

## TCI High Performance Gear Reduction Starter

### Parts List:

- One (1) Starter
- Two (2) 3/8-16x4" Bolts (GM Only)
- One (1) Shim Kit

Starter pinion to ring gear clearance and backlash must be checked and correct before cranking motor!

**Note:** This starter is designed for 12 volt system. It may be used with a 16 volt system but the life of the solenoid/starter will be decreased.

### DISCONNECT BATTERY BEFORE INSTALLATION!!!

1. Bolt starter in place and torque mounting bolts to 29-31 ft-lbs.
2. Check Starter pinion-to-ring-gear clearance. Refer to Figure 3. With the starter pinion disengaged, there should be .100" +/- .040" between the pinion and ring-gear. If this is not correct, remove starter and check for nicks or burrs on the starter mounting block and the surface area on the engine where the starter mounts. Otherwise utilize the shims provided. To install shims to obtain proper Starter pinion-to-ring-gear clearance, remove the mounting block and install the shims as shown in figure 6 between the starter & mounting block and re- assemble mounting block and re-check. Next check the backlash. To do this, simply pull the pinion gear out into the ring-gear. There should be .035" to .060" of clearance. See figure 1&2. If this is not correct, use the provided flat shims (GM only).
3. Attach the wires while being careful not to over-torque the nut on the upper stud! Refer to figure 4 or 5 depending on your exact setup.

### Recommended Torque Spec for common Bolts

Bolt Size	Recommended Torque
1/4-20	8 ft-lbs
5/16-18	15 ft-lbs
3/8-16	29 ft-lbs



Figure 1

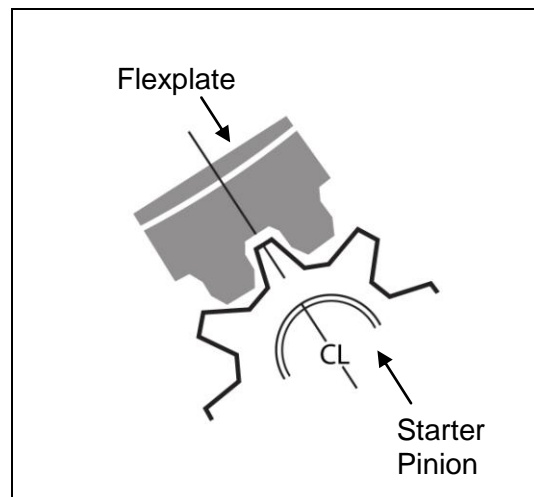


Figure 2

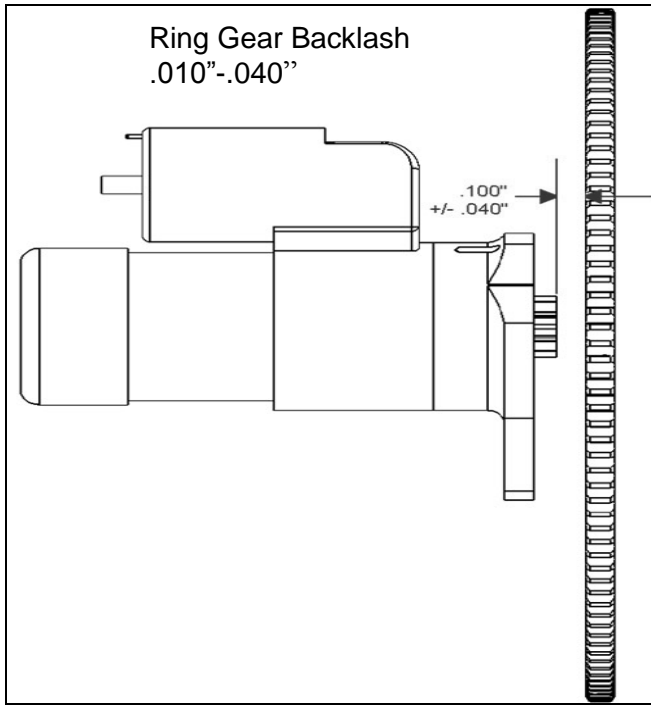


Figure 3

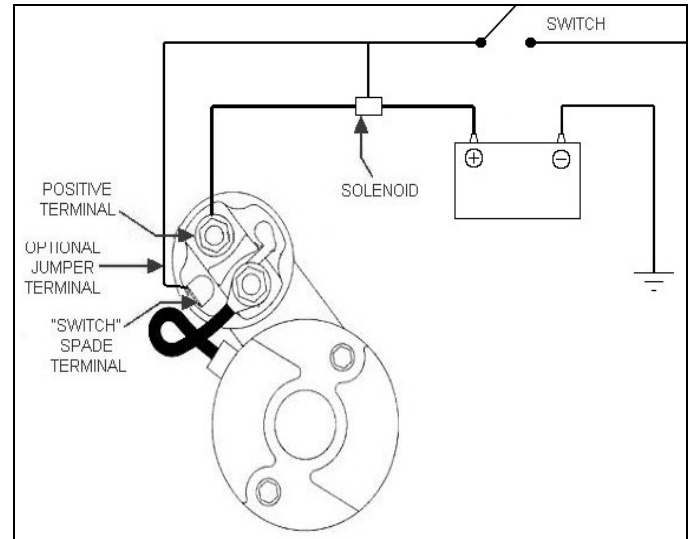


Figure 5

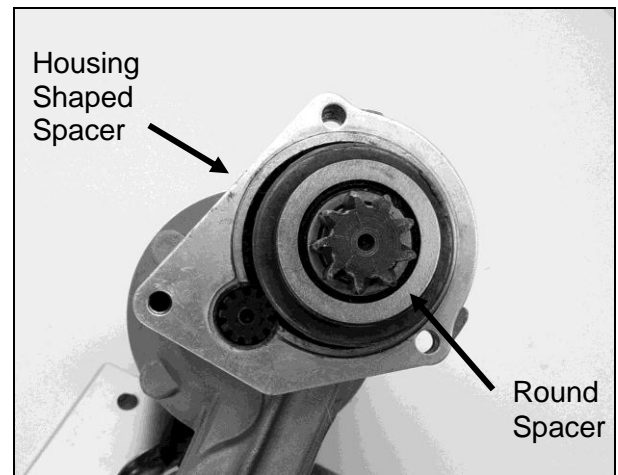


Figure 6

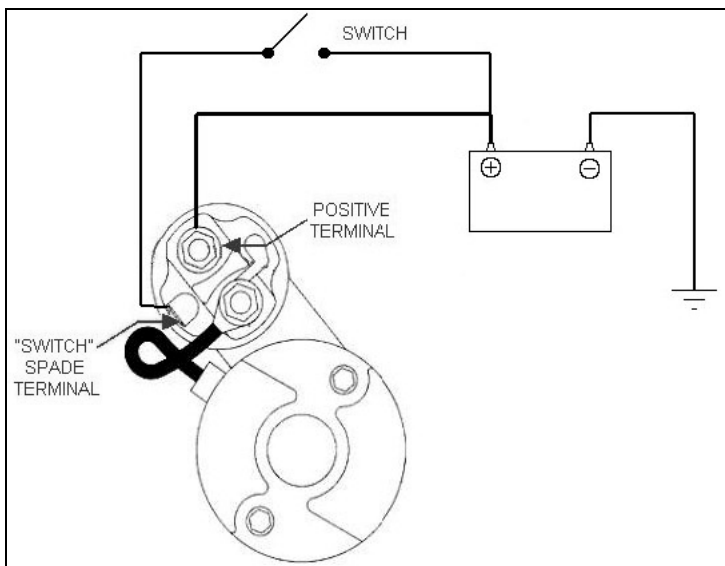


Figure 4

### Replacement Parts

Pinion Gear Replacement Set	
Application	Part #
Fits Part #351100, 351109 & 351400	351126
Fits Part #351106 & 351110	351130
Starter Solenoids	
Application	Part #
Fits Part #351100, 351300, 351600, 351309 & 351109	351125
Fits Part #351106 & 351110	351128
Shim Kit	
Application	Part #
Fits Part #351100, 351300, 351600, 351309 & 351109	352050