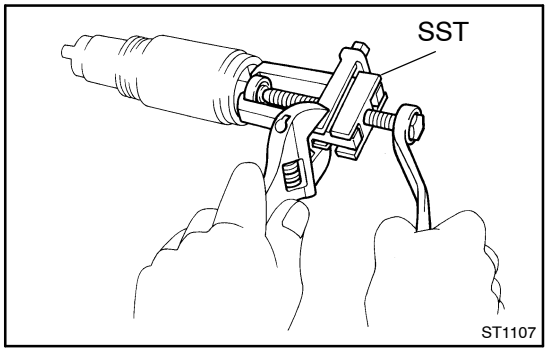
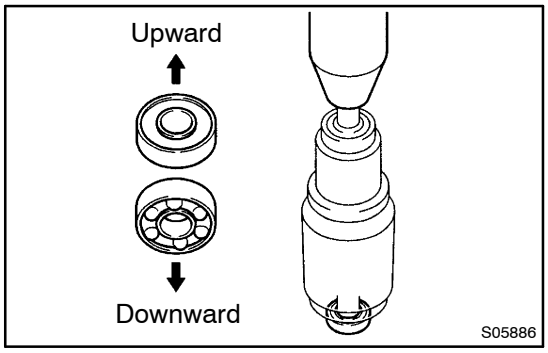
ST0FG–01

# REPLACEMENT




**1. REPLACE REAR BEARING**

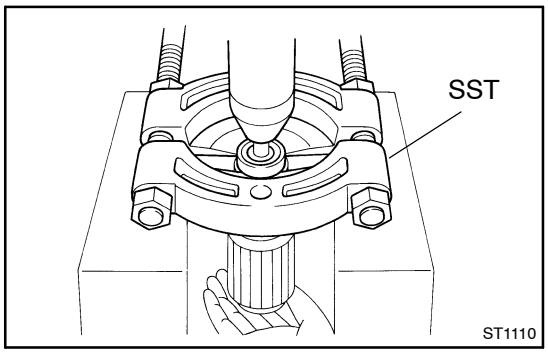
(a) Using SST, remove the bearing.
SST 09286 –46011




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

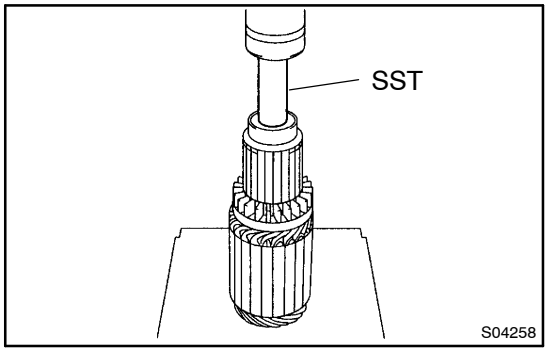
**NOTICE:**

**Be careful of the bearing installation direction.**



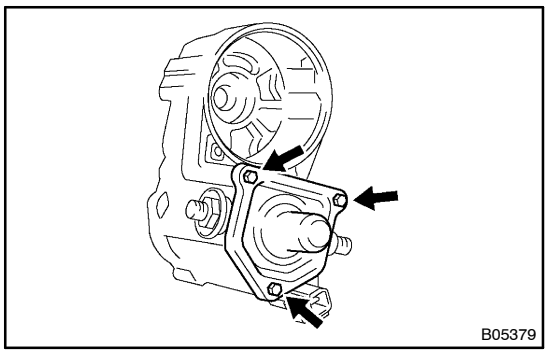

**2. REPLACE FRONT BEARING**

(a) Using SST and a press, press out the bearing.
SST 09950 –00020

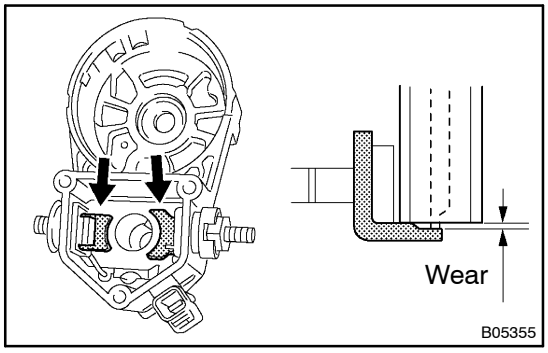



(b) Using SST and a press, press in a new bearing.
SST 09820 –00030

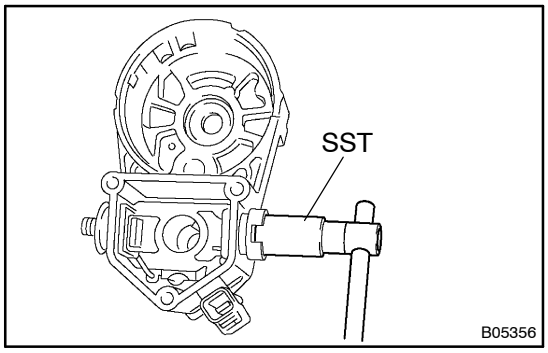
**3. REPLACE MAGNETIC SWITCH TERMINAL KIT PARTS**



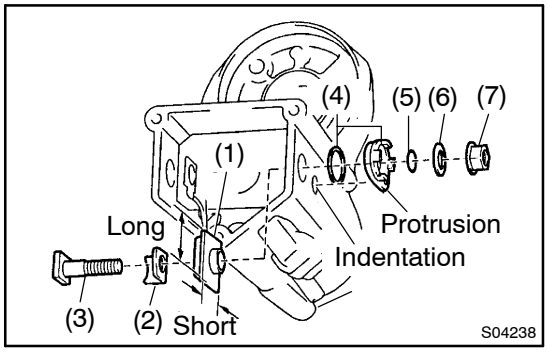

(a) Remove the 3 bolts, end cover, gasket, and plunger.




(b) Inspect contact plate for wear.
Using vernier calipers, measure the contact plate for depth of wear.
**Maximum wear:**
**1.6 mm (0.063 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 098 10–38170
(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) and insulation paper.

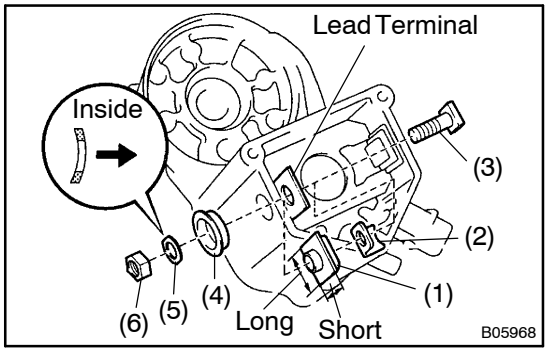



(d) Temporarily install these new terminal 30 kit parts:
(1) Terminal insulator (inside)
(2) Contact plate
(3) Terminal bolt
(4) Packing and terminal insulator (outside)
Install the packing to the terminal insulator, and install them.

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

(5) O –ring
(6) Plate washer
(7) Terminal nut

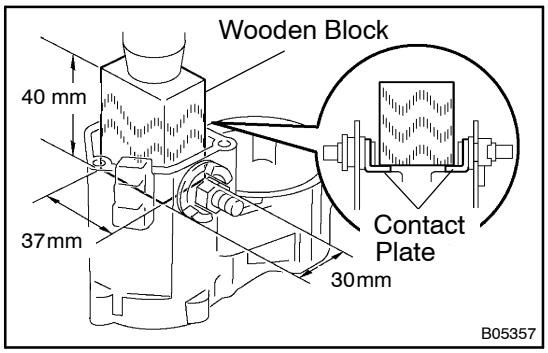
**NOTICE:**
**Be careful to install the terminal insulator (inside) and wave washer in the correct direction.**




(e) Temporarily install these new terminal C kit parts:
(1) Terminal insulator (inside)
(2) Contact plate
(3) Terminal bolt
(4) Terminal insulator (outside)
(5) Wave washer
(6) 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:**
**30 x 37 x 40 mm ( 1.18 x 1.46 x 1.57 in.)**
**Press force:**
**981 N (100 kgf, 22 1 lbf)**

**NOTICE:**

- **Check the diameter of the hand press ram. Then calculate the gauge pressure of the press when 981 N (100 kgf, 22 1 lbf) of force is applied.**
**Gauge pressure:**

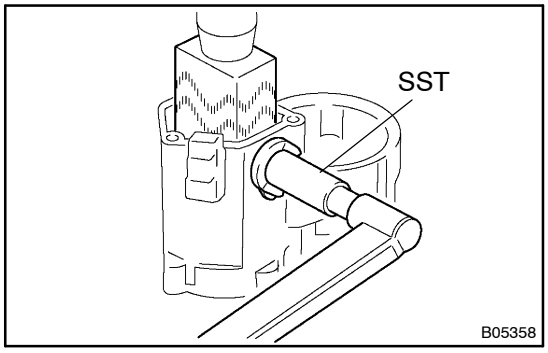
$$(\text{kgf/cm}^2) = \frac{100\ \text{kgf}}{\left(\frac{\text{Ram diameter (cm)}}{2}\right)^2 \times 3.14\ (\pi)}$$

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

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

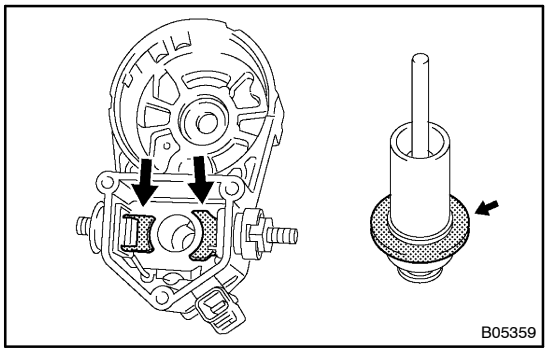
$$(\text{kPa}) = (\text{psi}) \times 6.9$$

- **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 098 10–38170
**Torque: 34.3 N·m (350 kgf·cm, 25 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)**