13095–01

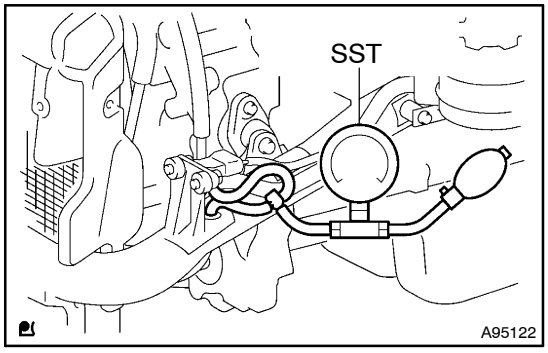
ON–VEHICLE INSPECTION

1. CHECK INTAKE AIR SYSTEM

(a) Check for leakage or clogging between the air cleaner housing and turbocharger inlet, and between the turbocharger outlet and cylinder head.
  (1) If the air cleaner is clogged, clean or replace the element.
  (2) If hoses are collapsed or deformed, repair or replace them.
  (3) If connections are leaking, check each connection and repair as necessary.
  (4) If components are cracked, replace them.

2. CHECK EXHAUST SYSTEM

(a) Check for leakage or clogging between the cylinder head and turbocharger inlet, and between the turbocharger outlet and exhaust pipe.
  (1) If the air cleaner is clogged, clean or replace the element.
  (2) If hoses are collapsed or deformed, repair or replace them.
  (3) If connections are leaking, check each connection and repair as necessary.
  (4) If components are cracked, replace them.



3. CHECK TURBOCHARGING PRESSURE

(a) Warm up the engine.

(b) Using a 3–way connector, connect SST (turbocharger pressure gauge) to the hose leading to the intake air connector.

SST 09992–00242

(c) While depressing the clutch pedal, fully depress the accelerator pedal. Measure the turbocharging pressure at maximum speed (3,600 to 3,700 rpm).

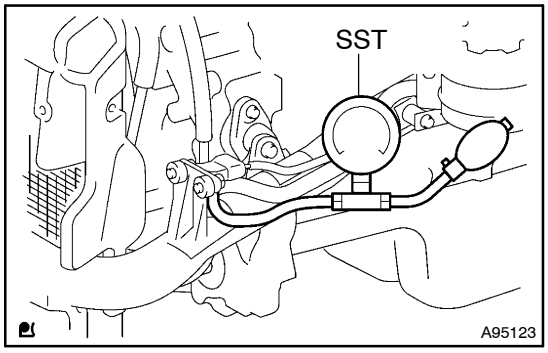
Standard pressure:

35 to 65 kPa (0.3 to 0.6 kgf/cm^2, 4.2 to 8.5 psi)

If the pressure is less than specified, check both the intake air and exhaust systems for leakage.

If there is no leakage, check if the actuator hose has disconnected. If not, check the turbocharger.

If the pressure is greater than specified, check if the actuator hose is disconnected or cracked. If not, check the turbocharger.



4. CHECK MIL

(a) Turn the ignition switch ON, and check that the MIL turns ON.

(b) Start the engine, and check that the MIL turns OFF.

(c) Connect SST (turbocharger pressure gauge) to the turbo pressure sensor.

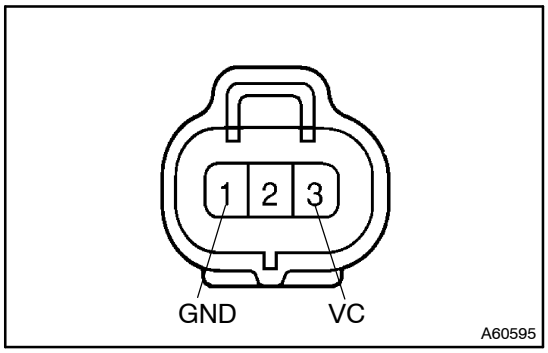
(d) Idle the engine. Check that the MIL turns on when applying pressure with the turbocharger pressure gauge.

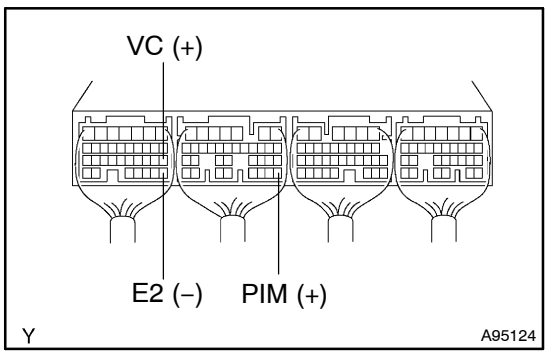
Standard pressure:

150 kPa (1.5 kgf/cm^2, 21 psi)

NOTICE:

After checking the lamp, clear the DTC.





5. CHECK TURBO PRESSURE SENSOR

(a) Inspect power source voltage.

(1) Disconnect the turbo pressure sensor connector.

(2) Turn the ignition switch ON.

(3) Using a voltmeter, measure the voltage between connector terminals 3 (VC) and 1 (GND) of the wiring harness side.

Voltage: 4.5 to 5.5 V

(4) Turn the ignition switch OFF.

(5) Reconnect the turbo pressure sensor connector.

(b) Inspect power supply.

(1) Turn the ignition switch ON.

(2) Disconnect the vacuum hose from the turbo pressure sensor.

(3) Connect a voltmeter to terminals PIM and E2 of the ECM and measure the output voltage under atmospheric pressure.

(4) Apply a vacuum to the turbo pressure sensor in 13.3 kPa (100 mmHg, 3.94 in.Hg) segments to 66.5 kPa (500 mmHg, 19.96 in.Hg).

(5) Measure the voltage decrease from step (3) above for each segment.

Voltage drop:

Apply Vacuum	Voltage Decrease
93.0 kPa (675 mmHg, 27.5 in.Hg)	0.25 to 0.4 V
150 kPa (1,125 mmHg, 44 in.Hg)	1.0 to 1.4 V