



TECHNICAL SERVICE BULLETIN

No Crank/No Start With A Battery Draw And A/C Clutch Engaged At All Times

23-2130

08 May 2023

Model:

Ford 2021-2023 F-150

Issue: Some 2021-2023 F-150 vehicles may exhibit a no crank/no start with an excessive battery draw and air conditioning (A/C) clutch engaged at all times. This may be due to an open diode in the A/C clutch damaging the output driver field effect transistor (FET) in the body control module C (BCMC). To correct the condition, follow the Service Procedure to replace the BCMC and A/C clutch disc and hub assembly.

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

- 2021-2023 F-150
- Excessive battery draw
- A/C clutch engaged at all times

Parts

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
ML3Z-19D786-A	1	A/C Clutch Field Coil	1	1
14A068	1	Body Control Module C (BCMC) - Refer To The Parts Catalog For The VIN The Specific Application	1	1
5L7Z-7D285-A	2	Transmission Case Fluid Warmer Line O-Ring	2	4
5L7Z-7J324-A	2	Transmission Fluid Warmer Line Side O-Ring	2	4
DS7Z-19B596-A	1	Compressor A/C Line Gasket	1	1
DL3Z-19B596-B	1	Compressor A/C Line O-Ring And Gasket	1	1
ML3Z-8620-A	1	A/C Compressor Belt	1	1
ML3Z-6758-B	1	Evaporative Emissions Tube Assembly	1	1
W716638-S439	1	Power Steering Rack Bolt	4	1
W716639-S439	1	Power Steering Rack Bolt	1	1
N808684-S101	1	Steering Shaft Bolt	1	1
W520215-S440	1	Steering Tie Rod End Nut	4	2
XT-12-QULV	As Needed	Motorcraft® MERCON® ULV Automatic Transmission Fluid		
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)		

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.

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
2021-2023 F-150 2.7L EcoBoost: Diagnose And Replace The BCMC And A/C Clutch Disc And Hub Assembly Following The Service Procedure (Do Not Use With Any Other Labor Operations)	232130A	2.7 Hrs.
2021-2023 F-150 3.3L TiVCT: Diagnose And Replace The BCMC And A/C Clutch Disc And Hub Assembly Following The Service Procedure (Do Not Use With Any Other Labor Operations)	232130B	2.2 Hrs.
2021-2023 F-150 3.5L EcoBoost: Diagnose And Replace The BCMC And A/C Clutch Disc And Hub Assembly Following The Service Procedure (Do Not Use With Any Other Labor Operations)	232130C	2.7 Hrs.
2021 F-150 3.0L Diesel: Diagnose And Replace The BCMC And A/C Clutch Disc And Hub Assembly Following The Service Procedure (Do Not Use With Any Other Labor Operations)	232130D	3.4 Hrs.
2021-2023 F-150 5.0L TiVCT: Diagnose And Replace The BCMC And A/C Clutch Disc And Hub Assembly Following The Service Procedure (Do Not Use With Any Other Labor Operations)	232130E	2.4 Hrs.
2023 F-150 5.2L Predator: Diagnose And Replace The BCMC And A/C Clutch Disc And Hub Assembly Following The Service Procedure (Do Not Use With Any Other Labor Operations)	232130F	3.4 Hrs.
2021-2023 F-150 2.7L EcoBoost Dual Alternator: Diagnose And Replace The BCMC And A/C Clutch Disc And Hub Assembly Following The Service Procedure (Do Not Use With Any Other Labor Operations)	232130G	3.6 Hrs.
2021-2023 F-150 3.5L PowerBoost: Diagnose And Replace The BCMC And A/C Clutch Disc And Hub Assembly Following The Service Procedure (Do Not Use With Any Other Labor Operations Outside Of This Article) (Can Be Used With Operation J Or K)	232130H	4.0 Hrs.
2021-2023 F-150 3.5L PowerBoost: Additional Time To Check And Correct Toe (Can Be Claimed With Operation H)	232130J	0.8 Hrs.
2021-2023 F-150 3.5L PowerBoost With Lane Departure: Additional Time To Check And Correct Toe (Can Be Claimed With Operation H)	232130K	1.0 Hrs.

Repair/Claim Coding

Causal Part:	19D786
Condition Code:	42

Service Procedure

1. Install the battery charger and fully charge the battery.
2. Turn the ignition off, exit the vehicle and shut the doors to allow the vehicle to go into sleep mode. This will take approximately 15 minutes.
3. Check for voltage on circuit CH401 (VT-WH) pin 1 at the A/C compressor clutch connector C100. Is voltage present?
 - (1). Yes - go to Step 4.
 - (2). No - this article does not apply. Refer to the Workshop Manual (WSM), Section 412-00.
4. Disconnect the battery.
5. Replace both the BCMC and the A/C clutch disc and hub assembly. Refer to the WSM, Sections 412-00 and 419-10.

6. Connect the battery.

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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.