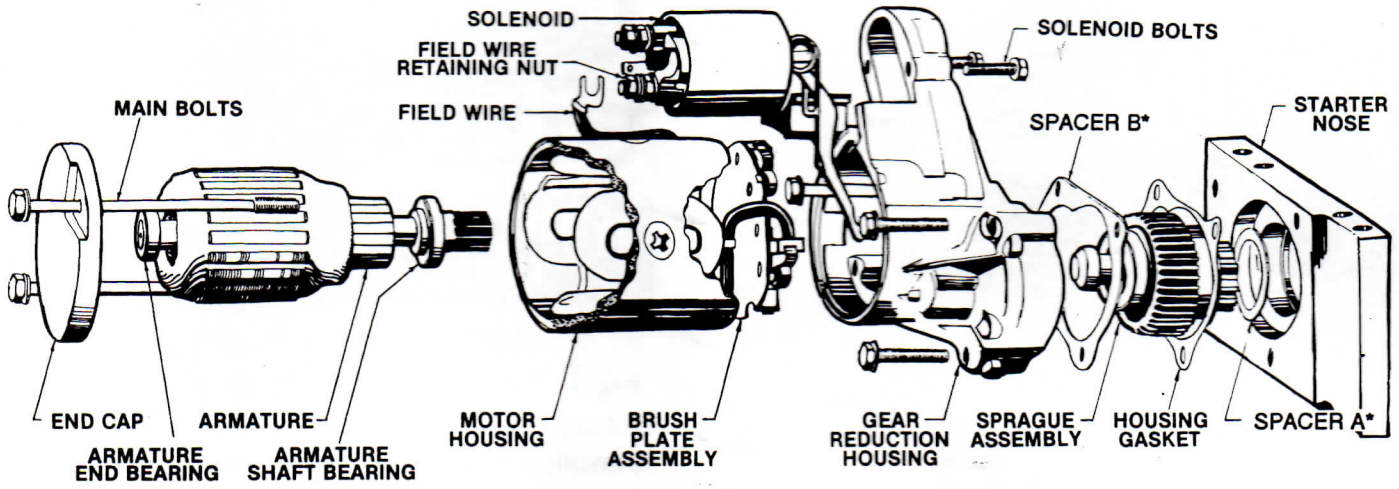
EXPLODED VIEW OF TYPICAL STARTER

PLEASE REVIEW BEFORE ATTEMPTING TO DISASSEMBLE STARTER



*Optional spacers: Only used when more starter pinion to ring gear clearance needed.

Starter Disassembly/Assembly

The starter must be disassembled to install these spacers. Experience disassembling and assembling starters is highly recommended. Please study these instructions and the exploded view of the starter before disassembling the starter.

1. Loosen the field wire retaining nut and disconnect the field wire.
2. Loosen but do not remove the two bolts holding the end cap to the gear reduction housing. Remove the field, armature, brush plate assembly, end cap and bolts as a unit. If this assembly does not come apart easily, it may be necessary to carefully work it back and forth to separate the armature shaft bearing from the gear reduction housing at the front of the starter motor.
3. Remove the three bolts which hold the gear reduction housing to the starter nose and separate these pieces.

Spacer Installation Instructions

NOTE: 4, 5, & 6 are for additional ring gear clearance only.

4. Remove the pinion/sprag-clutch assembly from the nose.
5. Place the round spacer 'A' (included with starter) into the recess in the adapter plate and then replace the pinion/sprag-clutch assembly in the recess.
6. Place the housing shaped spacer 'B' between the adapter plate and the gear housing and reassemble using allen head bolts (supplied). Make sure the long bolt is installed without a lockwasher (due to the tight tolerance condition which could hinder starter performance).
7. Assemble the rest of the starter in the reverse order. **CAUTION!** Do not over tighten the two case bolts (1/4"x5") because this will distort the end cap and overload the bearing causing probable failure.

SPACER INSTALLATION