

GENERATOR ASSY (1AZ-FE)

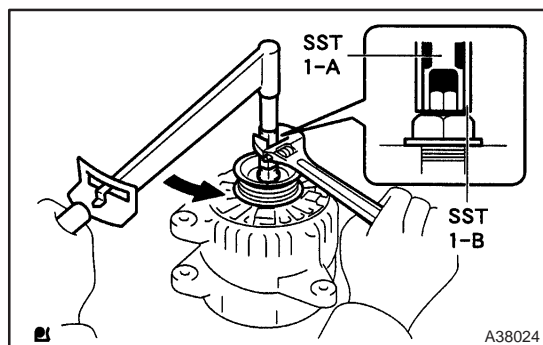
OVERHAUL

1906M-01

1. REMOVE GENERATOR PULLEY

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

SST 1 – A, B	09820-06010
SST 2	09820-06020

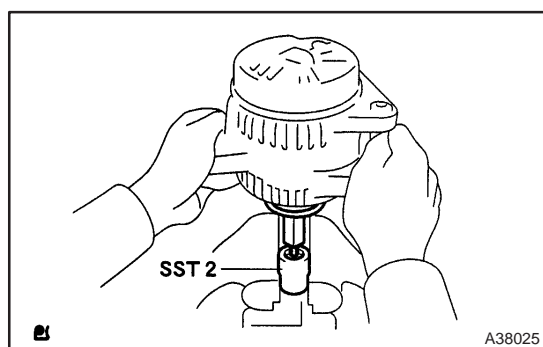


- (a) Hold SST 1 – A with a torque wrench, and tighten SST 1 – B clockwise to the specified torque.

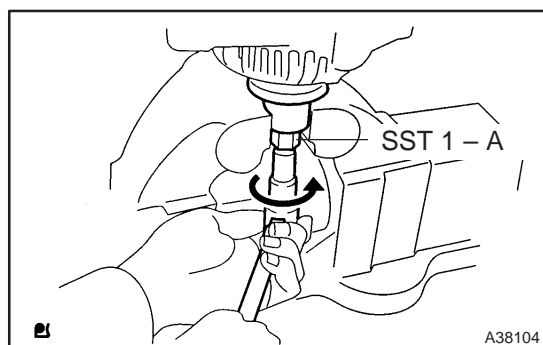
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

NOTICE:

Check that SST is secured to the rotor shaft.



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

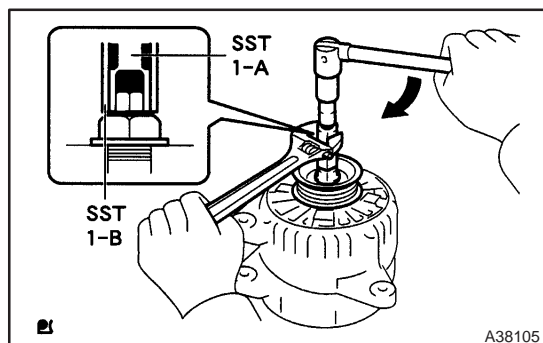


- (d) To loosen the pulley nut, turn SST 1 – A in the direction shown in the illustration.

NOTICE:

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

- (e) Remove the alternator from SST 2.



- (f) Turn SST 1 – B, and remove SST 1 – A, B.
 (g) Remove the pulley nut and pulley.

2. REMOVE GENERATOR BRUSH HOLDER ASSY

- (a) Remove the nut and terminal insulator.
- (b) Remove the bolt, 3 nuts, plate terminal and end cover.
- (c) Remove the brush cover.
- (d) Remove the 2 screws and brush holder.

3. REMOVE GENERATOR REGULATOR ASSY

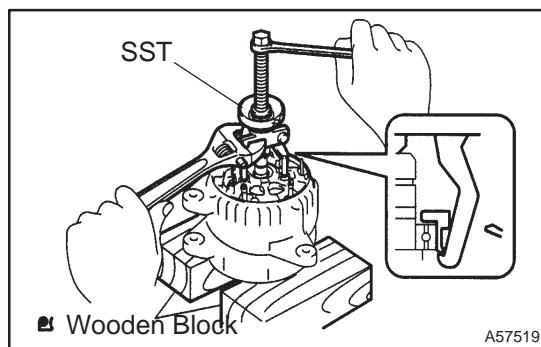
- (a) Remove the 3 screws and voltage regulator.

4. REMOVE GENERATOR HOLDER W/RECTIFIER

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

5. REMOVE ALTERNATOR RECTIFIER END FRAME

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



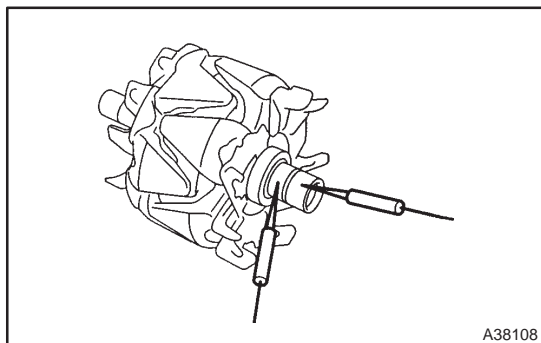
- (d) Using bearing puller set, remove the rectifier end frame.

6. REMOVE GENERATOR ROTOR ASSY

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

NOTICE:

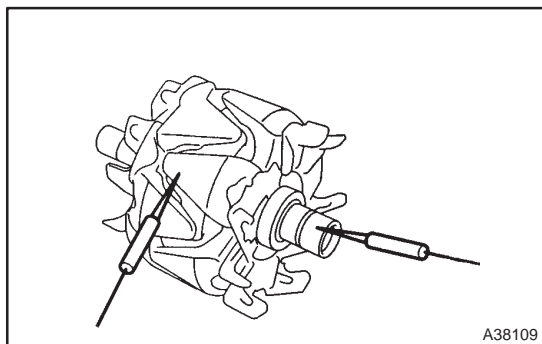
Do not drop the rotor.

**7. INSPECT GENERATOR ROTOR ASSY**

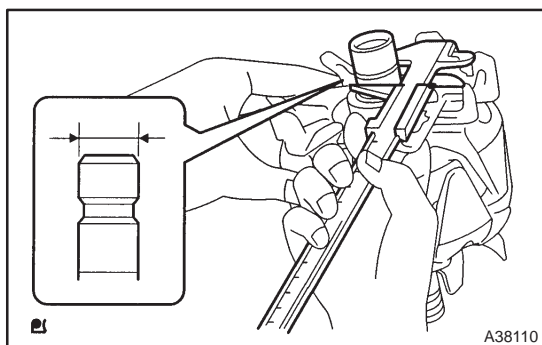
- (a) Inspect rotor for open circuit.
 - (1) Using an ohmmeter, check that there is continuity between the slip rings.

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

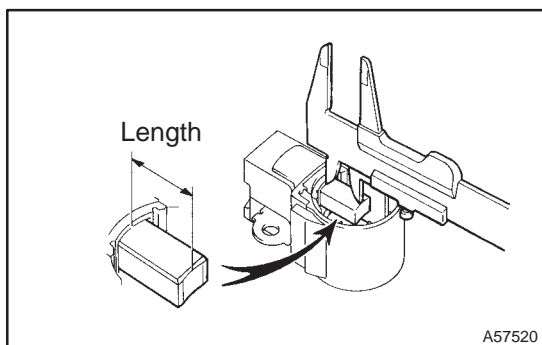
If there is no continuity, replace the rotor.



- (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.



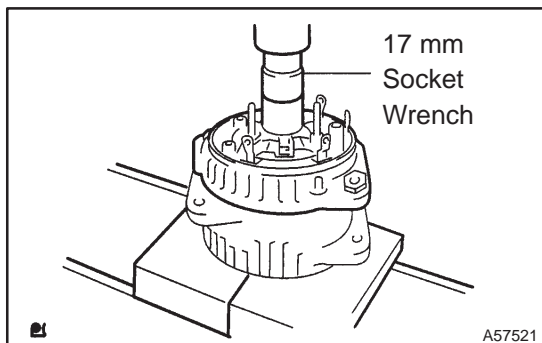
- (c) Inspect slip rings.
 (1) Using vernier calipers, measure the slip ring diameter.
Standard diameter: 14.2 – 14.4 mm (0.559 – 0.567 in.)
Minimum diameter: 12.8 mm (0.504 in.)
 If the diameter is less than minimum, replace the rotor.



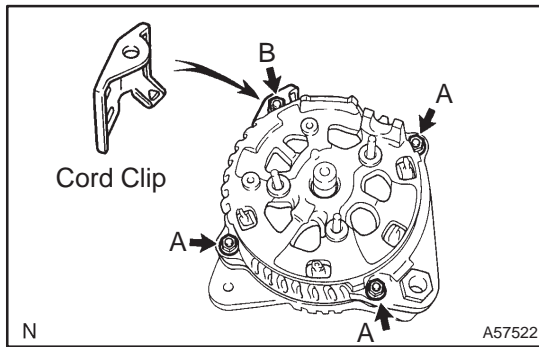
- 8. INSPECT BRUSH**
 (a) Using vernier calipers, measure the exposed brush length.
Standard exposed length: 9.5 – 11.5 mm (0.374 – 0.453 in.)
Minimum exposed length: 1.5 mm (0.059 in.)
 If the exposed length is less than minimum, replace the brush holder assembly.

9. INSTALL GENERATOR ROTOR ASSY

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



- 10. INSTALL ALTERNATOR RECTIFIER END FRAME**
 (a) Using a 17 mm socket wrench and press, slowly press in the rectifier end frame.



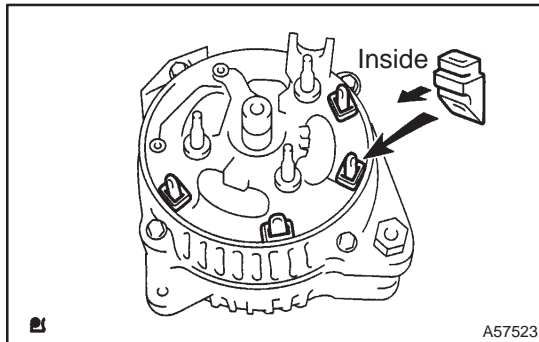
- (b) Install the cord clip and 4 nuts.

Torque:

Nut A 4.5 N·m (46 kgf·cm, 39 in.·lbf)

Nut B 5.4 N·m (55 kgf·cm, 47 in.·lbf)

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



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

NOTICE:

Be careful of the rubber insulators installation direction.

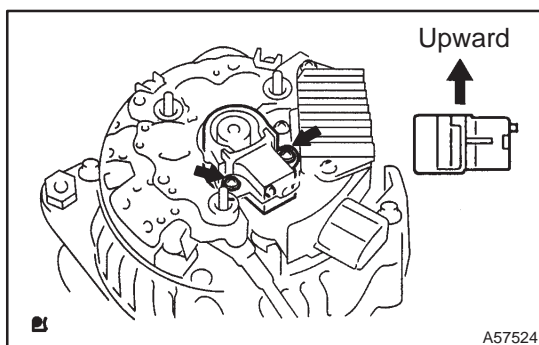
11. INSTALL GENERATOR HOLDER W/RECTIFIER

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

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

12. INSTALL GENERATOR REGULATOR ASSY

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



13. INSTALL GENERATOR BRUSH HOLDER ASSY

- (a) Install the 2 screws and brush holder.

NOTICE:

Be careful of the holder installation direction.

- (b) Install the brush cover.

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

Torque:

Nut 4.4 N·m (45 kgf·cm, 39 in.·lbf)

Bolt 3.9 N·m (39 kgf·cm, 35 in.·lbf)

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

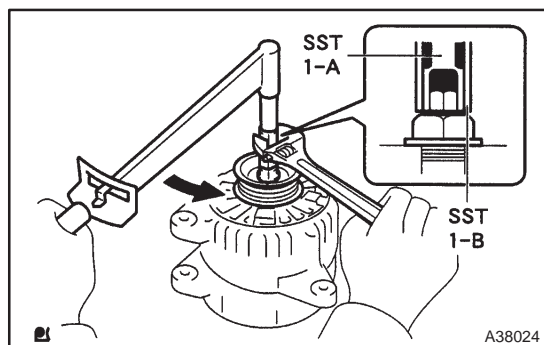
Torque: 4.1 N·m (42 kgf·cm, 36 in.·lbf)

14. INSTALL GENERATOR PULLEY

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

SST 1 – A, B	09820-06010
SST 2	09820-06020

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

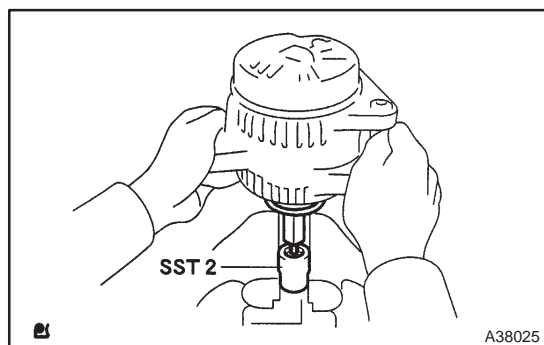


- (b) Hold SST 1 – A with a torque wrench, and tighten SST 1 – B clockwise with the specified torque.

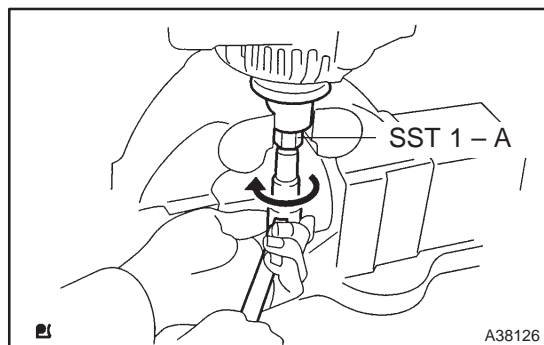
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

NOTICE:

Check that SST is secured to the pulley shaft.



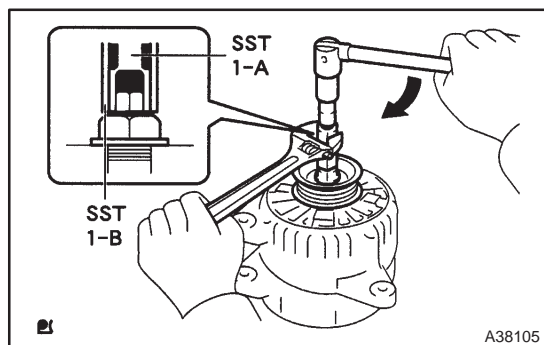
- (c) Mount SST 2 in a vise.
(d) Insert SST 1 – A, B into SST 2, and attach the pulley nut to SST 2.



- (e) Tighten the pulley nut, turn SST 1 – A in the direction shown in the illustration.

Torque: 111 N·m (1,125 kgf·cm, 81 ft·lbf)

- (f) Remove the alternator from SST 2.



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