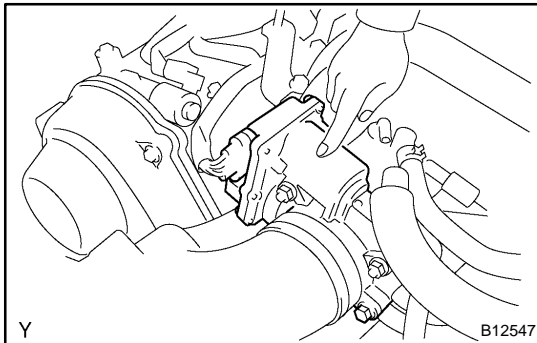


# THROTTLE BODY ON-VEHICLE INSPECTION

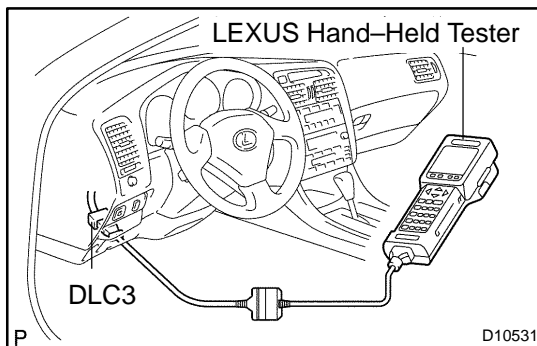
## 1. REMOVE V-BANK COVER



## 2. INSPECT SYSTEM OPERATION

- (a) Inspect the throttle control motor for operating sound.
- (1) Turn the ignition switch ON.
  - (2) When turning the accelerator pedal position sensor lever, check the running sound of the motor. Also, check that there is no friction sound.

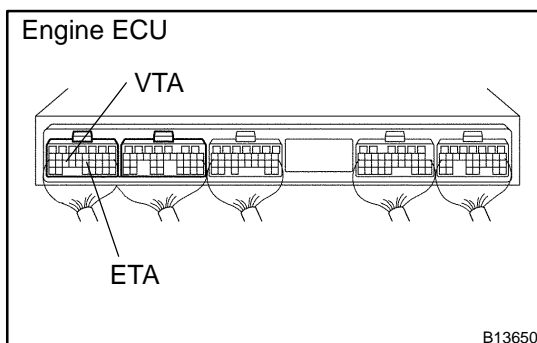
If operation is not as specified, check the throttle control motor (See step 3), wiring and ECM.



- (b) Inspect the accelerator pedal position sensor.
- (1) Connect the LEXUS hand-held tester or OBDII scan tool to the DLC3.
  - (2) Turn the ignition switch ON.
  - (3) Check that the check engine warning light does not light up.
  - (4) When turning the accelerator pedal position sensor lever to the full-open position, check that the throttle valve opening percentage (THROTTLE POS) of the CURRENT DATA shows the standard value.

**Standard throttle valve opening percentage:  
60 % or more**

If operation is not as specified, check that the accelerator pedal position sensor (See step 5), wiring and ECM.



If you have no LEXUS hand-held tester, measure voltage between terminals VTA and ETA of the ECM connector.

(See page [DI-190](#))

- (c) Inspect the idle speed.
- (1) Start the engine and check that the MIL does not light up.
  - (2) Allow the engine to warm up to normal operating temperature.

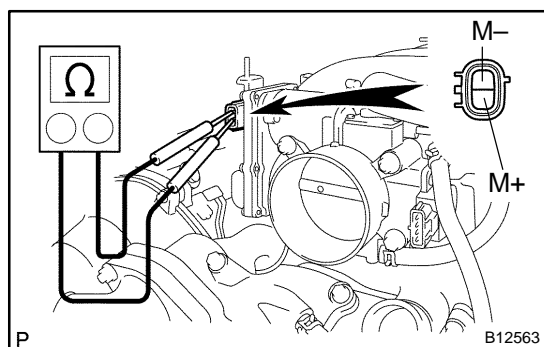
- (3) Turn the A/C conditioning ON to OFF, and check the idle speed.

**Idle speed (Transmission in neutral):  $750 \pm 50$  rpm**

**NOTICE:**

**Perform inspection under condition without electrical load.**

- (d) After checking the above (b) to (d), perform the driving test and check that there is no sense of incongruity.



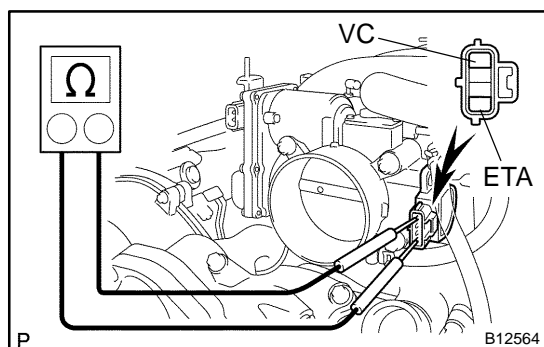
**3. INSPECT THROTTLE CONTROL MOTOR**

- (a) Disconnect the throttle control motor connector.  
(b) Using an ohmmeter, measure the motor resistance between terminal 1 (M+) and 2 (M-).

**Motor resistance:  $0.3 - 100 \Omega$  at  $20^\circ\text{C}$  ( $68^\circ\text{F}$ )**

If the resistance is not as specified, replace the throttle body (See page [SF-36](#)).

- (c) Reconnect the throttle control motor connector.



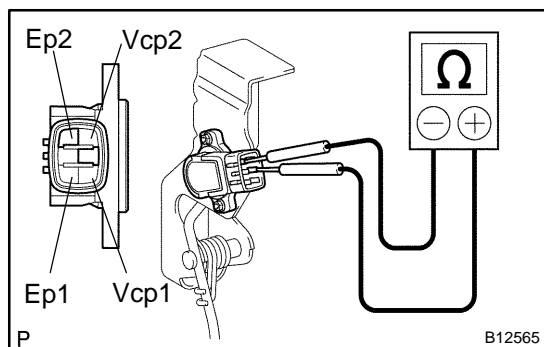
**4. INSPECT THROTTLE POSITION SENSOR**

- (a) Disconnect the throttle position sensor connector.  
(b) Using an ohmmeter, measure the resistance between terminals VC and ETA.

**Resistance:  $1.25 - 2.35 \text{ k}\Omega$  at  $20^\circ\text{C}$  ( $68^\circ\text{F}$ )**

If the resistance is not as specified, replace the throttle position sensor (See page [SF-38](#)).

- (c) Reconnect the throttle position sensor connector.



**5. INSPECT ACCELERATOR PEDAL POSITION SENSOR**

- (a) Disconnect the accelerator pedal position sensor connector.  
(b) Using an ohmmeter, measure the resistance between each terminals.

**Resistance: at  $20^\circ\text{C}$  ( $68^\circ\text{F}$ )**

Terminals	Resistance
$V_{CP1} - E_{P1}$ $V_{CP2} - E_{P2}$	$1.5 - 6.0 \text{ k}\Omega$

If the resistance is not as specified, replace the accelerator pedal assembly with accelerator pedal position sensor.

- (c) Reconnect the accelerator pedal position sensor connector.

**6. REINSTALL V-BANK COVER**