ON-VEHICLE INSPECTION

1. INSPECT INTAKE AIR CONTROL FUNCTION

(a) Remove the V-bank cover.
(b) Warm up the engine.
(c) Turn the ignition switch OFF.
(d) Connect the intelligent tester to the DLC3.
(e) Start the engine and allow it to idle.
(f) Turn the intelligent tester ON.
(g) Select the following menu items: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / INTAKE CTL VSV1 / ON.
   (1) Check that the intake air control valve is pulled out.
       If the intake air control valve does not operate, replace the VSV for ACIS or intake air surge tank.
(h) Select the following menu items: DIAGNOSIS / ENHANCED OBD II / ACTIVE TEST / INTAKE CTL VSV1 / OFF.
   (1) Check that the intake air control valve is returned to its original position.
       If the intake air control valve does not operate, replace the VSV for ACIS or intake air surge tank.
(i) Select the following menu items: DIAGNOSIS / ENHANCED OBD II / DATA LIST / ENGINE SPD, THROTTLE POS, INTAKE CTL VSV1, and INTAKE CTL VSV2.

(1) When depressing the accelerator pedal to the 60 % accelerator opening angle and running the engine at a speed of 2,200 to 4,100 rpm, check that the VSV for ACIS is ON. If the intake air control valve does not operate, replace the VSV for ACIS.

(2) Under the conditions described in step (1), or while the engine is idling, release the accelerator pedal and check that the VSV for ACIS is OFF. If the intake air control valve does not operate, replace the VSV for ACIS.

2. INSPECT INTAKE AIR CONTROL VALVE

(a) Remove the V-bank cover (See page ES-428). 
(b) Using a 3-way connector, connect a vacuum gauge to the actuator hose.
(c) Start the engine.
(d) While the engine is idling, check that the vacuum gauge needle momentarily fluctuates up to approximately 39.9 kPa (300 mmHg, 11.8 in.Hg). (The actuator rod is pulled out.) If the intake air control valve does not operate, replace the intake air surge tank.
(e) Rapidly depress the accelerator pedal to the fully open position and check that the vacuum gauge needle points to 0 kPa (0 mmHg, 0 in.Hg). (The actuator rod is returned to its original position.) If the intake air control valve does not operate, replace the intake air surge tank.