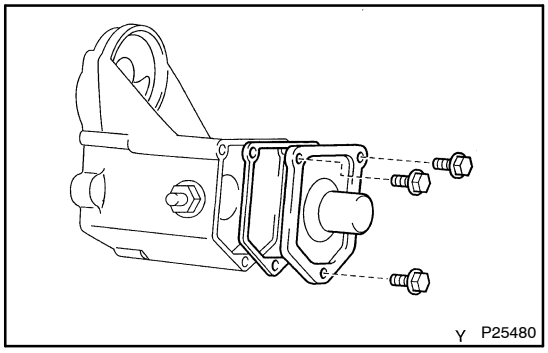
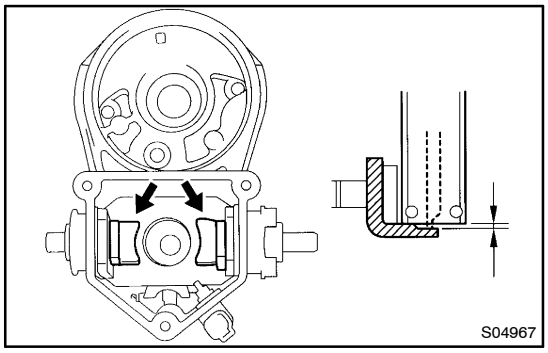
ST0FT–01

REPLACEMENT



1. INSPECT CONTACT PLATE

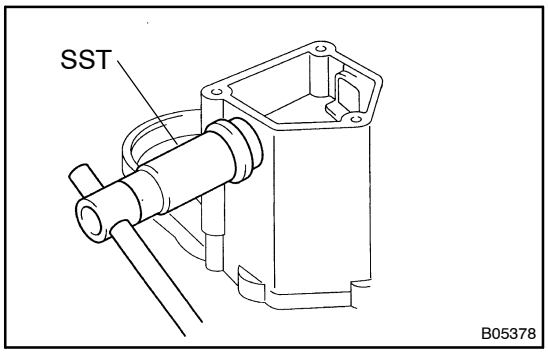
(a) Remove the 3 bolts, end cover, gasket and plunger.



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

Maximum wear: 1.6 mm (0.063 in.)

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

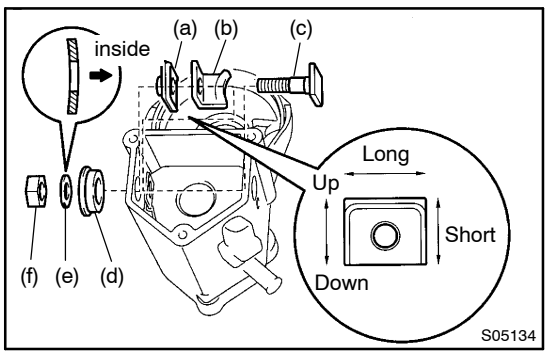


2. REMOVE TERMINAL KIT PARTS

(a) Using SST, loosen the terminal nuts.
SST 09810–38140

(b) Terminal C:
Remove the terminal nut, wave washer, terminal insulator (outside), terminal bolt, contact plate,terminal insulator.

(c) Terminal 30:
Remove the terminal nut, wave washer, terminal insulator (outside), O–ring, terminal bolt, contact plate, terminal insulator (inside).

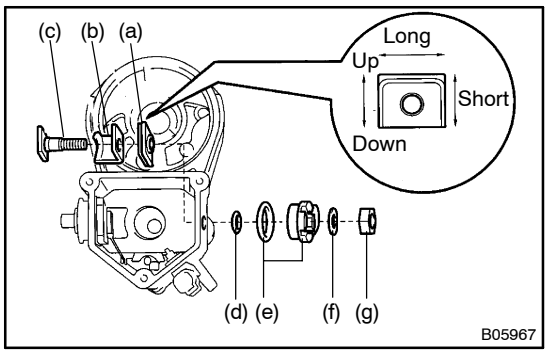


3. REINSTALL TERMINAL C KIT PARTS

(a) Temporarily install new terminal insulator (inside).
(b) Temporarily install new contact plate.
(c) Temporarily install new terminal bolt.
(d) Temporarily install new terminal insulator (outside).
(e) Temporarily install new wave washer.
(f) Temporarily install new terminal nut.

NOTICE:

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



4. REINSTALL TERMINAL 30 KIT PARTS

(a) Temporarily install new terminal insulator.
(b) Temporarily install new contact plate.
(c) Temporarily install new terminal bolt.
(d) Temporarily install new O–ring.
(e) Temporarily install new packing and insulator.
Install the packing to the terminal insulator, and install them.

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

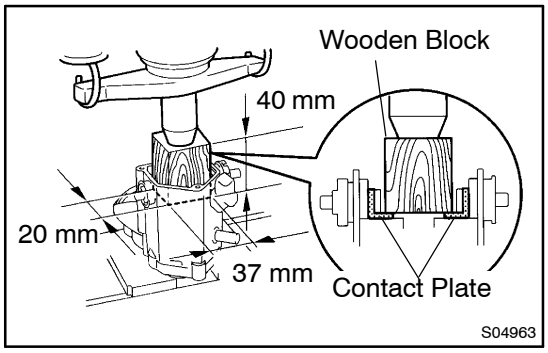
(f) Temporarily install new plate washer.

(g) Temporarily install new terminal nut.

NOTICE:

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

5. TEMPORARILY TIGHTEN TERMINAL NUTS



6. TIGHTEN TERMINAL NUT

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

Dimension of wooden block:
20 x 37 x 40 mm (0.79 x 1.46 x 1.57 in.)
Press force:
981 N (100 kgf, 221lbf)

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:

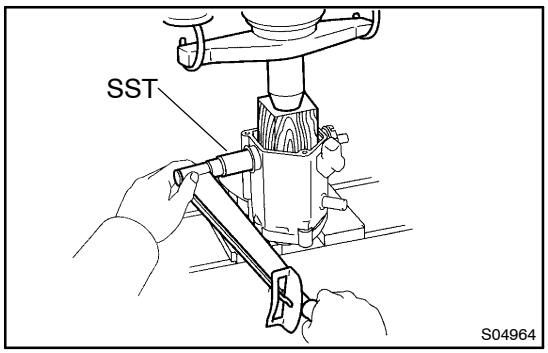
$$(\text{kgf/cm}^2) = \frac{100\ \text{kgf}}{\left(\frac{\text{Ram diameter (cm)}}{2}\right)^2 \times 3.14\ (\pi)}$$

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

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

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

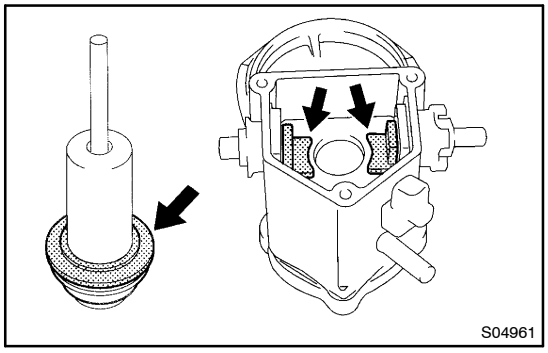
- **If the contact plate is not pressed down with the specified pressure, the contact plate may tilt due to coil deformation or the tightening of the nut.**



(b) Using SST, tighten the nuts to the specified torque.
SST 09810–38140
Torque: 30 N·m (306 kgf·cm, 22 ft·lbf)

NOTICE:

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



7. CLEAN CONTACT SURFACES

Clean the contact surfaces of the remaining contact plate and plunger with a dry shop rag.

8. 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)