



ULTRA DUTY STARTER

INSTALLATION INSTRUCTIONS

Thank you for purchasing a Quarter Master starter. Please take a few minutes to read through these instructions before you install your new Quarter Master Ultra-Duty starter.

NOTES:

- Quarter Master starters are designed for use with 12 volts and can be used with 16 volts, but 16 volts may shorten the life of the solenoid.
- Some Ford applications require a spacer. Quarter Master offers .250" (P/N 114373) and .460" (P/N 114371) spacers for Ford small block applications. Contact your local Quarter Master distributor for more information.
- Quarter Master recommends installing a heat shield to protect the starter from excessive heat.

INSTALLATION:

1. Install a jumper if you are using a remote solenoid. An 1/8" drill may be required on the spade terminal for jumper screw.
2. Bolt the starter in place. Refer to Table 1 for torque specifications.
3. Check the starter pinion-to-ring-gear clearance. Refer to Figure 2. With the starter pinion disengaged, there should be .100" +/- .040" between the pinion and the ring-gear. Shim if necessary. Quarter Master offers .030" (P/N 114943) and .060" (P/N 114940) shim kits.
4. When used with a Quarter Master ring gear, the backlash for Ultra-Duty starters should be about .025". If you have a Chevrolet-style starter, you can adjust the backlash by adding shims (this will increase the backlash).
5. Attach the wires. Be careful to not over-torque the nut on the copper studs.

For a 2-wire:

- a. Connect the battery cable to the unused stud. Refer to Figure 3.
- b. Connect the starter switch lead to the spade connection.

For a Remote Solenoid:

- a. Connect a jumper from the unused stud to the spade.
- b. Connect the battery cable from the solenoid to the unused stud. Refer to Figure 1.

6. Install the heat shield, if desired (this is recommended).

Table 1: Recommended Torques for Common Bolt Sizes

Bolt Size	Recommended Torque
1/4-20	8-10 ft-lbs
5/16-18	15-17 ft-lbs
3/8-16	29-31 ft-lbs

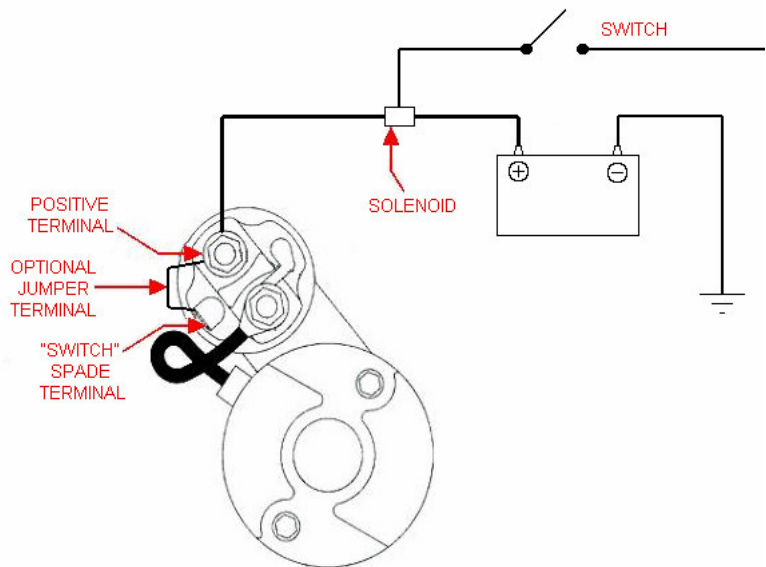


Figure 1: Remote Solenoid set-up

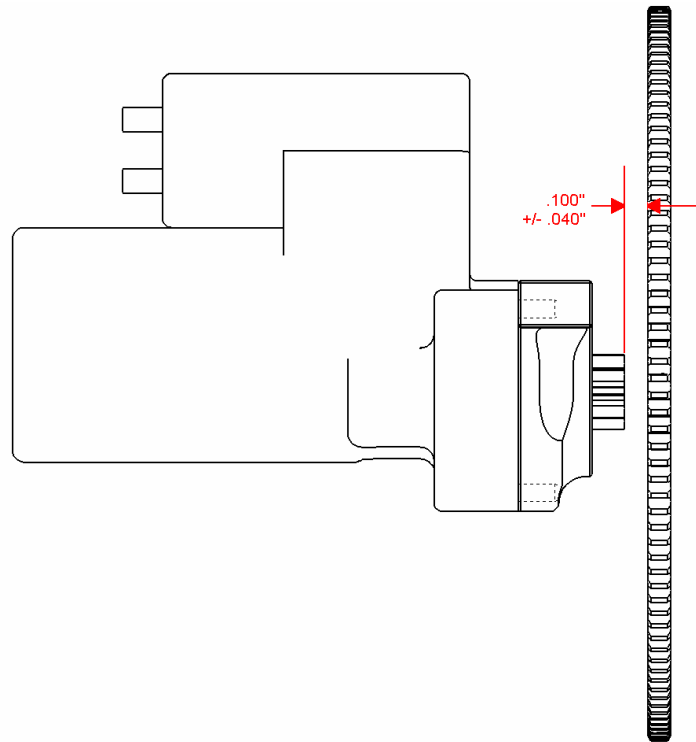


Figure 2: Pinion-to-ring gear clearance

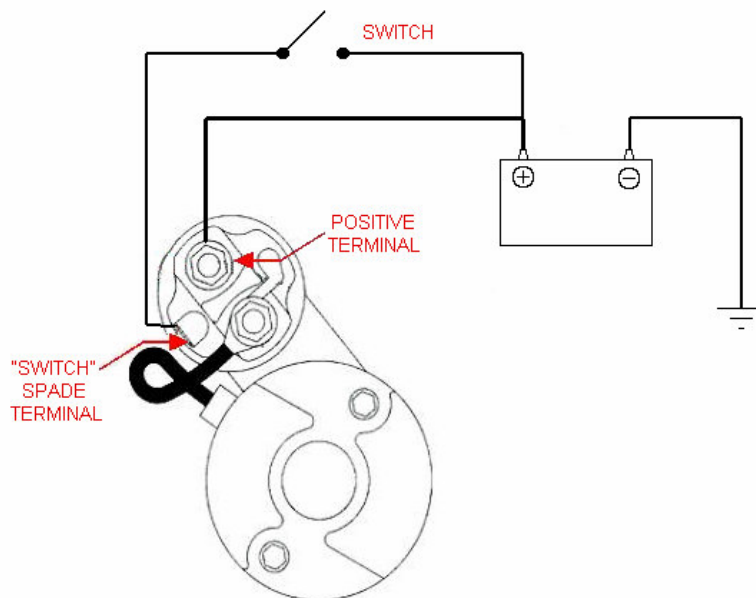


Figure 3: Standard set-up