



# Technical Service Information

## GM 6L80/90

### UPDATED OUTPUT SHAFT ASSEMBLY

**CHANGE:** During model year 2012, GM and GMC trucks equipped with the 6L80/90 transmission received an updated output shaft assembly. The previous output shaft assembly was comprised of a separate output shaft, output carrier ring gear, ring gear spacer, output carrier internal front gear and snap rings as seen in Figure 1. This required the use of a specific style input and output transmission speed sensor as shown in Figure 2.

The updated output shaft assembly known as the “UNIGEAR” is now all one piece. All components of the previous design are now an integral part of the output shaft as shown in Figure 3. This output shaft assembly required the use of a different style input and output transmission speed sensor assembly shown in Figure 4.

**REASON:** The updated design of the output shaft assembly was designed as a cost reduction measure.

#### **PARTS AFFECTED:**

- (1) The output shaft and all its internal components are now a "one piece" assembly.
- (2) The output speed sensor for use with the “UNIGEAR” output shaft is stepped in order to accommodate the different dimension of the “UNIGEAR” output shaft. A step was added to insure the proper output speed sensor air gap as seen in Figure 4.

#### **INTERCHANGEABILITY:**

The “UNIGEAR” output shaft assembly will back service all 6L80/90 transmissions as long as the “Stepped” output speed sensor assembly is used.

Using the previously designed output speed sensor assembly with the “UNIGEAR” output shaft assembly will result in immediate damage to the output speed sensor.

Using the new “Stepped” output shaft assembly with the previous output shaft will cause too much of an air gap which will result in a DTC being set.

#### **IMPORTANT TECHNICIAN’S NOTE:**

There have been reports in the field that a garage shift from reverse to drive produces a “snapping” sound which has been traced to a defect with the previous design output shaft assembly. Installing the “UNIGEAR” output shaft assembly seemed to have eliminated the garage shift noise.

#### **SERVICE INFORMATION:**

*“UNIGEAR” Output Shaft Assembly Kit.....Model Dependant, Requires VIN Number*

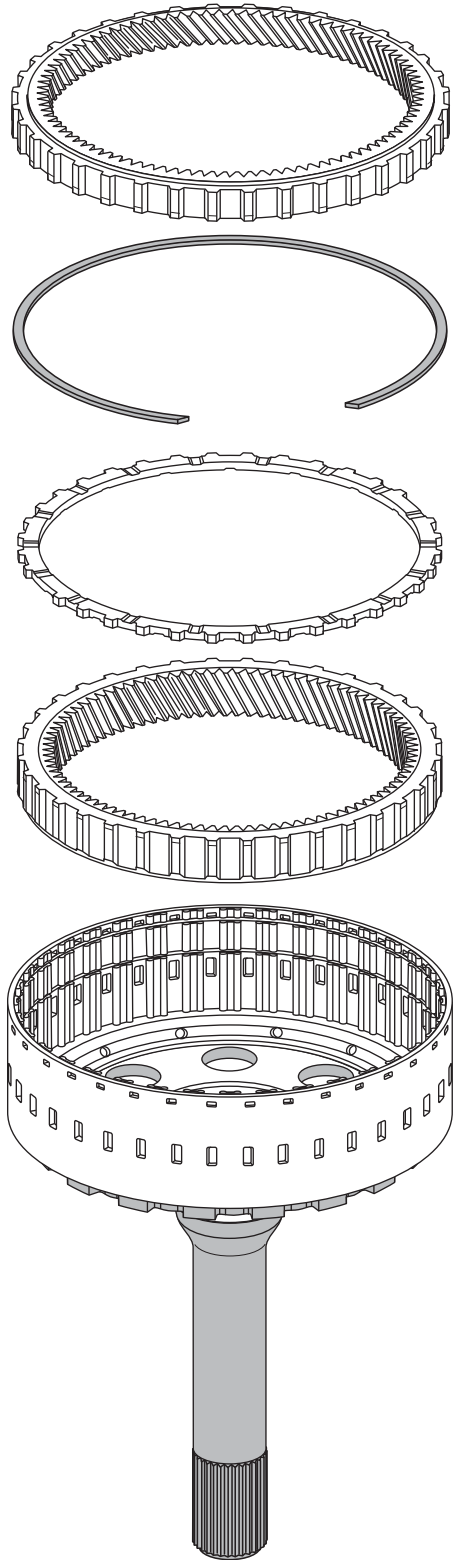
*(The “UNIGEAR” output shaft assembly Kit contains the “Stepped” Transmission Speed Sensor Assembly).*

*Previous Design Transmission Speed Sensor Assembly.....24265535*

*Updated “Stepped” Design Transmission Speed Sensor Assembly.....24265536*

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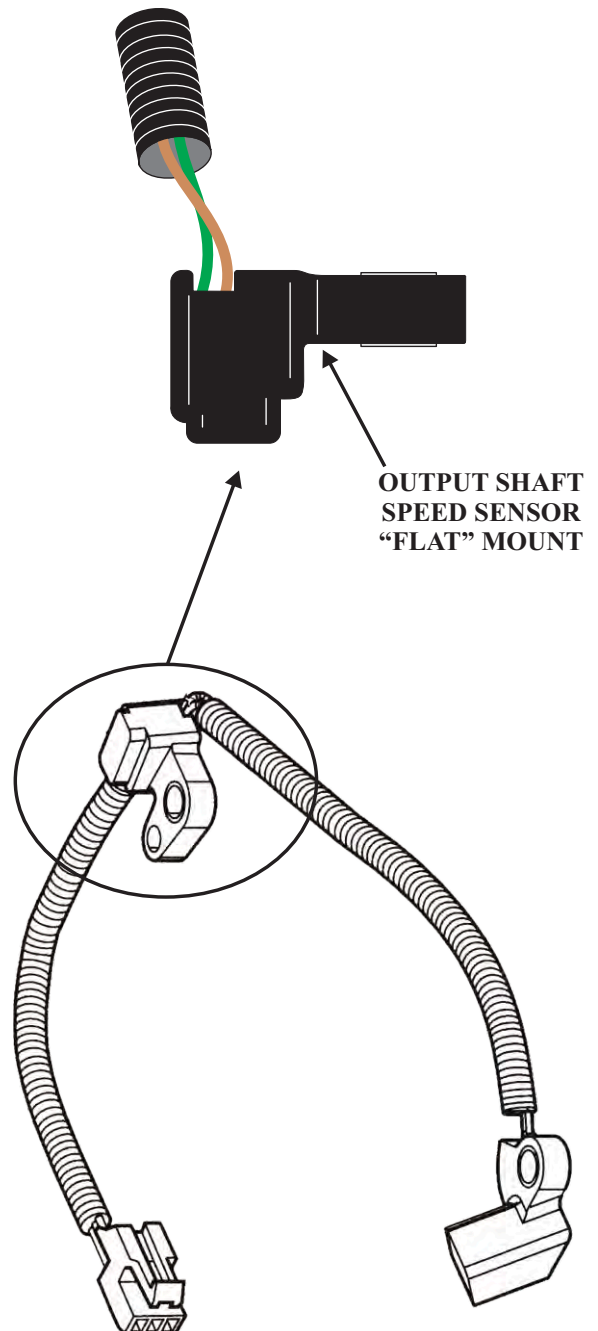
### PREVIOUS DESIGN OUTPUT SHAFT



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Figure 1

### PREVIOUS DESIGN SPEED SENSOR ASSY

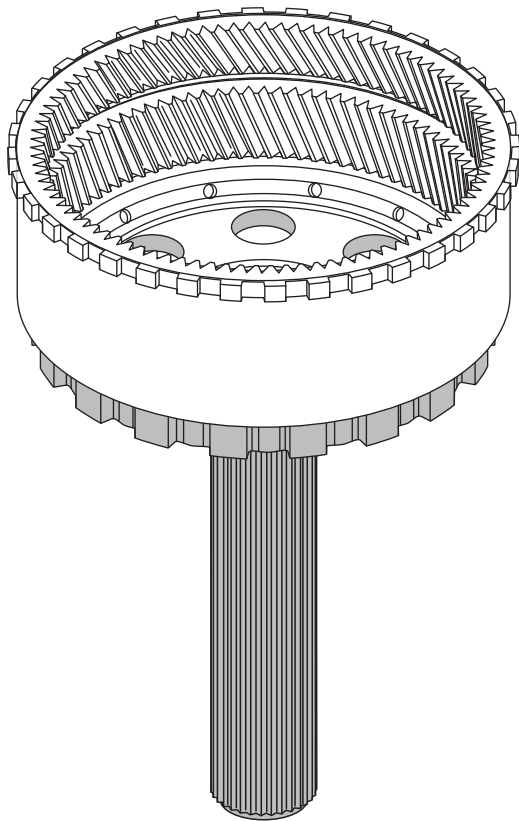


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Figure 2

## GM 6L80/90 UPDATED OUTPUT SHAFT ASSEMBLY

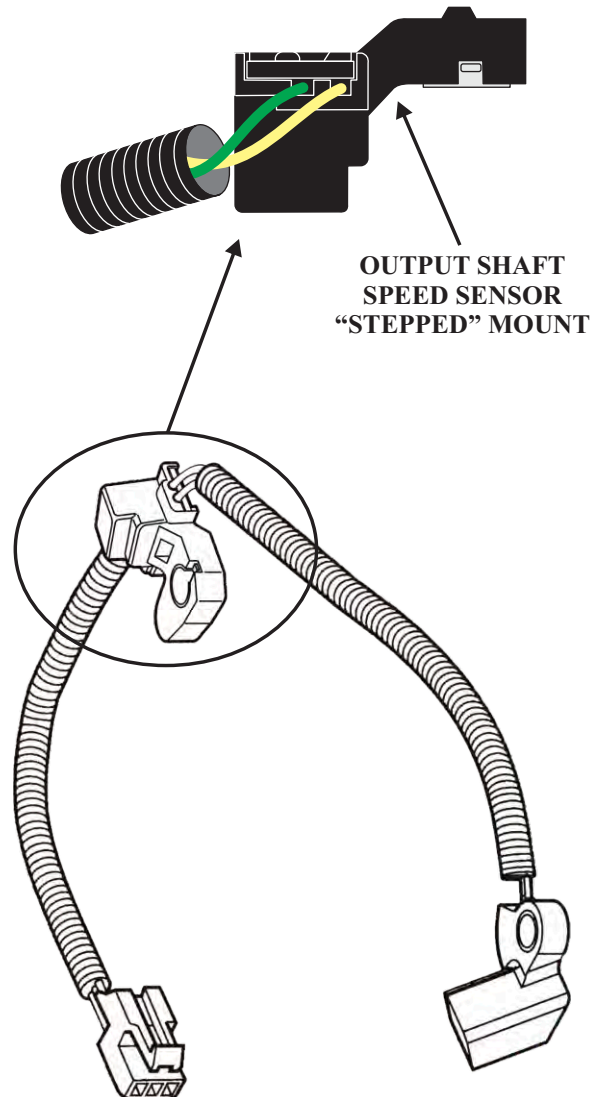
### UPDATED “UNIGEAR” OUTPUT SHAFT ASSY



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Figure 3

### UPDATED DESIGN SPEED SENSOR ASSY



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Figure 4