

Transmission Replacement

[Single Use Fasteners and Components](#)

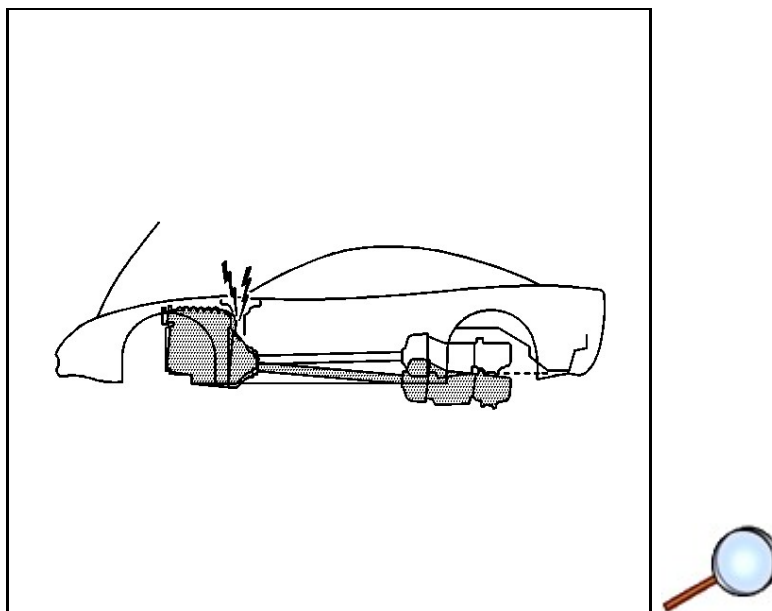
Transmission Case Extension Seal

[Special Tools](#)

- J-42055 Transmission Support Fixture
- J-45666 Air Line Release Tool

For equivalent regional tools, refer to [Special Tools](#).

[Removal Procedure](#)



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Caution: When tilting down the rear of the driveline, observe the clearance between the rear of the engine and the composite dash panel. Do not allow the engine to rest unsupported against the composite dash panel, or vehicle damage may result.

Caution: When lowering and removing the rear of the driveline, observe the clearance between the rear of the transaxle assembly and the underbody to prevent damage.

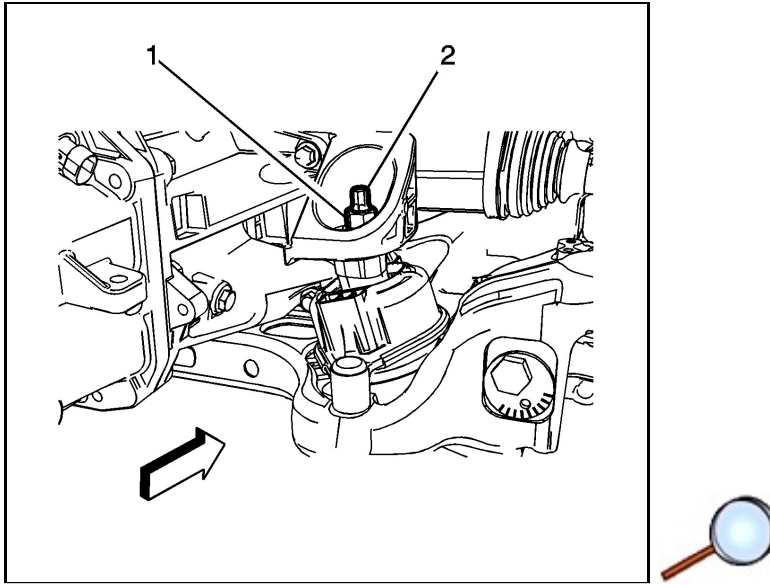
1. Remove the front floor lower console. Refer to [Front Floor Lower Console Replacement](#).
2. Remove the shift control assembly. Refer to [Transmission Control Replacement](#).
3. Remove the right front underbody side rail cross brace bar, if equipped with Z52. Refer to [Underbody Side Rail Cross Brace Replacement](#).
4. Remove both catalytic converters. Refer to [Catalytic Converter Replacement - Left Side](#) and [Catalytic Converter Replacement - Right Side](#).
5. Remove the intermediate pipe. Refer to [Intermediate Pipe Replacement](#).
6. Remove the rear body exhaust heat shield. Refer to [Rear Body Exhaust Heat Shield Replacement](#).
7. Remove both rear tire and wheel assemblies. Refer to [Tire and Wheel Removal and Installation](#).
8. Remove both rear mufflers. Refer to [Exhaust Muffler Replacement - Left Side](#) and [Exhaust](#)

[Muffler Replacement - Right Side.](#)

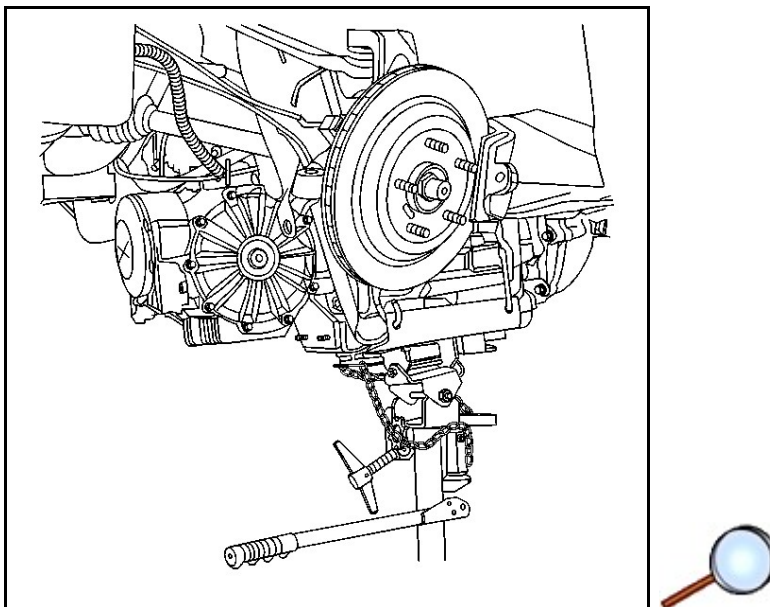
- Remove the rear crossmember suspension assembly. Refer to [Rear Crossmember Replacement](#).

Note: Removing the nuts at this time will aid in separating the differential from the transmission after the driveline has been removed from the vehicle.

- Remove the differential to transmission lower nuts.

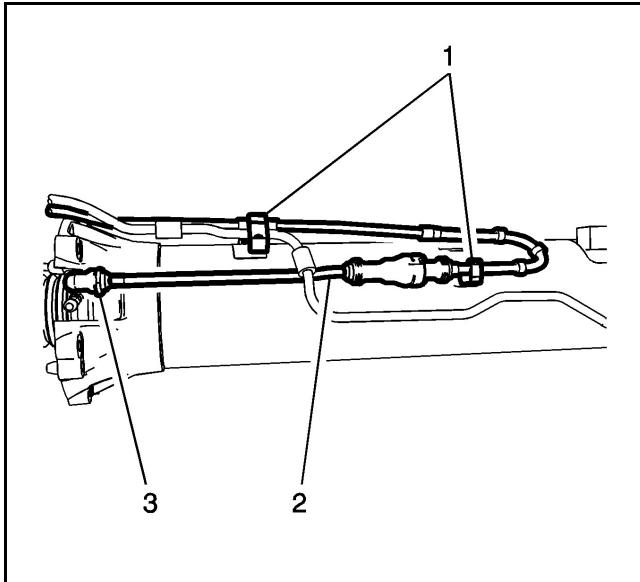


- Hold the transmission mount stud (2) with a suitable wrench to prevent the stud from rotating in the mount. If the stud becomes loose, replace the transmission mount.
- If equipped with electronic limited slip differential, disconnect the differential clutch pump lines from the rear differential using J-45666 tool.
- If equipped, disconnect the differential fluid cooler lines from the differential.
- If equipped with differential fluid cooler, remove the cooler line retaining bolt at the differential and secure lines aside.
- Hardtop models: Disconnect the transmission cooler lines from the transmission then disconnect the necessary cooler line brackets from the transmission and differential and secure lines aside.

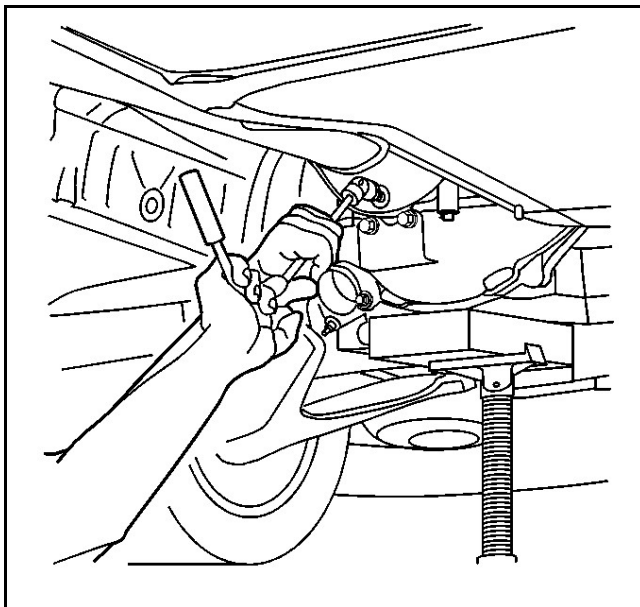


Note: The transmission fluid cooler lines for convertible models can be managed once the transmission differential support tube is removed.

16. SLOWLY lower the driveline, while simultaneously adjusting the angle of tilt, and observe the relationship between the top rear of the differential and the lowest part of the rear compartment panel floor (the center storage compartment between the frame rails). The differential should not be lowered more than approximately EVEN with the specified body point of reference.
17. Release the wiring harness from the harness retainer along the top of the transmission.
18. Check to be sure that the wiring harness is free from the driveline when being removed.
19. Disconnect the electrical connectors and wire harness retainers from the transmission and differential then secure the wire harness aside.
20. Reposition the rear cross body brake line to above the differential and support.

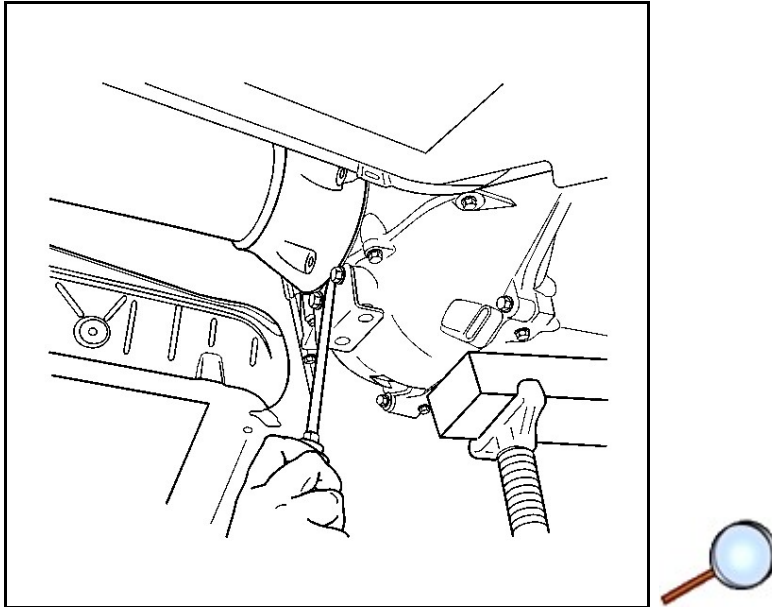


21. Disconnect the inline connector of the clutch pipe (2) then disconnect the clutch line retainers (1) from the driveline support tube and secure the body side of the line aside (up).



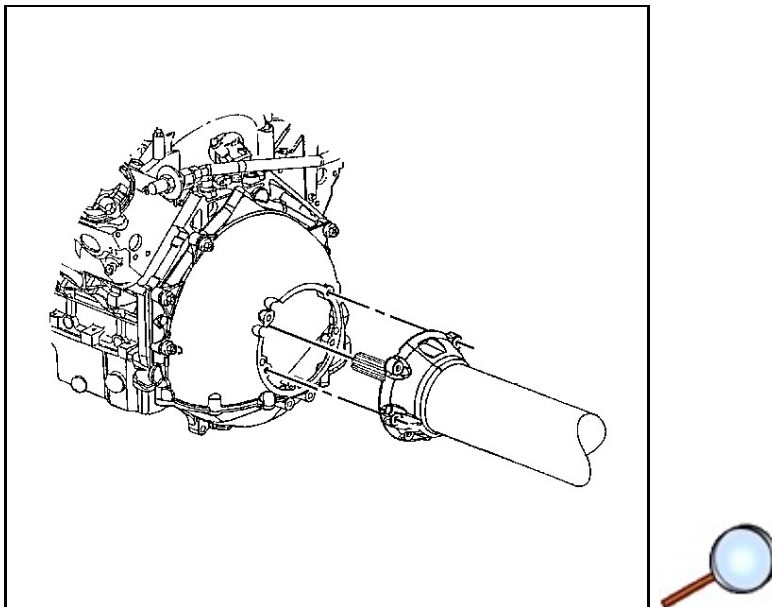
22. Using a block of wood to protect the engine oil pan, place a straight jack under the rear of the engine oil pan to support the engine from stressing the composite dash panel.
23. Remove the five driveline support assembly to engine flywheel housing bolts.

24. Carefully bend the wiring harness bracket away from the driveline toward the driveline tunnel wall in order to make a clear removal path for the driveline.

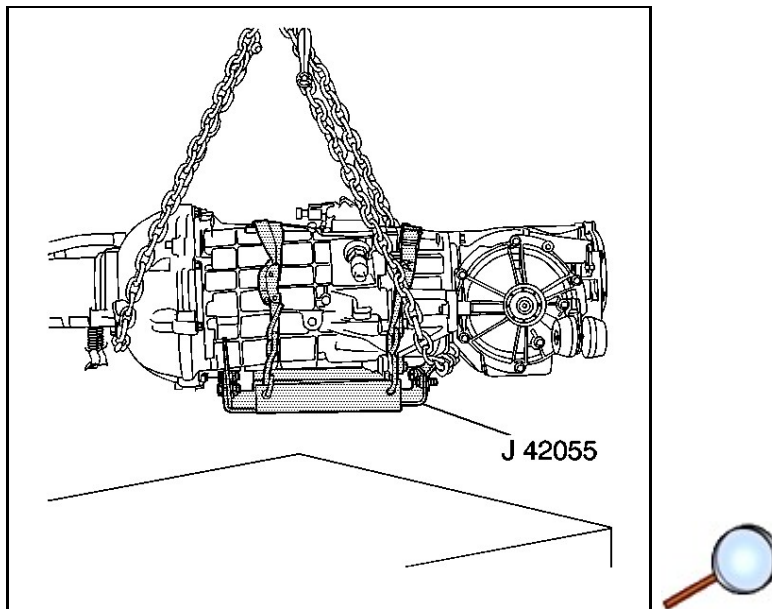


Note: The aid of an assistant will be necessary for the remaining steps.

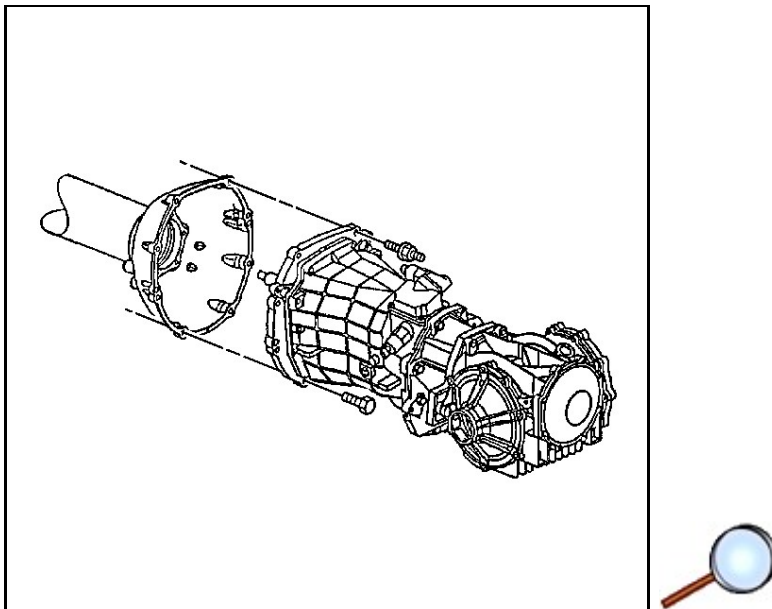
25. Have an assistant insert a flat bladed screwdriver, or similar tool, between the edge of the driveline support assembly and the engine flywheel housing, then begin to pry the driveline loose from the engine.



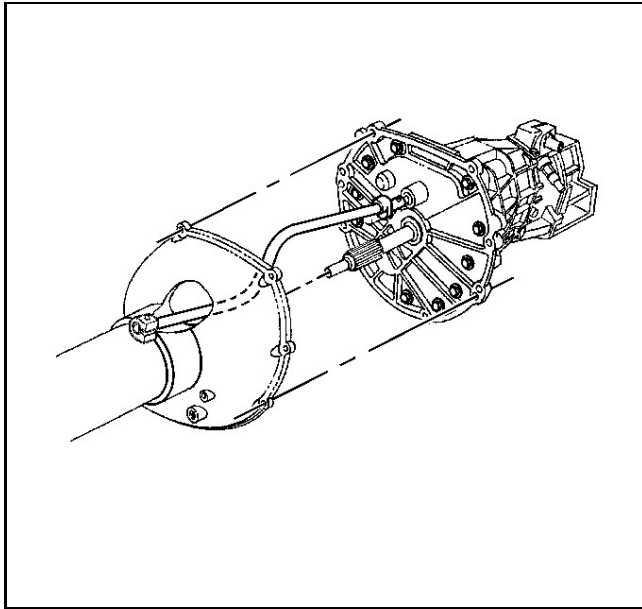
26. Have an assistant guide the front of the driveline during the removal of the driveline from the vehicle.
27. SLOWLY lower the driveline, while simultaneously adjusting the angle of tilt and pulling the driveline away from the engine UNTIL the propeller input shaft at the front of the driveline support assembly just clears the engine flywheel housing.
28. SLOWLY lower the driveline completely out of the vehicle.
29. Remove the upper transmission mount nuts then remove the mounts.
30. Convertible models: Remove the transmission fluid cooler lines and cooler as an assembly from the transmission and differential.



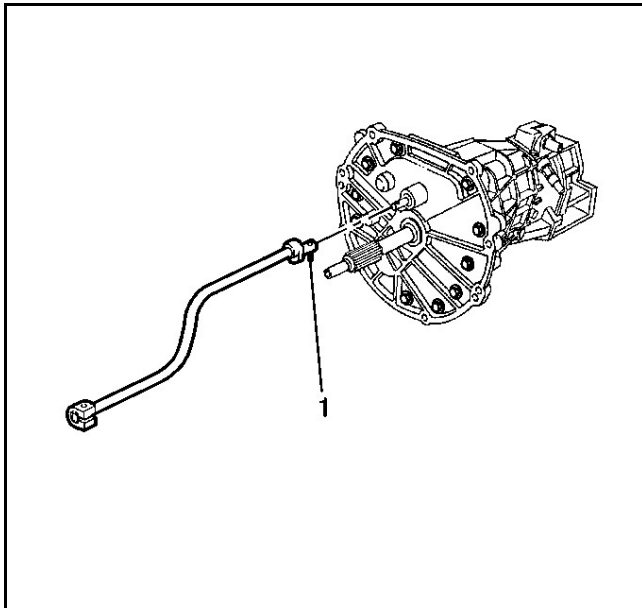
31. Position the chainfall, or equivalent, of a lift device in a way which will protect the rear exhaust hangers located on the driveline support assembly.
32. Using the lift device, raise the driveline to relieve the weight from the transmission jack.
33. Disconnect the *J-42055* transmission support fixture from the transmission jack ONLY; the *J-42055* transmission support fixture will provide stability to the driveline components while working on a bench.
34. Position the driveline on a workbench with the lift device still attached.
35. Support the driveline support assembly and the differential for additional balance.
36. Remove the lift device from the driveline.



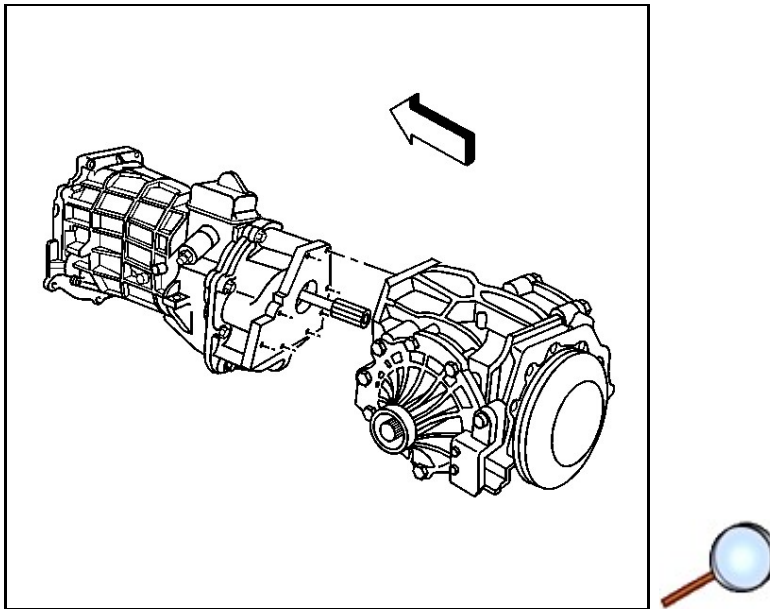
37. Remove the transmission to driveline support assembly bolts/studs.
38. Insert a flat-bladed screwdriver, or similar tool, between the edge of the driveline support assembly and the transmission, then begin to pry the driveline support assembly loose from the transmission.



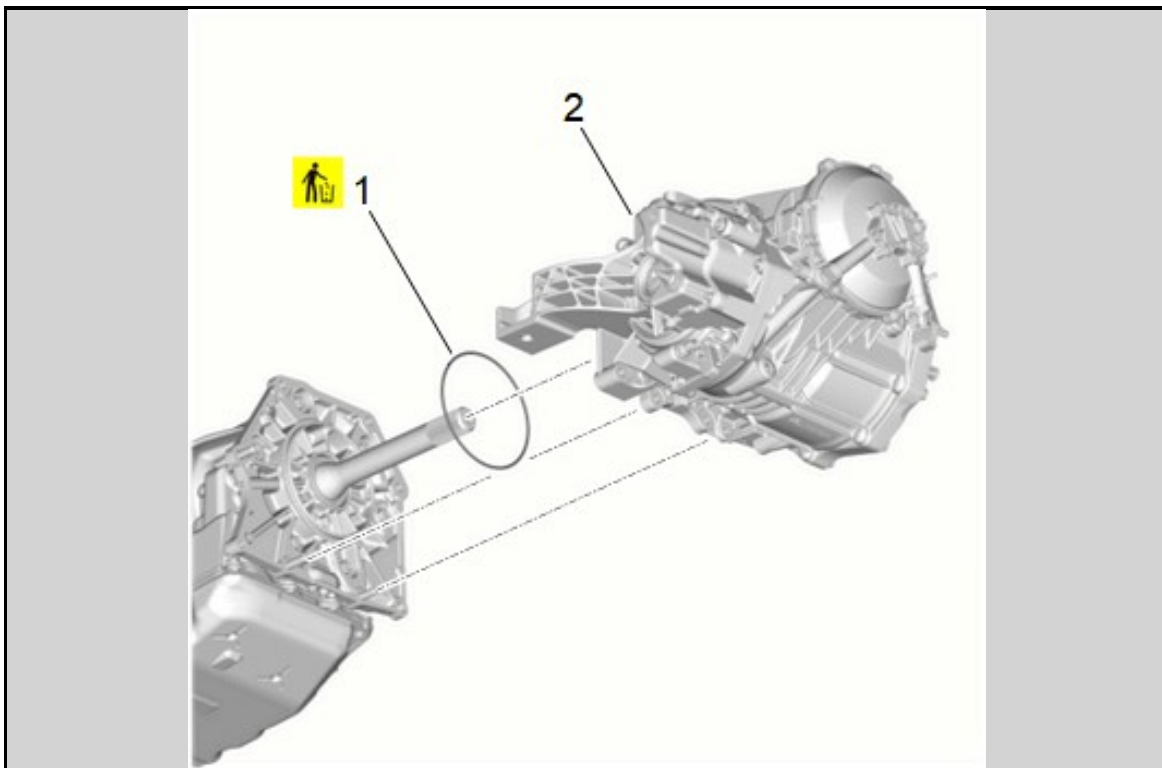
39. Slowly slide the driveline support assembly away from the transmission while guiding the transmission shift rod through the opening in the driveline support assembly.



40. Using a drift or punch, remove the roll pin (1) retaining the transmission shift rod to the transmission shift shaft.
41. Remove the transmission shift rod.



42. Remove the differential to transmission bolts and nuts.



43. Remove the differential (2) from the transmission.

44. Remove and DISCARD the transmission case extension seal (1).

45. Remove the transmission from the J-42055 transmission support fixture , if necessary.

46. Inspect the transmission fluid cooler, hoses, and pipes for leaks or damage. Replace as necessary.

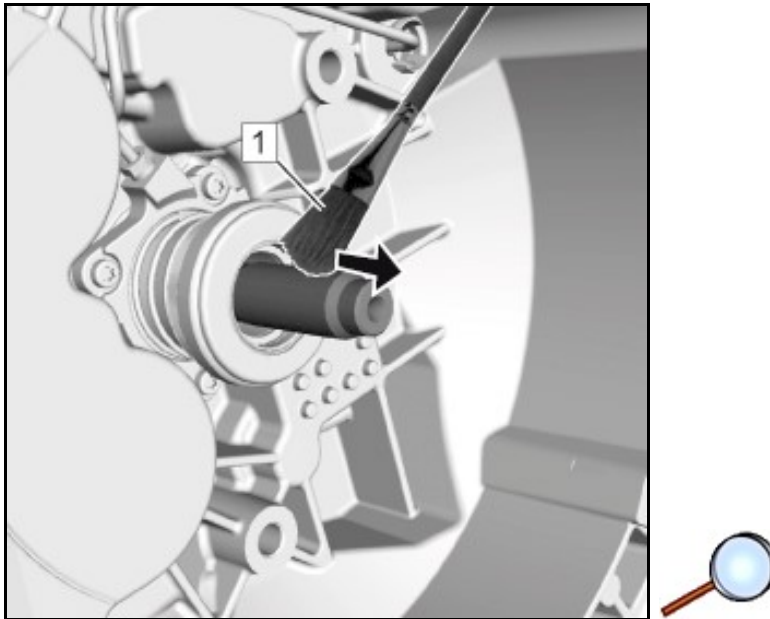
Installation Procedure

Warning: Use care when cleaning the clutch hub. The clutch hub may have sharp edges and

can cause personal injury if contact is made. Wear protective gloves to avoid personal injury.

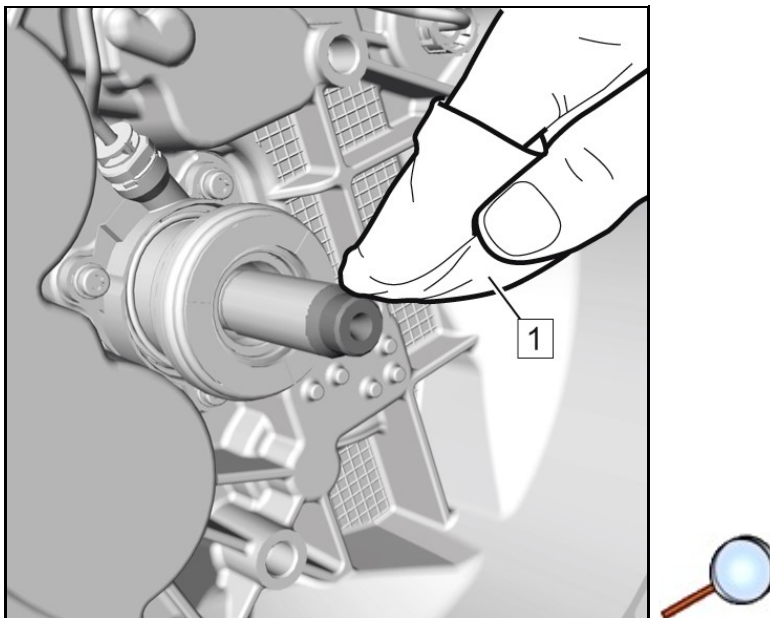
Caution: Ensure that the clutch hydraulic hoses are positioned away from nearby vehicle components or vehicle damage may result.

1. Clean the clutch hub and the input shaft from any debris and contaminants with a lint-free towel.



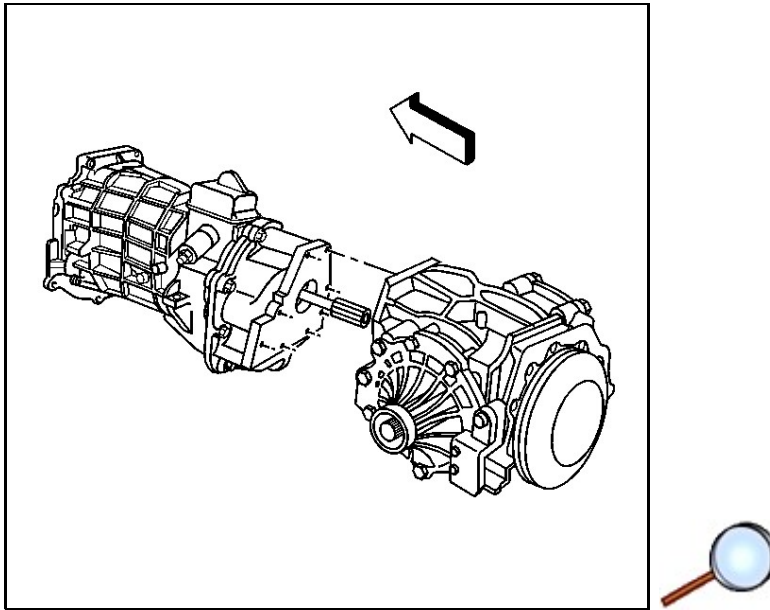
Caution: Applying too much or the wrong type of grease on the transmission input shaft may cause damage, clutch slippage or failure. Always apply the correct type of grease. Never apply more grease than is necessary to coat the transmission input shaft with a very thin film of grease.

2. Use a clean flat brush (1) to apply very light coating of multi-purpose grease to input shaft until the metal is only shiny. No visible clumps of grease are permissible regardless of size. Smear away from the transmission in direction of the shown arrow.

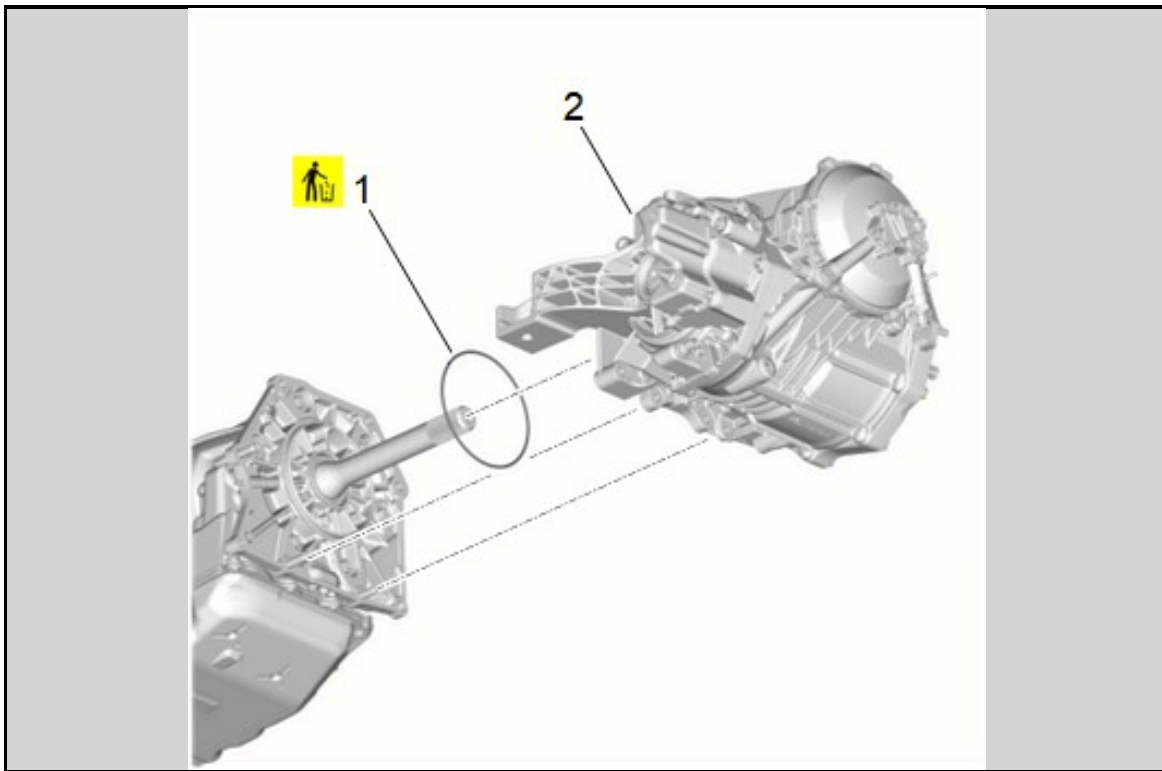


Caution: Ensure that no grease remains on the lead surface of the transmission input shaft. Clean the lead surface of the transmission input shaft prior to the assembly of the transmission to the engine. Failure to maintain a clean surface may cause clutch slippage or failure.

3. Clean the entire lead surface of the input shaft with a NEW, lint-free towel (1).

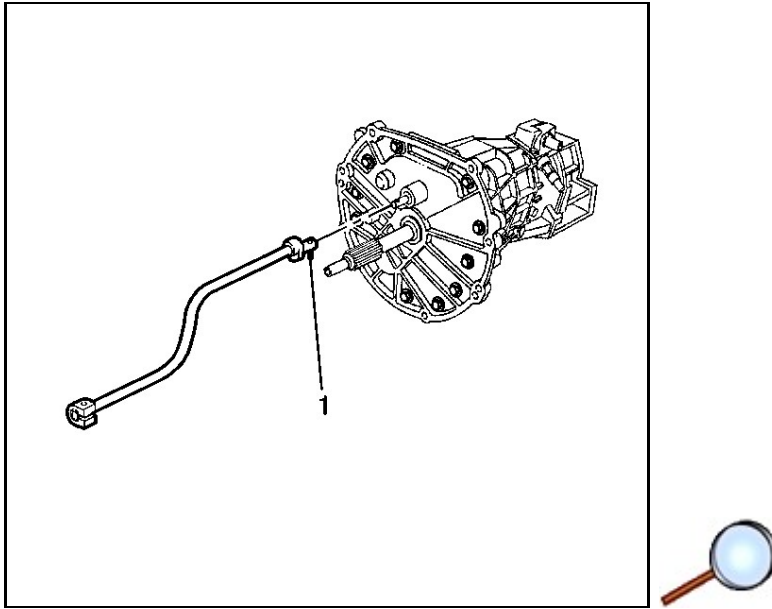


4. Install the transmission to the J-42055 transmission support fixture , if removed.



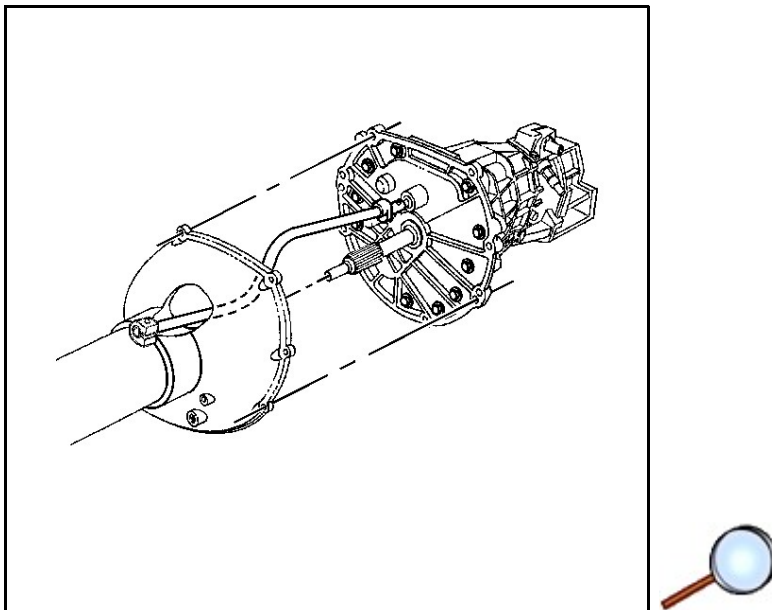
5. Install NEW transmission case extension seal (1).
6. SLOWLY slide the differential to the transmission.
7. Install the differential to transmission bolts and nuts and tighten to **50 N•m (37 lb ft)**.

Caution: Refer to [Fastener Caution](#).



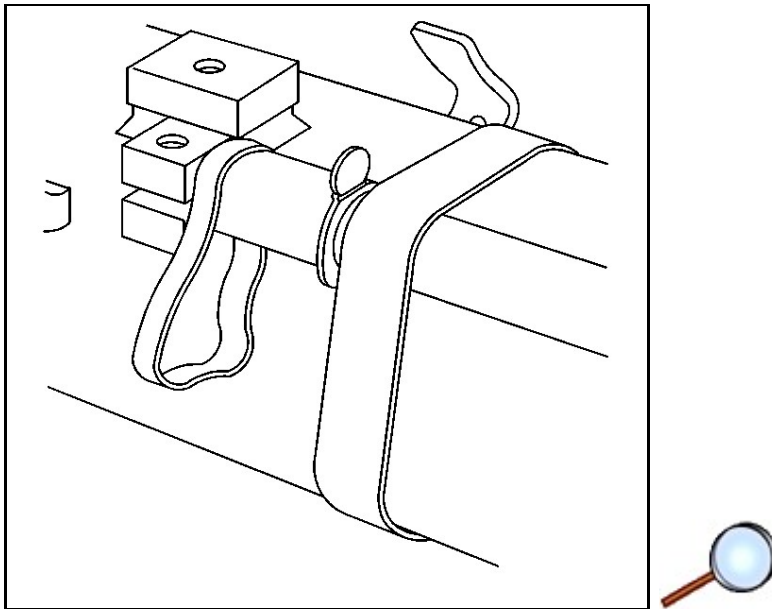
8. Install the transmission shift rod to the transmission shift shaft.

9. Using a drift or punch, install the roll pin (1) to retain the transmission shift rod to the shift shaft.



10. Slowly slide the driveline support assembly to the transmission, while guiding the transmission shift rod through the opening in the driveline support assembly.

11. Install the transmission to driveline support assembly bolts/studs and tighten to **50 N•m (37 lb ft)**.

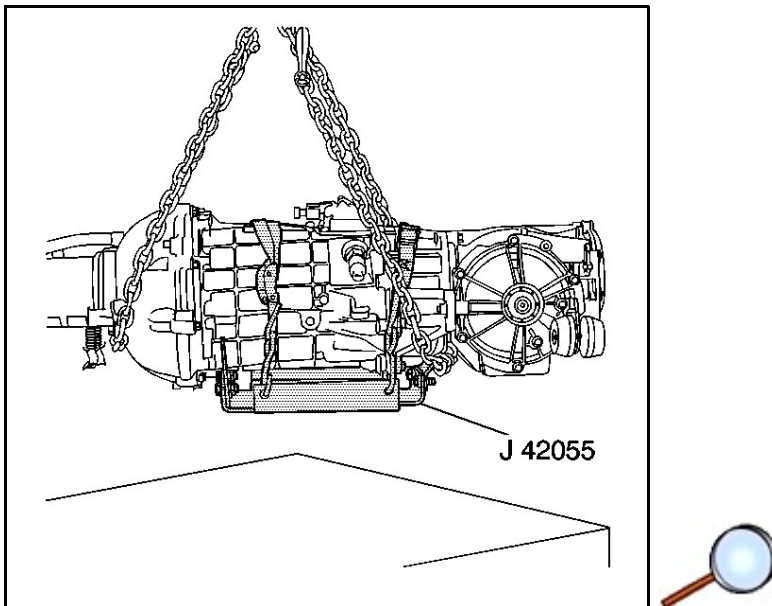


12. Loosely install a rubber band onto the transmission shift rod and position just behind the shift rod clamp.

The rubber band will be used to aid in installing the shift control assembly after the driveline has been installed.

Note: The tape is intended to keep the shift rod in position to aid in shift control installation after the driveline has been installed.

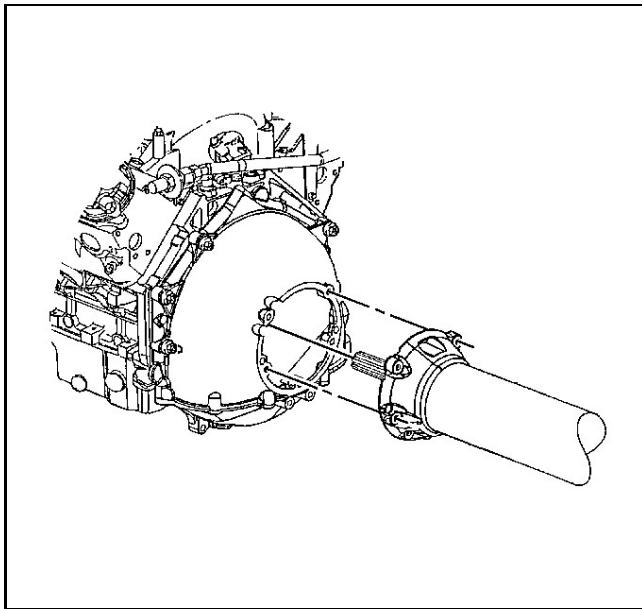
13. Using a piece of masking tape, or similar tape which can be easily broken, affix the transmission shift rod to the driveline support assembly and position the rod just to the outside of the mounting boss used for the shift control.



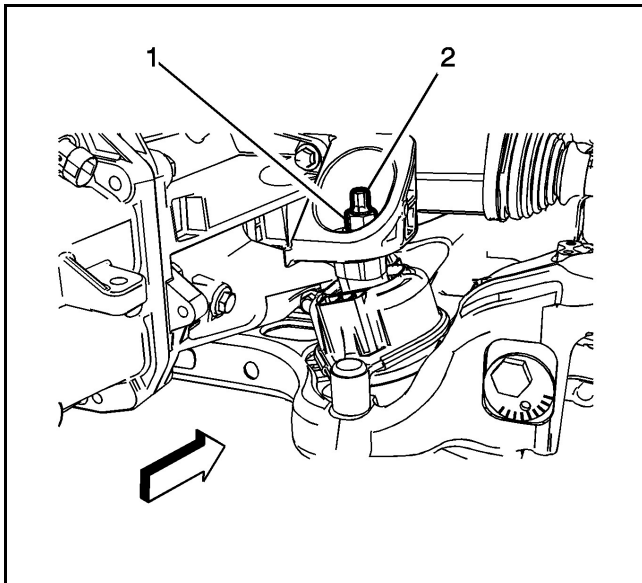
14. Position the chainfall, or equivalent, of a lift device in a way which will protect the rear exhaust hangers located on the driveline support assembly.

Note: The aid of an assistant will be necessary for the following steps until the driveline is installed into the vehicle.

15. Using the lift device, raise the driveline off the workbench and position the driveline with the J-42055 transmission support fixture onto a transmission jack.
16. Connect the J-42055 transmission support fixture to the transmission jack.



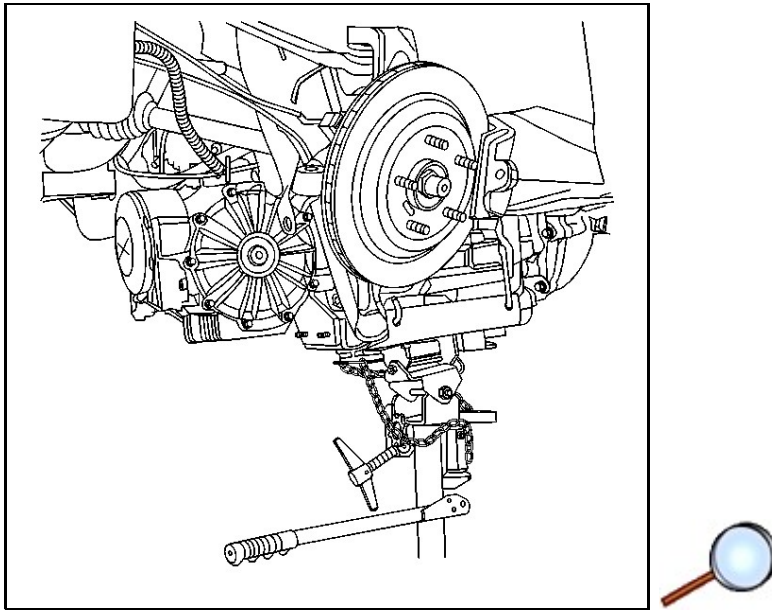
17. Remove the lift device from the driveline.
18. Position the transmission mounts to the differential.



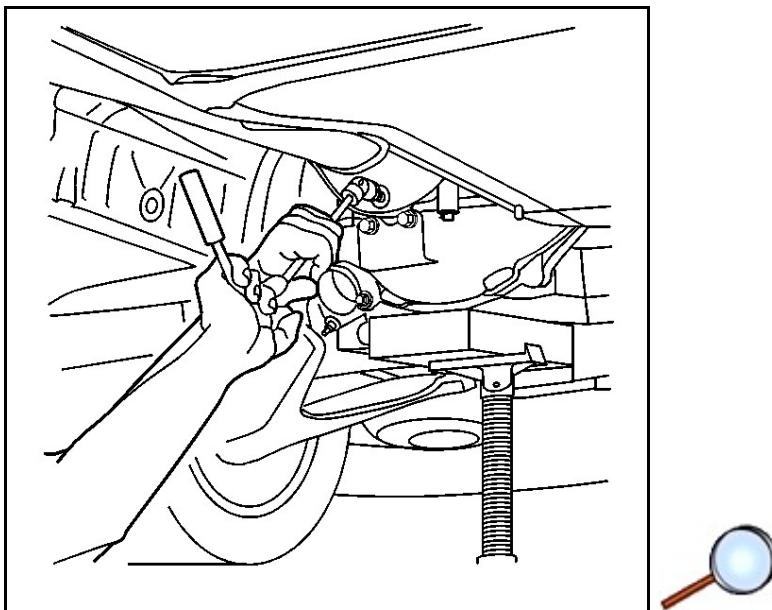
Note: Hold the transmission mount stud (2) with a suitable wrench to prevent the stud from rotating in the mount. If the stud becomes loose, replace the transmission mount.

19. Install the transmission mount nuts (1) and tighten to **50 N•m (37 lb ft)**.
20. Convertible models: Install the transmission fluid cooler and cooler line assembly to the drivetrain then tighten cooler fasteners to **9 N•m (80 lb in)**.
21. Position the driveline under the vehicle.
22. Begin to raise the driveline at the approximate angle used during removal.
23. Position the wiring harness along the driveline support assembly and LOOSELY install the harness into the harness retaining slots.
24. Have an assistant guide the front of the driveline so the propeller input shaft is just to the rear of the engine flywheel housing, then raise the driveline to the PROPER HEIGHT and the PROPER ANGLE to install it to the engine.
25. Have an assistant begin to insert the propeller input shaft into the clutch driven plate hub while maintaining the proper angle of the driveline; if necessary, use a screwdriver to rotate

the shaft slightly to bring the splines into alignment.



26. SLOWLY seat the driveline to the engine flywheel housing while maintaining the proper angle of the driveline.
27. Reposition the wiring harness bracket from near the driveline tunnel wall to align with the appropriate driveline support assembly bolt hole.
28. Push the crankshaft rearward before and during the tightening of the plug bolts to ensure that there is enough crankshaft endplay.



29. Install the five driveline support assembly to engine flywheel housing bolts and tighten to **50 N•m (37 lb ft)**.
30. Connect the clutch fluid pipe inline coupling then attach the pipe to the driveline support.
31. Install the wiring harness to the wiring harness retainer along the top of the transmission.
32. SLOWLY raise the driveline to approximately 5 cm (2 in) BELOW the final installed height.
33. Connect the electrical connectors to the transmission and rear differential then install remaining harness retainers.
34. Hardtop models: Connect the transmission cooler lines to the transmission then install

- necessary cooler line brackets to the drivetrain. Refer to [Transmission Fluid Cooler Inlet and Outlet Pipe Replacement](#).
35. Slowly raise the driveline to final installation height.
 36. If equipped, connect the rear differential fluid cooler lines to the differential. Refer to [Differential Oil Pump Inlet Hose Replacement](#) and [Differential Oil Cooler Inlet Hose Replacement](#).
 37. If equipped with electric limited slip, install the clutch lines to the differential. Refer to [Limited Slip Differential Clutch Pipe Connector Disconnection and Connection](#).
 38. Position back the cross body rear brake line to under the differential.
 39. Remove the jack which supported the rear of the engine.
 40. Install the crossmember suspension assembly. Refer to [Rear Crossmember Replacement](#).
 41. Install both mufflers. Refer to [Exhaust Muffler Replacement - Left Side](#) and [Exhaust Muffler Replacement - Right Side](#).
 42. Install the rear body exhaust heat shield. Refer to [Rear Body Exhaust Heat Shield Replacement](#).
 43. Install the intermediate pipe. Refer to [Intermediate Pipe Replacement](#).
 44. Install both catalytic convertors. Refer to [Catalytic Converter Replacement - Left Side](#) and [Catalytic Converter Replacement - Right Side](#).
 45. If equipped, install the right side underbody side rail cross bar. Refer to [Underbody Side Rail Cross Brace Replacement](#).
 46. Check and if necessary, add transmission fluid. Refer to [Adhesives, Fluids, Lubricants, and Sealers](#) and [Transmission Fluid Drain and Fill](#).
 47. Install the rear tire and wheel assemblies. Refer to [Tire and Wheel Removal and Installation](#).
 48. Install the shift control assembly. Refer to [Transmission Control Replacement](#).
 49. Install the front floor lower console. Refer to [Front Floor Lower Console Replacement](#).
 50. Check clutch pedal feel and function. If necessary, bleed the hydraulic clutch system. Refer to [Hydraulic Clutch System Bleeding](#).
 51. Perform the Gear Position Sensor Learn procedure. Refer to [Gear Position Sensor Learn](#).