



**NUMBER:** 21-001-14

**GROUP:** Transmission and Transfer Case

**DATE:** February 04, 2014

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**SUBJECT:**

Flash: ELSD Module Enhancements

**OVERVIEW:**

This bulletin involves selectively erasing and reprogramming the Electronic Limited Slip Differential (ELSD) with new software. If any of the following DTC's are either Active or Stored in the ELSD module's memory, the ELSD motor will need to be replaced as well.

- C1490-00-REAR DIFFERENTIAL ACTUATOR INITIALIZATION FAILURE
- C148F-1D-REAR DIFFERENTIAL MEASURED MOTOR - CIRCUIT OUT OF RANGE
- C1489-96-REAR DIFFERENTIAL MOTOR BRAKE - COMPONENT INTERNAL FAILURE

**MODELS:**

2011 - 2013      WK                              Grand Cherokee

**NOTE:** This bulletin applies to vehicles equipped with the ELSD (Sales Codes DSF).

**SYMPTOM/CONDITION:**

The customer may indicate that their 4X4 lamp may be flashing (indicating a malfunction of the 4X4 system).

In addition, one or more of the following Diagnostic Trouble Codes (DTC) are Active or Stored in the ELSD control module's memory.

- C1490-00-REAR DIFFERENTIAL ACTUATOR INITIALIZATION FAILURE
- C148F-1D-REAR DIFFERENTIAL MEASURED MOTOR - CIRCUIT OUT OF RANGE
- C1489-96-REAR DIFFERENTIAL MOTOR BRAKE - COMPONENT INTERNAL FAILURE

**DIAGNOSIS:**

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all ELSD systems are functioning as designed. If DTC's other than the ones listed above are present, record them on the repair order and repair as necessary before proceeding further with this bulletin.

If the customer describes the symptom, perform the Repair Procedure.

**PARTS REQUIRED:**

Qty.	Part No.	Description
AR (1)	68084266AB	Motor Kit, Axle

**REPAIR PROCEDURE:**

- The ELSD Actuator will require replacement if DTC C1490-00-REAR DIFFERENTIAL ACTUATOR INITIALIZATION FAILURE, C148F-1D-REAR DIFFERENTIAL MEASURED MOTOR - CIRCUIT OUT OF RANGE, and/or C1489-96-REAR DIFFERENTIAL MOTOR BRAKE - COMPONENT INTERNAL FAILURE is either stored or active in the ELSD module's memory. Were one or more of the previous DTC's either Active or Stored in the ELSD Module's memory?
  - YES>>>Proceed to the next Step.
  - NO>>>Proceed to Step #3.
- Replace the ELSD actuator (p/n 68084266AB). Refer to DealerCONNECT>Service>TechCONNECT>Service Info>03 Differential and Driveline>Rear Axle - 230 RIA>MOTOR, Electronic Limited slip>Differential>Removal/Installation for additional information.

**NOTE: Install a battery charger to ensure battery voltage does not drop below 13.2 volts. Do not allow the charging voltage to climb above 13.5 volts during the flash process.**

**NOTE: If this flash process is interrupted/aborted, the flash should be restarted.**

- Reprogram the ELSD Module with the latest software. Help using the wiTECH Diagnostic Application for flashing control modules is available through the wiTECH Diagnostic Application. For instructions select the "HELP" tab on upper portion of the wiTECH window, then "HELP CONTENTS". This will open the Welcome to wiTECH Help screen where help topics can be selected.
- Verify there are no Diagnostic Trouble Codes (DTC) stored in the ELSD modules memory. Then, using the wiTECH, perform the "ELSD Quicklearn" procedure.
- Once complete, verify there are no Diagnostic Trouble Codes (DTC) stored in the ELSD modules memory.
- Clear any DTC's that may have been set in other modules due to reprogramming. The wiTECH application will automatically present all DTC's after the flash and allow the tech to clear them.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
18-19-65-91	Module, Electronic Limited Slip (ELSD) - Inspect/Reprogram (1 - Semi-Skilled)		0.2 Hrs.

**NOTE: The expected completion time for the flash download portion of this procedure is approximately 2 minutes. Actual flash download times may be effected by vehicle connection and network capabilities.**

**FAILURE CODE:**

FM	Flash Module
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**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
08-46-34-91	Module, Electronic Limited Slip (ELSD) - Inspect/Reprogram and Replace ELSD Actuator (2 - Skilled)		0.4 Hrs.

**FAILURE CODE:**

ZZ	Service Action
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