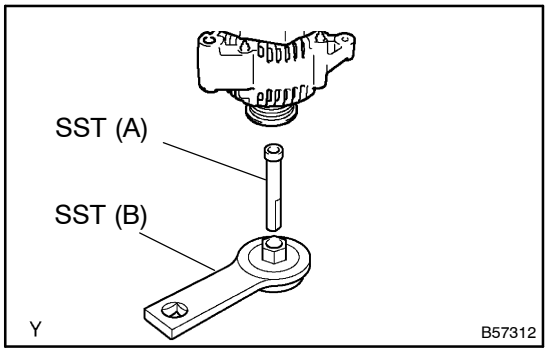
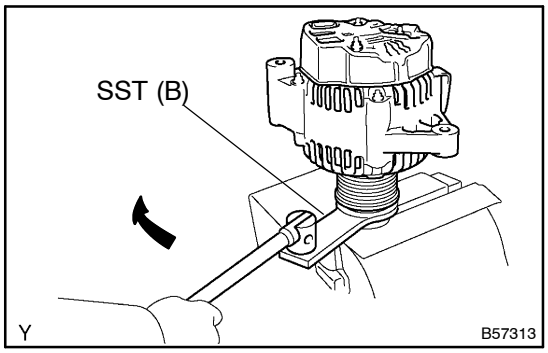
190IA–01

OVERHAUL

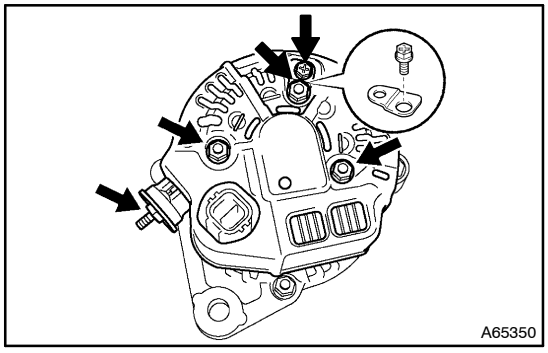


1. REMOVE GENERATOR W/CLUTCH PULLEY

(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

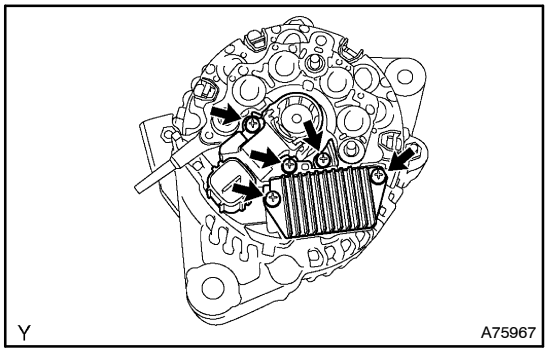


(d) Turn SST (B) clockwise, loosen the pulley.
(e) Remove the pulley.
SST 09820–63020



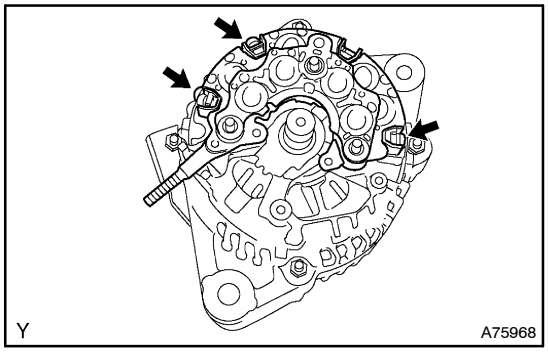
2. REMOVE REAR END COVER

(a) Remove the nut and terminal insulator.
(b) Remove the bolt and terminal plate.
(c) Remove the 3 nuts and end cover.



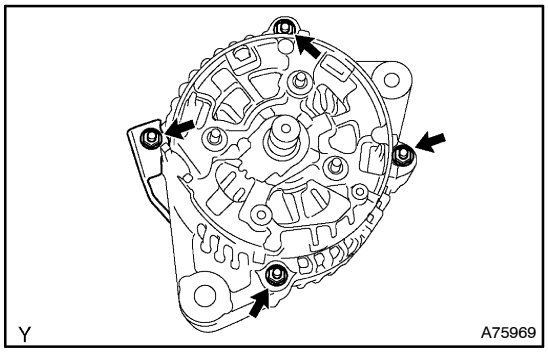
3. REMOVE GENERATOR BRUSH HOLDER AND GENERATOR REGULATOR

(a) Remove the 2 screws, brush holder and cover.
(b) Remove the brush holder cover from the brush holder.
(c) Remove the 3 screws and regulator.



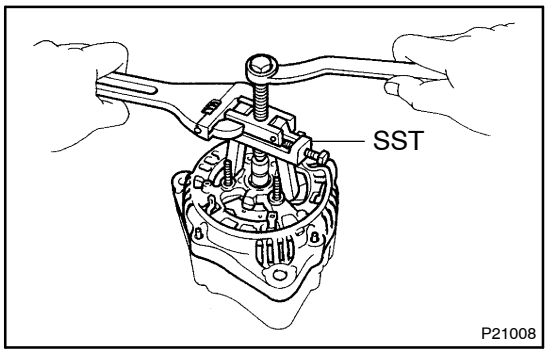
4. REMOVE GENERATOR HOLDER W/RECTIFIER

(a) Remove the 3 screws and rectifier holder.
(b) Remove the seal plate.
(c) Remove the 3 rubber insulators.



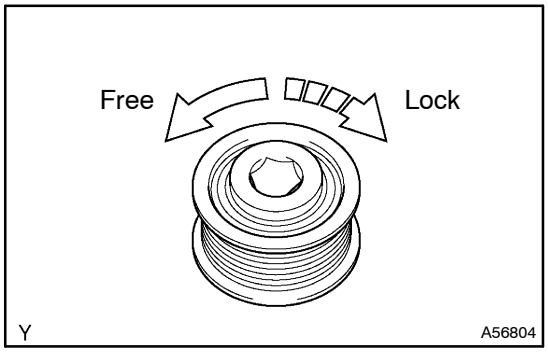
5. REMOVE RECTIFIER END FRAME

(a) Remove the 4 nuts from the rectifier end frame.



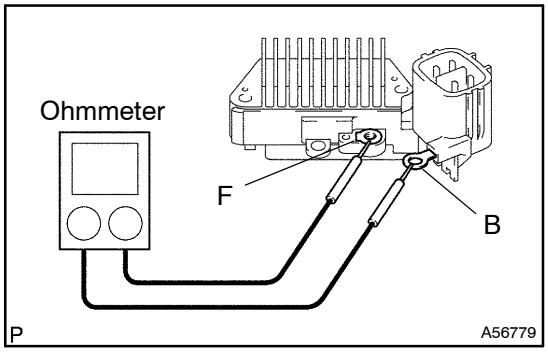
(b) Using SST, remove the rectifier end frame.
SST 09286–46011
(c) Remove the generator washer from the rotor.

6. REMOVE GENERATOR ROTOR ASSY



7. INSPECT GENERATOR W/CLUTCH PULLEY

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



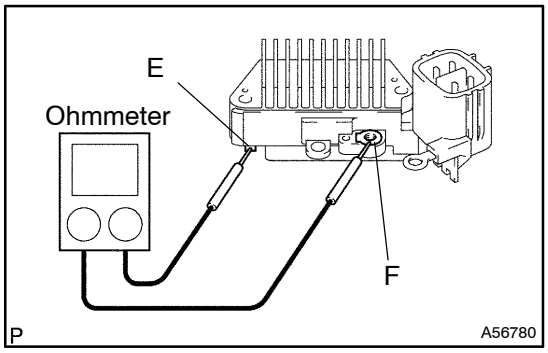
8. INSPECT GENERATOR REGULATOR ASSY

(a) Using an ohmmeter, check the continuity between terminals F and B.

Standard:

When the positive and negative poles between terminals F and B are exchanged, there is continuity in one way but no continuity in another way.

If the continuity is not as specified, replace the regulator.

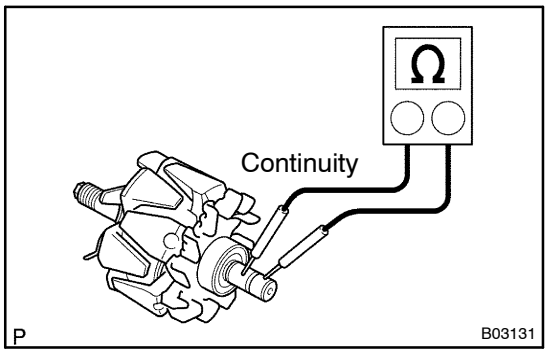


(b) Using an ohmmeter, check the continuity between terminals F and E.

Standard:

When the positive and negative poles between terminals F and E are exchanged, there is continuity in one way but no continuity in another way.

If the continuity is not as specified, replace the regulator.



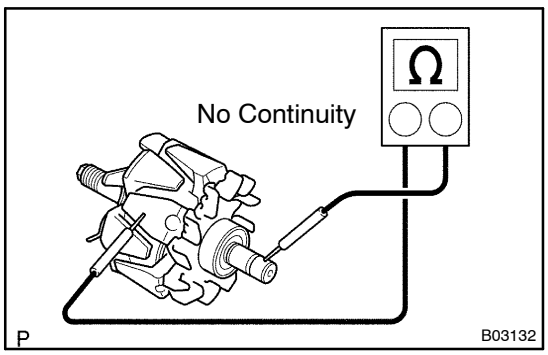
9. INSPECT GENERATOR ROTOR ASSY

(a) Check the rotor for open circuit.

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

Standard resistance: 1.7 – 2.1 Ω at 20°C (68°F)

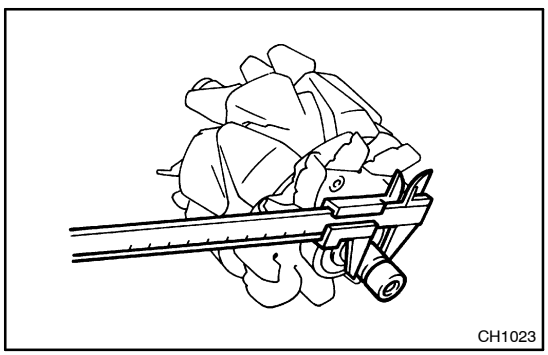
If there is no continuity, replace the rotor.



(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.



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

If rough or scored, replace the rotor.

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

Standard diameter: 14.2 – 14.4 mm (0.559 – 0.567 in.)

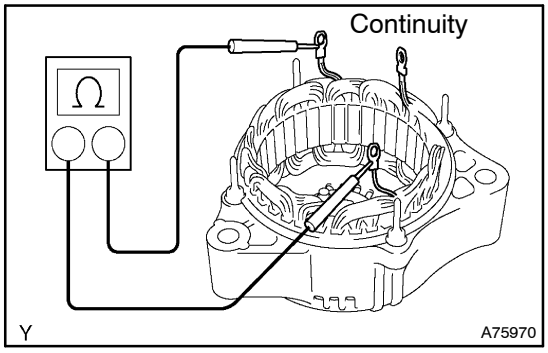
Minimum diameter: 12.8 mm (0.504 in.)

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

(e) Inspect the bearing.

(1) Inspect the bearing is not rough or worn.

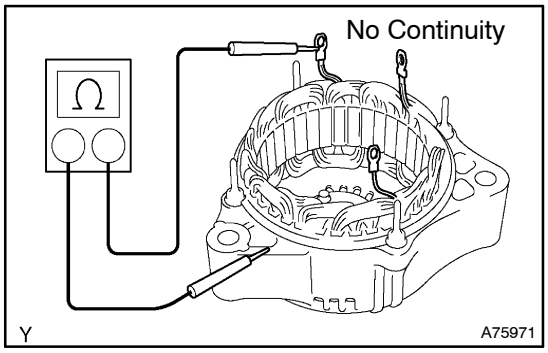
If necessary, replace the generator rotor.



10. INSPECT DRIVE END FRAME

(a) Check the stator for open circuit.
  (1) Using an ohmmeter, check that there is continuity between the coil leads.

If there is no continuity, replace the end frame.

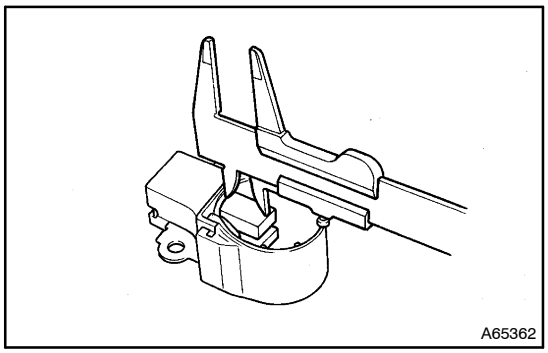


(b) Check the stator for ground.
  (1) Using an ohmmeter, check that there is no continuity between the coil lead and drive end frame.

If there is continuity, replace the end frame.

(c) Inspect the bearing.
  (1) Inspect the bearing is not rough or worn.

If necessary, replace the generator assy.

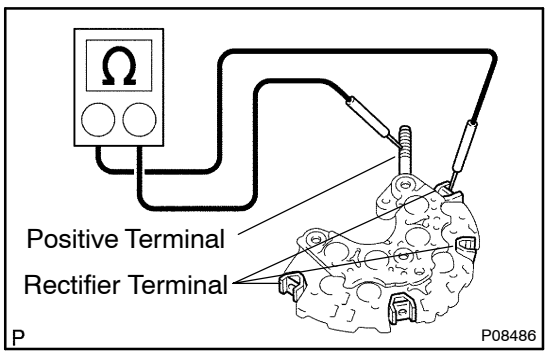


11. INSPECT GENERATOR BRUSH HOLDER ASSY

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

Standard exposed length:
9.5 – 11.5 mm (0.374 – 0.453 in.)
Minimum exposed length: 1.5 mm (0.059 in.)

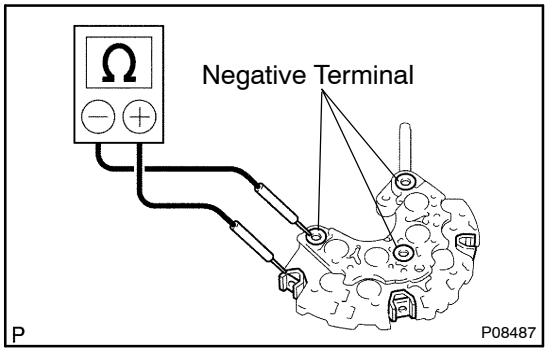
If the exposed length is less than the minimum, replace the brush.



12. INSPECT GENERATOR HOLDER W/RECTIFIER

(a) Check the positive (+) rectifire.
  (1) Using an ohmmeter, connect one tester probe to the positive (+) terminal and the other to each rectifier terminal.
  (2) Reverse the polarity of the tester probes and repeat step (1).
  (3) Check that one shows continuity and the other shows no continuity.

If the continuity is not as specified, replace the rectifier holder.



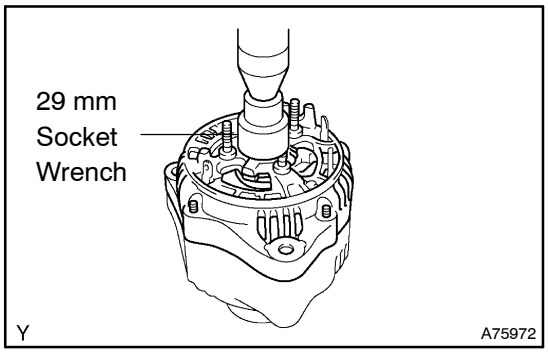
(b) Check the negative (–) rectifire.
(1) Using an ohmmeter, connect one tester probe to each negative (–) terminal and the other to each rectifier terminal.
(2) Reverse the polarity of the tester probes and repeat step (1).
(3) Check that one shows continuity and the other shows no continuity.

If the continuity is not as specified, replace the rectifier holder.

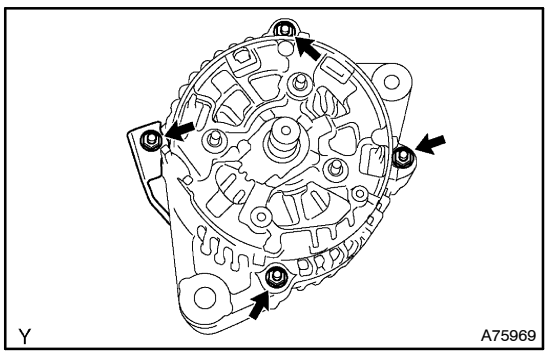
13. INSTALL GENERATOR ROTOR ASSY

14. INSTALL RECTIFIER END FRAME

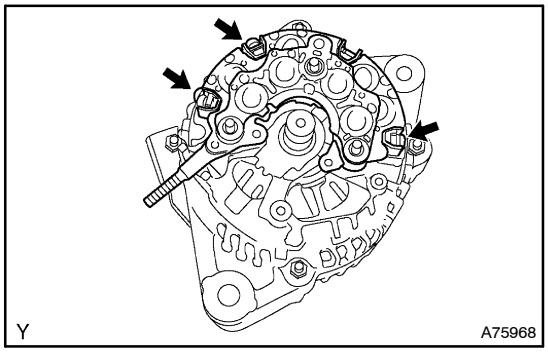
(a) Place the generator washer on the rotor.



(b) Using a 29 mm socket wrench and press, slowly press in the rectifier end frame.

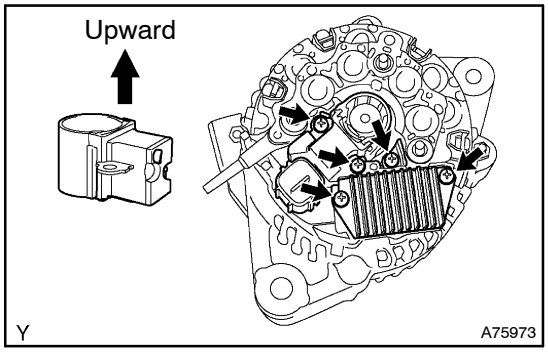


(c) Install the 4 nuts.
Torque: 4.5 N·m (46 kgf·cm, 40 in.·lbf)



15. INSTALL GENERATOR HOLDER W/RECTIFIER

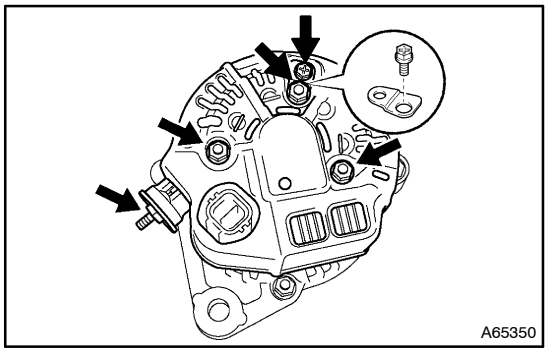
(a) Install the 3 rubber insulators.
(b) Install the seal plate.
(c) Install the rectifier holder with the 3 screws.
Torque: 2.0 N·m (20 kgf·cm, 17 in.·lbf)



16. INSTALL GENERATOR BRUSH HOLDER AND GENERATOR REGULATOR

(a) Install the regulator and 3 screws.
Torque: 2.0 N·m (20 kgf·cm, 17 in.·lbf)

(b) Install the brush holder and 2 screws.
Torque: 2.0 N·m (20 kgf·cm, 17 in.·lbf)



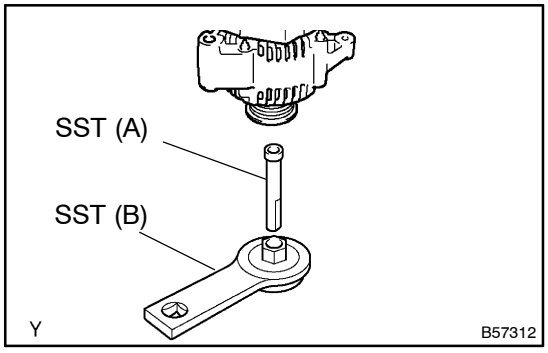
17. INSTALL REAR END COVER

(a) Install the end cover and terminal plate with the bolt and 3 nuts.
Torque:
4.4 N·m (45 kgf·cm, 39 in.·lbf) for nut
3.9 N·m (40 kgf·cm, 34 in.·lbf) for bolt

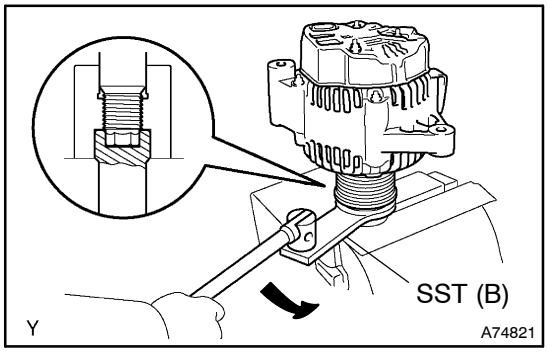
(b) Install the terminal insulator with the nut.
Torque: 4.1 N·m (42 kgf·cm, 36 in.·lbf)

18. INSTALL GENERATOR W/CLUTCH 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.
Torque: 111 N·m (1,125 kgf·cm, 81 ft·lbf)
SST 09820–63020

(d) Check that the generator pulley rotates smoothly.

(e) Install the generator pulley cap.