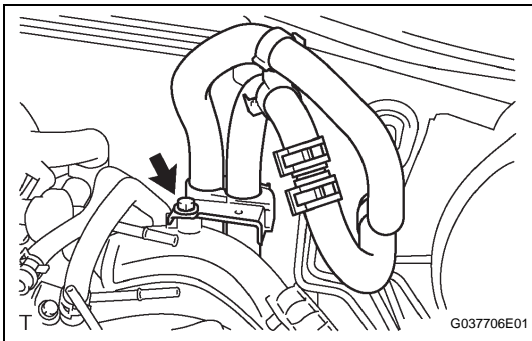
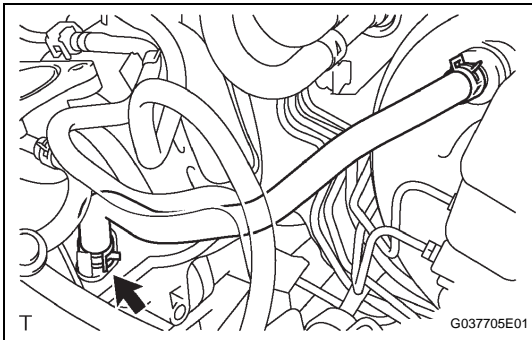
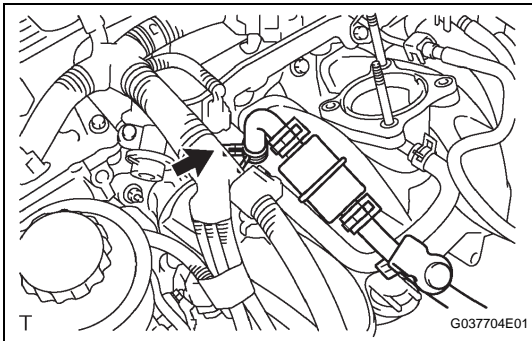


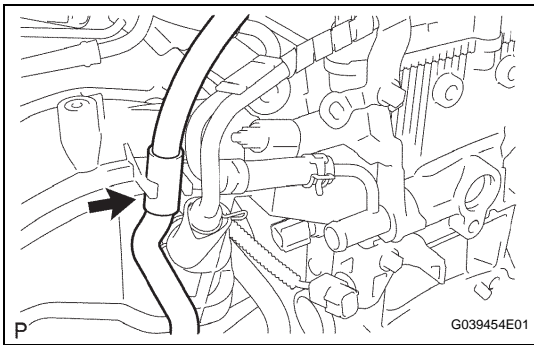
## REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
2. REMOVE ENGINE UNDER COVER SUB-ASSEMBLY (for 4WD and Pre-Runner)
3. DRAIN ENGINE COOLANT (See page [CO-3](#))
4. REMOVE INTAKE AIR CONNECTOR (See page [ES-452](#))
5. REMOVE THROTTLE WITH MOTOR BODY ASSEMBLY (See page [ES-453](#))
6. DISCONNECT FUEL HOSE (See page [FU-11](#))
7. DISCONNECT FUEL HOSE NO.2 (See page [FU-11](#))
8. REMOVE INTAKE MANIFOLD
  - (a) Disconnect the fuel vapor feed hose from the VSV.

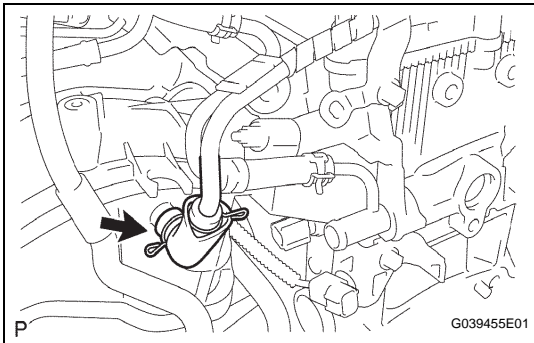


(b) Disconnect the vacuum hose.

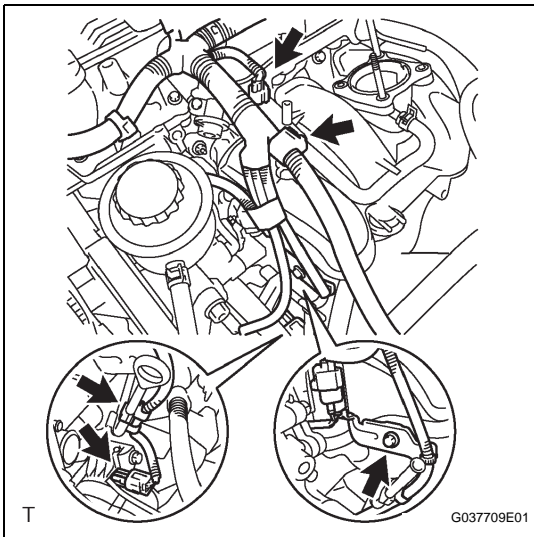
(c) Remove the bolt, then remove the clamp bracket.



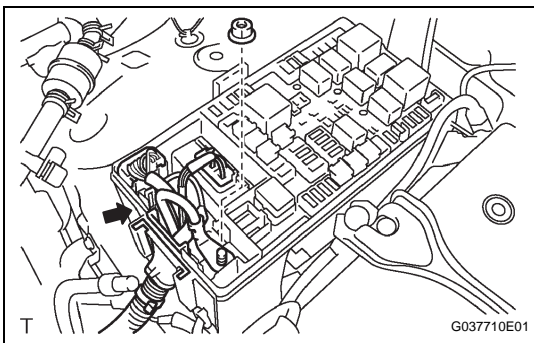
(d) Disconnect the water by-pass hose No. 2.



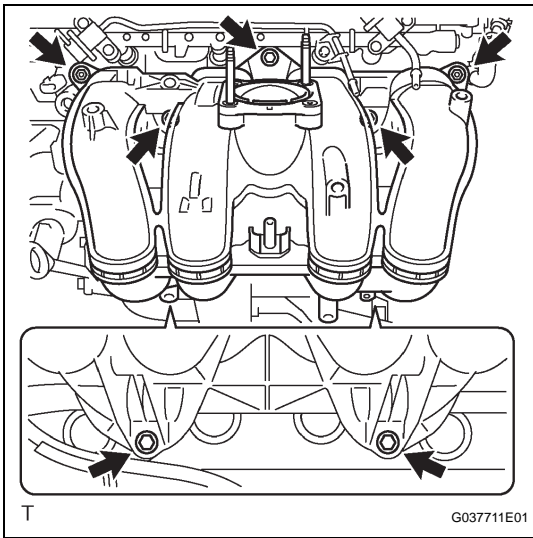
(e) Disconnect the ventilation hose No. 3.



- (f) Disconnect the VSV connector.
- (g) Disengage the engine wire harness clamp.
- (h) Disconnect the compressor magnetic clutch connector. (w/ AIR CONDITIONING)
- (i) Disengage the wire harness clamp.
- (j) Remove the bolt and harness clamp bracket.

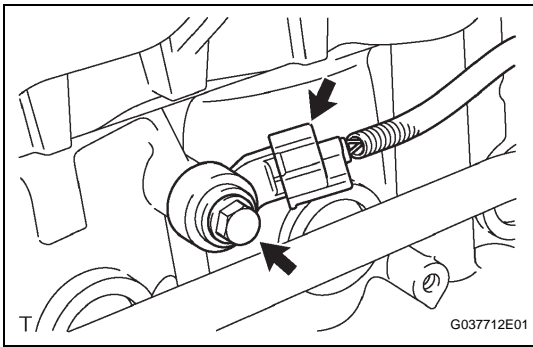


- (k) Disconnect the 3 connectors.
- (l) Remove the nut shown in the illustration.
- (m) Disconnect the engine wire harness from the relay block.



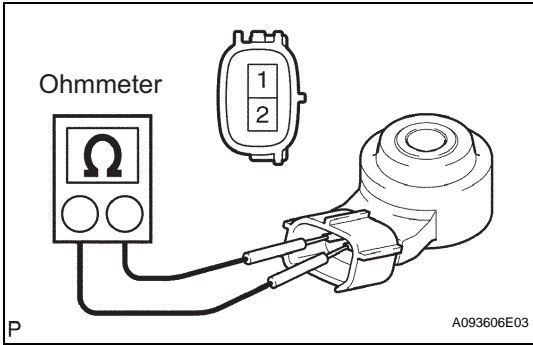
- (n) Remove the 5 bolts and 2 nuts, then remove the intake manifold.

ES



**9. REMOVE KNOCK CONTROL SENSOR**

- (a) Disconnect the knock control sensor connector.
- (b) Remove the bolt, then remove the knock control sensor.



**INSPECTION**

**1. INSPECT KNOCK SENSOR**

- (a) Check the resistance.
  - (1) Using an ohmmeter, measure the resistance between the terminals.

**Standard**

Tester Connection	Specified Condition
1 (Ground) - 2 (Output)	120 to 280 kΩ at 20°C (68°F)

If the result is not as specified, replace the knock sensor.

**INSTALLATION**

**1. INSTALL KNOCK CONTROL SENSOR**

- (a) Install the knock control sensor with the bolt.

**Torque: 20 N\*m (204 kgf\*cm, 15 ft.\*lbf)**

**NOTICE:**

**Make sure that the knock sensor is at the correct angle when installing.**

- (b) Connect the knock control sensor connector.

