



TECHNICAL SERVICE BULLETIN

Illuminated MIL And/Or Powertrain Malfunction (Wrench) Indicator With Various DTCs - Built On Or Before 17-Mar-2023

23-2257

21 August
2023

This bulletin supersedes 23-2020.

Model:

Ford 2021-2023 Mustang Mach-E	Built on or before 17-Mar-2023
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Markets: Canada, USA

Summary

This article supersedes TSB 23-2020 to update the Service Procedure.

Issue: Some 2021-2023 Mustang Mach-E vehicles built on or before 17-Mar-2023 may exhibit an illuminated malfunction indicator lamp (MIL) and/or powertrain malfunction (wrench) indicator with diagnostic trouble codes (DTCs) P0563, P0ADA, P0ADE, P0AA1, P0AA4, P0AA5, P0AA2, P0D10, P0D0F, and/or P0C78 stored in battery energy control module (BECM). It may also have a low/discharged 12V battery and/or display a Stop Safely Now message in the instrument panel cluster (IPC). This may be due to the high voltage battery junction box (HVBJB). To correct the condition, follow the Service Procedure to replace the HVBJB and reprogram the BECM.

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

- 2021-2023 Mustang Mach-E
- Built on or before 17-Mar-2023
- Illuminated MIL and/or powertrain malfunction (wrench) indicator with DTCs P0563, P0ADA, P0ADE, P0AA1, P0AA4, P0AA5, P0AA2, P0D10, P0D0F, and/or P0C78 in the BECM

Parts

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
LK9Z-10C666-BRM	1	High Voltage Battery Junction Box (GT)	1	1
NK4Z-10C666-CRM	1	High Voltage Battery Junction Box (AWD Base/Extended Range)	1	1
NK4Z-10C666-DRM	1	High Voltage Battery Junction Box (RWD Base/Extended Range)	1	1
W717859-S439	1	Battery Mounting Bracket Bolts	4	2
VC-13-G	As Needed	Motorcraft® Yellow Concentrated Antifreeze/Coolant (All Markets Except Canada)		
CVC-13-G	As Needed	Motorcraft® Yellow Concentrated Antifreeze/Coolant (Canada Only)		

Parts - Parts To Inspect And Replace Only If Necessary

Service Part Number	Quantity	Description	Unit of Issue
LJ9Z-10A687-A	If Needed	High Voltage Battery Cover Seal	1

Quantity refers to the amount of the service part number required to repair the vehicle.

Unit of Issue refers to the number of individual pieces included in a service part number package.

Piece Quantity refers to the total number of individual pieces required to repair the vehicle.

As Needed indicates the amount of the part may vary and/or is not a whole number. Parts can be billed out as non-whole numbers, including less than 1.

If Needed indicates the part is not mandatory.

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Emissions Warranty/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/Emissions Warranty/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
2021-2023 Mustang Mach-E: Retrieve DTCs And Vehicle Build Date, Replace The HVBJB (Do Not Use With Any Operations Outside Of This Article)	232257A	5.7 Hrs.
2021-2023 Mustang Mach-E: Reprogram The Appropriate Modules As Required By The Software Update And Service Procedure, Includes Time To Download And Run The BECM Reset DTC Occurrence Counter Application If Required (Can Be Claimed With Operation A)	MT232257	Actual Time

Repair/Claim Coding

Causal Part:	10C666
Condition Code:	42

Service Procedure

1. Replace the HVBJB. Refer to Workshop Manual (WSM), Section 414-03A, Removal and installation.
2. Reprogram the BECM to latest software available. The BECM is part of the powertrain coordinated flash.
 - (1). Connect a battery charger to the 12-volt battery. If the 12-volt battery is discharged, recover the battery. Refer to WSM, Section 414-01, Diagnosis and Testing.

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.

3. Reprogram the PCM using the latest software level of the Ford Diagnosis and Repair System (FDRS) scan tool.
4. 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.

5. Clear any stored DTCs related to this concern.
6. If DTCs P0ADA, P0ADE, P0AA1, and/or P0AA4 remain present, download and run the BECM - Reset Diagnostic Trouble Code (DTC) Occurrence Counter application in FDRS.

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