

## Starting System

### Starting System — Starter Motor

The starter motor is a 12-volt unit that has the starter solenoid mounted on the drive end housing and functions as follows:

- The current flows through the solenoid energizing coil until the solenoid plunger is at the end of its travel.
- The plunger closes a set of contacts that bypass the energizing coil, letting the holding coil engage the starter drive and pass starting current to the starter motor.
- The motor is energized when the starter solenoid contacts are closed.
- The starter drive engages the flywheel ring gear and starts the engine.
- An overrunning clutch in the starter drive protects the starter motor from excessive speed when the engine starts.

### Starting System — Starter Relay

The starter relay consists of:

- pull-in coil and contacts.

When the ignition switch is in the START position:

- the pull-in coil is activated and pulls the contacts together.
- current passes through the starter relay from the engine compartment Bussed Electrical Center (BEC) to the starter solenoid.

### Starting System — Clutch Pedal Position (CPP) Switch

The Clutch Pedal Position (CPP) switch for:

- a manual transmission closes when the clutch pedal is depressed, completing the starting circuit.
- an automatic transmission is a jumper inserted in place of the CPP switch to complete the circuit.

### Starter System — Operation

When the ignition switch is turned to the START position, the starter relay switches power to the starter solenoid causing the starter motor to engage as long as:

- the clutch pedal is depressed (manual transmission only).
  - the digital Transmission Range (TR) sensor is in PARK or NEUTRAL (automatic transmission only).
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