

Technical Service Bulletin (TSB)
Flash: Transmission Control Module (TCM) Updates

REFERENCE:	TSB: 21-024-24 GROUP: 21 - Transmission	Date:	March 15, 2024	REVISION:	21-015-22
VEHICLES AFFECTED:	2021 (JL) Jeep Wrangler (PHEV) This bulletin applies to vehicles equipped with a 2.0L I4 DOHC DI Turbo PHEV Engine (Sales Code ECX) and a 8-SPD Auto 8P75PH PHEV Transmission (Sales Code DFY).			MARKET APPLICABILITY: <div><div>☐ NA</div><div>☐ SA</div><div>☐ EE</div></div> <div><div>☐ MEA</div><div>☐ IAP</div><div>☐ CH</div></div>	
CUSTOMER SYMPTOM:	<p>Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find one or more of the following Diagnostic Trouble Code (DTC):</p> <ul style="list-style-type: none">• **P0810 - Clutch Position Control Error.**• U0293-00 - Lost Communication With Hybrid Control Module.• P0732-00 - Gear 2 Shift Incorrect Ratio.• P061B-00 - Internal Control Module Torque Calculation Performance. <p>Customers may also experience one or more of the following:</p> <ul style="list-style-type: none">• **K0 Adaptation routine runs when vehicle stationary and in EV Mode.• Vehicle loses propulsion capability.• Service transmission warning light on. <p>NOTE: A key cycle will recover these symptoms.**</p> <p>Other software enhancement:</p> <ul style="list-style-type: none">• 2–1 downshift improvement.				
CAUSE:	Module Software Updates.				

This bulletin supersedes Technical Service Bulletin (TSB) 21-015-22, date of issue May 13, 2022, which should be removed from your files. All revisions are highlighted with ****asterisks**** and include a new DTC, additional symptoms, a new Repair Procedure step and converting to an Info Only TSB and adding recall note.

This Technical Service Bulletin (TSB) has also been released as a Rapid Service Update (RSU) 21-122, 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 TCM, the Integrated Dual Charging Module (IDCM), The Hybrid Control Processor (HCP) and the Auxiliary Hybrid Control Processor (AHCP) also known as Power Inverter Module (PIM), with the latest available software.

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

- Powertrain Control Module (PCM).
- Integrated Dual Charging Module (IDCM).
- Battery Pack Control Module (BPCM).
- 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 any of the symptoms listed above in the customer symptom section, perform the Repair Procedure.

SPECIAL TOOLS/EQUIPMENT:

Description	Ref. No.	Notes
wiTECH or Equivalent	–	–

REPAIR PROCEDURE:

NOTE: The HCP, AHCP, PCM, BPCM and IDCM 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 HCP, AHCP, PCM, BPCM and IDCM software.

WARNING!

Failure to update all modules following an PCM software update may result in vehicle malfunctions.

NOTE: Install a battery charger to ensure sufficient battery voltage is provided during the flash process.

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

WARNING!

- 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).
1. Perform the vehicle “High-Voltage Power Down” procedure. Refer to the detailed service procedures available in DealerCONNECT/Service Library under: Service Info> 08 –Electrical/Standard Procedure/ High-Voltage Power Down.

2. Reconnect the 12 volt battery.
3. Reprogram the TCM with the latest available software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
4. ****Reprogram the HCP and AHCP with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.****
5. Clear any DTCs that may have been set in any modules due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow them to be cleared.
6. Verify the HCP, AHCP, PCM, BPCM and IDCM 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 HCP, AHCP, PCM, BPCM and IDCM software.
7. Perform the vehicle "High-Voltage Power Up" procedure. Refer to the detailed service procedures available in DealerCONNECT/Service Library under: Service Info>08 -Electrical /Standard Procedure> 08 – Electrical/Standard Procedure/High-Voltage Power Up.

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

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