



NUMBER: 21-006-14

GROUP: Transmission and Transfer Case

DATE: February 19, 2014

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THE wiTECH SOFTWARE LEVEL MUST BE AT RELEASE 14.02 OR HIGHER TO PERFORM THIS PROCEDURE.

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:

2014	WK	Grand Cherokee
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NOTE: This bulletin applies to vehicles equipped with the ELSD (Sales Codes DSF) built before September 30, 2013 (MDH 0930XX).

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)	68214628AA	Motor Kit, Axle

REPAIR PROCEDURE:

1. 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?
 - a. YES>>>Proceed to the next Step.
 - b. NO>>>Proceed to [Step #3](#).
2. Replace the ELSD actuator (p/n 68214628AA). 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.

3. 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.

4. Verify there are no Diagnostic Trouble Codes (DTC) stored in the ELSD modules memory. Then, using the wiTECH, perform the ELSD "Quicklearn" procedure. Quicklearn can be found in Misc. Functions on wiTECH.
5. Once complete, verify there are no Diagnostic Trouble Codes (DTC) stored in the ELSD modules memory. Then, using the wiTECH, perform the ELSD System Functionality Test" procedure. System Functionality Test can be found in System Tests on wiTECH.
6. Verify there are no Diagnostic Trouble Codes (DTC) stored in the ELSD modules memory and repair as necessary.
7. After reprogramming the ELSD Module, the following must be performed: clear any DTC's that may have been set in other modules due to reprogramming. The wiTECH application will automatically present all DTCs 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
18-19-65-90	Module, Electronic Limited Slip (ELSD) - Inspect/Reprogram (1 - Semi-Skilled)	3 - Driveline	0.2 Hrs.
Related Operation No:			
18-19-65-50	Actuator, Electronic Limited Slip (ELSD) - Replace		0.3 Hrs.

NOTE: The expected completion time for the flash download portion of this procedure is approximately 3 minutes. Actual flash download times may be effected by vehicle connection and network capabilities.

FAILURE CODE:

FM	Flash Module
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