



TECHNICAL SERVICE BULLETIN

25-2048

24 February
2025

General System Performance, Stability, And Intermittent System Reboot, Intermittent Wireless Apple CarPlay Or Android Auto Function, Phone Related Concerns With Intermittent No Audio Or Static, Navigation/Global Positioning System (GPS) Related Concerns Through Apple CarPlay And Android Auto, Alexa Function Consistency And Stability

Model:

Ford
2021-2024 F-150

Markets: North American markets only

Issue: Some of the vehicles listed in the Model statement above may exhibit at least one of the following conditions:

- General system performance/stability/intermittent system reboot
- Intermittent wireless Apple CarPlay or Android Auto function
- Phone related concerns with intermittent no audio or static
- Navigation/GPS related concerns through Apple CarPlay and Android Auto
- Alexa function consistency and stability

This may be due to a concern with the software in the APIM.

NOTE: The APIM software update that addresses the symptom listed in this bulletin may have been sent via a software update delivered OTA to connected vehicles that have automatic updates enabled through the center display screen. Enter the VIN in PTS and check the OTA Dashboard under the Connected Vehicle tab for OTA update history. If an update to the APIM has successfully completed recently and the customer is reporting the symptoms are no longer present, this article may not apply.

Action: For vehicles that meet all of the criteria in the Issue and Model statements, follow the Service Procedure to reprogram the APIM.

Parts - Parts To Inspect And Replace Only If Necessary

| Service Part Number | Claim Quantity | Package Order Quantity | Number in Package | Description |
|---------------------|--------------------------------|--------------------------------|-------------------|-----------------|
| BAGM-48H6-760 | Only If Necessary (1 Possible) | Only If Necessary (1 Possible) | 1 | Battery 760 CCA |
| BAGM-94RH7-800 | Only If Necessary (1 Possible) | Only If Necessary (1 Possible) | 1 | Battery 800 CCA |

Claim Quantity refers to the total number of individual pieces required to repair the vehicle.

Package Order Quantity refers to the amount of the service part number package(s) required to repair the vehicle.

Number In Package refers to the number of individual pieces included in a service part number package.

Only If Necessary indicates the part is not mandatory. Refer to the Service Procedure to determine the inspection/inclusion criteria.

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

Labor Times

| Description | Operation No. | Time |
|--|---------------|----------------------------|
| 2021-2024 F-150: Reprogram The GWM, APIM, TCU, IPC, BCM, CMR, SCCM, IPMA As Required By The Software Update And Service Procedure (Do Not Use With Any Other Labor Operations) | 252048A | 4.6 Hrs. |
| Additional Time For Further Updates To GWM, APIM, TCU "Refer To Warranty & Policy Manual, Section 1.3 For Time Recording Requirements And Procedures For Actual Time. Ford Monitors Module Reprogramming Vehicle History Session Data To Compare Against Warranty Claiming Activity" (Can Be Claimed With Operation A) | AP252048 | Actual Time Up To 2.0 Hrs. |

Repair/Claim Coding

| | |
|-----------------|--------|
| Causal Part: | 14G371 |
| Condition Code: | 04 |

Service Procedure

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, use a USB 3.2 Gen 2 or higher flash drive. When performing USB software updates, using high speed USB ports on the laptop is recommended for faster file transfer.

1. 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.

NOTE: Connecting the battery charger negative clamp directly to the battery negative terminal might result in the SOC PID not immediately reflecting the improvement from charging.

- (1). If SOC is less than 50%, charge the battery by attaching the battery charger's negative clamp to the engine or chassis ground and not the negative battery terminal. Refer to WSM, Section 414-01.
- (2). If the battery is unable to achieve a 50% SOC, use the Rotunda GRX-3590 or DCA-8000 testers to verify if replacement is required.

- If the battery does not need to be replaced, disconnect the Rotunda charger and perform a BMS reset using the FDRS scan tool.
- If the battery is replaced, fully charge the new battery, disconnect the Rotunda charger and perform a BMS reset using the FDRS scan tool.

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

3. Is there a software update available for any of the following modules?

- GWM
- APIM
- TCU
- IPC
- BCM
- CMR
- SCCM
- IPMA

- (1). Yes - proceed to Step 4.

- (2). No - this article does not apply.

4. Prepare to update the software for the GWM, APIM, TCU, and IPC.

- (1). A 64GB or larger USB flash drive is required for GWM, APIM, TCU, and IPC software updates. USB 3.2 Gen 2 or higher is recommended for faster file transfer on both the computer port and the USB drive.

(2). 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.

(3). 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.

(4). De-selecting Quick Format is not necessary and results in a lengthier operation.

5. Using the FDRS, begin module programming by selecting the "SW Updates" tab. Follow all on-screen instructions carefully.

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

7. When prompted by the FDRS, safely remove/eject the USB flash drive from the FDRS. Start the vehicle (KOER) then connect the USB flash drive 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 with software update.

8. When the vehicle's center display screen prompts to restart the vehicle:

- (1). Turn the vehicle OFF.
- (2). Wait 10 minutes.
- (3). Restart the vehicle (KOER). The update is still in process at this time.

9. Follow FDRS on-screen prompts to complete the update.

NOTE: It may take up to 5 minutes before "Update Successful" appears in the vehicle's center display screen. After 5 minutes if "Update Successful" pop-up is not shown on the center display screen, remove the USB flash drive and select "Yes" on the FDRS prompt stating "Was The USB Update Successful" (FDRS verifies if the module software update was successfully installed on the module).

10. Perform the software update for the GWM. Follow all update screens. If there is no GWM software update available, proceed to Step 11.

- (1). Follow the center display screen prompts.
- (2). Follow FDRS prompts to complete the GWM programming.

- 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.

(3). Proceed to Step 11.

11. Perform the software update for the APIM. Follow all update screens. If there is no APIM software update available, proceed to Step 12.

- (1). Follow the center display screen prompts.
- (2). Follow FDRS prompts to complete the APIM programming.

- 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.

(3). Proceed to Step 12.

12. Perform the software update for the TCU. Follow all update screens. If there is no TCU software update available, proceed to Step 13.

- (1). Follow the center display screen prompts.

(2). Follow FDRS prompts to complete the TCU programming.

- 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.

(3). Proceed to Step 13.

13. Perform the software update for the IPC. Follow all update screens. If there is no IPC software update available, proceed to Step 14.

(1). Follow the center display screen prompts.

(2). Follow FDRS prompts to complete the IPC programming.

- 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.

14. Perform a network test using the FDRS scan tool.

(1). Click on envelope icon.

(2). Select "Refresh FDRS Files" (this will close FDRS when completed).

(3). Launch FDRS.

(4). Start new FDRS session.

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

NOTE: The option to update a module may not be available until other module(s) are updated to a certain level. The network test is a confirmation that all modules are at the latest available software. Some repairs may require multiple network tests to reveal all module dependant software.

(1). Yes - proceed to Step 10.

(2). No - proceed to Step 16.

16. Is there a BCM update available?

(1). Yes - perform the software update. Proceed to Step 17.

(2). No - proceed to Step 17.

17. Is there a CMR update available?

(1). Yes - perform the software update. Proceed to Step 18.

(2). No - proceed to Step 18.

18. Is there a SCCM update?

(1). Yes - perform the software update. Proceed to Step 19.

(2). No - proceed to Step 19.

19. Is there a IPMA update?

(1). Yes - perform the software update. Proceed to Step 20.

(2). No - proceed to Step 20.

20. Perform a network test using the FDRS scan tool.

(1). Click on envelope icon.

(2). Select "Refresh FDRS Files" (this will close FDRS when completed).

(3). Launch FDRS.

(4). Start new FDRS session.

21. Are there any updates available for the GWM, APIM, TCU, IPC, BCM, CMR, SCCM, and /or IPMA?

(1). Yes - proceed to Step 10.

(2). No - repair is complete.

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NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.