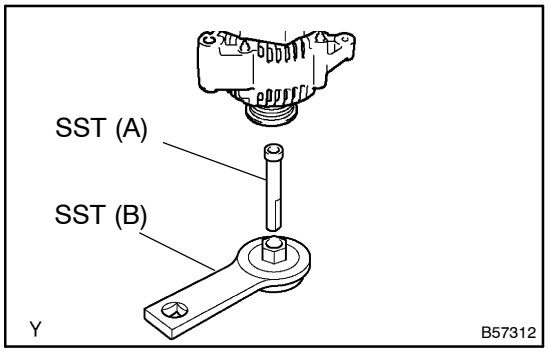
1912K–03

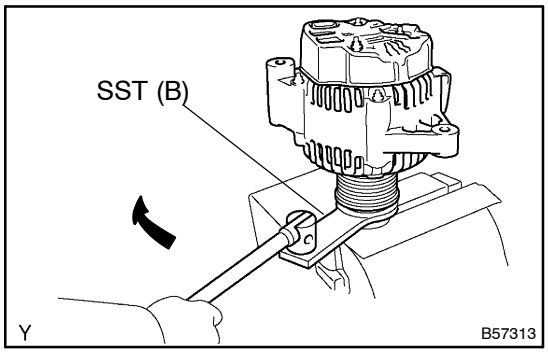
OVERHAUL



1. REMOVE GENERATOR W/CLUTCH PULLEY

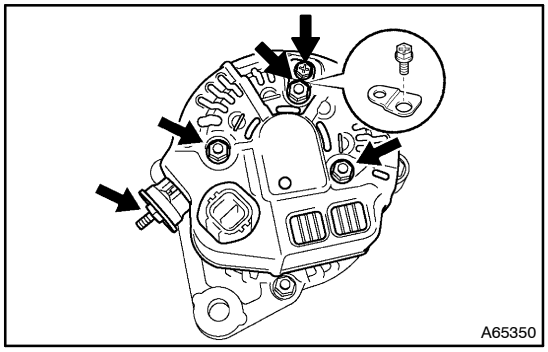
(a) Install SST (A and B) to the generator pulley.

(b) Secure SST (A) in a vise.
SST 09820–63020



(c) Turn SST (B) clockwise, and loosen the generator pulley.
SST 09820–63020

(d) Remove the generator pulley.

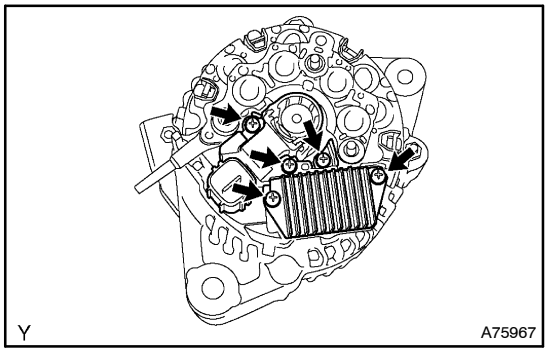


2. REMOVE REAR END COVER

(a) Remove the nut and terminal insulator.

(b) Remove the 3 nuts, bolt and terminal plate.

(c) Remove the rear end cover.

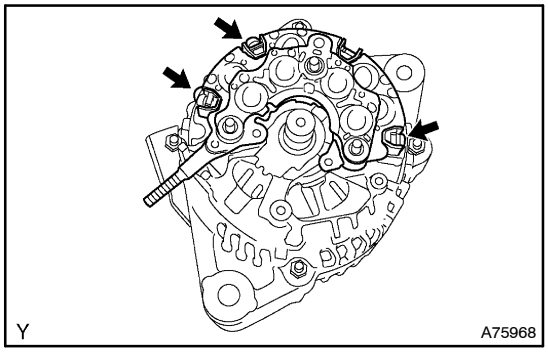


3. REMOVE GENERATOR REGULATOR ASSY

(a) Remove the 2 screws, generator brush holder assy and brush holder cover.

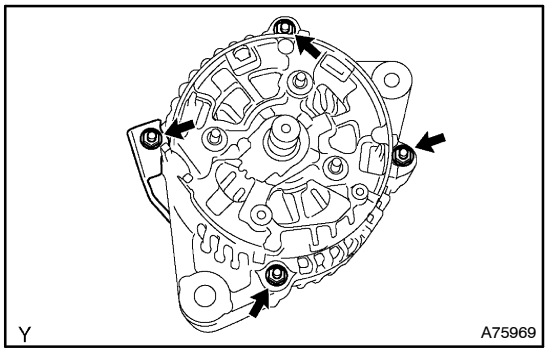
(b) Remove the brush holder cover from the generator brush holder.

(c) Remove the 3 screws and generator regulator assy.



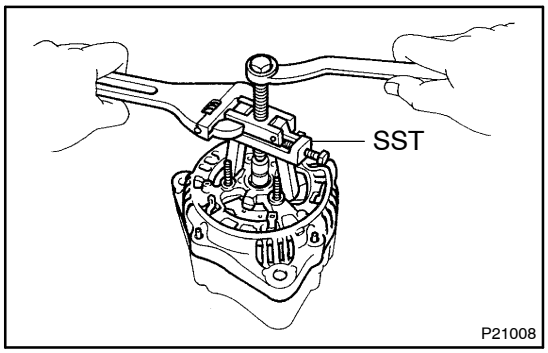
4. REMOVE GENERATOR HOLDER W/RECTIFIER

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



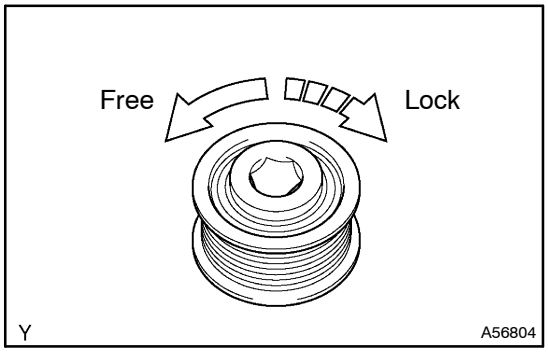
5. REMOVE RECTIFIER END FRAME

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



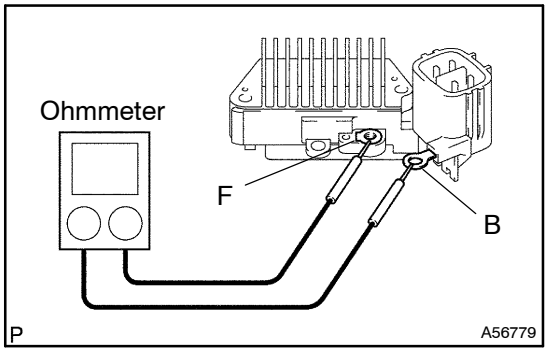
(b) Using SST, remove the rectifier end frame.
SST 09286–46011
(c) Remove the generator washer from the rotor.

6. REMOVE GENERATOR ROTOR ASSY



7. INSPECT GENERATOR W/CLUTCH PULLEY

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



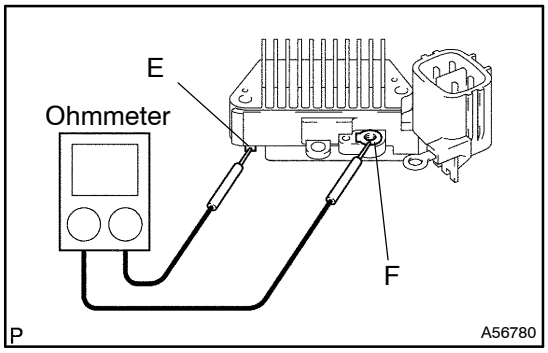
8. INSPECT GENERATOR REGULATOR ASSY

(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 generator regulator assy.

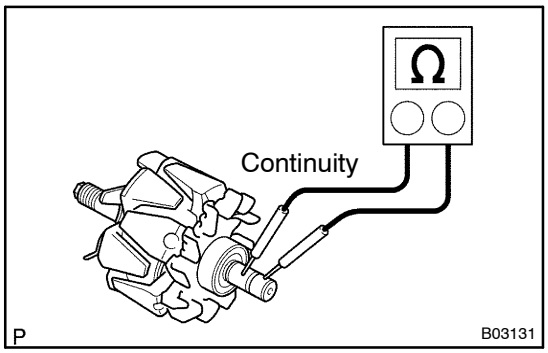


(b) Using an ohmmeter, check the continuity between terminals F and E.

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 generator regulator assy.



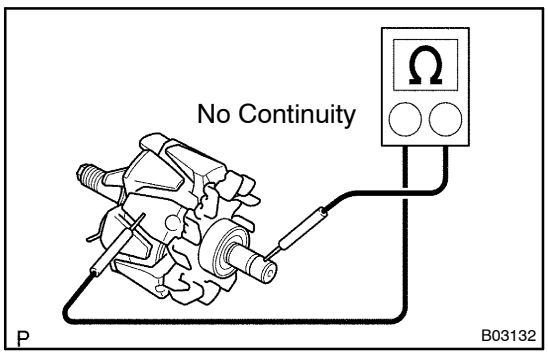
9. INSPECT GENERATOR ROTOR ASSY

(a) Check the generator rotor for open circuit.

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

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

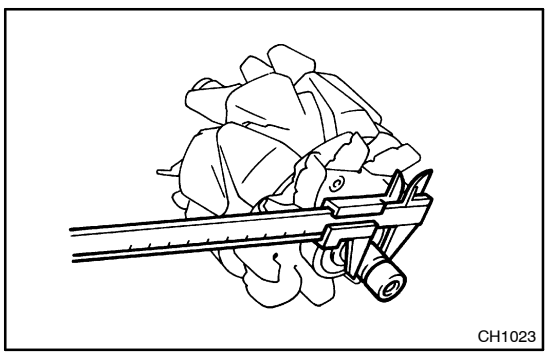
If there is no continuity, replace the generator rotor assy.



(b) Check the generator rotor for ground.

(1) Using an ohmmeter, check that there is no continuity between the slip ring and generator rotor assy.

If there is continuity, replace the generator rotor assy.



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

If rough or scored, replace the grnerator rotor assy.

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

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

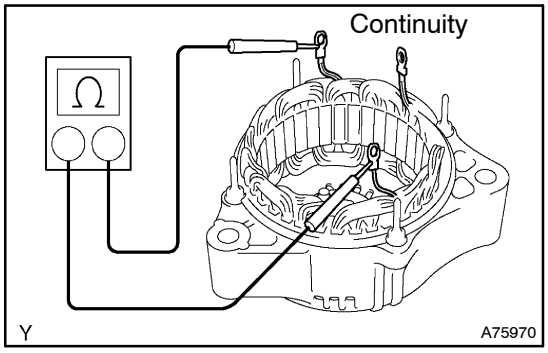
Minimum diameter: 12.8 mm (0.504 in.)

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

(e) Inspect the bearing.

(1) Check that the bearing is not rough or worn.

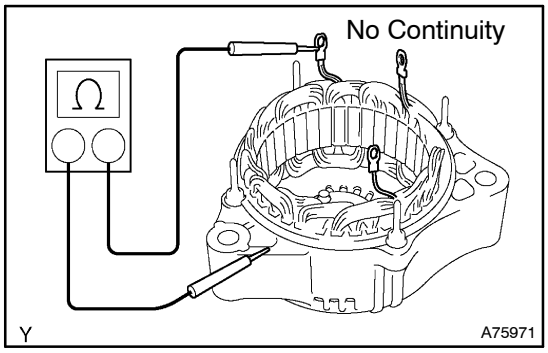
If necessary, replace the generator rotor assy.



10. INSPECT DRIVE END FRAME

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

If there is no continuity, replace the drive end frame.

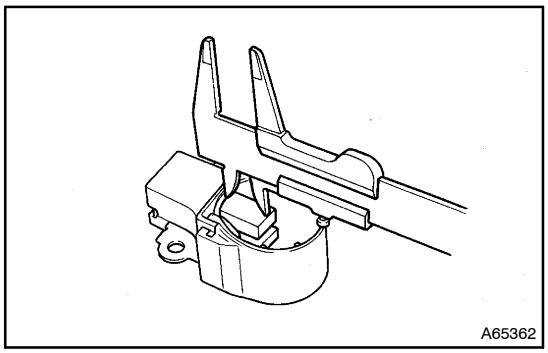


(b) Check the drive end frame for ground.
  (1) Using an ohmmeter, check that there is no continuity between the coil lead and drive end frame.

If there is continuity, replace the drive end frame.

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

If necessary, replace the drive end frame.

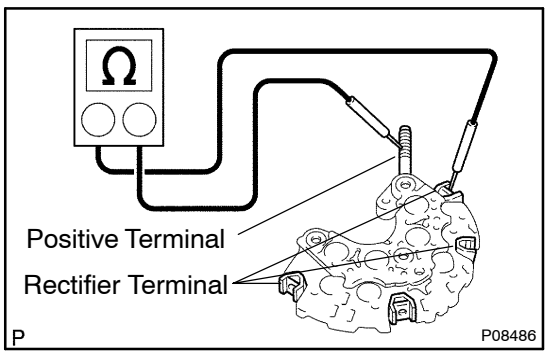


11. INSPECT GENERATOR BRUSH HOLDER ASSY

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

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

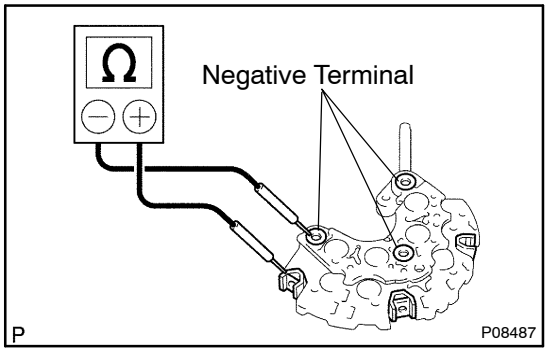
If the exposed length is less than the minimum, replace the brush holder assy.



12. INSPECT GENERATOR HOLDER W/RECTIFIER

(a) Check the positive (+) rectifier.
  (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 generator rectifier holder.



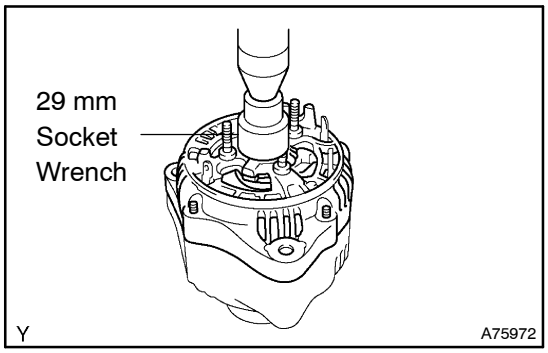
(b) Check the negative (–) rectifier.
(1) Using an ohmmeter, connect one tester probe to each negative (–) terminal and the other to each rectifier terminal.
(2) Reverse the polarity of the tester probes and repeat step (1).
(3) Check that one shows continuity and the other shows no continuity.

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

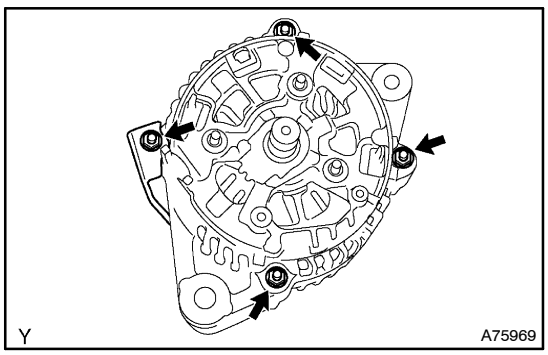
13. INSTALL GENERATOR ROTOR ASSY

14. INSTALL RECTIFIER END FRAME

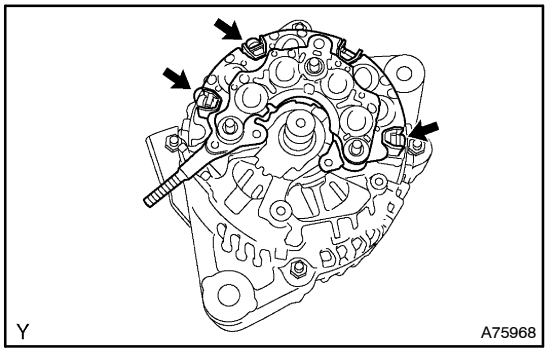
(a) Place the generator washer on the generator rotor.



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

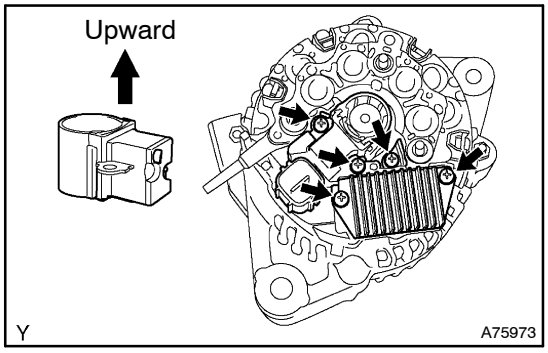


(c) Install the 4 nuts.
Torque: 4.5 N·m (46 kgf·cm, 40 in.·lbf)



15. INSTALL GENERATOR HOLDER W/RECTIFIER

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

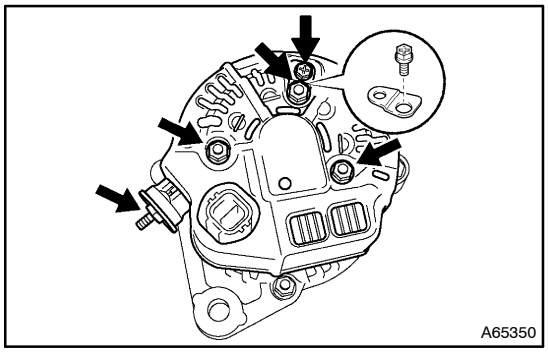


16. INSTALL GENERATOR REGULATOR ASSY

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

(b) Install the brush holder cover to the generator brush holder assy.

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



17. INSTALL REAR END COVER

(a) Install the rear 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

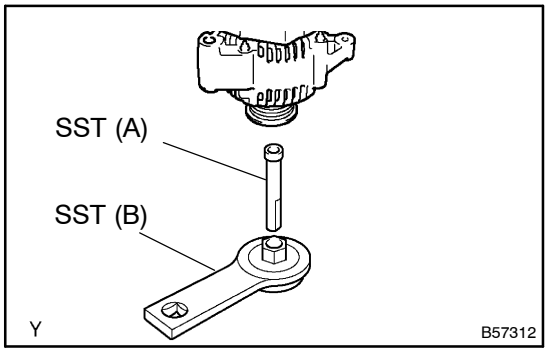
(b) Install the terminal insulator with the nut.
Torque: 4.1 N·m (42 kgf·cm, 36 in.·lbf)

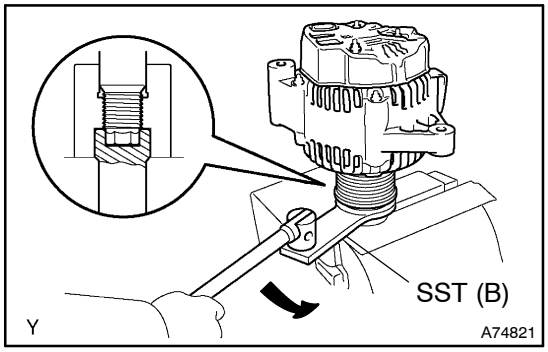
18. INSTALL GENERATOR W/CLUTCH PULLEY

(a) Install the generator pulley by hand.

(b) Install SST (A and B) to the generator pulley.

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





(d) Turn SST (B) counterclockwise, and tighten the generator pulley.
SST 09820–63020
Torque: 111 N·m (1,127 kgf·cm, 82 ft·lbf)

(e) Check that the generator pulley rotates smoothly.