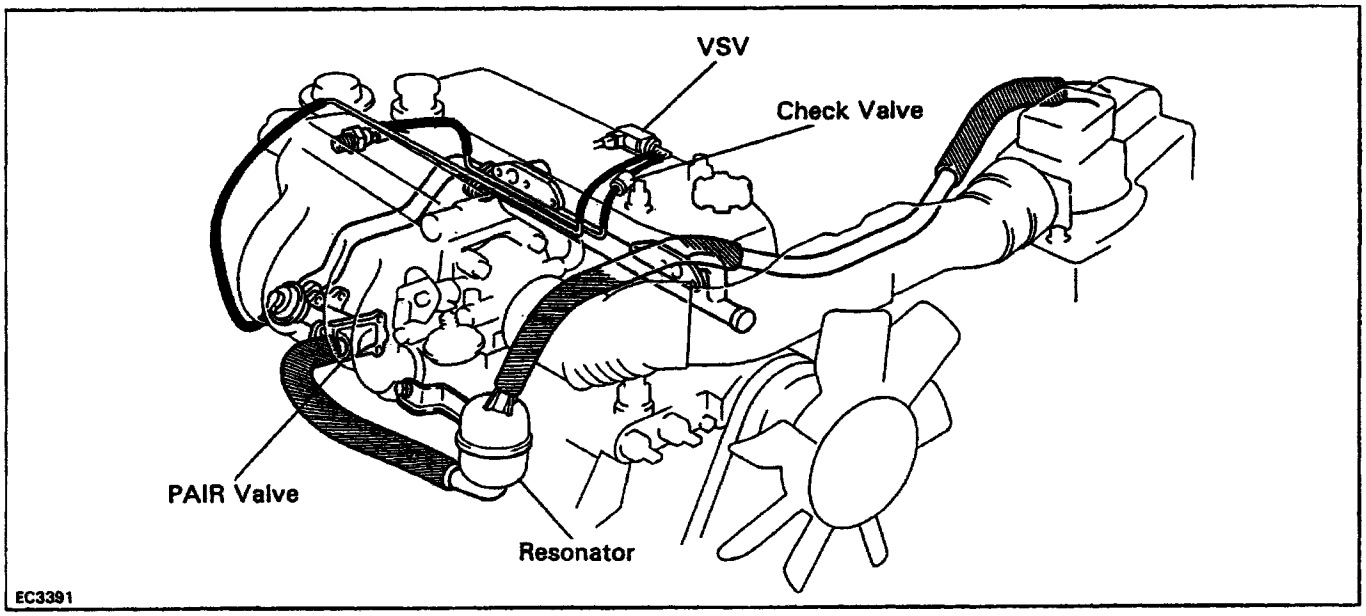
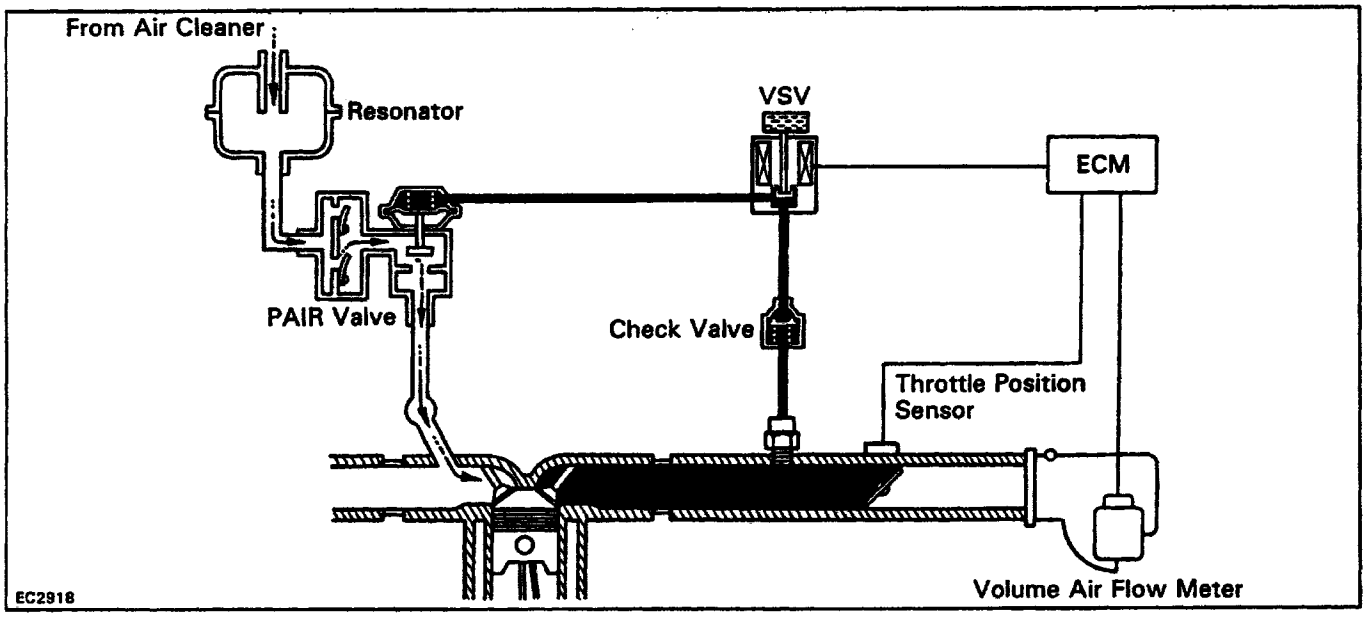
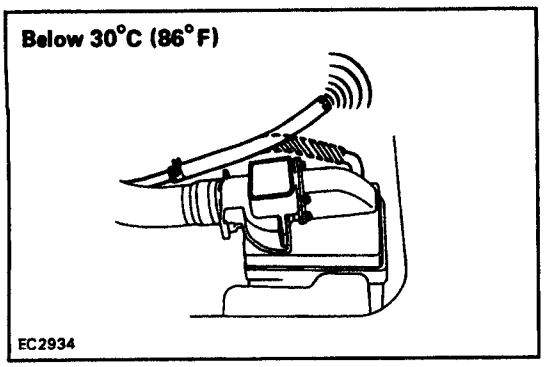
PULSED SECONDARY AIR INJECTION (PAIR) SYSTEM





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	Coolant temp.	Throttle valve position	Vehicle speed	Engine RPM	VSV	PAIR
Normal driving	Below 30°C (86°F)	—	—	Below 3,600 rpm	ON	ON
				Above 3,600 rpm	OFF	OFF
Deceleration	Above 40°C (104°F)	Idling	Below 4 km/h (2 mph)	Below 1,000 rpm	OFF	OFF
				Above 2,500 rpm	ON	ON
			Above 4 km/h (2 mph)	—	ON	ON



PAIR SYSTEM INSPECTION

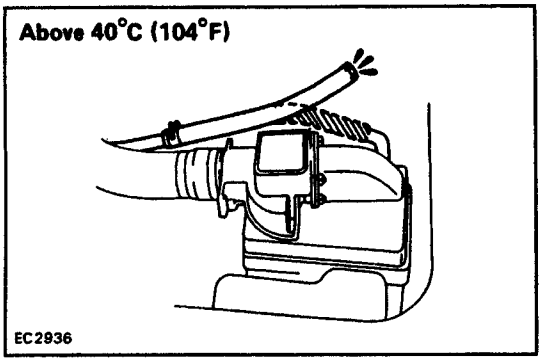
1. VISUALLY CHECK HOSES AND TUBES FOR CRACKS, KINKS, DAMAGE OR LOOSE CONNECTIONS

2. CHECK PAIR SYSTEM WITH COLD ENGINE

(a) The coolant temperature should be below 30˚C (86˚F).

(b) Disconnect the N0.1 PAIR hose from the air cleaner case.

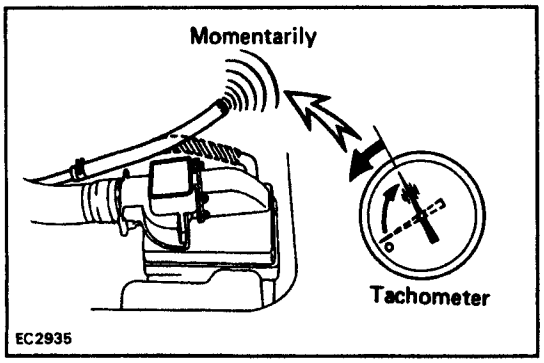
(c) Check that a bubbling noise is heard from the NO.1 PAIR hose at idle.



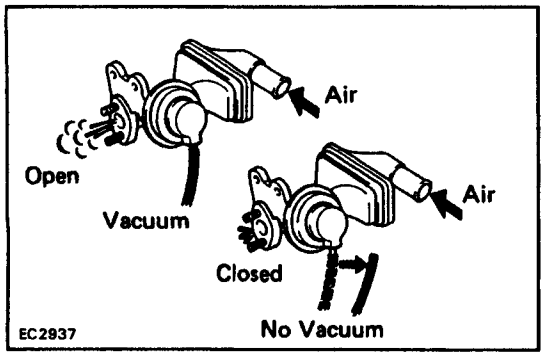
3. CHECK PAIR SYSTEM WITH WARM ENGINE

(a) Warm up the engine to above 40˚C(104˚F).

(b) With the engine idling, check that a bubbling noise is not heard from the NO. 1 hose.



(c) Race the engine and quickly close the throttle valve Check that a bubbling noise stops momentarily.



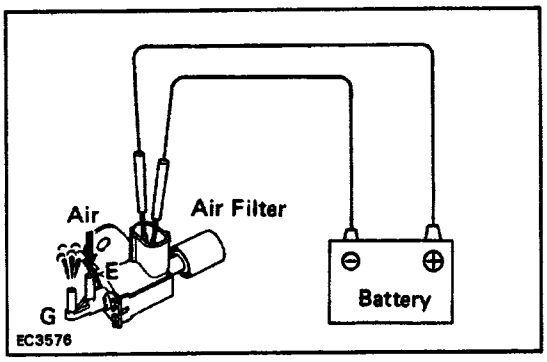
PAIR VALVE INSPECTION

CHECK PAIR VALVE BY BLOWING AIR INTO PIPE

(a) Apply vacuum to the pair valve diaphragm.

(b) Blow air into the pipe, as shown, and check that the PAIR valve is

(c) Release the vacuum and check that the pair valve is closed.

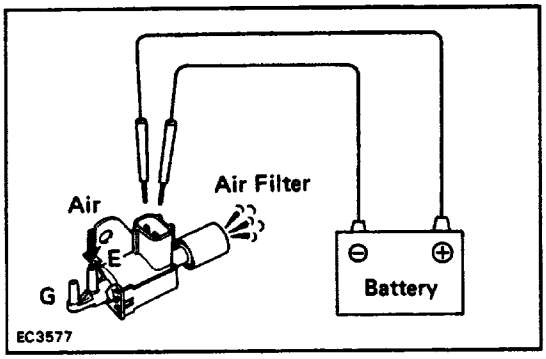


VSV INSPECTION

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

(a) Connect the VSV terminals to the battery terminals as illustrated.

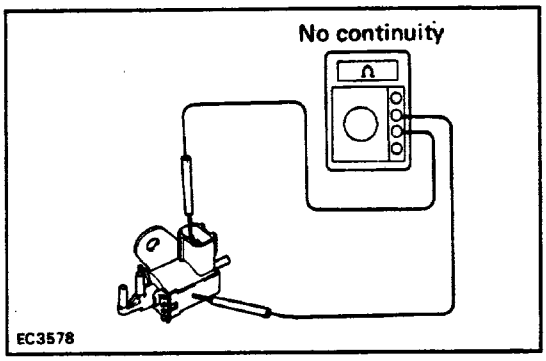
(b) Blow air into pipe E and check that air comes out of pipe G.



(c) Disconnect the battery from the VSV.

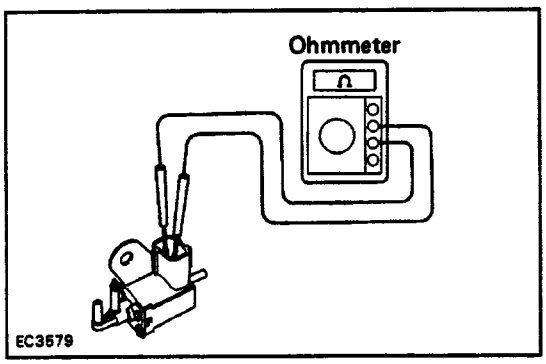
(d) Blow air into pipe E and check that air comes out of air filter.

If a problem is found, repair the VSV.



2. CHECK FOR SHORT CIRCUIT .

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



3. CHECK FOR OPEN CIRCUIT

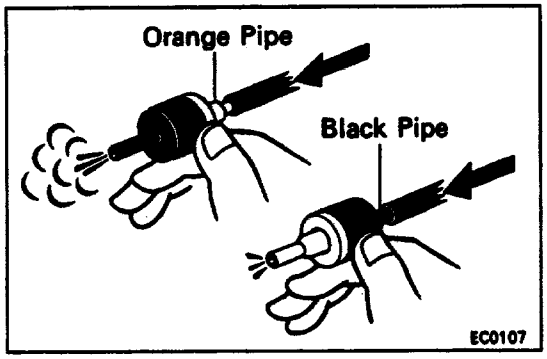
Using an ohmmeter, measure the resistance between the terminals as shown.

Specified resistance:

At 20’ *C (88˚ F)

30–50Ω

If 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.