

**TECHNICAL SERVICE BULLETIN****6.7L - Engine Coolant Temperature Gauge Falsely Reads High****24-2210**

08 July 2024

This bulletin supersedes 23-2426. Reason for update: update the list of modules needing a software update in the Service Procedure

Model:

Ford	Chassis cab
2023 F-Super Duty	Engine: 6.7L diesel

Markets: North American markets only

Issue: Some 2023 F-Super Duty chassis cab vehicles equipped with a 6.7L engine may exhibit an engine coolant temperature gauge falsely reading at the high end of the normal range while towing in high ambient temperatures with no DTC stored in the PCM or warning messages present in the IPC. This may be due to the software in the IPC. To correct the condition, follow the Service Procedure to reprogram the IPC.

NOTE: Some vehicles built on or before 28-Feb-2023 may have TSB 23-2426 performed previously, but no IPC software update was available at that time.

NOTE: The IPC software update that addresses the symptom listed in this bulletin may have been sent via an OTA update to connected vehicles that have automatic updates enabled through the center display screen. Enter the VIN in PTS and check the "OTA Dashboard" under the "Connected Vehicle" tab for OTA update history. If an update to the IPC has successfully completed recently and the customer is reporting the symptoms are no longer present, this article may not apply.

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

- 2023 F-Super Duty chassis cab
- 6.7L diesel engine
- Engine coolant temperature gauge falsely reads at the high end of normal while towing
- No DTCs or overheat warning messages present

Parts - Parts To Inspect And Replace Only If Necessary

Service Part Number	Claim Quantity	Package Order Quantity	Number in Package	Description
BXT-65-750	Only If Necessary (1 Possible)	Only If Necessary (1 Possible)		Battery (750 Amp) - Refer To The Parts Catalog For The VIN Specific Application
BAGM-65-A	Only If Necessary (1 Possible)	Only If Necessary (1 Possible)		Battery (750 Amp) - Refer To The Parts Catalog For The VIN Specific Application

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Service Part Warranty (SPW)/Service Part New Vehicle (SPNV)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/SPW/SPNV/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 6.7L chassis cab: Reprogram The Appropriate Modules As Required By The Software Update And Service Procedure (Do Not Use With Any Other Labor Operations)	MT242210	Actual Time

Repair/Claim Coding

Causal Part:	10849
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Condition Code: 04

Service Procedure

NOTE: The time required to complete this procedure will vary depending on several factors including the number of module software updates required, available internet bandwidth, USB flash drive variability, and the potential that CAN flashing (software update via the DLC with FDRS) may be required. Connect to the internet with an ethernet cable, use a USB 3.2 Gen 2 or higher flash drive. When performing USB software updates, using high speed USB ports on the laptop is recommended for faster file transfer.

1. Start an FDRS session and navigate to Toolbox tab > Datalogger > body control module (BCM) and select the BATT_SOC PID. Verify the PID reads 50% or higher.

NOTE: Connecting the battery charger negative clamp directly to the battery negative terminal might result in the SOC PID not immediately reflecting the improvement from charging.

- (1). If SOC is less than 50%, charge the battery by attaching the battery charger's negative clamp to the engine or chassis ground and not the negative battery terminal. Refer to WSM, Section 414-01.
 - (2). If the battery is unable to achieve a 50% SOC, use the Rotunda GRX-3590 or DCA-8000 testers to verify if replacement is required.
 - If the battery does not need to be replaced, disconnect the Rotunda charger and perform a BMS reset using the FDRS scan tool.
 - 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 SOC while performing a software update to any module may result in a repeat Restart Required message in the vehicle's 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 IPC, GWM, APIM, TCU, BCM, PCM, TCM, or SOBDMC?
 - (1). Yes - proceed to Step 4.
 - (2). No - this article does not apply. Refer to WSM, Section 303-03.
4. Perform the Module Software Updating Procedure below for the IPC, GWM, APIM, TCU, BCM, PCM, TCM and SOBDMC. 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. Continue performing software updates until all available software updates for those modules 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.

Module Software Updating Procedure

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

The following instructions apply when performing a software update on any of the following modules:

- IPC
- GWM
- APIM
- TCU
- BCM
- PCM
- TCM
- SOBDMC

NOTE: If the next update is not showing available, perform a network test and recheck availability.

NOTE: A 32GB or larger USB flash drive is required for the GWM, TCU and APIM software updates. USB 3.2 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 results 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 next available update.
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 vehicle's 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 vehicle's center display screen:
 - (1). Turn the ignition off.
 - (2). Wait for 10 minutes.
 - (3). Restart the vehicle (KOER). The update is still in progress at this time.

NOTE: It may take up to 5 minutes before the vehicle's center display screen displays "Update Successful" pop-up. After 5 minutes, if "Update Successful" pop-up is not shown on the vehicle's center display screen, remove the USB and select yes on the FDRS prompt for "Was the USB Update Successful" (FDRS verifies if the module software update was successfully installed on the module).

5. Once the pop-up stating "Update Successful" appears in the vehicle's 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.