

## Electrical System: Starter



**Description:** The starter consists of an electric motor that powers a starter drive—a special pinion gear designed to engage with the ring gear of the flywheel or torque converter. Many of today’s starters also use a gear reduction to increase the torque output of the starter. The starter is usually mounted to the rear of the engine or the front of the transmission housing.

**Purpose:** The starter cranks the engine when the ignition switch is turned to the start position. The starter drive uses an overrunning clutch that freewheels if the engine starts while the starter is still engaged, reducing the likelihood of damage to the starter drive and ring gear.

**Maintenance Tips/Suggestions:** To ensure good starter performance, check your vehicle’s battery cables at every oil change. The cables should be tight and free from corrosion. Corroded or loose connections can cause slow cranking, arcing at cable connections, and other electrical system problems. The battery case and terminals can be cleaned using a mixture of baking soda and water. As an added measure to fight terminal corrosion, chemically treated felt rings can be placed over the battery posts. Each spring, prior to travel season, it’s wise to have your car’s starter tested as part of a comprehensive starting, charging and battery test. This test will determine whether your car’s starter is drawing its normal amount of current. Excessive current draw usually means a worn starter and results in hard starting. Take your car to a professional service technician to get to the heart of your car’s starting system problem.