

Transmission  [Printable View \(480 KB\)](#)**Special Tool(s)**

 <p>ST1636-A</p>	Retainer, Torque Converter 307-346 (T97T-7902-A)
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NOTICE: Whenever a transmission has been disassembled to install new parts, the transmission fluid cooler tubes must be cleaned and backflushed using a suitable torque converter/fluid cooler cleaner. A new Oil-To-Air (OTA) transmission fluid cooler must also be installed.

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 fluid cooler. These contaminants are a major cause of recurring transmission concerns and must be removed from the system before the transmission is put back into service.

NOTE: After the transmission is removed for a major overhaul, it is important to completely clean all transmission components, including torque converter, cooler inlet tube, main control valve body, clutches and all coasting booster valve shuttle balls after any transmission service that generates contamination. These contaminants are a major cause for recurring transmission concerns and must be removed from the system before the transmission is returned to service.

The cleaning of foreign material from the direct clutch check ball is often omitted. This omission can lead to a repeat servicing of the transmission.

A new Oil-To-Air (OTA) transmission fluid cooler must be installed under the following condition. For additional information, refer to [Section 307-02](#).

- Evidence of broken transmission components or transmission fluid contamination found due to the following transmission or converter failure modes:
 - Major metallic failure
 - Multiple clutches or clutch plate failure
 - Sufficient component wear which results in metallic contamination

1. Disconnect the battery ground cable. For additional information, refer to [Section 414-01](#).

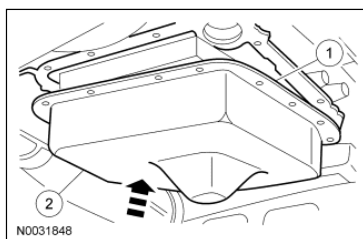
2.  **WARNING:** Before servicing a vehicle equipped with a fire suppression system, depower the system by following the procedure in [Section 419-03](#). Failure to follow the instructions may result in serious personal injury.

With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to [Section 100-02](#).

3. **NOTE:** Only if transmission disassembly or replacement is required, drain the transmission fluid. For additional information, refer to [Fluid Pan, Gasket and Filter](#) in this section.

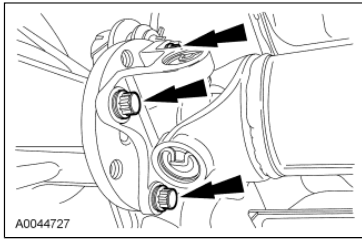
Drain the transmission fluid.

- Loosen the transmission fluid pan bolts and allow the transmission fluid to drain. After transmission fluid has drained remove the bolts and the pan and drain the remaining transmission fluid that is in the pan.
4. Install the transmission fluid pan and the old transmission fluid pan gasket.
1. Position the transmission fluid pan gasket.
 2. Position the transmission fluid pan.

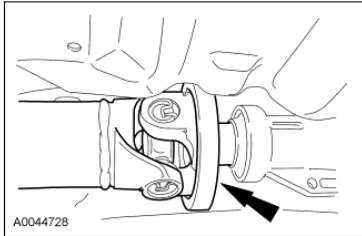


5. **NOTE:** To maintain the initial driveshaft balance, mark the rear driveshaft yoke and the axle pinion flange so they can be installed in their original positions.

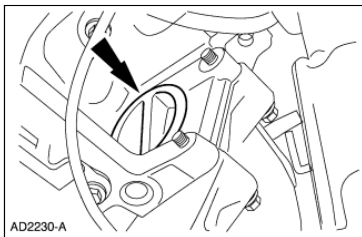
Mark the rear driveshaft yoke and the axle pinion flange and remove the 4 bolts.



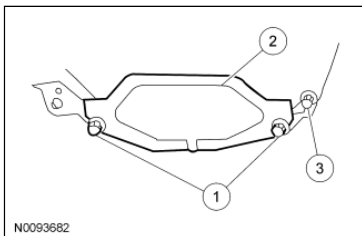
6. Index-mark the driveshaft and extension housing. Separate the driveshaft from the transmission.



7. Remove the torque converter access cover plug at the left rear engine block.

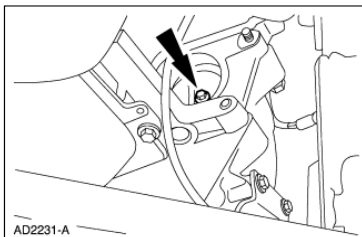


8. Remove the transmission inspection cover.
1. Remove the 2 bolts.
 2. Remove the inspection cover
 3. Remove the bolt for the separator plate.

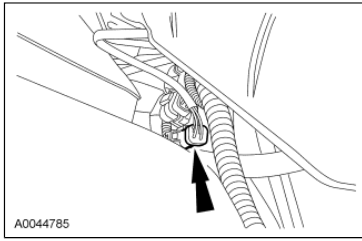


9. **NOTE:** Make an identifying mark on the torque converter stud and the flexplate for correct alignment during assembly.

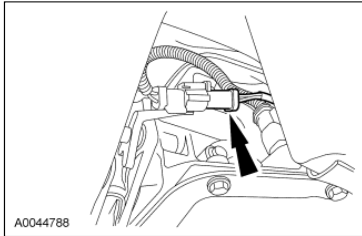
Remove and discard the 4 torque converter-to-flexplate nuts.



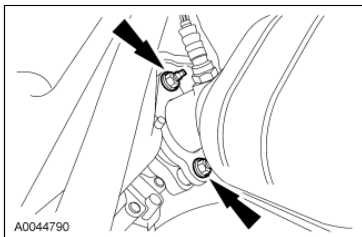
10. Disconnect the RH Heated Oxygen Sensor (HO2S) connector.



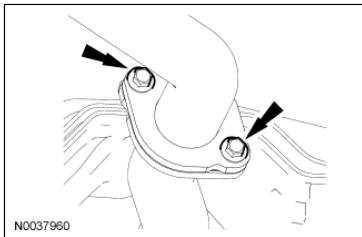
11. Disconnect the RH catalyst monitor connector.



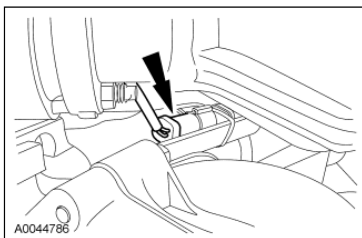
12. Remove the nuts from the RH exhaust flange.



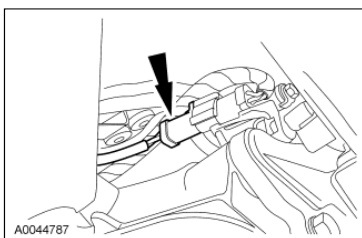
13. Remove the RH catalytic converter-to-exhaust bolts.



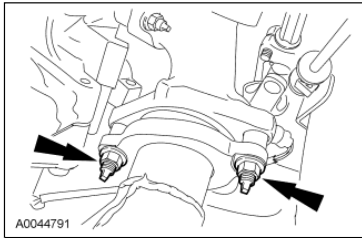
14. Disconnect the LH [HO2S](#) connector.



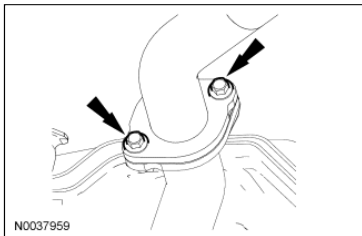
15. Disconnect the LH catalyst monitor connector.



16. Remove the nuts from the LH exhaust flange.

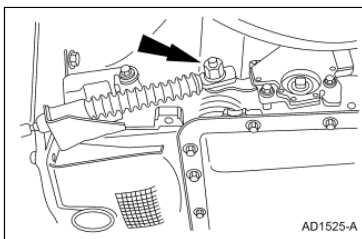


17. Remove the LH catalytic converter-to-exhaust bolts.

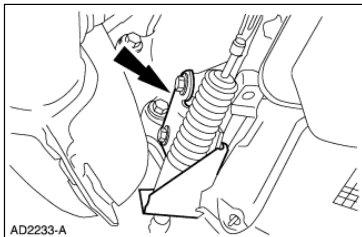


18. **NOTE:** Make a reference mark on the selector lever cable to the transmission.

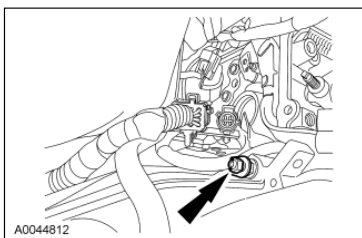
Disconnect the selector lever cable.



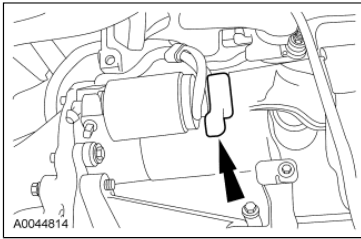
19. Remove the selector lever cable bracket and position aside.



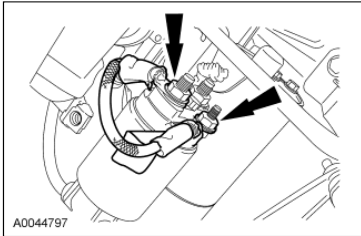
20. Remove the ground wire.



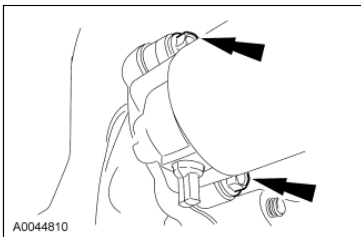
21. Remove the starter electrical connector cap.



22. Disconnect the electrical connectors.

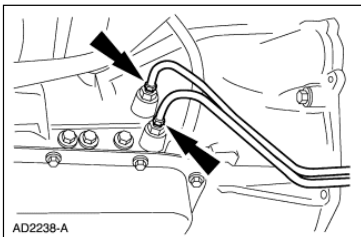


23. Remove the 3 starter bolts and the starter.

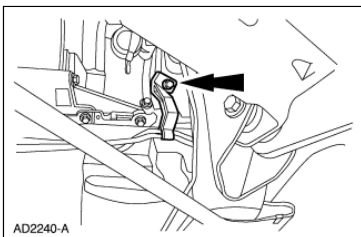


24. **NOTE:** The case connectors must be held in place to prevent them from moving.

Disconnect the transmission fluid cooler tubes.

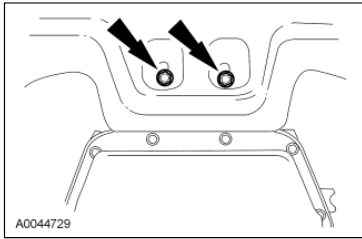


25. Remove the transmission fluid cooler line bracket and position aside.

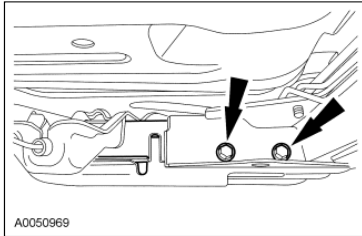


26. Position a suitable jack under the transmission. Secure the transmission to the jack with safety straps.

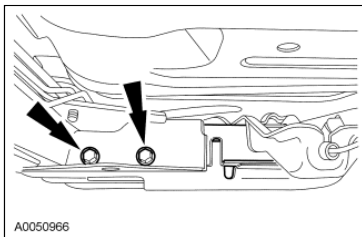
27. Remove the transmission insulator nuts.



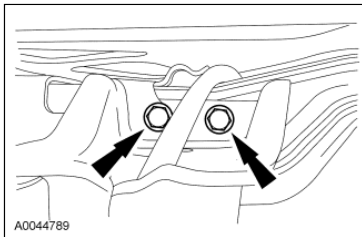
28. Remove the RH side transmission support crossmember bolts.



29. Remove the LH side transmission support crossmember bolt.

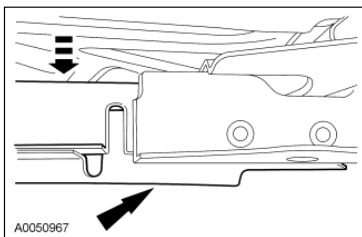


30. Remove the bolts and remove the park cable bracket and position aside.



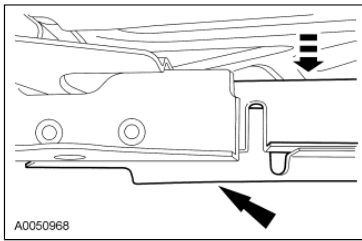
31. **NOTICE:** The transmission support crossmember is a press fit in the transmission support crossmember pocket, it may be necessary to pry the transmission support crossmember out of the transmission support crossmember pocket. Be careful not to damage the transmission support crossmember.

Lower the RH side of the transmission support crossmember.

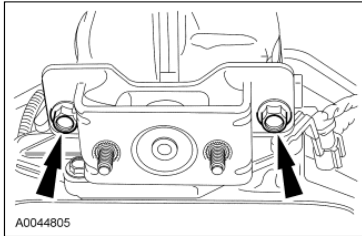


32. **NOTICE:** The transmission support crossmember is a press fit in the transmission support crossmember pocket, it may be necessary to pry the transmission support crossmember out of the transmission support crossmember pocket. Be careful not to damage the transmission support crossmember.

Lower the LH side of the transmission support crossmember and remove the transmission support crossmember.

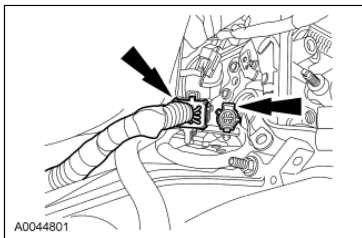


33. Remove the transmission insulator.

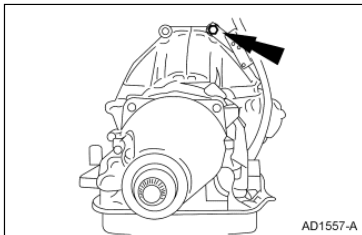


34. **NOTE:** It is not necessary to disconnect the transmission harness from all the transmission sensors at this time, the harness will come out with the transmission.

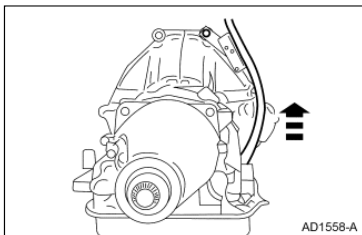
Disconnect the wire harness connectors and remove them from the transmission fluid filler tube.



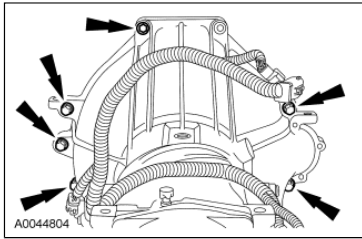
35. Remove the bolt.



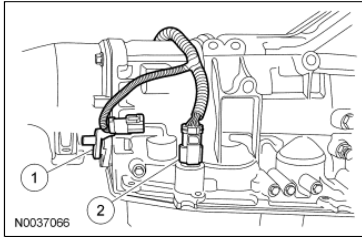
36. Position the transmission fluid filler tube aside.



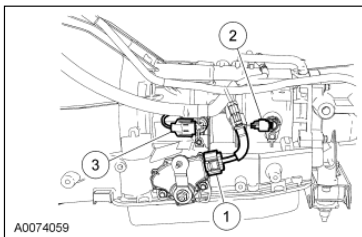
37. Remove the transmission retaining bolts.



38. Separate the transmission from the engine and lower. Partially lower the transmission from under the vehicle.
39. Disconnect the electrical connectors.
1. Remove the catalyst monitor connector retainer from the stud.
 2. Disconnect the transmission vehicle harness connector.

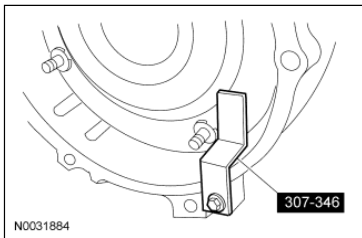


40. Disconnect the electrical connectors and remove the wire harness from the transmission.
1. Disconnect the Transmission Range (TR) sensor electrical connector.
 2. Disconnect the Output Shaft Speed (OSS) sensor electrical connector.
 3. Disconnect the Turbine Shaft Speed (TSS) sensor electrical connector.
 - Remove the catalyst monitor connector retainer from the stud.
 - Disconnect the wire harness retainers and remove the harness.



41. **WARNING:** Secure the torque converter in the transmission during removal or installation. The torque converter is heavy and may result in injury if it falls out of the transmission. Failure to follow this instruction may result in serious personal injury.

Leaving the transmission in a horizontal position, slide it back far enough to install the Torque Converter Retainer. Install the Torque Converter Retainer.



42. **NOTE:** Make sure the Torque Converter Retainer is in place and the transmission is securely fastened to the transmission jack before tilting the transmission.
- Lower the transmission from under the vehicle.
43. Carry out the Transmission Fluid Cooler Tubes Backflushing and Cleaning if the transmission is being overhauled or installing a new or remanufactured transmission. For additional information, refer to [Transmission Fluid Cooler Tubes Backflushing and Cleaning](#) in this section.

