

## Technical Service Bulletin (TSB) Power Inverter Module (PIM) Replacement

<b>REFERENCE:</b>	<b>TSB:</b> 08-178-23 <b>GROUP</b> 08 - Electrical	<b>Date:</b>	July 20, 2023	<b>REVISION:</b>	-
<b>VEHICLES AFFECTED:</b>	<b>2021 (JL) Jeep Wrangler</b> This bulletin applies to vehicles built on or before September 13, 2021 (MDH 0913XX) equipped with 2.0L I4 DOHC DI Turbo PHEV Engine (Sales Code ECX).	<b>MARKET APPLICABILITY:</b>		<input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> MEA
				<input checked="" type="checkbox"/> SA	<input checked="" type="checkbox"/> IAP
				<input checked="" type="checkbox"/> EE	<input checked="" type="checkbox"/> CH
<b>CUSTOMER SYMPTOM:</b>	<p>Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find the following DTCs have been set:</p> <ul style="list-style-type: none"> <li>• P0A78-00 - Drive Motor A Inverter Performance.</li> <li>• P0A79-00 - Drive Motor B Inverter Performance.</li> </ul> <p>Customer may also experience the following:</p> <ul style="list-style-type: none"> <li>• Internal Combustion Engine (ICE) propulsion only and no EV or hybrid mode <b>only when these DTCs are present.</b></li> </ul>				
<b>CAUSE:</b>	Power Inverter Module (PIM)				

### REPAIR SUMMARY:

This bulletin involves replacing the PIM.

### CLAIMS DATA:

Labor Operation No:	Labor Description	Skill Category	Labor Time
08-19-82-90	Module, Power Inverter (PIM) - Replace and Reprogram HCP (3 - Highly Skilled)	9 - High Voltage Propulsion Systems	3.6 Hrs.
Failure code	ZZ	Service Action	

### SPARE PARTS:

Qty	Part No.	Description	Notes
1 (AR)	05185101AH	Module, Power Inverter Module (PIM)	
(AR)	68163848AB	Coolant, Engine	

### 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 listed above or if the technician finds the DTC, perform the Repair Procedure.

**SPECIAL TOOLS/EQUIPMENT:**

Description	Ref. No.	Notes
wiTECH or Equivalent	–	–

**REPAIR PROCEDURE:**

- 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. Verify DTCs P0A78 & P0A79 are present, stored or active.
  2. Are DTCs P0A78 & P0A79 are present, stored or active?
    - YES>>> Proceed to [Step 3](#).
    - NO>>> This bulletin does not apply, further diagnosis is necessary.
  3. Replace the PIM. Refer to the detailed service procedures available in DealerCONNECT > Service Library under: Service Info>Modules, High Voltage System Removal and Installation (Power Inverter Module (PIM)).

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

**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.**

4. Reprogram the PIM with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application "HELP" tab.
5. Clear any DTCs that may have been set in any modules due to the repair or reprogramming. The wiTECH application will automatically present all DTCs and allow them to be cleared.

**POLICY:**

Reimbursable within the provisions of the warranty.

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