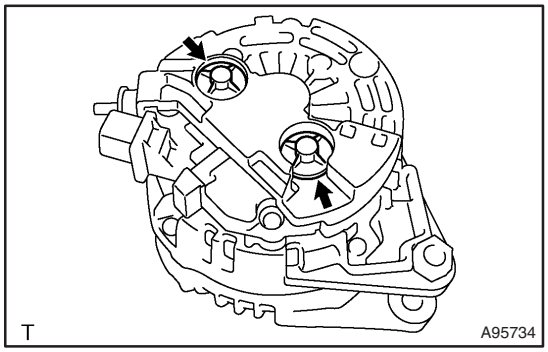
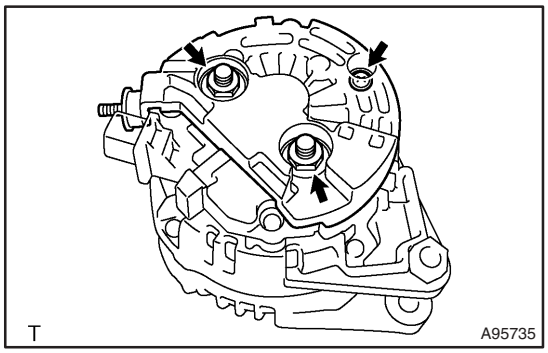
OVERHAUL



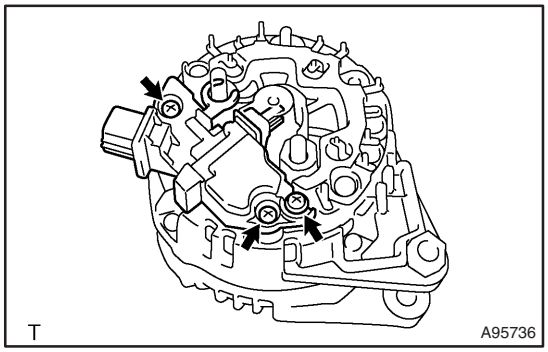
190YJ–01

1. REMOVE GENERATOR REAR END COVER

(a) Remove the 2 terminal covers by turning them counterclockwise.

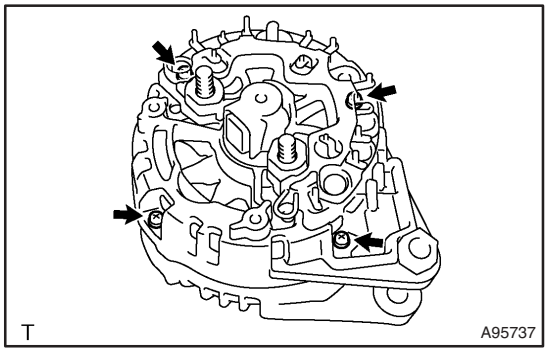


(b) Using a 15 mm socket wrench, remove the screw and 2 nuts, then detach the generator rear end cover.



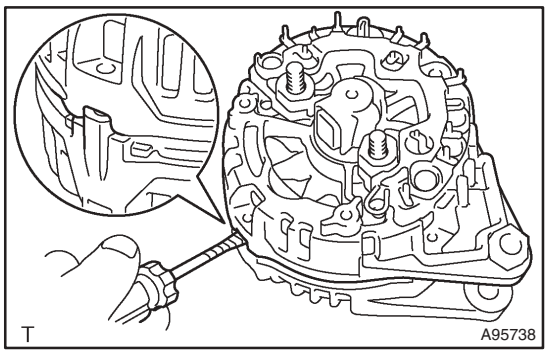
2. REMOVE REGULATOR SUB–ASSY GENERATOR W/BRUSH

(a) Remove the 3 screws and regulator generator with brush.

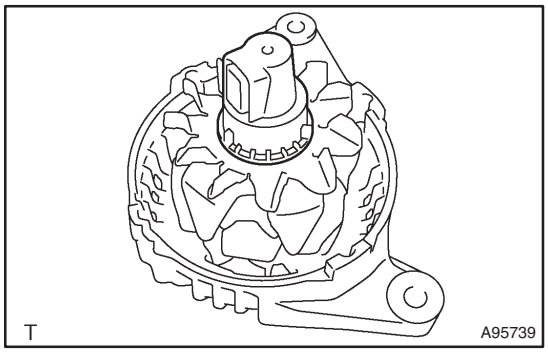


3. REMOVE STATOR SUB–ASSY GENERATOR W/RECTIFIER

(a) Remove the 4 screws.



(b) Using a screwdriver, pry out the stator generator with rectifier.



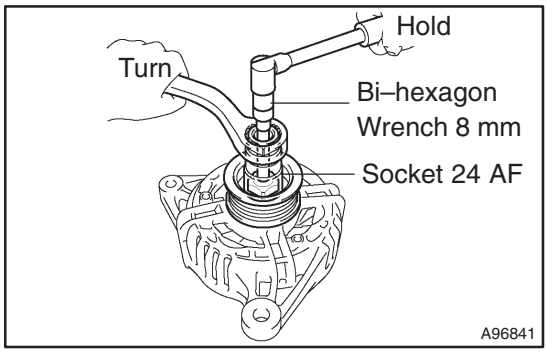
4. REMOVE BEARING SET GENERATOR

5. REMOVE PULLEY SET GENERATOR

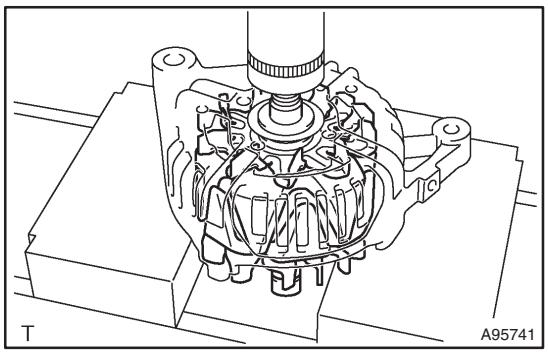
(a) Clamp the swivel arm in a vise.

NOTICE:

Do not clamp the generator rotor in a vise.

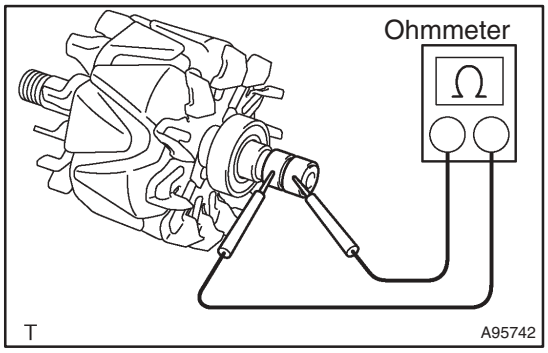


(b) Using a socket 24 AF and bi–hexagon wrench 8 mm, remove the nut and spring washer, then detach the pulley.



6. REMOVE GENERATOR ROTOR ASSY

(a) Using a press, press out the generator rotor assembly and spacer ring.



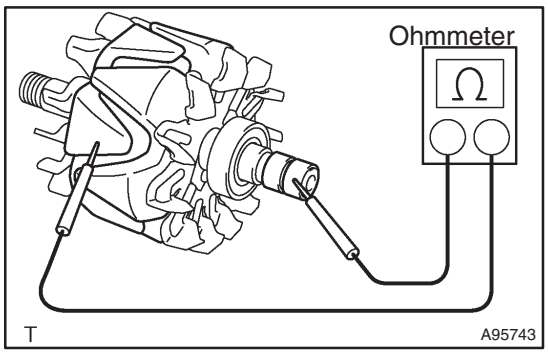
7. INSPECT GENERATOR ROTOR ASSY

(a) Inspect the generator rotor assy for open circuit.

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

Standard: 2.27 to 2.53 Ω at 20°C (68°F)

If the standard is not met, replace the generator rotor.

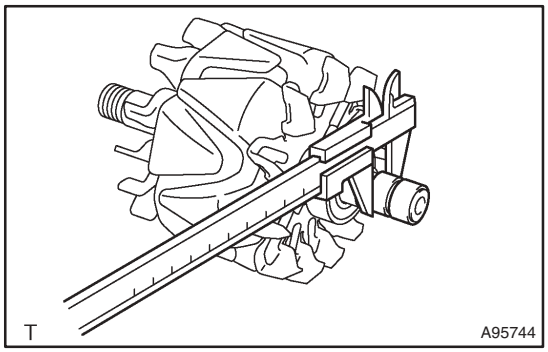


(b) Inspect the generator rotor assy for ground.

(1) Using an ohmmeter, measure the resistance between the slip ring and generator rotor assembly.

Standard: 10 kΩ or higher

If the standard is not met, replace the generator rotor.



(c) Check the appearance.

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

If rough or scored, replace the generator rotor.

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

Standard diameter: 15.3 to 15.5 mm (0.602 to 0.610 in.)

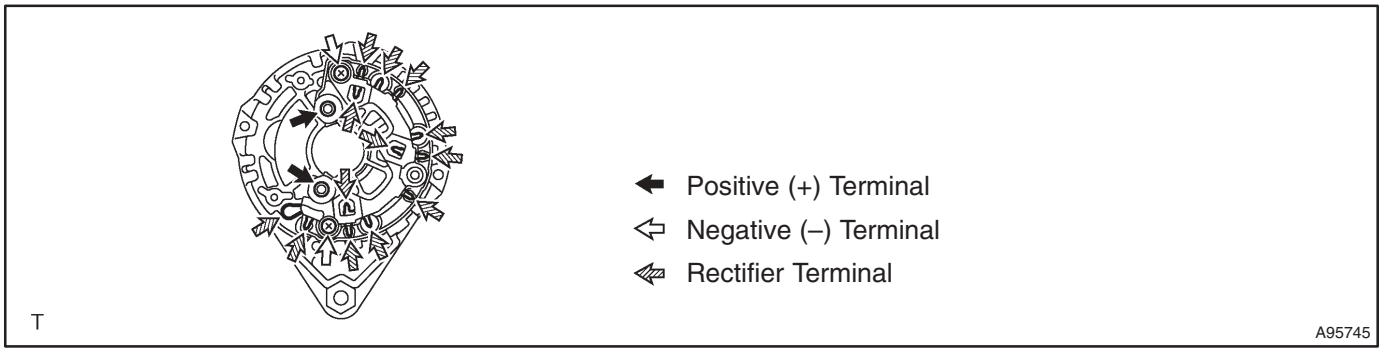
Minimum diameter: 14.3 mm (0.561 in.)

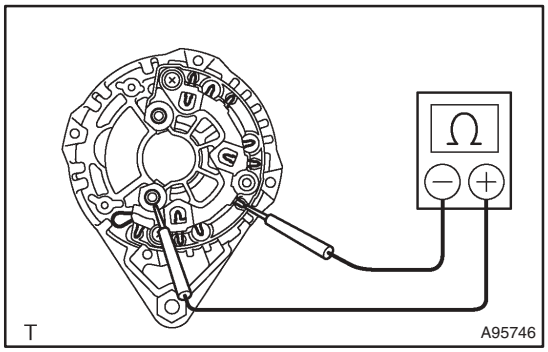
If the diameter is less than minimum, replace the generator rotor.

8. INSPECT STATOR SUB–ASSY GENERATOR W/RECTIFIER

HINT:

According to the terminal position of the stator generator, refer to the illustration below.





(a) Inspect the positive (+) rectifier.

HINT:

Inspect the positive terminal after pulling up.

(1) Using an ohmmeter, connect the positive (+) tester probe to the positive (+) terminal and the negative (–) tester probe to each rectifier terminal.

(2) Measure the resistance between the positive (+) terminal and rectifier terminal.

Standard: Below 1 Ω

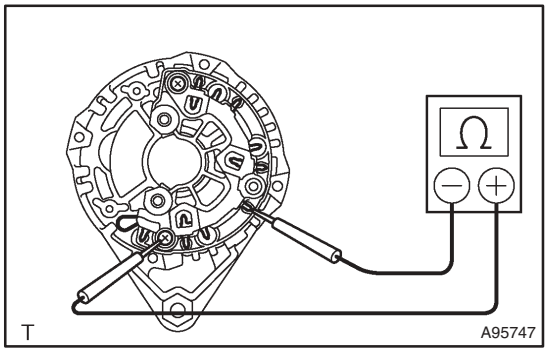
If standard is not met, replace the stator generator.

(3) Reverse the polarity of the tester probes and repeat step (1).

(4) Measure the resistance between the positive (+) terminal and rectifier terminal.

Standard: 10 kΩ or higher

If the standard is not met, replace the stator generator.



(b) Inspect the negative (–) rectifier.

(1) Using an ohmmeter, connect the positive (+) tester probe to each negative (–) terminal and the negative (–) tester prove to each rectifier terminal.

(2) Measure the resistance between the negative (–) terminal and rectifier terminal.

Standard: 10 kΩ or higher

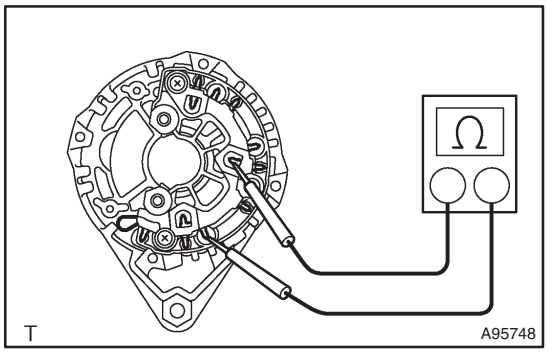
If the standard is not met, replace the stator generator.

(3) Reverse the polarity of the tester probes and repeat step (1).

(4) Measure the resistance between the negative (–) terminal and rectifier terminal.

Standard: Below 1 Ω

If the standard is not met, replace the stator generator.

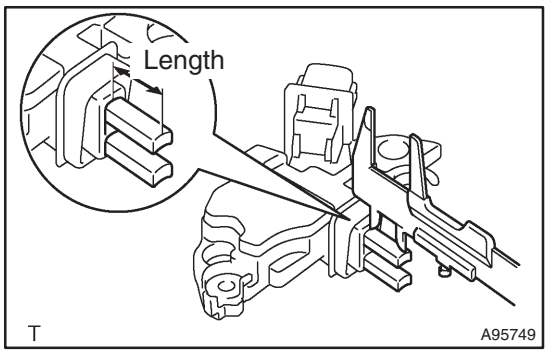


(c) Inspect the stator for open circuit.

(1) Using an ohmmeter, measure the resistance between the rectifier terminals.

Standard: Below 1 Ω

If the standard is not met, replace the stator generator.

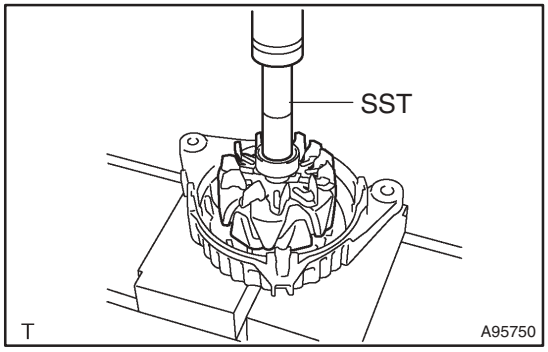


9. INSPECT BRUSH

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

Standard exposed length:
11.0 to 13.6 mm (0.433 to 0.535 in.)
Minimum exposed length: 1.5 mm (0.059 in.)

If the exposed length is less than minimum, replace the voltage regulator and brush assembly.

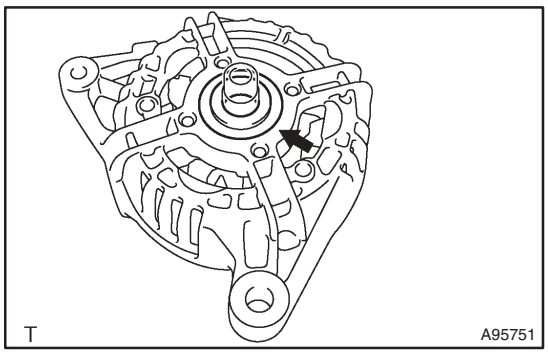


10. INSTALL GENERATOR ROTOR ASSY

(a) Using SST and a press, press in the generator rotor assembly.

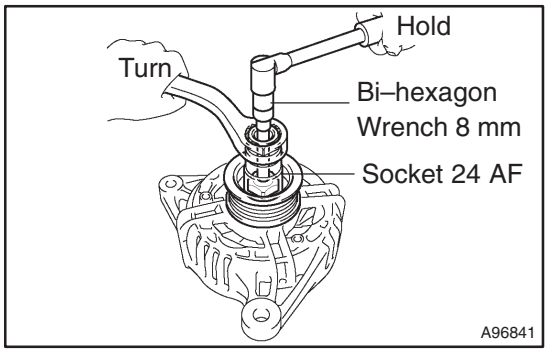
SST 09285–76010

NOTICE:
Avoid misalignment during pressing

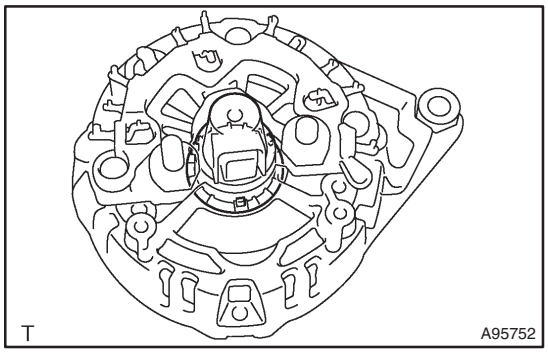


11. INSTALL PULLEY SET GENERATOR

(a) Install the spacer ring.

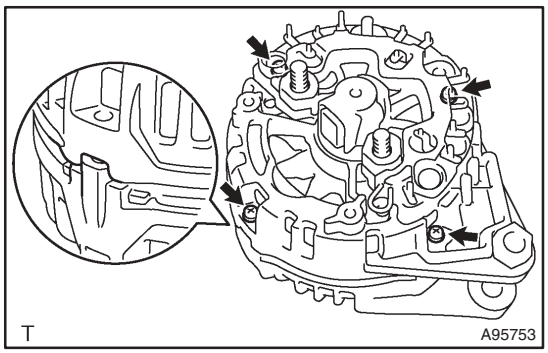


(b) Using a socket 24 AF and a bi–hexagon wrench 8 mm, install the pulley with the spring washer and nut.
Torque: 68 N·m (688 kgf·cm, 50 ft·lbf)



12. INSTALL BEARING SET GENERATOR

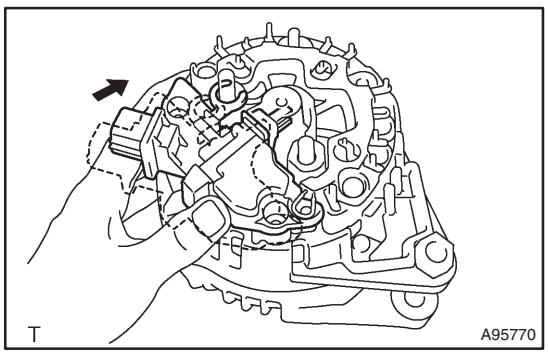
(a) Align the 3 cutouts of the bearing set generator with the stator generator with rectifier.



13. INSTALL STATOR SUB–ASSY GENERATOR W/RECTIFIER

(a) Align the key of the drive end frame with the keyway of the stator sub–assembly generator with rectifier.

(b) Install the stator generator with rectifier with the 4 bolts.
Torque: 3.5 N·m (36 kgf·cm, 31 in.·lbf)



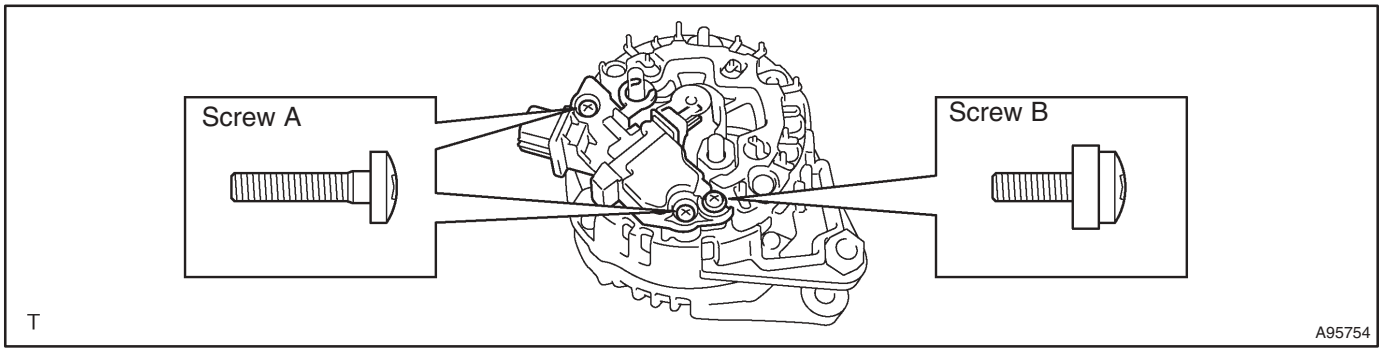
14. INSTALL REGULATOR SUB–ASSY GENERATOR W/BRUSH

(a) Attach the brushes and terminals to the rectifier end frame of the regulator generator with brush.

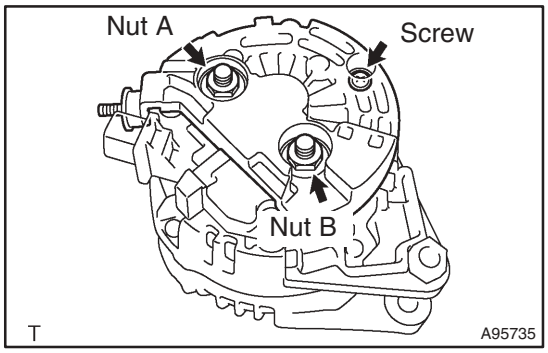
(b) Install the regulator generator with brush with the 3 screws.

HINT:

Install the screw with the plate washer into the position shown in the illustration.



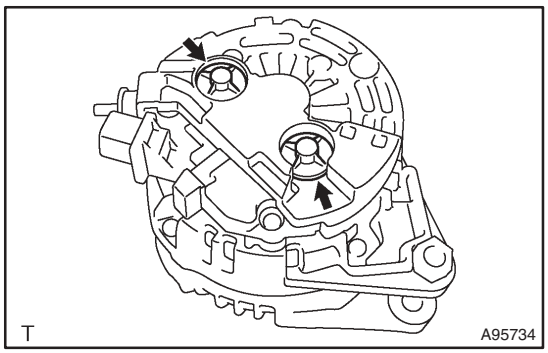
Torque:
2.2 N·m (22 kgf·cm, 19 in.·lbf) for screw A
1.2 N·m (12 kgf·cm, 11 in.·lbf) for screw B



15. INSTALL GENERATOR REAR END COVER

(a) Install the generator rear end cover with the 2 nuts and screw.

Torque:
19.5 N·m (199 kgf·cm, 14 ft·lbf) for nut A
12 N·m (122 kgf·cm, 9 ft·lbf) for nut B
2.4 N·m (24 kgf·cm, 21 in.·lbf) for screw



(b) Install the 2 terminal covers by turning them clockwise.