

CERTAIN MODEL YEAR VEHICLES — REAR CAMERA SCREEN SOFTWARE UPDATE

NEW! SERVICE PROCEDURE

IMPORTANT! The Service Technician Specialty Training (STST) Competency 10 certification requirement in the U.S. market only will be enforced starting with repair orders opened on or after August 31, 2024. Field Service Action (FSA) repairs will reject and the claim will not be paid if the repairing technician is not certified in STST Competency 10 FSA. See Electronic Field Communication (EFC)15936 for more details.

NOTE: All vehicles have a software update available EXCEPT FOR THE 2022-2025 MODEL YEAR TRANSIT VEHICLES AND 2021 MODEL YEAR BRONCO SPORT VEHICLES.

Module Programming

VCM3

It is highly recommended that a VCM3 be used when updating the APIM software for 25S49. Using a VCM3 reduces the chances of programming failures on modules when very large files are being transferred.

APIM, ECG (GWM), IPC and TCU – Technical Support Request (TSR) - Dealer Software Support Hotline (DSSH)

If you experience APIM, ECG (GWM), IPC or TCU software programming errors, multiple programming failures, APIM module replacement and require assistance - submit a Technical Support Request (TSR) and request the following:

- APIM, ECG (GWM), IPC or TCU programming assistance or APIM, ECG (GWM) or TCU replacement from DSSH
- Repair Validation Code (RVC)

Once you are provided with an RVC:

- For this program it is NOT necessary to contact the SSSC for additional approvals, this includes the following:
 - additional labor hours
 - module replacement
 - related damage

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), *Instrument Panel Cluster (IPC)* 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.

NOTE: If the APIM modules have no updates, obtain an SVC code for claiming.

1. With ignition on or in accessory mode, go to the settings menu on the center display screen.
2. Go to the **General Settings** menu and select **About SYNC**.
3. Check the current APIM software level. Is the version in the vehicle at 23270_PRODUCT SYNC 4, software version or higher?

Yes - This FSA does not apply.
No - Continue to Step 4.

4. 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 make sure that it is within this range. **The battery state of charge (SOC) must be greater than 50% to continue with this FSA.**

NOTE: Verify 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: Some vehicles will require module updates to be performed before additional module updates are available. Multiple module updates will most likely be required to complete this FSA.

NOTE: It is highly recommended that a VCM3 is used. Using a VCM3 reduces the chances of programming failures.

5. Log into 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.

6. 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.

7. Select **Toolbox** tab.

8. Select **Multi-Module** tab.

9. Select **Read the Configuration Data**. Click **RUN**.



NOTE: For Mustang Mach-E, updates to the below modules may be required before updates can be found for GWM, TCU, APIM and IPC:

- Powertrain Control Module (PCM)
- Image Processing Module A (IPMA)
- Power Steering Control Module (PSCM)
- Cruise Control Module (CCM)
- Driver Status Monitor Camera Module (DSCM/CMR)
- Audio Front Control Module (ACM)
- Heating, Ventilation and Air Conditioning (HVAC) Control Module
- Front Trunk Release Module (GFM/FTRM)
- Body Control Module (BCM)

NOTE: For F-150, updates to the below modules may be required before updates can be found for GWM, TCU, APIM and IPC

- Body Control Module (BCM)
- Steering Column Control Module (SCCM)
- Driver Status Monitor Camera Module (DSCM/CMR)

10. Is there a software update available for any of the following modules:
GWM, TCU, APIM *and* IPC

- Yes - Proceed to Step 11.
- No - This FSA does not apply.

11. Prepare to update the software. Insert the USB flash drive into the laptop and **reformat the flash drive**. This needs to be done for each module programmed.

NOTE: A 64GB or larger USB flash drive is required for APIM 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.

NOTE: For the fastest file transfer speed, the use of a USB 3.2 flash drive with a compatible Gen 2 USB 3.2 laptop is recommended.

12. Turn off the engine time-out feature in the center display.

- a. From the center display settings menu, press Vehicle.
- b. Switch 30 min Max Idle to OFF.

13. Using the FDRS, begin module programming by select the **SW Updates Tab**. Follow all on-screen instructions carefully.



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

15. When prompted by the FDRS, safely remove/eject the USB flash drive from the FDRS. Start the vehicle Key On Engine Running (KOER), then connect the USB flash drive to the USB media hub to install the software into the module.

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

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

- a. Turn the vehicle OFF.
- b. Wait 10 minutes.
- c. Restart the vehicle KOER. The update is still in process at this time.

17. 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. The software update was successfully installed on the module.

18. Perform the software update for the GWM. Follow all update screens. If there is no GWM software update available, proceed to Step 19.

- a. Follow the center display screen prompts.
- b. Follow FDRS prompts to complete the GWM programming.
NOTE: Once the pop up stating "Update Successful" appears in the center display, select **Close**, remove the USB flash drive from the USB media hub, and select Yes on FDRS indicating the update installed 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.
- c. Proceed to Step 19.

19. Perform the software update for the APIM. Follow all update screens. If there is no APIM software update available, proceed to Step 20.

- a. Follow the center display screen prompts.
- b. Follow FDRS prompts to complete the APIM programming.
NOTE: Once the pop up stating "Update Successful" appears in the center display, select **Close**, remove the USB flash drive from the USB media hub, and select Yes on FDRS indicating the update installed 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.
- c. Proceed to Step 20.



20. Perform the software update for the TCU. Follow all update screens. If there is no TCU software update available, proceed to Step 21.

- a. Follow the center display screen prompts.
- b. Follow FDRS prompts to complete the TCU programming.

NOTE: Once the pop up stating "Update Successful" appears in the center display, select **Close**, remove the USB flash drive from the USB media hub, and select Yes on FDRS indicating the update installed 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.

- c. Proceed to Step 21.

21. Perform the software update for the IPC. Follow all update screens. If there is no IPC software update available, proceed to Step 22.

- a. Follow the center display screen prompts.*
- b. Follow FDRS prompts to complete the IPC programming.*

NOTE: Once the pop up stating "Update Successful" appears in the center display, select **Close**, remove the USB flash drive from the USB media hub, and select Yes on FDRS indicating the update installed 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.

- c. Proceed to Step 22.*

22. Check the current APIM software level. Is the version in the vehicle 23270_PRODUCT SYNC 4, Software Version or higher?

- Yes - Proceed to Step 24.
- No - Proceed to Step 23.

23. Are there any updates available for the GWM, APIM, IPC or TCU? 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.

- Yes - Proceed to Step 18.
- No - Proceed to Step 24.

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

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

26. This FSA requires a Software Verification Approval Code after performing the software update. Please follow the instructions in EFC 16335 to obtain the approval code. The claim will not be paid and the FSA will remain open if a Software Verification Approval Code is not provided.

27. 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 make sure the programming completes without errors.

- Make sure the 12-volt 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 II (VCM II)/Vehicle Communication Module 3 (VCM3) 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, 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 II/VCM3 or the VCMM from the data link connector (DLC) and your computer.
- b. After ten seconds, reconnect the VCM II/VCM3 or the VCMM to the DLC and the PC. Launch FDRS. The VCM II/VCM3 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 completed, a screen may list additional steps required to complete the programming process. Make sure all applicable steps are followed in order.

