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May 9, 2024

**TO:** All U.S. Ford and Lincoln Dealers

**SUBJECT:** **NEW VEHICLE DEMONSTRATION / DELIVERY HOLD**  
**Compliance Recall 22C27- Supplement #4**  
 Certain 2021-2022 Model Year Bronco Vehicles  
 Accessory Protocol Interface Module Software Update

**REF:** **NEW VEHICLE DEMONSTRATION / DELIVERY HOLD**  
**Compliance Recall 22C27- Supplement #3**  
 Dated March 8, 2024

**New! REASON FOR THIS SUPPLEMENT**

- *Technical Instructions: The software update procedure has been updated for clarity.*

**AFFECTED VEHICLES**

Vehicle	Model Year	Assembly Plant	Build Dates
Bronco	2021	Michigan	September 23, 2020, through December 22, 2021
Bronco	2022	Michigan	September 1, 2021, through May 18, 2022

US population of affected vehicles: 44,234. Affected vehicles are identified in OASIS and FSA VIN Lists.

**REASON FOR THIS COMPLIANCE RECALL**

Some of the affected vehicles may not conform to the requirements specified by Federal Motor Vehicle Safety Standard (FMVSS) 111 S5.5 Rear Visibility. The rearview camera image may reappear on the SYNC screen after a backing event has been completed while in 4WD Low mode. The reappearance of the rearview camera image may distract the driver, increasing the risk of a crash.

**SERVICE ACTION**

Before demonstrating or delivering any new in-stock vehicles involved in this recall, dealers are to:

- Check the attached VIN list, these 20 vehicles have been identified as 22.5 model-year vehicles and do not have an OTA remedy available. If a vehicle is included in the VIN list, the dealer will need to update the software using FDRS. An FDRS solution is now available.
- An OTA software update is now available for 2021-2022 model-year Bronco vehicles equipped with 8-inch SYNC screens. This update EXCLUDES 22.5 model-year vehicles.

**OVER-THE-AIR (OTA) UPDATES (FORD SOFTWARE UPDATE):**

1. Ford has deployed an OTA software update for 2021 and 2022 model year vehicles. OTA went out upon initial launch on December 12, 2022, and for vehicles equipped with 8-inch SYNC screens (excluding 22.5 model-year vehicles with 8-inch screens) on September 21, 2023. The 22.5 model-year vehicles with 8-inch screens in the attached VIN list do not have an OTA remedy available and will require the software update through FDRS.

2. Before scheduling service for an OTA-capable vehicle, please verify through PTS that the Field Service Action (FSA) is still open (OASIS) and that the vehicle has not already received the OTA update.
3. Verify FSA is still open by viewing the “Outstanding Field Service Actions” on the OASIS results page on PTS. (Note: If the OTA update was recently downloaded onto the vehicle the FSA may still show as open)
4. If the FSA is still open in the Outstanding Field Service Actions section, proceed to the tab titled “Connected Vehicle”. In the “Over The Air Update 60 Day History”, you can determine if an OTA update occurred on the affected module by viewing the “Completion Status”, which should show “Campaign Successful”. The “Release Notes” will also indicate that the campaign was successfully downloaded onto the vehicle. (Note: the FSA may still show as open in the Outstanding Field Service Actions section of PTS even though the OTA update was successfully downloaded onto the vehicle. This FSA will eventually be removed from the Outstanding Field Service Actions screen of PTS.)

### **OWNER NOTIFICATION MAILING SCHEDULE**

Owner letters are expected to be mailed the week of December 19, 2022. Updated Owner letters are expected to be mailed the week of March 18, 2024, to owners of the 22.5 model-year vehicles equipped with 8-inch screens informing them to contact their dealer to schedule the repair, as an OTA option is not available. Dealers should repair any affected vehicles that arrive at their dealerships, whether or not the customer has received a letter.

### **PLEASE NOTE:**

**Federal law requires dealers to complete this recall service before a new vehicle is delivered to the buyer or lessee. Violation of this requirement by a dealer could result in a civil penalty of up to \$27,168 per vehicle. Correct all vehicles in your new vehicle inventory before delivery.**

### **ATTACHMENTS**

- Administrative Information
- Labor Allowances and Parts Ordering Information
- *Technical Instructions*
- Mobile Service Repair Assessment
- Owner Notification Letters
- Recall Reimbursement Plan

### **QUESTIONS & ASSISTANCE**

For questions and assistance, contact the Special Service Support Center (SSSC) via the SSSC Web Contact Site. The SSSC Web Contact Site can be accessed through the Professional Technician System (PTS) website using the SSSC link listed at the bottom of the OASIS VIN report screen or listed under the SSSC tab.

Sincerely,



Stacy L. Balzer

**Compliance Recall 22C27- *Supplement #4***

**MOBILE SERVICE REPAIR ASSESSMENT LEVEL**

- All repairs in this program have the following assessment level.  
Ⓢ - Not Mobile Service Capable

**OASIS ACTIVATION**

OASIS will be activated on December 12, 2022.

**FSA VIN LISTS ACTIVATION**

FSA VIN Lists will be available through <https://web.fsavinlists.dealerconnection.com> on December 12, 2022. Owner names and addresses will be available by January 6, 2023.

**NOTE:** Your FSA VIN Lists may contain owner names and addresses obtained from motor vehicle registration records. The use of such motor vehicle registration data for any purpose other than in connection with this recall is a violation of law in several states, provinces, and countries. Accordingly, you must limit the use of this listing to the follow-up necessary to complete this recall.

**SOLD VEHICLES**

- Ford has not issued instructions to stop selling/delivering or driving used vehicles under this compliance recall. Owners should contact their dealers for an appointment to have their vehicles remedied as soon as practicable.
- Immediately contact any of your affected customers whose vehicles are not on your VIN list but are identified in OASIS. Give the customer a copy of the Owner Notification Letter (when available) and schedule a service date.
- Correct other affected vehicles identified in OASIS that are brought to your dealership.
- Dealers are to prioritize repairs of customer vehicles over repairs of new and used vehicle inventory.

**STOCK VEHICLES**

- Correct all affected units in your new vehicle inventory before delivery.
- Use OASIS to identify any affected vehicles in your used vehicle inventory.

**DEALER-OPERATED RENTAL VEHICLES**

The Fixing America's Surface Transportation (FAST) Act law effective June 2016 prohibits a rental company from selling, renting, or leasing vehicles subject to a safety or compliance recall. Please consult your legal counsel for legal advice.

**BRANDED / SALVAGED TITLE VEHICLES**

Affected branded / salvaged title vehicles are eligible for this recall.

Compliance Recall 22C27- **Supplement #4**

**OWNER REFUNDS**

- **This safety recall must still be performed, even if the owner has paid for a previous repair. Claiming a refund will not close the recall on the vehicle.**
- Ford Motor Company is offering a refund for owner-paid repairs covered by this recall if the repair was performed before the date indicated in the reimbursement plan, which is posted with this bulletin. Owners are directed to seek reimbursement through authorized dealers or, at their option, directly through Ford Motor Company at PO Box 6251, Dearborn, MI 48121-6251.
- Dealers are also pre-approved to refund owner-paid emergency repairs that were performed away from an authorized servicing dealer after the end date specified in the reimbursement plan. Non-covered repairs, or those judged by Ford to be excessive, will not be reimbursed.
- Refunds will only be provided for the cost associated with Accessory Protocol Interface Module (APIM) Software Update.

**RENTAL VEHICLES**

Rental vehicles are not approved for this program.

**ADDITIONAL REPAIR (LABOR TIME AND/OR PARTS)**

Additional repairs identified as necessary to complete the FSA should be managed as follows:

- For related damage and access time requirements, refer to the Warranty and Policy Manual / Section 6 – Ford & Lincoln Program Policies / General Information & Special Circumstances for FSAs / Related Damage.
- For vehicles within new vehicle bumper-to-bumper warranty coverage, no SSSC approval is required, although related damage must be on a separate repair line with the “Related Damage” radio button checked.
  - Ford vehicles – 3 years or 36,000 miles
- For vehicles outside new vehicle bumper-to-bumper warranty coverage, submit an Approval Request to the SSSC Web Contact Site before completing the repair.

**Compliance Recall 22C27- *Supplement #4*****CLAIMS PREPARATION AND SUBMISSION**

- **Technician Competency Requirement:** The STST Competency 10 certification requirement in the U.S. market only will be enforced starting with repair orders opened on or after April 1, 2024. FSA repairs will reject if the repairing technician is not certified in STST Competency 10 FSA. See EFC14251 for more details.
- **Claim Entry:** Enter claims using Dealer Management System (DMS) or One Warranty Solution (OWS) online.
  - When entering claims, select claim type 31: Field Service Action. The FSA number 22C27 is the subcode.
  - For additional claims preparation and submission information, refer to the Recall and Customer Satisfaction Program (CSP) Repairs in the OWS User Guide.
- **Related Damage/Additional labor and/or parts:** Must be claimed as Related Damage on a separate repair line from the FSA with the same claim type and subcode as described in Claim Entry above.

**IMPORTANT:** Click the Related Damage Indicator radio button.
- **Refunds:** Submit refunds on a separate repair line.
  - Program Code: 22C27
  - Misc. Expense: ADMIN
  - Misc. Expense: REFUND
  - Misc. Expense: 0.2 Hrs.
  - Multiple refunds should be submitted on one repair line and the invoice details for each repair should be detailed in the comments section of the claim.

**Compliance Recall 22C27- *Supplement #4***

**LABOR ALLOWANCES**

Description	Labor Operation	Labor Time
<b>2021 Model Year</b> Update the APIM, TCU, ECG, APIM as needed using FDRS	MT22C27B	Up to 4.0 Hours
<b>2022 Model Year</b> Update the ECG and APIM as needed using FDRS	MT22C27C	Up to 2.5 Hours
<b>2021 Model Year</b> - If the APIM or TCU module fails to update, Module recovery is needed, and TSB 22-2404 is utilized. (Can only be used with 2021 Bronco Labor Op MT22C7B)	MT22C27D	Up to 1.0 Hour

**PARTS REQUIREMENTS / ORDERING INFORMATION**

Parts are not required to complete this repair.

## CERTAIN 2021-2022 MODEL YEAR BRONCO VEHICLES — ACCESSORY PROTOCOL INTERFACE MODULE SOFTWARE UPDATE

### **NEW !** SERVICE PROCEDURE

**IMPORTANT!** *The Service Technician Specialty Training (STST) Competency 10 certification requirement, for U.S. market only, will be enforced starting with repair orders opened on or after April 1, 2024. Field Service Action (FSA) repairs will reject if the repairing technician is not certified in STST Competency 10 FSA. See Electronic Field Communication (EFC) 14251 for more details.*

**NOTE:** The software update is now available for 2021-2022 Model Year Bronco vehicles.

- For 2021 and 2022 Model Year (MY) programming see 2021-2022 Model Year Module Programming procedure below.
- For vehicles with an 8-inch SYNC screen see Module Programming procedure on Page 8.

### **2021-2022 Model Year Module Programming**

**NOTE:** Before beginning programming ensure the vehicle has enough fuel to idle for 2 hours.

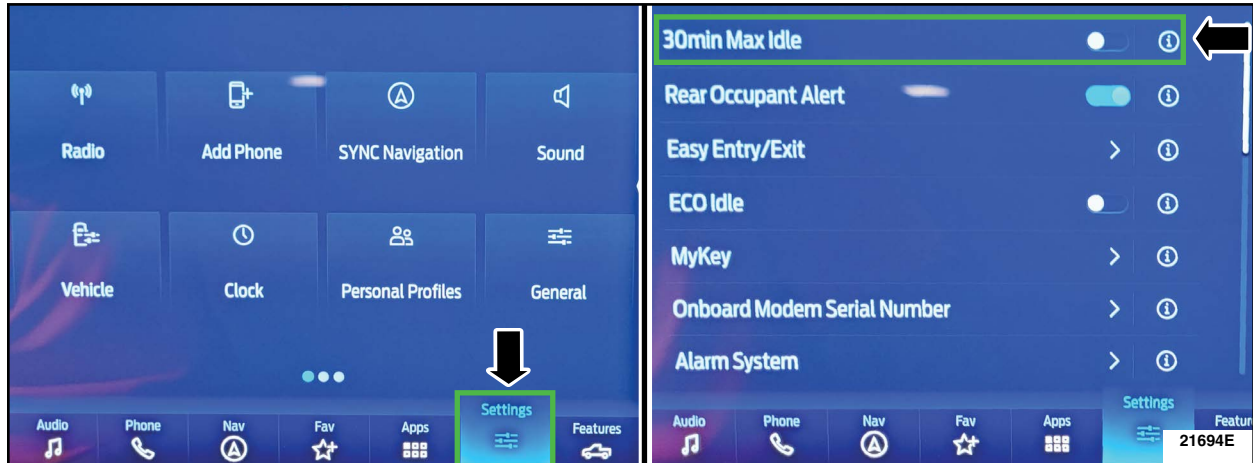
**NOTE:** The following modules may each require more than one software update: Gateway Module (GWM), Telematic Control Unit (TCU) and/or Accessory Protocol Interface Module (APIM).

**NOTE:** Program appropriate vehicle modules before performing diagnostics and clear all DTCs (Diagnostic Trouble Codes) after programming. For DTCs generated after programming, follow normal diagnostic service procedures.



1. From the vehicle settings menu disable the 30 minute max idle option. From the center display press the vehicle settings button and turn off the 30 minute max idle setting. See Figure 1.

**NOTE:** F-150 shown, Bronco similar.



**FIGURE 1**

2. Check the vehicle's **State Of Charge Parameter Identification Data (PID)** by performing the following:

- a. Launch the Ford Diagnostic and Repair System (FDRS) and navigate to toolbox tab > datalogger > BCM and select **BATT SOC PID**.
- b. Ensure that the **BATT\_SOC PID** reads over **50%**. If the PID is less than **50%**, fully recharge the vehicle's 12-volt battery using the appropriate Rotunda *GRX-3590 or DCA-8000 testers to verify battery condition*.
- c. Remove the charger from the vehicle *once the battery is fully charged*. Using FDRS, navigate to toolbox tab > BCM > **Reset Battery**. Monitor Sensor Learned Values application. Perform the BMS reset.

3. *Connect the Rotunda battery tester and charger and set it to maintain 12.6 to 13.6 volts. Monitor the voltage real time using the indicator at the bottom right corner of FDRS to ensure that it is within this range.*

**NOTE:** Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12 volt battery negative terminal to prevent the battery saver mode from activating on the vehicle.

**NOTE:** If the diagnostic software does not load or if the vehicle cannot be identified properly, make sure there is a good internet connection and the VCM (Vehicle Communication Module) is properly connected to the DLC (Data Link Connector).

4. Log into FDRS. Ensure FDRS and VCM are updated to latest version.

5. Start a new FDRS session.

**NOTE:** Vehicle information is automatically retrieved by the diagnostic software and a Network Test is run. Vehicle identification data appears on the screen when this is complete.





6. Click 'Read VIN from Vehicle' or manually enter the VIN.

**NOTE:** Available modules are shown on the LH (left-hand) side of the screen, and available procedures are listed on the RH (right-hand) side of the screen. Modules that are communicating are highlighted in green.

7. Select Toolbox tab.

8. From the list on the LH side of the screen, select GWM.

9. From the list on the RH side of the screen, select GWM - Gateway Module (GWM) Software Update.

**NOTE:** If the GWM is at the latest software version, Proceed to Step 16.

10. Perform the Module Software Updating Procedures outlined below for the GWM module:  
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 on current module software levels. Continue performing software updates to the GWM module until all software updates are complete. If any error conditions are experienced during programming, refer to WSM Section 418-01A > General Procedures > Module Programming for the Error Condition Table.

11. If the in-vehicle SYNC screen does not indicate that the USB flash drive has started to download, this may require recovery of the APIM module. Refer to related Technical Service Bulletins (TSB) 22-2404 for APIM recovery using the FDRS service tool.

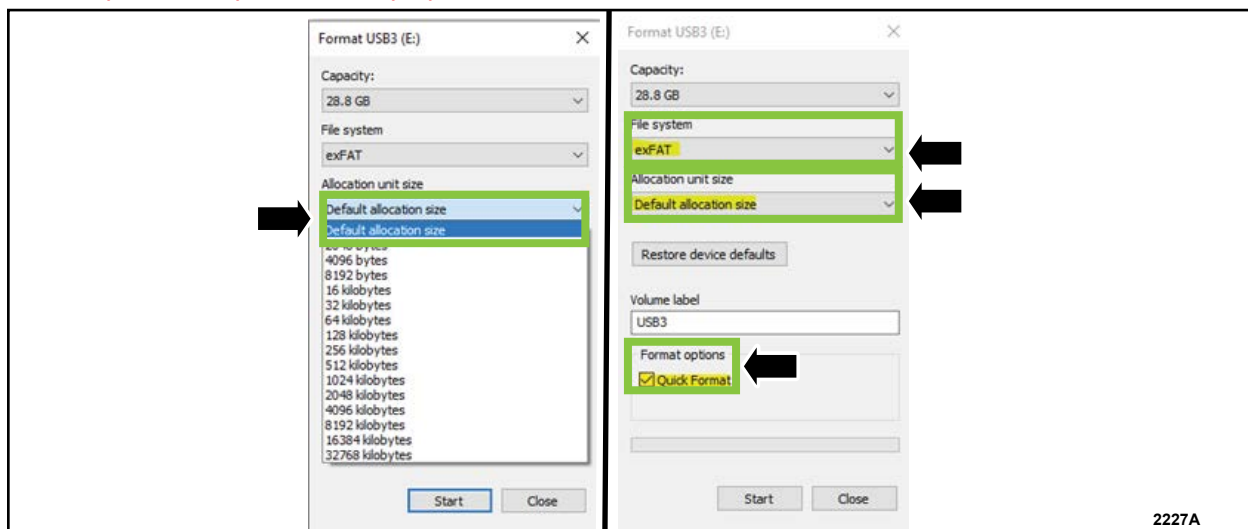


**NOTE:** A 32GB or larger USB flash drive is required for APIM, TCU, and GWM software updates. *USB 3.0 or higher is recommended.* Make sure the USB flash drive being used is formatted correctly. To see the available drives, hold down the Windows icon keyboard key and press the E keyboard key. Right 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:*

- a. *Right click on the USB flash drive.*
- b. *Select Format, select exFAT for the File System.*
- c. *Select Default Allocation Size for the Allocation Unit Size.*
- d. *De-selecting Quick Format is not necessary and will result in a lengthier operation. See Figure 2.*

**NOTE:** *For the fastest file transfer speed, the use of a USB 3.2 Gen2 flash drive with a compatible high speed USB port on the laptop is recommended.*



**FIGURE 2**

12. Using the FDRS, begin module programming by selecting the SW Updates tab. Download and run the application for desired module. Follow all on-screen instructions carefully.

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

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



14. When prompted by the FDRS, safely remove/eject the USB flash drive *from the PC, turn the vehicle to Key On Engine Running (KOER), and connect the USB to the media hub to install the software update*. The update starts automatically and may take 10 minutes or longer to complete.

**NOTE:** It may take up to 5 minutes before center display screen displays a *"Programming Successful"* pop-up. After 5 minutes if *"Successful"* pop-up is not shown on 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).

*15. For APIM, TCU, and GWM USB software updates, when center display screen prompts to restart the vehicles:*

- a. Turn the vehicle OFF.*
- b. Wait ten (10) minutes.*
- c. Turn the vehicle to KOER.*

*16. Leave the USB drive inserted into the vehicle, until the vehicles center display screen states programming successful.*

17. Once the pop-up stating Update Successful appears on the touchscreen, select Close, remove the USB flash drive from the USB hub and connect it to the FDRS, and select Yes on FDRS indicating the update installed successfully. This initiates the remaining automated configuration steps and reports the module assembly, vehicle interface processor (VIP), calibration, customer interface processor (CIP), 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.

**NOTE:** Update the gateway module (GWM) before performing the APIM update. Updated APIM software will not show as being available in FDRS until the GWM has been successfully updated.

18. If a GWM software update was performed, re-run the network test on the FDRS. Is an APIM software update available?

- Yes - Proceed to Step 19.
- No - Proceed to Step 23.

19. Download and run the APIM Software Update application on the FDRS and follow the on-screen prompts. If any error conditions are experienced during programming, refer to WSM Section 418-01A > General Procedures > Module Programming for the Error Condition Table.

**NOTE:** APIM software download to laptop and download to USB flash drive could each take up to 45 minutes to complete. However no technician interaction is needed once the download process has stated.

**NOTE:** Start the vehicle before installing the USB flash drive for the APIM update.



20. When directed by the FDRS, install the USB flash drive into the vehicle. Wait 5 minutes for the updating prompts to show up in the sync screen in the vehicle.

**NOTE:** It may take up to 5 minutes for the vehicle to recognize the USB flash drive. To view the progress, drop down the updating screen in the sync screen.

21. When the update on the USB flash drive has been downloaded to the vehicle, the touchscreen displays a Restart Required message.

- a. Turn the ignition off.
- b. Wait for 10 minutes.
- c. Restart the vehicle (key-on engine-on). The update is still in process at this time.

22. Allow another 5 minutes for the Update Successful message to appear in SYNC screen. Once the Update Successful message appears, the USB flash drive may be removed, and the doors opened.

23. If an APIM software update was performed, re-run the network test on the FDRS. Is a TCU software update available?

- Yes - Proceed to Step 24.
- No - Proceed to Step 28.

24. Select Toolbox tab.

25. From the list on the LH side of the screen, select the TCU.

26. From the list on the RH side of the screen, select TCU - Telematics Control Unit (TCU) Module Configuration.

27. Click RUN. Follow all on-screen instructions carefully.

28. If a TCU software update was performed, re-run the network test on the FDRS. Is an APIM software update available?

- Yes - Perform the necessary update(s).
- No - Proceed to Step 29.

29. From the list on the RH side of the screen, select Self-Test and click RUN.

30. Click the Run Selected Tests button in the lower right.

31. Click the Clear & Retest button at the top of the screen to clear DTC's in all modules.

32. Disconnect the battery charger from the 12V battery once the programming has completed.



## Important Information for Module Programming

**NOTE:** When programming a module, use the following basic checks to ensure programming completes without errors.

- Make sure the 12V battery is fully charged before carrying out the programming steps and connect FDRS/scan tool to a power source.

**NOTE:** A good internet connection is necessary to identify the vehicle and to load the diagnostic software.

- Inspect the Vehicle Communication Module (VCM) or the Vehicle Communication and Measurement Module (VCMM) and the cables for any damage. Make sure scan tool connections are not interrupted during programming.
- A hardwired connection is strongly recommended.
- Turn off all unnecessary accessories (radio, heated/cooled seats, headlamps, interior lamps, HVAC system, etc.) and close doors.
- Turn the accessories back on after programming has completed.
- Disconnect/depower any aftermarket accessories (remote start, alarm, power inverter, CB radio, etc.).
- Follow all scan tool on-screen instructions carefully.
- Disable FDRS/scan tool sleep mode, screensaver, and hibernation modes.
- Create all sessions key on engine off (KOEO). Starting the vehicle before creating a session will cause errors within the programming inhale process.

## Recovering a module when programming has resulted in a blank module

- a. Disconnect the VCM or the VCMM from the data link connector (DLC) and your PC.
- b. After ten seconds, reconnect the VCM or the VCMM to the DLC and the PC. Launch FDRS. The VCM or the VCMM icon should turn green in the bottom right corner of the screen. If it does not, troubleshoot the FDRS to VCM connection.
- c. If you are using the same FDRS as the initial programming attempt, select the appropriate VIN from the Vehicle Identification menu. If you are using a different FDRS, select "Read VIN from Vehicle" and proceed through the Network Test.
- d. In the Toolbox menu, navigate to the failed module and Download/Run Programmable Module Installation (PMI). Follow the on-screen prompts. When asked if the original module is installed, select "No" and continue through the installation application.
- e. Once programming has been completed, a screen may list additional steps required to complete the programming process. Make sure all applicable steps are followed in order.



**NEW !** 8-inch SYNC screen Module Programming

**NOTE:** Before beginning programming ensure the vehicle has enough fuel to idle for 2 hours.

**NOTE:** The following modules may each require more than one software update:  
Gateway Module (GWM), Telematic Control Unit (TCU) and/or Accessory Protocol Interface Module (APIM).

**NOTE:** Program appropriate vehicle modules before performing diagnostics and clear all DTCs after programming. For DTCs generated after programming, follow normal diagnostic service procedures.

1. Check the vehicle's **State Of Charge Parameter Identification Data (PID)** by performing the following:

- a. Launch the Ford Diagnostic and Repair System (FDRS) and navigate to toolbox tab > datalogger > BCM and select **BATT SOC PID**.
- b. Ensure that the **BATT\_SOC PID** reads over **50%**. If the PID is less than **50%**, fully recharge the vehicle's 12-volt battery using the appropriate Rotunda **GRX-3590 or DCA-8000 testers to verify battery condition**.
- c. Remove the charger from the vehicle **once the battery is fully charged**. Using FDRS, navigate to toolbox tab > BCM > **Reset Battery**. Monitor Sensor Learned Values application. Perform the BMS reset.

**2. Connect the Rotunda battery tester and charger and set it to maintain 12.6 to 13.6 volts. Monitor the voltage real time using the indicator at the bottom right corner of FDRS to ensure that it is within this range.**

**NOTE:** Verify that the negative cable of the charger is installed on a chassis or engine ground, and not the 12V battery negative terminal to prevent the battery saver mode from activating on the vehicle.

**NOTE:** If the diagnostic software does not load or if the vehicle cannot be identified properly, make sure there is a good internet connection and the Vehicle Communication Module (VCM) is properly connected to the Data Link Connector (DLC).

**NOTE:** Make sure the Ford Diagnostic and Repair System (FDRS) does not enter sleep mode during module configuration.

3. Launch Ford Diagnostic and Repair System (FDRS).

**NOTE:** Vehicle information is automatically retrieved by the diagnostic software and a Network Test is run. Vehicle identification data appears on the screen when this is complete.

4. Click Read VIN from Vehicle or manually enter the Vehicle Identification Number (VIN).

**NOTE:** Available modules are shown on the left hand (LH) side of the screen, and available procedures are listed on the right hand (RH) side of the screen. Modules that are communicating are highlighted in green.



5. Select Toolbox tab.

6. From the list on the LH side of the screen, select GWM.

7. From the list on the RH side of the screen, select GWM - Gateway Module (GWM) Software Update.

**NOTE:** If the GWM is at the latest software version, Proceed to Step 15.

8. Perform the Module Software Updating Procedures outlined below for the GWM module:  
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 on current module software levels. Continue performing software updates to the GWM module until all software updates are complete. If any error conditions are experienced during programming, refer to WSM Section 418-01A > General Procedures > Module Programming for the Error Condition Table.

9. If the in-vehicle SYNC screen does not indicate that the USB flash drive has started to download, this may require recovery of the APIM module. Refer to related Technical Service Bulletins (TSB) 22-2404 for APIM recovery using the FDRS service tool.

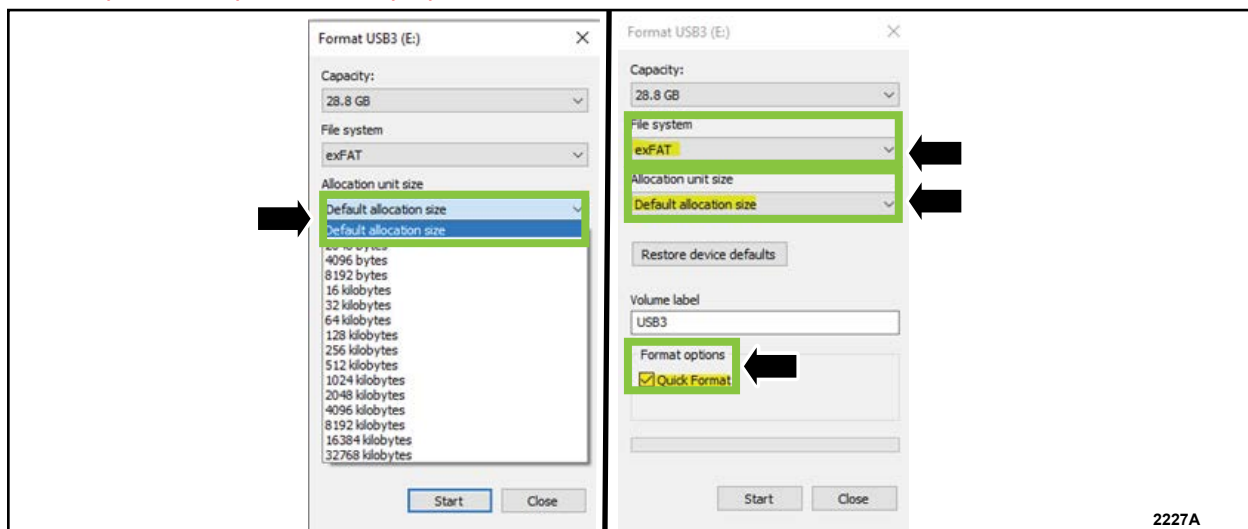


**NOTE:** A 32GB or larger USB flash drive is required for APIM, TCU, and GWM software updates. *USB 3.0 or higher is recommended.* Make sure the USB flash drive being used is formatted correctly. To see the available drives, hold down the Windows icon keyboard key and press the E keyboard key. Right 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:*

- a. *Right click on the USB flash drive.*
  - b. *Select Format, select exFAT for the File System.*
  - c. *Select Default Allocation Size for the Allocation Unit Size.*
  - d. *De-selecting Quick Format is not necessary and will result in a lengthier operation.*
- See Figure 3.*

**NOTE:** *For the fastest file transfer speed, the use of a USB 3.2 Gen2 flash drive with a compatible high speed USB port on the laptop is recommended.*



**FIGURE 3**

10. *Using the FDRS, begin module programming by selecting the SW Updates tab. Download and run the application for desired module. Follow all on-screen instructions carefully.*

11. *When prompted, connect the USB flash drive to the FDRS.*

12. *When prompted by the FDRS, safely remove/eject the USB flash drive from the PC, turn the vehicle to Key On Engine Running (KOER), and connect the USB to the media hub to install the software update. The update starts automatically and 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.*

13. *For APIM, TCU, and GWM USB software updates, when center display screen prompts to restart the vehicles:*

- a. *Turn the vehicle OFF.*
- b. *Wait ten (10) minutes.*
- c. *Turn the vehicle to KOER.*





14. Leave the USB drive inserted into the vehicle, until the vehicles center display screen states **programming successful**.

**NOTE:** It may take up to 5 minutes before center display screen displays a "Programing Successful" pop-up. After 5 minutes if "Successful" pop-up is not shown on 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).

15. Once the pop-up stating Update Successful appears on the touchscreen, select Close, remove the USB flash drive from the USB hub and connect it to the FDRS, and select Yes on FDRS indicating the update installed successfully. This initiates the remaining automated configuration steps and reports the module assembly, vehicle interface processor (VIP), calibration, customer interface processor (CIP), 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.

**NOTE:** Update the gateway module (GWM) before performing the APIM update. Updated APIM software will not show as being available in FDRS until the GWM has been successfully updated.

16. If a GWM software update was performed, re-run the network test on the FDRS. Is an APIM software update available?

- Yes - Proceed to Step 22.
- No - Proceed to Step 17.

17. If an APIM software update was performed, re-run the network test on the FDRS. Is a TCU software update available?

- Yes - Proceed to Step 18.
- No - Proceed to Step 22.

18. Select the Toolbox tab.

19. From the list on the LH side of the screen , select the TCU.

20. From the list on the RH side of the screen, select TCU - Telematics Control Unit (TCU) Module Configuration.

21. Click RUN. Follow all on-screen instructions carefully.

22. If a TCU software update was performed, re-run the network test on the FDRS. Is an APIM software update available?

- Yes - Proceed to Step 27.
- No - Proceed to Step 23.

23. From the list on the RH side of the screen, select Self-Test and click RUN.



24. Click the Run Selected Test button in the lower right.

25. Click the Clear & Retest button at the top of the screen to clear DTC's in all modules.

26. Disconnect the battery charger from the 12V battery once the programming has been completed.

27. Download and run the APIM Software Update application on the FDRS and follow the on-screen prompts. If any error conditions are experienced during programming, refer to WSM Section 418-01A > General Procedures > Module Programming for the Error Condition Table.

**NOTE:** A 32GB or larger USB flash drive is required for APIM, TCU, and GWM software updates. USB 3.0 or higher is recommended. 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:

- a. Right click on the USB flash drive.
- b. Select Format, select exFAT for the File System.
- c. Select Default Allocation Size for the Allocation Unit Size.
- d. De-selecting Quick Format is not necessary and will result in a lengthier operation. See Figure 4.

**NOTE:** For the fastest file transfer speed, the use of a USB 3.2 Gen2 flash drive with a compatible high speed USB port on the laptop is recommended.

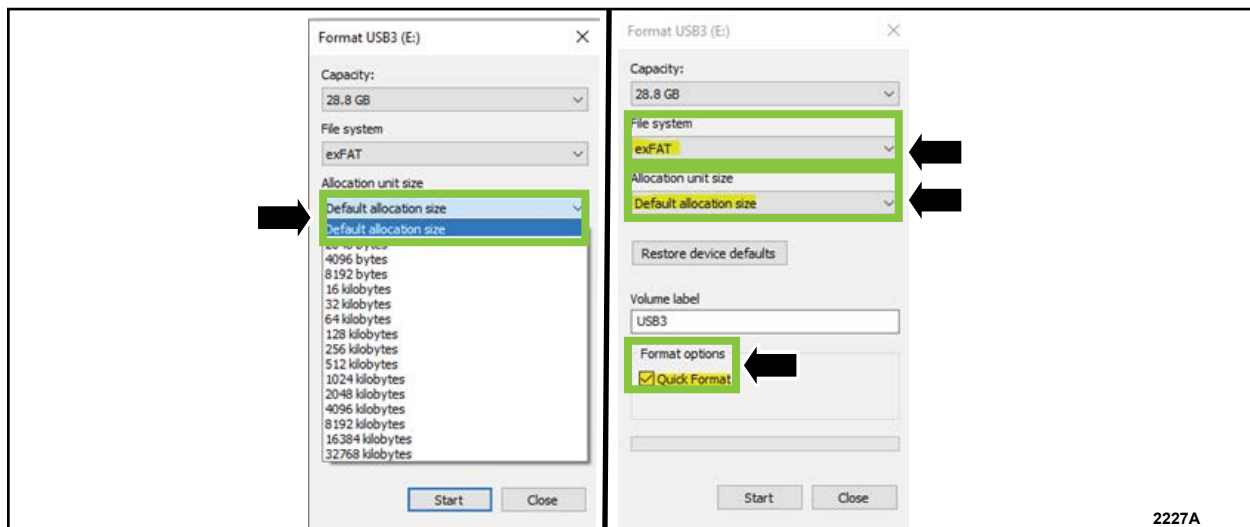


FIGURE 4



28. Select *Toolbox tab*.

29. From the list on the LH side of the screen, select the *APIM*.

30. From the list on the RH side of the screen, select *APIM - Accessory Protocol Interface Module [APIM] Software Update*.

31. Click *RUN*. Follow all on-screen instructions carefully.

32. When prompted for Software Update Option, click "*Remove* Voice application from module", then click *Select*. See Figure 5.

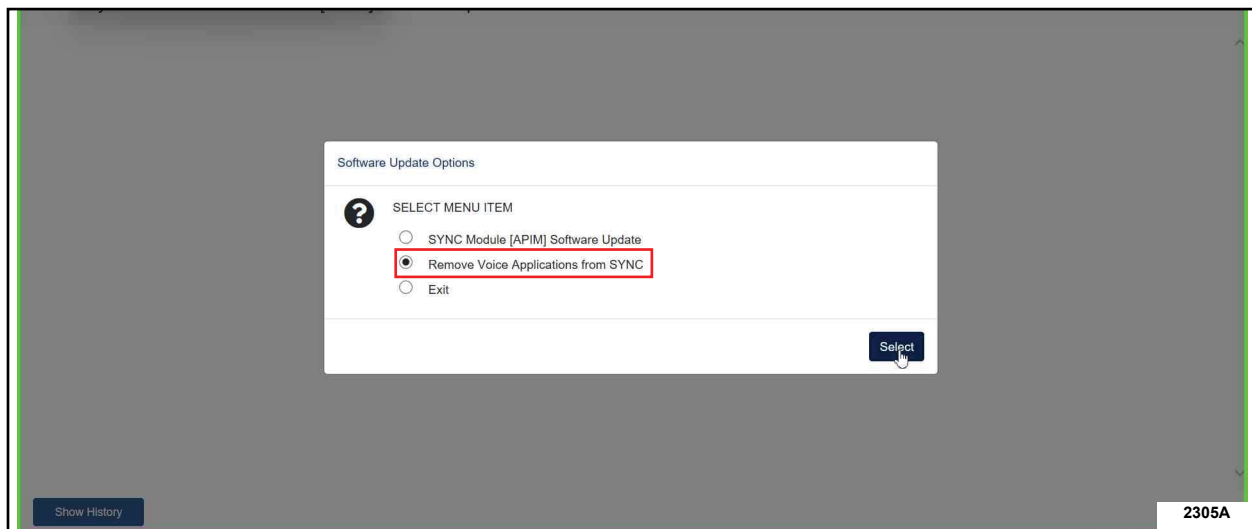


FIGURE 5



33. Continue to follow all on-screen instructions carefully until the following screen is reached. See Figure 6.

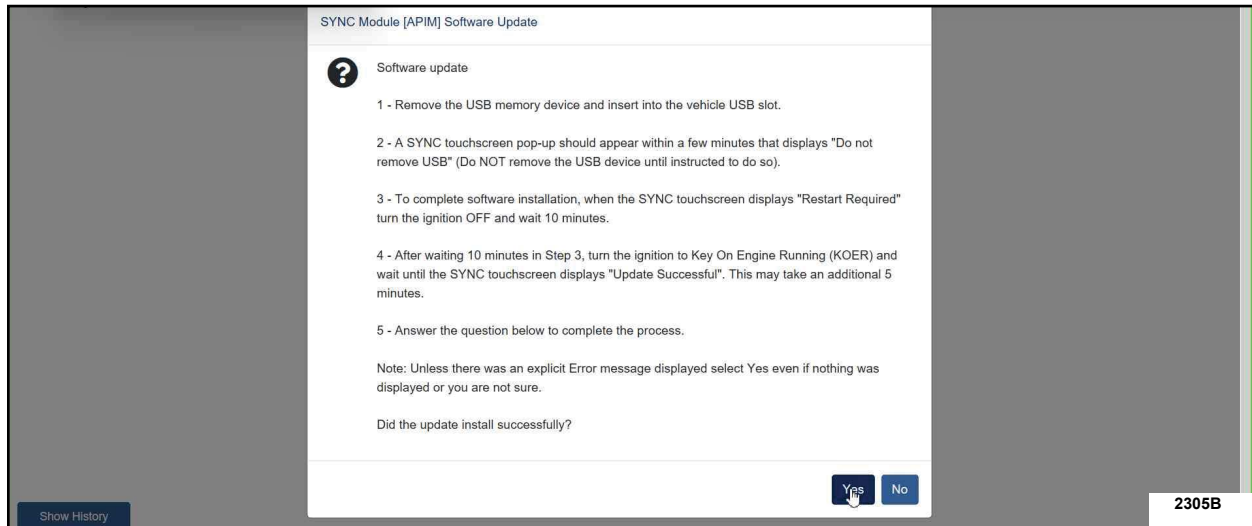


FIGURE 6

34. When center display screen prompts to restart the vehicle:

- a. Turn the vehicle **OFF**.
- b. Wait ten (10) minutes.
- c. Turn the vehicle to **KOER**.

35. After 10 minutes continue with the remaining steps shown in Figure 6.

36. Continue to follow all on-screen instructions carefully until the voice application has been successfully removed. See Figure 7. (app deleted)

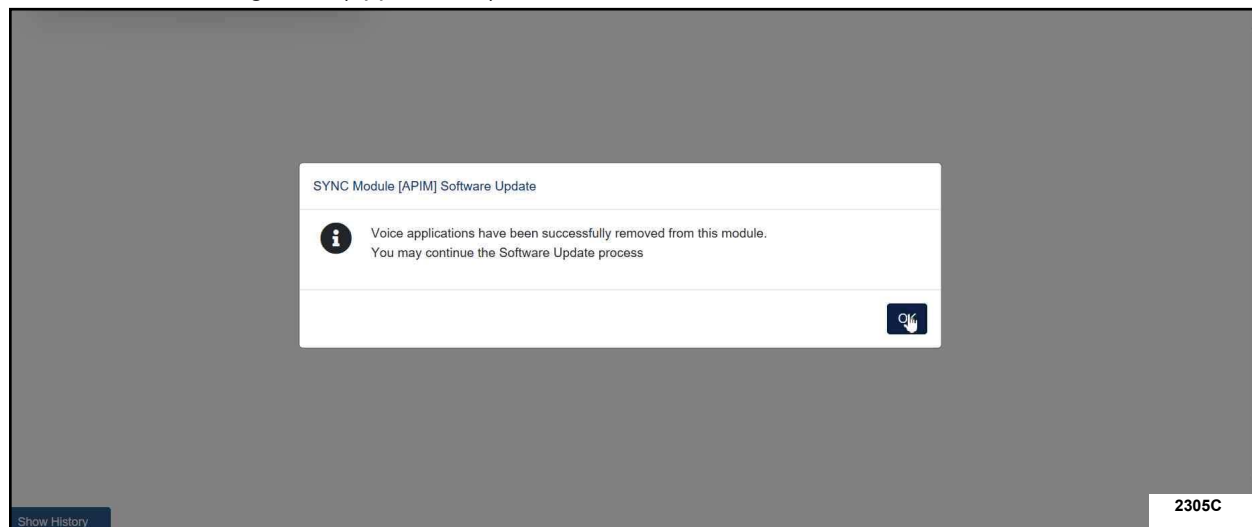


FIGURE 7



37. Return the USB thumb drive to the FDRS and follow the on-screen prompts carefully until the following screen is reached. See Figure 8.

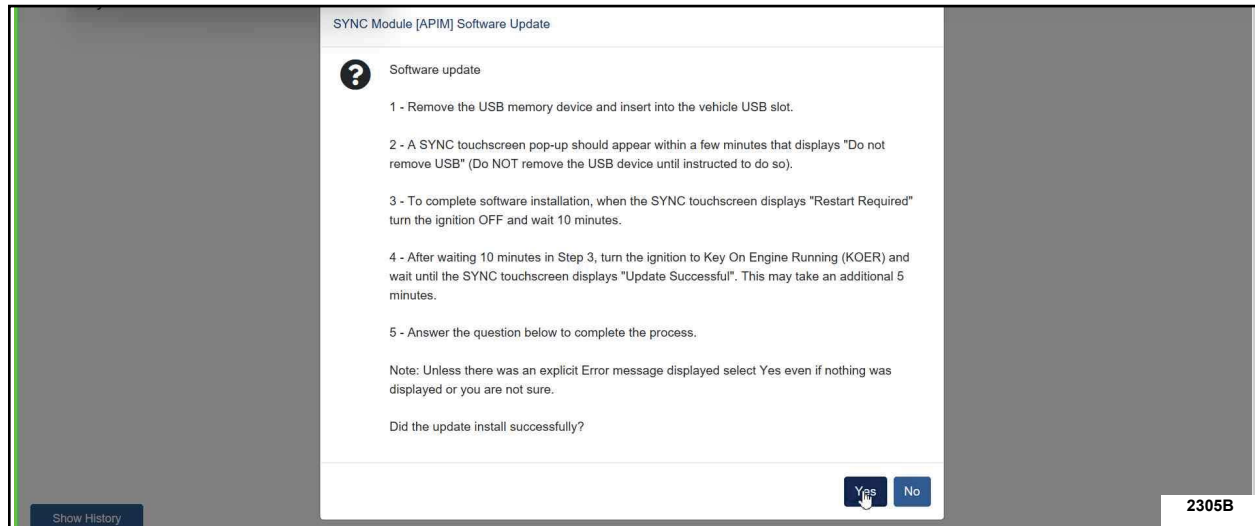


FIGURE 8

38. When center display screen prompts to restart the vehicle:

- a. Turn the vehicle **OFF**.
- b. Wait ten (10) minutes.
- c. Turn the vehicle to **KOER**.

39. After 10 minutes continue to follow all on-screen instructions carefully.

40. From the list on the RH side of the screen, select Self-Test and click RUN.

41. Click the Run Selected Tests button in the lower right.

42. Click the Clear & Retest button at the top of the screen to clear Diagnostic Trouble Codes (DTCs) in all modules.

43. Disconnect the battery charger from the 12V battery.

44. The repair is complete.



## Important Information for Module Programming

**NOTE:** When programming a module, use the following basic checks to ensure programming completes without errors.

- Make sure the 12V battery is fully charged before carrying out the programming steps and connect FDRS/scan tool to a power source.

**NOTE:** A good internet connection is necessary to identify the vehicle and to load the diagnostic software.

- Inspect the Vehicle Communication Module (VCM) or the Vehicle Communication and Measurement Module (VCMM) and the cables for any damage. Make sure scan tool connections are not interrupted during programming.
- A hardwired connection is strongly recommended.
- Turn off all unnecessary accessories (radio, heated/cooled seats, headlamps, interior lamps, HVAC system, etc.) and close doors.
- Turn the accessories back on after programming has completed.
- Disconnect/depower any aftermarket accessories (remote start, alarm, power inverter, CB radio, etc.).
- Follow all scan tool on-screen instructions carefully.
- Disable FDRS/scan tool sleep mode, screensaver, and hibernation modes.
- Create all sessions key on engine off (KOEO). Starting the vehicle before creating a session will cause errors within the programming inhale process.

## Recovering a module when programming has resulted in a blank module

- a. Disconnect the VCM or the VCMM from the data link connector (DLC) and your PC.
- b. After ten seconds, reconnect the VCM or the VCMM to the DLC and the PC. Launch FDRS. The VCM or the VCMM icon should turn green in the bottom right corner of the screen. If it does not, troubleshoot the FDRS to VCM connection.
- c. If you are using the same FDRS as the initial programming attempt, select the appropriate VIN from the Vehicle Identification menu. If you are using a different FDRS, select "Read VIN from Vehicle" and proceed through the Network Test.
- d. In the Toolbox menu, navigate to the failed module and Download/Run Programmable Module Installation (PMI). Follow the on-screen prompts. When asked if the original module is installed, select "No" and continue through the installation application.
- e. Once programming has been completed, a screen may list additional steps required to complete the programming process. Make sure all applicable steps are followed in order.



**NEW VEHICLE DEMONSTRATION / DELIVERY HOLD**

**Compliance Recall 22C27- Supplement #4**

Certain 2021-2022 Model Year Bronco Vehicles  
Accessory Protocol Interface Module Software Update













**Mobile Service Repair Assessment**

Assessment levels have been identified to help determine the ease of performing eligible mobile service repairs for a Field Service Action (FSA) outside of the dealership service facility.


**Dealer Bulletin**



Within the Administrative Information Attachment of the dealer bulletin a mobile service repair assessment level(s) will be provided. These assessment levels have been determined using the amount of time, equipment and labor identified to perform the intended service action.

**Assessment Levels**

-  - Mobile Reprogramming
-   - Light Mobile Service
-    - Enhanced Mobile Service
-     - Advanced Mobile Service
-  - Wheel and Tire Mobile Service
-  - Not a Mobile Service Repair

**Description of each level that is used to determine the overall assessment.**

-  – Mobile Reprogramming
  - Module Programming or similar type services
  - Minimum tools maybe required other than an **IDS/FDRS** setup
  - FDRS programming that requires internet connection (wi-fi or mobile hotspot)
  - Make sure vehicle has a charge port to ensure battery voltage is maintained during flashing of the module(s)
  - Repairs not greater than 1 hour in length (including time to wait for programming)

*Note: The location will need a charging station or wall box to maintain the 12-volt battery.*
-   – Light Mobile Service
  - Interior repair procedures that do not require seat, dash, or headliner removal
  - Under hood repairs that do not require large component removal
  - Exterior repairs that do not require large component/panel removal
  - Repairs may require standard hand tools (Access to a Technician starter kit or similar)

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   – Enhanced Mobile Service

- ***A two-person process is required anytime a procedure requires work under the vehicle***
  - Brake Inspection and Brake Repair/Replacement
  - Limited Suspension Component replacement (no alignment)
  - Under Vehicle access for limited repairs (no large component removal)
  - Vehicle Check Up - VCU
  - Pre-Delivery Inspection - PDI
  - Used Car Inspection/Presale Inspection
  - May require floor jack, jack stands, and impact tools
- Note: Wheel lock may be required.*

    – Advanced Mobile Service

- Fluid Exchange/Oil Change
- Light Repairs
- Brake Hydraulic Repairs

 – Wheel and Tire Mobile Service

- Tire Removal from Wheel
  - Tire Balancing
  - Tire Repair
- Note: Specialized Mobile Service unit and equipment including Tire balancer and Tire Changer required.*

 – Not a Mobile Service Repair

- Large component removal
- BEV Battery Replacement
- Requires a vehicle hoist – to complete the repair (more than inspection)
- Required vehicle alignment
- Requires significant vehicle disassembly
- Repairs greater than 2-3 hours
- Any repairs that require M-Time
- Includes a service procedure where the vehicle owner may be distressed about the state of their vehicle



**Ford Motor Company**  
**Recall Reimbursement Plan for 22C27**

*Ford and Lincoln dealers are in the best position to quickly and efficiently process reimbursement requests. However, federal legislation requires all motor vehicle manufacturers to establish processes through which customers may seek recall reimbursement directly from the manufacturer or from the dealers.*

*Regarding the specific reimbursement plan for Recall # 22C27, owners who have paid for service to remedy the defect or noncompliance must have had that service performed prior to January 6, 2023. After this date, if repairs related to this recall are performed by a non-Ford repair facility in an emergency situation, customers must submit any refund requests through their dealership. As required by this federal regulation, Ford Motor Company submitted the details of its latest General Recall Reimbursement Plan in a letter to the National Highway Traffic Safety Administration (NHTSA) in May 2021. The following is the text of that letter and the Plan:*

**General Recall Reimbursement Plan**  
(As submitted to the NHTSA)

Pursuant to the requirements set forth in 49 CFR Part 573 and Part 577 of the Code of Federal Regulations, Ford Motor Company (Ford) is submitting required information pertaining to our general reimbursement plan for the cost of remedies paid for by vehicle owners before they are notified of a related safety recall.

Set forth below is Ford's general plan to reimburse owners and purchasers for costs incurred for remedies in advance of notification of potential safety-related defects or noncompliances pursuant to Part 573.6 (c)(8)(i). This plan has not changed since our February 20, 2019 submission.

**Reimbursement Notification**

Ford's notice to a vehicle owner in accordance with 49 CFR Part 577 will indicate that Ford is offering a refund if the owner paid to have service to remedy the defect or noncompliance prior to a specified ending date. In accordance with Part 573.13 (c)(2), this ending date will be defined as a minimum of ten calendar days after the date on which Ford mailed the last of its Part 577 notifications to owners, and will be indicated in the specific reimbursement plan available to owners for an individual recall. This notice will direct owners to seek eligible reimbursement through authorized dealers or, at their option, directly through Ford at the following address:

Ford Motor Company  
P.O. Box 6251  
Dearborn, MI 48121-6251

Ford notes that this rule allows for the identification of a beginning date for reimbursement eligibility. Under the rule, an owner who paid to remedy the defect or noncompliance prior to the identified beginning date would not be eligible for reimbursement. Ford generally has not established such a beginning date for reimbursement eligibility and does not presently anticipate changing this general policy. However, in any case where Ford determines a beginning date is appropriate, Ford will indicate that date in the owner notice. As permitted by 577.11(e), Ford may not include a reimbursement notification when all vehicles are well within the warranty period, subject to approval by the agency.

## **Costs to be Reimbursed**

For vehicles, reimbursement will not be less than the lesser of:

- The amount paid by the owner for the remedy that specifically addressed and was reasonably necessary to correct the defect or noncompliance that is the subject of the recall, or
- The cost of parts for the remedy (to be no more than the manufacturer's list retail price for authorized part(s), plus associated labor at local labor rates, miscellaneous fees (such as disposal of waste) and taxes.

For replacement equipment, reimbursement will be the amount paid by the owner for the replacement item (limited by the amount of the retail list price of the defective or noncompliant item that was replaced, plus taxes, where the brand or model purchased by the owner was different than the brand or model that was the subject of the recall). If the item of motor vehicle equipment was repaired, the reimbursement provisions identified above for vehicles will apply.

Ford notes that costs incurred by the owner within the period during which Ford's original or extended warranty would have provided for a free repair of the problem will not be eligible for reimbursement, as provided by Part 573.13 (d)(1).

### Entities Authorized to Provide Reimbursement

Ford will continue to use authorized dealers to reimburse owners under the specific reimbursement plans for a particular recall, and will encourage owners to pursue requests for reimbursement directly through dealers to expedite reimbursement. Ford will also provide a mailing address to which customers can, at their option, send requests for reimbursement directly to Ford, as previously noted. Requests for reimbursement sent directly to Ford may take up to 60 days to process. Whether the owner chooses to pursue reimbursement requests through a dealer or directly through Ford, the owner will be directed to submit the required documentation, upon which reimbursement eligibility will be determined.

## **Required Documentation**

The reimbursement determination will depend upon the information provided by the customer. Consistent with Part 573.13 (d)(4) the following information must be submitted:

- Claimant name and address
- Vehicle make, model, and model year
- Vehicle identification number (VIN) and, for replacement equipment, a description of such equipment or, for tires, the model, size and TIN (DOT code)
- Identification of the recall number (either the Ford recall number or the NHTSA recall number)
- Identification of the owner of the recalled vehicle at the time that the pre-notification remedy was obtained
- An original receipt for the pre-notification remedy that includes a breakdown of the amount for parts, labor, other costs and taxes, including costs for the replacement item. Where the receipt covers work other than to address the recall or noncompliance, Ford may require the claimant to separately identify costs that are eligible for reimbursement.
- If the remedy was obtained during the warranty period, documentation indicating that the warranty was not honored or the warranty repair did not correct the problem related to the recall.

Failure to submit all of the above information may result in denial of the reimbursement request.

**Additional Information**

The Part 577 required owner notice will provide a toll-free telephone number through which specific information about the reimbursement plan can be requested from Ford. This general reimbursement plan will be incorporated into notifications pursuant to Part 573.6 by reference. Information specific to an individual recall also may be incorporated into the Part 573.6 notification.