### **Bosch Patented OE SmartLink™ Connector System**

#### **Revolutionary Patented Connection System**

The submersible Bosch patented connection system has undergone rigorous quality testing to USCAR\* standards. Tests have proven that this watertight system protects against contamination and withstands the effects of extreme temperatures and engine vibration.

Patented Connector System Features:

#### Waterproof connector body

- ► Fully submersible
- Allows OE type sensor to "breathe"

## Special high-temperature Posi-Lock<sup>®</sup> connectors

- Quick, easy installation
- Screw on caps are re-usable in the event of a wiring error

# Designed and tested to rigorous standards

Special High-temperature Posi-Lock<sup>®</sup> Connector

- Vibration, thermal exposure, thermal shock
- High current flow

#### **OE SmartLink™ Connector System**

Bosch offers a patented connector system that allows, OEM specific, Heated Oxygen sensors to cover a wide range of applications by simply installing the connector system on the existing wire harness.

The OE SmartLink<sup>™</sup> system includes an OEM specific heated oxygen sensor that comes standard with a 24" wire harness. The 24" extra-length harness allows for added replacement of any worn wire from the existing OE sensor harness. The patented connector comes in an easy to use kit that contains all the necessary components to do the job right.



\*USCAR is a consortium of Chrysler LLC, Ford Motor Company and General Motors Corporation

### **Bosch Premium Oxygen Sensors**

Bosch leads the way in oxygen sensor technology and innovation with over 500 million oxygen sensor units manufactured since 1976. Bosch is the trusted leader in Premium Oxygen Sensors and known worldwide for quality and performance.

# What is the Difference Between Switching & Wideband A/F Sensors?

**Switching:** Standard narrow band type Oxygen Sensors operate between 0 and 1 volts, and are only capable of accurately measuring a stoichiometric air/fuel ratio (e.g. 14.7:1). A richer or leaner condition results in an abrupt voltage change and is only useful for qualitative determination. Modern automobiles use "switch" like sensing at idle and part throttle to make small compensations in fuel delivery to keep the air/fuel ratio near 14.7:1.



Note: The signal from the wideband sensor does not toggle around 450 mV!

**Wideband A/F:** Wideband Air/Fuel Ratio sensors, such as the Bosch LSU series, utilize a more sophisticated sensing element that enables them to produce a precise output in proportion to the air/fuel ratio. As a result, a wideband A/F sensor measures exhaust gas oxygen content accurately from as rich as 9.0:1 to as lean as free air. The use of Wideband A/F sensors is growing rapidly as original equipment in vehicles and in high-performance specialty markets.