# **EVAPORATIVE EMISSION CONTROL (EVAP) SYSTEM**



To reduce HC emission, evaporated fuel from the fuel tank is routed through the charcoal canister to the intake manifold for combustion in the cylinders.

Engine Coolant Temp.	τνν	Throttle Valve Opening	Canister Check Valve			Check	
			(1)	(2)	(3)	Valve in Cap	Evaporated Fuel (HC)
Below 35°C (95°F)	CLOSED	_	-		-	-	HC from tank is absorbed into the canister.
Above 54°C (129°F)	OPEN	Positioned below port P	CLOSED	-	-	-	
		Positioned above port P	OPEN	_	_	-	HC from canister is led into air intake chamber.
High pressure in tank	-	-	_	OPEN	CLOSED	CLOSED	HC from tank is absorbed into the canister.
High vacuum in tank	-	_	-	CLOSED	OPEN	OPEN	Air is led into the fuel tank.



### INSPECTION OF FUEL VAPOR LINES, FUEL TANK AND TANK CAP

VISUALLY INSPECT LINES AND CONNECTIONS
 Look for loose connections, sharp bends or damage.

 VISUALLY INSPECT FUEL TANK
 Look for deformation, cracks or fuel leakage.



#### 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.



# INSPECTION OF CHARCOAL CANISTER

- **1. REMOVE CHARCOAL CANISTER**
- 2. REMOVE CAP FROM CHARCOAL CANISTER
- 3. VISUALLY INSPECT CHARCOAL CANISTER

Look for cracks or damage.



#### 4. INSPECT FOR CLOGGED FILTER AND STUCK CHECK VALVE

- (a) Using low pressure compressed air, blow into port A and check that air flows without resistance from the other ports.
- (b) Blow into port B and check that air does not flow from the other ports.
- If a problem is found, replace the charcoal canister.



Port B





#### 5. CLEAN FILTER IN CANISTER

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

#### NOTICE:

- Do not attempt to wash the canister.
- No activated carbon should come out.
- 6. REINSTALL CAP TO CHARCOAL CANISTER
- 7. REINSTALL CHARCOAL CANISTER INSPECTION OF TVV

## INSPECT TVV BY BLOWING AIR INTO PIPE

- (a) Drain the engine coolant from the radiator into a suitable container.
- (b) Remove the TVV from the water outlet.
- (c) Cool the TVV to below  $35^{\circ}C$  ( $95^{\circ}F$ ) with cool water.
- (d) Blow air into the port and check that the TVV is closed.





- (e) Heat the TVV to above 54°C (129°F) with hot water.
- (f) Blow air into the port and check that the TVV is open.
  - If a problem is found, replace the TVV.
- (g) Apply adhesive to two or three threads the TVV, and reinstall.

# Adhesive: Part No. 08833–00070, THREE BOND 1324 or equivalent

(h) Refill the radiator with engine coolant. INSPECTION OF CHECK VALVE

## 1. REMOVE CHECK VALVE

#### 2. INSPECT CHECK VALVE

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

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

#### 3. REINSTALL CHECK VALVE

HINT: Reinstall the check valve with the black port facing the charcoal canister side.