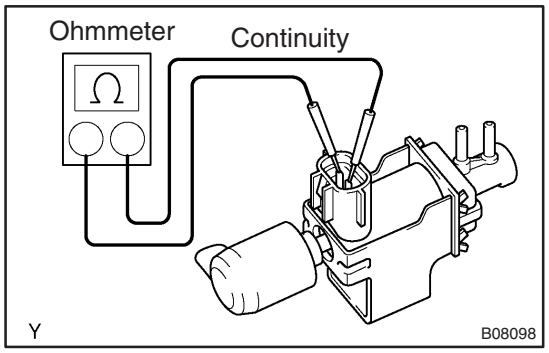
120H9–01

INSPECTION

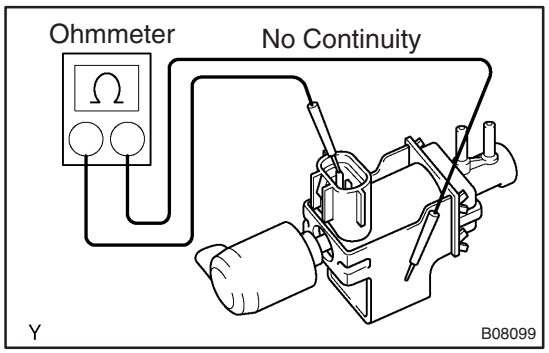


1. ELECTRIC EGR CONTROL VALVE ASSY

(a) Check for open in the E–VRV circuit.

(1) Using an ohmmeter, measure the resistance between the terminals.

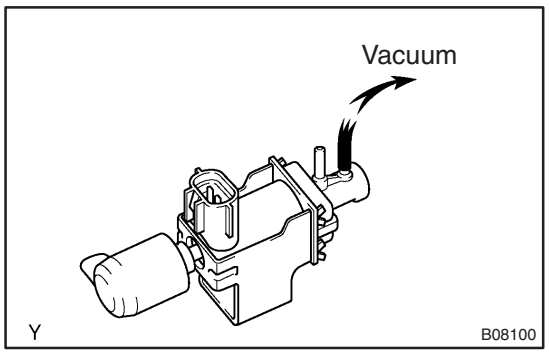
Resistance: 11 to 13 Ω at 20°C (68°F)



(b) Check for short in the E–VRV circuit.

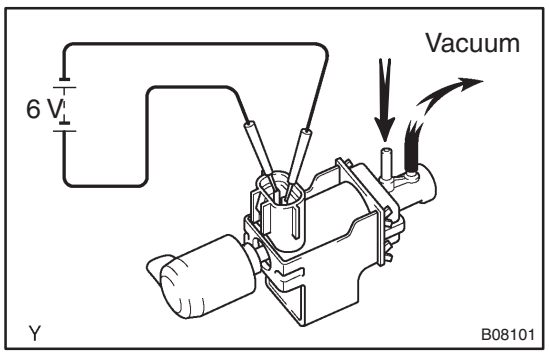
(1) Using an ohmmeter, check that there is continuity between the terminals and body.

Specified condition: No continuity



(c) Inspect air tightness of the E–VRV.

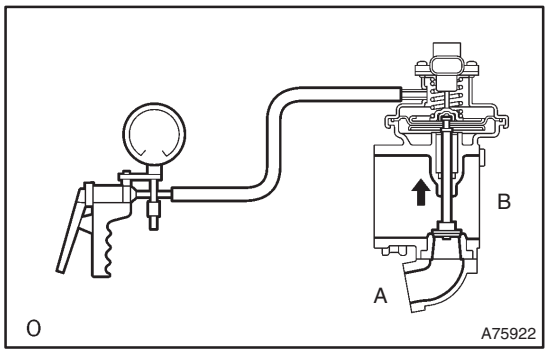
(1) Check that when vacuum is applied to the vacuum outlet port shown, the needle of vacuum pump indicates an increase of 66.7 kPa (500 mmHg, 19.7 in.Hg) or more.



(d) Inspect the E–VRV operation.

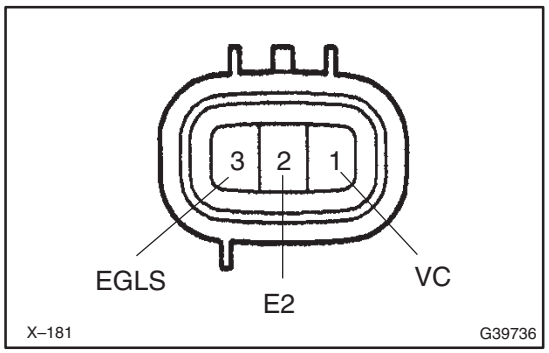
(1) Apply about 6 V of DC power to the terminals.

(2) Check that when vacuum is applied to the vacuum outlet port shown, the needle does not move.



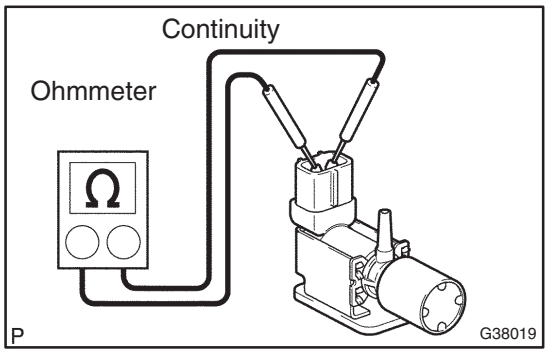
(e) Inspect the EGR valve operation.
(1) Using a mity–vac, apply vacuum in the diaphragm chamber with either port closed, and check if air flows from A to B.
Standard Value:
13 kPa {98 mmHg} or less: Air does not flow
27 kPa {203 mmHg} or more: Air flows

(f) Inspect the EGR valve operation.
(1) Using a mity–avc, apply vacuum of 67 kPa (500 mmHg) or more in the diaphragm chamber with either port closed, and check that the indicator does not go down.



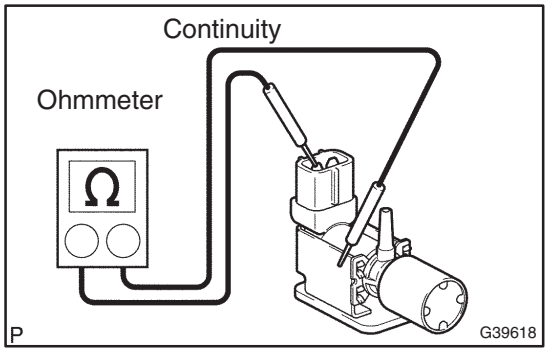
(g) Inspect the EGR valve position sensor resistance.
(1) Using an ohmmeter, measure the resistance between terminals 1 and 2.
Standard Value: 4 to 6 kΩ
(2) Apply vacuum in the diaphragm. Measure the change in the resistance between terminals 3 (EGLS) and 2 (E2) when the valve is fully open after being closed.
Standard Value:
1.3 kΩ (closed)
4.2 kΩ (fully open)

HINT:
The resistance increases as the valve opening angle becomes larger.

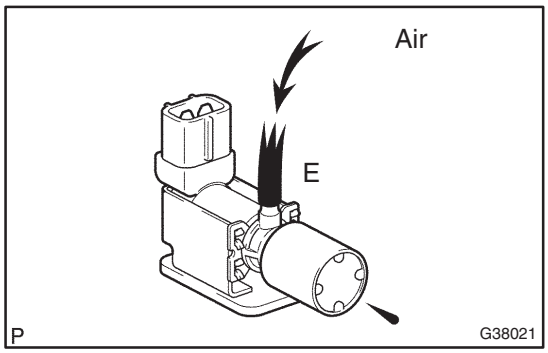


2. VACUUM SWITCHING VALVE ASSY NO.1

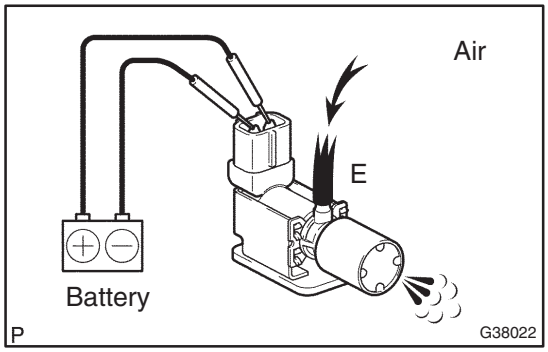
(a) Check for open in the VSV circuit.
(1) Using an ohmmeter, measure that resistance between each terminal.
Resistance: 37 to 44 Ω at 20°C (68°F)



(b) Check for short in the VSV circuit.
(1) Using an ohmmeter, check that there is continuity between the terminals and body.
Specified condition: 1 MΩ or higher



(c) Inspect the VSV operation.
(1) Check that air does not flow from port E to the filter.



(2) Apply battery voltage across the terminals.
(3) Check that air flows from port E to filter.