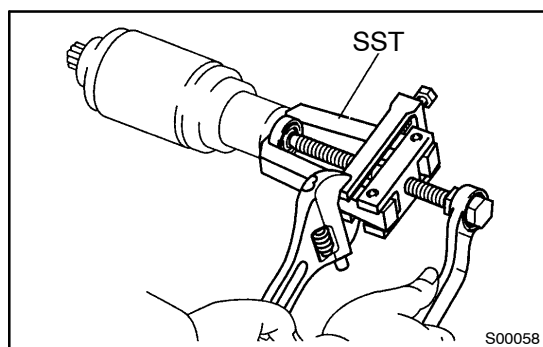
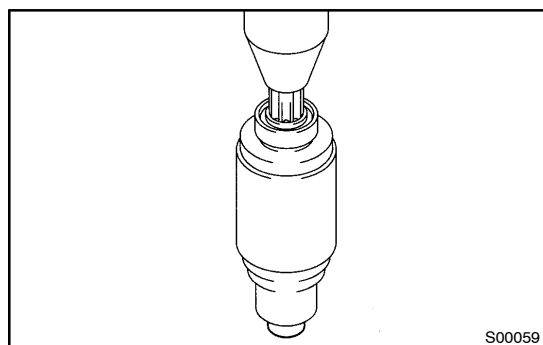




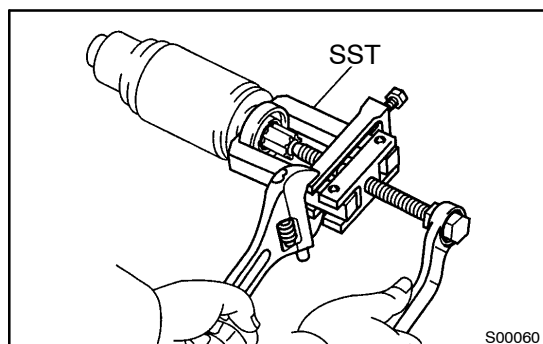
REPLACEMENT

1. REPLACE REAR BEARING

- (a) Using SST, remove the bearing.
SST 09286-46011

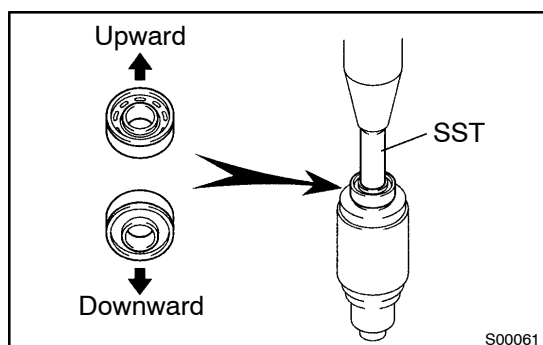


- (b) Using a press, press in a new bearing.



2. REPLACE FRONT BEARING

- (a) Using SST, remove the bearing.
SST 09286-46011

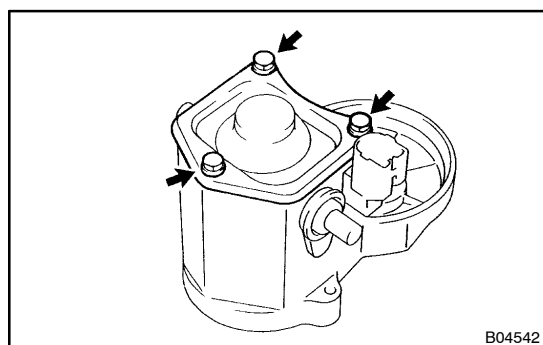


- (b) Using SST and a press, press in a new bearing.

NOTICE:

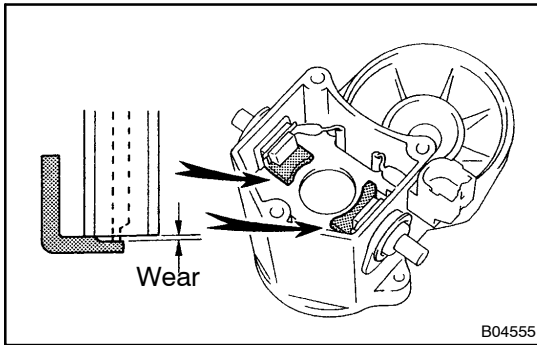
Be careful of the bearing installation direction.

SST 09820-00031



3. REPLACE MAGNETIC SWITCH TERMINAL KIT PARTS

- (a) Remove magnetic switch end cover.
Remove the 3 bolts, end cover, gasket and plunger.

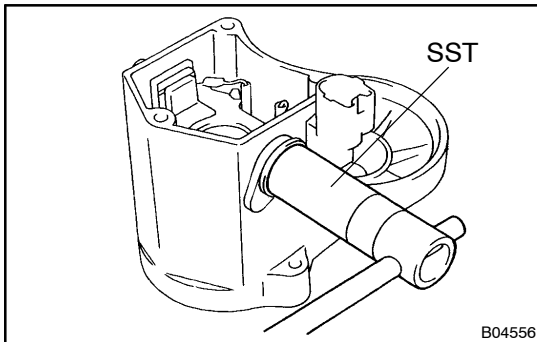


- (b) Inspect contact plate for wear.
Using vernier calipers, measure the contact plate for depth of wear.

Maximum wear:

0.9 mm (0.035 in.)

If the depth of wear is greater than the maximum, replace the contact plate.



- (c) Remove terminal kit parts.
(1) Using SST, loosen the terminal nuts.

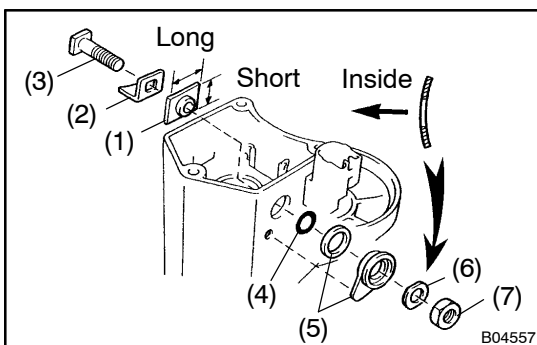
SST 09810-38140

- (2) Terminal C:

Remove the terminal nut, wave washer, terminal insulator (outside), O-ring, terminal bolt, contact plate and terminal insulator (inside).

- (3) Terminal 30:

Remove the terminal nut, wave washer, terminal insulator (outside), O-ring, terminal bolt, contact plate, terminal insulator (inside).



- (d) Temporarily install these new terminal 30 kit parts:

- (1) Terminal insulator (inside)

- (2) Contact plate

- (3) Terminal bolt

- (4) O-ring

- (5) Packing and terminal insulator (outside)

Install the packing to the terminal insulator, and install them.

HINT:

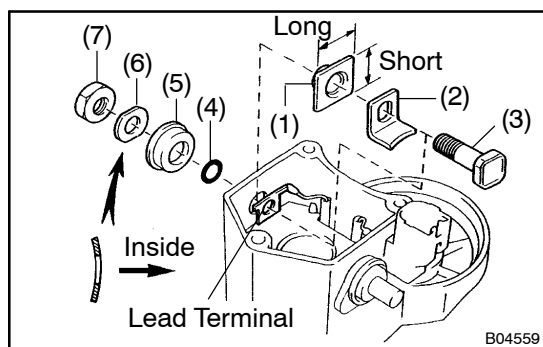
Match the protrusion of the insulator with the indentation of the housing.

- (6) Wave washer

- (7) Terminal nut

NOTICE:

Be careful to install the terminal insulator (inside) and wave washer in the correct direction.



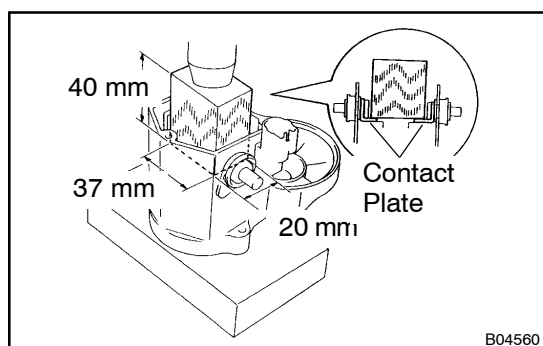
(e) Temporarily install these new terminal C kit parts:

- (1) Terminal insulator (inside)
- (2) Contact plate
- (3) Terminal bolt
- (4) O-ring
- (5) Terminal insulator (outside)
- (6) Wave washer
- (7) Terminal nut

NOTICE:

Be careful to install the terminal insulator (inside) and wave washer in the correct direction.

(f) Temporarily tighten the terminal nuts.



(g) Tighten terminal nuts.

- (1) Put a wooden block on the contact plate and press it down with a hand press.

Dimensions of wooden block:

20 x 37 x 40 mm (0.79 x 1.46 x 1.57 in.)

Press force:

981 N (100 kgf, 221 lbf)

NOTICE:

- Check the diameter of the hand press ram. Then calculate the gauge pressure of the press when 981 N (100 kgf, 221 lbf) of force is applied.

Gauge pressure:

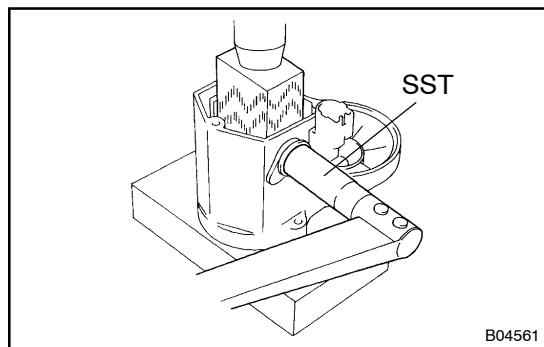
$$(\text{kgf/cm}^2) = \frac{100 \text{ kgf}}{\left(\frac{\text{Ram diameter (cm)}}{2} \right)^2 \times 3.14 (\pi)}$$

$$(\text{psi}) = \frac{221 \text{ lbf}}{\left(\frac{\text{Ram diameter (in.)}}{2} \right)^2 \times 3.14 (\pi)}$$

$$(\text{kPa}) = (\text{kgf/cm}^2) \times 98.1$$

$$(\text{kPa}) = (\text{psi}) \times 6.9$$

- If the contact plate is not pressed down with the specified pressure, the contact plate may tilt due to coil deformation or the tightening of the nut.

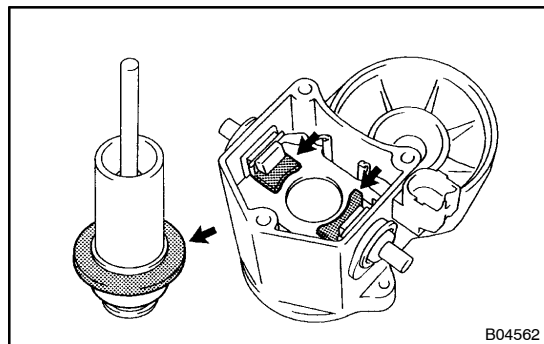


- (2) Using SST, tighten the nuts to the specified torque.
SST 09810-38140

Torque: 17 N·m (170 kgf·cm, 13 ft·lbf)

NOTICE:

If the nut is over tightened, it may cause cracks on the inside of the insulator.



- (h) Clean contact surfaces of contact plate and plunger.
Clean the contact surfaces of the remaining contact plate and plunger with a dry shop rag.
- (i) Reinstall magnetic switch end cover.
Install the plunger, new gasket, end cover and lead clamp with the 3 bolts.

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