

Subject <b>4WD System Diagnosis</b>	Market <b>USA</b>
Service Category <b>Drivetrain</b>	Section <b>Transfer/4wd/Awd</b>
Applicability <b>2008 - 2013 Sequoia</b>	

**APPLICABLE VEHICLES**

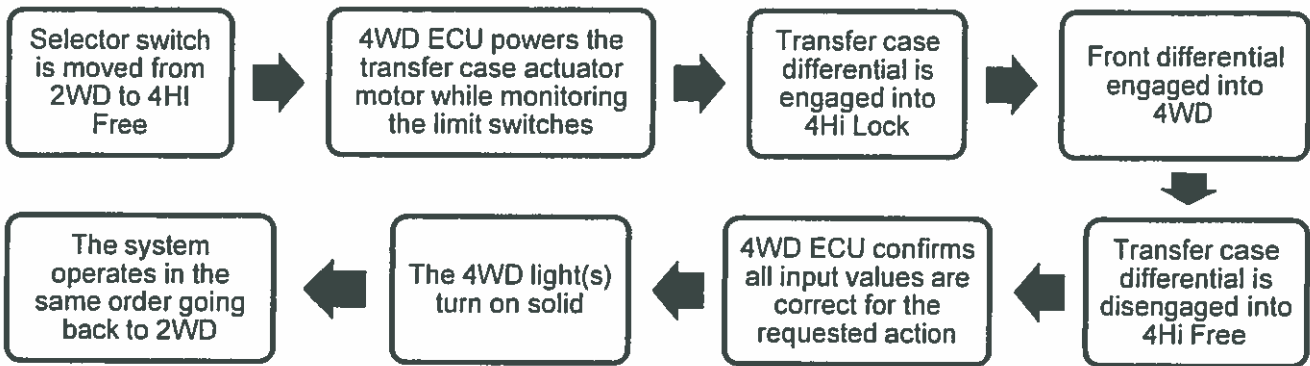
2008-2013 Sequoia

**CONDITION**

4WD System Inoperative.

**RECOMMENDATIONS**

Basic System Operation



**Note:** If the system does not complete the requested action or the actuator limit switches do not match the 4WD ECU desired position, the 4WD light(s) will flash indicating a problem. Additionally if the system is unsure of its position, it may stop operating and not move in or out of its current position.

**Before Beginning Diagnosis:**

- If the 4WD system is inoperative or has harsh engagement/disengagement while driving but works normally when the wheels are off the ground, it may be caused by a difference in front and rear driveshaft speeds.  
Confirm: Tire size differences, uneven wear, or incorrect inflation pressures.
- The vehicle must be stopped and transmission in N or the system will not go into 4LO and beeping will be heard.
- Confirm customer is not attempting to engage 4WD at speeds above 62MPH as operation will be prohibited.
- If the vehicle has a DTC in another system, diagnose that condition first as it may be prohibiting 4WD operation.

Inspection Procedure

1. Print and complete the 4WD System Diagnosis Pre-Call Worksheet on TIS (refer to link on bottom of page 2).
2. Refer to the table on page 2. The columns in the table provide the correct voltage values for each component position. Using the information from the Pre-Call worksheet, compare the voltages in the columns that match the mechanical position and selector switch input of the system.
3. Identify which switch position(s) do not match the mechanical position of the system.
4. Inspect the component and circuit that is not completing the requested action. Example: Transfer case engaged in 4Hi, transfer switch voltages correct for 4Hi, ADD voltages not correct for 4Hi, inspect ADD and related circuits.

Diagnostic Tips:

- If the 4WD light(s) flash in 2WD, make sure the front differential is not staying engaged in 4WD. Rotate the front wheels by hand and if the front driveshaft turns, the front differential is engaged.
- Rotate the rear driveshaft by hand and note which direction the front driveshaft turns. If it turns in the same direction, the center differential is engaged. If it turns in the opposite direction, the center differential is disengaged.

