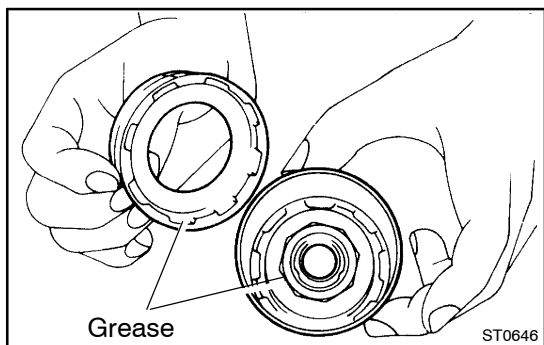


REASSEMBLY

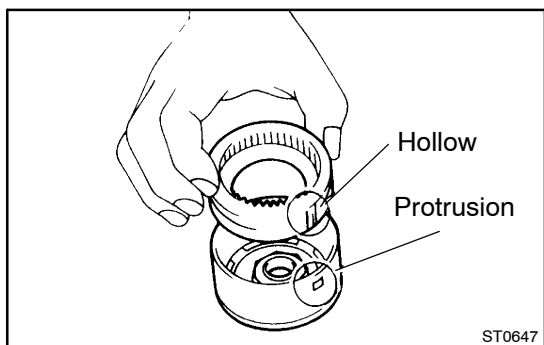
HINT:

Use high temperature-resistant grease to lubricate the bearings and sliding parts when assembling the starter.

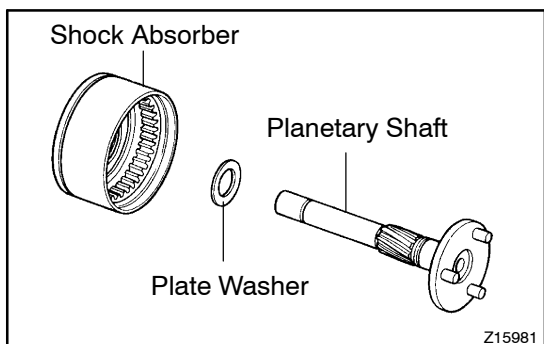


1. INSTALL INTERNAL GEAR AND PLANETARY SHAFT

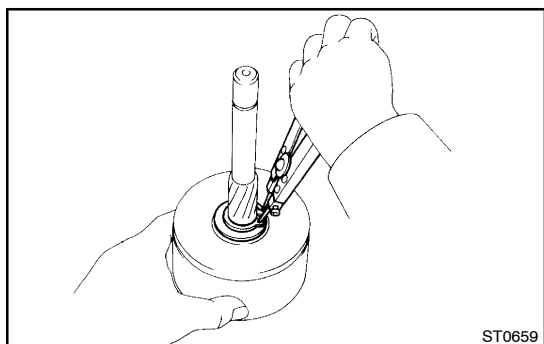
- (a) Apply grease to the internal gear touching the shock absorber and planetary gears.



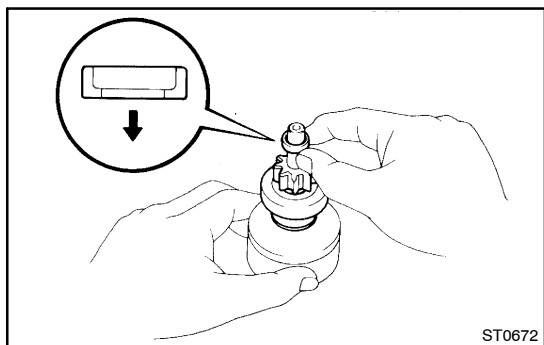
- (b) Align the hollow of the internal gear with the protrusion inside the shock absorber.
 (c) Inset and turn the internal gear so that it interlocks with the shock absorber.
 (d) Apply turbine oil with additives to the center bearing.
 (e) Apply grease to the plate washer, and install it to the planetary shaft.



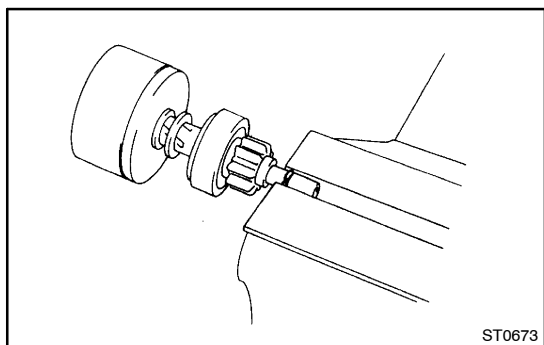
- (f) Install the planetary shaft to the shock absorber.



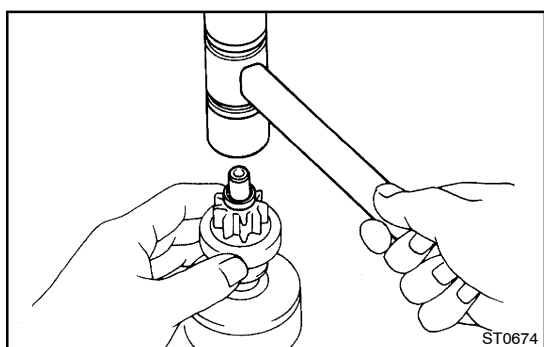
- (g) Using snap ring pliers, install the plate washer and snap ring.
2. INSTALL STARTER CLUTCH
 (a) Apply grease to the bushing and spline of the starter clutch and stop collar.



- (b) Place the starter clutch and stop collar on the planetary shaft.
- (c) Apply grease to the snap ring, and install it to the planetary shaft groove.



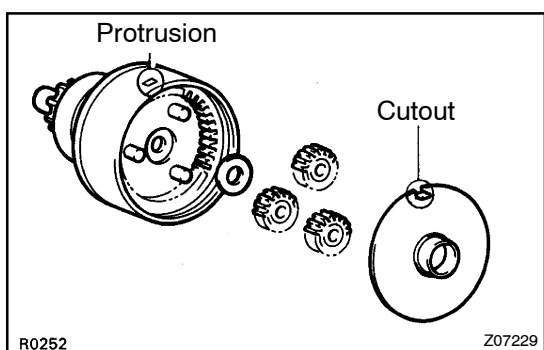
- (d) Using a vise, compress the snap ring.



- (e) Hold the starter clutch, tap the planetary shaft and install the stop collar onto the snap ring with a plastic-faced hammer.

3. INSTALL PLANETARY GEARS

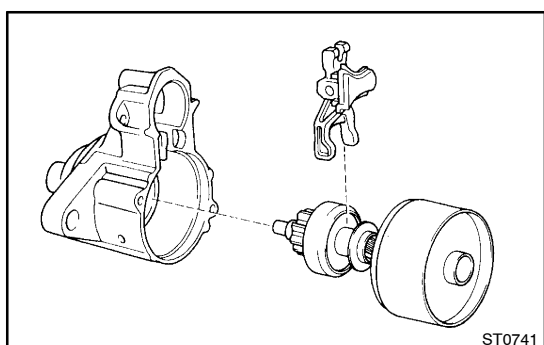
- (a) Apply grease to the planetary gears and flange pin parts of the planetary shaft.



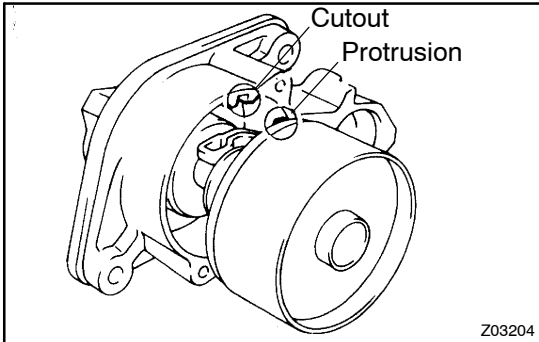
- (b) Install the plate washer and 3 planetary gears.
- (c) Align the cutout of the plate with the protrusion inside the shock absorber, and install the plate.

4. INSTALL DRIVE LEVER AND STARTER CLUTCH WITH SHOCK ABSORBER

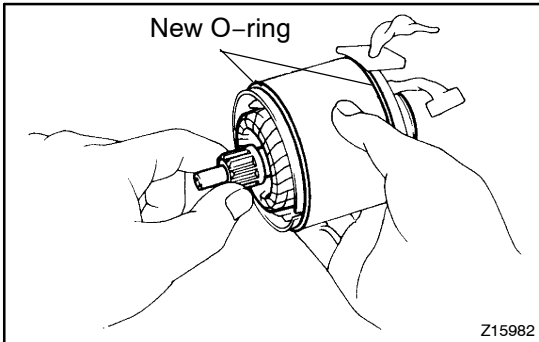
- (a) Apply turbine oil with additives to the bearing of the starter housing.
- (b) Apply grease to the drive lever touching the starter pivot part of the drive lever.



- (c) Install the drive lever to the starter clutch.



- (d) Align the protrusion of the shock absorber with the cutout of the starter housing and install them.



5. INSTALL 2 NEW O-RINGS TO FIELD FRAME

6. PLACE ARMATURE INTO FIELD FRAME

7. INSTALL BRUSH HOLDER

- (a) Place the brush holder in position on the armature.
 (b) Using a screwdriver, hold the brush spring back, and connect the brush into the brush holder. Connect the 4 brushes.

HINT:

Check that positive (+) lead wires are not grounded.

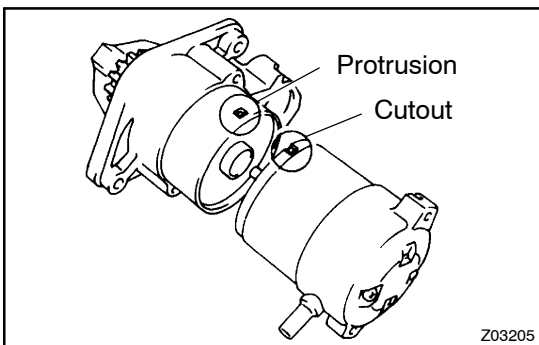
8. INSTALL COMMUTATOR END FRAME

- (a) Apply turbine oil with additives to the bearing of the end frame.
 (b) Install the end frame with 2 new screws.

Torque: 1.5 N·m (15 kgf·cm, 13 in·lbf)

NOTICE:

To avoid interference between the brush holder and the dust protector pull the commutator end frame away at an angle.



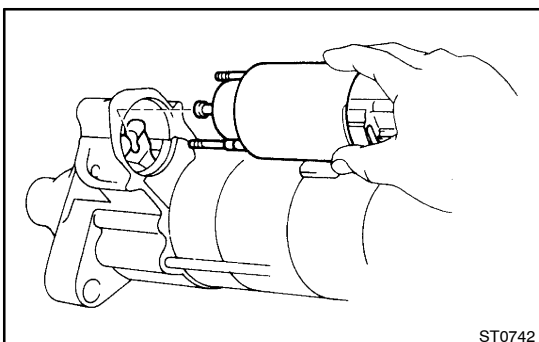
9. INSTALL FIELD FRAME AND ARMATURE ASSEMBLY

- (a) Align the cutout of the field frame with the protrusion of the shock absorber.
 (b) Install the field frame and armature assembly with the 2 through bolts.

Torque: 5.9 N·m (60 kgf·cm, 52 in·lbf)

10. INSTALL MAGNETIC SWITCH

- (a) Install the plunger cover to the magnetic switch.



- (b) Hang the plunger of the magnetic switch to the drive lever from the upper side.
 (c) Install the magnetic switch with the 2 nuts.
Torque: 8.3 N·m (85 kgf·cm, 73 in·lbf)
 (d) Connect the lead wire to the terminal, and install the nut.
Torque: 9.8 N·m (100 kgf·cm, 87 in·lbf)