

Goss discuss Fuel Rail Pressure Sensors

The Fuel Rail Pressure Sensor (RPS) is used on Common Rail Diesel and Direct Injection Petrol applications to provide the pressure reading in the fuel rail to the vehicles Powertrain Control Module (PCM) and is mounted in the fuel rail close to the injectors.

The fuel in the rail is under extremely high pressure and the sensor's task is to ensure this predetermined pressure is maintained by signalling the PCM when the pressure in the rail drops. The fuel management maps within the PCM will then instruct the Direct Injection High Pressure Pump to increase output to restore the required rail pressure, along with adjusting the injector pulse width accordingly. All this communication is happening thousands of time per second to ensure the precise amount of fuel is injected into the cylinders to maintain economy and emissions.

The Fuel Rail Pressure Sensor is a diaphragm strain gauge device in which resistance changes with pressure. The varying resistance affects the voltage drop across the sensor terminals and provides electrical signal to the Powertrain Control Module (PCM) corresponding to pressure.

In the event that the vehicles PCM determines that the fuel pressure is outside the set range or detects a short circuit it will commonly log the fault code (or codes) P0087, P0191, P0193, and P0194. However, code P0193 is the most common of these codes.



For vehicles presenting with a no start situation or fuel pressure related codes, technicians are advised to check for possible causes which can include:

- Low or no fuel
- Faulty Fuel Rail Pressure Sensor
- Fuel Rail Pressure Sensor wiring is open or shorted
- Fuel Rail Pressure Sensor circuit poor electrical connection
- Faulty Low Pressure Fuel Pump
- Faulty Direct Injection High Pressure Pump

Goss stock a comprehensive range of fuel rail pressure sensors, low pressure fuel pumps and also direct injection high pressure pumps. Goss – vehicle mechatronics offer the aftermarket a truly genuine alternative when searching for quality replacement parts. Visit www.goss.com.au for your nearest stockist.

THE GENUINE ALTERNATIVE