



# TECH TIPS

**Dixie Part Numbers:** S-80077

**Applications:** 2002 – 2005 Mazda MPV

**Condition:** The operator of the vehicle may complain of a hard starting condition and that once started the engine runs rough during normal operating temperatures.

**Cause:** A potential cause for the above conditions is the engine coolant temperature sensor, which, when initially produced, had poor durability. First production sensors were prone to the brass housing failing, coolant getting inside the sensor and corrosion of the sensor resulting in malfunction.

**Correction:** Verify that the sensor is operating properly based on the resistance measurement of the sensor. When cold (approximately 21°C) the sensor should be between 2.2 and 2.8 kΩ. When hot (approximately 80°C) the sensor will measure between 0.29 and 0.4 kΩ. Refer to the manufacturer's procedures for replacing the engine coolant temperature sensor if not operating within the above ranges.