



**NUMBER:** 21-070-15

**GROUP:** Transmission and Transfer Case

**DATE:** December 24, 2015

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**THIS BULLETIN SUPERSEDES SERVICE BULLETIN 21-015-15 REV. A DATED APRIL 03, 2015, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **\*\*ASTERISKS\*\*** AND INCLUDE ADDITIONAL SYMPTOM/CONDITION, AFFECTED MODEL YEARS, ADDITIONAL BUILD DATES, ADDITIONAL STEPS TO REPAIR PROCEDURE AND NEW LOP.**

**HELP USING THE wiTECH DIAGNOSTIC APPLICATION FOR FLASHING AN ECU IS AVAILABLE BY SELECTING "HELP" THEN "HELP CONTENTS" AT THE TOP OF THE wiTECH DIAGNOSTIC APPLICATION WINDOW.**

**THE wiTECH SOFTWARE IS REQUIRED TO BE AT THE LATEST RELEASE BEFORE PERFORMING THIS PROCEDURE.**

***SUBJECT:***

Flash: PTU Motor Position Enhancements

***OVERVIEW:***

This bulletin involves updating the software in the Power Transfer Unit (PTU), Rear Driveline Module (RDM) and Drivetrain Control Module (DTCM).

***MODELS:***

2014-2015	(KL)	Jeep Cherokee
2015	(UF)	Chrysler 200

**NOTE: This bulletin applies to vehicles within the following markets/countries: NAFTA and EMEA.**

**NOTE: This bulletin applies to KL vehicles built on or before November 24, 2015 (MDH 1124XX). KL vehicles equipped with Jeep Active Drive (Sales Codes DK2 or DK4).**

**NOTE: This bulletin applies to UF vehicles built on or before December 25, 2014 (MDH 1225XX). UF vehicles equipped with AWD Ride and Handling Suspension (Sales Code SDA) or AWD Sport Suspension (Sales Code SDD).**

**SYMPTOM/CONDITION:**

A customer with a KL vehicle may experience difficulty shifting out of 4 Wheel Low (4WL). A customer with a UF vehicle may experience All Wheel Drive (AWD) not operating correctly. On further inspection the Technician may find one or more of the following Diagnostic Trouble Codes (DTCs):

- C1494-92-PTU Fork Position - Performance or Incorrect Operation.
- C1499-92-RDM Motor Position - Performance or Incorrect Operation.
- C1496-92-PTU Motor Position - Performance or Incorrect Operation.

**DIAGNOSIS:**

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all of the AWD systems are functioning as designed. If DTCs or symptom conditions, other than the ones listed above are present, record the issues on the repair order and repair as necessary before proceeding further with this bulletin.

If the customer describes the symptom/condition listed above or if the technician finds the DTC, perform the Repair Procedure.

**PARTS REQUIRED:**

Qty.	Part No.	Description
(AR)	68282445AB	PTU, One Speed (Manual Transmission)
(AR)	68282446AB	PTU, One Speed (Automatic Transmission)

**REPAIR PROCEDURE:**

Service AWD light is flashing or on?

1. **\*\*Is there a DTC C1494-92 code present?**
  - a. Yes >>> Proceed to [Step #2](#).
  - b. No >>> Proceed to [Step #4](#).
2. **Is the DTC C1494-92 code active?**
  - a. Yes >>> Replace the PTU. Refer to detailed service and repair procedures in DealerCONNECT/TechCONNECT Service Info Section 21 - Transmission and Transfer Case> Power Transfer Unit> Removal and Installation.
  - b. No >>> Proceed to [Step #3](#).
3. **Is the DTC C1494-92 code stored or intermittent?**
  - a. Yes >>> Proceed to [Step #5](#)
  - b. No >>> Proceed to [Step #4](#).\*\*

**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.**

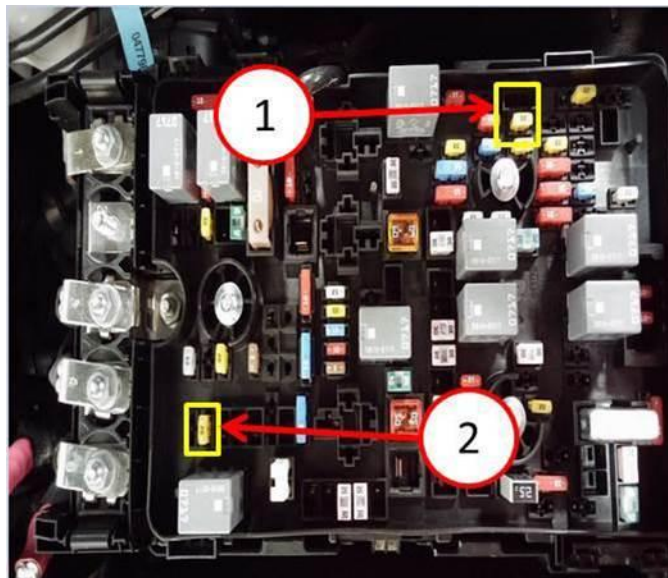
**NOTE: If this flash process is interrupted/aborted, the flash should be restarted.**

4. **Is the vehicle a KL and equipped with sales code DK4?**
  - a. Yes >>> Proceed to [Step #6](#).
  - b. No >>> Proceed to [Step #15](#).
5. **Perform the PTU flash, using the procedure below:**

- a. Turn the ignition off.
- b. Pull fuse F76 (RDM 4WD, 20 amp) in the PDC (Power Distribution Center) ([Fig. 1](#)).
- c. Turn the ignition key to the RUN position and perform the PTU flash.
- d. When the flash is complete, turn the ignition key OFF and reinstall fuse F76.

**NOTE: Verify that the RDM and DTCM are up to date. If not then update as needed.**

6. Perform the flash for the DTCM. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the “HELP” tab on the upper portion of the wiTECH window, then “HELP CONTENTS.” This will open the Welcome to wiTECH Help screen where help topics can be selected.
7. Perform the RDM flash, using the procedure below:
  - a. Turn the ignition off.
  - b. Pull fuse F10 (PTU 4WD, 20 amp) in the PDC (Power Distribution Center) ([Fig. 1](#)).
  - c. Turn the ignition key to the RUN position and perform the RDM flash.
  - d. When the flash has completed, turn the ignition key OFF and reinstall fuse F10.



**Fig. 1 Module Fuse Locations**

- 1 - F76 RMD 4WD
- 2 - F10 PTU 4WD

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8. Is the vehicle stuck in 4 wheel Low/Lock?
    - a. Yes >>> Proceed to [Step #9](#).
    - b. No >>> Proceed to [Step #13](#).
  9. Raise the vehicle on the hoist.
  10. Aggressively rotate/rock one of the rear wheels back and forth, in order to free up the axle lock shift sleeve and relieve the torque lock in the system.
  11. Perform a key cycle, change the ignition position from lock to run, it is not necessary to start the engine. You should hear the motor in the rear axle actuator move while the relearn process is occurring immediately after key-on.

12. It may be necessary to repeat steps 5 and 6 multiple times in order for the relearn procedure to be successful.
13. Clear any DTCs that may have been set in any module due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow the DTCs to be cleared.

**NOTE: If after multiple attempts the vehicle will not come out of 4 Wheel Low/Lock, check for active DTC and follow normal diagnostic.**

14. Did all of the DTCs clear?
  - a. Yes >>> This bulletin has been completed. Return the vehicle to the customer.
  - b. No >>> This bulletin has been completed. Perform normal DTC diagnostics in TechConnect for any active DTC.
15. Perform the flash for the DTCM and PTU. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the "HELP" tab on the upper portion of the wiTECH window, then "HELP CONTENTS." This will open the Welcome to wiTECH Help screen where help topics can be selected.
16. Clear any DTCs that may have been set in any module due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow the DTCs to be cleared.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
**08-81-04-90	Module, PTU - Replace (KL 2.4L Only)	2- Automatic Transmission	3.9 Hrs.
08-81-04-91	Module, PTU - Replace (KL 3.2L Only)	2- Automatic Transmission	2.8 Hrs.
08-81-04-92	Module, PTU - Replace (UF 3.6L Only)	2- Automatic Transmission	2.8 Hrs.
08-81-04-61	Skid Plate Equipped	2- Automatic Transmission	0.4 Hrs.**
18-19-17-95	Modules, PTU, and DTCM - Reprogram (0 - Introduction)	2- Automatic Transmission	0.2 Hrs.
18-19-17-96	Modules, PTU, RDM and DTCM - Reprogram - DK4 Only (0 - Introduction)	2- Automatic Transmission	0.3 Hrs.
18-19-17-97	Modules, PTU, RDM and DTCM - Reprogram; Includes Unlock 4 Wheel Low Procedure - DK4 Only (0 - Introduction)	2- Automatic Transmission	0.4 Hrs.

**NOTE: The expected completion time for the flash download portion of this procedure is approximately 5 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.**

***FAILURE CODE:***

ZZ	Service Action
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***FAILURE CODE:***

**The dealer must choose which failure code to use. If the customer came in with an issue and the dealer found updated software to correct that issue, use failure code CC, for all other use failure code RF.**

- If the customer's concern matches the SYMPTOM/CONDITION identified in the Service Bulletin, failure code CC is to be used.
- If an available flash is completed while addressing a different customer concern, failure code RF is to be used.

CC	Customer Concern
RF	Routine Flash