distributor and through the rate shape tube (3).

Fuel is delivered to the injection control valve (1) by the rate shape tube and through a drilling in the distributor (2). The ICV controls both fueling and timing. The injection control valve contains an inner pin and outer valve. The outer valve is moved by magnetic force generated inside the ICV by a current from the ECM. The inner pin is moved by spring force and fuel pressure. When the two pins are in the closed position, no fuel flows through the control valve. The position of these internal parts controls fuel flow to the distributor rotor (3) and to the drain (4). The injection control valve opens and closes once for each injection event.

The distributor (1) directs the fuel to the correct injector using the rotor. The drain fuel from the ICV is routed through the ICV pressure regulator (4) and is returned to the tank.

The position of the rotor directs the fuel to one of six drillings in the distributor housing. These drillings communicate the fuel to six fuel pump delivery valves (3). There is one injector line per delivery valve. The injection line carries the fuel to the injector.

