

Revised Cam Sprocket & Sensor For 2001-2005 GM 8.1L VIN G & E Engines

The AERA Technical Committee offers the following information regarding a revised cam sprocket sensor for 2001-2005 GM 8.1L VIN G & E engines. Depending on the year of vehicle manufacture, there are two distinct sprockets and sensors used for these engines.

Previously published information inadvertently indicated the firing order for 2002 and newer 8.1L engines was different than 2001. The information should only of indicated the firing order was different than previously built big-block engines built before 2001. The new firing order on ALL 8.1L engines was designed to enhance engine performance and make it consistent with other current GM V8 engines.

2001-2003

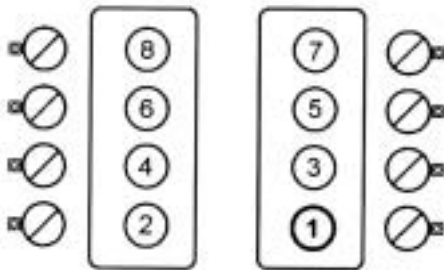
Cam Gear 12565699
 Camshaft 12556291
 Crank Gear 12560177
 Cam Sensor 12575183

2004-2005

Cam Gear 12572762
 Camshaft 12556291
 Crank Gear 12560177
 Cam Sensor 12568983

The camshaft sprocket and timing sensor were revised in 2002 to maximize the benefits of Magnetic Reluctance (MR) or “mirror image” ignition timing. The sprocket edge is now machined with a partial “quasi-mirror” polished edge rather than a contoured edge. To “read” the new edge, the cam sensor also required a change in the switching voltage.

Firing Order: 1-8-4-3-6-5-7-2



Front of Vehicle

The new polished edge allows the sensor to better measure movement and assures precise measurement for the life of the engine. MR is the most sophisticated timing system offered by GM. It allows the Powertrain Control Module (PCM) to push spark plug timing to the limit of efficiency without detonation, or engine knocking. This sensor retrofits back to the 2001 year engine.