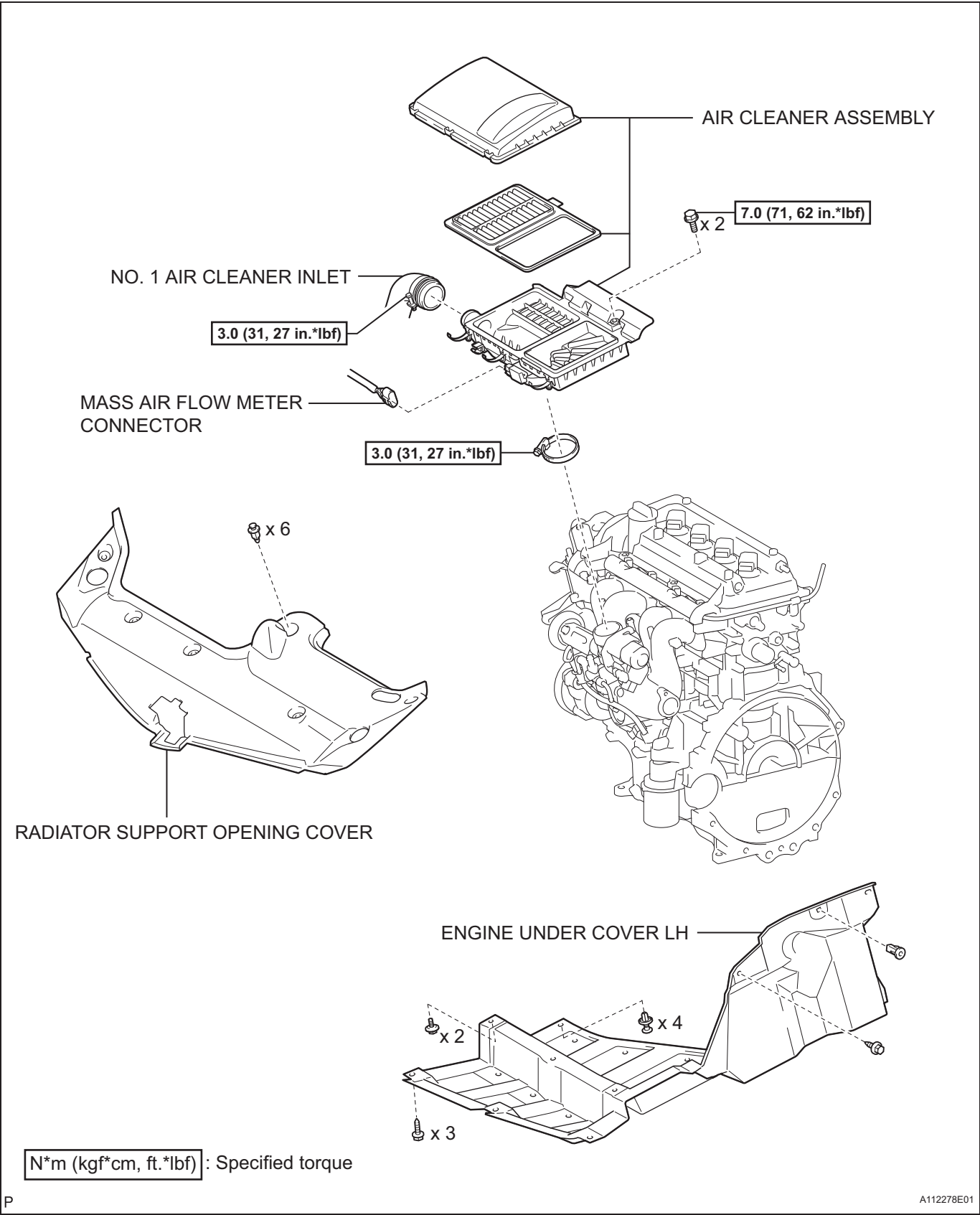
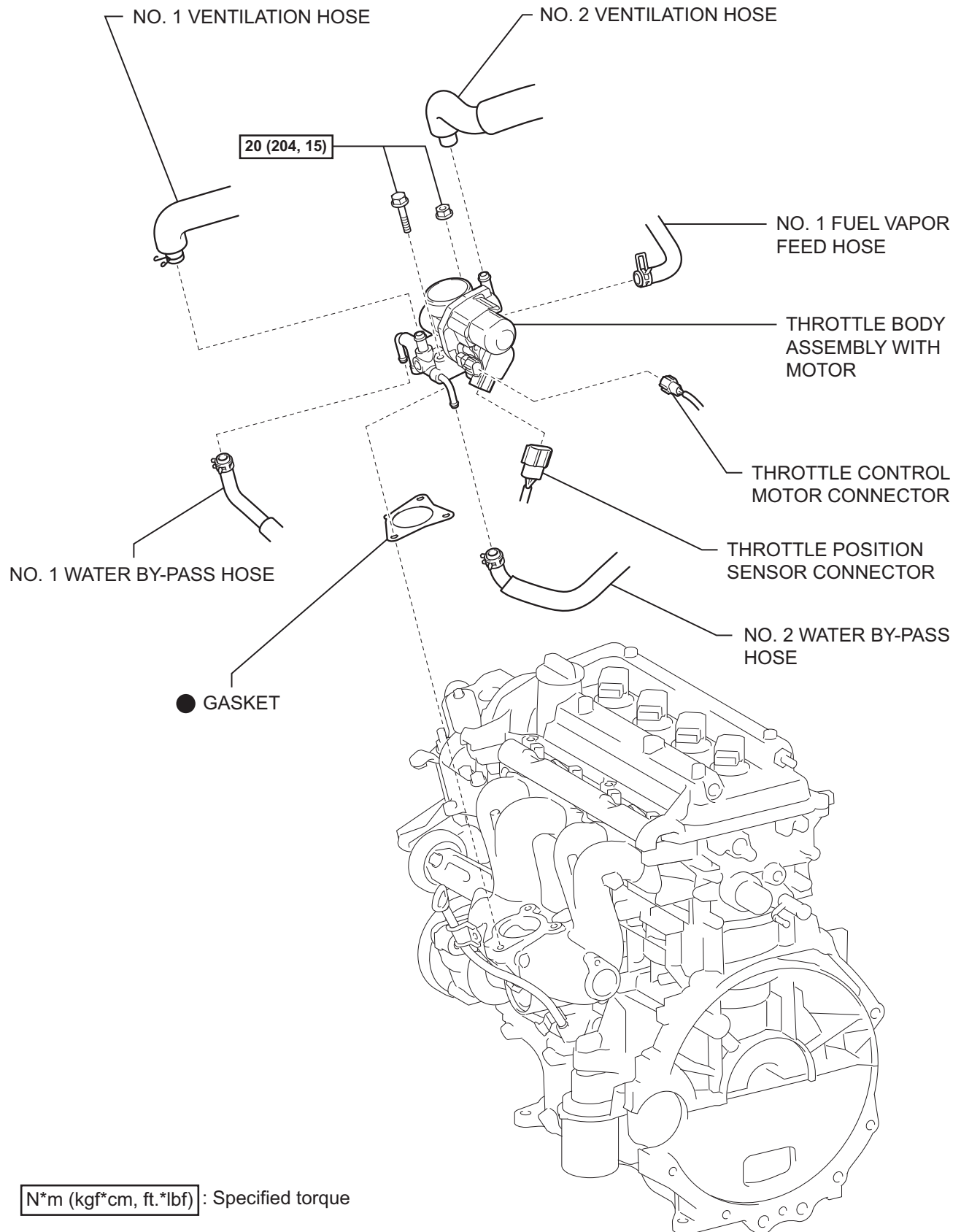


# THROTTLE BODY

## COMPONENTS

ES





**N\*m (kgf\*cm, ft.\*lbf)** : Specified torque

● Non-reusable part

ES

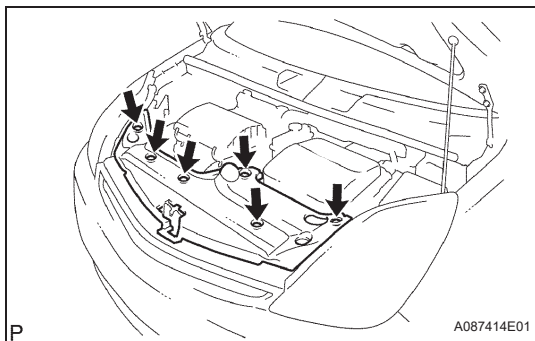
## REMOVAL

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

**CAUTION:**

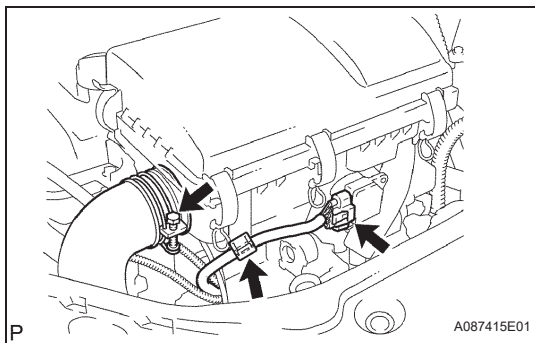
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.

2. **REMOVE ENGINE UNDER COVER LH**
3. **DRAIN ENGINE COOLANT** (See page [CO-6](#))
4. **REMOVE RADIATOR SUPPORT OPENING COVER**
  - (a) Remove the 6 clips and radiator support opening cover.

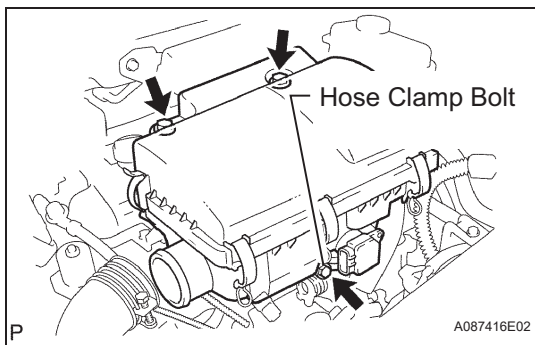


5. **REMOVE AIR CLEANER ASSEMBLY**

- (a) Disconnect the MAF meter connector.
- (b) Disconnect the wire harness from the wire harness clamp.
- (c) Loosen the hose clamp bolt, and then disconnect the No. 1 air cleaner inlet.

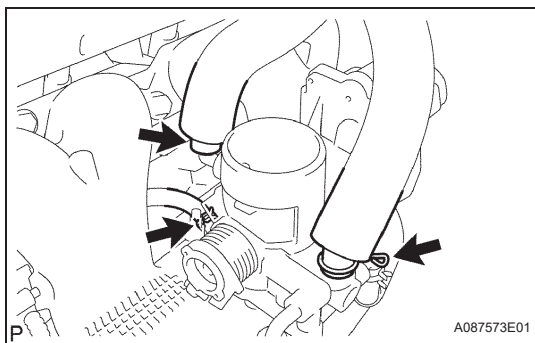


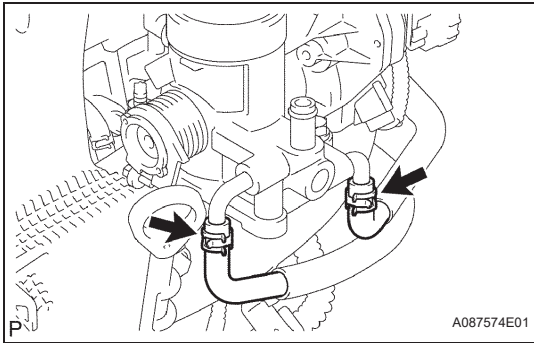
- (d) Remove the 2 bolts.
- (e) Loosen the hose clamp bolt, and then remove the air cleaner.



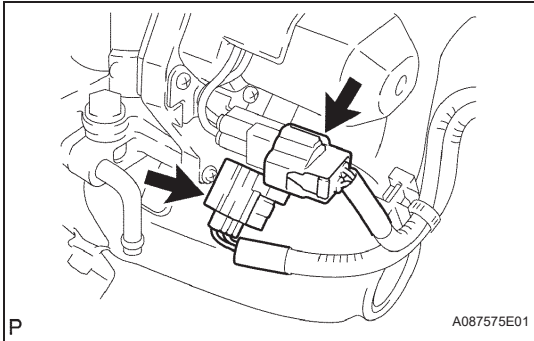
6. **REMOVE THROTTLE BODY ASSEMBLY WITH MOTOR**

- (a) Disconnect the ventilation hose.
- (b) Disconnect the No. 2 ventilation hose.
- (c) Disconnect the No. 1 fuel vapor feed hose.

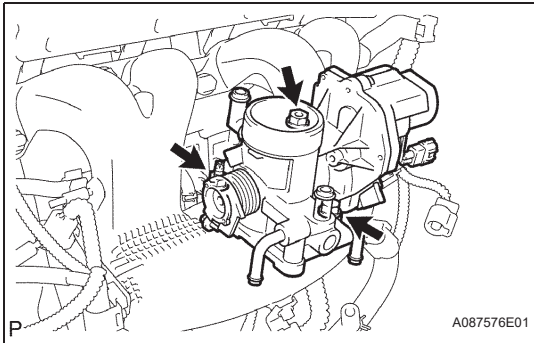




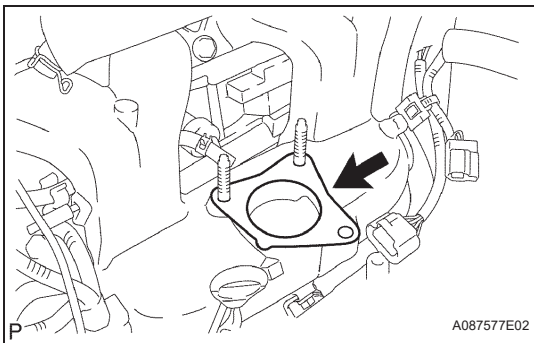
- (d) Disconnect the water by-pass hose.
- (e) Disconnect the No. 2 water by-pass hose.



- (f) Disconnect the throttle control motor connector.
- (g) Disconnect the throttle position sensor connector.

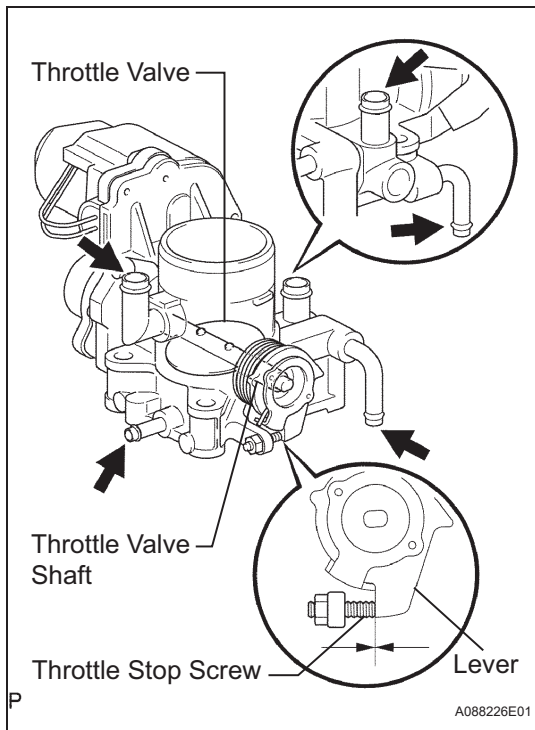


- (h) Remove the bolt, 2 nuts and throttle with motor body.



- (i) Remove the gasket from the intake manifold.

ES



## INSPECTION

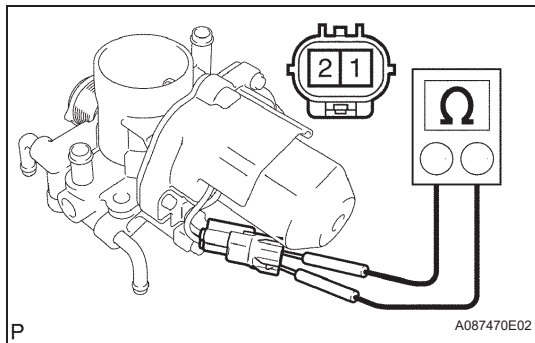
### 1. INSPECT THROTTLE WITH MOTOR BODY ASSEMBLY

(a) Check the appearance.

- (1) Check that the throttle valve shaft does not rattle.
- (2) Check that each port is not clogged.
- (3) Check that the throttle valve opens and closes smoothly.
- (4) Check that there is no clearance between the throttle stop screw and lever when the throttle valve is fully closed.

**NOTICE:**

**Do not adjust the throttle stop screw.**



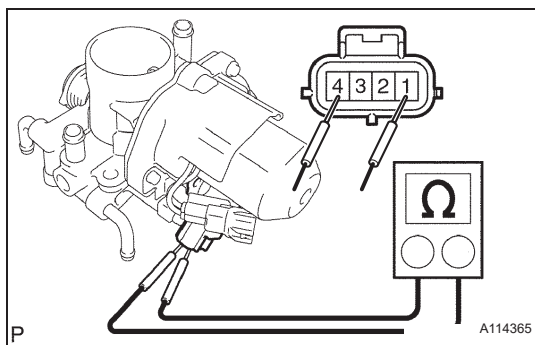
(b) Inspect the resistance of the throttle control motor.

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

**Standard resistance:**

**50 MΩ or more at 25°C (77°F)**

If the resistance is not as specified, replace the throttle with motor body.



(c) Inspect the resistance of the throttle position sensor.

- (1) Using an ohmmeter, measure the resistance between terminals 1 and 4.

**Standard resistance:**

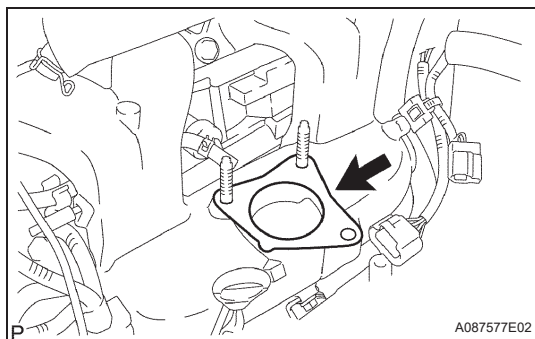
**1.2 to 3.5 kΩ at 25°C (77°F)**

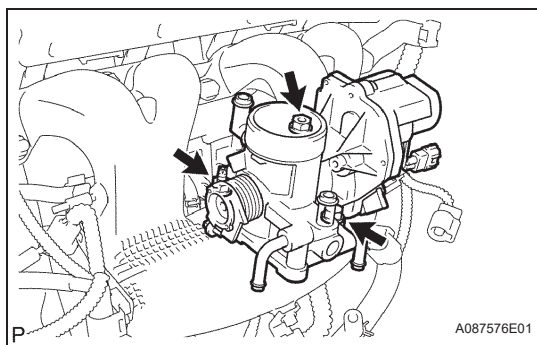
If the resistance is not as specified, replace the throttle with motor body.

## INSTALLATION

### 1. INSTALL THROTTLE BODY ASSEMBLY WITH MOTOR

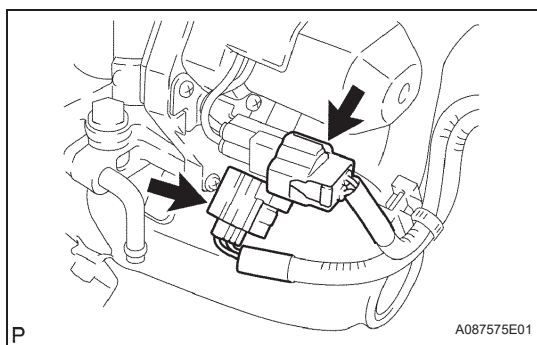
(a) Install a new gasket to the intake manifold.



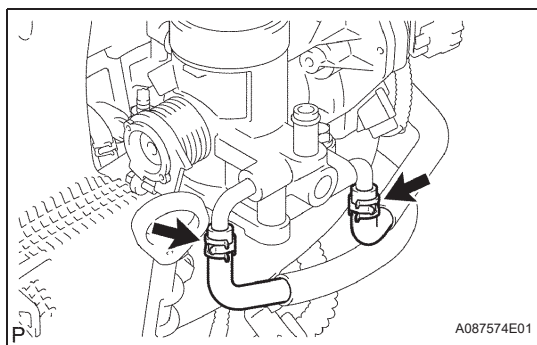


- (b) Install the throttle with motor body with the bolt and 2 nuts.

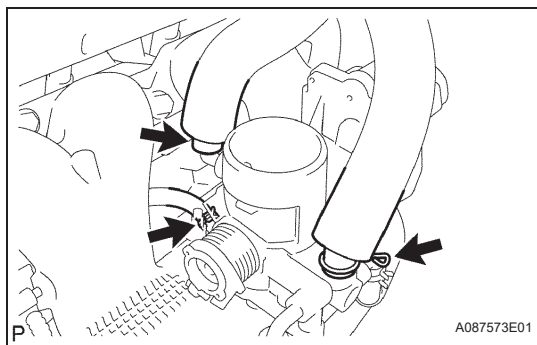
**Torque: 20 N\*m (204 kgf\*cm, 15 ft.\*lbf)**



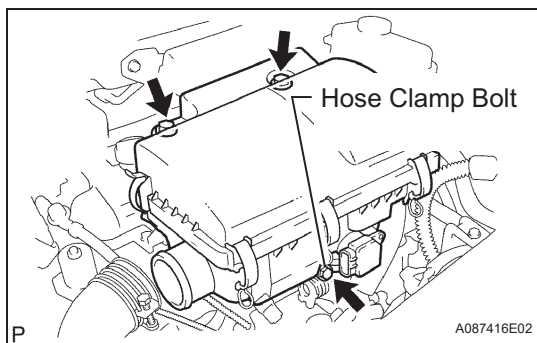
- (c) Connect the throttle position sensor connector.  
(d) Connect the throttle control motor connector.



- (e) Connect the No. 2 water by-pass hose.  
(f) Connect the water by-pass hose.



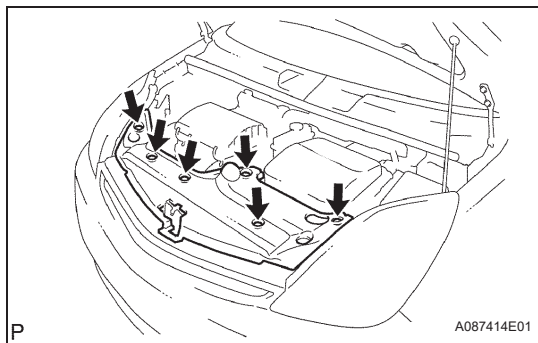
- (g) Connect the No. 1 fuel vapor feed hose.  
(h) Connect the No. 2 ventilation hose.  
(i) Connect the ventilation hose.



## 2. INSTALL AIR CLEANER ASSEMBLY

- (a) Install the air cleaner with the 2 bolts.  
**Torque: 7.0 N\*m (71 kgf\*cm, 62 in.\*lbf)**
- (b) Tighten the hose clamp bolt.  
**Torque: 3.0 N\*m (31 kgf\*cm, 27 in.\*lbf)**
- (c) Connect the No. 1 air cleaner inlet, and tighten the hose clamp bolt.  
**Torque: 3.0 N\*m (31 kgf\*cm, 27 in.\*lbf)**
- (d) Connect the MAF meter connector.

ES



3. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
4. **ADD ENGINE COOLANT** (See page [CO-7](#))
5. **CHECK FOR ENGINE COOLANT LEAKS** (See page [CO-2](#))
6. **INSTALL ENGINE UNDER COVER LH**
7. **INSTALL RADIATOR SUPPORT OPENING COVER**
  - (a) Install the cover with the 6 clips.
8. **PERFORM INITIALIZATION**
  - (a) Perform initialization (see page [IN-32](#)).  
**NOTICE:**  
Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.