

Technical Service Bulletin (TSB)

Flash: Battery Pack Control Module (BPCM) Enhancements

REFERENCE:	TSB: 08-098-24 REV. A GROUP: 08 - Electrical	Date:	December 14, 2024	REVISION:	08-098-24
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).			MARKET APPLICABILITY: ☒ NA☒ MEA ☐ SA☒ IAP ☒ EE☒ CH	
CUSTOMER SYMPTOM:	Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find one or more of the following Diagnostic Trouble Codes (DTCs) have been set: **P0DAB - Hybrid/EV Cell Balancing Performance.** - P0AA4 - Hybrid/EV Battery Negative Contactor 'A' Circuit Stuck Closed. - P0AA1 - Hybrid Battery Positive Contactor Circuit Stuck Closed. - P0CA6 - Hybrid/EV Battery Charging Current High. - P0B24 - Unstable Hybrid Battery 'A' Voltage. - P1C5E - Battery State or Health Failed. - P0BBE - No Start - Loss or Reduction of Propulsion. - P0607-00 - ECU Internal Performance. - P0C78-00 - Hybrid/EV Battery System Precharge Time Too Long.				
CAUSE:	BPCM Software Updates				

This bulletin supersedes Technical Service Bulletin (TSB) 08-098-24, date of issue April 05, 2024, which should be removed from your files. All revisions are highlighted with ****asterisks**** and include new DTC, updated recall note, and updated Repair Procedure.

This Technical Service Bulletin (TSB) has also been released as a Rapid Service Update (RSU) 23-321, date of issue November 21, 2023. All applicable 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.

REPAIR SUMMARY:

This bulletin involves reprogramming the BPCM 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 BPCM update.

- Powertrain Control Module (PCM).
- 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, PCM, 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, PCM, HCP / AHCP and TCM software.

WARNING!

Failure to update the IDCM, PCM, HCP / AHCP and TCM module following an HCP and AHCP 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. **Disable HV Battery Contactors using wiTECH - Go to the Misc Functions tab --> Select Disable HV Battery Contactors --> then follow the wiTECH prompts.
2. Use wiTECH to confirm that the contactors are open and waiting five minutes. If the contactors do not open turn the ignition on then off. Once successful a note will appear on the wiTECH screen indicating the contactors are open.
3. Reprogram the BPCM 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.
4. 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.
5. Enable HV Battery Contactors using wiTECH - Go to the Misc Functions tab --> Select Enable HV Battery Contactors For Service--> then follow the wiTECH prompts.

6. Verify the IDCM, PCM, 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, PCM, HCP / AHCP and TCM software.**

NOTE: **Follow the 95B Recall Instructions and utilize the LOPs contained within the Recall.**

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