



TECHNICAL SERVICE BULLETIN

Whine Noise From The Front Drive Unit When Driving Steady Speed Between 30-40 MPH (48-64 Km/H)

23-2168

30 May 2023

Model:

Ford
2021-2022 Mustang Mach-E

Issue: Some 2021-2022 Mustang Mach-E vehicles equipped with all-wheel drive (AWD) may exhibit a whine noise from the front drive unit when driving steady speed between 30-40 mph (48-64 km/h) without diagnostic trouble codes (DTCs) present. This may be due to software parameters. To correct the condition, follow the Service Procedure to reprogram the powertrain control module (PCM).

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

- 2021-2022 Mustang Mach-E
- AWD
- Whine noise from the front drive unit when driving steady speed between 30-40 mph (48-64 km/h)

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
2021-2022 Mustang Mach-E Reprogram The Appropriate Modules As Required By The Software Update And Service Procedure (Do Not Use With Any Other Labor Operations)	MT232168	Actual Time

Repair/Claim Coding

Causal Part:	RECAL
Condition Code:	04

Service Procedure

1. Connect a battery charger to the 12-volt battery.

NOTE: To prevent the battery saver mode from activating on the vehicle, make sure the negative cable of the charger is installed on a chassis or engine ground, and not the 12-volt battery negative terminal. Do not have the vehicle plugged into the high voltage battery charger during programming. This can cause incorrect module programming. Make sure only the 12-volt battery charger is installed.

2. Reprogram the PCM using the latest software level of the Ford Diagnosis and Repair System (FDRS) scan tool.
3. Check the availability of software updates on the following modules and update as required:

- Secondary on-board diagnostic control module (SOBDM)
- Battery energy control module (BECM)
- Secondary on-board diagnostic control module B (SOBDMB)
- Secondary on-board diagnostic control module C (SOBDMC)
- Anti-lock brake system (ABS) module

NOTE: Only one module may be updated at a time.

NOTE: A small amount of whine noise is considered to be characteristic of the power unit design and has no effect on durability.

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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.