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March 29, 2023

TO: All U.S. Ford and Lincoln Dealers

SUBJECT: **Customer Satisfaction Program 23B21**
Certain 2023 Model Year F-150 Lightning
Gateway Module Programming

PROGRAM TERMS

This program will be in effect through March 31, 2024. There is no mileage limit for this program.

EXPIRATION DATE

This Customer Satisfaction Program has an expiration date of March 31, 2024 to encourage dealers and customers to have this service performed as soon as possible.

We recommend dealers utilize their FSA VIN Lists names and address to contact customers with affected vehicles. This will help minimize the number of vehicles that may experience connectivity features that do not work, including Over The Air (OTA) updates, connected vehicle data and FordPass app connectivity.

FSA VIN Lists are expected to be available on March 29, 2023.

AFFECTED VEHICLES

Vehicle	Model Year	Assembly Plant	Build Dates
F-150 Lightning	2023	Rouge Electrical	June 10, 2022 through December 23, 2022

U.S. population of affected vehicles is 2,997.

Affected vehicles are identified in OASIS and FSA VIN Lists.

Note: Some vehicles may be in the process of being repaired at the plant. Monitor OASIS before opening an RO and/or beginning a repair. Parts purchased for an FSA can be returned for credit, if required. See the EXCESS STOCK RETURN details in Attachment II for more information.

REASON FOR THIS PROGRAM

In all of the affected vehicles, the Gateway Module (GWM) may lose internet connection. This may cause the vehicle to experience an inoperative FordPass application (inability to review the vehicle's state of charge, inoperative remote start and/or inoperative remote lock and unlock). This may be combined with diagnostic trouble codes (DTC) U0146:09 stored in the telematics control unit (TCU) and U2402:00 and/or U2402:92 stored in the gateway module (GWM).

SERVICE ACTION

Dealers are to correct the condition by updating the GWM to the latest software level via a coordinated module reprogramming. This service must be performed on all affected vehicles at no charge to the vehicle owner.

OVER-THE-AIR (OTA) UPDATES (FORD POWER-UP / LINCOLN ENHANCE):

- In addition to you being able to update vehicles now using FDRS, Ford deployed an OTA software update on March 20, 2023.
- Before scheduling service for an OTA capable vehicle, please verify through PTS that the Field Service Action (FSA) is still open (OASIS) and the vehicle has not already received the OTA update.
 1. 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 vehicle the FSA may still show as open)
 2. 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

Owners’ letters are expected to be mailed the week of April 17, 2023. Owners will be given the option of installing the software update themselves, or they can have their dealer perform the service for them.

ATTACHMENTS

Attachment I: Administrative Information
Attachment II: Labor Allowances and Parts Ordering Information
Attachment III: Technical Information
Attachment IV: Customer Handout – Ford Power-Up Software Updates
Owner Notification Letter

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

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OASIS ACTIVATION

OASIS will be activated on March 29, 2023.

FSA VIN LISTS ACTIVATION

FSA VIN Lists will be available through <https://web.fsavinlists.dealerconnection.com> on March 29, 2023. Owner names and addresses will be available by May 5, 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 program 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 service action.

SOLD VEHICLES

- Owners of affected vehicles will be directed to dealers for repairs.
- 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 which 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.

TITLE BRANDED / SALVAGED VEHICLES

Affected title branded and salvaged vehicles are eligible for this service action.

OWNER REFUNDS

Refunds are not approved for this program.

RENTAL VEHICLES

Rental vehicles are not approved for this program.

PICK-UP AND DELIVERY

All customers affected by this program have the option of complimentary Vehicle Pick-up & Delivery service (at participating dealers) in lieu of a rental vehicle. Refer to EFC12071, 2023 Remote Experience Program, Pickup & Delivery (PDL) Offset section for details.

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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 prior to completing the repair.

CLAIMS PREPARATION AND SUBMISSION

- **Claim Entry:** Enter claims using Dealer Management System (DMS) or One Warranty Solution (OWS) online.
 - When entering claims:
 - Claim type 31: Field Service Action
 - Sub Code: 23B21
 - Customer Concern Code (CCC): A93
 - Condition Code (CC): 04
 - Causal Part Number: 14G490. Quantity 0
 - 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 same claim type and sub code as described in Claim Entry above.
IMPORTANT: Click the Related Damage Indicator radio button.
- **Pickup & Delivery:** Refer to EFC12071, 2023 Remote Experience Program, Pickup & Delivery (PDL) Offset section for additional details.

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LABOR ALLOWANCES

Description	Labor Operation	Labor Time
Reprogram the Gateway Module (GWM) to the latest level.	23B21B	0.4 Hour(s)

PARTS REQUIREMENTS / ORDERING INFORMATION

Parts are not required to complete this repair.

CERTAIN 2023 MODEL YEAR F-150 LIGHTNING VEHICLES — INOPERATIVE FORDPASS GATEWAY MODULE PROGRAMMING

SERVICE PROCEDURE

Module Programming

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. 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.

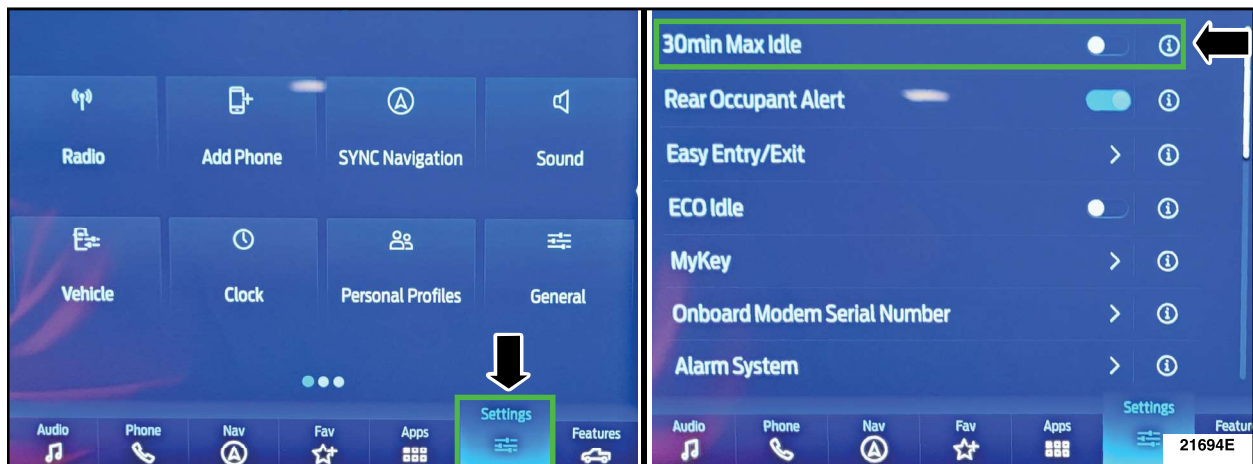


FIGURE 1

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

- Launch the Ford Diagnostic and Repair System (FDRS) and navigate to toolbox tab > datalogger > BCM and select **BATT SOC PID**.
- Ensure that the **BATT_SOC PID** reads over 80%. If the PID is less than 80%, fully recharge the vehicle's 12-volt battery using the appropriate Rotunda battery tester and charger.
- Remove the charger from the vehicle and using FDRS, navigate to toolbox tab > BCM > **Reset Battery**.
- Monitor Sensor Learned Values application. Perform the BMS reset.
- 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.



3. Connect a battery charger to the 12V battery.

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 is properly connected to the DLC.

NOTE: VCM 3 is recommended for improved data download time.

4. Log into Ford Diagnostic and Repair System (FDRS). Ensure FDRS is updated to the latest version at 34.5.1 or higher.

NOTE: A 32GB or larger USB flash drive is required for Gateway Module (GWM) software updates. 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. See Figure 2.

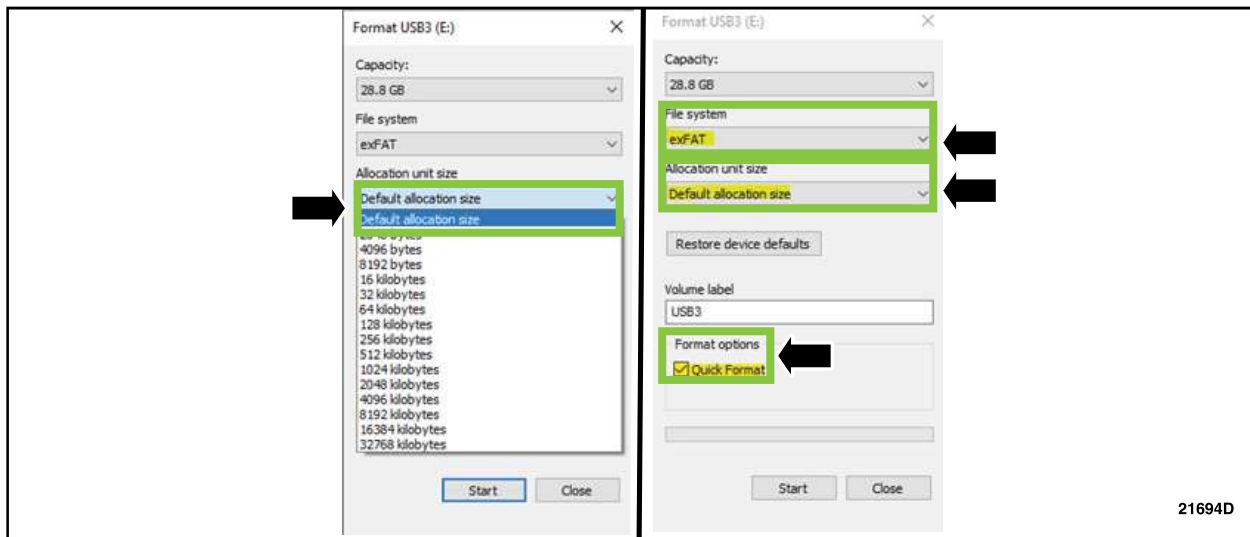


FIGURE 2

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. Select **Toolbox** tab.



7. Select **Software Updates** tab to see updates available.

8. Are there any updates available for the GWM?

Yes – Proceed to Step 9.

No – This article does not apply. Refer to Workshop Manual (WSM), Section 415-00.

9. When prompted by the FDRS, connect the USB flash drive to the personal computer (PC).

10. 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 with software update.

11. For GWM USB software updates when SYNC touchscreen prompts to restart the vehicle:

- Turn the vehicle **OFF**.
- Wait ten minutes.
- Turn the vehicle to KOER.

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

NOTE: It may take up to 5 minutes before SYNC touchscreen displays Update Successful pop up. After 5 minutes if “Successful” pop up is not shown on SYNC touchscreen, 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).

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

14. Click the **Run Selected Tests** button in the lower right.

15. Click the **Clear & Retest** button at the top of the screen to clear DTCs in all modules.

16. 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 Vehicle Communication Module II (VCM II)/Vehicle Communication and Measurement Module (VCMM) and 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.
- 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, 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 VCMII or VCMM from the data link connector (DLC) and your PC.
- b. After ten seconds, reconnect the VCMII/VCMM to the DLC and the PC. Launch FDRS. The VCMII/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 completed, a screen may list additional steps required to complete the programming process. Make sure all applicable steps are followed in order.



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Ford Power-Up Software Updates

How to turn on Automatic Updates and Set a Recurring Schedule

Ford Power-Up software updates are downloaded and installed over-the-air using either an external WiFi or FordPass™ Connect (vehicle modem). Most software updates will happen seamlessly in the background, if both of the following have been done on your vehicle:

1. Automatic Updates is turned ON.
2. A Recurring Schedule has been set.

We recommend scheduling updates for overnight or at a time that you will not need to enter or use the vehicle.

To set a recurring schedule:

1. Tap Settings on your vehicle's SYNC screen.
2. Choose System (or Software) Updates.
3. Press Schedule Updates (or Recurring Update Schedule).

Depending on your vehicle you will either:

4. Choose Schedule.
 5. Choose your preferred days and times.
 6. Press Save.
- or**
4. Select one of the Preset options OR Select Custom Schedule.
 5. If Custom Schedule, choose your preferred days (minimum of 2) and time.
 6. Exit the screen (Schedule is auto saved).

To confirm Automatic Updates is turned ON:

1. Tap Settings on your vehicle's SYNC screen.
2. Choose System (or Software) Updates.
3. Confirm Automatic Updates is toggled to ON.

Prior to software download and installation, you will receive a reminder in your vehicle (24 hours prior) and in your FordPass® App. You can reschedule up to 2 mins before the update begins.

Important Notes:

- Ford Power-Up software updates are not deployed to all vehicles at the same time.
- If you choose to turn Automatic Updates OFF, you will not receive this software update unless you have previously consented to all prior updates.
- To confirm that this recall is included in the software update and is available or successfully installed in your vehicle, tap Settings on your vehicle's SYNC screen, select System (or Software) Updates and select Update Details to view the latest release notes. You will also get an Update Successful alert in the message center of your FordPass® app.

If you are unsure if you have received the software update for this recall or have any questions regarding software updates, please call our specially trained Software Update Customer Relationship Center at: 1-833-389-0848.