# Just the Facts

# **Coolant Temperature Sensors**



### What does a Coolant Temperature Sensor do?

The Coolant Temperature sensor changes resistance with the temperature. The Coolant Temperature sensor is critical to many PCM functions such as fuel injection, ignition timing, variable valve timing, and transmission shifting.

#### Where are these sensors located?

The Coolant Temperature sensor is located in a coolant passage in the engine usually near the thermostat.

Will a malfunctioning Coolant Temp Sensor illuminate the check engine light or affect vehicle operation? Yes, a failing sensor can illuminate the MIL, and cause the engine to run rich or lean. The transmission may shift incorrectly or not lock-up the torque converter.

#### What are the common causes of failure?

Typically these sensors fail due to corrosion within the coolant system. They may also leak coolant through the wiring connector.

#### How to determine if these sensors are malfunctioning.

A DTC will be set if an abnormal reading occurs, P0116 for sensor performance, P0117 low input or P0118 for a high input. The coolant temperature sensor temperature reading should closely match the air charge/manifold temperature reading on a scan tool if the engine has not been run for over an hour. The sensor circuit can be checked for proper voltage using a voltmeter.

## What makes BWD Coolant Temp Sensors the best.

- As a basic manufacturer, BWD has complete control of the manufacturing process from componentry to finished product
- Temperature sensor design specifies tight tolerance thermistor response values to assure accuracy of the temperature measurement and proper part operation
- All Coolant Temperature sensors are 100% factory tested to ensure trouble-free performance





