Subject: No, Hard, or Slow Start, Backfire or "Kickback" During Crank/Start, "Grinding" or Unusual Noises During Crank, DTC P0338 (Replace Crankshaft Position Sensor)

Models: 1999–2000 Cadillac Escalade
1995–2000 Chevrolet and GMC S/T Models
1996–2000 Chevrolet and GMC C/K, M/L, G, P Models
1996–2000 Oldsmobile Bravada
with 4.3 L, 5.0 L, 5.7 L or 7.4 L Engine

Condition
Some customers may comment on one or more of the following conditions:
- Backfire during crank/start
- "Kickback" during crank/start
- "No" start
- "Slow" or "hard" start/crank
- "Grinding" or unusual noises during crank/start
- Cracked or broken engine block at the starter boss
- Broken starter drive housing
- Broken starter ring gear on flywheel
- Any combination of the above

Cause
A condition may exist that allows the crankshaft position sensor to command up to 50 extra degrees of spark advance during engine cranking only. This in turn exposes the engine to higher than normal cylinder pressures which may result in an inoperative condition to the starter drive housing, the engine flywheel starter ring gear, or the engine block at the outside edge of the starter boss.

Correction
Inspect for a stored powertrain DTC code P0338. This DTC will NOT illuminate the "Service Engine Soon" light. If this code is stored, the Crankshaft Position Sensor, P/N 10456607, MUST be replaced and the remaining components inspected for damage (engine block at the starter boss, the starter drive housing, and the engine flywheel starter ring gear).

Notice: When DTC code P0338 is set, failure to replace the Crankshaft Position Sensor could result in repeated inoperative conditions of the starter or flywheel.

Important: Some flywheel wear is normal; broken or missing teeth and/or cracks, are not normal.

Parts Information
Parts are currently available from GMSPO.

Warranty Information
For vehicles repaired under warranty, use:

<table>
<thead>
<tr>
<th>Labor Code</th>
<th>Description</th>
<th>Labor Time</th>
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</thead>
<tbody>
<tr>
<td>J4355</td>
<td>Sensor, Crankshaft Position - Replace</td>
<td>Use published labor operation time</td>
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</tbody>
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