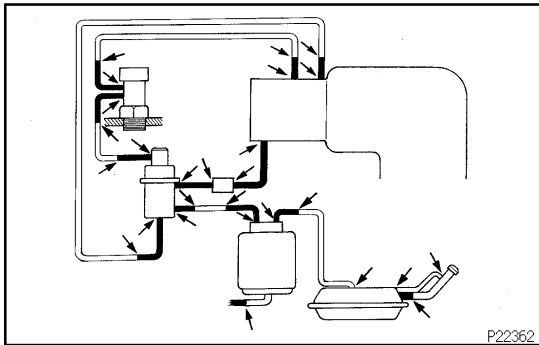




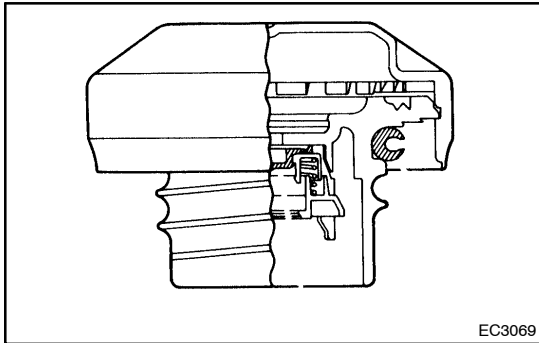
## INSPECTION

### 1. VISUALLY INSPECT LINES AND CONNECTIONS

Look for loose connections, sharp bends or damage.

### 2. VISUALLY INSPECT FUEL TANK

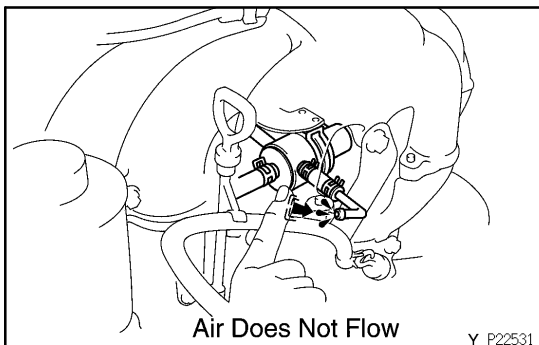
Look for deformation, cracks or fuel leakage.



### 3. VISUALLY INSPECT FUEL TANK CAP

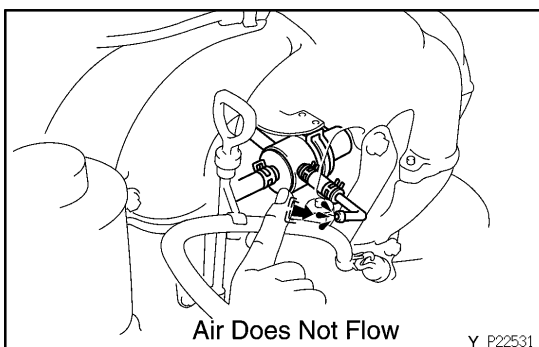
Check if the cap and/or gasket are deformed or damaged.

If necessary, repair or replace the cap.



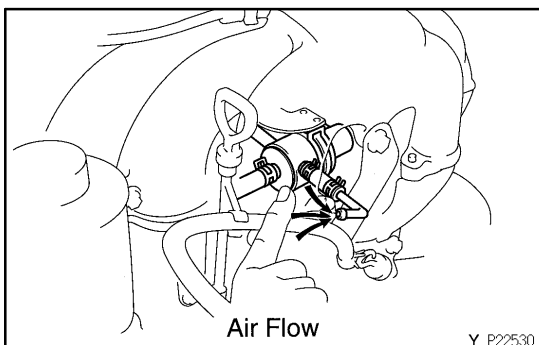
### 4. INSPECT TVV OPERATION WITH COLD ENGINE

- The engine coolant temperature should be below 45°C (113°F).
- Disconnect the EVAP hose from the union pipe.
- Start the engine.
- Gradually increase the engine speed from idle to 3,000 rpm, and check that air suction is not felt at the union pipe.



### 5. INSPECT OPERATION OF VCV WITH HOT ENGINE

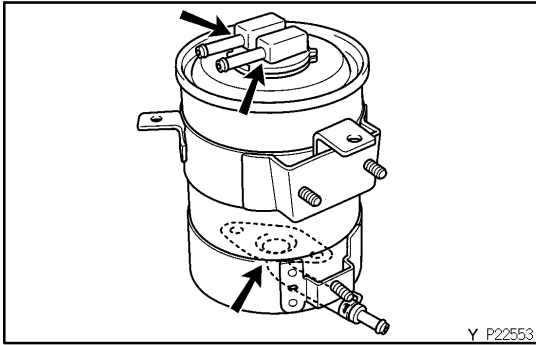
- Warm up the engine.
- With the engine idling, check that air suction is not felt at union pipe.



- Gradually increase the engine speed to 3,000 rpm and check that there is air suction at the union pipe.
  - Reconnect the EVAP hose to the union pipe.
- If no problem is found with this inspection, system is normal; otherwise inspect each part.

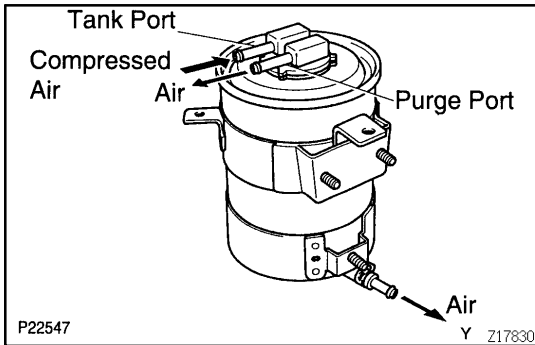
### 6. REMOVE CHARCOAL CANISTER AND BRACKET ASSEMBLY

- REMOVE CHARCOAL CANISTER FROM BRACKET
- REMOVE CAP FROM CHARCOAL CANISTER



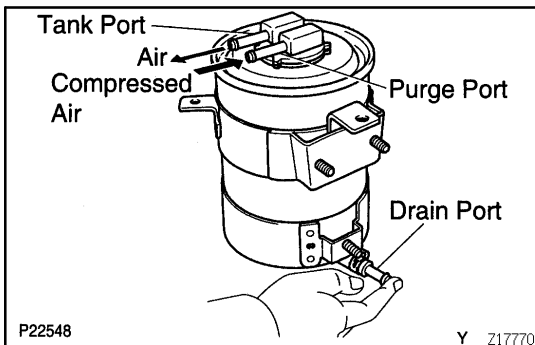
## 9. VISUALLY INSPECT CHARCOAL CANISTER

Look for cracks or damage.



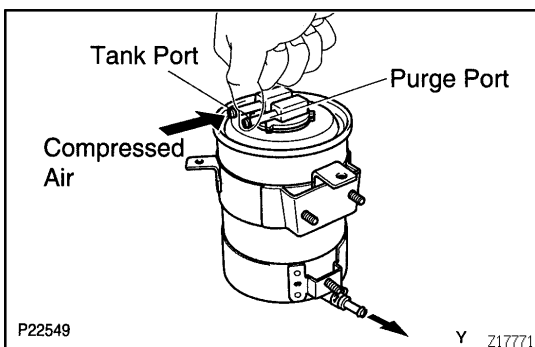
## 10. INSPECT FOR CLOGGED FILTER AND STUCK VALVE

(a) Using low pressure compressed air (7.26 kPa, 74 gf/cm<sup>2</sup>, 1.05 psi), blow into tank port and check that air flows without resistance from the other pipes.



(b) While holding drain port closed, blow air (1.96 kPa, 20 gf/cm<sup>2</sup>, 0.28 psi) into purge pipe and check that air flow without resistance from tank port.

If a problem is found, replace the charcoal canister.



## 11. CLEAN FILTER IN CANISTER

Clean the filter by blowing 294 kPa (3 kgf/cm<sup>2</sup>, 43 psi) of compressed air into tank port while holding purge port closed.

### NOTICE:

**Do not attempt to wash the canister. No activated carbon should come out.**

## 12. REINSTALL CAP TO CHARCOAL CANISTER

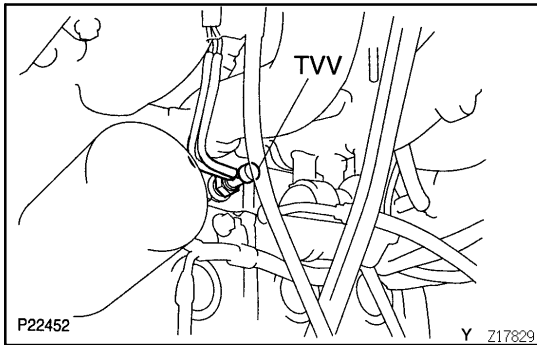
## 13. REINSTALL CHARCOAL CANISTER TO BRACKET

Torque: 14 N·m (145 kgf·cm, 10 ft·lbf)

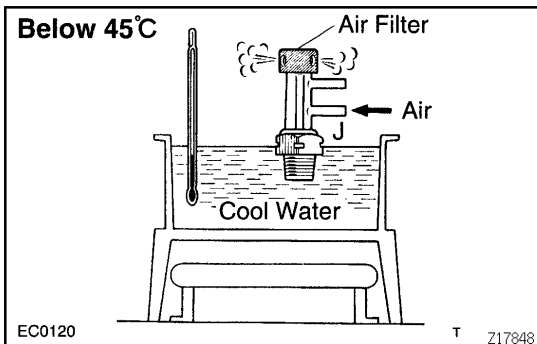
## 14. REINSTALL CHARCOAL CANISTER WITH BRACKET

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

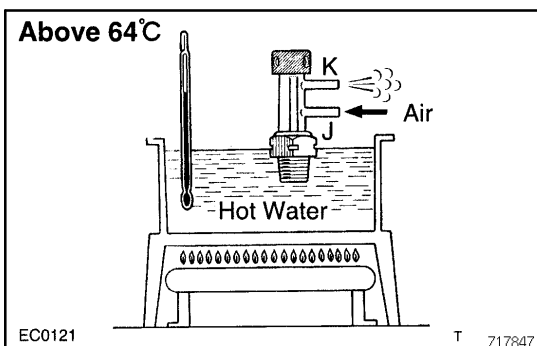
## 15. DRAIN ENGINE COOLANT

**16. REMOVE TVV FROM CYLINDER HEAD**

- (a) Disconnect the 2 vacuum hoses.
- (b) Remove the TVV.

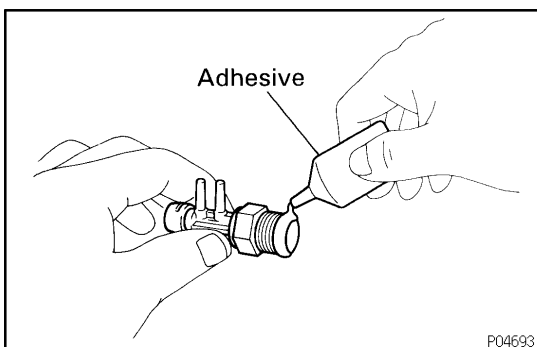
**17. INSPECT TVV OPERATION**

- (a) Cool the TVV to below 45°C (113°F) with cool water.
- (b) Check that air flows from port J to the air filter.



- (c) Heat the TVV to above 64°C (147°F) with hot water.
- (d) Check that air flows from port J to K.

If operation is not as specified, replace the TVV.

**18. REINSTALL TVV**

- (a) Apply adhesive to 2 or 3 threads of the TVV.

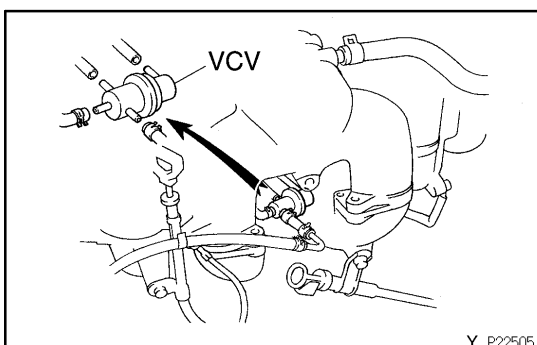
**Adhesive:**

**Part No. 08833-00070, THREE BOND 1324 or equivalent**

- (b) Install the TVV.

**Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)**

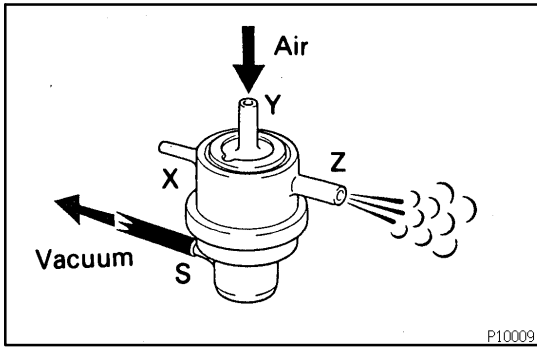
- (c) Connect 2 vacuum hoses.

**19. REFILL WITH ENGINE COOLANT****20. REMOVE INTAKE MANIFOLD STAY**

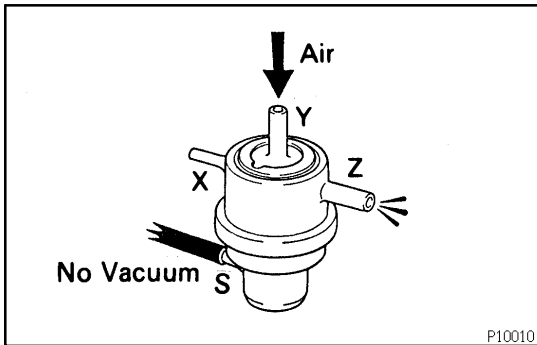
Remove the 2 bolts and intake manifold stay.

**21. REMOVE VCV**

Disconnect the 4 hoses from the VCV, and remove the TVV.

**22. INSPECT VCV**

- (a) Apply vacuum above 9.3 kPa (70 mmHg, 2.76 in.Hg) to port S.
- (b) Blow air into port Y and check that air comes out of port Z.



- (c) Release the applied vacuum.
- (d) Blow air into port Y and check that air does not come out of port Z.

If operation is not as specified, replace the VCV.

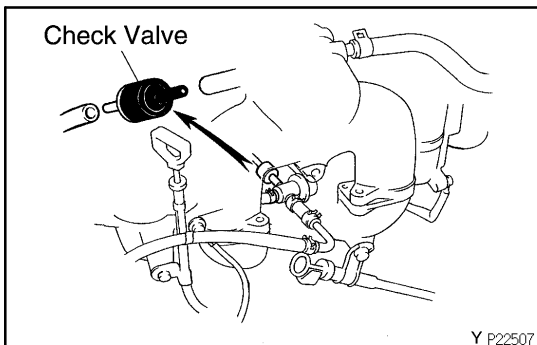
**23. REINSTALL VCV**

Connect the 4 hoses to the VCV.

**24. INSTALL INTAKE MANIFOLD STAY**

Install the intake manifold stay with the 2 bolts.

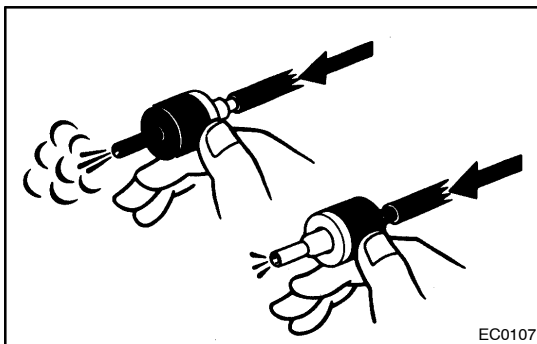
**Torque: 36 N·m (360 kgf·cm, 26 ft·lbf)**

**25. REMOVE INTAKE MANIFOLD STAY**

Remove the 2 bolts and intake manifold stay.

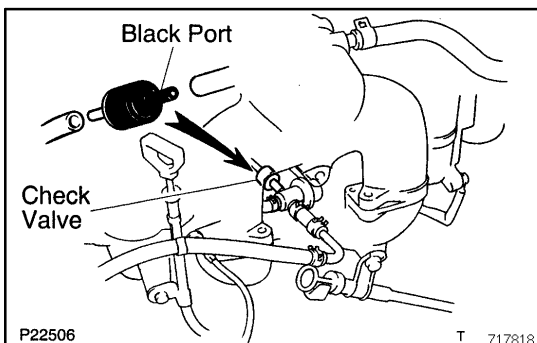
**26. REMOVE CHECK VALVE**

Disconnect the 2 hoses from the check valve, and remove the check valve.

**27. INSPECT CHECK VALVE**

- (a) Check that air flows from the orange port to the black port.
- (b) Check that air does not flow from the black port to the orange port.

If operation is not as specified, replace the check valve.

**28. REINSTALL CHECK VALVE**

Connect the 2 hoses to the check valve.

**HINT:**

Reinstall the check valve with the black pipe facing the VCV side.

**29. INSTALL INTAKE MANIFOLD STAY**

Install the intake manifold stay with the 2 bolts.

**Torque: 36 N·m (360 kgf·cm, 26 ft·lbf)**