

Engine Flywheel Removal

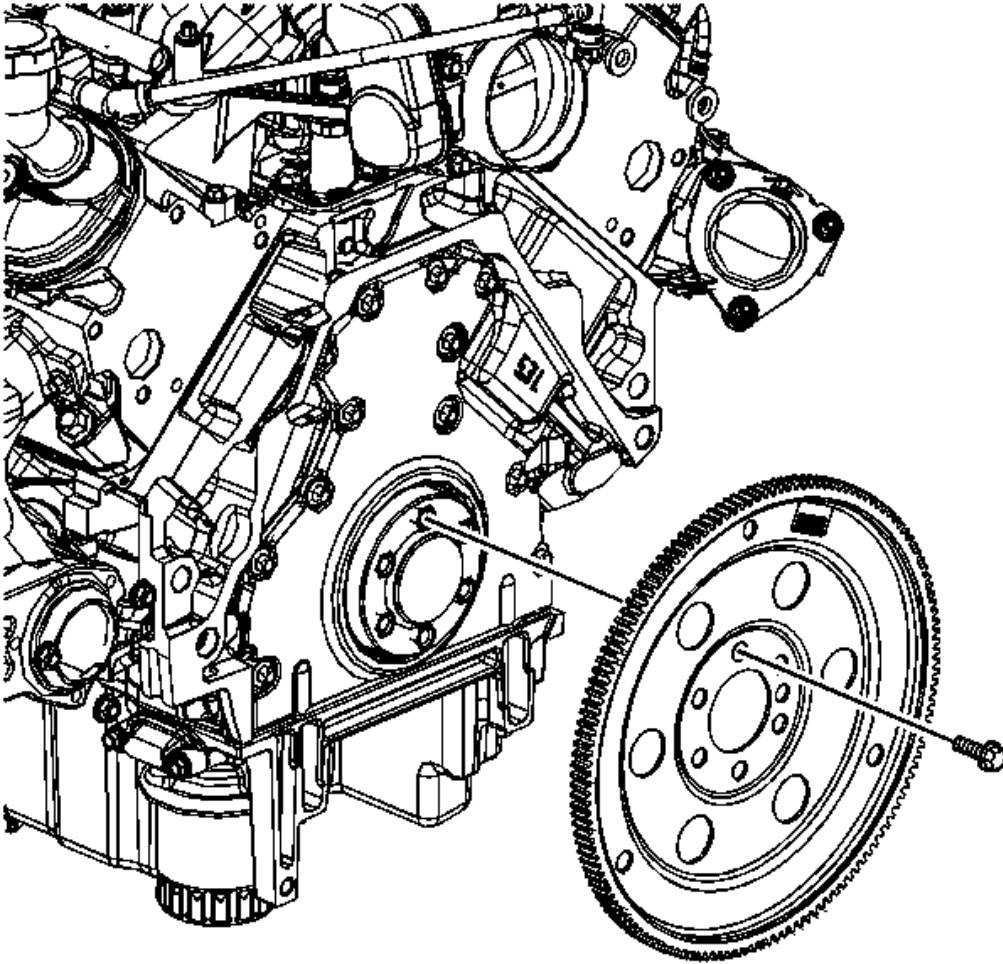


Fig. 332: Identifying Flywheel
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: The flex plate does not use a locating pin for alignment and will not initially seat against the crankshaft flange, but will be pulled onto the crankshaft by the engine flex plate bolts. This procedure requires a 3 stage tightening process.

1. Remove the engine flex plate bolts.
2. Remove the flex plate.

Oil Level Indicator and Tube Removal

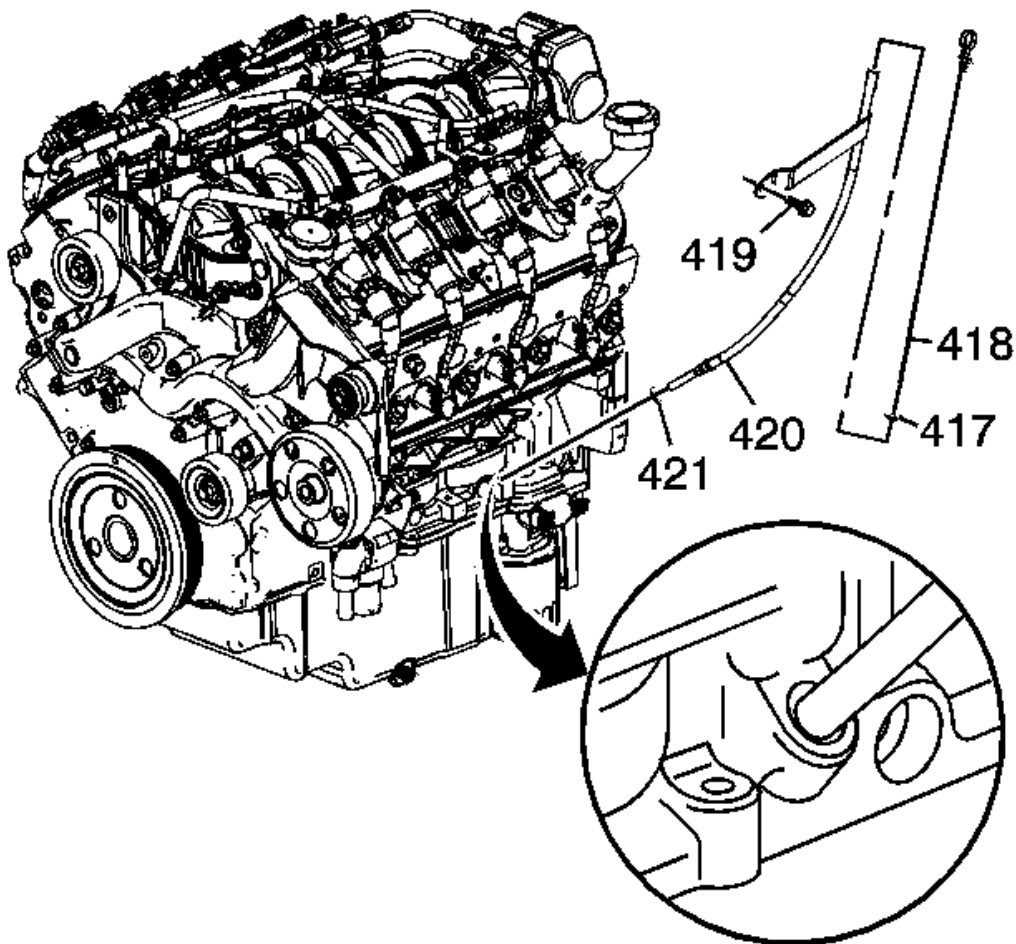


Fig. 333: View Of Oil Level Indicator & Tube
Courtesy of GENERAL MOTORS CORP.

1. Remove the oil level indicator (418) from the tube.
2. Remove the oil level indicator tube bolt (419).
3. Remove the oil level indicator tube (420).

IMPORTANT: Inspect the O-ring for cuts or damage. The O-ring may be used again if it is not cut or damaged.

4. Remove the O-ring (421) from the tube, as required.

Exhaust Manifold Removal - Left Side

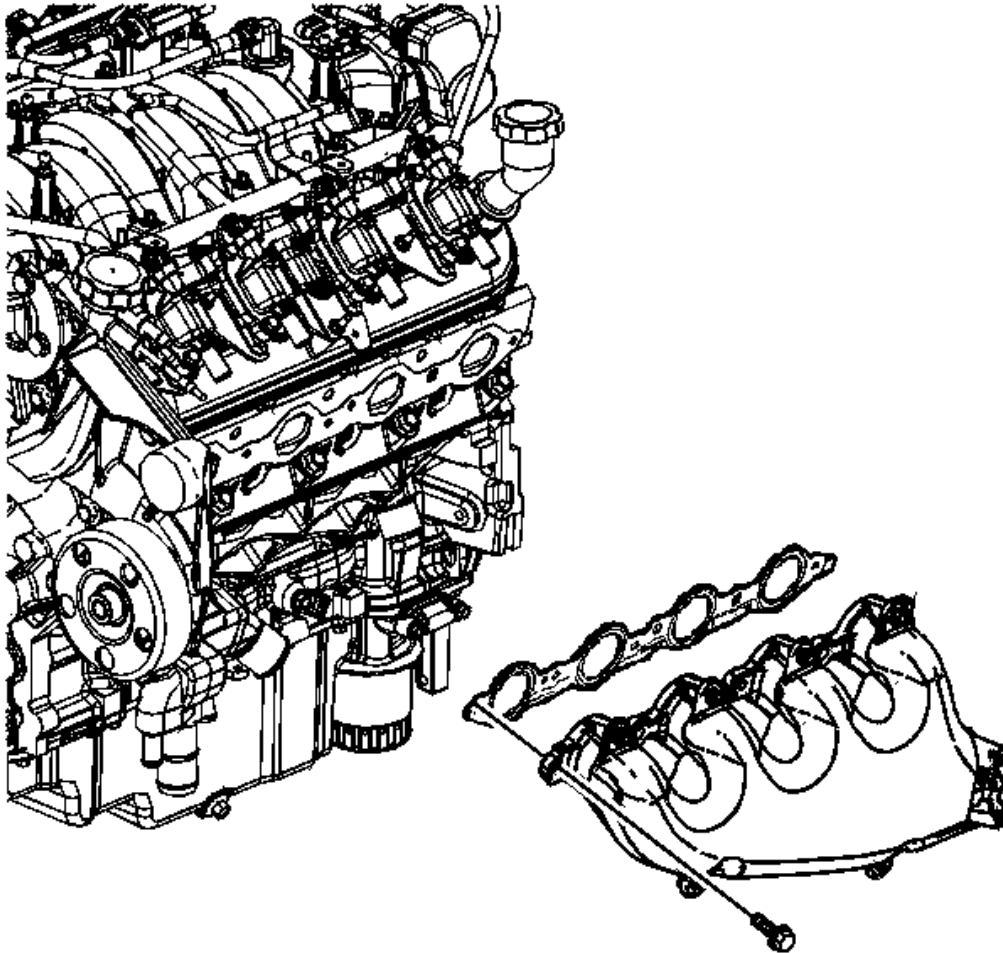


Fig. 334: Exhaust Manifold
Courtesy of GENERAL MOTORS CORP.

1. Remove the spark plug wires from the spark plugs.
2. Remove the exhaust manifold, bolts, and gasket.
3. Discard the gasket.

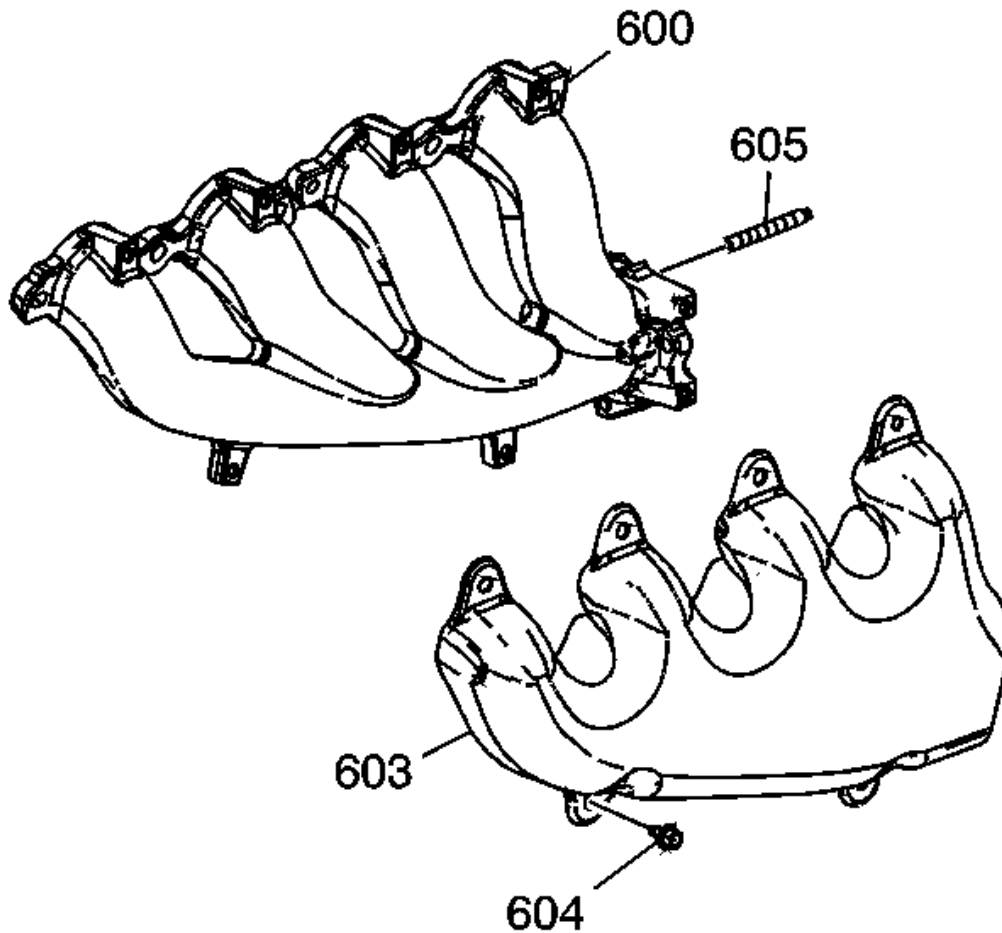


Fig. 335: Heat Shield & Bolts

Courtesy of GENERAL MOTORS CORP.

4. Remove the heat shield (603) and bolts (604) from the manifold (600), as required.
5. Remove the studs (605), as required.

Exhaust Manifold Removal - Right Side

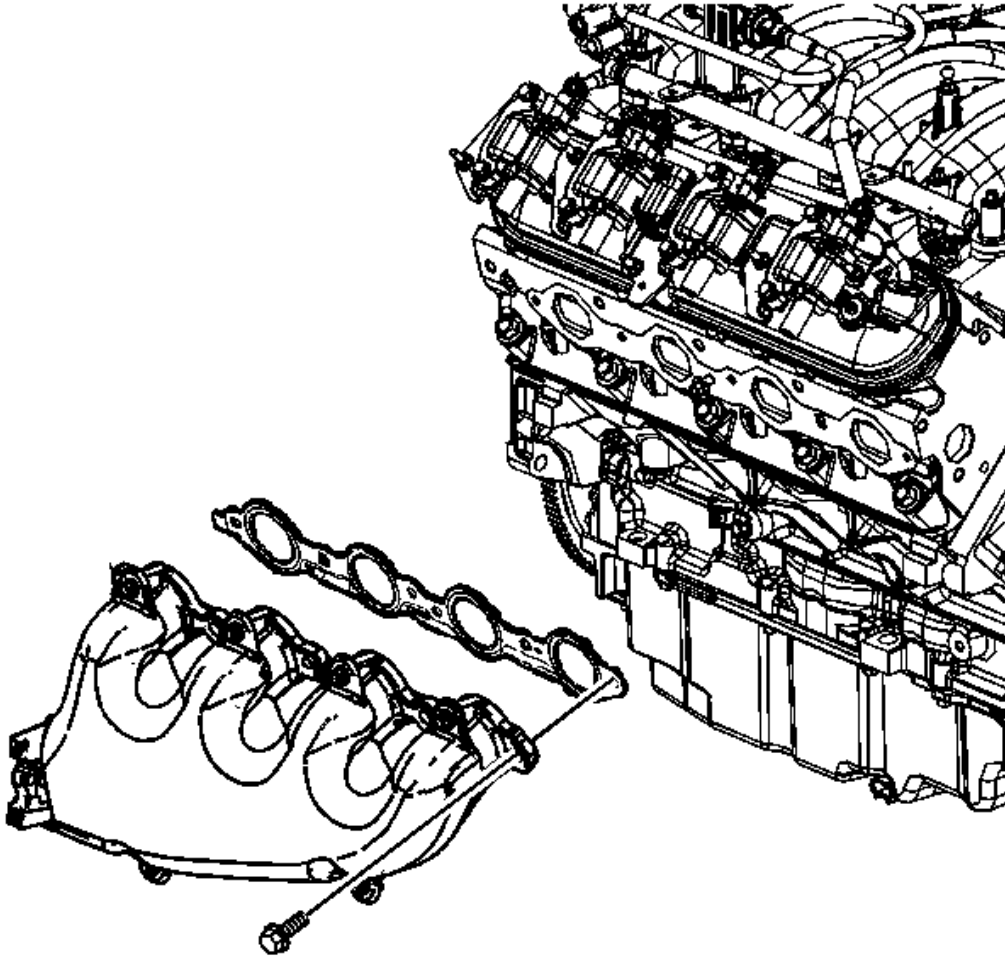


Fig. 336: Exhaust Manifold
Courtesy of GENERAL MOTORS CORP.

1. Remove the spark plug wires from the spark plugs.
2. Remove the exhaust manifold, bolts, and gasket.
3. Discard the gasket.

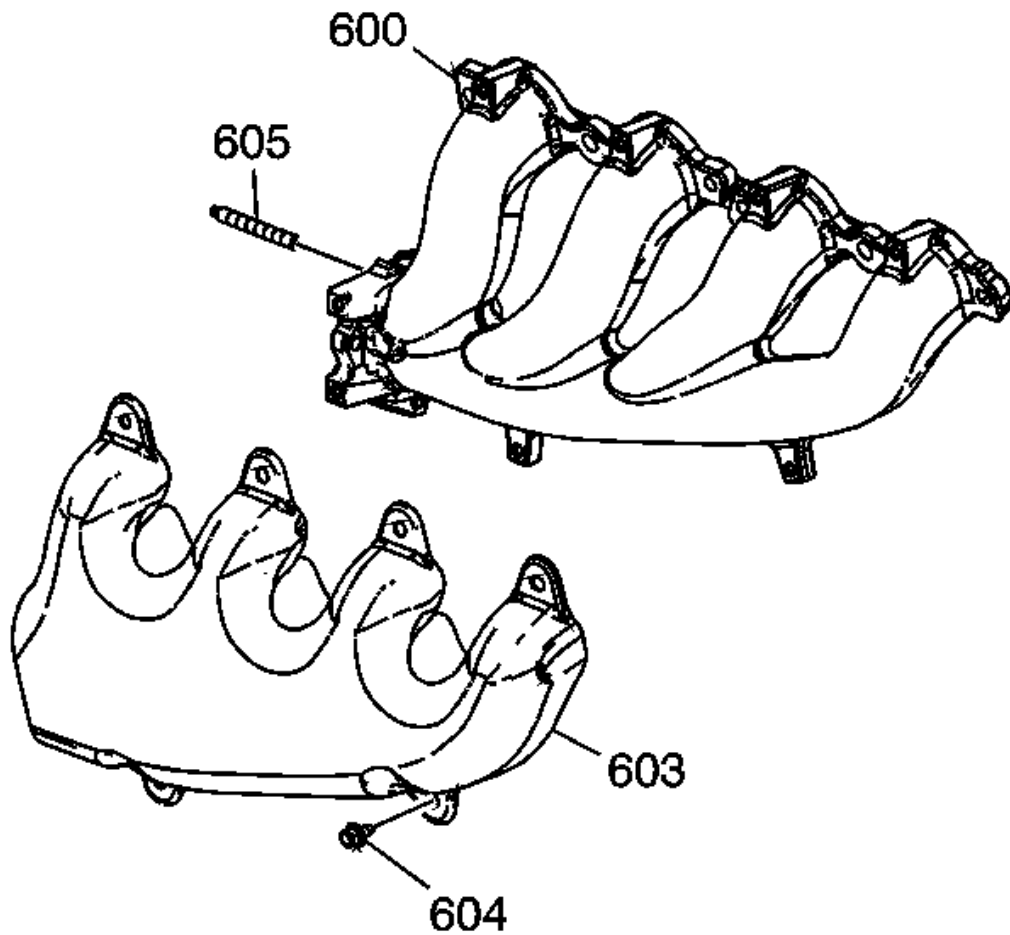


Fig. 337: Heat Shield & Bolts

Courtesy of GENERAL MOTORS CORP.

4. Remove the heat shield (603) and bolts (604) from the manifold (600), as required.
5. Remove the studs (605), as required.

Water Pump Removal

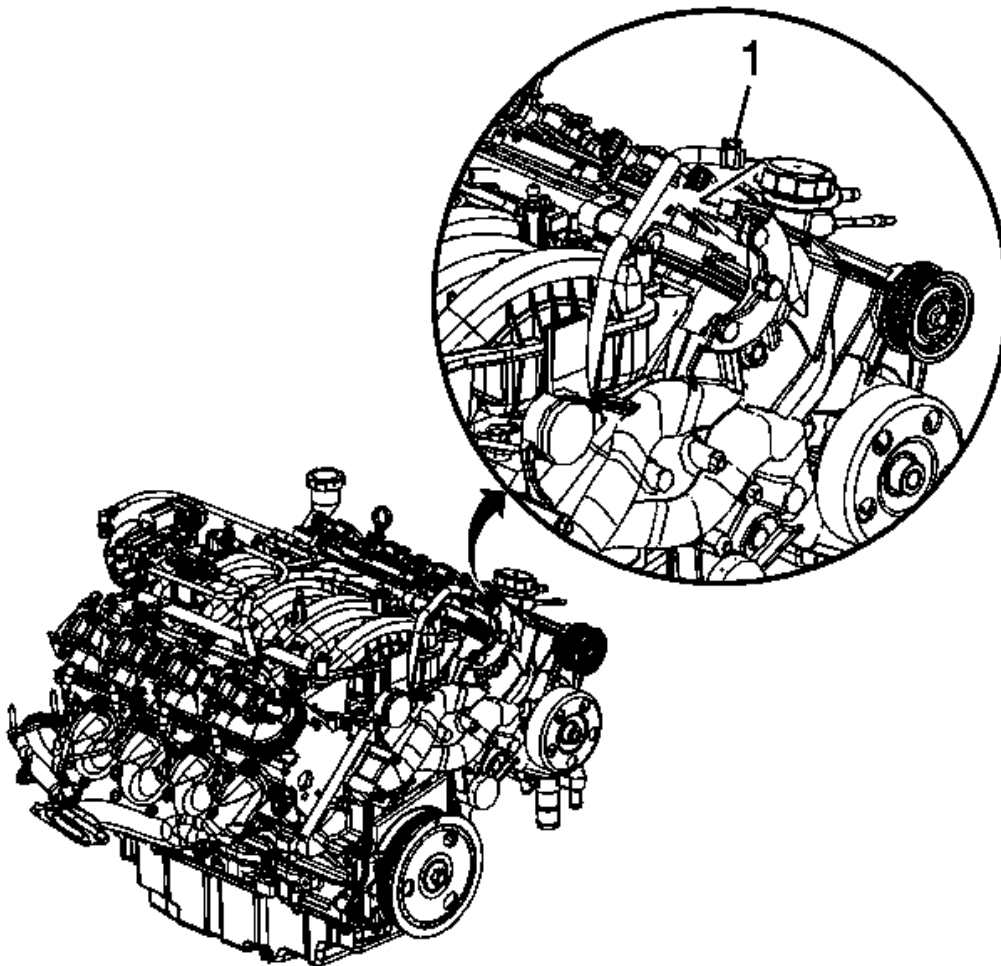


Fig. 338: Engine Coolant Air Bleed Hose And Clamp
Courtesy of GENERAL MOTORS CORP.

1. Disconnect the engine coolant air bleed hose and clamp (1).

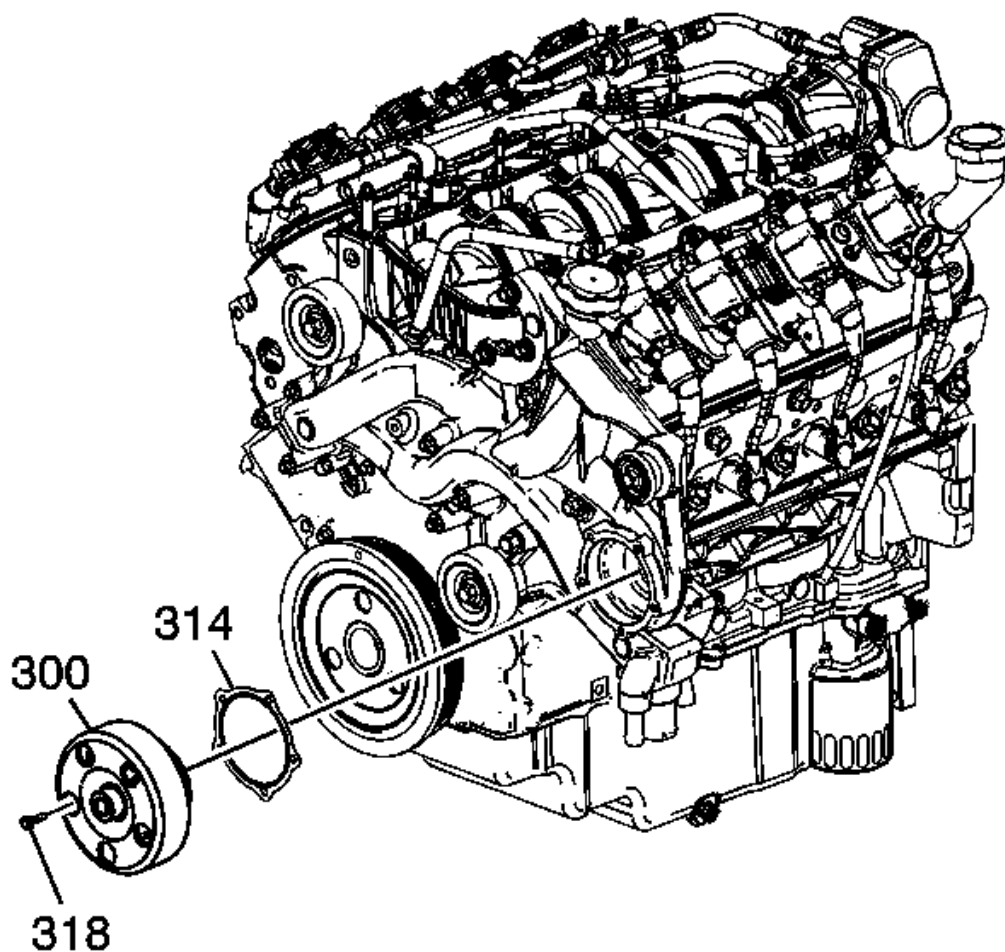


Fig. 339: Water Pump, Bolts & Gasket
Courtesy of GENERAL MOTORS CORP.

2. Remove the water pump (300), bolts (318), and gasket (314).

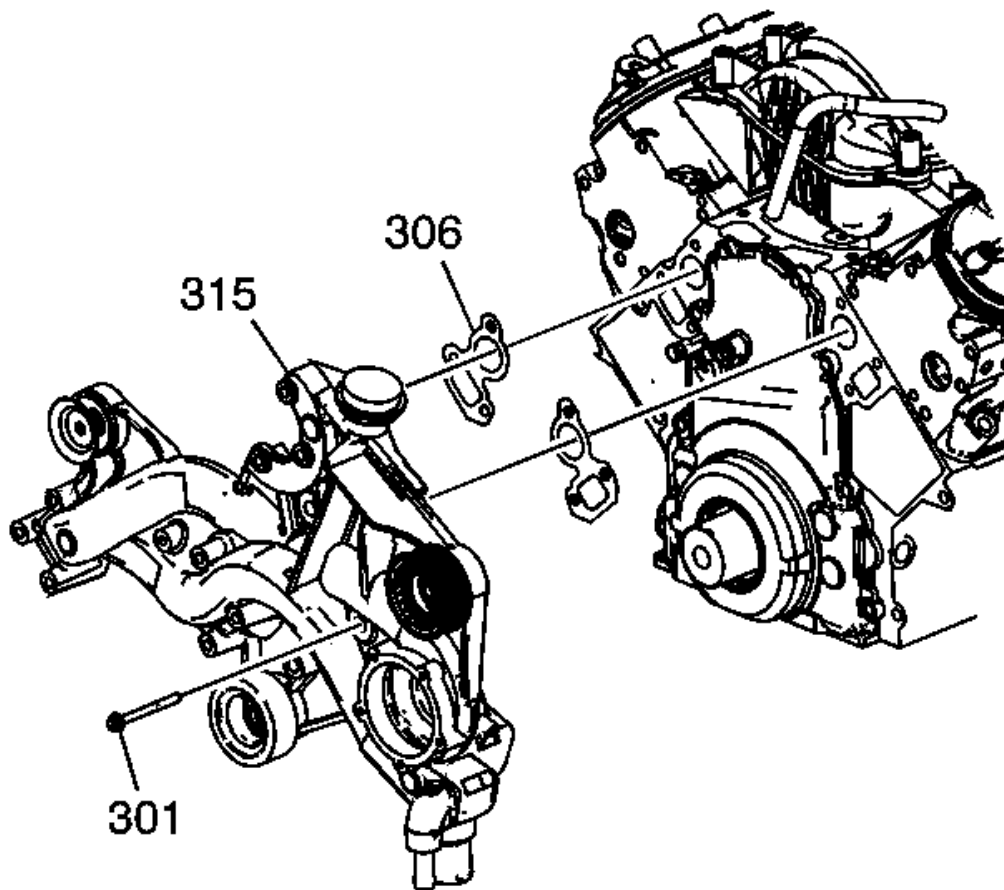


Fig. 340: Water Manifold, Bolts & Gaskets
Courtesy of GENERAL MOTORS CORP.

3. Remove the water manifold (315), bolts (301), and gaskets (306).

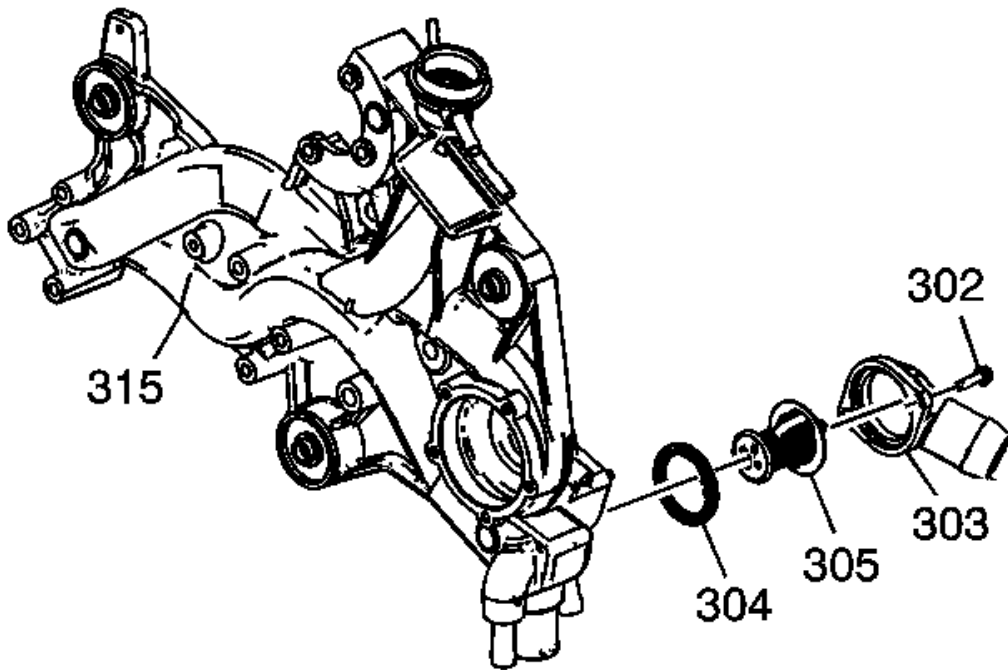


Fig. 341: View Of Thermostat Housing, Bolts, Thermostat, & O-Ring
Courtesy of GENERAL MOTORS CORP.

4. Remove the water inlet housing (303), bolts (302), thermostat (305), and O-ring (304), as required.
5. Discard the gaskets.

Throttle Body Removal

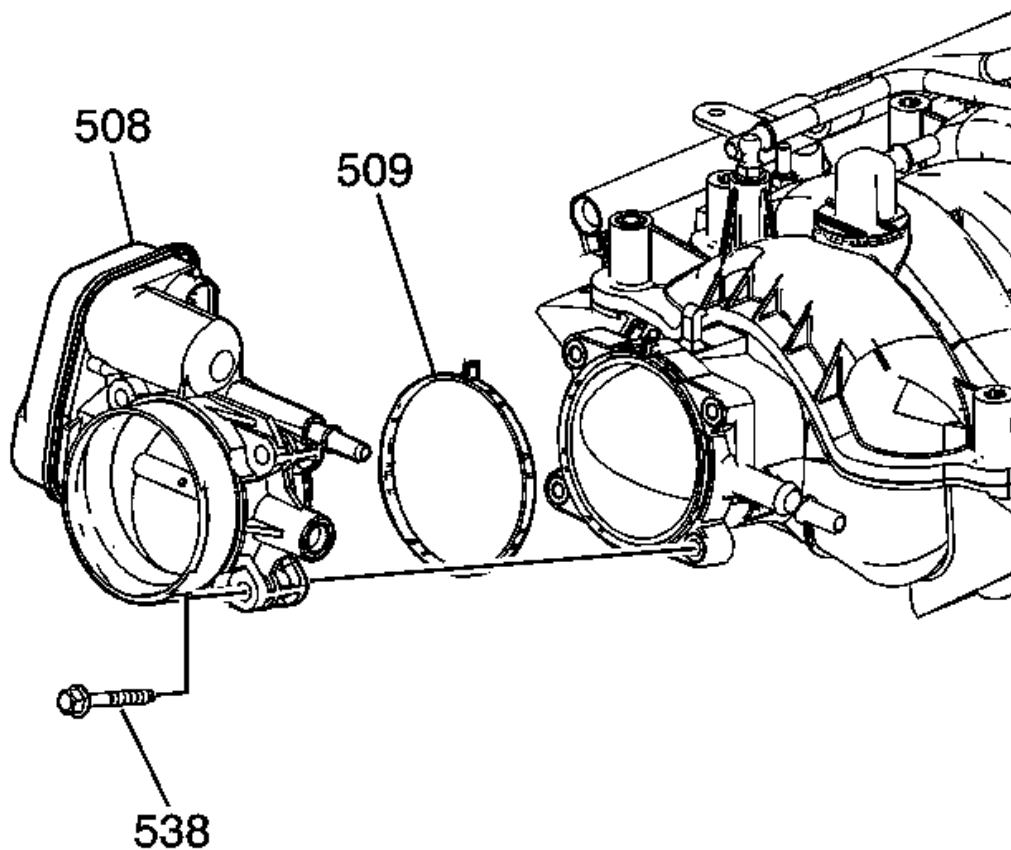


Fig. 342: Throttle Body Assembly
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: The intake manifold, throttle body, fuel injection rail, and fuel injectors may be removed as an assembly. If not servicing the individual components, remove the manifold as a complete assembly.

1. Remove the electrical wire harness connectors from the throttle body.
2. Remove the throttle body bolts (538).
3. Remove the throttle body (508).
4. Remove the throttle body gasket (509).
5. Discard the gasket.