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Starter Installation Instructions



Note: The starter is the highest draw item in your electrical system and can be upwards of 500 Amps. This amount of load can stress your wiring and connections. These issues are difficult to diagnose since they will appear fine under low load and fight high resistance under heavy load. Always check battery condition and repair/replace any damaged or loose wiring components. Never assume that new batteries guarantees full voltage at the starter!

POWERSTROKE	CUMMINS	DURAMAX
9050 - 1985-1994 6.9/7.3L IDI	9053 - 1994-2002 5.9L Cummins	9052 - 1982-2002 6.2/6.5L GM Diesel (12V)
9051 - 1994-2003 7.3L Powerstroke	9054 - 2003-2006 5.9L Cummins	9057 - 2001-2016 6.6L Duramax
9059 - 2003-2007 6.0L Powerstroke	9058 - 2007-2016 5.9/6.7L Cummins	
9060 - 2008-2010 6.4L Powerstroke		
9056 - 2011-2016 6.7L Powerstroke		

INSTALLATION

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

WARNING: Disconnect the (-) Battery cable on both batteries before proceeding.

- 1) Mount Starter:** Make sure the mounting surface is smooth and clear of any oil or paint. Wire brush and clean surface if needed, install starter bolts and torque to OEM specifications (Typically 32 Ft/Lbs). Note on 9052 for GM 6.2L/6.5L: Before installing starter check mounting bolts for wear. The knurling on the bolt should fit snug in the holes. If bolt is loose replace with AC Delco p/n 15544950. On the rear of the 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.
- 2) Wiring:** The starter switch wire should be capable of handling 65A in rush and 20A continuous, typically a 10AWG wire. The battery cable must be proper size for the length of the cable, and all connections should be clean and tight. The ground cable is very important, and the best ground path is direct to a clean spot on the engine block. With steel frame vehicles a ground will run from the engine block to frame and should be the same size as the positive cable. If upgrading your wiring, consider adding a ground directly from the engine block to battery (-). **Warning: DO NOT overtighten electrical connections. "Wrist tight" with hand tools is plenty of torque for these terminals. Overtightened terminals can damage the solenoid and cause intermittent cranking issues.**
- 3) Operation:** The starter should operate quietly. The cables and connections should be checked for voltage drop with a voltmeter. Operate the circuit and measure input voltage by connecting the positive probe of the meter to the "Motor" terminal of the solenoid and the negative to the starter housing. This should be a minimum of 11V during cranking. You can now perform this same test on the "Ignition/switch" terminal of the starter. Low voltage on this post is the most common cause for intermittent cranks or clicking.

Caution: Never operate a starter more than 10 seconds at a time without allowing time to cool for 1 minute. Overcranking will damage the starter.

For Installation and Selection help call us at 630-957-4019