

REASSEMBLY

HINT:

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

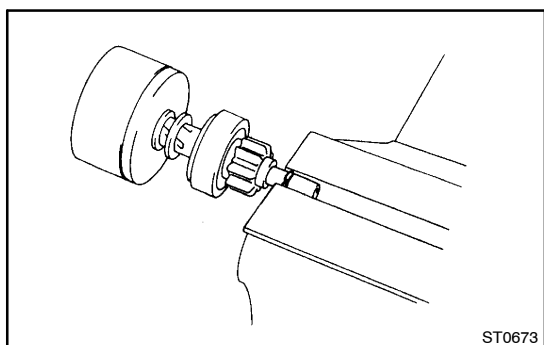
1. INSTALL INTERNAL GEAR AND PLANETARY SHAFT

- (a) Apply grease to the internal gear touching the sock absorber and planetary gears.
- (b) Align the hollow of the internal gear with the protrusion inside the shock absorber.
- (c) Insert 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.

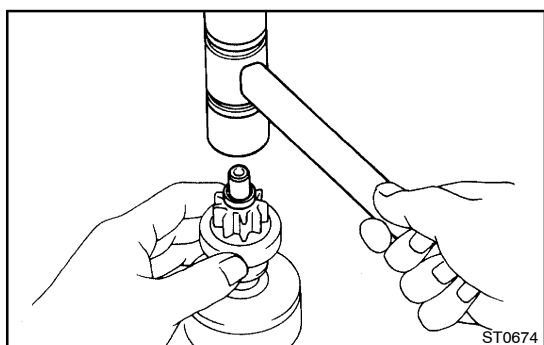
- (g) Using snap ring pliers, install the plate washer and snap ring.

2. INSTALL STARTER CLUTCH

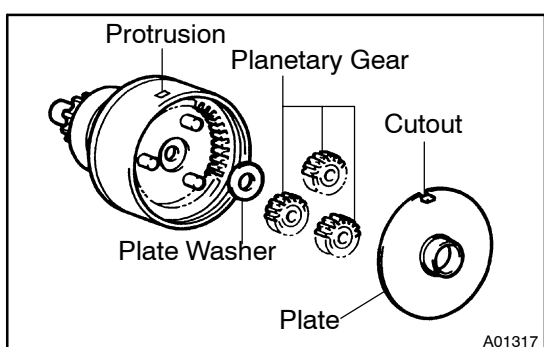
- (a) Apply grease to the bushing and spline of the starter clutch and stop collar.
- (b) Place the starter clutch and stop collar on the planetary shaft.



- (c) Apply grease to the snap ring, and install it to the planetary shaft groove.
- (d) Using a vise, compress the snap ring.



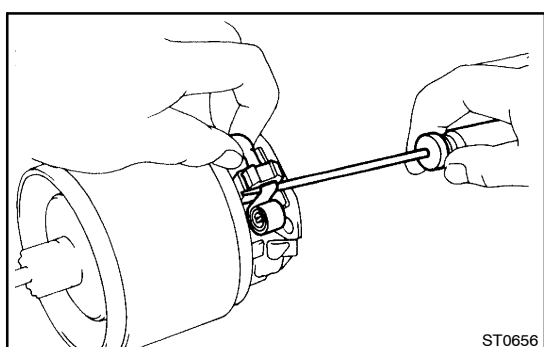
- (e) Hold the starter clutch, tap the planetary shaft and install the stop collar onto the snap ring with a plastic-faced hammer.



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. PLACE ARMATURE INTO FIELD FRAME

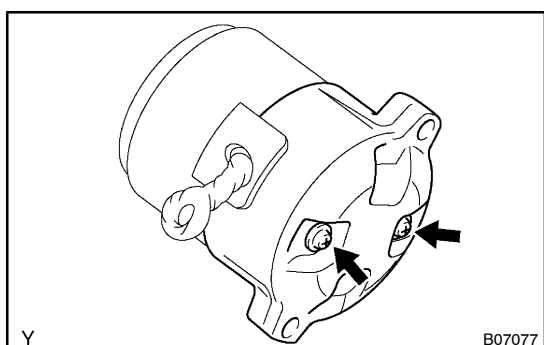


5. INSTALL BRUSH HOLDER

- (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.

NOTICE:

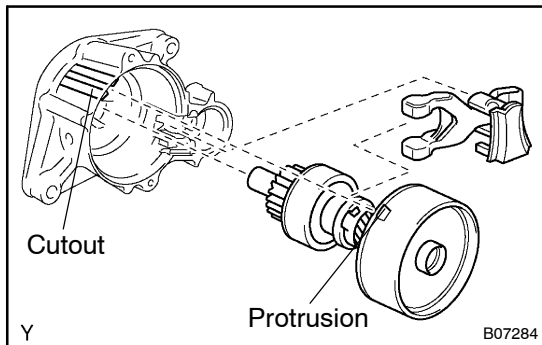
Check that positive (+) lead wires are not grounded.



6. INSTALL COMMUTATOR END FRAME

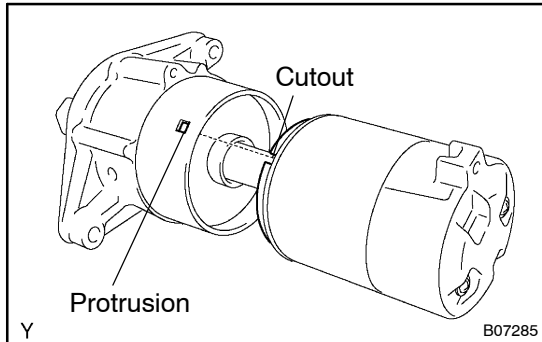
- (a) Install a new O-ring to the groove of the field frame.
- (b) Apply turbine oil with additives to the bearing of the end frame.
- (c) Install the end frame with the 2 screws.

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



7. INSTALL DRIVE LEVER AND STARTER CLUTCH WITH SHOCK ABSORBER

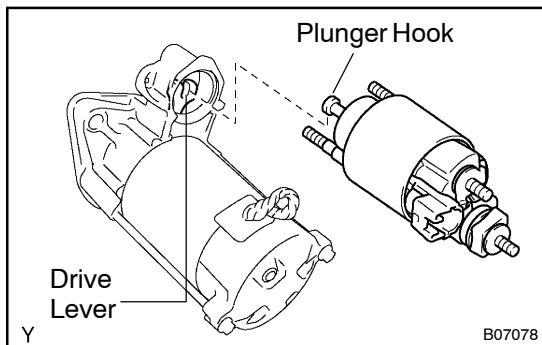
- (a) Apply turbine oil with additives to the bearing of the starter housing.
- (b) Apply grease to the drive lever touching the starter pivot part of the drive lever.
- (c) Install the drive lever to the starter clutch.
- (d) Align the protrusion of the shock absorber with the cutout of the starter housing and install them.



8. INSTALL FIELD FRAME AND ARMATURE ASSEMBLY

- (a) Install a new O-ring to the groove of the field frame.
- (b) Align the cutout of the field frame with the protrusion of the shock absorber.
- (c) Install the field frame and armature assembly with the 2 through bolts.

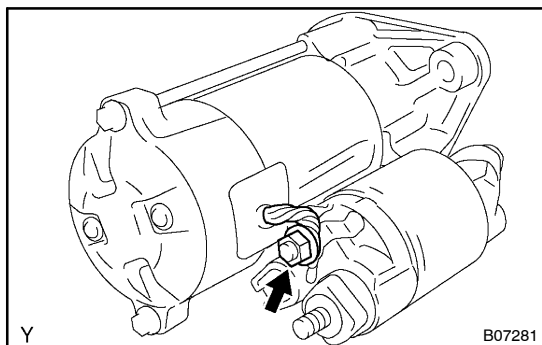
Torque: 5.9 N·m (60 kgf·cm, 52 in.·lbf)



9. INSTALL MAGNETIC SWITCH

- (a) Hang the plunger hook of the magnetic switch to the drive lever.
- (b) Install the magnetic switch with the 2 nuts.

Torque: 8.3 N·m (85 kgf·cm, 73 in.·lbf)



- (c) Connect the lead wire to the terminal with the nut.

Torque: 9.8 N·m (100 kgf·cm, 87 in.·lbf)

10. INSTALL NEW DUST PROTECTOR