


Transmission Fluid Drain and Refill

Special Tool(s) / General Equipment

	307-570 Tube, Transmission Fill TKIT-2006U-F/FM TKIT-2006U-FLM/LM TKIT-2006U-ROW1 TKIT-2006U-ROW2
Fluid Suction Gun	

Materials

Name	Specification
Motorcraft® MERCON® ULV Automatic Transmission Fluid XT-12-QULV	WSS-M2C949-A MERCON® ULV

Draining

1. **NOTE:** *It is not necessary to remove the transmission fluid filter to drain the transmission fluid.*

Remove the transmission fluid pan to drain the transmission fluid.

Refer to: [Transmission Fluid Pan, Gasket and Filter](#) (307-01 Automatic Transmission - 10-Speed Automatic Transmission - 10R80, Removal and Installation).

Filling

NOTICE: This procedure is NOT intended for use with the transmission fluid level check.

NOTICE: The vehicle should not be driven if the transmission fluid level is low, internal failure could result.

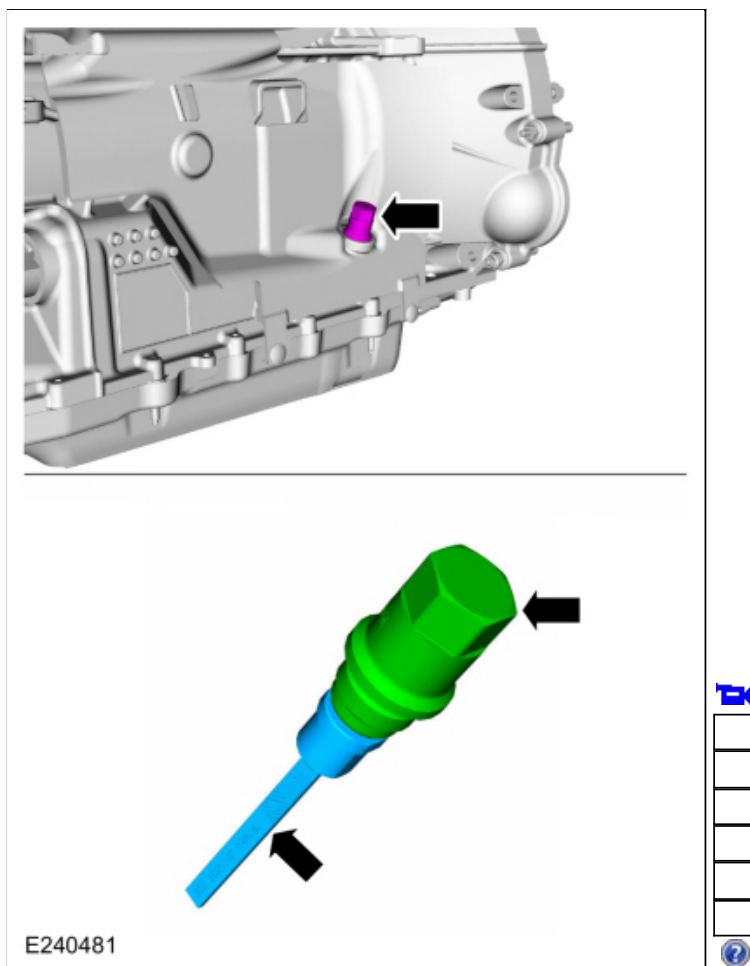
NOTICE: Using any transmission fluid other than what is specified can result in the transmission not operating normally or premature transmission failure.

NOTE: Check the transmission fluid level if the transmission starts to slip, shifts slowly or shows signs of transmission fluid leaking.

NOTE:

- Adding 4.8L (5 qt) of transmission fluid is an initial fill enabling the engine to be started.
- Filling the transmission to the transmission fluid level indicator area below the crosshatch mark allows the vehicle to be driven.
- Drive the vehicle to allow the transmission fluid temperature to reach 96°C - 101°C (206°F - 215°F) in order to purge the air from the transmission fluid cooling system.
- Fill the transmission fluid to the fill range on the transmission fluid level indicator at the normal operating temperature 96°C - 101°C (206°F - 215°F).

1. Remove the transmission fluid fill plug and remove the transmission fluid level indicator from the plug.



2. **NOTE:** Add 4.8L (5 qt) of transmission fluid to the transmission as an initial fill if:

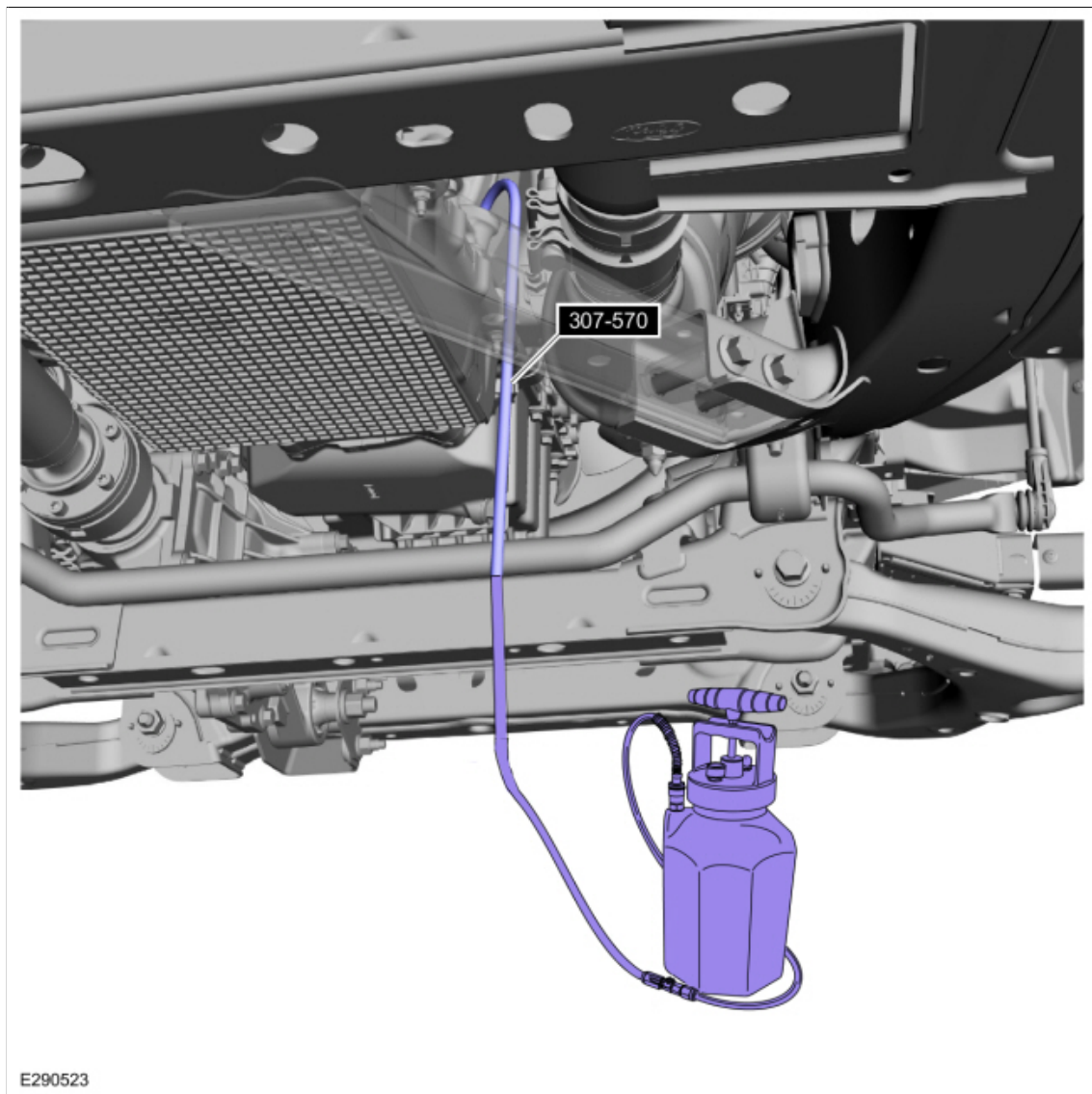
- a new main control has been installed.
- the transmission fluid pan or transmission fluid filter have been removed.

NOTE: Add 5.7L (6 qt) of transmission fluid to the transmission as an initial fill if the transmission has been overhauled.

NOTE: The use of a pressurized fluid dispenser with 8-12 qt capacity, such as the Mityvac MITMV6412, is recommended for this procedure.

Using the special tool and the fluid dispenser, add the transmission fluid through the transmission fluid fill hole.

- Use Special Service Tool: [307-570 Tube, Transmission Fill](#).
- General Equipment: Universal Fluid Dispenser
Material: Motorcraft® MERCON® ULV Automatic Transmission Fluid / XT-12-QULV (WSS-M2C949-A)
(MERCON® ULV)

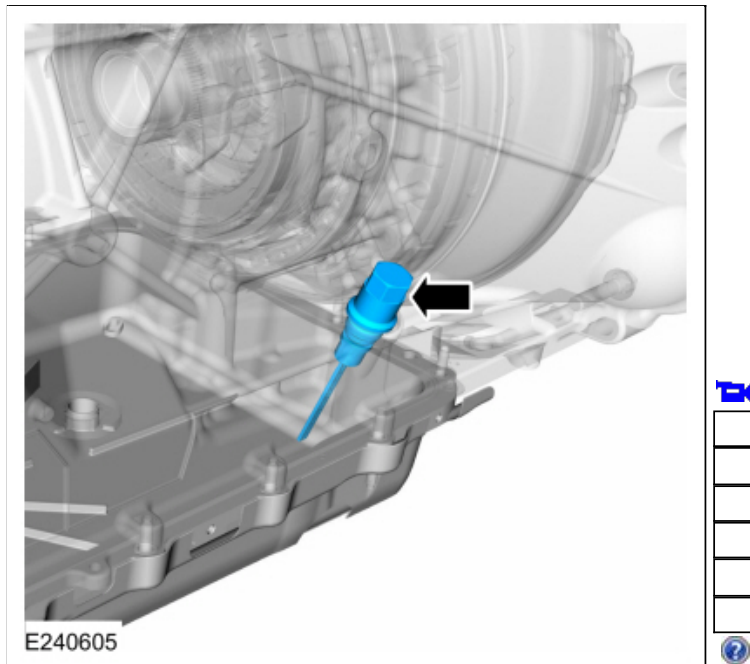


3.

1. Connect the diagnostic scan tool and monitor the transmission fluid temperature.
2. Start the engine.
3. Place the selector lever in each gear position, holding approximately 5 seconds in each position. Place the selector lever in PARK and allow the engine to idle at 600-750 rpm.

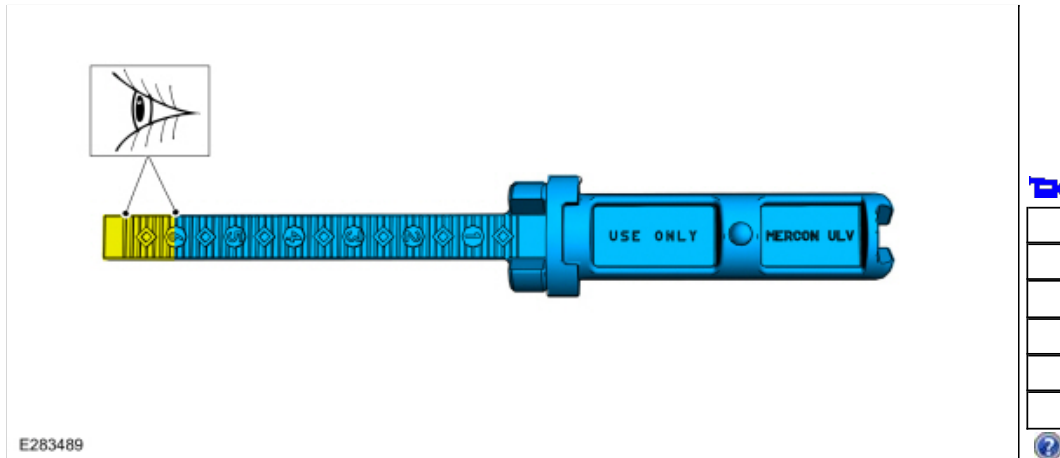



- Check the transmission fluid level using the transmission fluid level indicator.

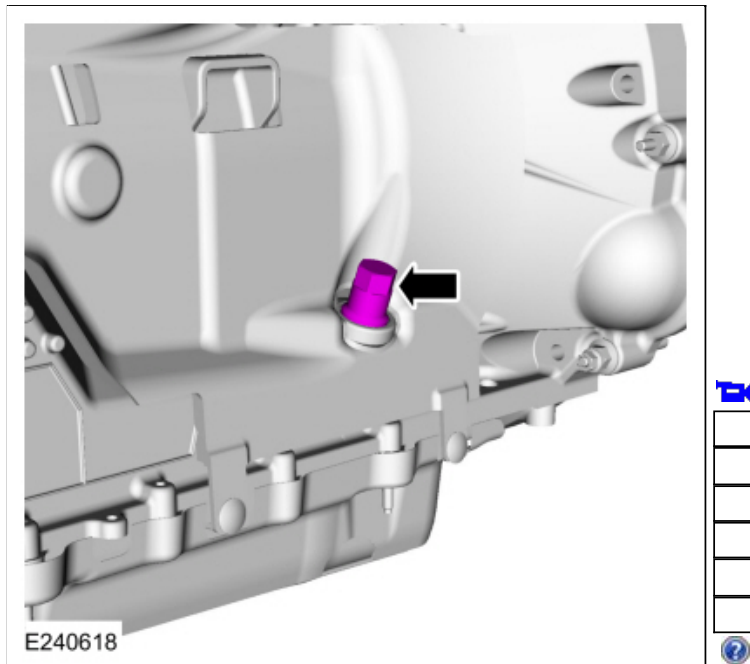


4. **NOTICE:** The vehicle can be driven when the transmission is cold provided the transmission fluid level is between the first hatch mark and 6 on the transmission fluid level indicator. Failure to add transmission fluid to this level can result in damage to the transmission.

Add transmission fluid until it reaches between the first hatch mark and 6 on the transmission fluid indicator.



5.  Install the transmission fluid fill plug.
Torque: 52 lb.ft (70 Nm)

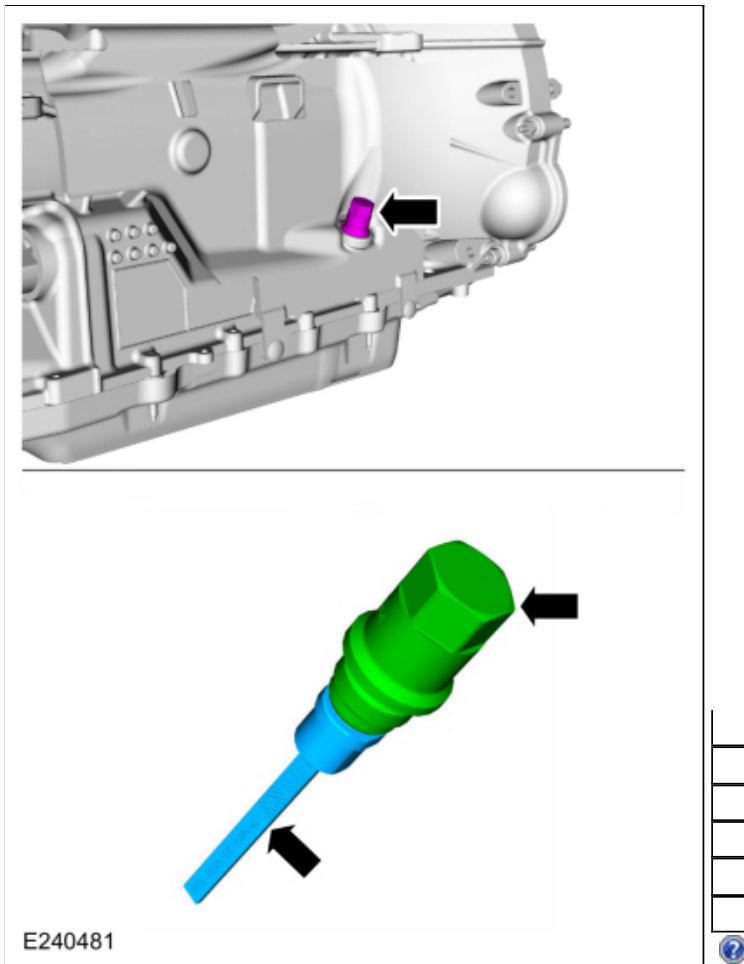



6. Test drive the vehicle. While driving the vehicle, use the scan tool to verify the transmission fluid has reached an operating temperature of 96°C - 101°C (206°F - 215°F). This circulates the transmission fluid through the torque converter and the transmission fluid cooling system, eliminating any trapped air in the transmission fluid cooling system. Place the vehicle in PARK and allow the engine to idle at 600-750 rpm. Verify the transmission fluid temperature is between 96°C - 101°C (206°F - 215°F) and lift the vehicle on a hoist. Refer to: [Jacking and Lifting](#) (100-02 Jacking and Lifting, Description and Operation).



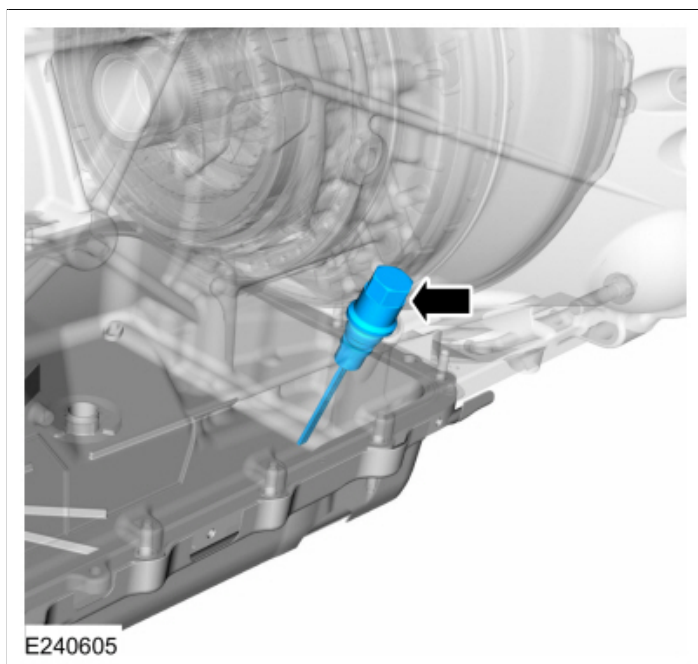
7. Remove the transmission fluid fill plug and remove the transmission fluid level indicator from the plug.





8.  Check the transmission fluid level using the transmission fluid level indicator.

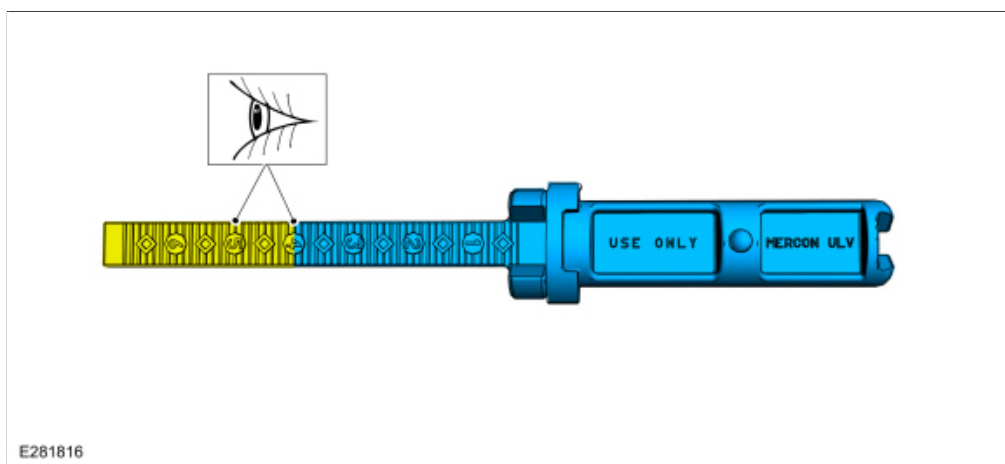




9. **NOTE:** The transmission fluid level indicator uses 1 through 6 to indicate the fluid level. The different numbers are for different vehicle models. Use the area between 4 and 5 when checking the transmission fluid level. The correct transmission fluid level is between 4 and 5 on the transmission fluid level indicator.

NOTE: Do not overfill the transmission.

Using the scan tool verify the transmission fluid temperature is between 96°C - 101°C (206°F - 215°F). The transmission fluid level must be between 4 and 5 on the transmission fluid level indicator.



10.

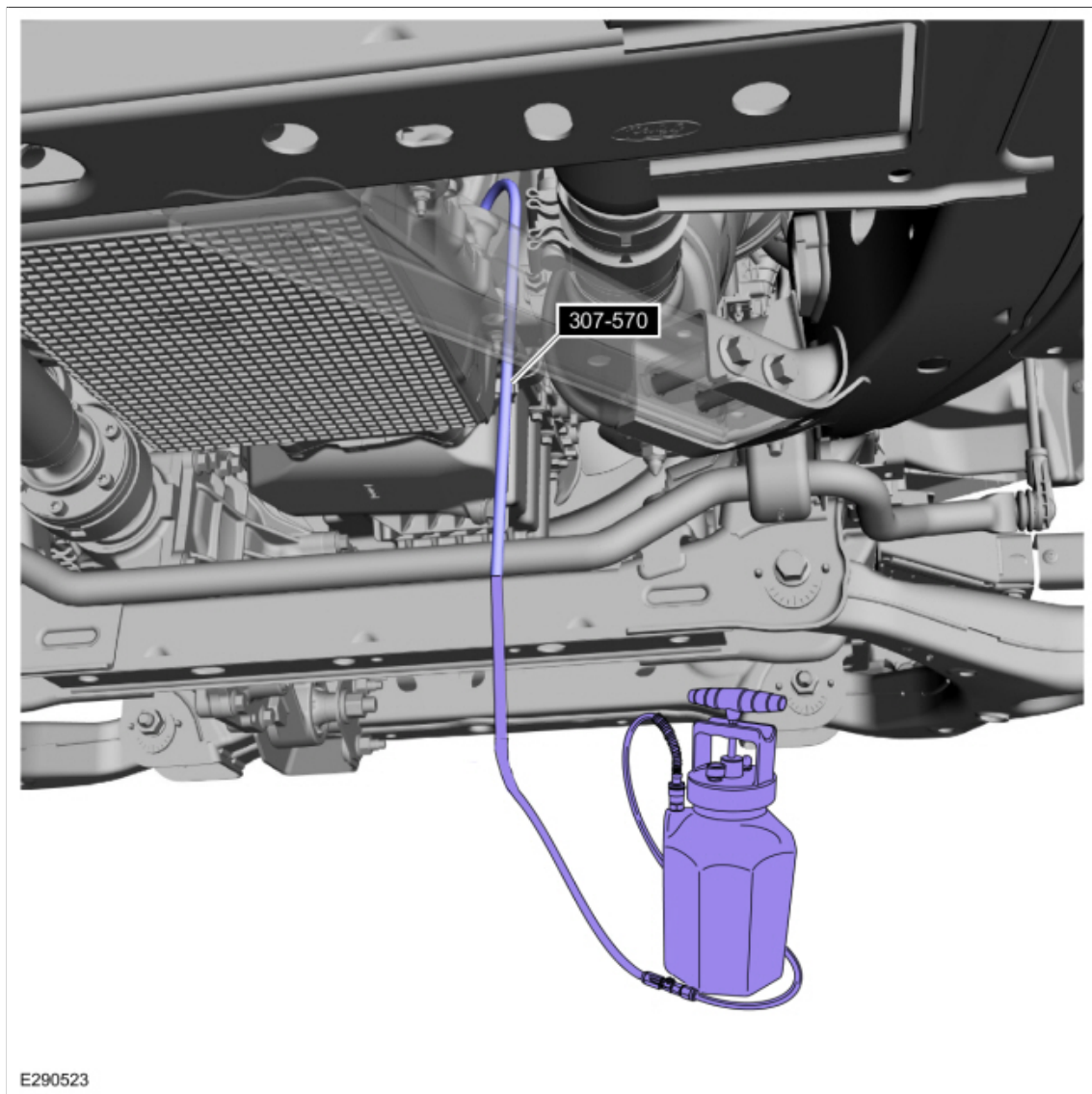


NOTE: The use of a pressurized fluid dispenser with 8-12 qt capacity, such as the Mityvac MITMV6412, is recommended for this procedure.

If the transmission fluid level is low, add transmission fluid using the special tool and the fluid dispenser.

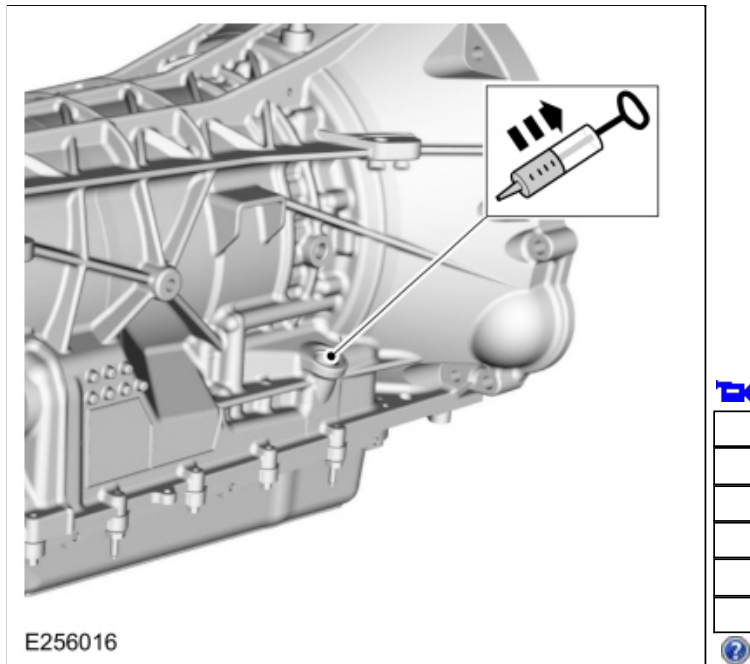
- Use Special Service Tool: [307-570 Tube, Transmission Fill](#).
- General Equipment: Universal Fluid Dispenser
Material: Motorcraft® MERCON® ULV Automatic Transmission Fluid / XT-12-QULV (WSS-M2C949-A)


(MERCON® ULV)

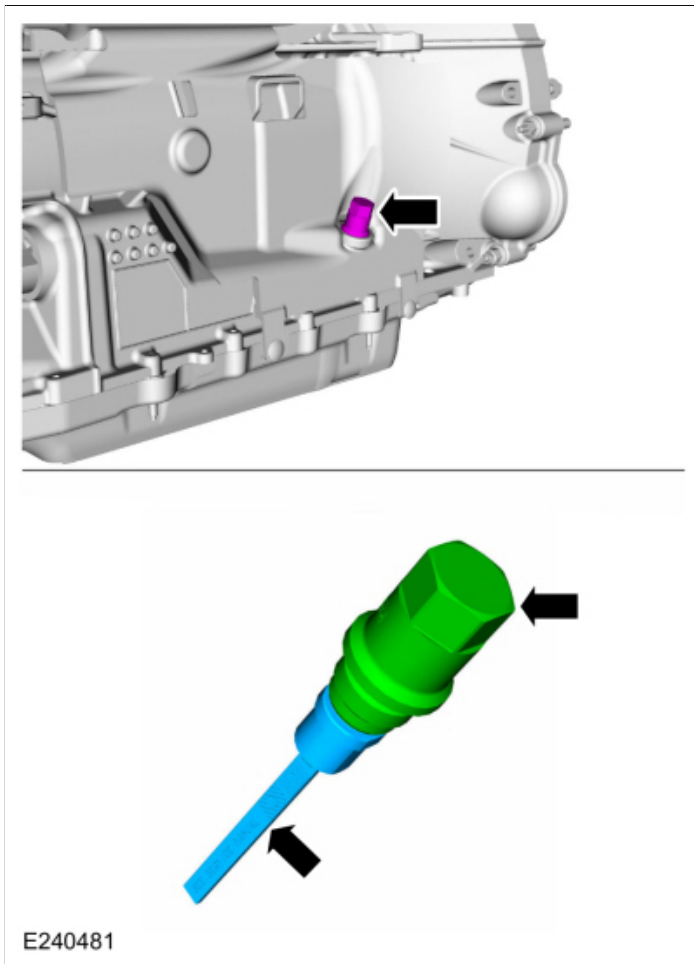


11.

If the transmission fluid is overfilled, remove the excess transmission fluid with a fluid suction gun. Use the General Equipment: Fluid Suction Gun



12.  Install the transmission fluid level indicator in the plug and install the transmission fluid fill plug into the transmission.
Torque: 52 lb.ft (70 Nm)



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