



TECHNICAL SERVICE BULLETIN

3.5/3.7L - Lack Of Heat Or Uneven Heat From The Front Vents

19-2097
29 March 2019

This bulletin supersedes 18-2266 . Reason for update: New Part/Procedure For Same Condition

Model:

Ford 2015-2019 Transit

Summary

This article supersedes TSB 18-2266 to update the vehicle model years affected.

Issue: Some 2015-2019 Transit vehicles equipped with a 3.5L or 3.7L engine may exhibit a lack of heat or uneven heat from side to side. This condition may be due to deposits from the engine coolant becoming trapped in the heater core. To correct the condition, flush the cooling system and replace the heater core.

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

- 2015-2019 Transit
- 3.5L or 3.7L engine

Parts

Part Number	Description	Quantity
BR3Z-8255-A	Thermostat O-Ring Seal	1
6103599	Left A-pillar Trim Panel - Refer To The Parts Catalog For The VIN Specific Application	1
CK4Z-18476-A	Heater Core	1
6E5Z-19B596-A	A/C Evaporator O-Ring Kit	1
FPS-8262	Authorized Modification Label	1
VC-1	Motorcraft® Premium Cooling System Flush	1
YN-12-D	Motorcraft® PAG Refrigerant Compressor Oil	1
VC-13-G	Motorcraft® Yellow Concentrated Antifreeze/Coolant (All Markets Except Canada)	2
CVC-13-G	Motorcraft® Yellow Concentrated Antifreeze/Coolant (Canada Only)	2
Obtain Locally	Distilled Water	2 Gallons

Warranty Status: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB. Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

Labor Times

Description	Operation No.	Time
	192097A	

2015-2019 Transit 3.5L/3.7L: Diagnose And Flush The Cooling System Includes Time To Replace The Heater Core (Do Not Use With Any Other Labor Operations)

9.3
Hrs.

Repair/Claim Coding

Causal Part:	18472
Condition Code:	49

Tool List

Drive	Tool Name
1/4"	Power tool
1/4"	Ratchet
1/4"	Long handle ratchet
1/4"	Torque wrench
1/4"	6" extension
1/4"	8" extension
1/4"	Universal joint
1/4"	10 mm deep socket
1/4"	Torx® T20
1/4"	Torx® T27
1/4"	7 mm socket
1/4"	8 mm socket
1/4"	10 mm socket
1/4"	13 mm socket
3/8"	Ratchet
3/8"	Torque wrench
3/8"	6" extension
3/8"	10" extension
3/8"	13 mm deep socket
3/8"	15 mm deep socket
3/8"	19 mm deep socket
3/8"	13 mm socket
3/8"	15 mm socket
3/8"	Hex #4
3/8"	Torx® T40
3/8"	13 mm crows foot
3/8"	19 mm crows foot
3/8"	13 mm swivel socket
	Medium flathead screwdriver
	Pocket flathead screwdriver
	19 mm wrench

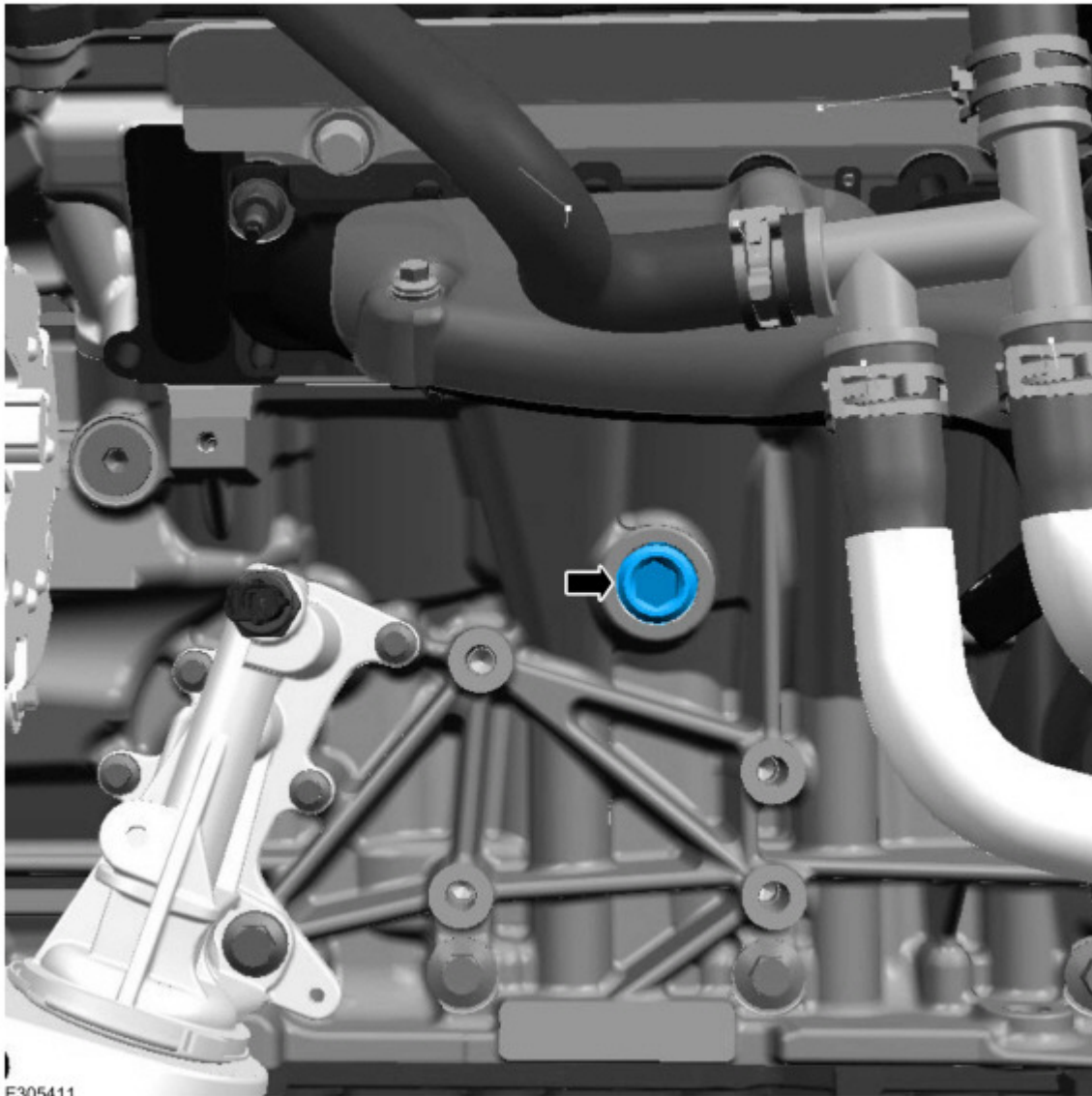
Drive	Tool Name
	13 mm flex head ratchet wrench
	10 mm flex head ratchet wrench
	Plastic trim tool
	Metal trim tool
	Hose pinch-off pliers, 2 pair

Service Procedure

1. Run the engine until it reaches normal operating temperature. Does the vehicle exhibit a lack of heat or uneven heat from the vents in the instrument panel?
 - (1). Yes - proceed to Step 2.
 - (2). No - this article does not apply. Refer to Workshop Manual (WSM), Section 412-00.
2. Select the FLOOR position on the control assembly. Set the temperature control to full warm and the fan speed to medium setting.
3. Increase the engine speed to 3,500 revolutions per minute (RPM). After 30 seconds, allow the engine to return to idle for an additional 30 seconds.
4. Using a suitable temperature measuring device, check the heater core inlet hose temperature. Is the heater core inlet hose temperature above 66°C (150°F)?
 - (1). Yes - proceed to Step 5.
 - (2). No - this article does not apply. Refer to WSM, Section 412-00.
5. Measure the heater core inlet and outlet hose temperature. Are the hose temperatures within 6-17°C (10-30°F)?
 - (1). Yes - this article does not apply. Refer to WSM, Section 412-00.
 - (2). No - proceed to Step 6.
6. Drain the engine coolant. Refer to WSM, Section 303-03.
7. Remove the coolant hoses from the transmission fluid cooler. Refer to WSM, Section 307-02.
8. Remove the thermostat. Refer to WSM, Section 303-03.
9. Disconnect the lower radiator hose.
10. Using a garden hose, flush inlet and outlet radiator hoses for 2 minutes each.
11. Reassemble the thermostat housing without the thermostat installed. Do not reconnect radiator hoses to the housing at this time.
12. Using a garden hose, flush the degas bottle for 2 minutes.
13. Close the radiator drain valve.
14. Reattach the coolant hoses to the transmission fluid cooler.
15. Disconnect the inlet and outlet heater hoses from the heater core. Refer to WSM, Section 412-00.
16. Using a garden hose, flush inlet and outlet heater hoses back toward the engine for 5 minutes each.
17. Reattach all hoses except for the inlet and outlet heater hoses.
18. Using pinch pliers, clamp off inlet and outlet heater hoses.
19. Add 1 bottle of Motorcraft® Premium Cooling System Flush and fill the rest of the cooling system with water.
20. Connect the appropriate Ford scan tool to the vehicle and start the engine.

21. Allow the engine to reach normal operating temperature.
22. Run the engine at 2,500 RPM for 15 minutes with the climate control system off.
23. Return the engine to idle. Using the Ford scan tool, command the cooling fans on high speed for 5 minutes.
24. Turn the engine off and open the degas bottle cap carefully as the water may be hot. Refer to WSM, Section 303-03.
25. Drain the cooling system. Refer to WSM, Section 303-03.
26. Remove the coolant hoses from the transmission fluid cooler.
27. Using a garden hose, flush the degas bottle at the cap opening for 2 minutes.
28. Close the radiator drain valve.
29. Reattach the coolant hoses to the transmission fluid cooler.
30. Fill the cooling system with water. Refer to WSM, Section 303-03.
31. Repeat Steps 20 through 27.
32. Remove the pinch pliers from the inlet and outlet heater core hoses and backflush toward the engine with a garden hose for 1 minute each.
33. Using a garden hose, flush the transmission fluid cooler coolant inlet and outlet with water for 1 minute each.
34. Using a garden hose, flush the degas bottle at the cap opening for 2 minutes.
35. If equipped, disconnect the coolant hoses from the engine oil cooler and flush the inlet and outlet ports of the cooler with water for 1 minute each. Reconnect the hoses. Refer to WSM, Section 303-01.
36. Remove the plug from the left side of the engine block to aid with cooling system drainage. (Figure 1)

Figure 1



37. Reinstall the block plug and close the radiator drain.
38. Install the thermostat. Refer to WSM, Section 303-03.
39. Reconnect the coolant hoses to the transmission fluid cooler.
40. If equipped, disconnect and backflush all rear heater components and hoses with a garden hose for 2 minutes.
41. Replace the heater core. Clean the heater core inlet and outlet metal tubes with hot water until free of deposits. Refer to WSM, Section 412-00.
42. Fill the cooling system using Motorcraft® Yellow Concentrated Antifreeze/Coolant. Refer to WSM, Section 303-03 to determine correct coolant concentration based on the climate.
43. Fill out the Authorized Modification Label with the following text: "Use Only Motorcraft® Yellow Antifreeze/Coolant".
44. Clean the coolant reservoir surface with isopropyl alcohol and apply the Authorized Modification Label.
45. Advise the owner or driver that the unit will be using a different coolant (Motorcraft® Yellow Antifreeze/Coolant) for the environmental conditions. Highlight the coolant used on the customer's copy of the repair order.

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