

# Transmission Fluid Cooler - Backflushing and Cleaning - 2.7L EcoBoost (238kW/324PS)/3.0L Power Stroke Diesel/3.5L EcoBoost (272kW/370PS)/5.0L 32V Ti-VCT

## Special Tool(s) / General Equipment

|                                            |
|--------------------------------------------|
| Transmission Cooling System Heated Flusher |
|--------------------------------------------|

## Materials

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

## Flushing

- NOTE:** Use transmission fluid specified for this transmission. Do not use any supplemental transmission fluid additives or cleaning agents. The use of these products could cause internal transmission components to fail, which will affect the operation of the transmission.

The transmission cooling system (cooler and lines) MUST be flushed every time the transmission is overhauled or replaced in order to minimize the likelihood of repeat repairs. It is mandatory that proper equipment and procedures be followed when flushing coolers/lines. The flushing equipment used MUST:

- maintain fluid at 140°F or above,
- pulsate fluid during cleaning,
- have a GPM flow meter,
- have twin magnetic filters,
- and have air purge capability before and after flushing.

2. If equipment meeting the specifications above is not available, the transmission fluid cooler should be replaced and the lines cleaned by hand.
3. Check and top off fluid level of the transmission cooling system heated flusher with transmission fluid.  
Use the General Equipment: Transmission Cooling System Heated Flusher  
*Material:* Motorcraft® MERCON® ULV Automatic Transmission Fluid / XT-12-QULV (MERCON® ULV) (WSS-M2C949-A)
4. Turn on the heater and allow the fluid in the cooler line flusher 15-30 minutes to heat up to 60°C (140°F) before using.
5. Install the line adapters on the transmission fluid cooler inlet and outlet tubes.
6. Attach the cooler line flusher red line to the transmission fluid cooler inlet tube assembly. For the location of the transmission fluid cooler inlet and outlet tubes.  
Refer to: Transmission Cooling (307-02 Transmission Cooling) .
7. Attach the cooler line flusher blue line to the transmission fluid cooler outlet tube assembly.
8. Follow the equipment instructions to purge the transmission fluid cooler tubes and transmission fluid cooler prior to starting the flushing procedure.
9. Allow the transmission fluid cooling system to backflush for 10-15 minutes, then flush the transmission fluid cooler in a normal flow direction for an additional 10-15 minutes.
10. If the transmission fluid cooling system heated flusher is equipped with an inspection micron filter:
  1. Remove and clean the Oberg 28 micron filter.
  2. Install the filter.
  3. Backflush the system for 5 minutes.
  4. Remove and inspect the filter.
  5. If debris/contamination is present on the filter, repeat step 9.
11. Follow the equipment instructions to purge the transmission fluid cooler tubes and transmission fluid cooler.