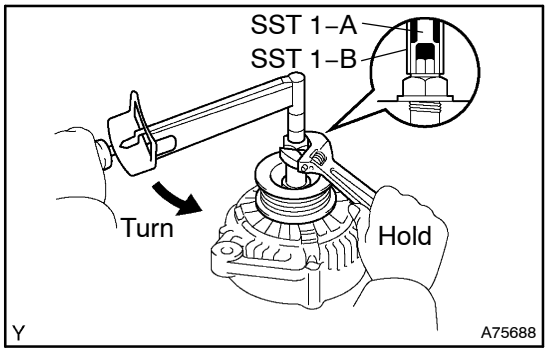
190L7–01

OVERHAUL



1. REMOVE GENERATOR PULLEY

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

HINT:

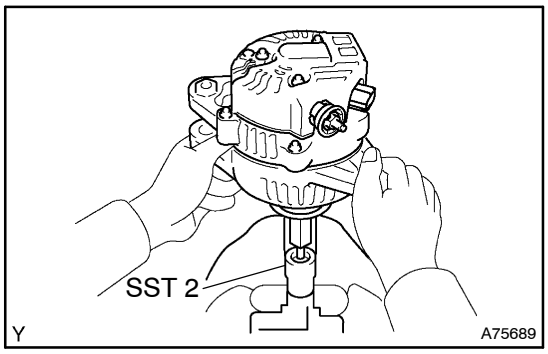
SST 1–A, B	09820 – 06010
SST 2	09820 – 06020

(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)

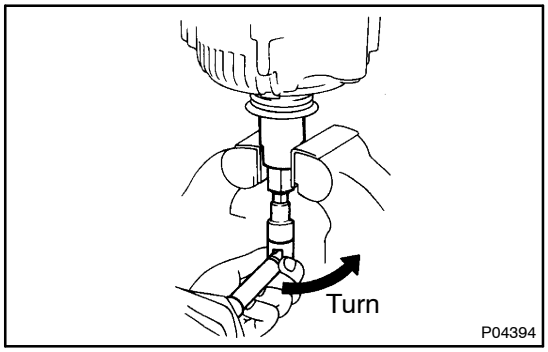
NOTICE:

Check that SST is secured to the generator rotor shaft.



(b) Mount SST 2 in a vise.

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

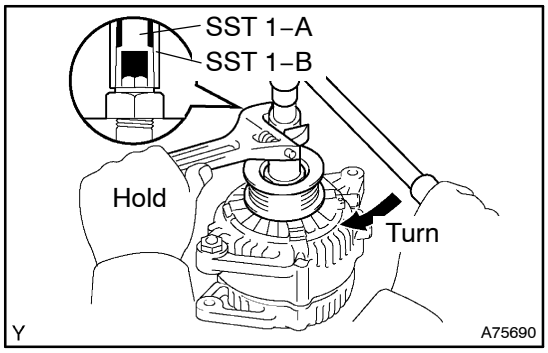


(d) To loosen the pulley nut, turn SST 1–A in the direction shown in the illustration.

NOTICE:

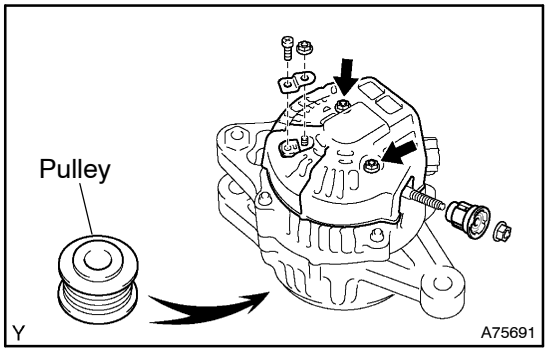
To prevent damage to the rotor shaft, do not loosen the pulley nut more than one–half of a turn.

(e) Remove the generator from SST 2.



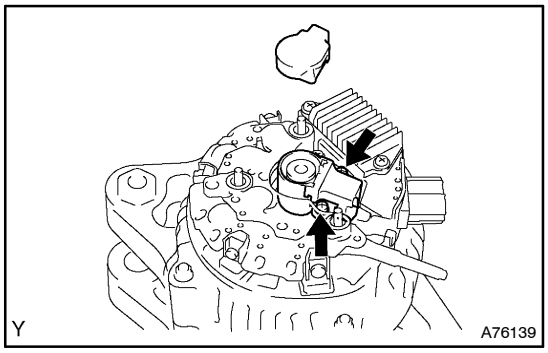
(f) Turn SST 1–B, and remove SST 1–A, B.

(g) Remove the pulley nut and pulley.

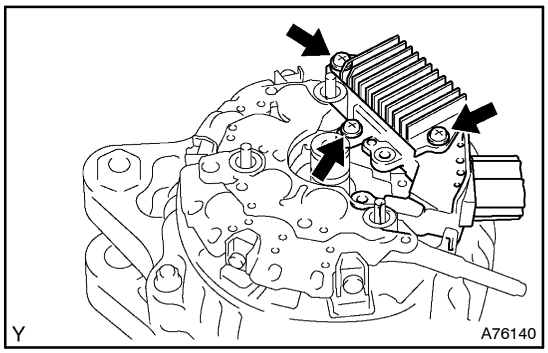


2. REMOVE GENERATOR BRUSH HOLDER ASSY

(a) Place the generator on the pulley.
(b) Remove the nut and terminal insulator.
(c) Remove the bolt, nut and terminal plate.
(d) Remove the 2 nuts and rear end cover.

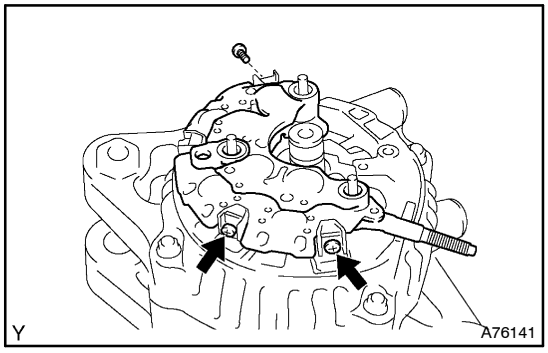


(e) Remove the brunch cover.
(f) Remove the 2 screws and brush holder.



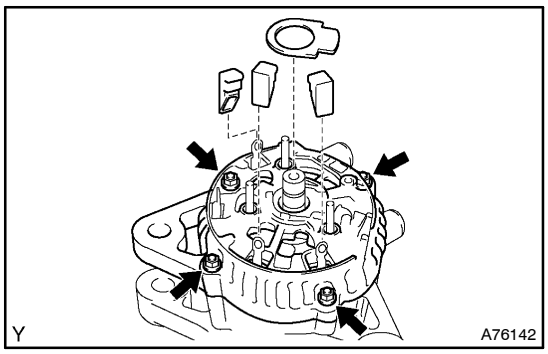
3. REMOVE GENERATOR REGULATOR ASSY

(a) Remove the 3 screws and regulator.



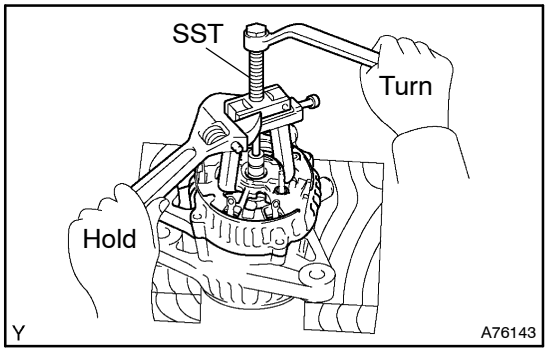
4. REMOVE GENERATOR HOLDER W/RECTIFIER

(a) Remove the 3 screws and holder w/ rectifier.

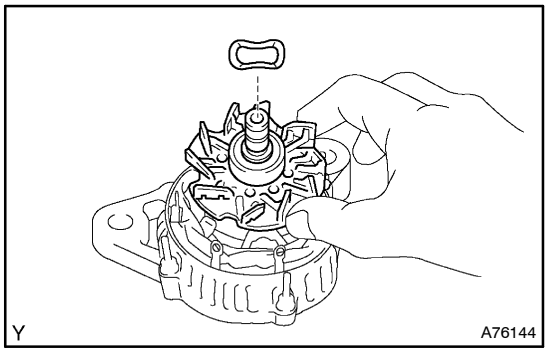


5. REMOVE GENERATOR ROTOR ASSY

(a) Remove the plate seal.
(b) Remove the 3 terminal insulators.
(c) Remove the 4 nuts.

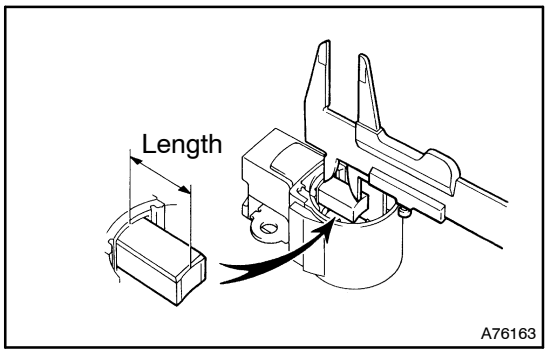


(d) Using SST, remove the rectifier end frame.
SST 09286–46011



(e) Remove the washer.
(f) Remove the rotor.

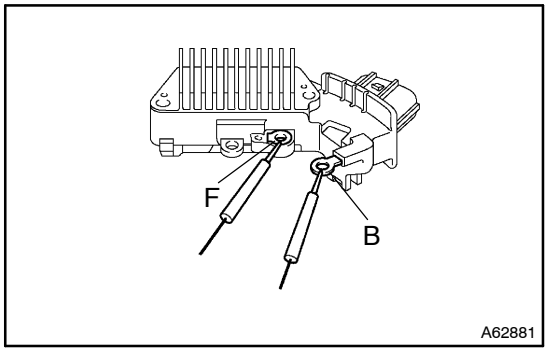
NOTICE:
Do not drop the rotor.



6. INSPECT GENERATOR BRUSH HOLDER ASSY

(a) Using vernier calipers, measure the exposed brush length.
Standard exposed brush length:
9.5 – 11.5 mm (0.374 – 0.453 in.)
Minimum exposed brush length: 1.5 mm (0.059 in.)

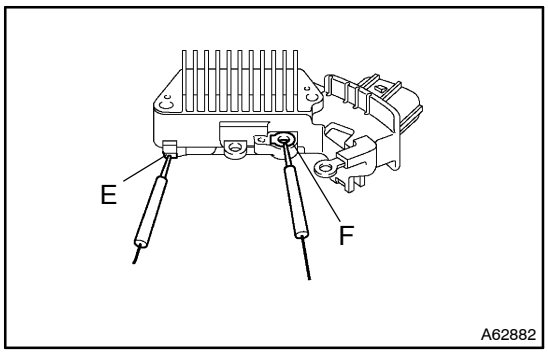
If the exposed brush length is less than minimum, replace the brush holder.



7. INSPECT GENERATOR REGULATOR ASSY

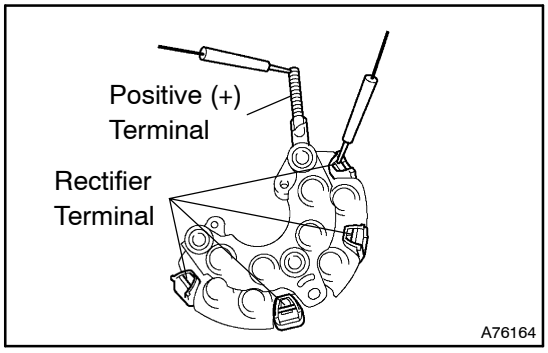
(a) Using an ohmmeter, check the continuity between the terminals F and B.
Standard:
When the positive and negative poles between the terminals F and B are exchanged, there is continuity in one way but no continuity in another way.

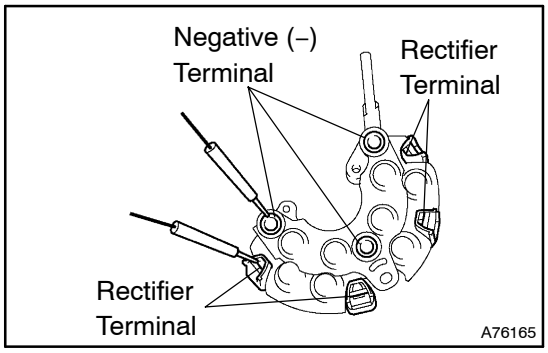
If the continuity is not as specified, replace the regulator.

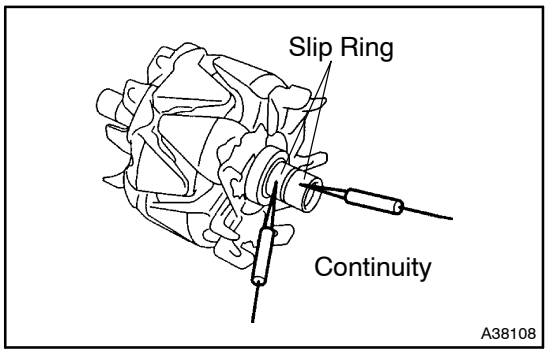


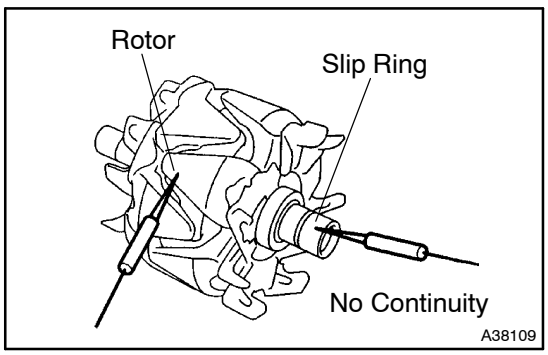
(b) Using an ohmmeter, check the continuity between the terminals F and E.
Standard:
When the positive and negative poles between the terminals F and E are exchanged, there is continuity in one way continuity in another way.

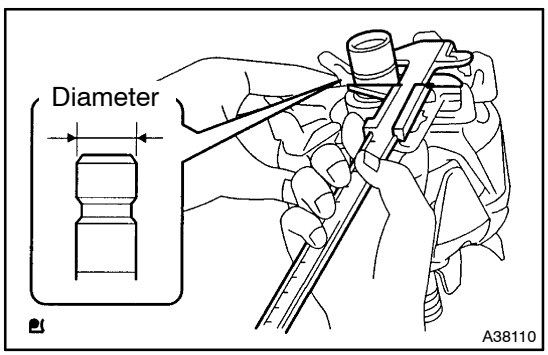
If the continuity is not as specified, replace the regulator.











8. 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 the continuity is not as specified, replace the holder w/ rectifier

(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 shown continuity and the other shows no continuity.

If the continuity is not as specified, replace the regulator w/ rectifier.

9. INSPECT GENERATOR ROTOR ASSY

(a) Inspect rotor for open circuit.

(1) Using an ohmmeter, measure the resistance between the slip rings.

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

If the resistance is not as specified, 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 a vernier calipers, measure the slip ring diameter.

Standard diameter:

14.2 – 14.4 mm (0.559 – 0.567 in.)

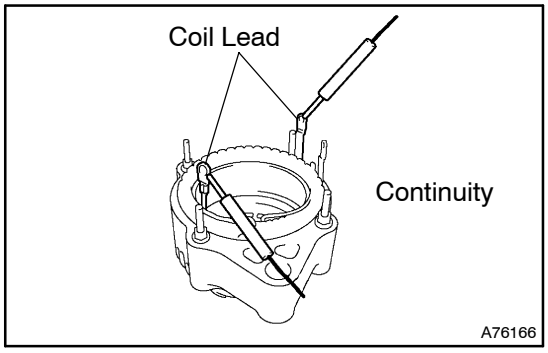
Minimum diameter: 12.8 mm (0.504 in.)

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

(d) Inspect the bearing.

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

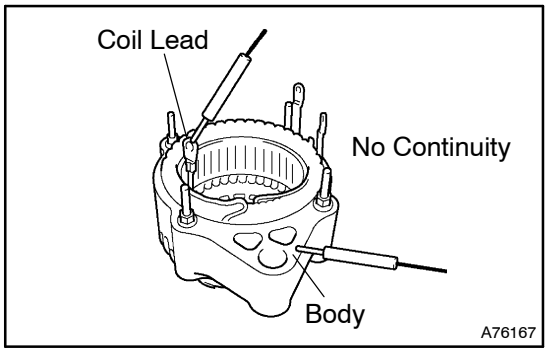
If necessary, replace the rotor.



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.

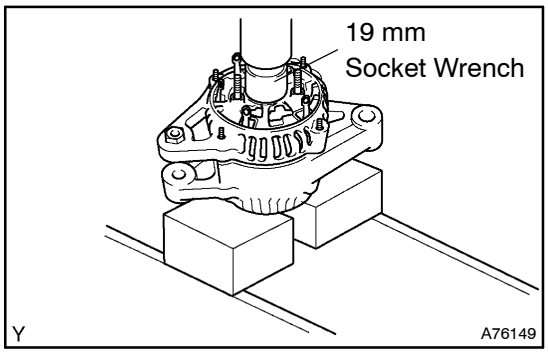


(b) Inspect the stator for ground.
  (1) Using an ohmmeter, check that there is no continuity between the coil lead and body.

If there is continuity, replace the generator.

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

If necessary, replace the generator.



11. INSTALL GENERATOR ROTOR ASSY

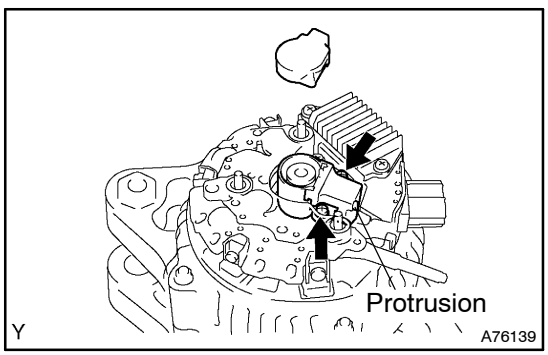
(a) Place the drive end frame on the pulley.
(b) Install the rotor.
(c) Install the washer.
(d) Using a 19 mm socket wrench and press, slowly press in the rectifier end frame.
(e) Install the 4 nuts.
  Torque: 4.5 N·m (46 kgf·cm, 40 in.·lbf)
(f) Install the 4 terminal insulators.
(g) Install the plate seal.

12. INSTALL GENERATOR HOLDER W/RECTIFIER

(a) Install the holder w/ rectifier with the 3 screws.
  Torque: 2.0 N·m (20 kgf·cm, 17 in.·lbf)

13. INSTALL GENERATOR REGULATOR ASSY

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



14. INSTALL GENERATOR BRUSH HOLDER ASSY

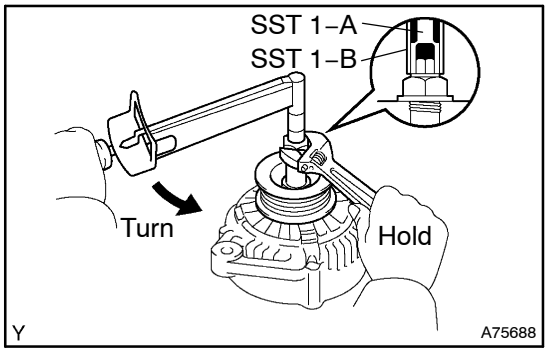
(a) Install the brush holder with the 2 screws.
  Torque: 2.0 N·m (20 kgf·cm, 17 in.·lbf)

NOTICE:

Pay attention to the brush holder installation direction.

(b) install the brush cover.
(c) Install the rear end cover with the 2 nuts.
  Torque: 4.4 N·m (45 kgf·cm, 39 in.·lbf)

(d) Install the terminal plate with the bolt and nut.
Torque:
4.4 N·m (45 kgf·cm, 39 in.·lbf) for nut
3.9 N·m (39 kgf·cm, 34 in.·lbf) for bolt

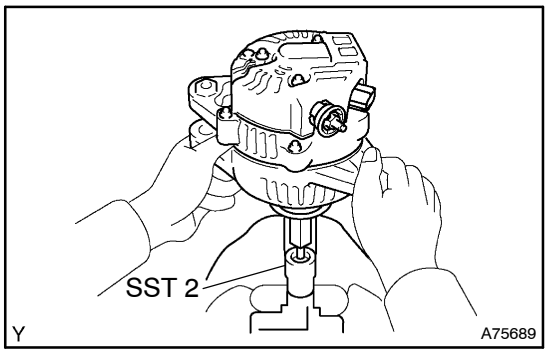


15. INSTALL GENERATOR PULLEY
SST 09820–63010 (09820–06010, 09820–06020)
HINT:

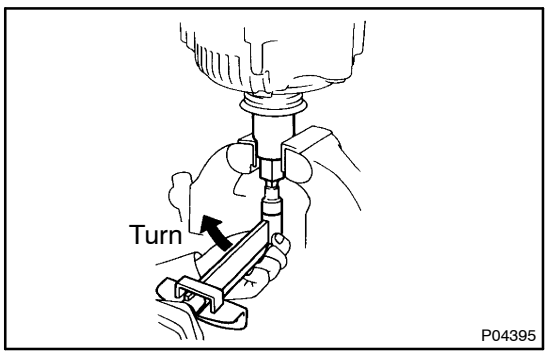
SST 1–A, B	09820 – 06010
SST 2	09820 – 06020

(a) Install the pulley to 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)

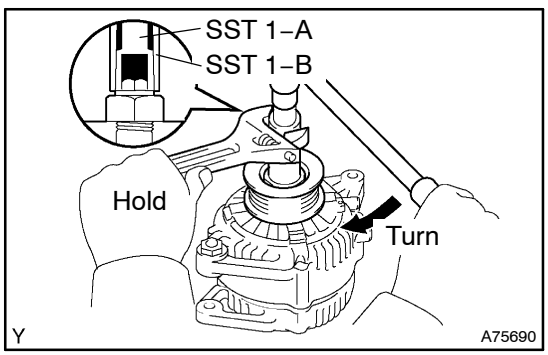
NOTICE:
Check that SST is secured to the rotor shaft.



(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: 137 N·m (1,397 kgf·cm, 101 ft·lbf)
(f) Remove the generator 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.