E5–14)	
A–GND4 (2) ⇔ A–GND4 (E5–2)	

Continuity (Check for short):

Symbols (Terminal No.)	Standard
PIM1 (E5–12) ⇔ A–GND4 (E5–2)	No continuity
A–VCC4 (E5–14) ⇔ A–GND4 (E5–2)	

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

OK

5 CHECK VACUUM HOSE (TURBO PRESSURE SENSOR ⇔ VSV FOR TURBO PRESSURE SENSOR) (VSV FOR TURBO PRESSURE SENSOR ⇔ INTAKE MANIFOLD)

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

OK

6	CHECK VACUUM SWITCHING VALVE

NG → REPLACE VACUUM SWITCHING VALVE

OK

7	CHECK VACUUM SWITCHING VALVE (FUNCTION)

OK → REPLACE TURBO PRESSURE SENSOR

NG

8	CHECK TURBOCHARGER SUB–ASSY (See page 13–18)

NG → REPLACE TURBOCHARGER SUB–ASSY

OK

9	CHECK WIRE HARNESS (ECM ⇔ VSV FOR TURBO PRESSURE SENSOR) (a) (VSV FOR TURBO PRESSURE SENSOR ⇔ BATTERY) (b) (See page 01–27)

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

CHECK AND REPLACE ECM (See page 01–27)