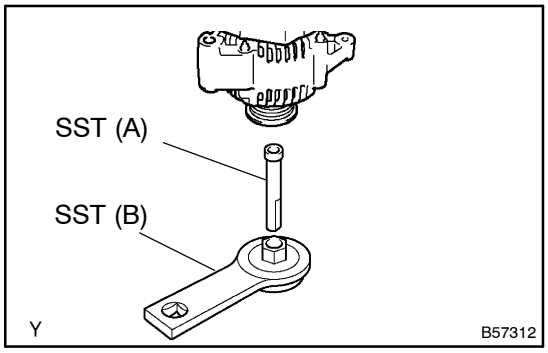
190IC–01

OVERHAUL

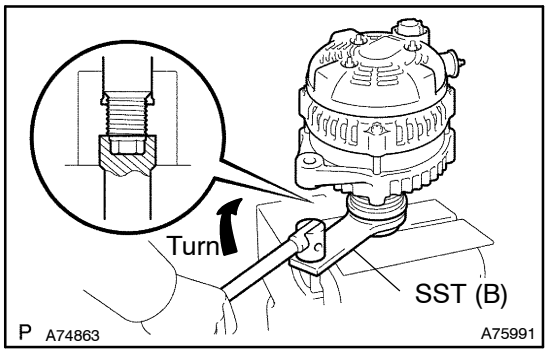


1. REMOVE GENERATOR PULLEY

(a) Remove the generator pulley cap.

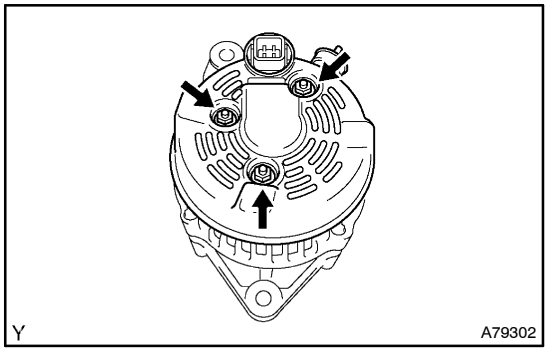
(b) Install SST to the pulley and vise as shown in the illustration.

(c) Mount SST (A) in a vise.
SST 09820–63020



(d) Turn SST (B) clockwise, loosen the pulley.
SST 09820–63020

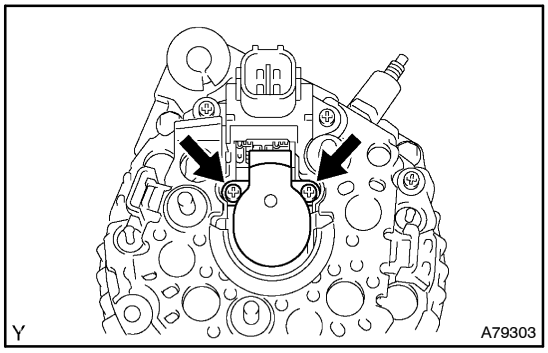
(e) Remove the pulley.



2. REMOVE GENERATOR REAR END COVER

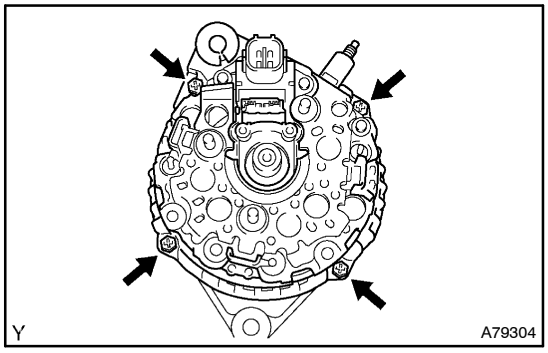
(a) Remove the 3 nuts and end cover.

(b) Remove the terminal insulator.



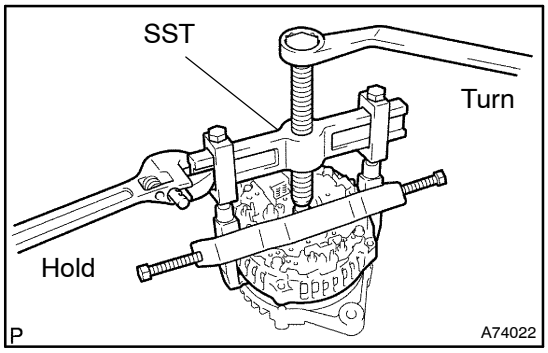
3. REMOVE GENERATOR BRUSH HOLDER ASSY

(a) Remove the 2 screws and brush holder.



4. REMOVE GENERATOR COIL ASSY

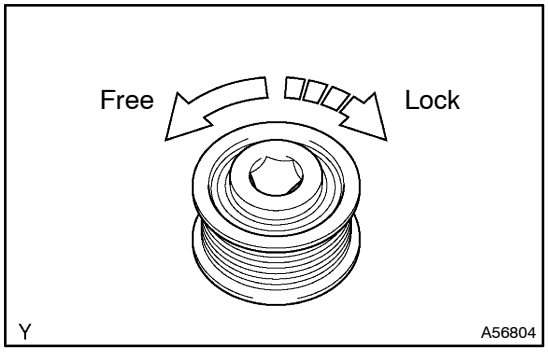
(a) Remove the 4 bolts.



(b) Using SST, remove the coil assembly.
SST 09950–40011 (09951–04020, 09952–04010, 09953–04020, 09954–04010, 09955–04071, 09957–04010, 09958–04011)

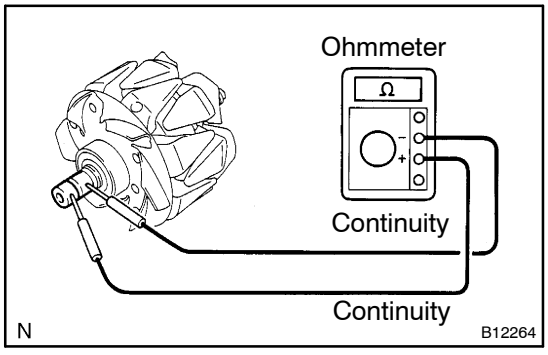
(c) Remove the generator washer.

5. REMOVE GENERATOR ROTOR ASSY



6. INSPECT GENERATOR PULLEY

(a) When rotating the pulley, check that it turns clockwise and it does not turn counterclockwise.



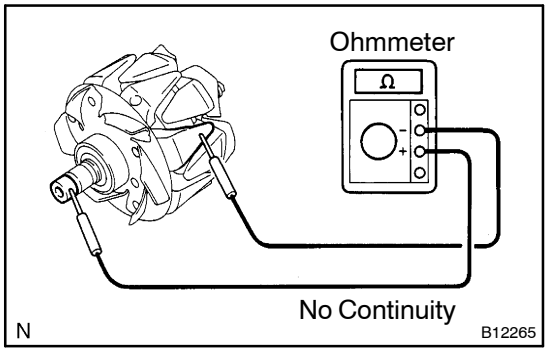
7. INSPECT GENERATOR ROTOR ASSY

(a) Check the rotor for open circuit.

(1) Using an ohmmeter, check that there is continuity between the slip rings.

Standard resistance: 2.3 – 2.7 Ω at 20°C (68°F)

If there is no continuity, replace the rotor assembly.

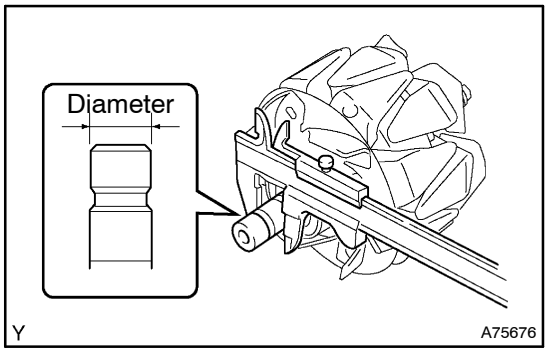


(b) Check the rotor for ground.
(1) Using an ohmmeter, check that there is no continuity between the slip ring and rotor.

If there is continuity, replace the rotor assembly.

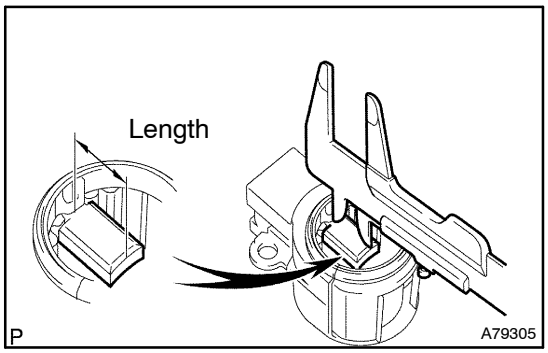
(c) Check that the slip rings are not rough or scored.

If rough or scored, replace the rotor assembly.



(d) Using vernier calipers, measure the slip ring diameter.
Standard diameter: 14.2 – 14.4 mm (0.559 – 0.567 in.)
Minimum diameter: 14.0 mm (0.551 in.)

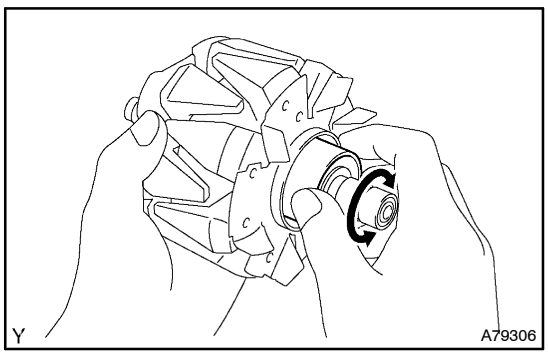
If the diameter is less than minimum, replace the rotor assembly.



8. INSPECT GENERATOR BRUSH HOLDER ASSY

(a) Using vernier caliper, measure the exposed brush length.
Standard exposed length: 10.5 mm (0.413 in.)
Minimum exposed length: 4.5 mm (0.177 in.)

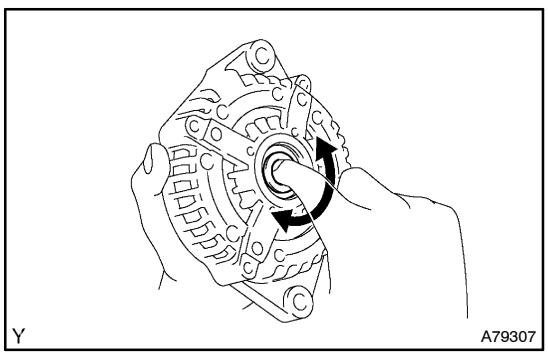
If the exposed length is less than minimum, replace the brushes and brush holder assembly.



9. INSPECT GENERATOR ROTOR BEARING

(a) Check the bearing is not rough or worn.

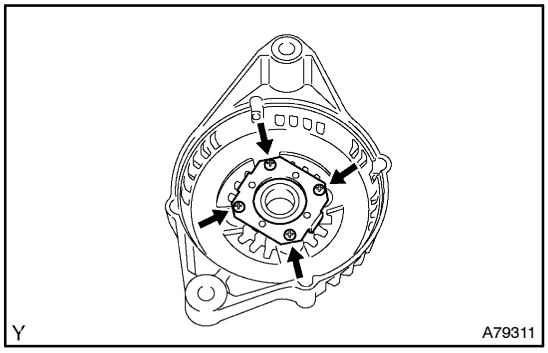
If necessary, replace the rotor assembly.



10. INSPECT GENERATOR DRIVE END FRAME BEARING

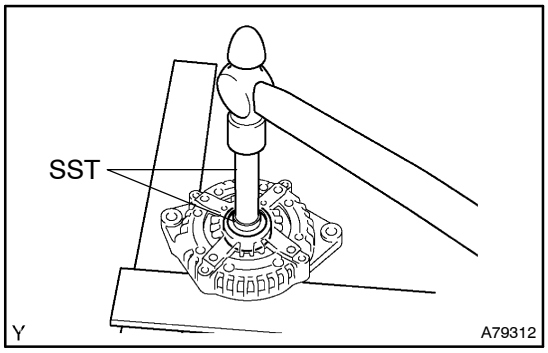
(a) Check the bearing is not rough or worn.

If necessary, replace the bearing.

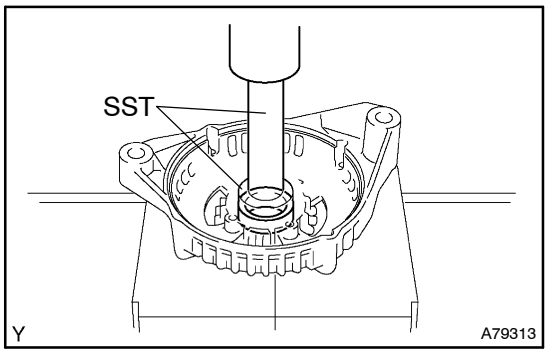


11. REMOVE GENERATOR DRIVE END FRAME BEARING

(a) Remove the 4 screws and retainer plate.



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



12. INSTALL GENERATOR DRIVE END FRAME BEARING

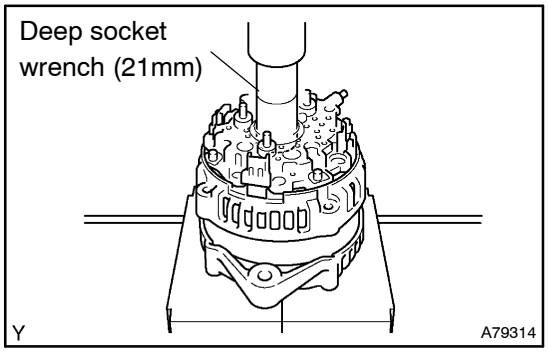
(a) Using SST and a press, press in a new bearing.
SST 09950–60010 (09951–00470), 09950–70010 (09951–07100)

(b) Install the retainer plate with the 4 screws.
Torque: 2.26 N·m (23 kgf·cm, 20 in.·lbf)

13. INSTALL GENERATOR ROTOR ASSY

(a) Place the drive end frame on the rotor.

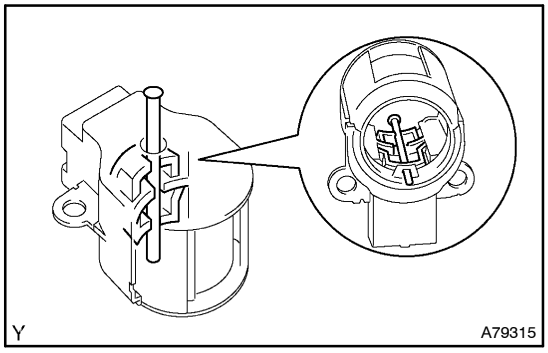
(b) Install the rotor and washer.



14. INSTALL GENERATOR COIL ASSY

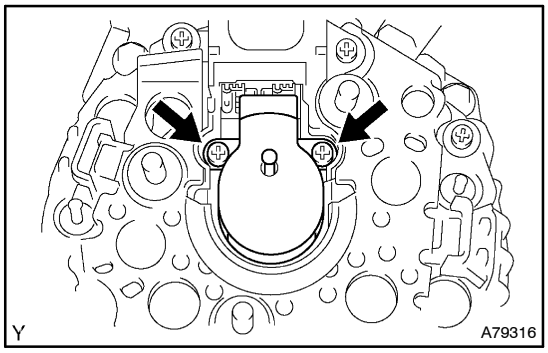
(a) Using deep socket wrench (21mm) and a press, slowly press in the coil carefully.

(b) Install the 4 bolts.
Torque: 5.8 N·m (59 kgf·cm, 51 in.·lbf)



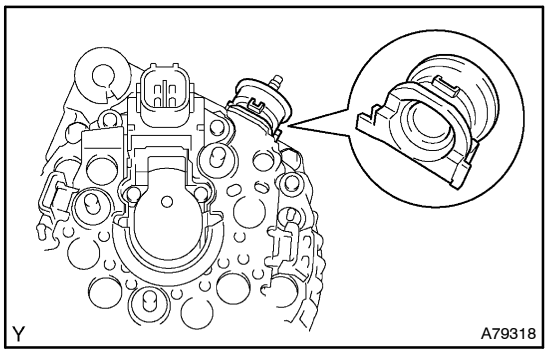
15. INSTALL GENERATOR BRUSH HOLDER ASSY

(a) While pushing the 2 brushes to inside the brush holder, insert a ϕ1.0 mm (0.039 in.) pin into the brush holder hole.



(b) Install the 2 screws and brush holder.
Torque: 1.8 N·m (18 kgf·cm, 16 in.·lbf)

(c) Pull out the pin from the brush holder.

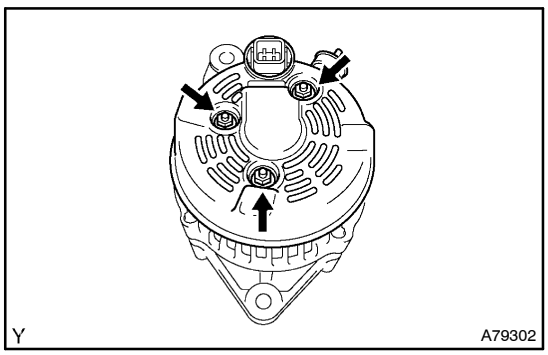


16. INSTALL GENERATOR REAR END COVER

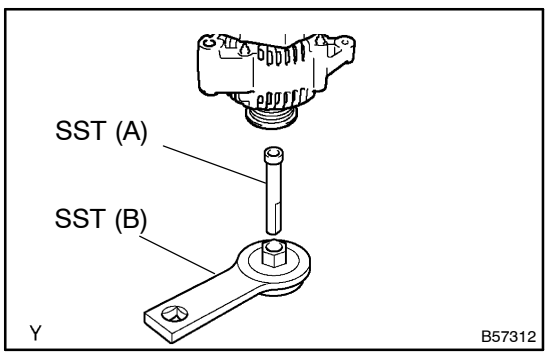
(a) Install the terminal insulator.

NOTICE:

Pay attention the mounting orientation of the terminal insulator.



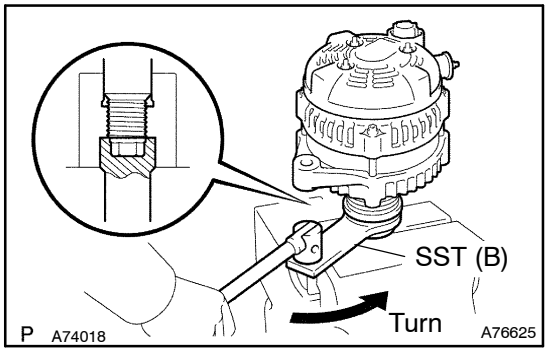
(b) Install the end cover with the 3 nuts.
Torque: 4.6 N·m (47 kgf·cm, 41 in.·lbf)



17. INSTALL GENERATOR PULLEY

(a) Install the pulley by hand.

(b) Install SST to the pulley and vise as shown in the illustration.
SST 09820–63020



(c) Turn SST (B) counterclockwise, tighten the pulley.
SST 09820–63020
Torque: 110.5 N·m (1,127 kgf·cm, 82 ft·lbf)

(d) Check that the generator pulley rotates smoothly.

(e) Install the generator pulley cap.