



## TECHNICAL SERVICE BULLETIN

### Various SYNC Symptoms - Audio Noise/Distortion, Display Concerns, And/Or Pop-Up Information Anomalies

23-2354

15 November  
2023

#### Model:

Ford  
2023 F-Super Duty

**Issue:** Some 2023 F-Super Duty vehicles may exhibit various SYNC performance related concerns including but not limited to:

- Audio volume increase and/or distortion from the speakers when accessing languages
- Unrequested audio source switch while using some third party apps
- Audible pop and/or static noise heard through the speakers when steering wheel controls are pressed
- Universal serial bus (USB) audio concerns
- Waze™ app freezing on the center display screen while FM radio is playing
- Navigation - intermittent audible chime heard while driving
- Missing pop up activation after selecting active vehicle on the FordPass app
- Momentary pop up (plain view of the vehicle icon) with an exclamation indicator and no additional explanation when exiting camera view
- No prompts appear on the center display screen for further activation after selecting active vehicle on the FordPass™ app
- Various display anomalies from the center display screen
- Average fuel economy text cut off when set to km and 1/100 km on the center display screen
- Trailer optimized routing feature/naming keyboards not recognized when active trailer is selected
- Pro power onboard - pop up message present with the close soft button inoperative
- Check rear seat for passenger message appears at startup on the center display screen
- SYNC™ does not recognize a mobile phone is connected
- Amazon Alexa™ setup difficulties using the quick response (QR) code

This may be due to the software in the SYNC module (APIM). To correct the condition, follow the Service Procedure to reprogram the APIM.

**NOTE: The APIM software update that addresses the symptom listed in this article may have been delivered over-the-air (OTA) via Ford Power-Up software updates to connected vehicles that have automatic updates enabled through the center display screen. Enter the vehicle identification number (VIN) in Professional Technician System (PTS) and check the OTA Dashboard under the Connected Vehicle tab for OTA update history.**

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

- 2023 F-Super Duty
- At least one of the following SYNC concerns:
  - Audio volume increase and/or distortion from the speakers when accessing languages
  - Unrequested audio source switch while using some third party apps
  - Audible pop and/or static noise heard through the speakers when steering wheel controls are pressed
  - USB audio concerns
  - Waze™ app freezing on the center display screen while FM radio is playing
  - Navigation - intermittent audible chime heard while driving
  - Missing pop up activation after selecting active vehicle on the FordPass app
  - Momentary pop up (plain view of the vehicle icon) with an exclamation indicator and no additional explanation when exiting camera view
  - No prompts appear on the center display screen for further activation after selecting active vehicle on the FordPass™ app
  - Various display anomalies from the center display screen
  - Average fuel economy text cut off when set to km and 1/100 km on the center display screen
  - Trailer optimized routing feature/naming keyboards not recognized when active trailer is selected
  - Pro power onboard - pop up message present with the close soft button inoperative
  - Check rear seat for passenger message appears at startup on the center display screen
  - SYNC™ does not recognize a mobile phone is connected
  - Amazon Alexa™ setup difficulties using the QR code

**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.

#### Labor Times

Description	Operation No.	Time
2023 F-Super Duty: Reprogram The Appropriate Modules As Required By The Software Update And Service Procedure (Do Not Use With Any Other Labor Operations)	MT232354	Actual Time

#### 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 controller area network (CAN) flashing (software update via the data link connector [DLC] with Ford Diagnosis and Repair System [FDRS]) may be required. Connect to the internet with an ethernet cable and use a USB 3.0 or higher flash drive when performing software updates.

1. Start an FDRS session and navigate to Toolbox tab > Datalogger > Body Control Module (BCM) and select the BATT\_SOC parameter identification (PID). Verify the PID reads 50% or higher. If state of charge (SOC) is less than 50%, charge the battery then navigate back to Toolbox tab > BCM > Reset

Battery Monitor Sensor Learned Values application. Perform the battery monitor sensor (BMS) reset.

- (1). If the battery is unable to achieve an 50% SOC then a new battery may be required. Use the Rotunda GRX-3590 or DCA-8000 testers to verify if replacement is required. 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 state of charge while performing a software update to any module may result in a repeat Restart Required message in the vehicle center display screen or a message on the FDRS saying Part Number Validation Failed or DID Validation Failed.
3. Are there any updates available for the enhanced central gateway (ECG), APIM and/or telematics control unit module (TCU)?
  - (1). Yes - proceed to Step 4.
  - (2). No - this article does not apply. Refer to Workshop Manual (WSM), Section 415-00 for further diagnostics.
4. Perform the Module Software Updating Procedures outlined below for the following modules: ECG, APIM and/or TCU. 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 current module software levels. If any error conditions are experienced during programming, refer to WSM Section 418-01A > General Procedures > Module Programming for the Error Condition Table.

## Module Software Updating Procedure

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

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.

1. Using the FDRS, begin module programming by selecting the SW Updates tab. Follow all on-screen instructions carefully. Perform the software updates in the order below:

**NOTE: All 3 modules must be updated.**

**NOTE: Depending on the current software level of the modules, all the following updates may not be required.**

- (1). ECU (first)
  - (2). APIM (second)
  - (3). TCU (last)
2. When prompted, connect the USB flash drive to the FDRS.
  3. When prompted by the FDRS, safely remove/eject the USB flash drive from the FDRS and connect it 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.**

4. When the pop-up stating Restart Required appears on the center display screen

- (1). Turn the ignition off
- (2). Wait for 10 minutes
- (3). Restart the vehicle (key-on vehicle running). The update is still in process at this time.

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

5. 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.

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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.