



INSTRUCTION SHEET

Gear Reduction Performance Starters

UltraDuty 9050, 9051, 9052, 9053



P/N's 9050, 9053: Use original mounting bolts.
 P/N 9052: See note below.
 P/N 9051: Includes adapter plate and mounting bolts.

INSTALLATION

These instructions are provided as supplementary information to the factory service manual instructions for starter replacement.

DISCONNECT THE BATTERY.

MOUNT STARTER. Make sure the mounting surface of the engine block is smooth, flat and free of paint buildup. Torque starter mounting bolts to engine manufacturer's specifications, typically 32 ft. lbs.



9051

Note on 9051 for Ford Powerstroke Diesel

Install the included adaptor plate and then using the supplied bolts, mount the starter. See picture to the left.

Note on 9052 for GM 6.2L, 6.5L Diesel

Before installing starter check mounting bolts for wear. The knurling on the bolt should fit snug in holes. If bolt is loose replace with AC Delco p/n 15544950. On the rear of starter you will find a stud. Mount factory support bracket from stud to engine block. Battery cable may have to be re-routed to reach battery stud on starter.



9052

ATTACH BATTERY CABLE AND SWITCH WIRE. The

switch wire should be capable of handling 75A intermittent and 15A continuous, typically a 10AWG wire. The battery cable must be the proper size for the length of the cable (see chart). All connections should be clean and tight and terminals should be soldered if possible. The ground cable is important and the best ground path is direct to the engine block. With steel frame vehicles the ground path can be to the frame. This ground cable should be the

same size as the starter positive cable. Also, a ground strap should be installed from the frame to the engine.

DISTANCE 3' 5' 7' 10' +10'

AWG 2 1 0 00 000

voltmeter to one end of the cable and the other side of the voltmeter to the other end. OPERATE THE CIRCUIT and simultaneously measure the volt drop. It should be 0.5VDC or less. A high voltage drop indicates a bad connector or an undersized cable. The ground circuit can be checked in the same manner.

Measure input voltage by connecting the positive probe of a voltmeter to the "MOTOR" terminal of the solenoid and connecting the negative to the starter housing. This should be 9.6V minimum while cranking.

CAUTION: NEVER OPERATE A STARTER MORE THAN 30 SECONDS AT A TIME WITHOUT ALLOWING TIME TO COOL AT LEAST TWO MINUTES. OVERCRANKING WILL DAMAGE THE STARTER.