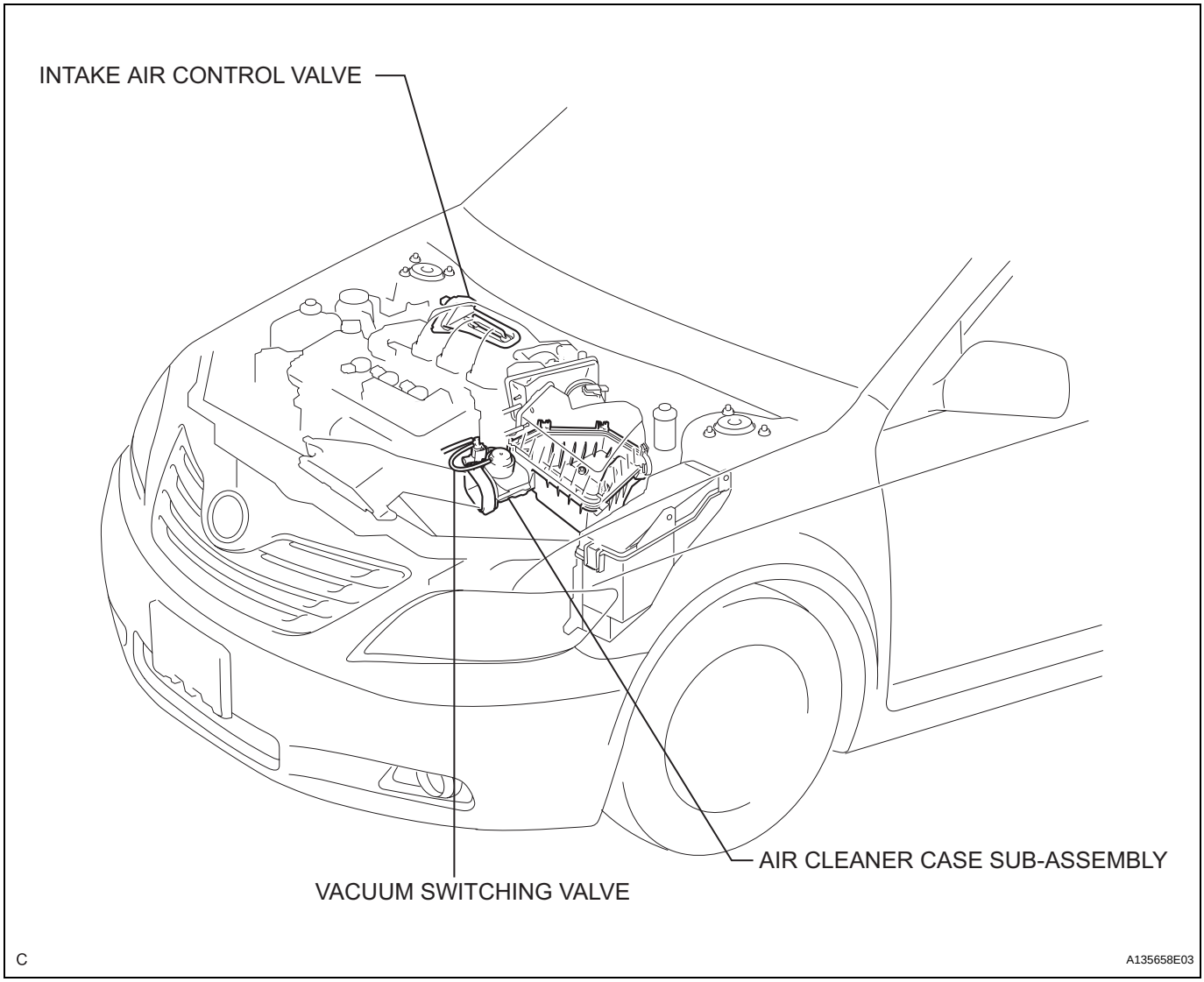
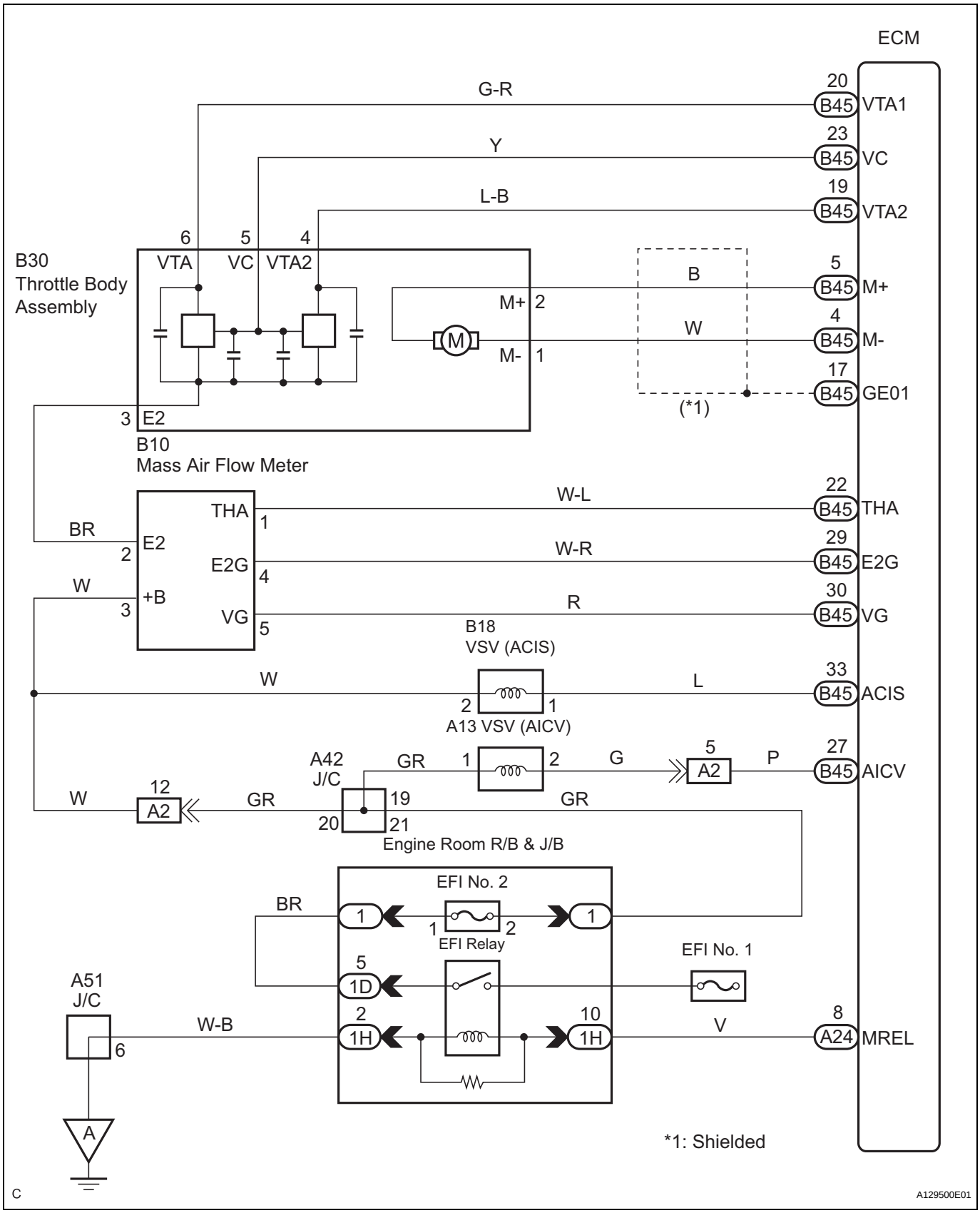
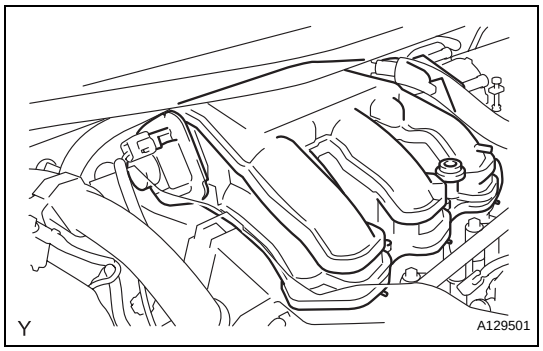
INTAKE AIR CONTROL SYSTEM

PARTS LOCATION



SYSTEM DIAGRAM

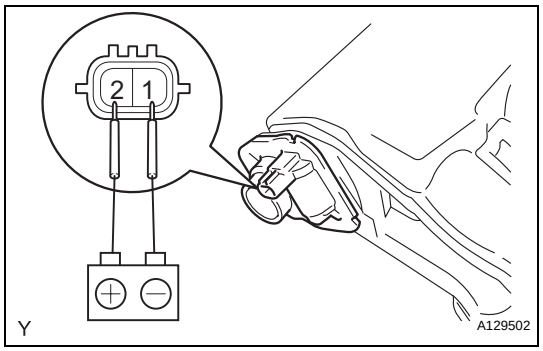




ON-VEHICLE INSPECTION

1. INSPECT INTAKE AIR CONTROL VALVE ASSEMBLY

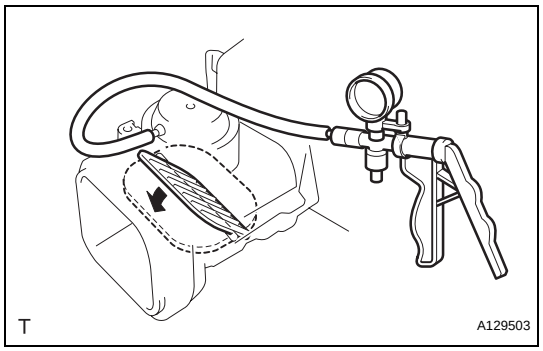
(a) Inspection procedure when using the intelligent tester:
  (1) Warm up the engine.
  (2) Stop the engine.
  (3) Connect the intelligent tester to the DLC3.
  (4) Turn the ignition switch on (IG).
  (5) Turn the tester on.
  (6) Select the following menu items: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / INTAKE CTL VSV1. Press the right or left button.
  (7) Make sure that a clicking sound is heard from the intake air control valve when current flows. If the result is not as specified, replace the intake air surge tank.



INSPECTION

1. INSPECT INTAKE AIR CONTROL VALVE

(a) Inspection procedure when applying voltage between the terminals:
  (1) Disconnect the connector from the intake air control valve.
  (2) Apply battery voltage between terminals 1 (-) and 2 (+) of the intake air control valve. Check that a clicking sound is heard from the intake air control valve.
  If the result is not as specified, replace the intake air surge tank.



2. INSPECT AIR CLEANER ASSEMBLY

(a) Apply 26.6 kPa (200 mmHg, 7.9 in. Hg) of vacuum to the actuator. Check if the valve rotates open, as shown in the illustration.

(b) Apply vacuum for 1 minute. The actuator should continue to keep the valve open.
  If the result is not as specified, replace the air cleaner assembly.

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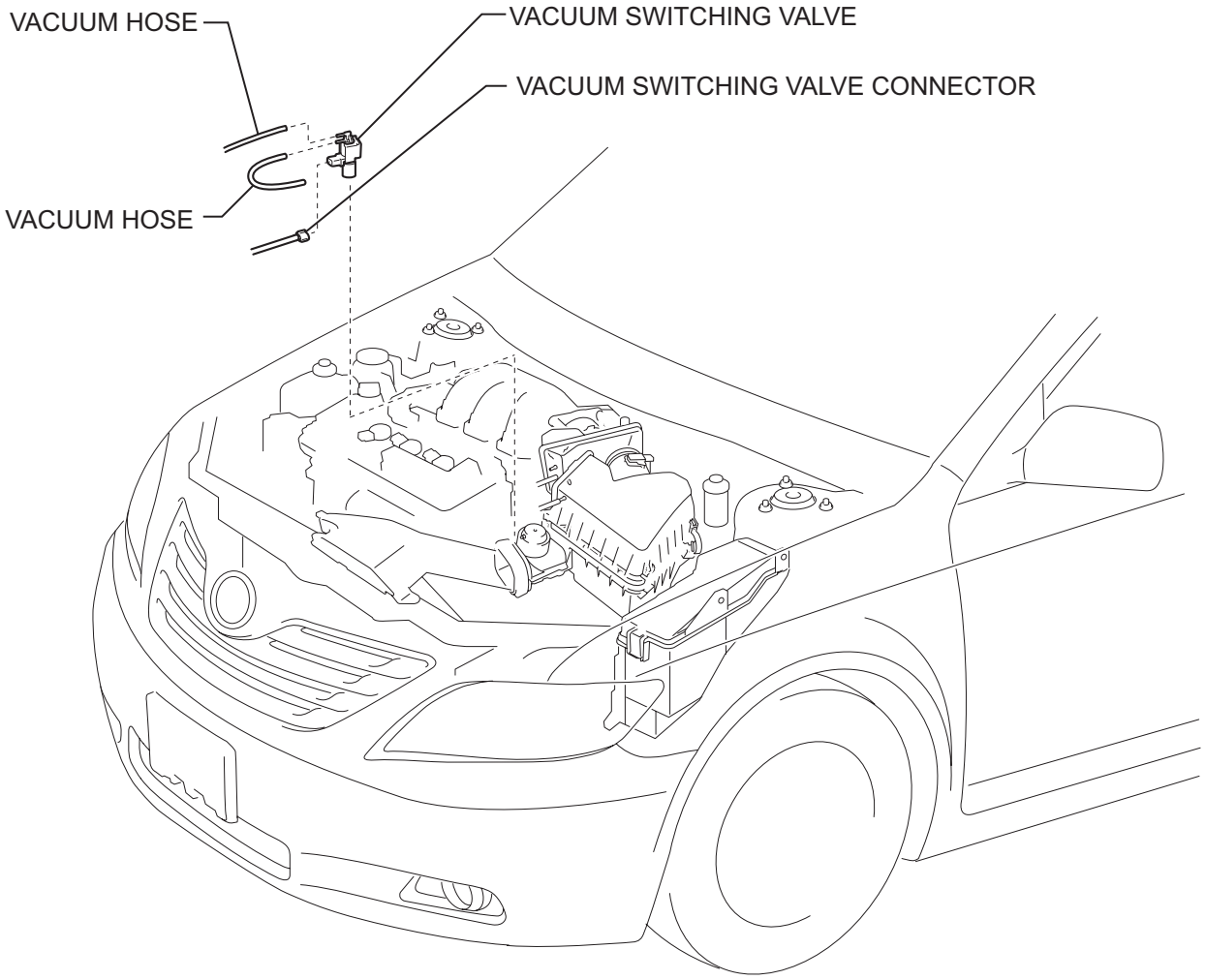
VACUUM SWITCHING VALVE

COMPONENTS

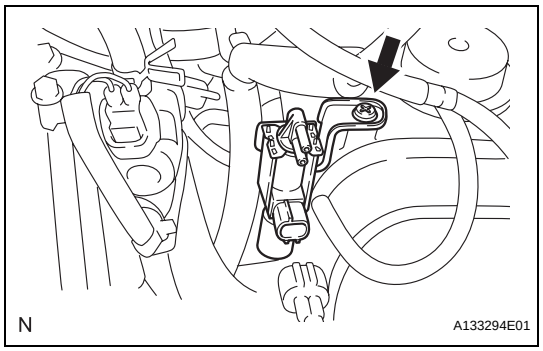


REMOVAL

1. REMOVE VACUUM SWITCHING VALVE

(a) Remove the 2 vacuum hoses and vacuum switching valve connector.

(b) Remove the screw and vacuum switching valve.



INSPECTION

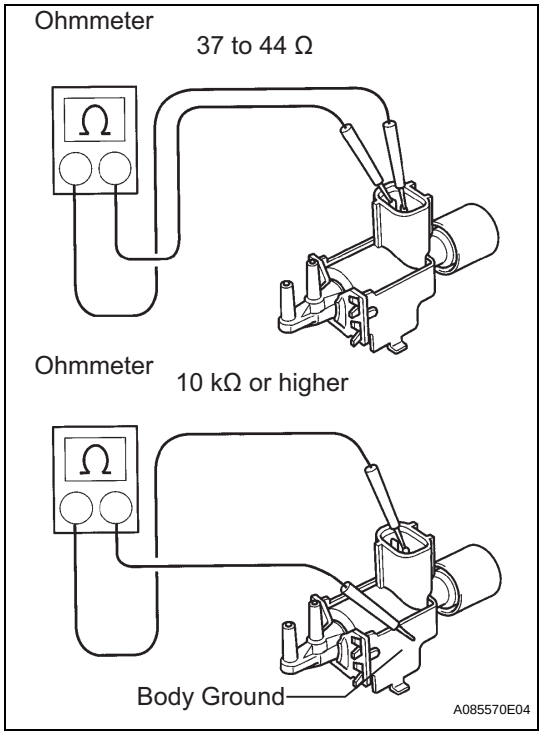
1. INSPECT VACUUM SWITCHING VALVE

(a) Measure the VSV resistance.

Standard resistance

Tester Connection	Specified Condition
1-2	37 to 44 Ω at 20 °C (68°F)
1 - Body ground 2 - Body ground	10 kΩ or higher

If the result is not as specified, replace the VSV.



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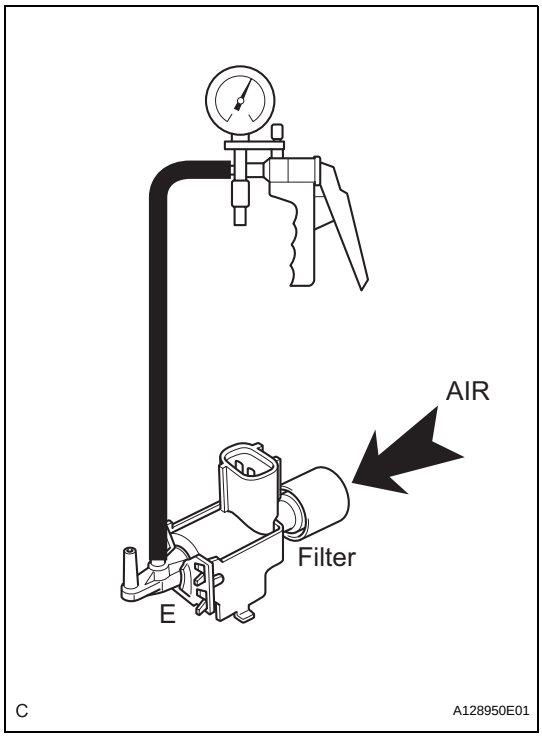
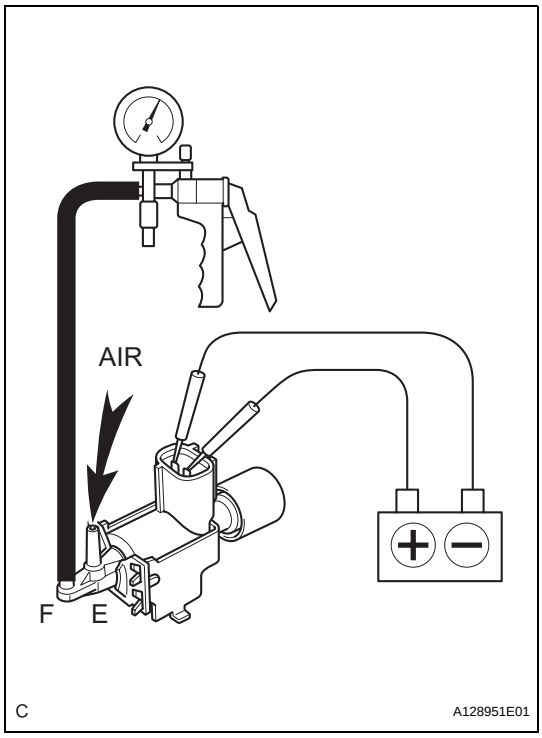
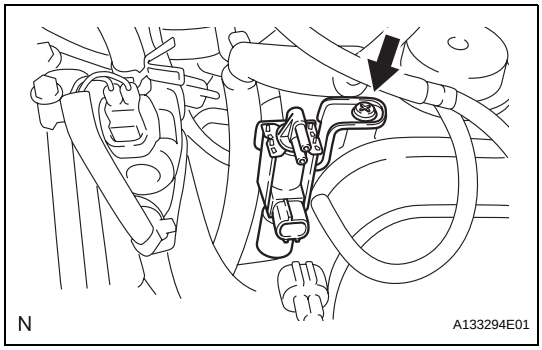


(b) Check VSV operation.
(1) When vacuum is applied to the E port, check that air is sucked into the filter.
If the result is not as specified, replace the VSV.



(2) Apply battery voltage across the terminals.
When vacuum is applied to the F port, check that air is sucked into the E port.
If the result is not as specified, replace the VSV.



INSTALLATION

1. REMOVE VACUUM SWITCHING VALVE

(a) Install the vacuum switching valve with the screw.
(b) Install the 2 vacuum hoses and vacuum switching valve.