

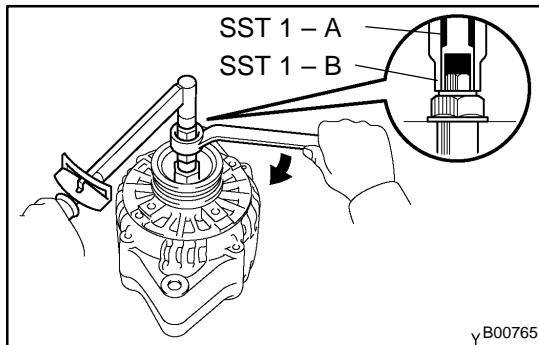
OVERHAUL

1. REMOVE GENERATOR PULLEY

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

HINT:

SST1 - A, B	09820-06010
SST2	09820-06020

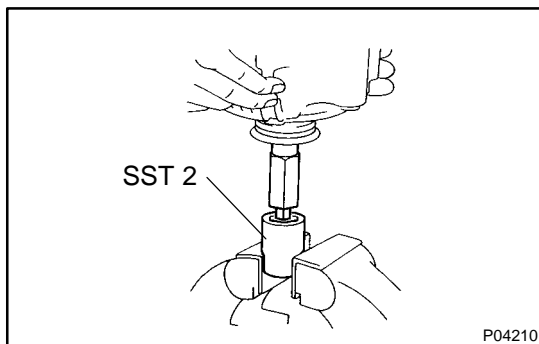


- (a) Hold SST 1 - A with a torque wrench, and tighten SST 1 - B clockwise to the specified torque.

Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

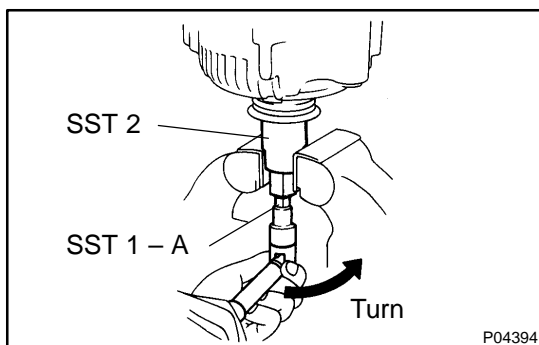
NOTICE:

Check that SST is secured to the rotor shaft.



- (b) Clamp SST 2 in a vise.

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

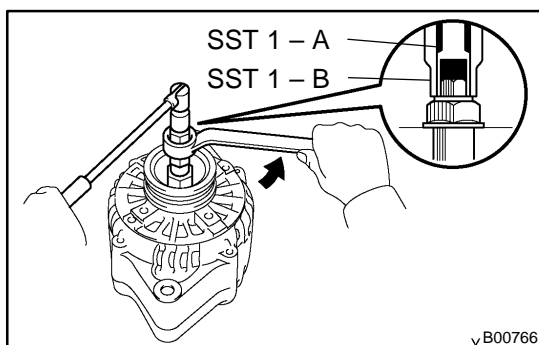


- (d) To loosen the pulley nut, turn SST 1 - A to the direction shown in the illustration.

NOTICE:

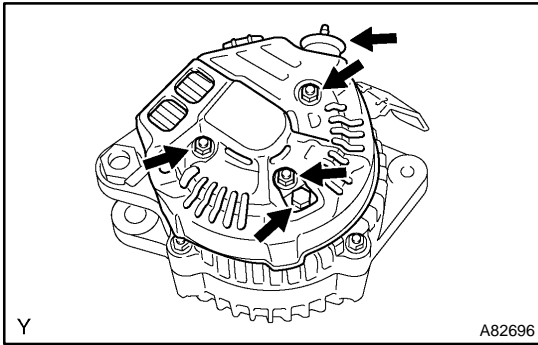
To prevent damage to the rotor shaft, do not loosen the pulley nut more than a half turn.

- (e) Remove the generator from SST 2.



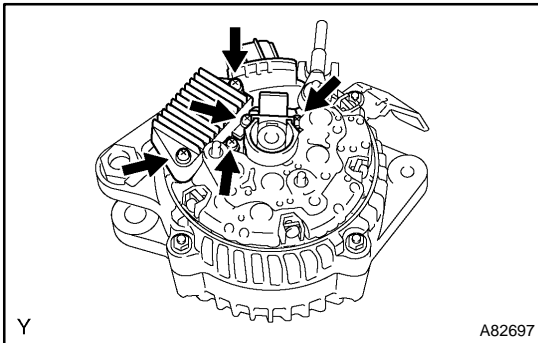
- (f) Turn SST 1 - B, and remove SST 1 - A and B.

- (g) Remove the pulley nut and pulley.



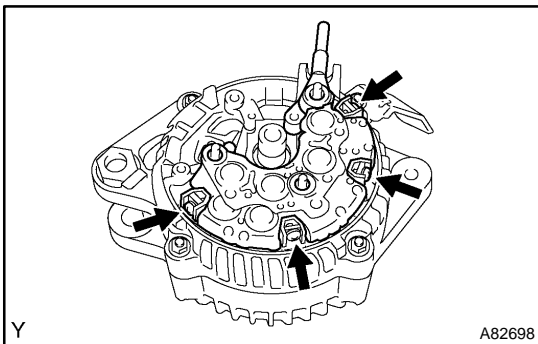
2. REMOVE REAR END COVER

- (a) Remove the nut and terminal insulator.
- (b) Remove the bolt, 3 nuts and plate terminal, and then remove the end cover.



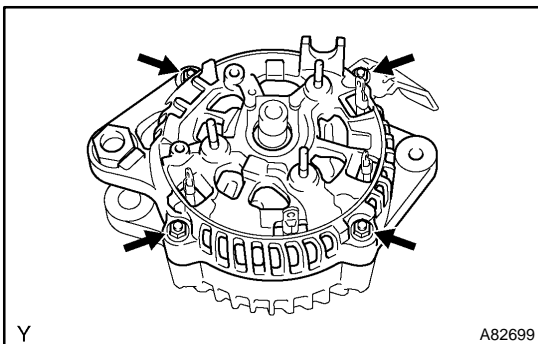
3. REMOVE GENERATOR BRUSH HOLDER AND GENERATOR REGULATOR

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



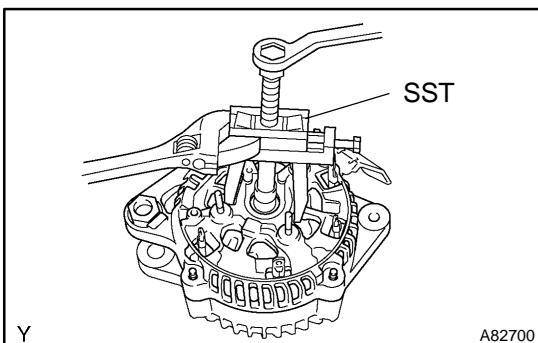
4. REMOVE GENERATOR HOLDER W/RECTIFIER

- (a) Remove the 4 screws and holder w/ rectifier.



5. REMOVE GENERATOR RECTIFIER END FRAME

- (a) Remove the 4 rubber insulators.
- (b) Remove the seal plate.
- (c) Remove the 4 nuts and clip code.



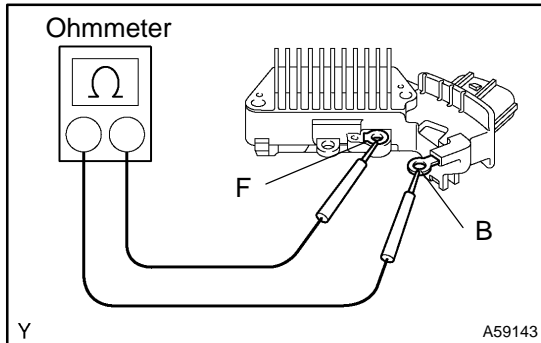
- (d) Using SST, remove the rectifier end frame.
SST 09286-46011

6. REMOVE GENERATOR ROTOR ASSY

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

NOTICE:

Do not drop the rotor.



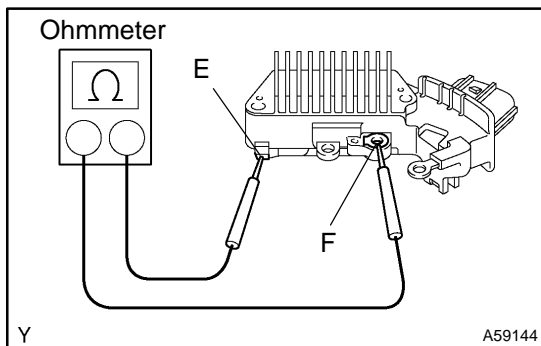
7. INSPECT GENERATOR REGULATOR ASSY

- (a) Using an ohmmeter, check for 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.

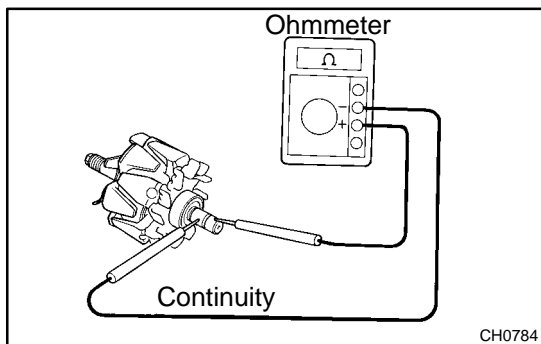


- (b) Using an ohmmeter, check for continuity between terminals F and E.

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.

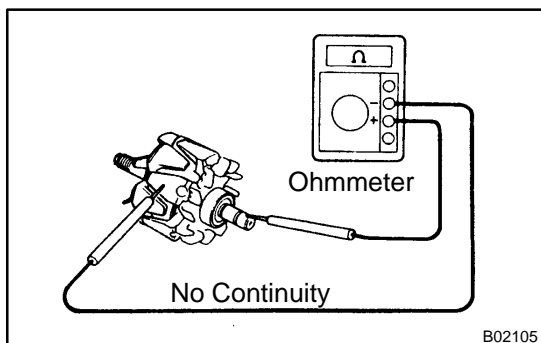


8. INSPECT GENERATOR ROTOR ASSY

- (a) Inspect rotor for open circuit.
 - (1) Using an ohmmeter, check that there is continuity between the slip rings.

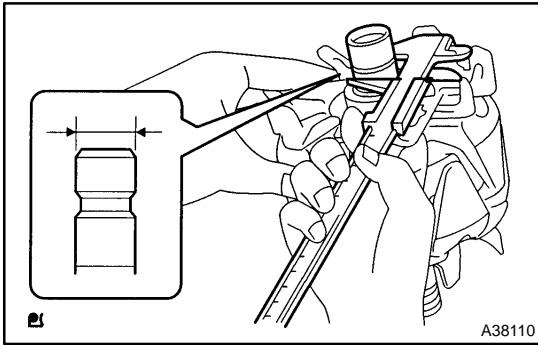
Standard resistance: 2.1 to 2.5 Ω at 20 °C (68 °F)

If there is no continuity, replace the rotor.



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

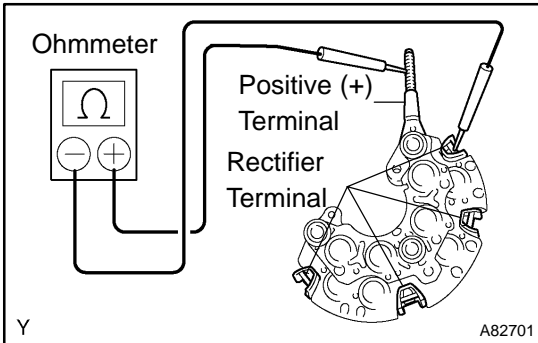
Standard diameter: 14.2 to 14.4 mm (0.559 to 0.567 in.)

Minimum diameter: 12.8 mm (0.504 in.)

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

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

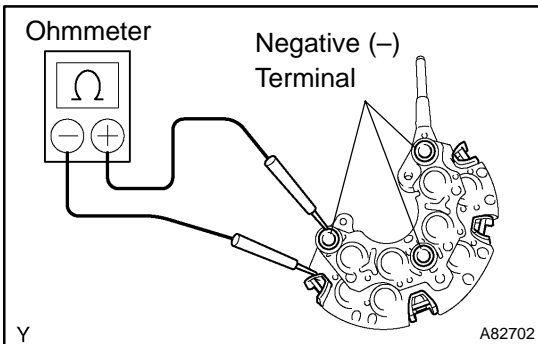
If necessary, replace the generator rotor.



9. INSPECT GENERATOR HOLDER W/RECTIFIER

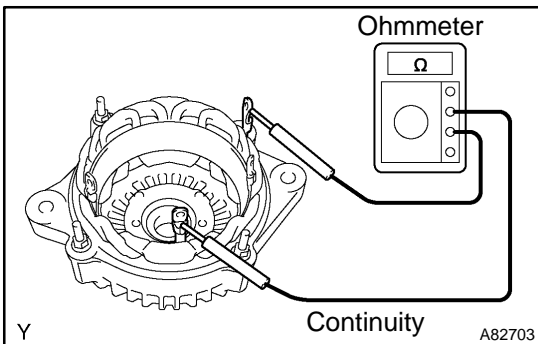
- (a) Inspect the positive (+) rectifier.
 - (1) Using an ohmmeter, connect one tester probe to the positive (+) terminal and the other to each rectifier terminal.
 - (2) Reverse the polarity of the tester probes and repeat step (1).
 - (3) Check that one shows continuity and the other shows no continuity.

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



- (b) Inspect 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.

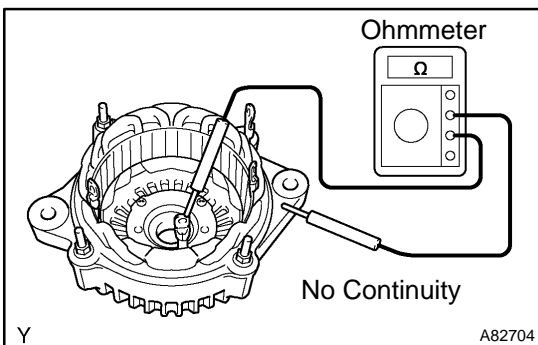
If continuity is not as specified, replace the rectifier holder.



10. INSPECT STATOR COIL

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

If there is no continuity, replace the generator assy.

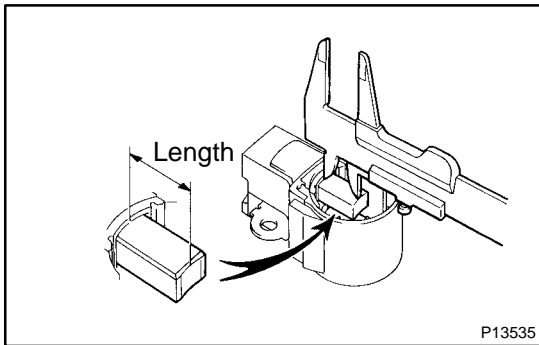


- (b) Inspect the stator for ground.
 - (1) Using an ohmmeter, check that there is no continuity between the coil lead and drive end frame.

If there is continuity, replace the drive end frame.

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

If necessary, replace the generator assy.

**11. INSPECT BRUSH**

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

Standard exposed length:

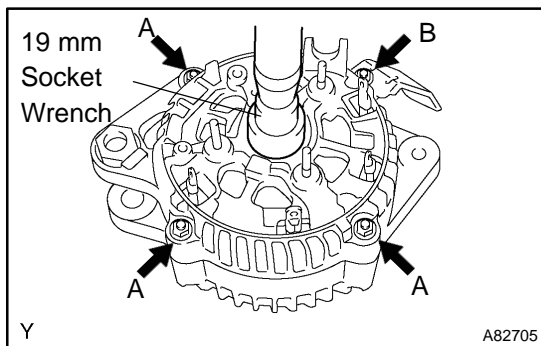
9.5 to 11.5 mm (0.374 to 0.453 in.)

Minimum exposed length: 4.5 mm (0.177 in.)

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

12. INSTALL GENERATOR ROTOR ASSY

- (a) Install the generator rotor.
 (b) Install the generator washer to the rotor.

**13. INSTALL GENERATOR RECTIFIER END FRAME**

- (a) Using a 19 mm socket wrench and press, slowly press in the rectifier end frame.

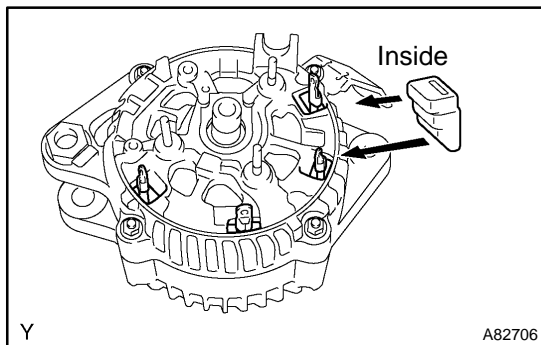
- (b) Install the 4 nuts and clip code.

Torque:

4.5 N·m (46 kgf·cm, 40 in·lbf) for nut A

5.4 N·m (55 kgf·cm, 48 in·lbf) for nut B

- (c) Install the seal plate on the rectifier end frame.



- (d) Install the 4 rubber insulator on the lead wires.

NOTICE:

Be careful of the rubber insulator installation direction.

14. INSTALL GENERATOR HOLDER W/RECTIFIER

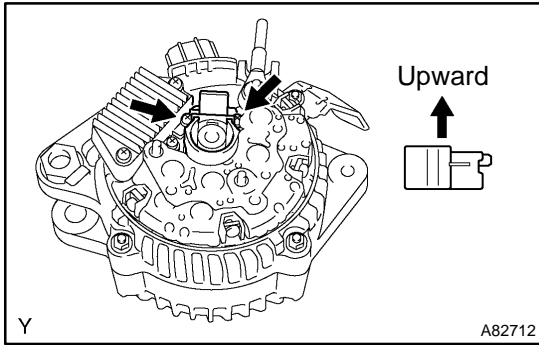
- (a) Install the rectifier holder while pushing it with the 4 screws.

Torque: 2.9 N·m (30 kgf·cm, 26 in·lbf)

15. INSTALL GENERATOR REGULATOR ASSY

- (a) Install the 3 screws and generator regulator.

Torque: 2.0 N·m (20 kgf·cm, 18 in·lbf)



16. INSTALL GENERATOR BRUSH HOLDER ASSY

- (a) Install the 2 screws and brush holder.
Torque: 2.0 N·m (20 kgf·cm, 18 in·lbf)

NOTICE:

Be careful of the holder installation direction.

- (b) Install the brush cover.

17. INSTALL REAR END COVER

- (a) Install the end cover and plate terminal with the bolt and 3 nuts.

Torque:

3.9 N·m (40 kgf·cm, 34 in·lbf) for bolt

4.4 N·m (45 kgf·cm, 39 in·lbf) for nut

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

Torque: 3.6 N·m (37 kgf·cm, 32 in·lbf)

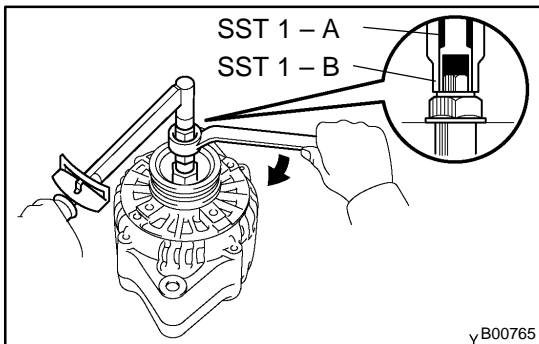
18. INSTALL GENERATOR PULLEY

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

HINT:

SST1 - A, B	09820-06010
SST2	09820-06020

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

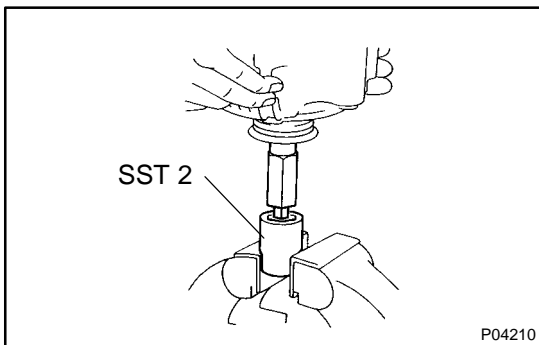


- (b) Hold SST 1 - A with a torque wrench, and tighten SST 1 - B clockwise to the specified torque.

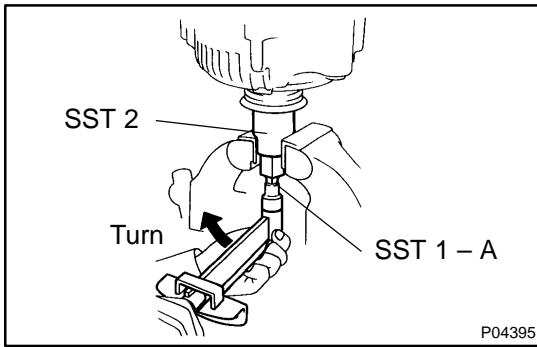
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

NOTICE:

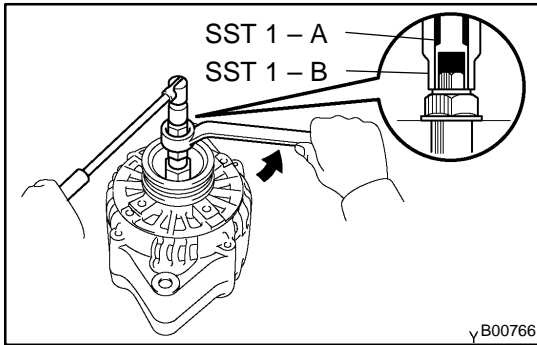
Check that SST is secured to the pulley shaft.



- (c) Clamp SST 2 in a vise.
- (d) Insert SST 1 - A and B into SST 2, and attach the pulley nut to SST 2.



- (e) Tighten the pulley nut, turn SST 1 – A to the direction shown in the illustration.
Torque: 111 N·m (1,125 kgf·cm, 81 ft·lbf)
- (f) Remove the generator from SST 2.



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