



TECHNICAL SERVICE BULLETIN

Illuminated Powertrain Malfunction (Wrench) Indicator With DTCs C00A6 And/Or C0631

25-256806 January
2026

This bulletin supersedes 25-2373. Reason for update: update the Service Procedure.

Model:

Ford 2020-2021 Explorer	AWD Built on or before 30-Aug-2021
Lincoln 2020-2021 Aviator	AWD Built on or before 30-Aug-2021

Markets: North American markets only

Issue:

NOTE: This bulletin has been updated, refer to the change log at the bottom for details.

Some vehicles listed in the model statement above may exhibit an illuminated powertrain malfunction (wrench) indicator with DTCs C00A6 and/or C0631. This may be due to the front axle disconnect actuator/intermediate shaft.

Action: For vehicles that meet all of the criteria in the issue and model statement above, follow the Service Procedure to replace the front axle disconnect actuator/intermediate shaft with a revised intermediate shaft.

Parts - Explorer 2.3L

Service Part Number	Claim Quantity	Description
LB5Z-3B477-A	1	Wheel Hub Nut
N1MZ-3A329-A	1	Intermediate Shaft
N1MZ-3A427-F	1	Halfshaft
N1MZ-3B476-A	1	Front Axle Assembly Breather Hose
W715932-S439	2	Lower Strut-to-wheel Knuckle Bolt
W520517-S440	2	Lower Strut-to-wheel Knuckle Nut
XY-75W140-QL	As Needed	Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant (All Markets Except Canada)
CXY-75W140-1L	As Needed	Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant (Canada Only)
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)

Parts - Explorer 3.0L/3.3L

Service Part Number	Claim Quantity	Description
W719506-S440	2	Upper Stabilizer Bar Link Nut
W717521-S440	2	Engine Mount Nut
W719326-S439	4	Engine Mount Bolt
W712961-S439	1	Steering Shaft Bolt
W716979-S439	2	Rear Subframe Bolt

W719413-S439	4	Subframe Bolts Mid/Front
LB5Z-3B477-A	1	Wheel Hub Nut
N1MZ-3A329-A	1	Intermediate Shaft
N1MZ-3A427-F	1	Halfshaft
N1MZ-3B476-A	1	Front Axle Assembly Breather Hose
W715932-S439	2	Lower Strut-to-wheel Knuckle Bolt
W520517-S440	2	Lower Strut-to-wheel Knuckle Nut
XY-75W140-QL	As Needed	Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant (All Markets Except Canada)
CXY-75W140-1L	As Needed	Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant (Canada Only)
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)

Parts - Aviator

Service Part Number	Claim Quantity	Description	Note
W719506-S440	2	Upper Stabilizer Bar Link Nut	
W717521-S440	2	Engine Mount Nut	
W719326-S439	4	Engine Mount Bolt	
W712961-S439	1	Steering Shaft Bolt	
W716979-S439	2	Rear Subframe Bolt	
W719413-S439	4	Subframe Bolts Mid/Front	
W720050-S440	2	Front Lower Arm Nut	1 For Tie Rod, 1 For Front Lower Arm
W719503-S439	1	Strut Bolt (Lower Arm Bracket Bolt)	
W711310-S440	1	Strut Nut (Lower Arm Bracket Nut)	
W520216-S440	1	Rear Lower Arm Outboard Nut	
LB5Z-3B477-A	1	Wheel Hub Nut	
N1MZ-3A329-A	1	Intermediate Shaft	
N1MZ-3A427-F	1	Halfshaft	
N1MZ-3B476-A	1	Front Axle Assembly Breather Hose	
XY-75W140-QL	As Needed	Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant (All Markets Except Canada)	
CXY-75W140-1L	As Needed	Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant (Canada Only)	
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)	

Parts - Parts To Inspect And Replace Only If Necessary (All Vehicles)

Service Part Number	Claim Quantity	Description

WA-14-SBA	Only If Necessary	Motorcraft® Zip Tie Strap
3U2Z-14A088-AB	Only If Necessary	Motorcraft® Wire Splice Kit
5L7Z-7J324-A	Only If Necessary	Fluid Cooler Tube Backing Rings
W715131-S442	Only If Necessary	Cooler Tube Bolt (10R80 Only)
L1MZ-6758-A	Only If Necessary	Crankcase Ventilation Tube (3.0L)
5L7Z-7D285-A	Only If Necessary	Transmission Fluid Cooler Tube Seals (3.0L)
1X4Z-9E936-AA	Only If Necessary	Throttle Body Gasket (3.0L/3.3L)

Service part numbers and "number in package" quantity may change after publication, thus also affecting the "package order quantity". Refer to the parts catalog for the latest information.

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

As Needed indicates the part is necessary but 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.

Only If Necessary indicates the part is not mandatory. Refer to the Service Procedure to determine the inspection/inclusion criteria.

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
2020-2021 Explorer 4WD 2.3L EcoBoost: Retrieve DTCs And Install Intermediate Shaft Assembly (Do Not Use With Any Other Labor Operations)	252568A	2.0 Hrs.
2020-2021 Explorer 4WD 3.3L TiVCT, 3.3L Hybrid: Retrieve DTCs And Install Intermediate Shaft Assembly (Do Not Use With Any Other Labor Operations)	252568B	2.6 Hrs.
2020-2021 Explorer 4WD 3.0L EcoBoost: Retrieve DTCs And Install Intermediate Shaft Assembly (Can Be Claimed With Operation E Or F And G) (Do Not Use With Any Other Labor Operations Outside Of This Article)	252568C	7.2 Hrs.
2020-2021 Aviator AWD 3.0L EcoBoost 3.0L PHEV: Retrieve DTCs And Install Intermediate Shaft Assembly (Can Be Claimed With Operation E Or F) (Do Not Use With Any Other Labor Operations Outside Of This Article)	252568D	7.8 Hrs.
Additional Time To Check And Correct Caster/Camber And Front Toe (Can Be Claimed With Operation C Or D And G)	252568E	1.1 Hrs.
Additional Time To Check And Correct Caster/Camber And Front Toe For Vehicles With Lane Departure (Can Be Claimed With Operation C Or D And G)	252568F	1.3 Hrs.
2020-2021 Explorer 4WD 3.0L 10R80 Only: Additional Time To Remove/Install Transmission Tubes Between The Transmission And The Cooler Bypass Valve, Includes Time Check And Top Off Transmission fluid (Can Be Claimed With E Or F And C)	252568G	0.8 Hrs.

Repair/Claim Coding

Causal Part:	3D102
Condition Code:	42

Service Procedure

NOTE: The vehicle may have either front axle disconnect actuator with an operational electrical connector or may have an intermediate shaft that is essentially a front axle disconnect actuator that does not have the connection being utilized. The service replacement intermediate shaft has a different look and design but the fit and function are the same.

2.3L / 3.0L Vehicles

1. Disconnect the battery. Refer to WSM, Section 414-01.
2. Is the vehicle equipped with a 10R80 transmission?
 - (1). Yes - remove the transmission cooler tubes. Refer to WSM, Section 307-02B and proceed to Step 3.
- NOTE: The cooler bypass valve assembly does not need to be removed.**
- (2). No - proceed to Step 3.
3. Remove and discard the front halfshaft and front axle disconnect actuator. Refer to WSM, Section 205-03.
4. Is the vehicle equipped with a front axle disconnect actuator electrical connector?
 - (1). Yes - proceed to Step 5.
 - (2). No - proceed to Step 7.
5. Cut off and discard the front axle disconnect actuator electrical connector from the pigtail wiring. Make sure enough wire is left to install the shrink tubing to properly terminate the wiring.
6. Install 1 shrink tube on 1 wire from the pigtail. Heat the shrink tube until the adhesive protrudes from both ends. Using a pair of pliers, gently crimp both ends of the shrink tube to make sure the shrink tube is secure. Repeat the process on the remaining 3 wires.
7. Replace the differential breather tube with the front axle assembly breather hose. Refer to 2021 WSM, Section 205-03, Removal and Installation, Differential Breather Tube.
8. Install the new service replacement intermediate shaft in place of the front axle disconnect actuator/intermediate shaft and re-assemble. Re-use the fasteners. Refer to the 2021 WSM, Section 205-04, Removal and Installation, Intermediate Shaft - Vehicles Built From: 31-August-2021.
 - (1). Tighten to 26 lb-ft (35 Nm).
9. Use the Motorcraft® Zip Tie Strap to make sure the battery cable is secured away from any rotating intermediate shaft components.
10. Install the new halfshaft. Refer to the 2021 WSM, Section 205-04, Removal And Installation, Halfshaft - Vehicles Built From: 31-August-2021.
11. Set the axle fluid level.
12. Vehicles equipped with 10R80 transmission only, reset the transmission fluid level. Refer to WSM, Section 307-01B.
13. Update the AWD module software to the latest level and clear all DTCs.

3.3L Vehicles

1. Disconnect the battery. Refer to WSM, Section 414-01.
2. Remove both front wheels. Refer to WSM, Section 204-04A.
3. Remove and discard the front stabilizer bar link upper nut on both sides.
4. Remove and discard the left halfshaft. Refer to WSM, Section 205-04.
5. Remove the transmission cooler hose bracket nut.
6. Remove the catalyst assembly bracket, studs and nuts.
7. Place a support under the transmission bellhousing.
8. Remove the left lower engine mount nut from the subframe.
9. Using a support jack, slightly raise the engine.
10. Remove all 4 left engine mount to engine fasteners. Position the engine mount aside.
11. If equipped, disconnect the front axle disconnect actuator electrical connector and axle vent tube assembly.
12. Remove all 3 front axle disconnect actuator/intermediate shaft fasteners. Remove and discard the front axle disconnect actuator/intermediate shaft.
 - (1). For vehicles with a front axle disconnect actuator, refer to 2020 WSM, Section 205-03.

- (2). For vehicles with an intermediate shaft, refer to 2021 WSM, Section 205-04.
- 13.** Is the vehicle equipped with a front axle disconnect actuator electrical connector?
- (1). Yes - proceed to Step 14.
- (2). No - proceed to Step 16.
- 14.** Cut off and discard the front axle disconnect actuator electrical connector from the pigtail wiring. Make sure enough wire is left to install the shrink tubing to properly terminate the wiring.
- 15.** Install 1 shrink tube on 1 wire from pigtail. Heat shrink the tube until adhesive protrudes from both ends. Using a pair of pliers, gently crimp both ends of the shrink tube to make sure the shrink tube is secure. Repeat the process on the remaining 3 wires.
- 16.** Replace the differential breather tube with the front axle assembly breather hose. Refer to 2021 WSM, Section 205-03, Removal and Installation, Differential Breather Tube.
- 17.** Install the new service replacement intermediate shaft in place of the front axle disconnect actuator/intermediate shaft and re-assemble. Re-use the fasteners. Refer to the 2021 WSM, Section 205-04, Removal and Installation, Intermediate Shaft - Vehicles Built From: 31-August-2021.
- (1). Tighten to 26 lb-ft (35 Nm).
- 18.** Use the Motorcraft® Zip Tie Strap to make sure the battery cable is secured away from any rotating intermediate shaft components.
- 19.** Install the left engine mount.
- (1). Tighten the new engine mount fasteners to 47 lb-ft (63 Nm).
- (2). Remove the jack supporting the engine.
- (3). Install the new left lower engine mount nut to the subframe. Tighten to 185 lb-ft (250 Nm).
- 20.** Install the catalyst assembly bracket, studs and nuts. Tighten to 18 lb-ft (25 Nm).
- 21.** Install the transmission cooler hose bracket nut. Tighten to 80 lb-in (9 Nm).
- 22.** Install the front stabilizer bar link upper nut on both sides. Tighten to 129 lb-ft (175 Nm)
- 23.** Install the new service replacement halfshaft. Refer to the 2021 WSM, Section 205-04, Removal And Installation, Halfshaft - Vehicles Built From: 31-August-2021.
- 24.** Install both front wheels. Refer to WSM, Section 204-04A.
- 25.** Set the axle fluid level.
- 26.** Update the AWD module software to the latest level and clear all DTCs.

Change Log

Bulletin version	Version 2
Change log	Published 06-Jan-2026 Reissued 16-Sep-2026 - Changed claim quantity for the following parts: W720050-S440, W719506-S440, W717521-S440. Changed part description for the following parts: W720050-S440, W719503-S439, W711310-S440, W520216-S440, W712961-S439, W716979-S439, W719413-S439, L1MZ-6758-A, 1X4Z-9E936-AA. Removed L1MZ-4382-C. Removed the Package Order Quantity and Number In Package columns. Moved 1X4Z-9E936-AA from required to Only If Necessary part list. Separated required parts into 3 lists based on vehicle application.

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