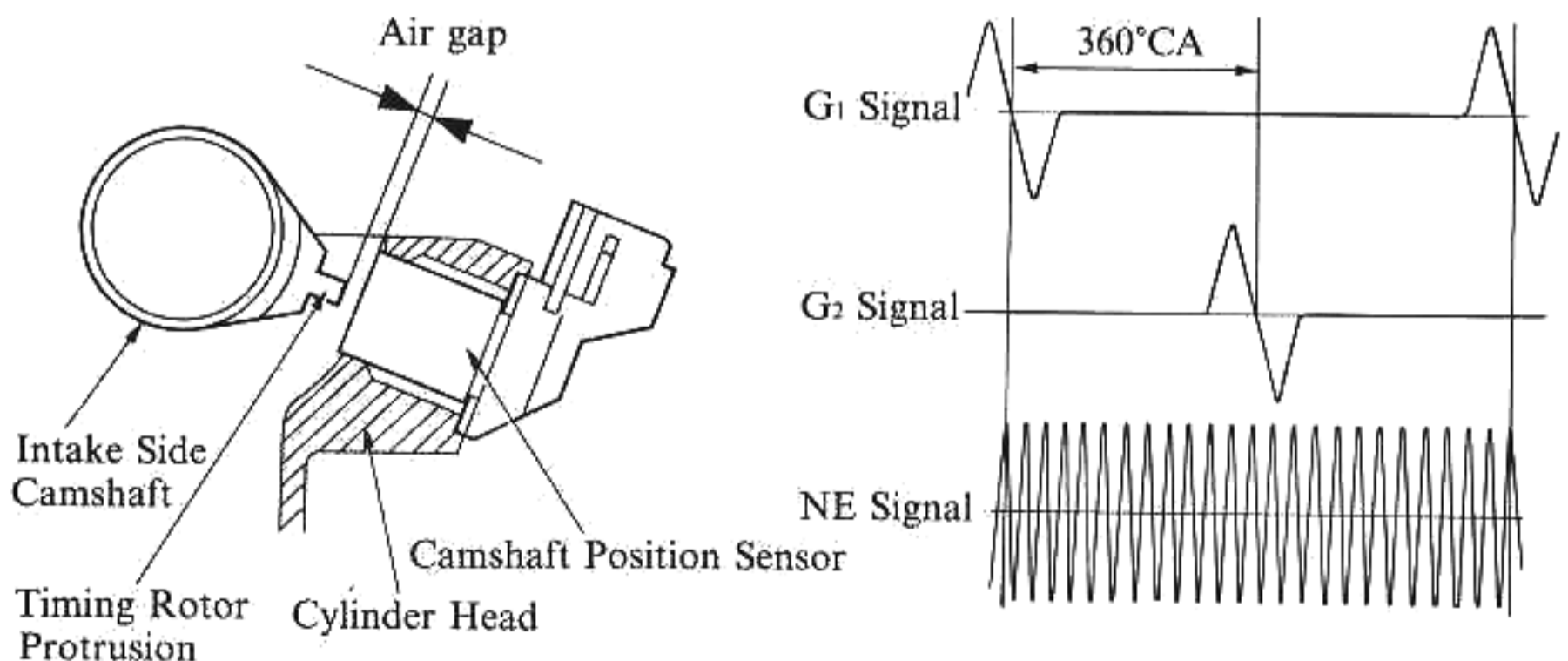
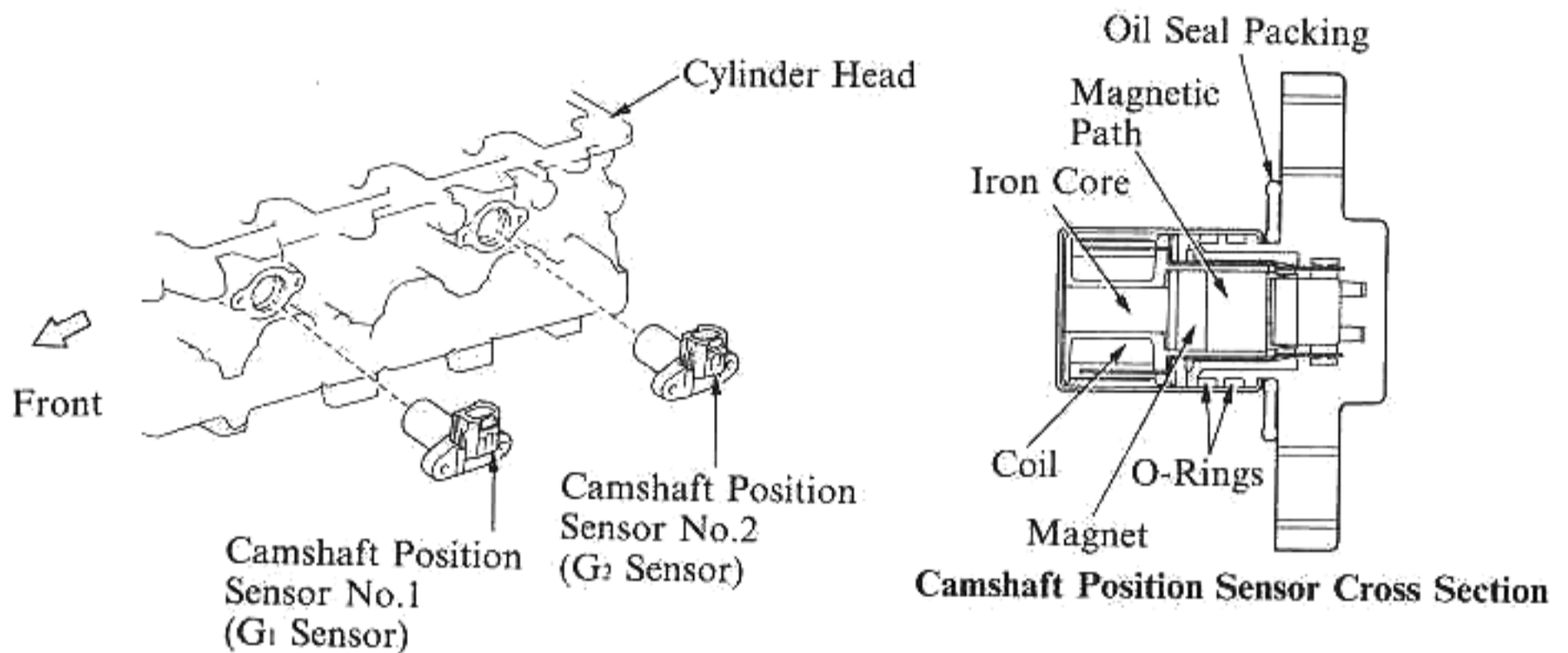


Camshaft Position Sensors (G_1 and G_2 Signals)

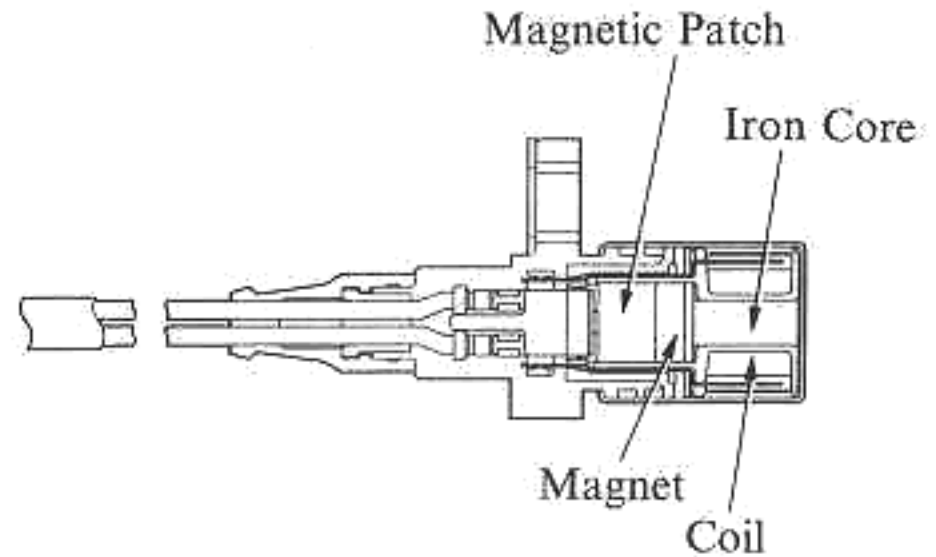
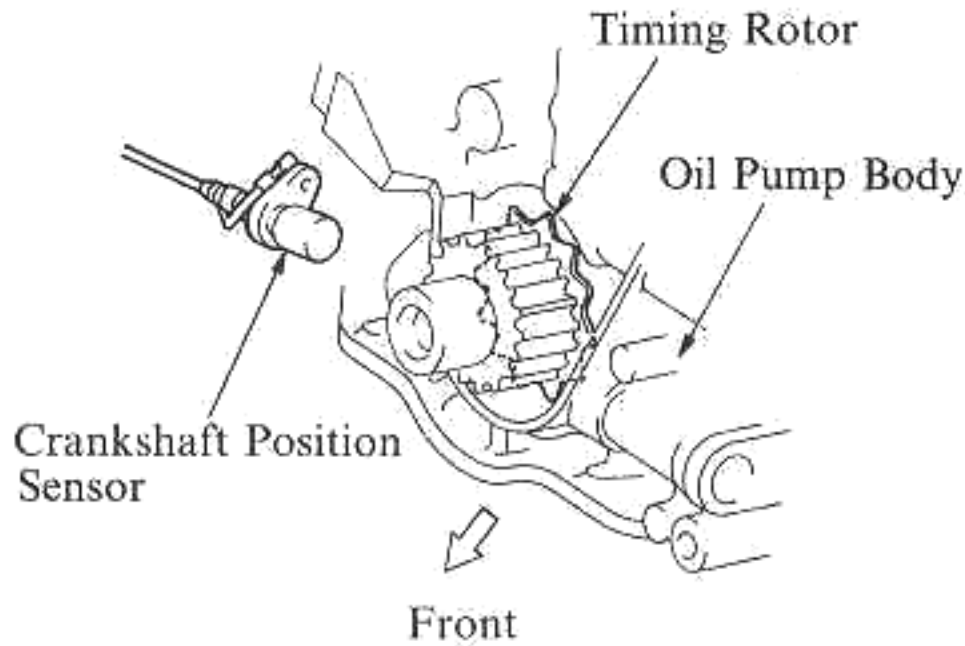
The camshaft position sensors consist of a magnet, coil and iron core, and are mounted onto the intake side of the cylinder head. The timing rotor is integrated with the intake side camshaft. Each time the camshaft rotates, the air gap between the pickup coil and the protrusion integrated onto the camshaft is varied. This causes the magnetic flux passing through the pickup coil to increase and decrease, generating an electromotive force. Since the voltage generated when the camshaft protrusion approaches the pickup coil is the opposite of when it departs, an alternate electrical current is produced. The G_1 timing rotor is positioned so that the camshaft protrusion is closest when the No.6 piston is at its compression TDC, and the G_2 timing rotor is positioned so that the camshaft protrusion is closest when the No.1 piston is at its compression TDC. By detecting this voltage variation, the cylinders and their TDC positions (basic positions) can be determined.



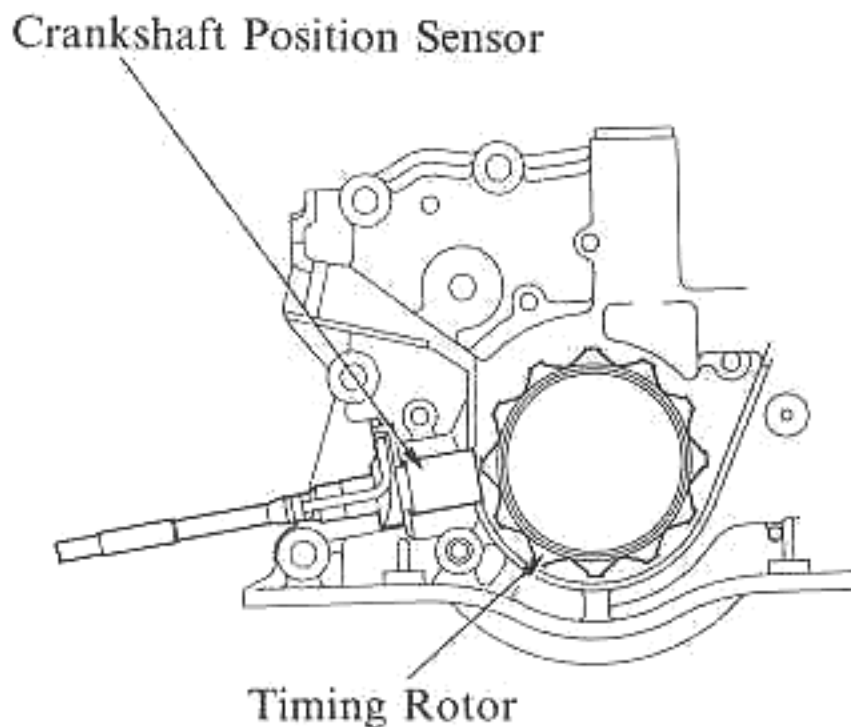
Crankshaft Position Sensor (NE Signal)

The crankshaft position sensor consists of a magnet, coil and iron core, and is mounted onto the right side of the oil pump body as illustrated below. The timing rotor is installed on the guide area of the crankshaft timing pulley.

The timing rotor attached to the crankshaft has 12 teeth, enabling the pickup coil to produce 12 pulses per each revolution of the crankshaft. Each 30 degrees of the crankshaft angle can thus be detected by these pulses.



Crankshaft Position Sensor Cross Section



One Revolution of Crankshaft

