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GROUP: 08 - Electrical

DATE: May 28, 2022

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This bulletin supersedes Technical Service Bulletin (TSB) 08-013-21, date of issue January 16, 2021, which should be removed from your files. All revisions are highlighted with **asterisks**** and include additional Diagnostic Trouble Codes (DTCs), symptom/condition, updated RSU number and LOP.**

This Technical Service Bulletin (TSB) has also been released as a Rapid Service Update (RSU) **22-099**, date of issue May 28, 2022.** 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.**

SUBJECT:

Flash: Hybrid Control Processor (HCP) and Auxiliary Hybrid Control Processor (AHCP) Updates

OVERVIEW:

This bulletin involves reprogramming the HCP and AHCP or also known as Power Inverter Module (PIM) with the latest available software.

MODELS:

2019 (RU) Chrysler Pacifica (PHEV)

NOTE: This bulletin applies to vehicles within the following markets/countries: North America and APAC (China).

NOTE: This bulletin applies to vehicles equipped with a 3.6L V6 Hybrid Engine (Sales Code EH3).

SYMPTOM/CONDITION:

Technicians and/or customers may report the vehicle will not pass a state smog check due to permanent fault codes which will not clear. As a result, the vehicles are not eligible to be registered in certain states.

Customers may also 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:

- ****P1AF8-00 - MCPA Control Module Shutdown Performance.**
- P1AFE-00 - MCPB Improper Shut Down.

NOTE: P1AF8-00 & P1AFE-00 will now be set as a 1 trip failure instead of a 2 trip failure.

- P07B5-00 - Park Pawl Position Sensor 1 Circuit Performance.
- P177C-00 - Park Lock-Pawl Actuator Motor Current Sensor Performance.
- P0A46-00 - Drive Motor B Position Sensor 1 Circuit Range-Performance.
- P0A40-00 - Drive Motor A Position Sensor 1 Circuit Range-Performance.**
- P2797-00 - Auxiliary Transmission Fluid Pump Performance.
- P0CF3-00 - Control Pilot Circuit Open.

- P0A44 - Drive Motor A Position Sensor 1 Circuit Overspeed.
- U0111-00 - Lost Communication With Battery Energy Control Module (BPCM).
- P1625-00 - Park Pawl System Failure.
- U0412-00 - Invalid Data Received From Battery Energy Control Module-A.
- P215B-00 - Vehicle Speed Output Shaft Speed Correlation.
- P079A-00 - Transmission Friction Element 1 Slip Detected.
- P079B-00 - Transmission Friction Element 2 Slip Detected.

Customers may also comment:

- Vehicle will not start when temperature is -30° C (-22° F) and below.
- Heard and/or felt bump when the gas engine turns on while driving.
- Vehicle will not charge beyond 98%.
- "Service Charging System" and "Traction Battery Cutoff" warning messages appear during a key cycle event at -7° C (+20°F).
- Vehicle will force to Park when keyed off in Neutral if the door is open during wake-up procedure and remains open or within 2 minutes of door closure.
- Loss of PSA when ignition push-button is pressed by driver after a Remote Start.
- Unusual battery drain when DTC, P084F-00 - Park-Neutral Switch Output is set.

This software release includes the following software enhancement:

- **12V battery overcharged prevention.
- Corrected fuel consumption counter while in charge depleting.**
- Corrections to allow the vehicle to clear the permanent fault codes.

NOTE: Three modules are required to be flashed for this update to be effective, the following modules are all to be updated along with this HCP & AHCP update:

- **Powertrain Control Module (PCM)**
- **Anti-Lock Brake System Module (ABS).**
- **Electronic Brake Booster Module (EBBM).**

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 the symptom/condition or DTC, perform the repair.

REPAIR PROCEDURE:

NOTE: The Electronic Brake Booster Module (EBBM), Anti-Lock Brake System Module (ABS) and Powertrain Control Module (PCM) 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 EBBM, ABS and PCM software.

WARNING! Failure to update all modules following an HCP and AHCP software update may result in vehicle malfunctions.

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.

- Does the HCP and AHCP have the latest software already installed?
 - YES>>> This bulletin has been completed, use inspect LOP ****(18-19-86-AL)**** to close the active RSU.
 - NO>>> Proceed to [Step 2](#).
- 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.
- 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.
- Verify the EBBM, ABS and PCM 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 EBBM, ABS and PCM software.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
**18-19-86-AL	Hybrid Control Processor (HCP) and Auxiliary Hybrid Control Processor (AHCP) - Inspect (0 - Introduction)	1- Engine Repair and Performance	0.2 Hrs.
18-19-86-AM	Processor, Hybrid Control (HCP/AHCP) - Inspect and Reprogram (0 - Introduction)	1 - Engine Repair and Performance	0.3 Hrs.**

NOTE: The expected completion time for the flash download portion of this procedure is approximately 2 minutes. Actual flash download times may be affected by vehicle connection and network capabilities.

FAILURE CODE:

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.

RF	Required Flash - RSU
CC	Customer Concern