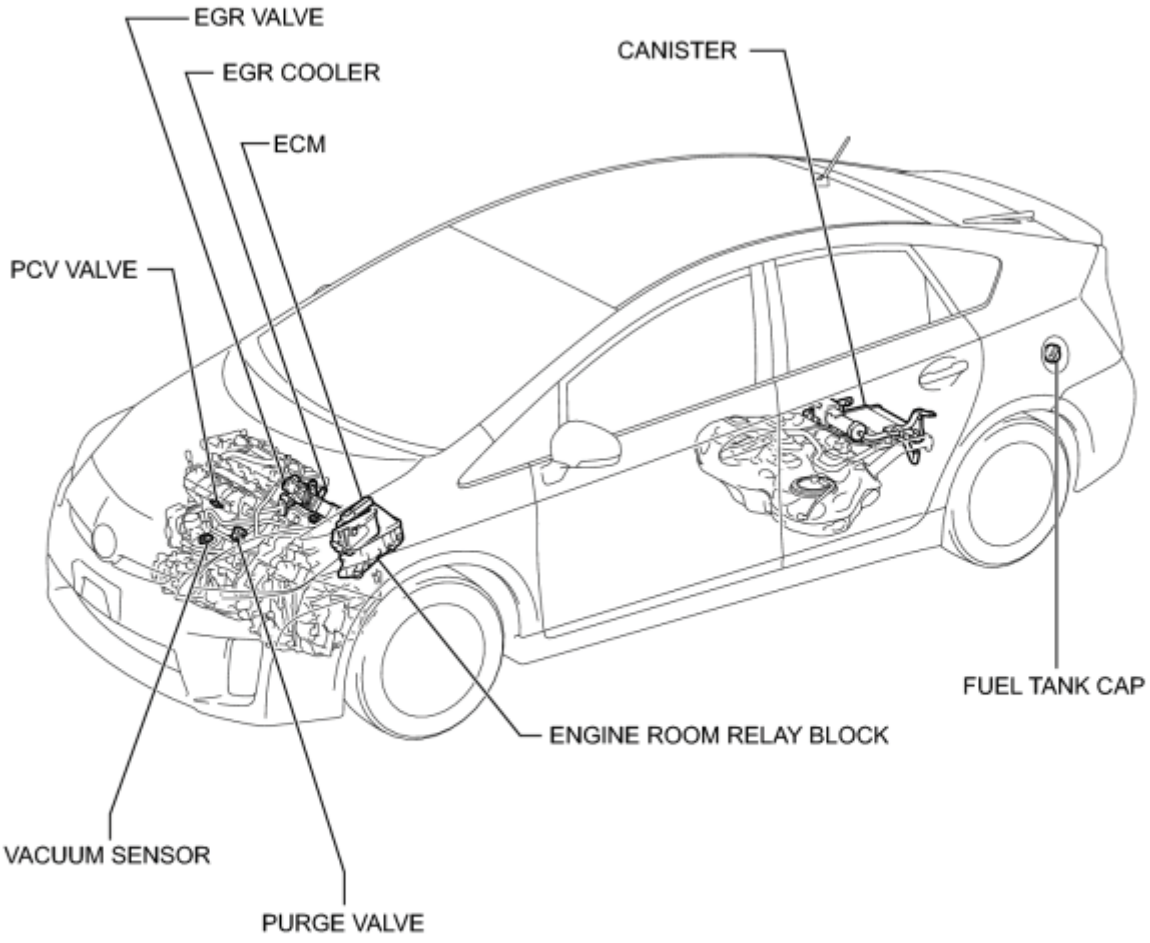
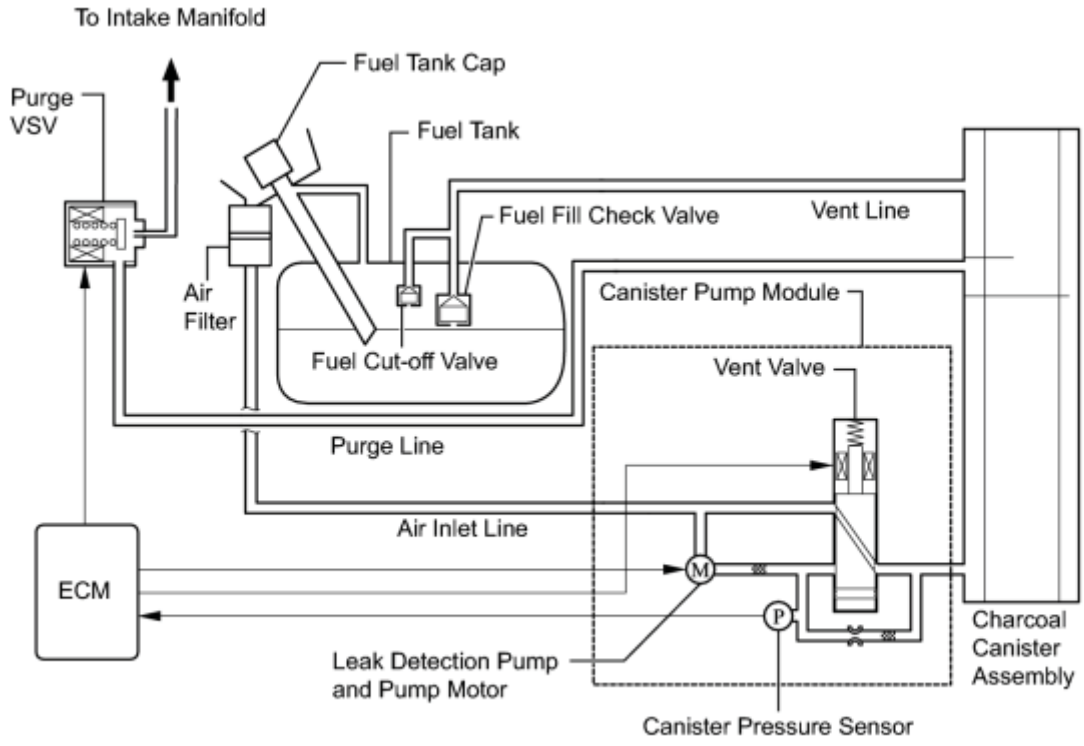
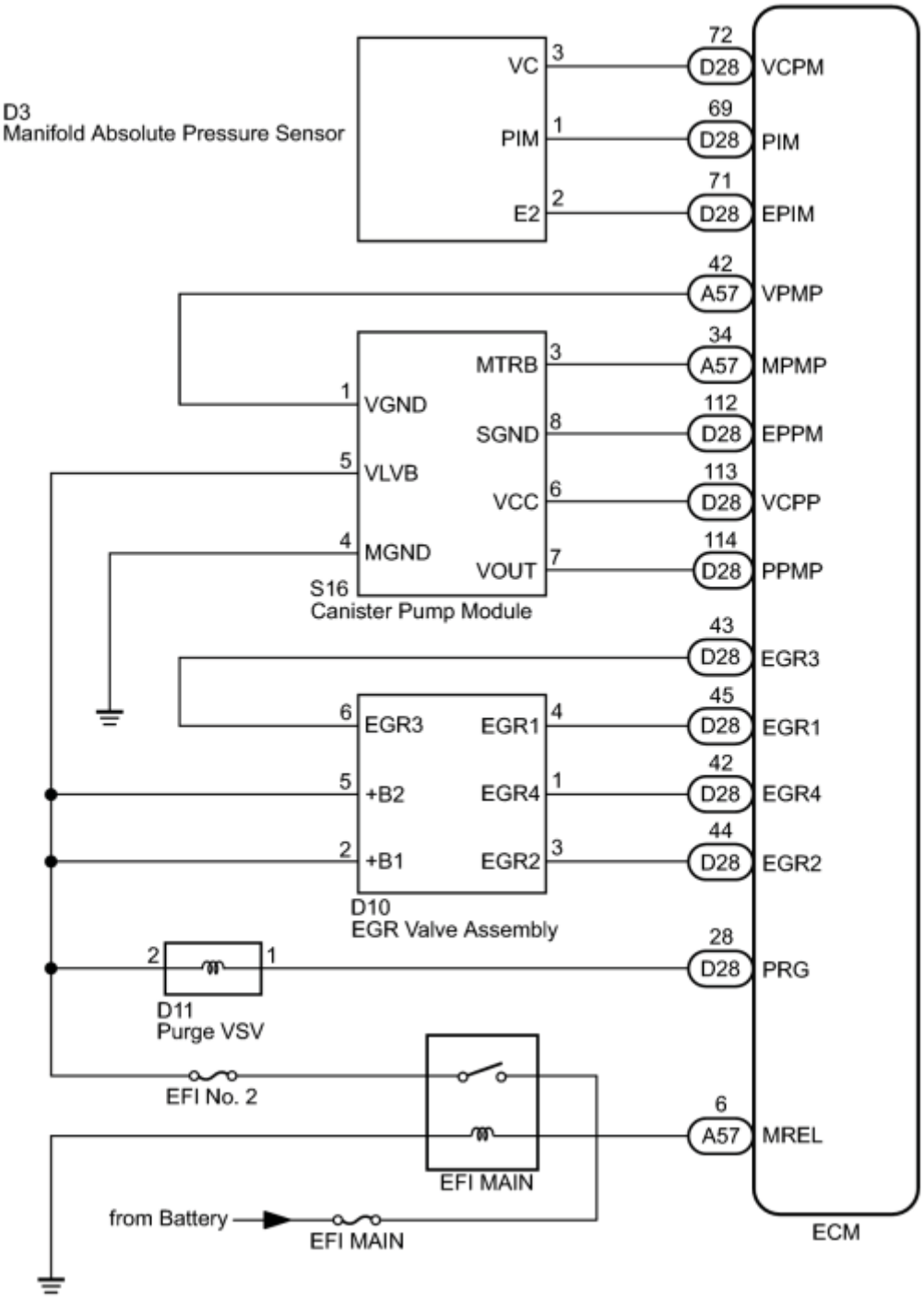
PARTS LOCATION

ILLUSTRATION



SYSTEM DIAGRAM




D3
Manifold Absolute Pressure Sensor
VC
3
PIM
1
E2
2
72
D28
VCPM
69
D28
PIM
71
D28
EPIM
42
A57
VPMP
34
A57
MPMP
112
D28
EPPM
113
D28
VCPP
114
D28
PPMP
MTRB
3
1
VGND
SGND
8
5
VLVB
VCC
6
4
MGND
VOUT
7
S16
Canister Pump Module
43
D28
EGR3
45
D28
EGR1
42
D28
EGR4
44
D28
EGR2
6
EGR3
EGR1
4
5
+B2
EGR4
1
2
+B1
EGR2
3
D10
EGR Valve Assembly
28
D28
PRG
2
1
D11
Purge VSV
EFI No. 2
6
A57
MREL
EFI MAIN
from Battery
EFI MAIN
ECM

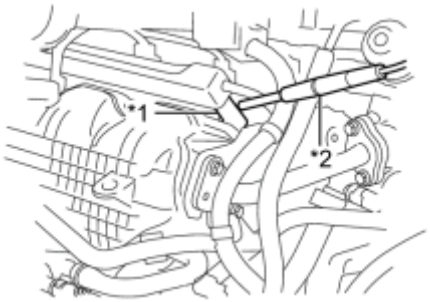
ON-VEHICLE INSPECTION

1. CHECK FUEL CUT RPM

(a) Put the engine in inspection mode INFO.

(b) Start and warm up the engine.

(c) Increase the engine speed to at least 2500 rpm.



(d) Use a sound scope to check for injector operating sounds.

Text in Illustration

*1	Injector
*2	Sound Scope

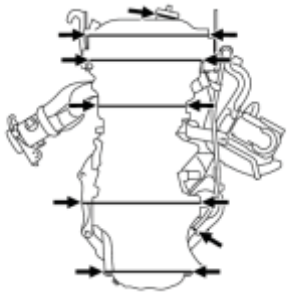
(e) When the accelerator pedal is released, check that injector operating sounds stop momentarily (at 2500 rpm or higher) and then resume (at 1200 rpm).

Standard:

Item	Specified Condition
Fuel cut off rpm	2500 rpm
Fuel injection restart rpm	1200 rpm

If the result is not as specified, check the injectors, wiring and ECM.

2. VISUALLY INSPECT HOSES, CONNECTIONS AND GASKETS



P

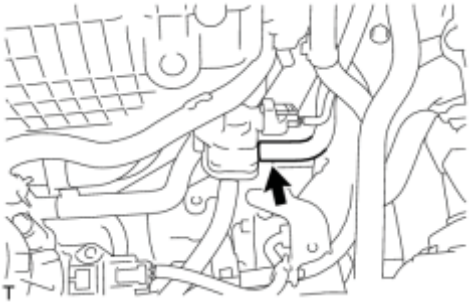
(a) Visually check that the hoses, connections and gaskets have no cracks, leaks or damage.

- Detachment or other problems with the engine oil dipstick, filler cap, ventilation hose and other components may cause the engine to run improperly.
- Air suction caused by disconnections, looseness or cracks in any part of the air induction system between the throttle body and cylinder head will cause an engine failure or engine malfunction.

If any defects are found, replace parts as necessary.

3. INSPECT EVAPORATIVE EMISSION CONTROL SYSTEM

(a) Connect the Techstream to the DLC3.



(b) Disconnect the fuel vapor feed hose from the purge valve shown in the illustration.

(c) Put the engine in inspection mode INFO.

(d) Start the engine.

(e) Enter the following menus: Powertrain / Engine and ECT / Active Test / Activate the VSV for Evap Control.

(f) Check that vacuum occurs at the purge valve port.

(g) If vacuum does not occur, check the following items.

HINT:

- VSV (for canister purge)
- Clogging in the fuel vapor feed hose connecting the intake air surge tank and VSV
- Voltage from the ECM PRG terminal

(h) Exit Active Test mode and reconnect the fuel vapor feed hose.

(i) Enter the following menus: Powertrain / Engine and ECT / Data List / EVAP Purge VSV.

(j) Warm up the engine and drive the vehicle.

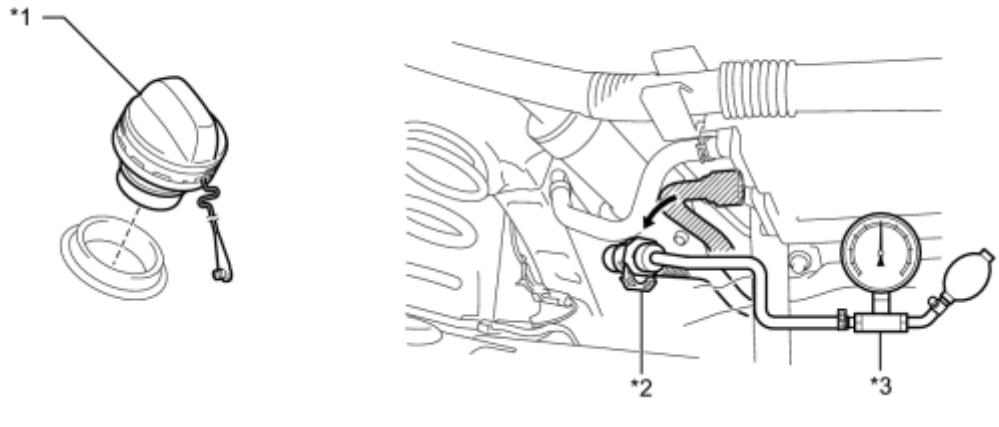
(k) Confirm that the purge valve opens.

If the result is not as specified, replace the purge valve, wire harness or ECM.

4. CHECK FUEL TANK AND VENT LINE

(a) Disconnect the vent line hose from the canister.

(b) Connect the pressure gauge to the vent line hose.



T

Text in Illustration

*1	Fuel Tank Cap	*2	Vent Line Hose
*3	Pressure Gauge	-	-

(c) Apply 4 kPa (0.04 kgf/cm^2, 0.6 psi) of pressure to the vent line of the fuel tank.

HINT:

Perform this inspection with the fuel tank less than 90% full. When the fuel tank is full, the fuel fill check valve closes and the pressure is released through the 2 mm orifice. As a result, when the fuel tank cap is removed, the pressure does not decrease smoothly.

(d) Check that the fuel tank pressure is maintained for some time, and does not decrease immediately.

HINT:

If the pressure decreases immediately, one of the following may apply:

- The fuel tank cap is not completely tightened.
- The fuel tank cap is damaged.
- Air is leaking from the vent line.
- The fuel tank is damaged.

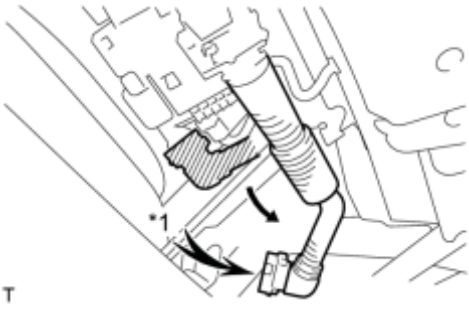
(e) When the fuel tank cap is removed, check that the pressure is released smoothly.

HINT:

If the pressure does not drop, replace the fuel tank assembly.

(f) Reconnect the vent line hose to the canister.

5. INSPECT AIR INLET LINE



(a) Disconnect the air inlet line hose from the charcoal canister.

Text in Illustration

*1	Air

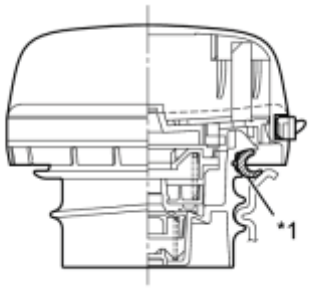
(b) Check that air flows freely into the air inlet line.

If air does not flow freely into the air inlet line, repair or replace the air inlet line hose.

(c) Reconnect the air inlet line hose to the charcoal canister.

INSPECTION

1. INSPECT FUEL TANK CAP ASSEMBLY



(a) Visually check that the cap and gasket are not deformed or damaged.

If the result is not as specified, replace the fuel tank cap assembly.

Text in Illustration

*1	Gasket