

Technical Service Bulletin (TSB)

Flash: Powertrain Control Module (PCM) Enhancements

REFERENCE:	TSB: 18-022-24 REV. A GROUP: 08 - Electrical	Date:	May 15, 2024	REVISION:	18-022-24
VEHICLES AFFECTED:	2021 (JL) Jeep Wrangler This bulletin applies to vehicles equipped with a 2.0L I4 DOHC DI Turbo PHEV Engine (Sales Code ECX) and 8-Speed Auto 8P75PH PHEV Transmission (Sales Code DFY).			MARKET APPLICABILITY: <div><div><input type="checkbox"/> NA</div><div><input type="checkbox"/> SA</div><div><input type="checkbox"/> EE</div></div> <div><div><input type="checkbox"/> MEA</div><div><input type="checkbox"/> IAP</div><div><input type="checkbox"/> CH</div></div>	
CUSTOMER SYMPTOM:	**Customers must experience a Malfunction Indicator Lamp (MIL) illumination and the vehicle must exhibit/set one or more of the following Diagnostic Trouble Codes (DTCs):** <ul style="list-style-type: none">U0402-00 - Implausible Data Received From TCM.U145D - Implausible Data Received From TCM On D-PT. Customers may experience one or more of the following: <ul style="list-style-type: none">Noticeable oil life degradation when fuel and oil refresh mode active.Vehicle may not be able to enter electric mode driving while Fuel Oil Refresh Mode (FORM) is active.FORM staying on too long. Other software enhancement included with this update: <ul style="list-style-type: none">On Board Fuel Consumption Monitoring Updates (China Only).				
CAUSE:	**PCM** Software Updates.				

This bulletin supersedes Technical Service Bulletin (TSB) 18-022-24, date of issue March 14, 2024, which should be removed from your files. All revisions are highlighted with ****asterisks**** and include a new Customer Symptom statement, new module name and new Repair Procedure step.

This Technical Service Bulletin (TSB) has also been released as a Rapid Service Update (RSU) 21-124, date of issue August 26, 2021. All applicable Sold and Un-Sold RSU VINs have been loaded. To verify this RSU service action is applicable to the vehicle, use VIP or perform a VIN search in DealerCONNECT/Service Library. All repairs are reimbursable within the provisions of warranty. This RSU will expire 18 months after the date of issue.

REPAIR SUMMARY:

This bulletin involves reprogramming the PCM with the latest software available.

NOTE: Additional module flashes are required for this update to be effective, the following modules are all to be updated along with this PCM update.

- Battery Pack Control Module (BPCM).
- Transmission Control Module (TCM).
- Integrated Dual Charging Control Module (IDCM).
- Hybrid Control Processor (HCP), Auxiliary Hybrid Control Processor (AHCP) also known as the Power Inverter Module (PIM).

DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in DealerCONNECT/ Service Library, verify all related 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 above, perform the repair procedure.

SPECIAL TOOLS/EQUIPMENT:

Description	Ref. No.	Notes
wiTECH or Equivalent	-	-

REPAIR PROCEDURE:

NOTE: The IDCM, BPCM, HCP / AHCP and TCM must be updated to the latest available software at the conclusion of this repair procedure. Refer to all applicable published technical service bulletins for detailed repair procedures and labor times regarding updating the IDCM, BPCM, HCP / AHCP and TCM software.

WARNING!!

Failure to update the IDCM, BPCM, HCP / AHCP and TCM module following a PCM software update may result in vehicle malfunctions.

CAUTION!!

- Before performing the software reprogramming, it is necessary to make the vehicle safe.
- When performing repairs that directly involve or imply possible contact with live high voltage components/systems, the technician must ensure that the power supply of the high-voltage system is disconnected throughout the operation.
- Only specifically trained technicians qualified to perform repairs on vehicles with high voltage systems under current national laws/regulations are authorized to work on the vehicle.
- Before performing any diagnostic repair work on the vehicle, carefully read and comply with the general instructions for working safely on hybrid/electric vehicles and use suitable general equipment and Personal Protective Equipment (PPE).

NOTE: Install a battery charger to maintain a 12 volt system voltage.

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

1. Reprogram the PCM with the latest software. **If issues arise when flashing a module using the wiTECH Diagnostic Application, please submit a ticket to the Helpdesk. The helpdesk can be found within the Help menu.**
2. Clear all 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 them to be cleared.
3. Verify the IDCM, BPCM, HCP / AHCP and TCM are also programmed with the latest available software. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the IDCM, BPCM, HCP / AHCP and TCM software.

NOTE: Follow the 04B Recall Instructions and utilize the LOPs contained within the Recall.

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