Technical Service Bulletin (TSB)
Flash: Integrated Dual Charging Module (IDCM) Enhancements

REFERENCE:	TSB: 08-111-23 REV. C GROUP 08 - Electrical	Date:	June 16, 2023	REVISION:	08-111-23 REV. B

VEHICLES AFFECTED:	2022 (WL) Jeep Grand Cherokee This bulletin applies to vehicles equipped with 2.0L I4 DOHC DI Turbo PHEV Engine (Sales Codes ECX).	MARKET APPLICABILITY: ☒NA ☒IAP** ☒**EE ☐MEA ☐SA ☐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: • B22A9-64 - ECU Internal Performance-Signal Plausibility Failure. • B22A9-16 - ECU Internal Performance-Circuit Voltage Below Threshold. • B22A9-17 - ECU Internal Performance-Circuit Voltage Above Threshold. • B22A9-19 - ECU Internal Performance-Overcurrent. **Customer may also experience the following:** • Vehicle will not charge.	
CAUSE:	IDCM software	

This bulletin supersedes Technical Service Bulletin (TSB) 08-111-23 REV. B, date of issue June 10, 2023, which should be removed from your files. All revisions are highlighted with **asterisks** and include additional markest.

This Technical Service Bulletin (TSB) has also been released as a Rapid Service Update (RSU) 23-166, date of issue June 10, 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. This RSU will expire 18 months after the date of issue.

REPAIR SUMMARY:
This bulletin involves reprogramming the IDCM with the latest software available.

CLAIMS DATA:

Labor Operation No:	Labor Description	Skill Category	Labor Time
18-90-16-9B	Module, Integrated Dual Charging (IDCM) - Inspect (0 - Introduction)	6 - Electrical and Body Systems	0.2 Hrs.
18-90-16-9A	Module, Integrated Dual Charging (IDCM) - Inspect and Reprogram (0 - Introduction)	6 - Electrical and Body Systems	0.3 Hrs.
Failure code	RF	Required Flash - RSU	
	CC	Customer Concern	

The dealer must choose which failure code to use depending on if this is a Rapid Service Update (RSU) or Technical Service Bulletin.

- The "RF" failure code is required for essential module flash/reprogramming and can only be used after confirmation that the VIN is included on the RSU.
- The failure code "RF" (Required Flash) can no longer be used on Technical Service Bulletin flashes. The "RF" failure code must be used on an RSU.
- If the customer's concern matches the SYMPTOM/CONDITION identified in the Technical Service Bulletin, failure code CC is to be used. When utilizing this failure code, the 3C's must be supplied.

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 Diagnostic Trouble Codes (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 a customer's VIN is listed in VIP or your RSU VIN list, perform the repair. If any vehicle not on the VIN list exhibits 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:

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).**

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.

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

- **Hybrid Control Processor (HCP), Auxiliary Hybrid Control Processor (AHCP) also known as the Power Inverter Module (PIM).**
- **Transmission Control Module (TCM).**
- **Powertrain Control Module (PCM).**
- **Battery Pack Control Module (BPCM).**

1. Is the vehicle on the RSU VIN list?
   - YES >>> Proceed to Step 2.
   - NO >>> Proceed to Step 3.
2. Does the IDCM have the latest software already installed?
   - YES >>> This bulletin has been completed, use inspect LOP (18-90-16-9B) to close this active RSU. Verify all other modules have been updated.
   - NO >>> Proceed to Step 3.
3. Verify the BPCM is also programmed with the latest available software. Refer to all applicable published service bulletins for detailed repair procedures and labor times regarding updating the BPCM software.
4. Reprogram the IDCM with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application "HELP" tab.
5. Verify the HCP, AHCP, TCM, PCM and BPCM 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, TCM, PCM and BPCM software.
6. 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.
7. Verify the vehicle will charge.
8. Does the vehicle charge properly after the software flash?
   - YES >>> This bulletin has been completed, Use LOP (18-90-16-9A) no further action is required.
   - NO >>> The IDCM will need to be replaced under normal warranty. Refer to the detailed service procedures available in DealerCONNECT> Service Library under: Service Info>08 - Electrical / 8E - Electronic Control Modules / Module, Integrated Dual Charging (IDCM) / Removal and Installation.

NOTE: The new IDCM will not have to be programmed, it will already have the latest software installed.

POLICY:
Reimbursable within the provisions of the warranty.