



TECHNICAL SERVICE BULLETIN

Illuminated Powertrain Malfunction (Wrench) Indicator With DTC P07F7 And Loss Of 10th Gear

25-2357

06 August
2025

This bulletin supersedes 23-2160. Reason for update: update the parts list.

Model:

Ford 2020 Super Duty	Engine: 6.2L/7.3L Transmission: 10R140
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Markets: North American markets only

Issue: Some of the vehicles listed in the Model statement above may exhibit all of the following conditions:

- An illuminated powertrain malfunction (wrench) indicator with DTC P07F7
- Loss of 10th gear

The vehicle may also exhibit harsh engagements and poor shift quality. This may be due to the sleeve in the CDF clutch cylinder shifting axially causing hydraulic circuit leaks.

Action: For vehicles that meet all of the criteria in the Issue and Model statements, follow the Service Procedure to replace the CDF clutch cylinder.

Parts

Service Part Number	Claim Quantity	Package Order Quantity	Number in Package	Description
LC3Z-7H351-B	1	1	1	CDF Clutch Cylinder
LC3Z-7153-D	1	1	1	10R140 Transmission Gasket Kit
W715618-S437	4	1	4	Torque Converter Nuts
W714824-S442	2	1	4	Selector Cable Bracket Bolts
391558-S102	2	2	1	Transmission Support Insulator Bolts
W721052-S439	11	3	4	Transfer Case To Transmission Bolts
W520514-S440	4	4	1	Right And Left Y-pipe To Exhaust Manifold Nuts
W715131-S442	1	1	4	Transmission Fluid Cooler Tube Bolt
F81Z-4N272-AA	4	1	4	Front Driveshaft U-joint To Pinion Retaining Strap Bolts (4WD Only)
E4HZ-4A254-B	2	2	1	Front Driveshaft U-joint To Pinion Retaining Straps (4WD Only)
N811880-S100	4	1	4	Front & Rear Driveshaft & CV Joint Flange Bolts
W709771-S440	2	2	1	Transmission Mount Support Isolator Nuts
W710356-S439	4	1	4	Crossmember Bracket Bolts
W520515-S440	4	1	4	Crossmember Bracket Nuts
W714717-S439	2	1	4	Y-pipe To Resonator Bolts (7.3L Engine Only)
W714656-S439	4	1	4	Exhaust Hanger Bracket Bolts (7.3L Engine Only)
N605804-S439	4	1	4	Transmission Support Insulator Bracket Bolts (2WD Only)
XT-12-QULV	As Needed	As Needed		Motorcraft® MERCON® ULV Automatic Transmission Fluid

XT-10-QLVC	As Needed	As Needed		Motorcraft® MERCON® LV Automatic Transmission (Transfer Case Fluid, 4WD Only)
TA-24-B	As Needed	As Needed		Motorcraft® Thread Sealant with PTFE (4WD Only)
VC-13-G	As Needed	As Needed		Motorcraft® Yellow Concentrated Antifreeze/Coolant (All Markets Except Canada)
CVC-13-G	As Needed	As Needed		Motorcraft® Yellow Concentrated Antifreeze/Coolant (Canada Only)
XL-5-A	As Needed	As Needed		Motorcraft® Multi-Purpose Grease Spray
TA-26	As Needed	As Needed		Motorcraft® Threadlock 262

Parts - Rear Driveshaft Bolts And Straps - Not All Vehicles Will Use All Of The Parts Listed

Service Part Number	Claim Quantity	Package Order Quantity	Number in Package	Description
F1HZ-4N272-A	4 Per Affected Joint	4 Per Affected Joint	1	U-Joint Strap Style Bolts - Refer To The Parts Catalog For The VIN Specific Application
E4HZ-4A254-A	4 Per Affected Joint	4 Per Affected Joint	1	U-Joint Strap Style Bolts - Refer To The Parts Catalog For The VIN Specific Application
N811880-S100	4 Per Affected Joint	1 Per Affected Joint	4	U-Joint Flange Style Bolts - Refer To The Parts Catalog For The VIN Specific Application
BC3Z-4N272-A	1 Per Affected Joint	1 Per Affected Joint	1	Driveshaft Center Bearing Bolts - Refer To Parts Catalog For The VIN Specific Application
W500633-S439	1 Required Per Affected Joint	1	4	Driveshaft Center Bearing Bolts - Refer To Parts Catalog For The VIN Specific Application

Parts - Parts To Inspect And Replace Only If Necessary

Service Part Number	Claim Quantity	Package Order Quantity	Number in Package	Description
LC3Z-7J227-A	Only If Necessary (Up To 4)	Only If Necessary (Up To 4)	1	Transmission Fluid Cooler O-ring
LC3Z-7B477-A	Only If Necessary (Up To 1)	Only If Necessary (Up To 1)	1	C Clutch Pressure Plate
LC3Z-7B442-C	Only If Necessary (Up To 6 For Diesel)	Only If Necessary (Up To 6 For Diesel)	1	C Clutch Separator Plates External Spline (Diesel ONLY)
LC3Z-7B442-D	Only If Necessary (Up To 5 For Gas)	Only If Necessary (Up To 5 For Gas)	1	C Clutch Separator Plates External Spline (Gas ONLY)
LC3Z-7H095-A	Only If Necessary (Up To 5 For Gas, Up To 6 For Diesel)	Only If Necessary (Up To 5 For Gas, Up To 6 For Diesel)	1	C Clutch Friction Plate Internal Spline
LC3Z-7H076-A	Only If Necessary (Up To 1)	Only If Necessary (Up To 1)	1	C Clutch Snap-Ring - Selective (1.5mm)
LC3Z-7H076-B	Only If Necessary	Only If Necessary	1	C Clutch Snap-Ring - Selective (1.7mm)
LC3Z-7H076-C	Only If Necessary	Only If Necessary	1	C Clutch Snap-Ring - Selective (1.9mm)
LC3Z-7H076-D	Only If Necessary	Only If Necessary	1	C Clutch Snap-Ring - Selective (2.1mm)

LC3Z-7H076-E	Only If Necessary	Only If Necessary	1	C Clutch Snap-Ring - Selective (2.3mm)
LC3Z-7H076-F	Only If Necessary	Only If Necessary	1	C Clutch Snap-Ring - Selective (2.5mm)

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.

Package Order Quantity refers to the amount of the service part number package(s) required to repair the vehicle.

Number In Package refers to the number of individual pieces included in a service part number package.

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 F-Super Duty 6.2L 4X2: Replace The CDF Cylinder Following The Service Procedure (Do Not Use With Any Other Labor Operations)	252357A	9.8 Hrs.
2020 F-Super Duty 6.2L 4X4: Replace The CDF Cylinder Following The Service Procedure (Do Not Use With Any Other Labor Operations)	252357B	11.3 Hrs.
2020 F-Super Duty 7.3L 4X2: Replace The CDF Cylinder Following The Service Procedure (Do Not Use With Any Other Labor Operations)	252357C	9.6 Hrs.
2020 F-Super Duty 7.3L 4X4: Replace The CDF Cylinder Following The Service Procedure (Do Not Use With Any Other Labor Operations)	252357D	11.3 Hrs.

Repair/Claim Coding

Causal Part:	7H351
Condition Code:	17

Service Procedure

1. Remove the transmission. Refer to WSM, Section 307-01.

NOTE: For 7.3L applications, do not discard the W714656-S439 exhaust hanger bracket bolts during transmission removal.

2. Disassemble the transmission. Perform only the necessary steps to remove the clutch and planetary assembly from the transmission case. Refer to WSM, Section 307-01 > Overhaul.

(1). It is only necessary to remove the following:

- Torque converter
- Main control assembly
- All 4 speed sensors (intermediate speed sensor A [ISSA], intermediate speed sensor B [ISSB], TSS and OSS)
- Fluid pump
- Front support
- Clutch and planetary assembly

3. Disassemble the clutch and planetary assembly. Perform only the necessary steps to remove the CDF clutch cylinder from the clutch and planetary assembly. Refer to WSM, Section 307-01 > Overhaul.

(1). It is only necessary to remove the following:

- A clutch assembly
- T3 thrust bearing and shim
- Clutch and planetary container cylinder
- E clutch and input shaft assembly
- Number 3 planetary carrier and number 3 sun gear
- Number 3 sun gear shaft and number 2 ring gear assembly

4. Disassemble the C, D and F clutch assemblies from the CDF cylinder. Discard the CDF cylinder. Refer to WSM, Section 307-01 > Overhaul.

5. Assemble the C, D and F clutch assemblies into the new CDF clutch cylinder. Refer to WSM, Section 307-01 > Overhaul.

6. Perform the C, D and F clutch pack endplay measurements for proper clearance. Refer to WSM, Section 307-01 > Overhaul.

7. To reassemble the clutch and planetary assembly, reverse the removal procedure. Refer to WSM, Section 307-01 > Overhaul.

8. Perform the T3 thrust bearing measurement to set transmission front end clearance. Refer to WSM, Section 307-01 > Overhaul.

9. Reassemble the transmission starting at Step 299 in WSM, Section 307-01 > Overhaul.

10. Install the transmission. Refer to WSM, Section 307-01.

NOTE: For 7.3L applications, if the exhaust hanger bracket bolts are not available, apply Motorcraft® Threadlock 262 to the threads and reuse the exhaust hanger bracket bolts.

11. Perform an adaptive learning drive cycle. Refer to WSM, Section 307-01.

NOTE: Advise the customer that this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a relearning process. This relearning process may result in firmer than normal upshifts and downshifts for several days.

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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.