



TECHNICAL SERVICE BULLETIN

Ford Power-Up Software Update Failure Message And/Or Unable To Update The APIM Or TCU With The FDRS And USB Drive - Module Recovery

22-2117

22 March
2022

Model:

Ford 2021 F-150
2021 Mustang Mach-E

Issue: Some 2021 Mustang Mach-E and F-150 customers may report experiencing a Ford Power-Up software update failure message via the vehicle display and/or FordPass. In addition, some technicians may experience the inability to update the accessory protocol interface module (APIM) or telematics control unit (TCU) using the Ford Diagnosis and Repair System (FDRS) and Universal Serial Bus (USB) drive. It may also be observed on the PTS - Over The Air (OTA) dashboard that multiple APIM and/or TCU updates have failed, or a no OTA history message is displayed. This may be due to a internal software error. To correct this condition, follow the Service Procedure to recover the APIM/TCU.

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

- 2021 F-150/Mustang Mach-E
- Ford Power-Up software update failure message via the vehicle display or FordPass
- Inability to update the APIM or TCU using the FDRS and USB drive

Special Tool(s)

Mini B 5 Pin Female Adapter, Rotunda Part# CCMUSB-AF-BF5 or equivalent (Mach-E and F-150 vehicles with floor console)
USB 2 Cable - Male to Male, Rotunda Part# CCMUSB2-AM-AM-10 or equivalent (All vehicles)
USB-to-Ethernet adapter, Trendnet TU2-ET100 USB2.0, Trendnet TU3-ETG USB 3.0, Startech USB31000S USB 3.0 or equivalent (All vehicles)
Ethernet cable assembly, obtain locally (All vehicles)

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.

NOTE: Due to the variability that exists with this repair process, use Labor Operation MT222117 and claim as Actual Time following the guidelines in the Warranty and Policy Manual. As a reminder, effective January 10, 2022, Ford removed Actual Time from the Repair Cost Variance calculations for the Dealer Dashboard.

Labor Times

Description	Operation No.	Time
2021 Mustang Mach-E/F-150: Download And Run The Module Repair Application Following The Service Procedure, Includes Time To Access Connector	MT222117	Actual Time

Repair/Claim Coding

Causal Part:	14G670
Condition Code:	04

Service Procedure

NOTE: Make sure any antivirus software loaded in the laptop computer must be disabled or uninstalled prior to performing this procedure.

NOTE: Administrative access on the laptop computer being used is required to perform this procedure.

NOTE: Use only a wireless connection for internet access as this application requires the use of the laptop computer ethernet port during the module recovery procedure.

NOTE: Confirm the FDRS is at version R31 or higher.

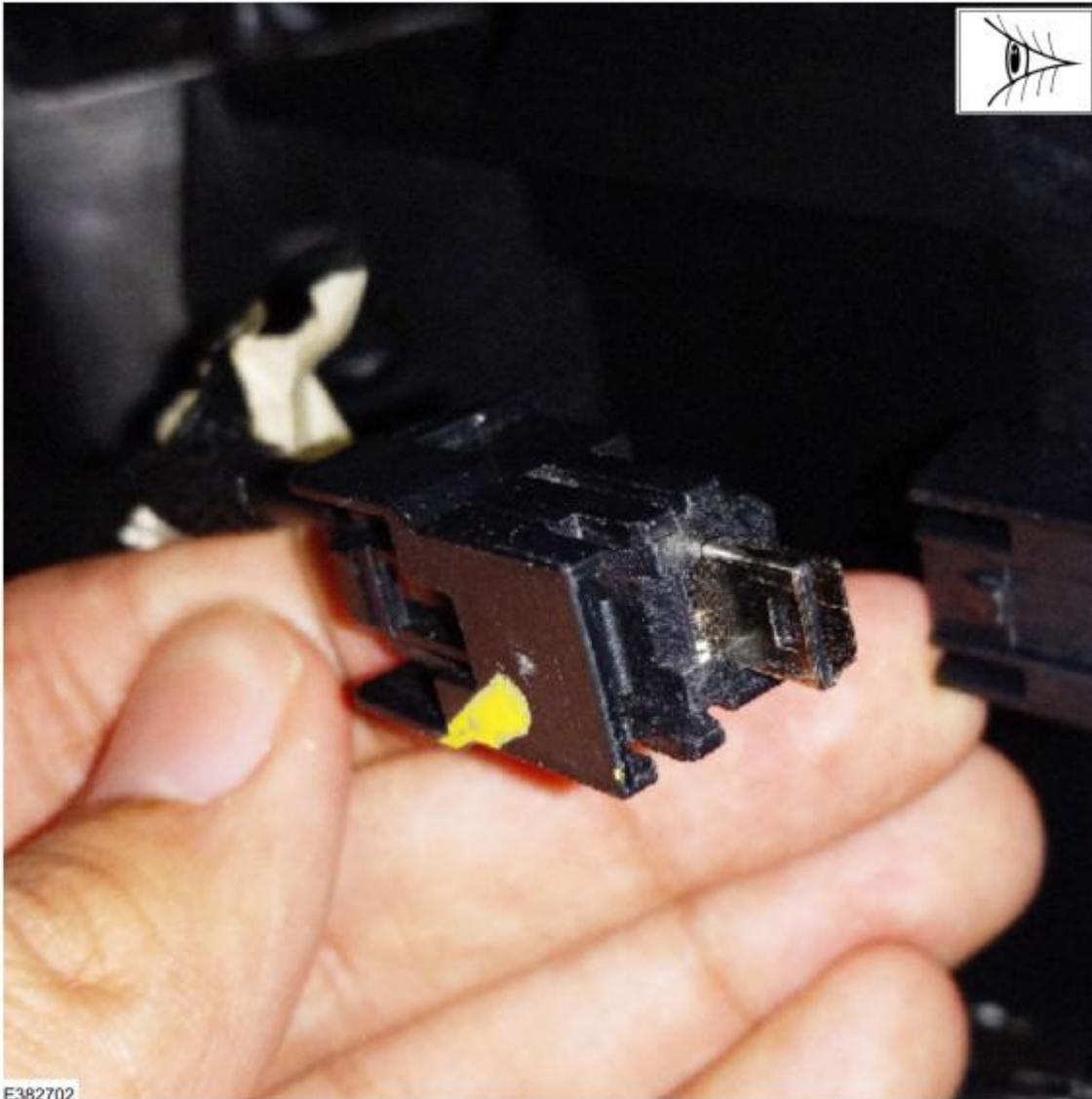
1. Connect a battery charger to the vehicle's 12-volt battery.
2. For F-150 vehicles not equipped with a floor console, proceed to Step 4.
3. For Mustang Mach-E and F-150 vehicles equipped with floor console, gain access to the APIM in-line USB cable connector.
 - (1). For Mustang Mach-E vehicles, remove the left-hand side floor console front trim panel and disconnect the APIM in-line USB connector. The connector may be concealed by tape. Refer to Workshop Manual (WSM), Section 501-12, floor console removal, Step 4. (Figure 1)

Figure 1



- (2). For F-150 vehicles with floor console, remove the floor console lower left hand trim panel and disconnect the APIM in-line USB connector. Refer to WSM, Section 501-12, floor console removal, Step 4. (Figure 2)

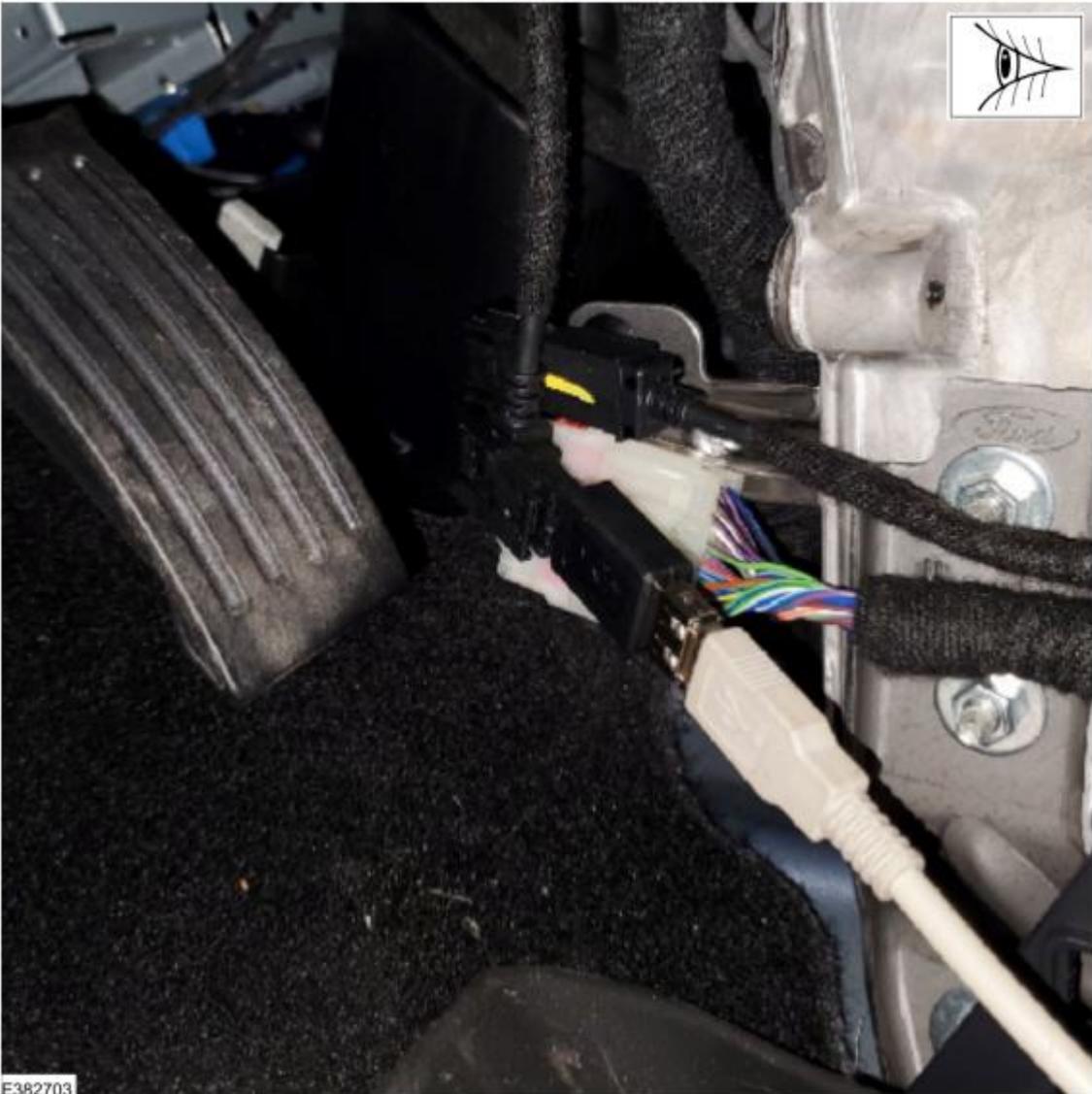
Figure 2



E382702

4. Connect either the vehicle communications module (VCM) II or VCM III to the data link connector (DLC) and start a vehicle session using the FDRS.
 5. Navigate to the toolbox tab on FDRS then select the Multi Module tab.
 6. Under the Multi Module tab, download and run the Module Update Repair application.
 7. The FDRS will prompt installation of either USB or ethernet cable connections based on the failure detected.
- Required USB connections:
- Mach-E and F-150 vehicles with floor console: (Figures 3-4)
 - Connect the Mini B 5 Pin Female Adapter to the vehicle harness.
 - Connect the USB 2 Cable - Male to Male to the female adapter and the laptop USB port.

Figure 3



E382703

Figure 4



- F-150 vehicles without floor console: (Figure 5)
 - Connect the USB 2 Cable - Male to Male or equivalent to the vehicle USB port and the laptop USB port.

Figure 5



E382705

Required ethernet connections:

- Mach-E and F-150 vehicles with floor console: (Figures 6-7)
 - Connect the Mini B 5 Pin Female Adapter to the vehicle harness.
 - Connect the USB-to-ethernet adapter to the female adapter.
 - Connect the ethernet cable to USB-to-ethernet adapter and laptop ethernet port.

Figure 6



Figure 7



- F-150 vehicles without floor console: (Figure 8)
 - Connect the USB-to-ethernet adapter to the vehicle USB port.
 - Connect the ethernet cable to the USB-to-adapter and laptop ethernet port.

Figure 8



8. Continue following the FDRS on-screen prompts until the procedure is complete. The FDRS will display when to disconnect the cables.
9. Restore the vehicle harness connections.
10. Once this procedure is complete, FDRS will return to the toolbox tab. Select the Software Updates tab and update the APIM and/or TCU software as required.
11. Check the Professional Technician System (PTS) website for applicable SYNC 4 TSB articles for the most recent software update procedures.

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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.