



# Service Bulletin

File in Section: -

Bulletin No.: PIP4966

Date: October, 2011

## PRELIMINARY INFORMATION

**Subject:** Service Malfunction Indicator Light Or Service Anti-Lock Brake System Message Displayed In The Driver's Information Center

**Models:** 2007-2011 Chevrolet Silverado, Suburban, Tahoe, Avalanche  
 2007-2011 GMC Sierra, Yukon  
 2008-2011 Cadillac Escalade Hybrid  
 2008-2011 Chevrolet Tahoe Hybrid  
 2008-2011 GMC Yukon Hybrid  
 2009-2011 Chevrolet Silverado Hybrid  
 2009-2011 GMC Sierra Hybrid  
 Equipped with Magna transfer case NP0, NQF, NQG, or NQH

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

### Condition/Concern:

In rare cases a customer may comment on a malfunction indicator light or service anti-lock brake system message displayed in the driver's information center. Another comment may be that the speedometer is erratic or inoperative at times. During diagnostics the vehicle may have stored a C0055 Rear Wheel Speed Sensor (both wheels) Circuit in the electronic brake control module or a P2771 Four Wheel Drive (4WD) Low Switch Circuit in the engine control module. Concern may be intermittent and hard to duplicate; related diagnostics may not identify the root cause.

### Recommendation/Instructions:

If the related diagnostics do not identify a root cause, it is possible that the tone wheel for the vehicle speed sensor in the transfer case is moving on the transfer case output shaft or the output shaft is moving.

For NQH non hybrid applications see document ID 1824278 items 24, 27 and 29.

For NQH hybrid applications see document ID 1824278 items 24 and 29.

For NPO applications see document ID 2244071 items 8, 11 and 13.

For NQF applications see document ID 2372510 items 31, 34 and 36.

For NQG applications see document ID 2372500 items 29, 32 and 34.

Any one of these snap rings missing or out of position can allow either the tone wheel to move or the output shaft to move back and forth in the transfer case. Excess movement of the tone wheel or output shaft changes the air gap to the vehicle speed sensor and can cause an erratic signal or loss of signal. Normally the tone wheel has about 1/8 inch (.125 in 3.175 mm) movement on the output shaft but should stay centered in the opening for the speed sensor either when using a small screwdriver to move the sensor or pushing and pulling on the output shaft.

In some cases some customers may comment that the transfer case in the above listed vehicles grinds, growls or disengages. Vehicle will not pull under load. Other comments may be that the transfer case will disengage upon torque reversal i.e. shifting from reverse to drive. Customers may experience unwanted ABS activation during a stop. This condition can also contribute to transmission ratio related diagnostic trouble codes as the transmission control module is using input speed and output speed signals to calculate gear ratio.

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.