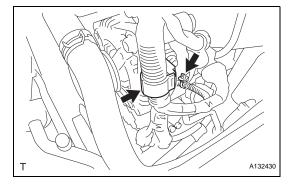
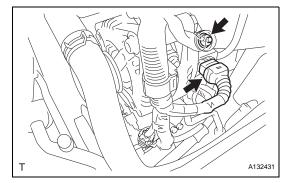
# **REMOVAL**

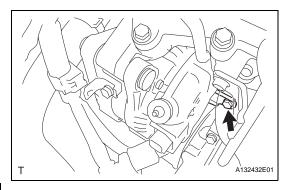
- 1. REMOVE RADIATOR ASSEMBLY
  - (a) Remove the radiator (see page CO-36).
- 2. REMOVE FRONT WHEEL RH
- 3. REMOVE ENGINE UNDER COVER REAR RH (See page EM-21)
- 4. REMOVE FRONT SUSPENSION MEMBER REINFORCEMENT RH (See page EM-7)
- 5. REMOVE RADIATOR RESERVOIR TANK (See page CO-19)
- 6. REMOVE FAN AND GENERATOR V BELT (See page EM-8)
- 7. REMOVE GENERATOR ASSEMBLY
  - (a) Disconnect the 2 wire harness clamps.



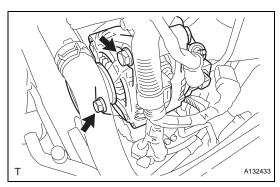
- (b) Remove the terminal cap.
- (c) Remove the nut and disconnect the generator wire from terminal B.
- (d) Disconnect the generator connector from the generator.



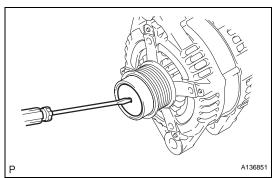
(e) Remove the bolt from the cylinder block.







(f) Remove the 2 bolts and generator.



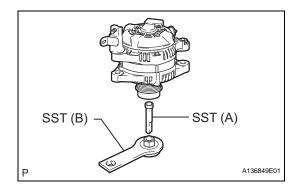
# **DISASSEMBLY**

## 1. REMOVE GENERATOR PULLEY WITH CLUTCH

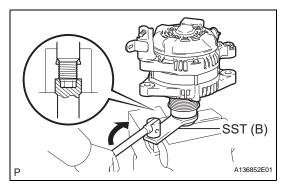
(a) Using a screwdriver, puncture the center of the cap and pry it off the pulley.

### **NOTICE:**

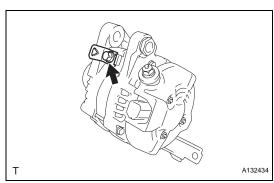
Do not reuse the cap.



- (b) Install SST to the pulley as shown in the illustration. **SST 09820-63020**
- (c) Mount SST (A) in a vise.



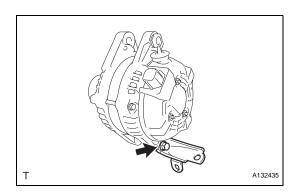
- (d) Turn SST (B) clockwise to loosen the pulley.
- (e) Remove the pulley.



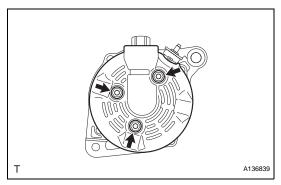
## 2. REMOVE GENERATOR BRUSH HOLDER ASSEMBLY

(a) Remove the bolt and wire harness clamp stay.

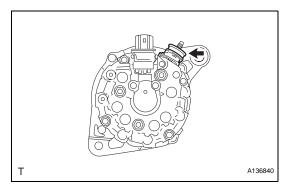




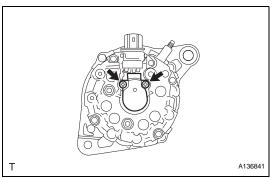
(b) Remove the bolt and bracket.



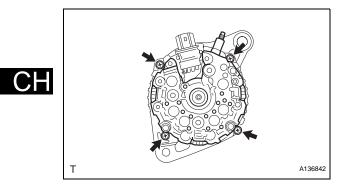
(c) Remove the 3 nuts and generator rear end cover.



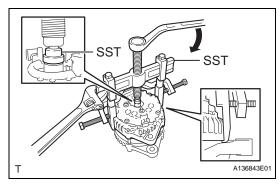
(d) Remove the terminal insulator.

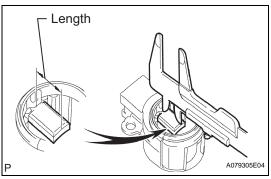


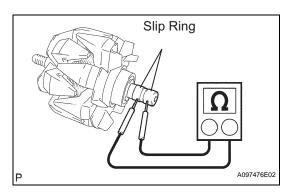
(e) Remove the 2 screws and generator brush holder.

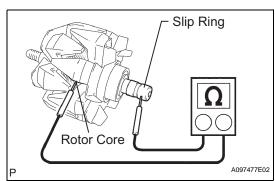


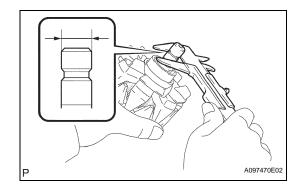
- 3. REMOVE GENERATOR ROTOR ASSEMBLY
  - (a) Remove the 4 bolts.











(b) Using SST, remove the generator rectifier end frame.

SST 09950-40011 (09951-04020, 09952-04010, 09953-04020, 09954-04010, 09955-04071, 09957-04010, 09958-04011)

- (c) Remove the washer.
- (d) Remove the generator rotor.

## INSPECTION

## 1. INSPECT GENERATOR BRUSH HOLDER ASSEMBLY

(a) Using a vernier caliper, measure the brush length. **Standard length:** 

9.5 to 11.5 mm (0.374 to 0.453 in.)

Minimum length:

4.5 mm (0.177 in.)

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

## 2. INSPECT GENERATOR ROTOR ASSEMBLY

- (a) Check the resistance.
  - (1) Measure the resistance between the slip rings.

Standard resistance:

2.3 to 2.7  $\Omega$  at 20°C (68°F)

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

(2) Measure the resistance between the slip ring and rotor core.

Standard resistance:

1 M $\Omega$  or higher

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

- (b) Check the slip ring diameter.
  - (1) Using a vernier caliper, measure the slip ring diameter.

Standard diameter:

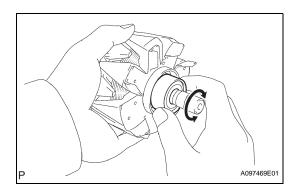
14.2 to 14.4 mm (0.559 to 0.567 in.)

Minimum diameter:

14 mm (0.551 in.)

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

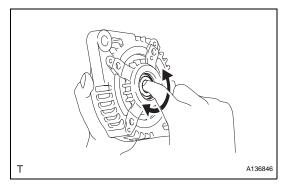




- (c) Check the appearance.
  - (1) Check that the bearing is not rough or worn. **OK:**

The bearing rotates smoothly.

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

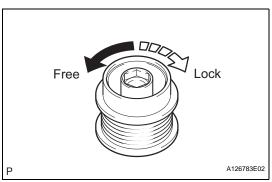


# 3. INSPECT GENERATOR DRIVE END FRAME BEARING

(a) Check that the bearing is not rough or worn. **OK:** 

The bearing rotates smoothly.

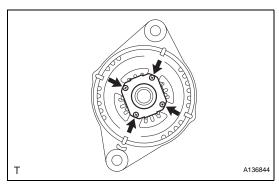
If the bearing does not rotate smoothly, replace the bearing.



#### 4. INSPECT GENERATOR PULLEY WITH CLUTCH

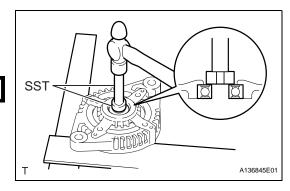
(a) Hold the center of the pulley, and confirm that the outer ring turns counterclockwise and does not turn clockwise.

If the result is not as specified, replace the generator pulley with clutch.

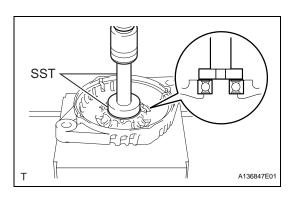


## REPLACEMENT

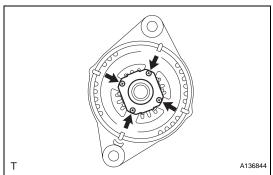
- 1. REPLACE GENERATOR DRIVE END FRAME BEARING
  - (a) Remove the 4 screws and bearing retainer.



(b) Using SST and a hammer, tap out the bearing.
SST 09950-60010 (09951-00250), 09950-70010
(09951-07100)

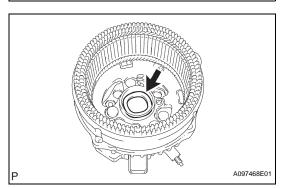


(c) Using SST and a press, press in a new bearing. SST 09950-60010 (09951-00250), 09950-70010 (09951-07100)



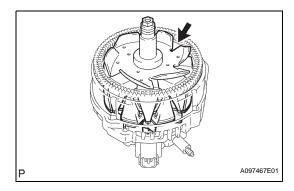
(d) Install the bearing retainer with the 4 screws.

Torque: 2.3 N\*m (23 kgf\*cm, 20 in.\*lbf)

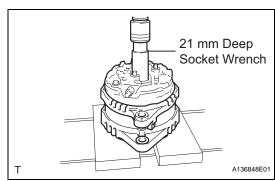


# **REASSEMBLY**

- 1. INSTALL GENERATOR ROTOR ASSEMBLY
  - (a) Install the washer onto the generator rectifier end frame.

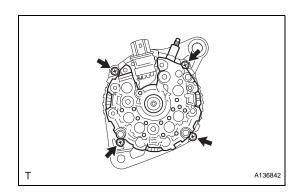


(b) Install the generator rotor onto the generator rectifier end frame.



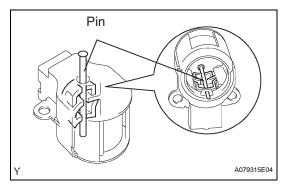
(c) Using a 21 mm deep socket wrench and press, slowly push the generator drive end frame onto the generator rectifier frame.





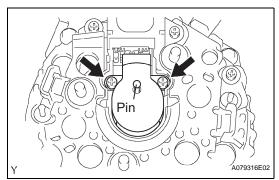
(d) Install the 4 bolts.

Torque: 5.8 N\*m (59 kgf\*cm, 51 in.\*lbf)

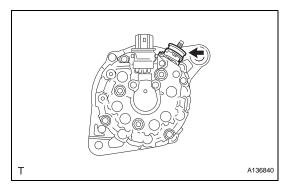


### 2. INSTALL GENERATOR BRUSH HOLDER ASSEMBLY

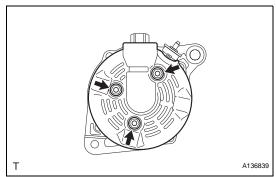
(a) While pushing the 2 brushes into the generator brush holder, insert a  $\phi$  1.0 mm (0.039 in.) pin into the generator brush holder.



- (b) Install the generator brush holder with the 2 screws. Torque: 1.8 N\*m (18 kgf\*cm, 16 in.\*lbf)
- (c) Pull the pin out of the generator brush holder.

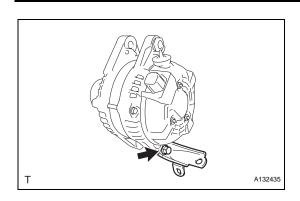


(d) Install the terminal insulator onto the generator rectifier end frame.



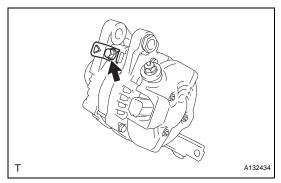
(e) Install the generator rear end cover with the 3 nuts. Torque: 4.6 N\*m (47 kgf\*cm, 41 in.\*lbf)





(f) Install the bracket with the bolt.

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

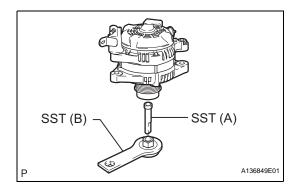


(g) Install the wire harness clamp stay.

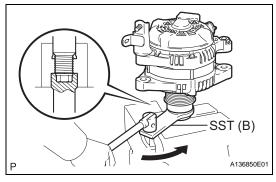
Torque: 8.4 N\*m (86 kgf\*cm, 74 in.\*lbf)

## 3. INSTALL GENERATOR PULLEY WITH CLUTCH

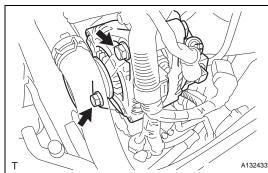
(a) Install the pulley by hand.



(b) Install SST to the pulley as shown in the illustration. **SST 09820-63020** 



- (c) Turn SST (B) counterclockwise to tighten the pulley. Torque: 111 N\*m (1125 kgf\*cm, 81 ft.\*lbf)
- (d) Install a new cap to the pulley.
- (e) Check that the generator pulley rotates smoothly.



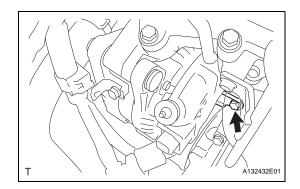
# **INSTALLATION**

## 1. INSTALL GENERATOR ASSEMBLY

(a) Install the generator with the 2 bolts.

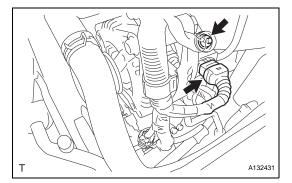
Torque: 43 N\*m (438 kgf\*cm, 32 ft.\*lbf)





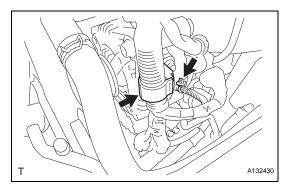
(b) Install the bolt to the cylinder block.

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



- (c) Connect the generator connector to the generator.
- (d) Connect the generator wire with the nut.

  Torque: 9.8 N\*m (100 kgf\*cm, 88 in.\*lbf)
- (e) Install the terminal cap.



- (f) Connect the 2 wire harness clamps.
- 2. INSTALL FAN AND GENERATOR V BELT (See page EM-8)
- 3. INSTALL RADIATOR RESERVOIR TANK (See page CO-21)
- 4. INSTALL FRONT SUSPENSION MEMBER REINFORCEMENT RH (See page EM-9)
- 5. INSTALL ENGINE UNDER COVER REAR RH (See page EM-41)
- 6. INSTALL FRONT WHEEL RH
- 7. INSTALL RADIATOR ASSEMBLY
  - (a) Install the radiator (see page CO-40).

