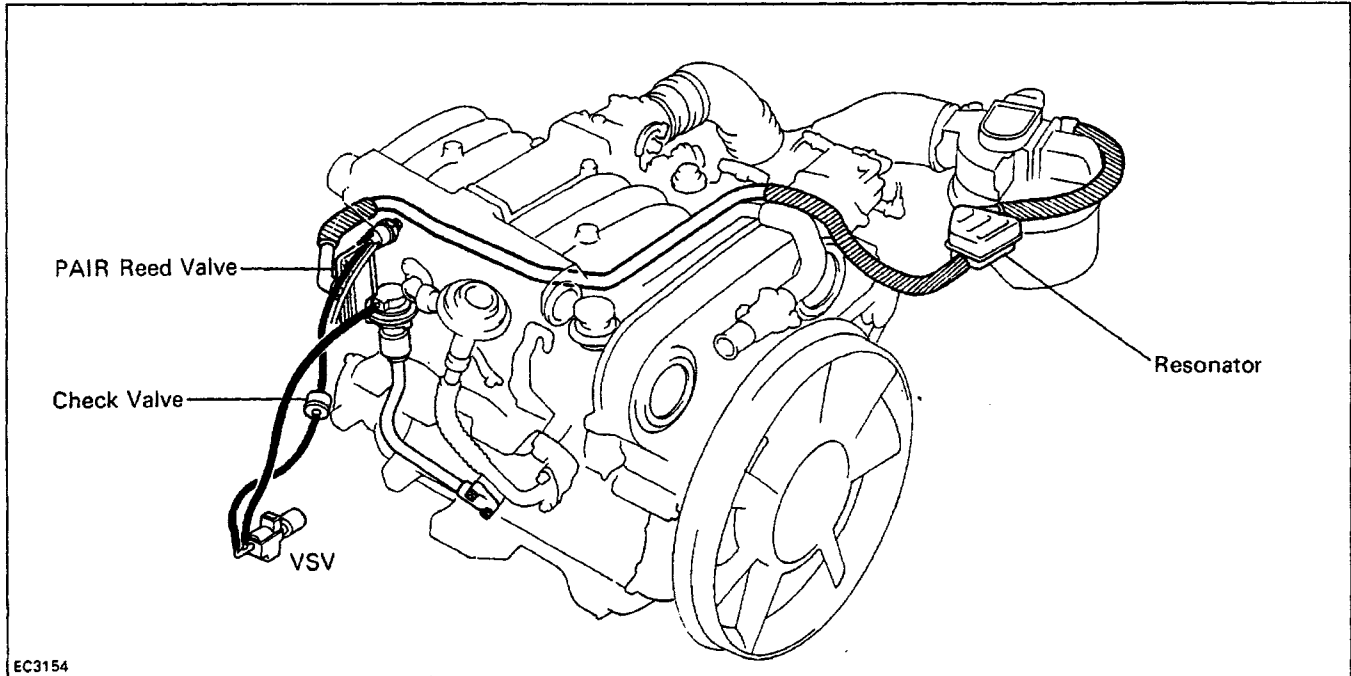
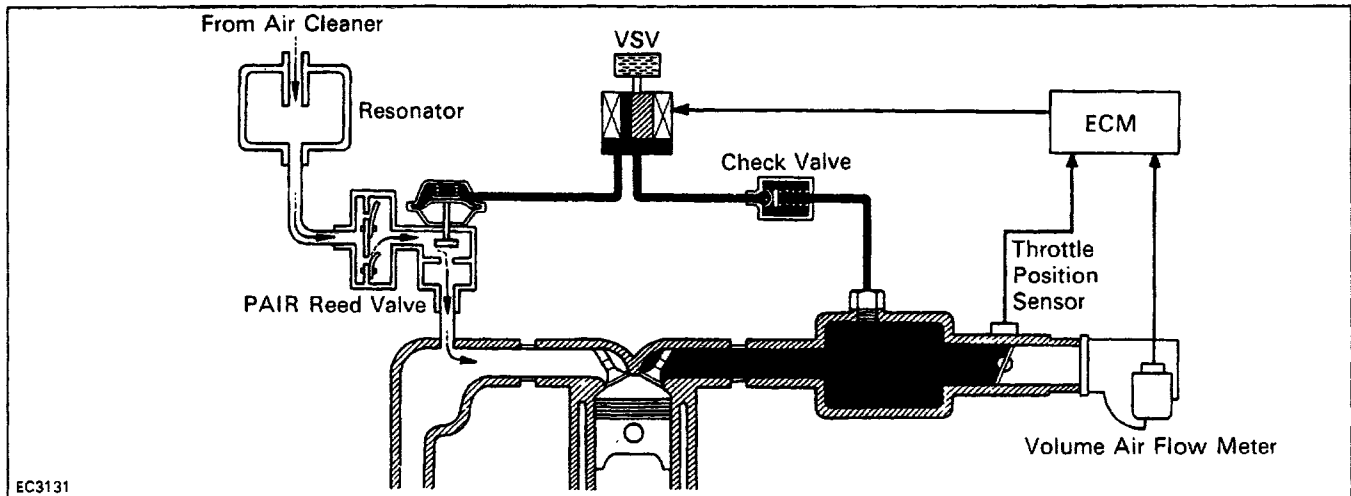


# PULSED SECONDARY AIR INJECTION (PAIR) SYSTEM

EG212-01



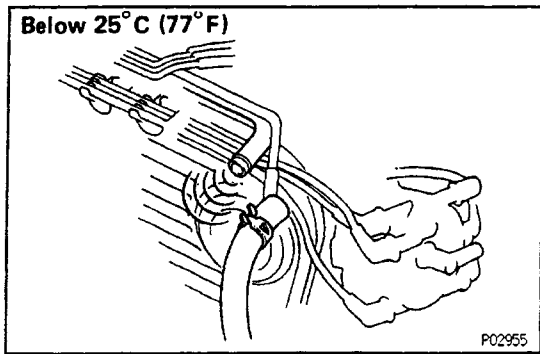
EC3154



EC3131

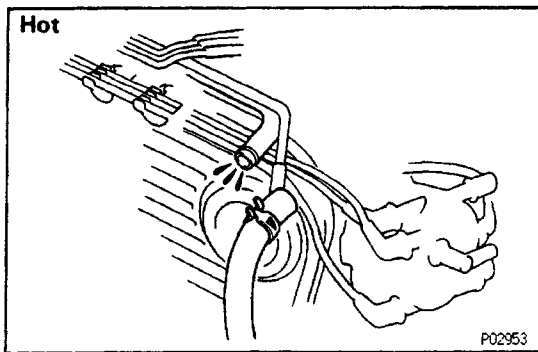
To reduce HC and CO emissions, this system draws in air into exhaust ports to accelerate oxidation, using vacuum generated by the exhaust pulsation in the exhaust manifold.

Condition	Engine Coolant Temp.	Throttle Valve Position	Engine RPM	VSV	PAIR
Normal driving	Below 25°C (77°F)		-	ON	ON
Deceleration	Above 35°C (95°F)	Idling	Below 1,000 rpm	OFF	OFF
			Between 1,200 - 3,200 rpm	ON	ON

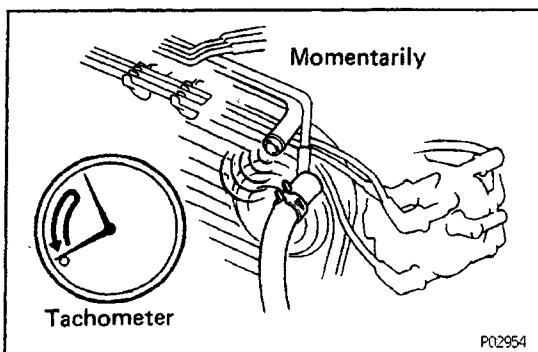


## PAIR SYSTEM INSPECTION

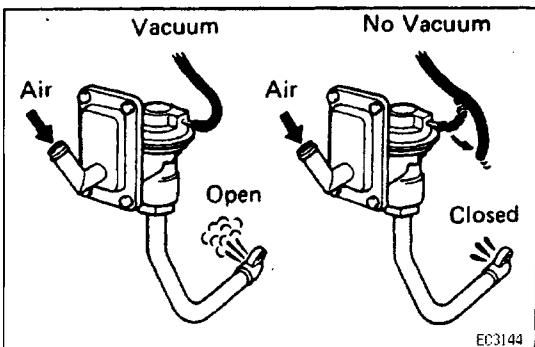
1. VISUALLY CHECK HOSES AND TUBES FOR CRACKS, KINKS, DAMAGE OR LOOSE CONNECTIONS
2. CHECK PAIR SYSTEM WITH COLD ENGINE
  - (a) The engine coolant temperature should be below 25 ° C (77 ° F).
  - (b) Disconnect the No.2 air hose from the air pipe.
  - (c) Check that a bubbling noise is heard from the air pipe at idle.



3. CHECK PAIR SYSTEM WITH WARM ENGINE
  - (a) Warm up the engine.
  - (b) With the engine idling, check that a bubbling noise is not heard from the air pipe.



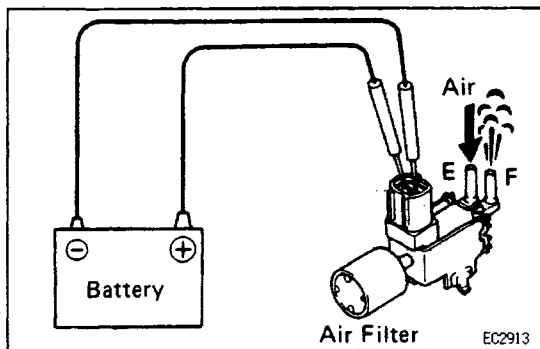
- (c) Race the engine above 2,000 rpm and quickly close the throttle valve. Check that a bubbling noise stops momentarily.



## PAIR REED VALVE INSPECTION

### CHECK REED VALVE BY BLOWING AIR INTO PIPE

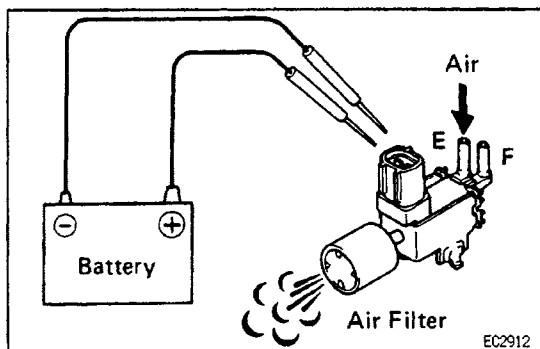
- (a) Apply vacuum to the reed valve diaphragm.
- (b) Blow air into a pipe and check that the reed valve is open.
- (c) Release the vacuum and check that the reed valve is closed.



## VSV INSPECTION

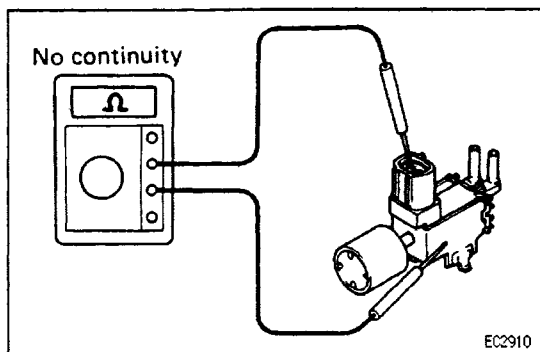
### 1. CHECK VACUUM CIRCUIT CONTINUITY IN VSV BY BLOWING AIR INTO PIPE

- (a) Connect the VSV terminals to the battery terminals as illustrated.
- (b) Blow air into pipe E and check that air comes out of pipe F.



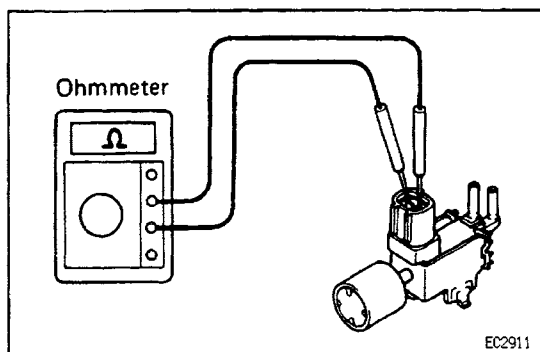
- (c) Disconnect the battery.
- (d) Blow air into pipe E and check that air comes out of air filter.

If a problem is found, replace the VSV.



### 2. CHECK FOR SHORT CIRCUIT

Using an ohmmeter, check that there is no continuity between the terminals and the VSV body. If there is continuity, replace the VSV.

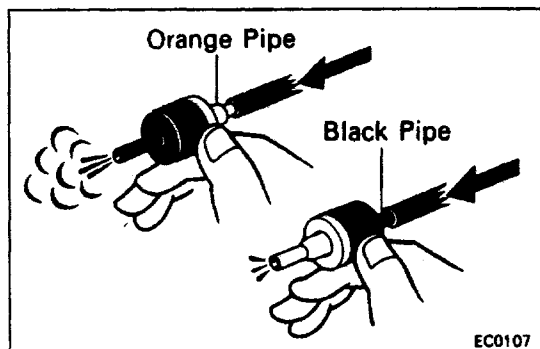


### 3. CHECK FOR OPEN CIRCUIT

Using an ohmmeter, measure the resistance between the terminals.

**Specified resistance: 30 – 50Ω at 20 °C (68 °F)**

If the resistance is not within specification, replace the VSV.



## CHECK VALVE INSPECTION

### CHECK VALVE BY BLOWING AIR INTO EACH PIPE

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