TECHNICAL SERVICE BULLETIN
No Crank/No Start/Discharged Battery

24-2107
12 April 2024

Model:

Ford 2022-2024 Bronco

Markets: North American Markets only

Issue: Some 2022-2024 Bronco Raptor vehicles may exhibit an intermittent no crank/no start/discharged battery due to the presence of a parasitic battery drain. This may be due to the IPC software. To correct this condition, perform the Service Procedure below to reprogram the IPC using the latest software level of the FDRS scan tool.

Action: Follow the Service Procedure to correct the condition on vehicles that meet all of the following criteria:

- 2022-2024 Bronco Raptor
- Intermittent no crank/no start/discharged battery due to the presence of a parasitic battery drain

Parts

Service Part Number	Claim Quantity	Package Order Quantity	Number in Package	Description
BAGM-48H6-760	If Needed	If Needed	1	Battery (760 Amp)
BAGM-94RH7-800	If Needed	If Needed	1	Battery (800 Amp)

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/SPW/SSP/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

Labor Times

Description	Operation No.	Time
2022-2024 Bronco Raptor: Reprogram The Appropriate Modules As Required By The Software Update And Service Procedure (Do Not Use With Any Other Labor Operations)	MT242107	Actual Time

Repair/Claim Coding

Causal Part:	10849
Condition Code:	04

Service Procedure

NOTE: This software update could take up to 6 hours, however no technician interaction is needed once the update has started.

1. Reprogram the IPC using the latest software level of the FDRS scan tool.

NOTE: The time required to complete this procedure varies depending on several factors including the number of module software updates required, available internet bandwidth, USB flash drive variability, and the potential that CAN flashing (software update via the DLC with FDRS) may be required. Connect to the internet with an ethernet cable and use a USB 3.2 or higher flash drive when performing software updates.

2. Start an FDRS session and navigate to Toolbox tab > Datalogger > Body Control Module (BCM) and select the BATT_SOC PID. Verify the PID reads 50% or higher. If SOC is less than 50%, charge the battery then navigate back to Toolbox tab > BCM > Reset Battery Monitor Sensor Learned Values application. Perform the BMS reset.

(1). If the battery is unable to achieve an 50% SOC then a new battery may be required. Use the Rotunda GRX-3590 or DCA-8000 testers to verify if replacement is required. If the battery is replaced, fully charge the new battery, disconnect the Rotunda charger and perform a BMS reset using the FDRS scan tool.

3. Reconnect the battery charger and set it to maintain a vehicle voltage of 12.6 – 13.6 volts. A low battery state of charge while performing a software update to any module may result in a repeat **Restart Required** message in the vehicle center display screen or a message on the FDRS saying **Part Number Validation Failed** or **DID Validation Failed**.

4. Are there any updates available for the GWM, TCU, APIM and/or IPC modules?

(1). Yes - proceed to Step 5.

(2). No - this article does not apply. Refer to the appropriate section of the WSM.

5. Perform the Module Software Updating Procedures outlined below for the following modules: GWM, APIM, TCU and IPC. Perform a network test after each software update using the latest software level of the FDRS scan tool. This will refresh the list of modules that have available software updates based current module software levels. If any error conditions are experienced during programming, refer to WSM, Section 418-01A > General Procedures > Module Programming for the Error Condition Table.

Module Software Updating Procedure

NOTE: A 32GB or larger USB flash drive is required for APIM, TCU, GWM and IPC software updates. USB 3.2 or higher is recommended for faster file transfer. Make sure the USB flash drive being used is formatted correctly. To see the available drives, hold down the Windows icon keyboard key and press the E keyboard key. Right click on the USB flash drive and select Properties. If File System under the General tab is not exFAT, the drive must be formatted.

To format the USB flash drive:

- Right click on the USB flash drive
- Select Format, select exFAT for the File System
- Select Default Allocation Size for the Allocation Unit Size.

De-selecting Quick Format is not necessary and will result in a lengthier operation.

1. Using the FDRS, begin module programming by selecting the SW Updates tab. Follow all on-screen instructions carefully. Perform the software updates in the order below:

NOTE: All 4 modules must be updated.

NOTE: Sequence subject to change based on the repair.

- GWM (first)
- APIM (second)
- TCU (third)
- IPC (last)

2. When prompted, connect the USB flash drive to the FDRS.

3. When prompted by the FDRS, safely remove/eject the USB flash drive from the FDRS and connect it to the USB media hub to install the software into the module. When the USB software update begins, the center display screen displays a message stating **Do Not Remove USB**. The update may take 10 minutes or longer to complete.

NOTE: It may take up to 5 minutes for the vehicle to recognize the USB flash drive.

4. When the pop-up stating **Restart Required** appears on the center display screen

(1). Turn the ignition off.

(2). Wait for 10 minutes.

(3). Restart the vehicle (key-on vehicle running). The update is still in process at this time.

NOTE: It may take up to 5 minutes before the center display screen displays Update Successful pop-up. After 5 minutes if Update Successful pop-up is not shown on the center display screen, remove the USB and select yes on the FDRS Was the USB Update Successful prompt (FDRS verifies if the module software update was successfully installed on the module).

5. Once the pop-up stating **Update Successful** appears in the center display screen, select **Close**, remove the USB flash drive from the USB media hub, and select **Yes** on FDRS indicating the update installed successfully. This initiates the remaining automated configuration steps and reports the module software part numbers and application software levels to the Ford online database. Failure to follow this step results in an inaccurate database as well as omitted, improperly installed, or improperly configured applications (features) such as navigation (if equipped). It is normal for the module to reset during this step.
