



TECHNICAL SERVICE BULLETIN

3.7L/3.5L/3.2L/6.8L - Engine Or Transmission Overheating - Built On Or Before 31-Dec-2018

21-2038
11 March
2021

This bulletin supersedes 20-2150. Reason for update: Missing or Incorrect Applications

Model:

Ford 2017-2018 E-Series	Engine: 6.8L
2015-2019 Transit	

Summary

This article supersedes TSB 20-2150 to update the production fix date, Issue, Action, and Service Procedure.

Issue: Some 2015-2019 Transit vehicles built on or before 31-Dec-2018 and some 2017-2018 E-Series vehicles equipped with a 6.8L engine built on or before 16-Jul-2018 using the Motorcraft® Orange coolant may exhibit an engine or transmission overheat concern. This condition may be due to deposits from the engine coolant becoming trapped in the radiator preventing coolant flow. To correct the condition, flush the cooling system, replace the radiator and fill with Motocraft® Yellow coolant.

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

- One of the following vehicles:
 - 2015-2019 Transit vehicles built on or before 31-Dec-2018
 - 2017-2018 E-Series vehicles built on or before 16-Jul-2018 equipped with a 6.8L engine
- Originally equipped with Motorcraft® Orange coolant
- Vehicle engine or transmission overheats

NOTE: Part quantity refers to the number of that service part number required, which may be different than the number of individual pieces. Service part numbers contain 1 piece unless otherwise stated. "As Needed" indicates the part is required but the number may vary or is not a whole number; parts can be billed out as non-whole numbers, including less than 1.

Parts

Part Number		Description	Quantity
9C2Z-8005-F	-	Radiator (6.8L Engine)	1
CK4Z-8005-B	-	Radiator (Transit)	1
W500634-S442	Package Contains 4 Pieces, 8 Pieces Required	Load Path Bar Bolt, Front (Transit Built On 21-Apr-2014 And Through 21-Apr-2015)	2
W506434-S439	Package Contains 4 Pieces, 8 Pieces Required	Load Path Bar Bolt, Front (Transit Built On Or After 22-Apr-2015)	2
W702449-S442	Package Contains 4 Pieces, 4 Pieces Required	Load Path Bar Bolt, Rear (Transit Built On 21-Apr-2014 And Through 15-Feb-2015)	1

W505434-S439	Package Contains 4 Pieces, 4 Pieces Required	Load Path Bar Bolt, Rear (Transit Built On Or After 16-Feb-2015)	1
F1VY-8255-A	-	Thermostat O-ring (6.8L Engine)	1
W704553-S300	-	Thermostat O-ring (3.2L Engine)	1
BR3Z-8255-A	-	Thermostat O-ring (3.5L EcoBoost/3.7L Engine)	1
DS7Z-19B596-A	-	A/C Line Condenser O-ring (Transit)	1
VC-13-G	-	Motorcraft® Yellow Concentrated Antifreeze/Coolant (All Markets Except Canada)	As Needed
CVC-13-G	-	Motorcraft® Yellow Concentrated Antifreeze/Coolant (Canada Only)	As Needed
VC-1	-	Motorcraft® Premium Cooling System Flush	As Needed

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
2015-2019 Transit 3.5L EcoBoost: Inspect, Test Fan Clutch, Inspect Thermostat Flush Cooling System and Replace The Radiator (Do Not Use With Any Other Labor Operations)	212038A	3.7 Hrs.
2015-2019 Transit 3.7L: Inspect, Test Fan Clutch, Inspect Thermostat Flush Cooling System and Replace The Radiator (Do Not Use With Any Other Labor Operations)	212038B	2.9 Hrs.
2015-2019 Transit 3.2L: Inspect, Test Fan Clutch, Inspect Thermostat Flush Cooling System and Replace The Radiator (Do Not Use With Any Other Labor Operations)	212038C	5.9 Hrs.
2017-2018 E-Series 6.8L: Inspect, Test Fan Clutch, Inspect Thermostat Flush Cooling System and Replace The Radiator (Do Not Use With Any Other Labor Operations)	212038D	2.2 Hrs.

Repair/Claim Coding

Causal Part:	8005
Condition Code:	42

Service Procedure

1. Perform the following inspections:

- (1). Inspect for signs of engine oil or transmission fluid in the coolant degas bottle.
- (2). Check the radiator or air conditioning (A/C) condenser for an obstruction such as leaves or cardboard and verify all air deflectors are present.
- (3). Verify there are no external coolant leaks present.

- (4). For transmission overheat concerns, use the symptom chart in Workshop Manual Section (WSM) 307-02, Diagnosis and Testing, Transmission Overheating, to rule out other possible causes.
2. Do all of the inspections in Step 1 pass?
 - (1). Yes - proceed to Step 3.
 - (2). No - this article does not apply. Refer to WSM, Section 303-03 or 307-02 for normal diagnostics.
 3. If equipped with a mechanical (non-electric) cooling fan, perform a fan clutch test by spinning the fan blade by hand. A light resistance should be felt for a correctly operating fan. If the vehicle is equipped with an electric cooling fan, perform a fan test by starting the vehicle and allow it to idle. A correctly operating cooling fan will turn on as the vehicle reaches operating temperature. Refer to WSM, Section 303-03. Does the fan clutch test pass?
 - (1). Yes - proceed to Step 4.
 - (2). No - this article does not apply. Refer to WSM, Section 303-03 or 307-02 for normal diagnostics.
 4. Remove and inspect the thermostat. Refer to WSM, Section 303-03. Does the thermostat pass the WSM visual inspection?
 - (1). Yes - proceed to Step 5.
 - (2). No - this article does not apply. Refer to WSM, Section 303-03 for normal diagnostics.
 5. Flush the cooling system. Refer to WSM, Section 303-03.
- NOTE: Flush the system until the water is clear of any soap bubbles.**
6. Replace the radiator. Refer to WSM, Section 303-03.
 7. Fill and bleed the cooling system using Motorcraft® Yellow coolant. Refer to WSM, Section 303-03.

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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.