## **DESCRIPTION AND OPERATION**

## **Engine Ignition**

The electronic ignition system is a coil-on-plug ignition system. The coil-on-plug ignition system consists of the following components:

- crankshaft position (CKP) sensor
- ignition coils
- spark plugs

The CKP sensor:

- is a variable reluctance sensor.
- is triggered by a 36-minus-1 tooth sensor ring mounted on the crankshaft.
- provides base timing and crankshaft speed (rpm) to the powertrain control module (PCM).

The 8 separate ignition coils:

- change low voltage to high voltage pulses based on signals from the PCM.
- produce the high voltage pulses to the spark plugs.
- are connected directly to each spark plug.

The spark plug:

- change high voltage pulses into a spark which ignites the fuel and air mixture.
- originally equipped on the vehicle have a platinum-enhanced active electrode for long life.