

## Technical Service Bulletin (TSB)

### Flash: Motor Control Processor B (MCP B) Updates

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       |                   |                                                                                                                                                                                                                               |   |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| REFERENCE:         | TSB: 08-262-24<br>GROUP: 08 - Electrical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Date: | December 28, 2024 | REVISION:                                                                                                                                                                                                                     | — |
| VEHICLES AFFECTED: | 2024 (KM) Jeep Wagoneer S<br>This bulletin applies to vehicles equipped with 400V G2500 FR/RR Elec Drive Motors (Sales Code ELD).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |                   | MARKET APPLICABILITY:<br><div><input checked="" type="checkbox"/> NA<input type="checkbox"/> MEA<br/><input type="checkbox"/> SA<input type="checkbox"/> IAP<br/><input type="checkbox"/> EE<input type="checkbox"/> CH</div> |   |
| CUSTOMER SYMPTOM:  | Customers must experience a Malfunction Indicator Lamp (MIL) illumination and the vehicle must exhibit/set the following Diagnostic Trouble Code (DTC): <ul style="list-style-type: none"><li>P1626-00 - Park Pawl Motor Stuck.</li></ul> Customers may also comment on one or more of the following: <ul style="list-style-type: none"><li>Wrench lamp on in the Instrument Panel Cluster (IPC).</li><li>Not able to move the shifter out of Park.</li><li>Vehicle has reduced power.</li></ul> This bulletin also includes the following software enhancement: <ul style="list-style-type: none"><li>Software enhancement to prevent erroneous fault identification resulting in inverter shutdown.</li></ul> |       |                   |                                                                                                                                                                                                                               |   |
| CAUSE:             | MCP B software update                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |                   |                                                                                                                                                                                                                               |   |

This Technical Service Bulletin (TSB) has also been released as a Rapid Service Update (RSU) 24-175, date of issue December 28, 2024. 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, MCP A, MCP B and the EVCU with the latest available software and then performing a Wheel End Disconnect Position Learn routine.

#### CLAIMS DATA:

| Labor Operation No: | Labor Description                                                       | Skill Category                  | Labor Time |
|---------------------|-------------------------------------------------------------------------|---------------------------------|------------|
| 18-19-17-AV         | BPCM, MCP A, MCP B, EVCU - Inspect Software Level<br>(0 - Introduction) | 6 - Electrical and Body Systems | 0.2 Hrs.   |
| 18-19-17-AW         | BPCM, MCP A, MCP B, EVCU - Inspect and Reprogram<br>(0 - Introduction)  | 6 - Electrical and Body Systems | 0.9 Hrs.   |
| Failure Code        | RF                                                                      | Required Flash                  |            |
|                     | 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 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 symptom 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).

**WARNING!**

The vehicle must not be connected to a high voltage charger when performing software updates.

**NOTE:** Install a 12 volt 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.

1. Is the vehicle on the RSU VIN list?
  - YES >>> Proceed to [Step 2](#).
  - NO >>> Proceed to [Step 3](#).
2. Does the BPCM, MCP A, MCP B and the EVCU have the latest software already installed?
  - YES>>> This bulletin has been completed, use inspect LOP (18-19-17-AV) to close the active RSU.
  - NO>>> Proceed to [Step 3](#).

**CAUTION!**

The BPCM, MCP A, MCP B and EVCU must be updated to the latest available software in the correct order. Update the modules in the following order:

- 1 - BPCM
- 2 - MCP A
- 3 - MCP B
- 4 - EVCU
- 5 - Wheel End Disconnect Position Learn routine

3. Reprogram the BPCM to the latest available software.
4. Clear DTCs.
5. Are any of the following DTCs now active or pending in the BPCM?
  - P1614-00 - ECU Reset/Recovery Occurred.
  - P2D3A-00 - Forced Hybrid/EV System Shutdown.
  - U029A-00 - Lost Communication With Hybrid Battery Pack Sensor Module.
  - YES>>> Proceed to [Step 6](#).
  - NO>>> Proceed to [Step 8](#).
6. If **P1614** or **P2D3A** are set, use the wiTECH and navigate to the BPCM "Misc Functions" and then select "BPCM Soft Reset". If **U029A** is set, a six-minute sleep cycle will be needed to allow the code to go sleep. After doing the sleep cycle, turn the ignition ON, reconnect the micropod, clear the DTCs and then perform the "BPCM Soft Reset".

**NOTE: For the six-minute sleep cycle to be successful, the micropod must be disconnected and the ignition must be set to OFF prior to starting the sleep cycle. Additionally, all accessories, lights and electrical units must be turned off, and hood, trunk and all doors must be closed with no one inside the vehicle. During this sleep cycle, the vehicle may present IPC warning, chimes and other DTCs.**

7. Clear DTCs.
8. Reprogram the MCP A with the latest available software.
9. Reprogram the MCP B with the latest available software.
10. Reprogram the EVCU with the latest available software.
11. Can the ignition be turned off?
  - YES>>> Proceed to [Step 13](#).
  - NO>>> Proceed to [Step 12](#).
12. Disconnect the 12 volt battery charger and the 12 volt battery for 15 seconds.
13. Clear DTCs.
14. Is DTC P167B-00 - Controlled System Shutdown now active in the BPCM?
  - YES>>> Proceed to [Step 15](#).
  - NO>>> Proceed to [Step 17](#).
15. Using wiTECH, perform a "Impact Event Fault Reset" routine. This routine is located in the 'Misc Functions' menu for the BPCM.
16. Allow the vehicle to go to sleep. This will take approximately six minutes then proceed to [Step 17](#).

**NOTE: For the six-minute sleep cycle to be successful, the micropod must be disconnected and the ignition must be set to OFF prior to starting the sleep cycle. Additionally, all accessories, lights and electrical units must be turned off, and hood, trunk and all doors must be closed with no one inside the vehicle. During this sleep cycle, the vehicle may present IPC warning, chimes and other DTCs.**

17. Using wiTECH, perform a "Wheel End Disconnect Position Learn" routine. This routine is located in the 'Misc Functions' menu for the EVCU.

**NOTE: If the Wheel End Disconnect Position Learn routine is not successful, roll the vehicle slightly forward so that the wheel end disconnect actuators can align on the spline before attempting to perform the routine again.**

18. 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.

#### **POLICY:**

Reimbursable within the provisions of the warranty.

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