

**3. REMOVE GENERATOR REGULATOR ASSEMBLY**

- (a) Remove the 3 screws, then remove the generator regulator.

**4. REMOVE GENERATOR HOLDER W/RECTIFIER**

- (a) Remove the 4 screws, then remove the generator holder with rectifier.

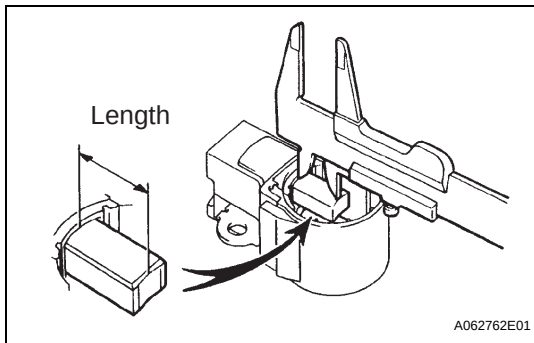
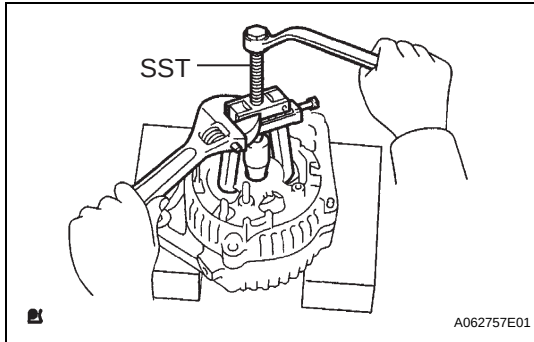
**5. REMOVE GENERATOR RECTIFIER END FRAME**

- (a) Remove the 4 terminal insulators from the generator rectifier end frame.  
 (b) Remove the 4 nuts and generator cord clip.  
 (c) Using SST, remove the generator rectifier end frame.

**SST 09286-46011**

**6. REMOVE GENERATOR ROTOR ASSEMBLY**

- (a) Remove the generator washer from the generator rotor.  
 (b) Remove the generator rotor from the generator drive end frame.

**INSPECTION****1. INSPECT GENERATOR BRUSH HOLDER ASSEMBLY**

- (a) Check the brush length.  
 (1) Using vernier calipers, measure the exposed brush length.

**Standard exposed brush length:**

**9.5 to 11.5 mm (0.374 to 0.453 in.)**

**Minimum exposed brush length:**

**4.5 mm (0.177 in.)**

If the exposed brush length is less than minimum, replace the generator brush holder.

**2. INSPECT GENERATOR REGULATOR ASSEMBLY**

- (a) Check the resistance.  
 (1) Using an ohmmeter, measure the resistance between terminals F and B.

**Standard resistance:**

**When the positive and negative poles of terminals F and B are switched over, there is a resistance of below 1  $\Omega$  in one direction but 10 k $\Omega$  or higher in the other direction.**

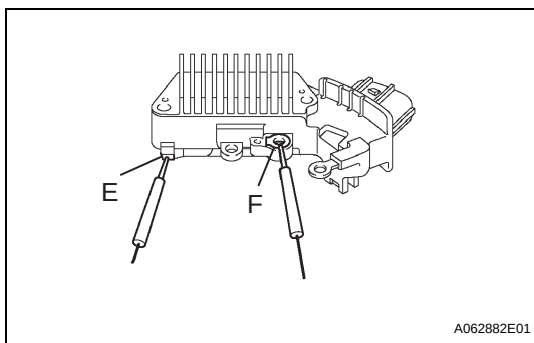
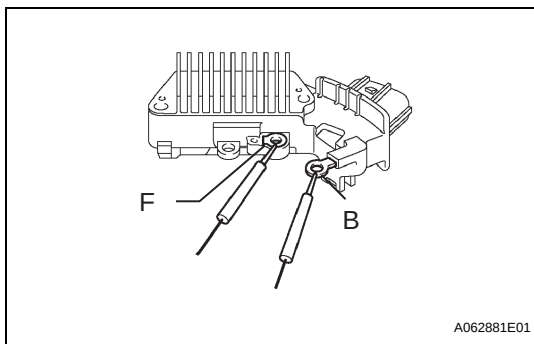
If the result is not as specified, replace the generator regulator.

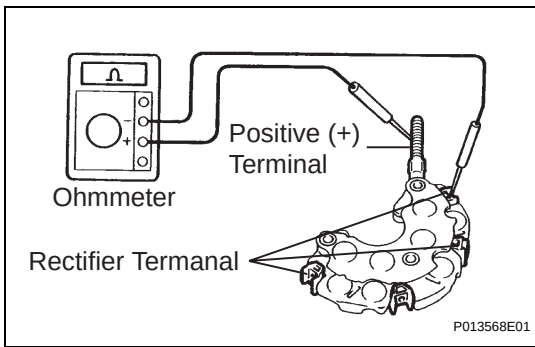
- (2) Using an ohmmeter, measure the resistance between terminals E and F.

**Standard resistance:**

**When the positive and negative poles of terminals F and E are switched over, there is a resistance of below 1  $\Omega$  in one direction but 10 k $\Omega$  or higher in the other direction.**

If the result is not as specified, replace the generator regulator.





### 3. INSPECT GENERATOR HOLDER W/RECTIFIER

(a) Check the resistance.

- (1) Using an ohmmeter, measure the resistance between the positive (+) terminal and each rectifier terminal.

**Standard resistance:**

**When the positive and negative poles of the positive (+) terminal and each rectifier terminal are switched over, there is a resistance of below 1  $\Omega$  in one direction but 10 k $\Omega$  or higher in the other direction.**

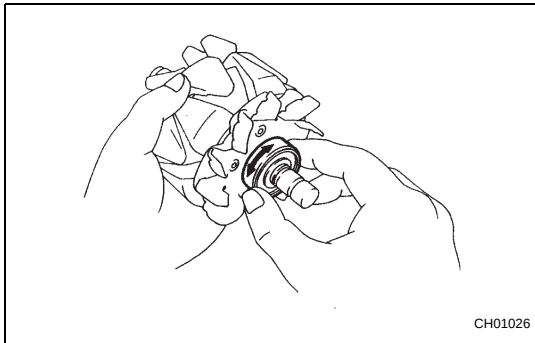
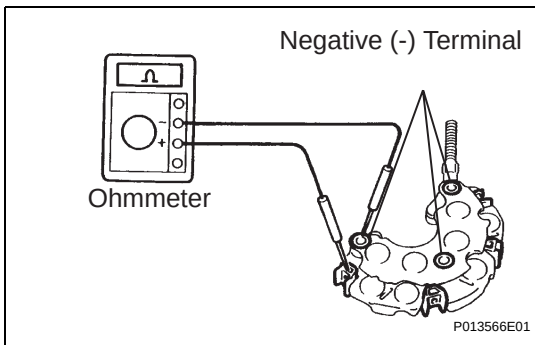
If the result is not as specified, replace the generator holder with rectifier.

- (2) Using an ohmmeter, measure the resistance between the negative (-) terminal and each rectifier terminal.

**Standard resistance:**

**When the positive and negative poles of the negative (-) terminal and each rectifier terminal are switched over, there is a resistance of below 1  $\Omega$  in one direction but 10 k $\Omega$  or higher in the other direction.**

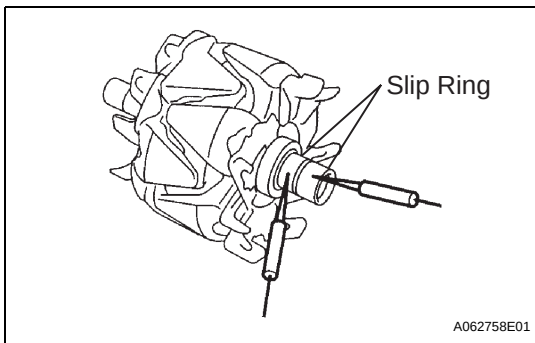
If the result is not as specified, replace the generator holder with rectifier.



### 4. INSPECT GENERATOR ROTOR ASSEMBLY

(a) Check for roughness or wear.

- (1) Check that the bearing is not rough or worn. If necessary, replace the bearing.



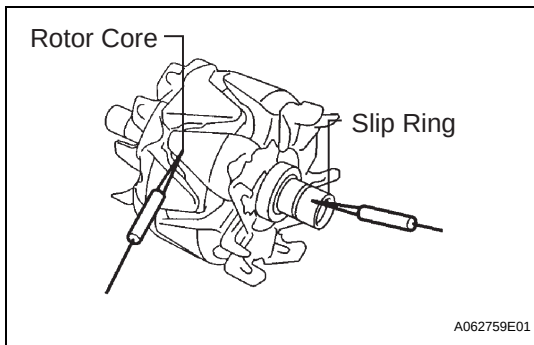
(b) Check the resistance.

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

**Standard resistance:**

**2.1 to 2.5  $\Omega$  at 20  $^{\circ}\text{C}$  (68  $^{\circ}\text{F}$ )**

If the resistance is not as specified, replace the generator rotor.



- (2) Using an ohmmeter, measure the resistance between the slip ring and rotor.

**Standard resistance:**

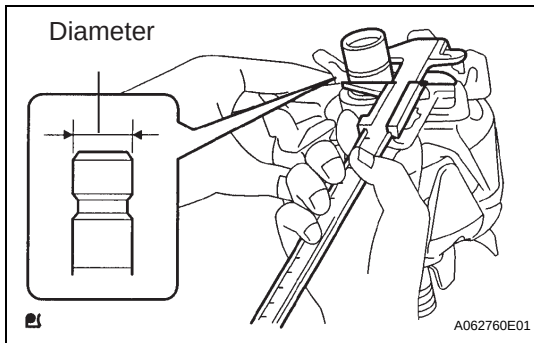
**1 M $\Omega$  or higher**

If the result is not as specified, replace the generator rotor shaft.

- (c) Check the appearance.

- (1) Check that the slip rings are not rough or scored.

If rough or scored, replace the generator rotor.



- (d) Inspect the slip ring diameter.

- (1) Using vernier calipers, measure the slip ring diameter.

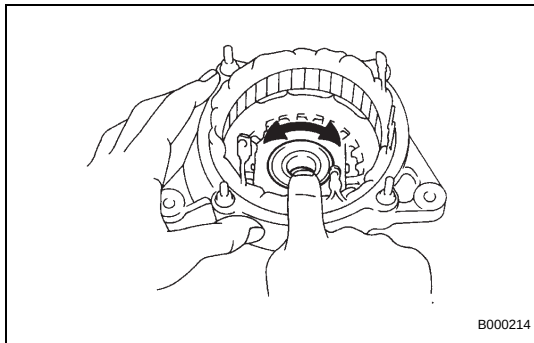
**Standard diameter:**

**14.2 to 14.4 mm (0.559 to 0.567 in.)**

**Minimum diameter:**

**14.0 mm (0.551 in.)**

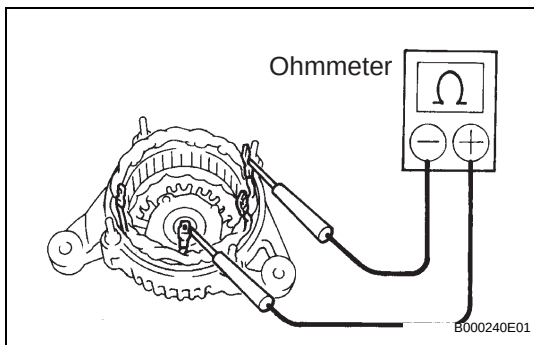
If the diameter is less than minimum, replace the generator rotor.



## 5. INSPECT GENERATOR RECTIFIER END FRAME

- (a) Check for roughness or wear.

- (1) Check that the bearing is not rough or worn. If necessary, replace the bearing.



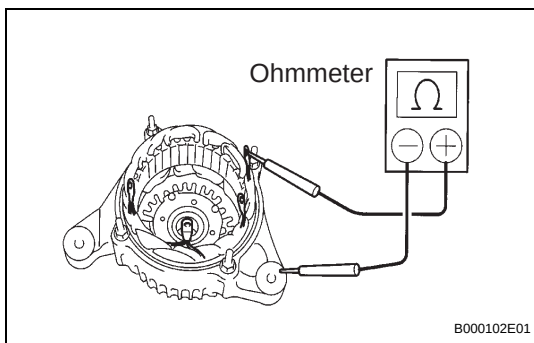
- (b) Check the resistance.

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

**Standard resistance:**

**Below 1 $\Omega$**

If the result is not as specified, replace the generator drive end frame.

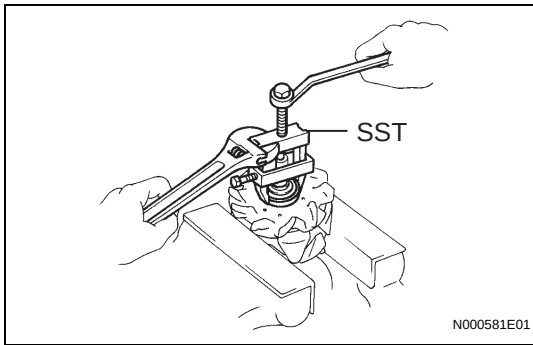


- (2) Using an ohmmeter, measure the resistance between the coil wire and body.

**Standard resistance:**

**1 M $\Omega$  or higher**

If the result is not as specified, replace the generator drive end frame.



## 6. REMOVE GENERATOR ROTOR BEARING

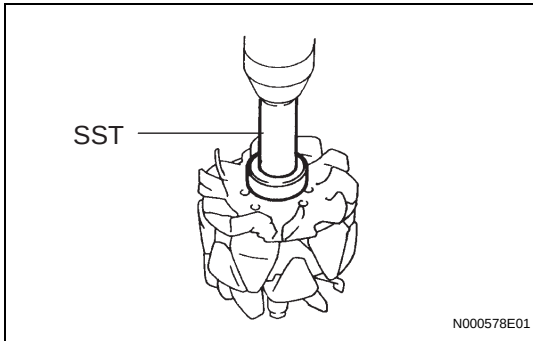
- (a) Clamp the generator rotor in a vise.
- (b) Using SST, remove the generator bearing cover (outside) and bearing.

**SST 09820-00021**

### NOTICE:

**Be careful not to damage the fan.**

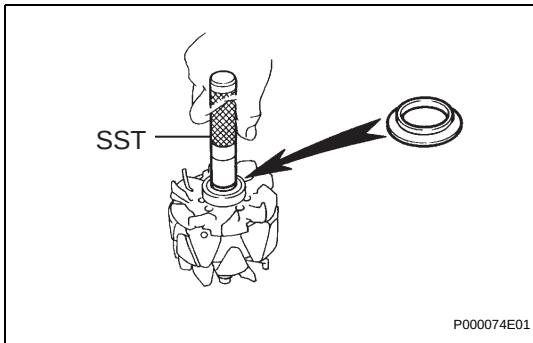
- (c) Remove the generator bearing cover (inside) from the generator rotor.



## 7. INSTALL GENERATOR ROTOR BEARING

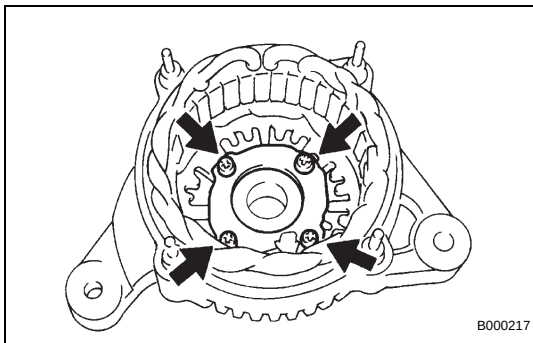
- (a) Place the generator rotor on the generator pulley.
- (b) Install the generator bearing cover (inside) onto the generator rotor.
- (c) Using SST and a press, push a new bearing in.

**SST 09820-00031**



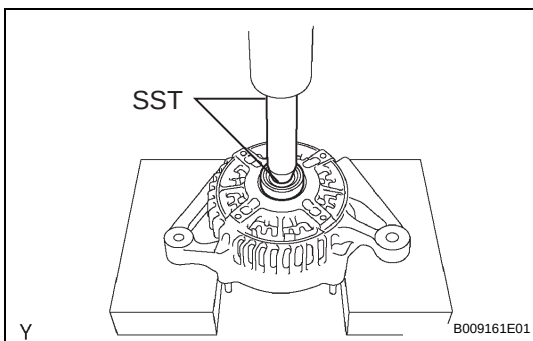
- (d) Using SST, push the generator bearing cover (outside) in.

**SST 09285-76010**

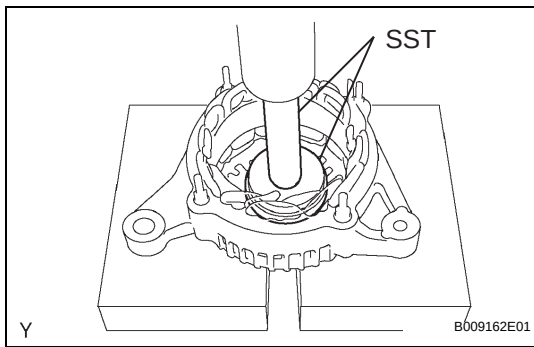


## 8. REMOVE GENERATOR DRIVE END FRAME BEARING

- (a) Remove the 4 screws, then remove the retainer plate.

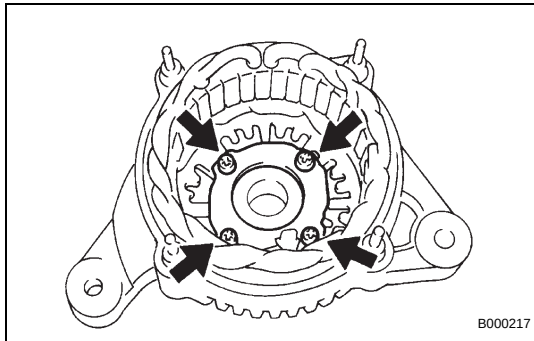


- (b) Using SST and a press, push the bearing out.  
**SST 09950-60010 (09951-00350), 09950-70010 (09951-07100)**

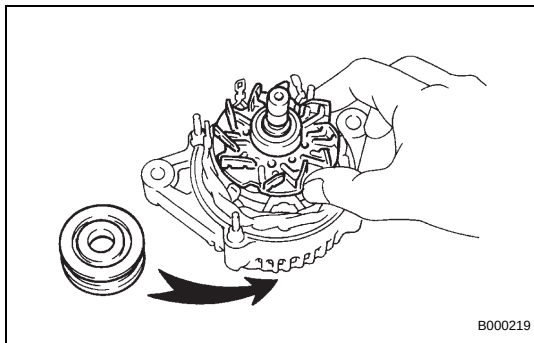


## 9. INSTALL GENERATOR DRIVE END FRAME BEARING

- (a) Using SST and a press, push a new bearing in.  
**SST 09950-60010 (09951-00530), 09950-70010 (09951-07100)**



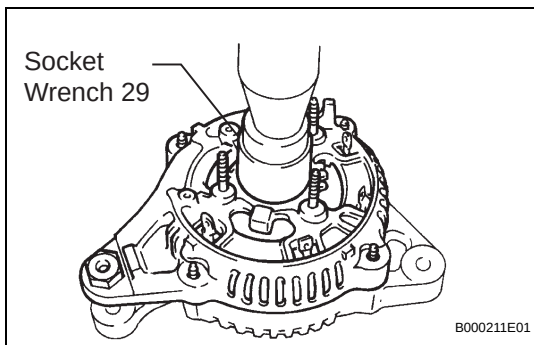
- (b) Install the retainer plate with the 4 screws.  
**Torque: 3.0 N\*m (31 kgf\*cm, 27 in.\*lbf)**



## REASSEMBLY

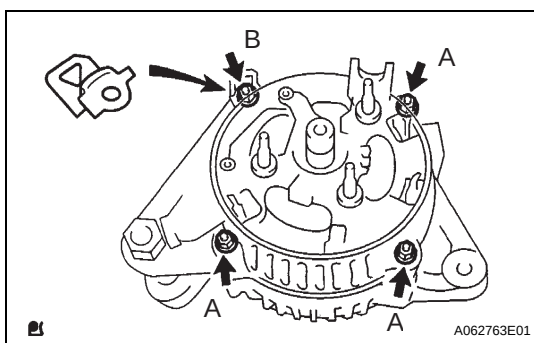
### 1. INSTALL GENERATOR ROTOR ASSEMBLY

- (a) Place the generator drive end frame on the generator pulley.  
 (b) Install the generator rotor onto the generator drive end frame.  
 (c) Install the generator washer onto the generator rotor.



### 2. INSTALL GENERATOR RECTIFIER END FRAME

- (a) Using a socket wrench 29 and a press, slowly push the generator rectifier end frame in.



- (b) Install the generator cord clip and 4 nuts.

**Torque: Nut A**

**4.5 N\*m (46 kgf\*cm, 40 in.\*lbf)**

**Nut B**

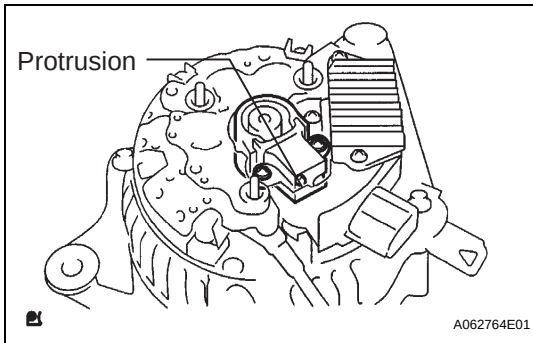
**5.4 N\*m (55 kgf\*cm, 48 in.\*lbf)**

- (c) Install the 4 terminal insulators onto the generator rectifier end frame.

### 3. INSTALL GENERATOR HOLDER W/RECTIFIER

- (a) Install the generator holder with rectifier with the 4 screws.

**Torque: 2.9 N\*m (30 kgf\*cm, 26 in.\*lbf)**



#### 4. INSTALL GENERATOR REGULATOR ASSEMBLY

- (a) Install the generator regulator with the 3 screws.  
**Torque: 2.0 N\*m (20 kgf\*cm, 18 in.\*lbf)**

#### 5. INSTALL GENERATOR BRUSH HOLDER ASSEMBLY

- (a) Install the generator plate seal onto the generator rectifier end frame.

- (b) Install the generator brush holder with the 2 screws.

**Torque: 2.0 N\*m (20 kgf\*cm, 18 in.\*lbf)**

**NOTICE:**

**Make sure that the generator brush holder is in the correct direction.**

- (c) Install the generator brush cover onto the generator brush holder.

- (d) Install the generator rear and cover it with the 2 nuts.

**Torque: 4.4 N\*m (45 kgf\*cm, 39 in.\*lbf)**

- (e) Install the terminal plate.

**Torque: Bolt**

**3.9 N\*m (40 kgf\*cm, 35 in.\*lbf)**

**Nut**

**4.4 N\*m (45 kgf\*cm, 39 in.\*lbf)**

- (f) Install the terminal insulator with the nut.

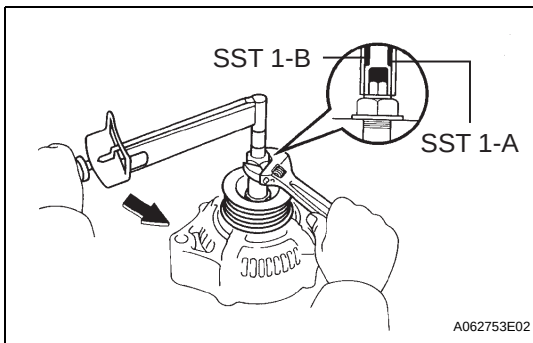
**Torque: 4.1 N\*m (42 kgf\*cm, 36 in.\*lbf)**

#### 6. INSTALL GENERATOR PULLEY

**SST 09820-63010 (09820-06010, 09820-06020)**

**HINT:**

|               |             |
|---------------|-------------|
| SST 1-A and B | 09820-06010 |
| SST 2         | 09820-06020 |



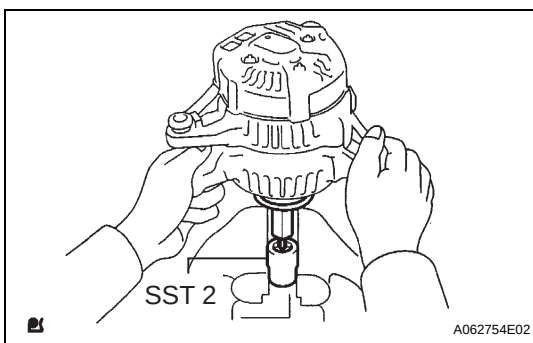
- (a) Install the generator pulley onto the rotor shaft by tightening the pulley nut by hand.

- (b) Hold SST 1-A with a torque wrench, then tighten SST 1-B counterclockwise to the specified torque.

**Torque: 39 N\*m (400 kgf\*cm, 29 ft.\*lbf)**

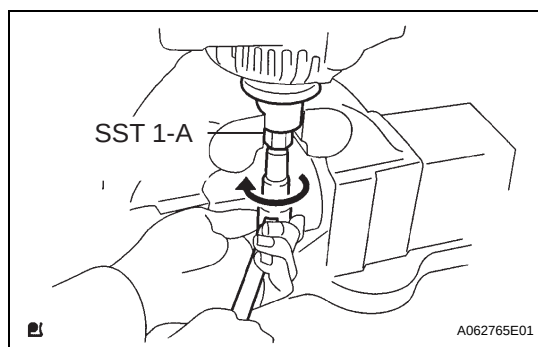
**NOTICE:**

**Securely fix SST on the generator rotor shaft.**

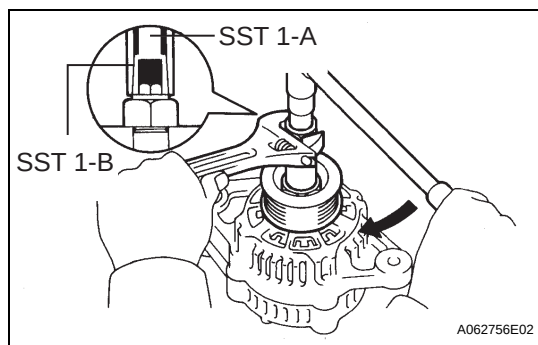


- (c) Clamp SST 2 in a vise.

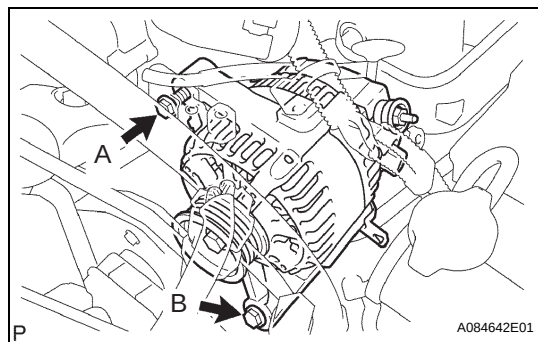
- (d) Insert SST 1-A and B into SST 2, then attach the pulley nut to SST 2.



- (e) Tighten the pulley nut, then turn SST 1-A in the direction shown in the illustration.  
**Torque: 111 N\*m (1,132 kgf\*cm, 82 ft.\*lbf)**
- (f) Remove the generator from SST 2.



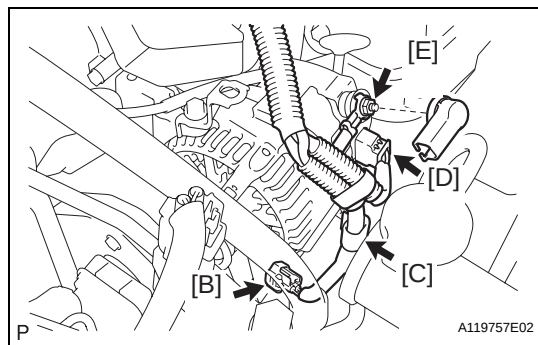
- (g) Turn SST 1-B, then remove SST 1-A and B.
- (h) Turn the generator pulley, then check that the generator pulley moves smoothly.



## INSTALLATION

### 1. INSTALL GENERATOR ASSEMBLY

- (a) Install the generator with the 2 bolts.  
**Torque: Bolt A**  
**25 N\*m (250 kgf\*cm, 18 ft.\*lbf)**  
**Bolt B**  
**54 N\*m (550 kgf\*cm, 40 ft.\*lbf)**



- (b) Connect the A/C connector [B].
- (c) Install the wire harness clamp [C].
- (d) Connect the generator connector [D].
- (e) Install the generator wire with the nut [E].  
**Torque: 9.8 N\*m (100 kgf\*cm, 7 ft.\*lbf)**
- (f) Install the terminal cap No. 2.

### 2. INSTALL FAN AND GENERATOR V BELT

(See page [EM-5](#))

### 3. INSTALL ENGINE UNDER COVER RH

### 4. CONNECT BATTERY NEGATIVE TERMINAL

**Torque: 5.4 N\*m (55 kgf\*cm, 48 in.\*lbf)**