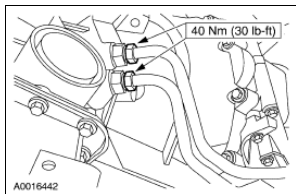


5. On 3.0L engines only, install the starter motor. For additional information, refer to [Section 303-06](#).

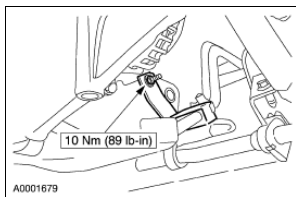
6. **⚠ CAUTION:** Use care not to bend or force the cooler tubes otherwise damage to the cooler tubes and the transmission may result.

Install the transmission cooler tubes.

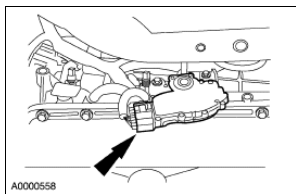


7. **NOTE:** V6 application shown, V8 application similar. The torque specification for the V8 is 18Nm (13 lb-ft).

Install the transmission cooler line bracket.



8. Reconnect the digital transmission range (TR) sensor connector.



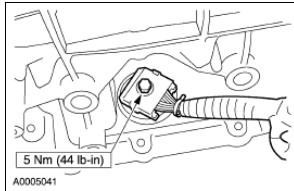
9. **⚠ CAUTION:** Damage will occur to the solenoid body assembly if the screw is tightened above the specification.

**NOTE:** Always install new O-ring seals on vehicle harness connector.

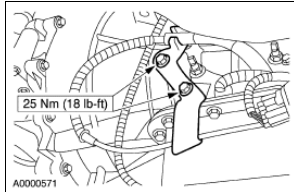
**NOTE:** Clean the area around connector to prevent contamination of the solenoid body connector.

**NOTE:** Use petroleum jelly to lubricate the O-ring seals to aid in the installation process.

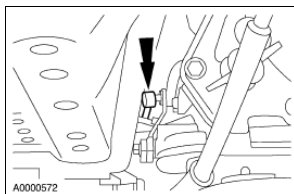
Install and lubricate new O-ring seals on the transmission connector and connect the connector.



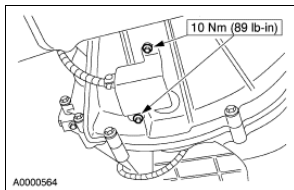
10. Install the shift cable bracket.



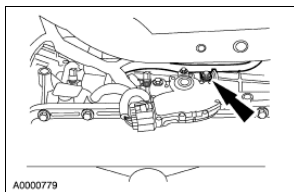
11. Connect the shifter cable.



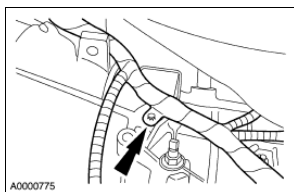
12. Install the heated oxygen sensor (HO2S) connector.



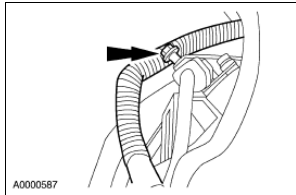
13. Connect the harness retainer.



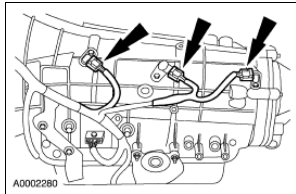
14. Connect the harness retainer.



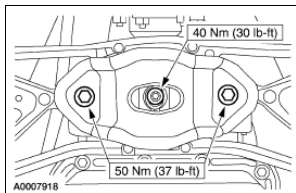
15. Install the harness screw.



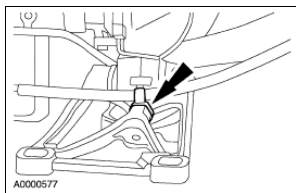
16. Connect the turbine shaft speed (TSS) sensor, output shaft speed (OSS) sensor, and intermediate shaft speed (ISS) sensor electrical connectors.



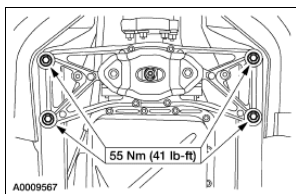
17. Install the rear transmission mount.



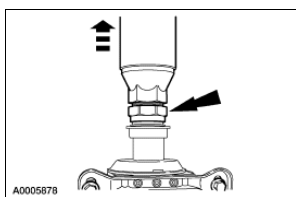
18. Install the shift cable.



19. Install the rear transmission mount.

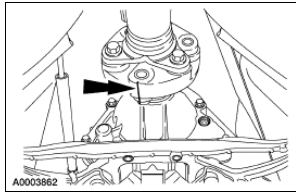


20. Remove the transmission jack.
21. Add one gram of grease to both alignment bushing cavities.
22. Loosen the nut and slide the front shaft assembly forward.

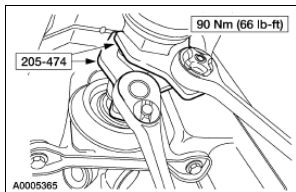


23. **⚠ CAUTION:** Align the index marks or driveshaft imbalance can occur.

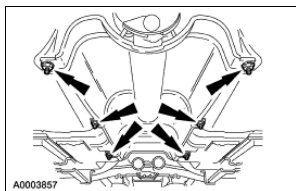
Align index marks and position the alignment bushing on the transmission flange piloting system.



24. Using the special tools, tighten the nut.



25. Install the heat shield.



26. Lower the vehicle.

27. **NOTE:** When the battery is disconnected or a new battery installed, certain transmission operating parameters can be lost. The powertrain control module (PCM) must relearn these parameters. During this learning process, you may experience slightly firm shifts, delayed, or early shifts. This operation is considered normal and will not affect the function of the transmission. Normal operation will return once these parameters are stored by the PCM.

Connect the battery ground cable. For additional information, refer to Section 414-01 .

28. Raise and support the vehicle. For additional information, refer to Section 100-02 .

29. Carry out the fluid level check. For additional information, refer to Transmission Fluid Level Check in this section.

30. Verify that the shift cable is correctly adjusted. For additional information, refer to Section 307-05 .

31. Check the operation of the transmission and inspect for leaks.



SECTION 307-02: Transaxle/Transmission Cooling  
SPECIFICATIONS

2001 Lincoln LS Workshop Manual

## General Specifications

Item	Specification
MERCON V Automatic Transmission Fluid XT-5-QM	MERCON V

## Torque Specifications

Description	Nm	lb-ft	lb-in
Bolt retaining the transmission fluid cooler to the radiator	10		89
Nut retaining the fluid cooler tube bracket to the stud (V8 engine)	18	13	
Nut retaining the fluid cooler tube bracket to the stud (V6 engine)	10		89
Nut retaining the fluid cooler tube to the transmission	35	26	
Hose clamp retaining the transmission fluid cooler hose to the transmission fluid cooler tube	5		44

SECTION 307-02: Transaxle/Transmission Cooling  
DESCRIPTION AND OPERATION

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2001 Lincoln LS Workshop Manual

**Transmission Cooling**

The transmission fluid cooler is an oil-to-air (OTA) fluid cooler. The fluid cooler is mounted between the radiator and the A/C condenser.

- When the transmission fluid is cold and the thermostatic valve is closed, the transmission fluid does not circulate through the fluid cooler.
  - As the transmission fluid temperature increases, the thermostatic bypass valve opens and allows the transmission fluid to circulate through the fluid cooler.
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## Transmission Cooling

**⚠ CAUTION:** Whenever a transmission has been disassembled to install new parts, the transmission fluid cooler must be replaced and the transmission fluid cooler tubes must be cleaned and backflushed.

**NOTE:** Cleaning and backflushing the transmission fluid cooling system, along with normal cleaning and inspection procedures as outlined in this section during disassembly and reassembly, will keep contamination from reentering the transmission and causing a repeat repair.

When internal wear or damage has occurred in the transmission, metal particles, clutch plate material, or band material may have been carried into the torque converter and transmission fluid cooler. These contaminants are a major cause of recurring transmission troubles and must be removed from the system before the transmission is put back in use.

## Inspection and Verification

When fluid leakage is found in the fluid cooler, install a new fluid cooler.

When there is evidence of transmission assembly or fluid contamination due to the following transmission failure modes, install a new fluid cooler.

- major metallic failure
- multiple clutches or clutch plate failure
- sufficient component wear which results in metallic contamination

## Symptom Chart

Symptom Chart

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