

## VOLUME AIR FLOW (VAF) METER ON-VEHICLE INSPECTION

### MEASURE RESISTANCE OF VOLUME AIR FLOW (VAF) METER

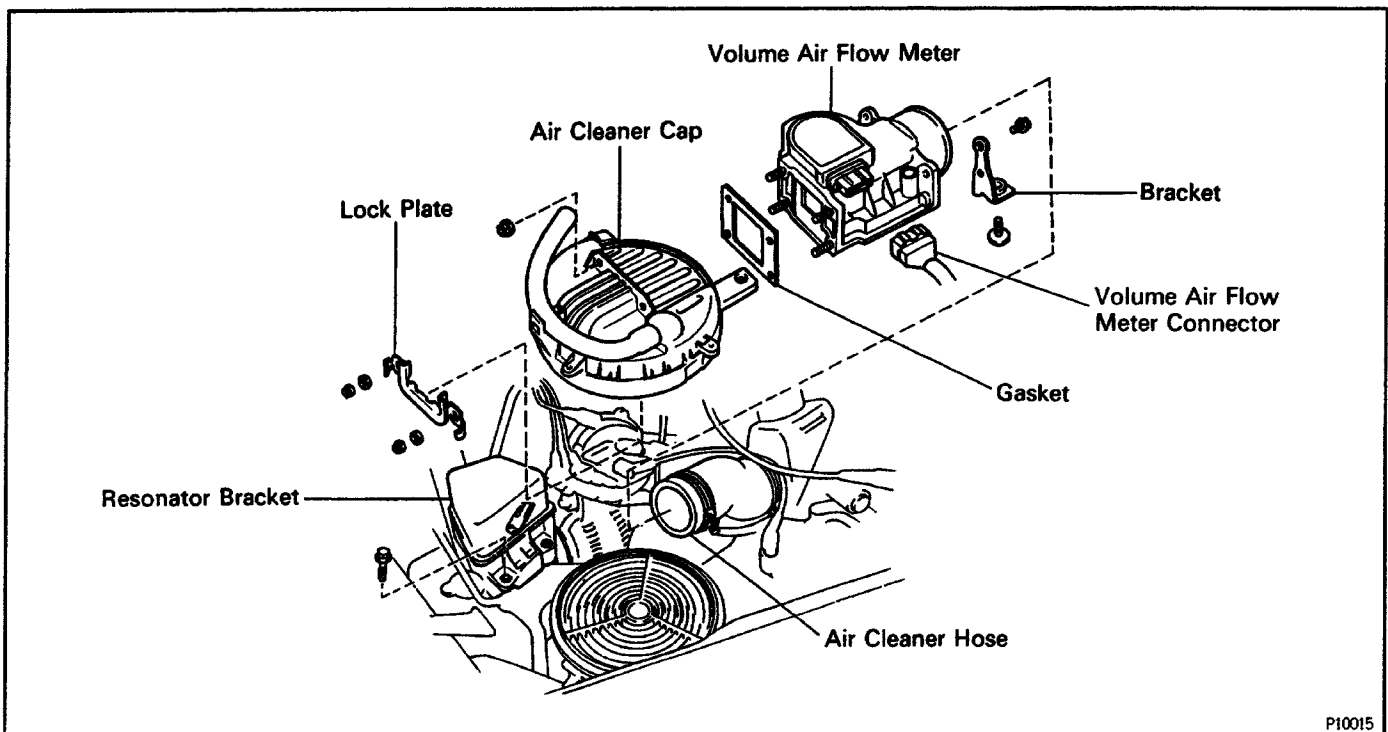
- Disconnect the connector from the VAF meter.
- Using an ohmmeter, measure the resistance between each terminal.

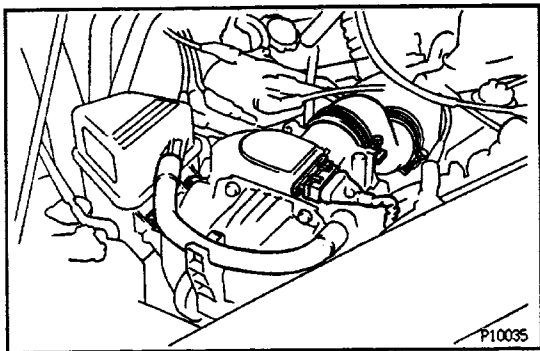
Between terminals	Resistance	Temperature
VS - E2	200 - 600 $\Omega$	-
VC - E2	200 - 400 $\Omega$	-
THA - E2	10 - 20 k $\Omega$	-20°C (4°F)
THA - E2	4 - 7 k $\Omega$	0°C (32°F)
THA - E2	2 - 3 k $\Omega$	20°C (68°F)
THA - E2	0.9 - 1.3 k $\Omega$	40°C (104°F)
THA - E2	0.4 - 0.7 k $\Omega$	60°C (140°F)
FC - E1	Infinity	-

If not within specification, replace the VAF meter.

- Reconnect the VAF meter connector.

## COMPONENTS FOR REMOVAL AND INSTALLATION





## VOLUME AIR FLOW METER REMOVAL

(See Components for Removal Installation)

### 1. DISCONNECT RESONATOR BRACKET

- Disconnect the air hose.
- Remove the 2 bolts and resonator bracket.

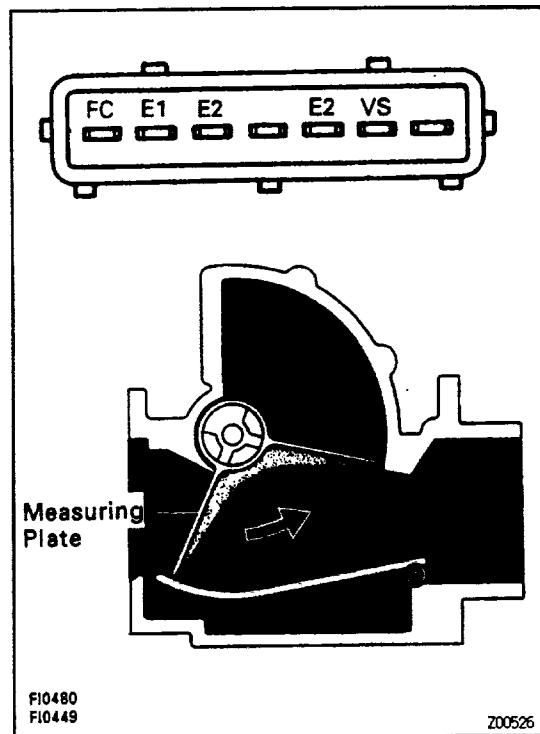
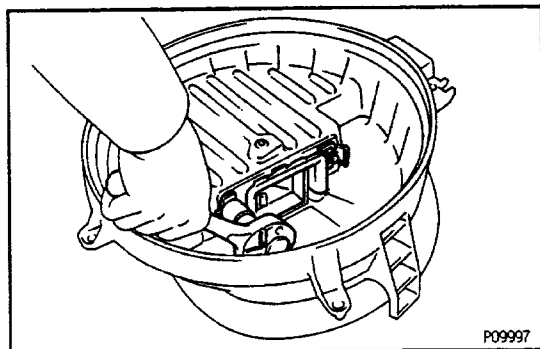
### 2. DISCONNECT VOLUME AIR FLOW METER CONNECTOR

### 3. DISCONNECT AIR CLEANER HOSE

### 4. REMOVE AIR CLEANER CAP WITH VOLUME AIR FLOW METER ASSEMBLY

### 6. REMOVE VOLUME AIR FLOW METER FROM AIR CLEANER CAP

- Remove the bolt, 2 screws and bracket.
- Pry off the lock plate, and remove the 4 nuts and washers, lock plate, VAF meter and gasket.



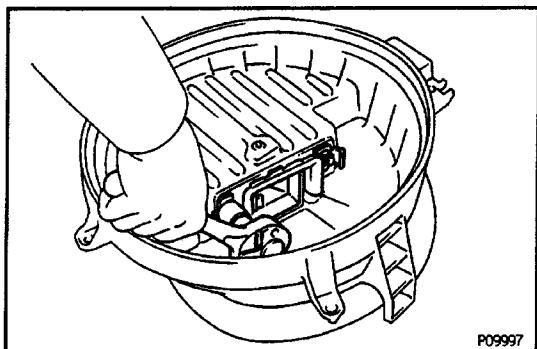
## VOLUME AIR FLOW METER INSPECTION

### MEASURE RESISTANCE OF VOLUME AIR FLOW METER

Using an ohmmeter, measure the resistance between each terminal by moving the measuring plate.

Between terminals	Resistance ( $\Omega$ )	Measuring plate opening
<b>E1 - FC</b>	<b>Infinity</b>	Fully closed
<b>E1 - FC</b>	<b>Zero</b>	Other than closed position
<b>E2 - VS</b>	<b>200 - 600</b>	Fully closed
<b>E2 - VS</b>	<b>20 - 1,200</b>	Fully open

HINT: Resistance between terminals E2 and VS will change in a wave pattern as the measuring plate slowly opens. If not within specification, replace the VAF meter.

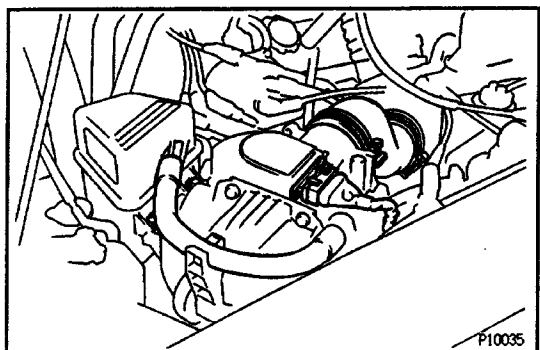


## VOLUME AIR FLOW METER INSTALLATION

(See Components for Removal and Installation)

### 1. INSTALL VOLUME AIR FLOW METER TO AIR CLEANER CAP

- (a) Install the VAF meter with the gasket, lock plate, washers and 4 nuts. Pry the lock plate on the nut.
- (b) Install the bracket with the bolt and 2 screws.



### 2. INSTALL AIR CLEANER CAP AND VOLUME AIR FLOW METER ASSEMBLY

### 3. INSTALL AIR CLEANER HOSE

### 4. CONNECT VOLUME AIR FLOW METER CONNECTOR

### 5. INSTALL RESONATOR BRACKET

- (a) Install the resonator bracket with the 2 bolts.
- (b) Connect the air hose.