

2021 TRANSMISSION

Transmission Cooling System - Canyon, Colorado

SPECIFICATIONS

FASTENER SPECIFICATIONS

Single Use Non-Threaded Fasteners/Components

NOTE:

All fasteners/components listed in this table MUST BE DISCARDED and replaced with NEW after removal.

Application
Retaining Ring
Transmission Fluid Cooler Pipe Fitting Seal
Transmission Fluid Cooler Inlet and Outlet Pipe Seal

Reusable Threaded Fastener Tightening Specifications

NOTE:

All fasteners listed in this table can be reused after removal.

Application	Specification
	Metric (English)
Transmission Fluid Cooler Pipe Clip Bolt	9 N.m (80 lb in)
Transmission Fluid Cooler Pipe Clip Bolt(LCV)	58 N.m (43 lb ft)
Transmission Fluid Cooler Pipe Clip Bolt(LGZ)	22 N.m (16 lb ft)
Transmission Fluid Cooler Pipe Clip Bolt(LWN)	11 N.m (8 lb ft)
Transmission Fluid Cooler Pipe Bolt	22 N.m (16 lb ft)

DIAGNOSTIC INFORMATION AND PROCEDURES

TRANSMISSION OVERHEATS (8L45 OR 8L90)

Checks	Actions
Transmission Fluid Level	- Inspect for incorrect (low) transmission fluid level. - Inspect transmission for leaks.
Transmission Fluid Cooler and Cooler Lines	- Inspect for obstructed air flow to transmission fluid cooler. - Inspect for restricted transmission fluid cooler and/or cooler lines. - Clean or replace transmission fluid cooler and/or cooler lines if necessary. - If fluid cooler and/or cooler lines are okay, replace the Cooler Bypass Valve or Fluid Cooling

Checks	Actions
	Exchanger (model specific).
Engine Overheating	Engine Overheating
Torque Converter	• Converter may be stuck OFF. Inspect torque converter circuit for debris or obstruction. Torque Converter Diagnosis • Replace torque converter if necessary.
Automatic Transmission Fluid Temperature Sensor	Inspect for transmission fluid temperature sensor related DTC's due to inaccurate or faulty sensor.
Trailer Towing or Hauling	Ask customer about driving habits while towing. Improper trailer towing or vehicle load limits may have been exceeded. Towing should occur in Tow/Haul Mode.

TRANSMISSION OVERHEATS (6L50)

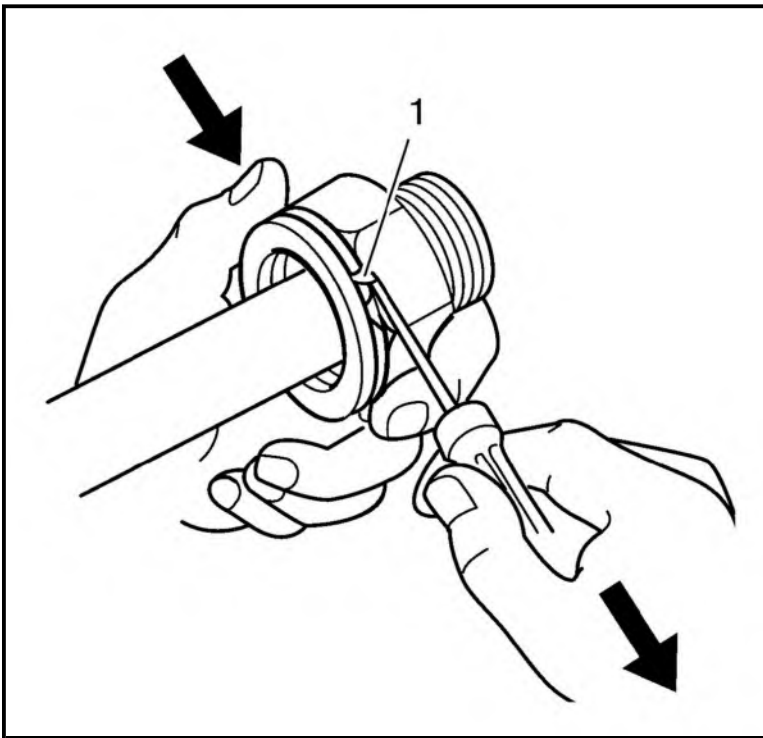
Checks	Actions
Transmission Fluid Level	• Inspect for incorrect (low) transmission fluid level. • Inspect transmission for leaks.
Transmission Fluid Cooler and Cooler Lines	• Inspect for obstructed air flow to transmission fluid cooler. • Inspect for restricted transmission fluid cooler and/or cooler lines. • Clean or replace transmission fluid cooler and/or cooler lines if necessary. • If fluid cooler and/or cooler lines are okay, replace the Cooler Bypass Valve or Fluid Cooling Exchanger (model specific).
Engine Overheating	Engine Overheating
Torque Converter	• Converter may be stuck OFF. Inspect torque converter circuit for debris or obstruction. Torque Converter Diagnosis • Replace torque converter if necessary.
Automatic Transmission Fluid Temperature Sensor	Inspect for transmission fluid temperature sensor related DTC's due to inaccurate or faulty sensor.
Trailer Towing or Hauling	Ask customer about driving habits while towing. Improper trailer towing or vehicle load limits may have been exceeded. Towing should occur in Tow/Haul Mode.

REPAIR INSTRUCTIONS

TRANSMISSION FLUID COOLER HOSE/PIPE QUICK-CONNECT FITTING DISCONNECTION AND CONNECTION

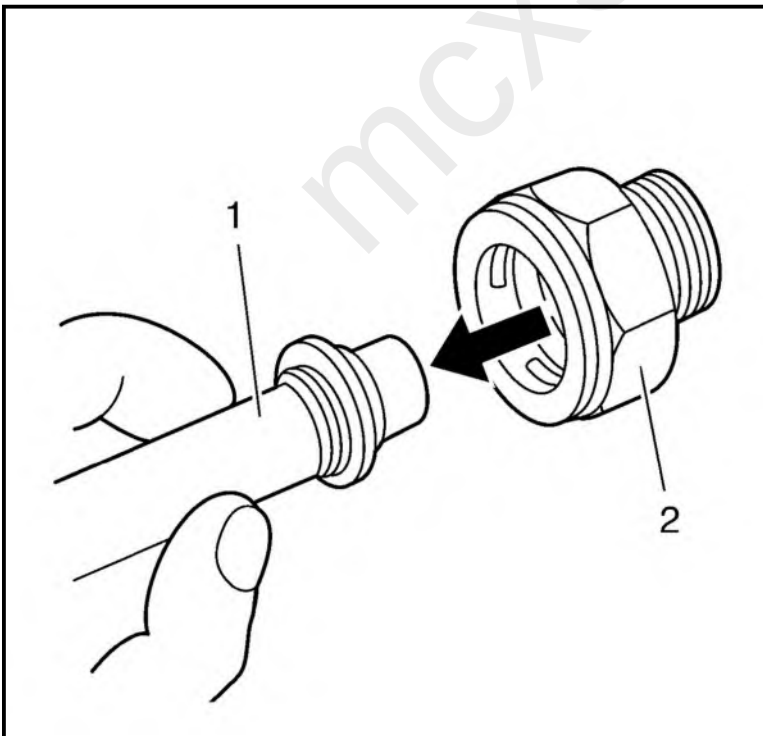
Removal Procedure

1. Pull the plastic cap back from the quick connect fitting and down along the cooler line about 5 cm (2 in).



NOTE: Perform the following procedure when removing the retaining rings and cooler lines from the quick connect fittings located on the radiator and/or the transmission.

2. Using a bent-tip screwdriver, pull on one of the open ends of the retaining ring (1) in order to rotate the retaining ring around the quick connect fitting until the retaining ring is out of position and can be completely removed.
3. Remove the retaining ring from the quick connect fitting.
4. Discard the retaining ring.
5. Pull the cooler line (1) straight out from the quick connect fitting (2).



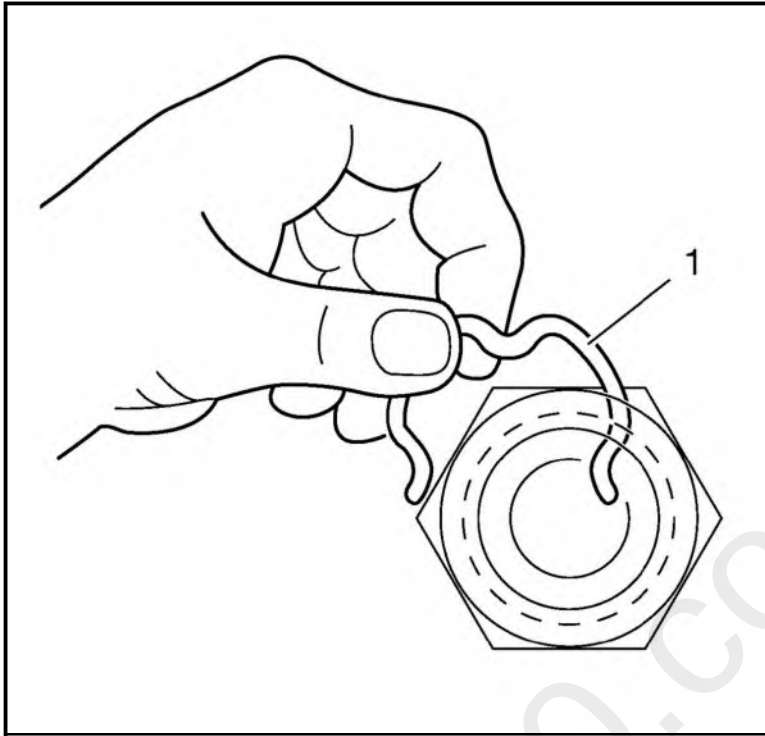
Installation Procedure

- NOTE:**
- Do not reuse any of the existing oil lines or oil line fittings if there is excessive corrosion.

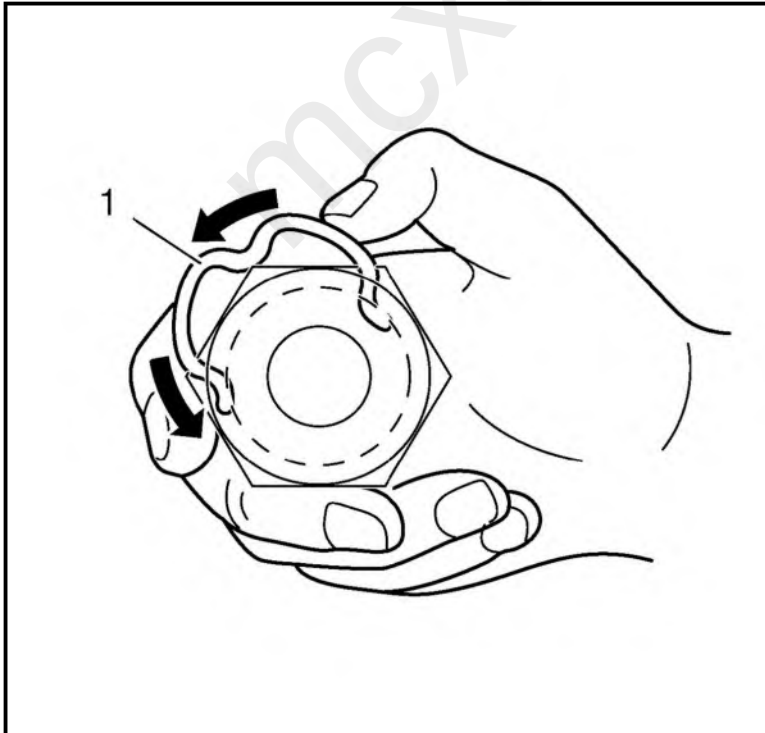
- Do not reuse any of the existing retaining rings that were removed from the existing quick connect fittings. Install new retaining rings.
- Ensure the following procedures are performed when installing the new retaining rings onto the fittings.

1. Install a new retaining ring into the quick connect fitting using the following procedure:

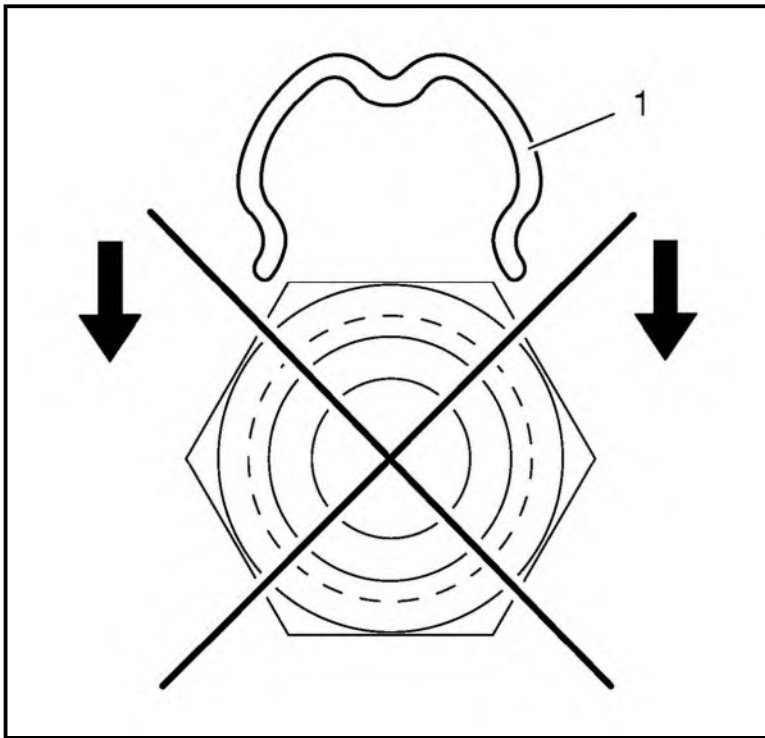
1. Hook one of the open ends of the retaining ring (1) in one of the slots in the quick connect fitting.



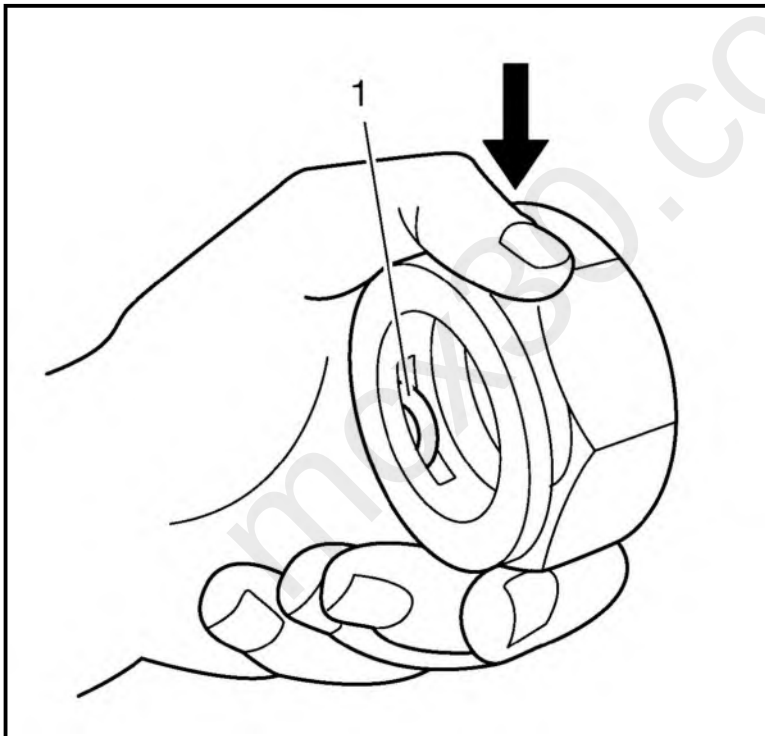
2. Rotate the retaining ring (1) around the fitting until the retaining ring is positioned with all three ears through the three slots on the fitting.



3. Do not install the new retaining ring (1) onto the fitting by pushing the retaining ring.

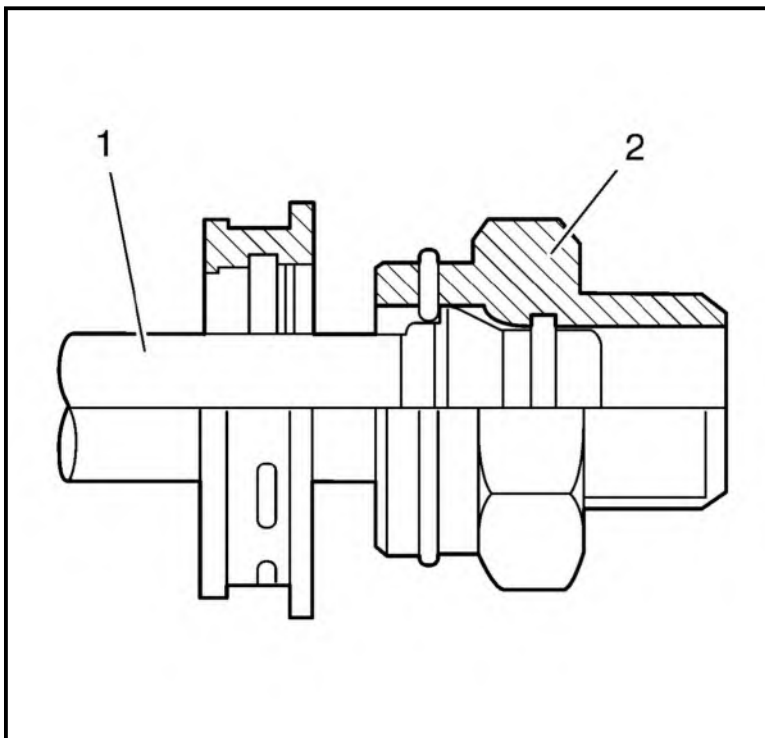


4. -

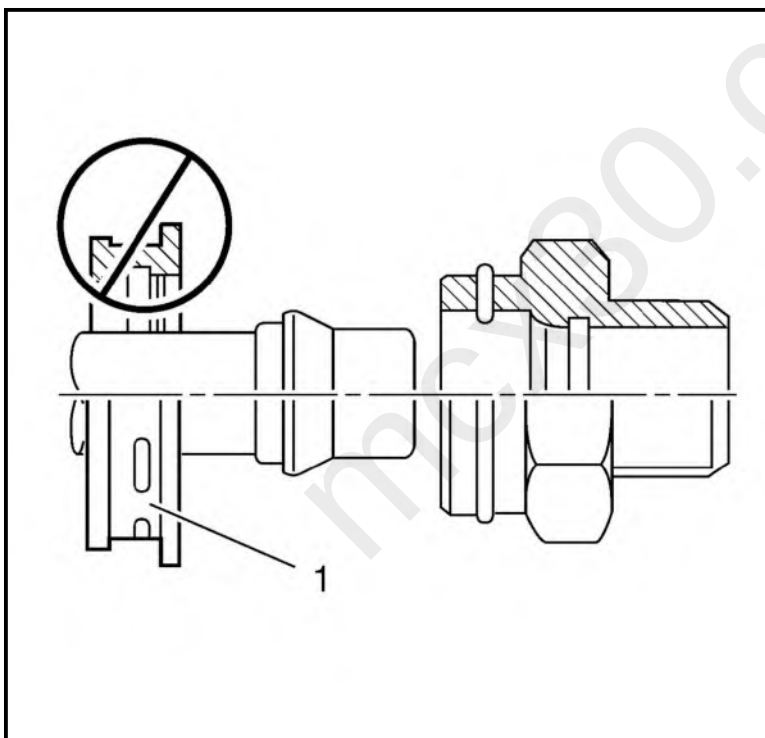


Ensure that the three retaining ring ears are seen from inside the fitting (1) and that the retaining ring moves freely in the fitting slots.

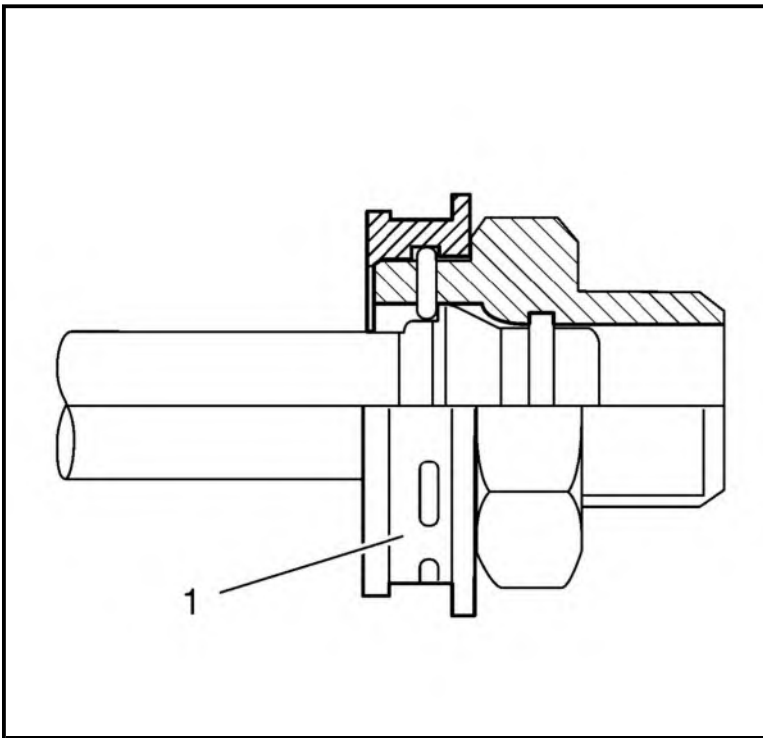
2. Install the cooler line (1) into the quick connect fitting (2).



3. Insert the cooler line end into the quick connect fitting until a click is either heard or felt.
4. Do not use the plastic cap (1) on the cooler line in order to install the cooler line into the fitting.

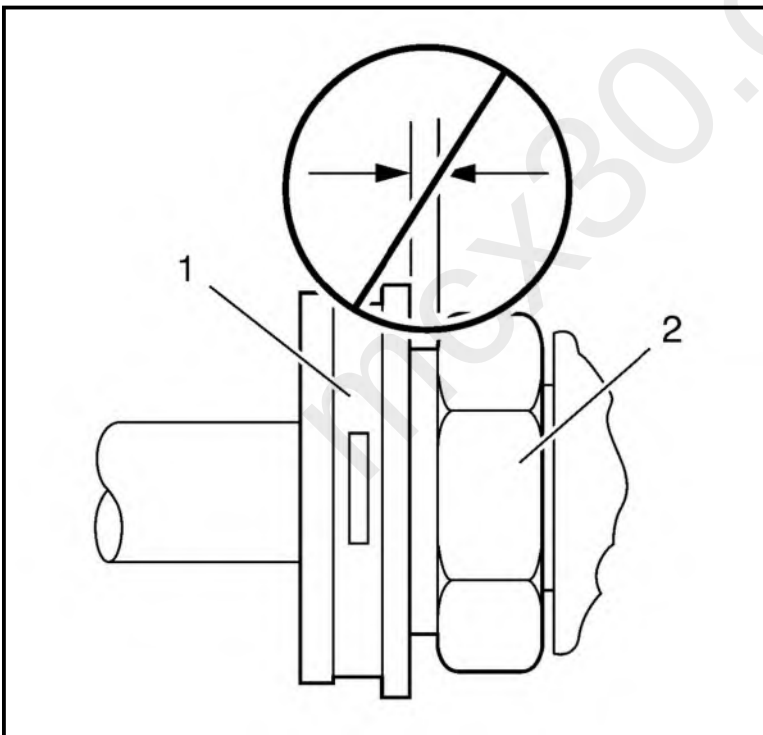


5. Pull back sharply on the cooler line in order to ensure that the cooler line is fastened into the quick connect fitting.
6. Position (snap) the plastic cap (1) onto the fitting. Do not manually depress the retaining ring when installing the plastic cap onto the quick connect fitting.

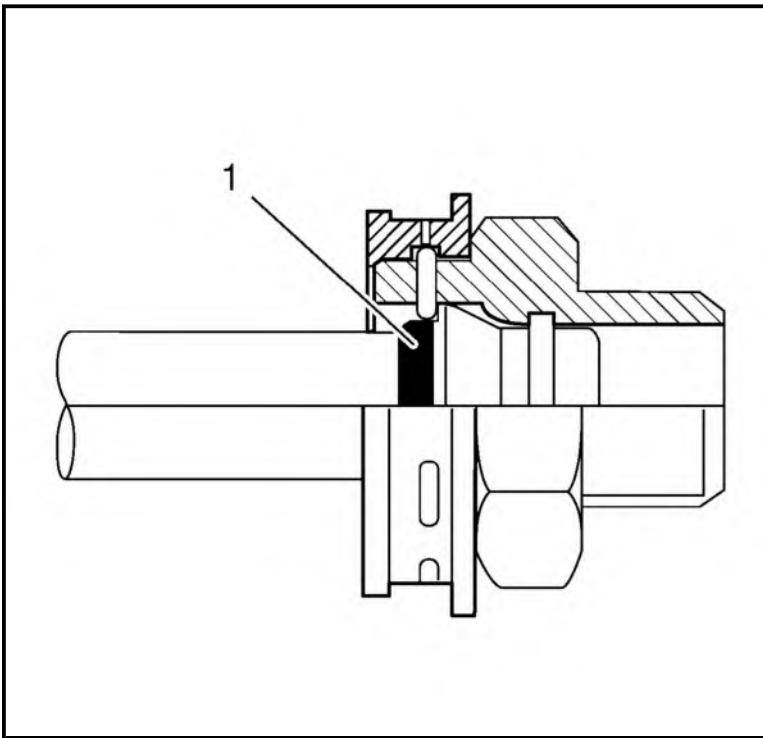


NOTE: Do not manually depress the retaining clip when installing the plastic cap.

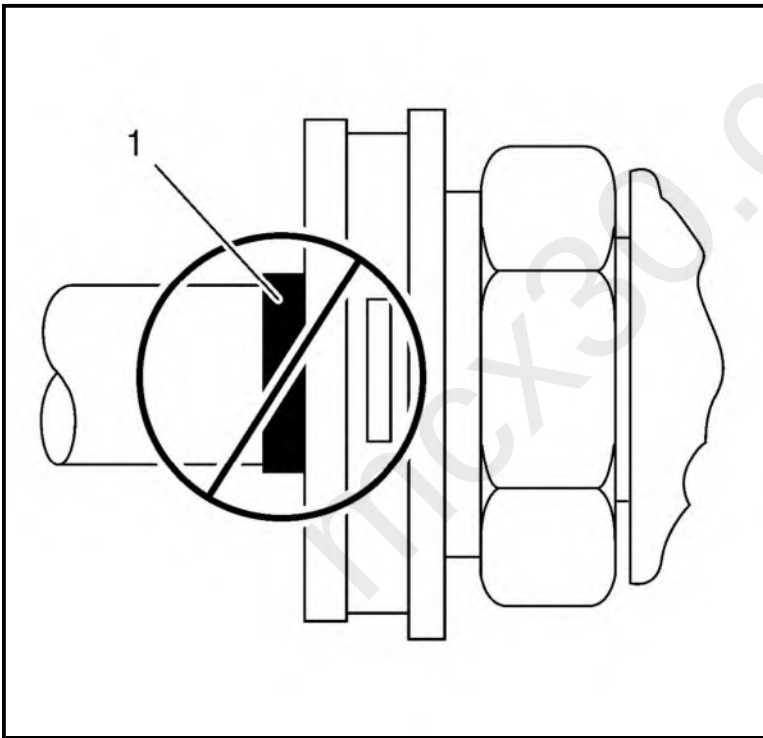
7. Ensure that the plastic cap is fully seated against the fitting.
8. Ensure that no gap is present between the plastic cap (1) and the fitting (2).



9. Ensure that the yellow identification band (1) on the tube is hidden within the quick connect fitting.



10. A hidden yellow identification band (1) indicates proper joint seating.

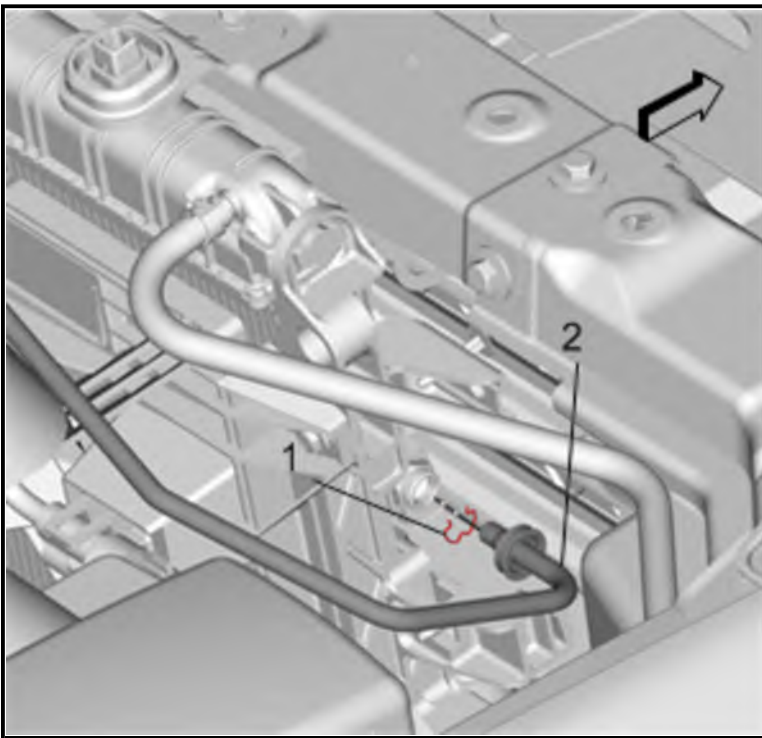


11. Fill the transmission to the proper level.

TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (LGZ)

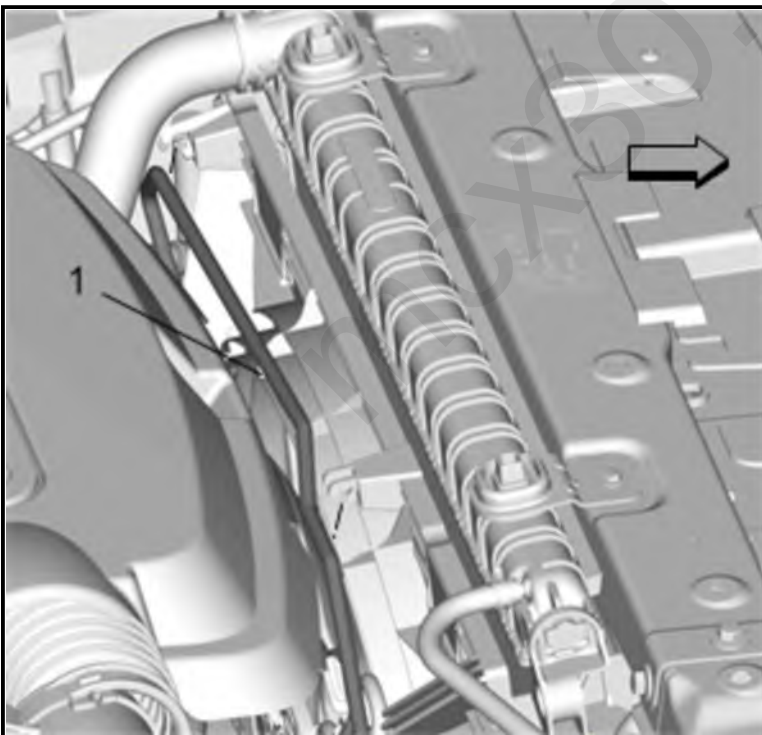
Removal Procedure

1. Reposition any wiring harnesses out of the way of the transmission fluid cooler inlet and outlet pipe as necessary.
2. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Air Conditioning Condenser - Remove - **Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection**

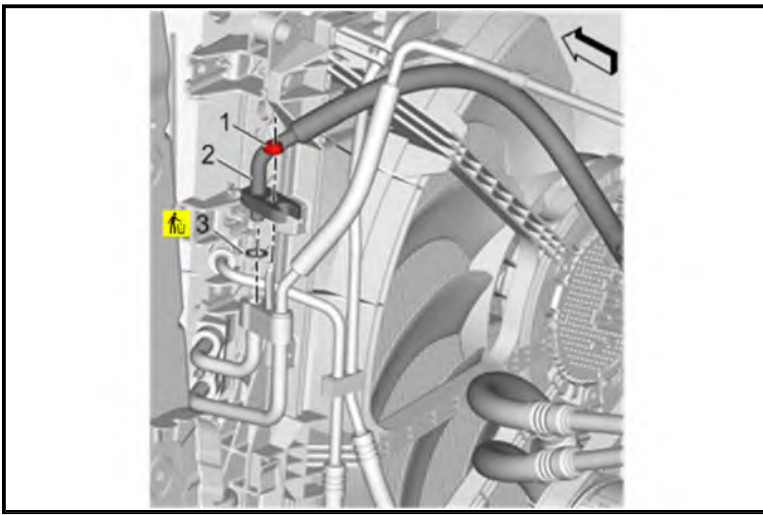


NOTE: Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

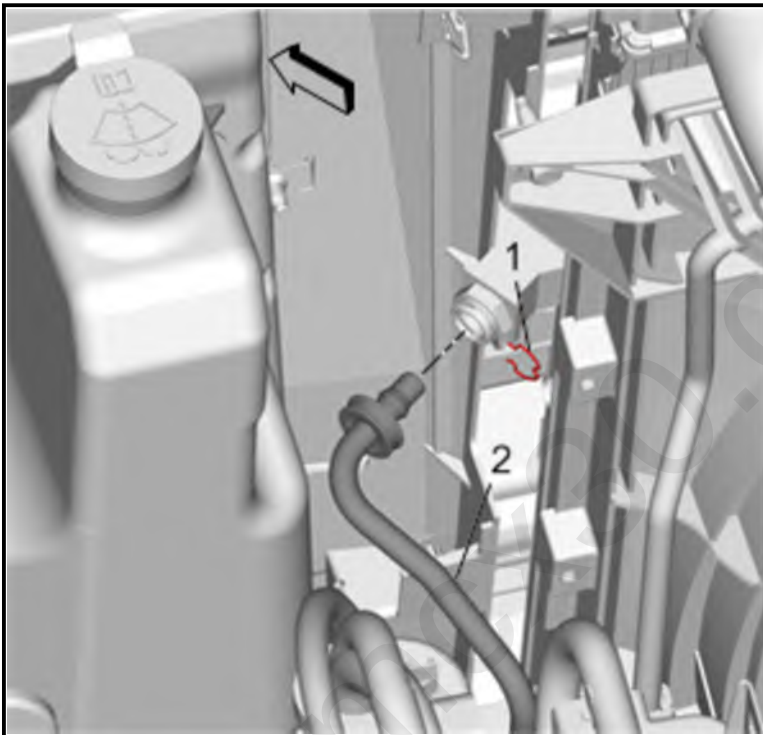
3. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Air Conditioning Condenser - Remove
4. Unclip the transmission fluid cooler inlet and outlet pipe from the engine coolant fan shroud. (1)



5. Air Conditioning Compressor Hose (2) @ Air Conditioning Condenser - Separate - [Air Conditioning Compressor Hose Replacement \(LGZ\)](#)

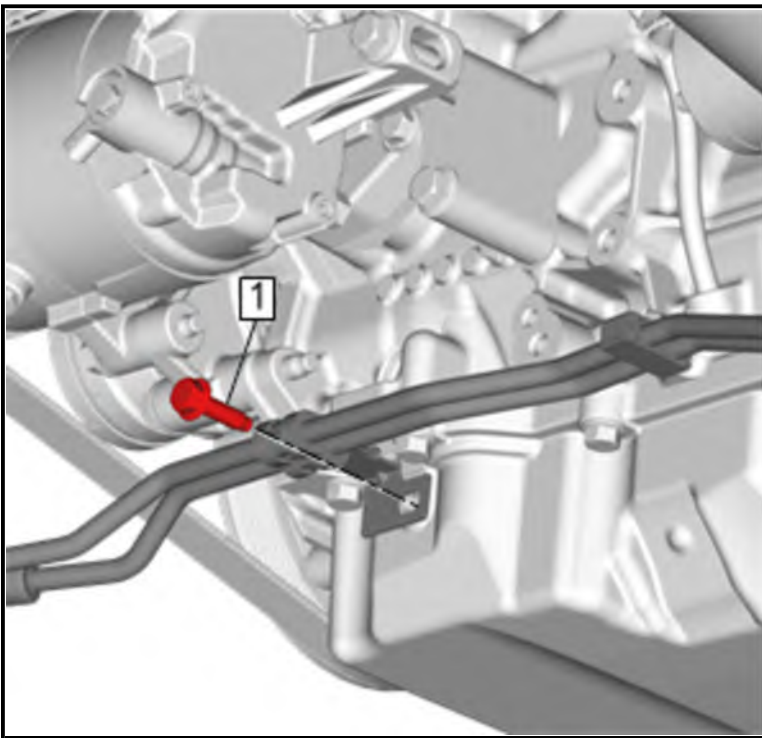


6. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Air Conditioning Condenser - Remove - Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection

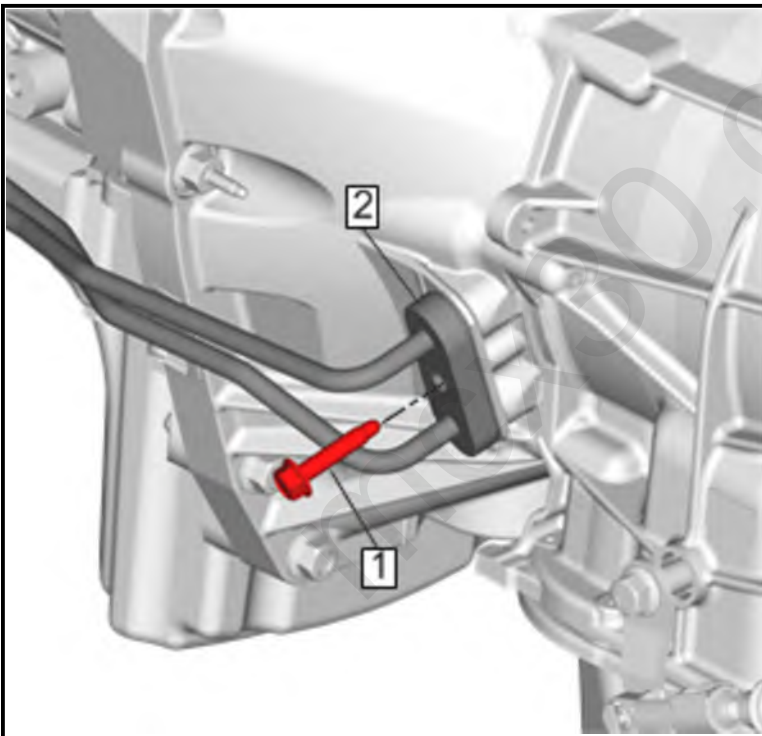


NOTE: Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

7. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Air Conditioning Condenser - Remove
8. Raise and support the vehicle. Lifting and Jacking the Vehicle
9. Reposition any wiring harnesses out of the way of the transmission fluid cooler inlet and outlet pipe as necessary.
10. Remove the transmission fluid cooler pipe clip bolt (1) from the engine oil pan.



11. Remove the transmission fluid cooler pipe bolt (1) from the transmission.

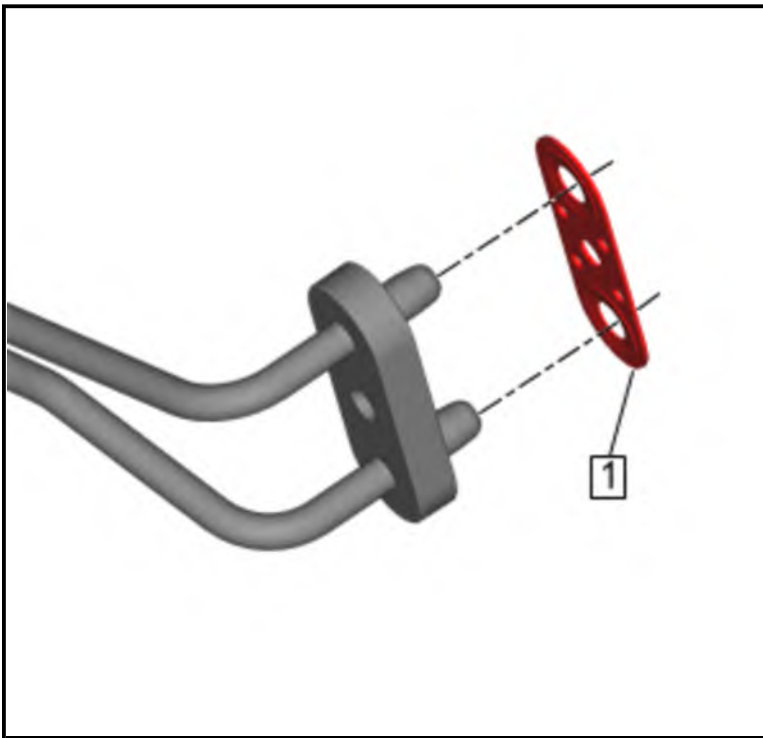


NOTE:

Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

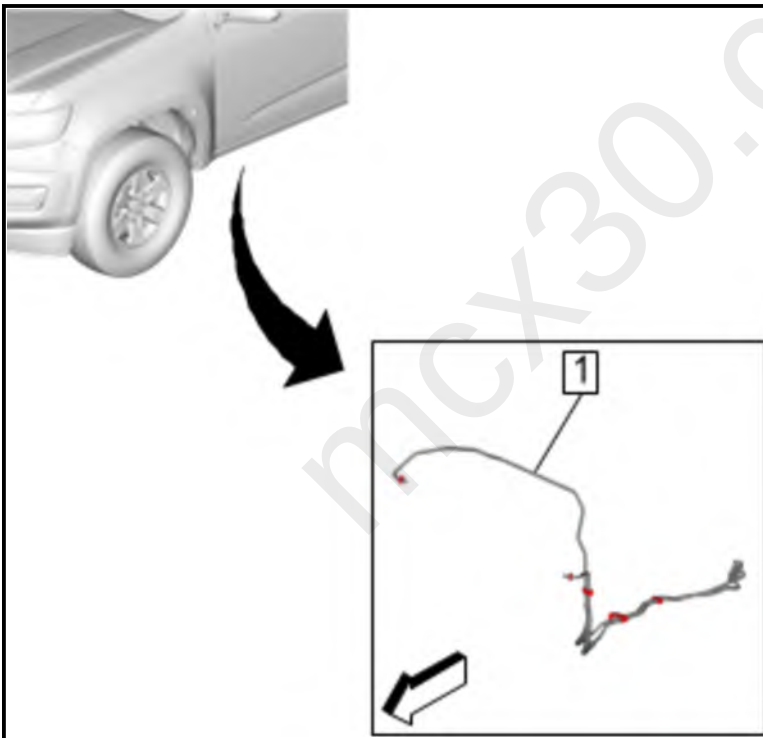
12. Remove the transmission fluid cooler inlet and outlet pipe (2) from the transmission.

13. Remove the transmission fluid cooler inlet and outlet pipe seal (1).



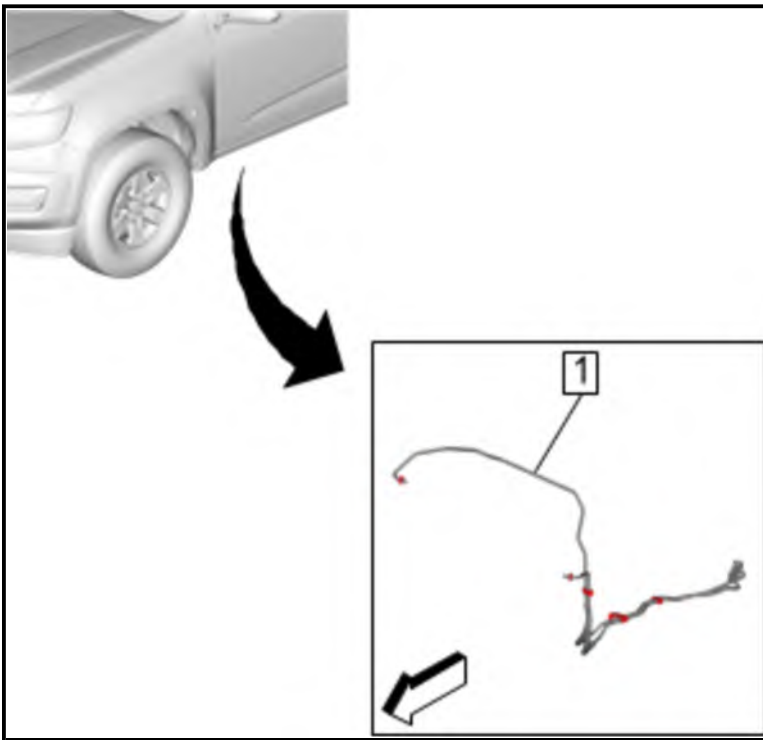
DISCARD the seal.

14. Remove the transmission fluid cooler inlet and outlet pipe (1) from the vehicle.

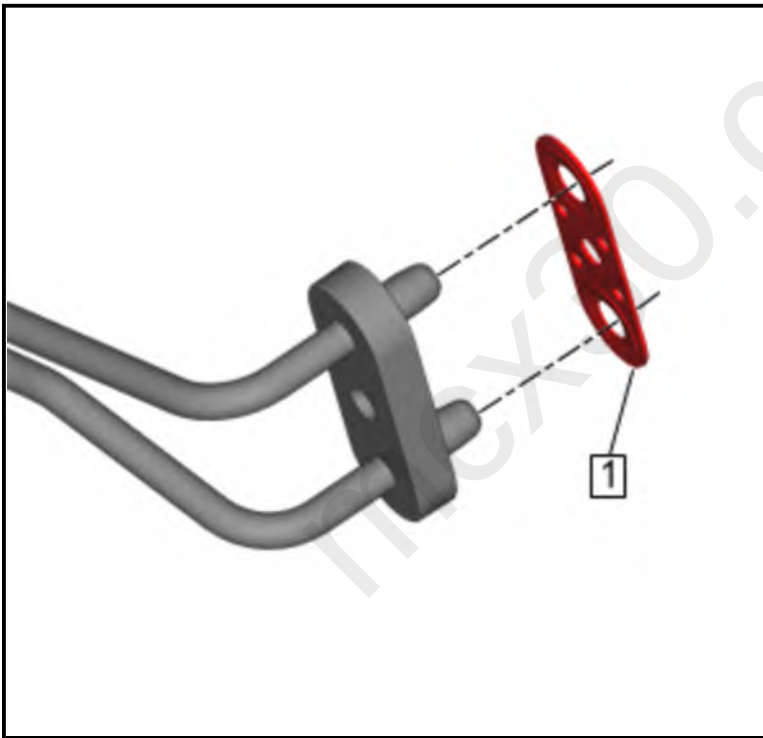


Installation Procedure

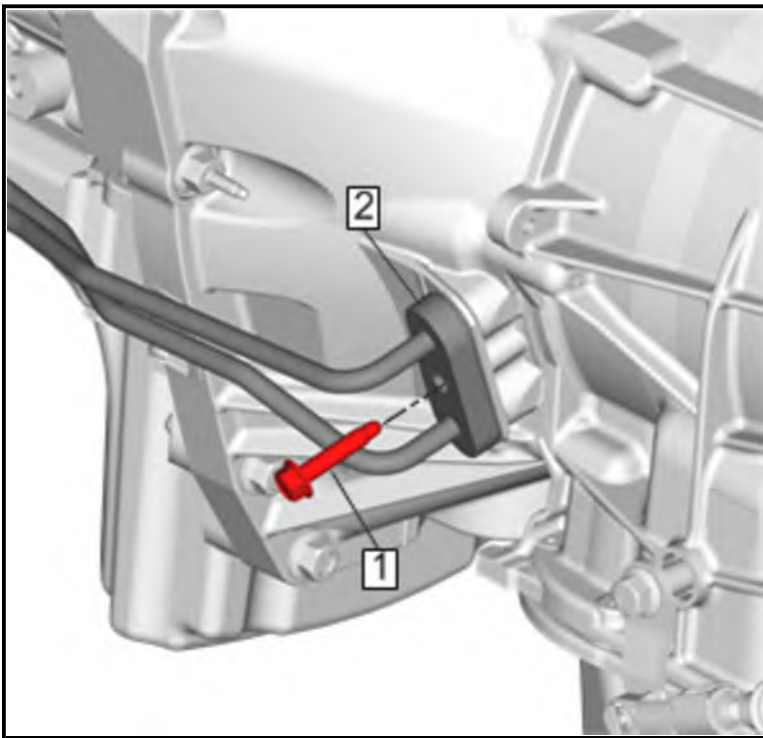
1. Position the transmission fluid cooler inlet and outlet pipe (1) on the vehicle.



2. Install a NEW transmission fluid cooler inlet and outlet pipe seal (1).

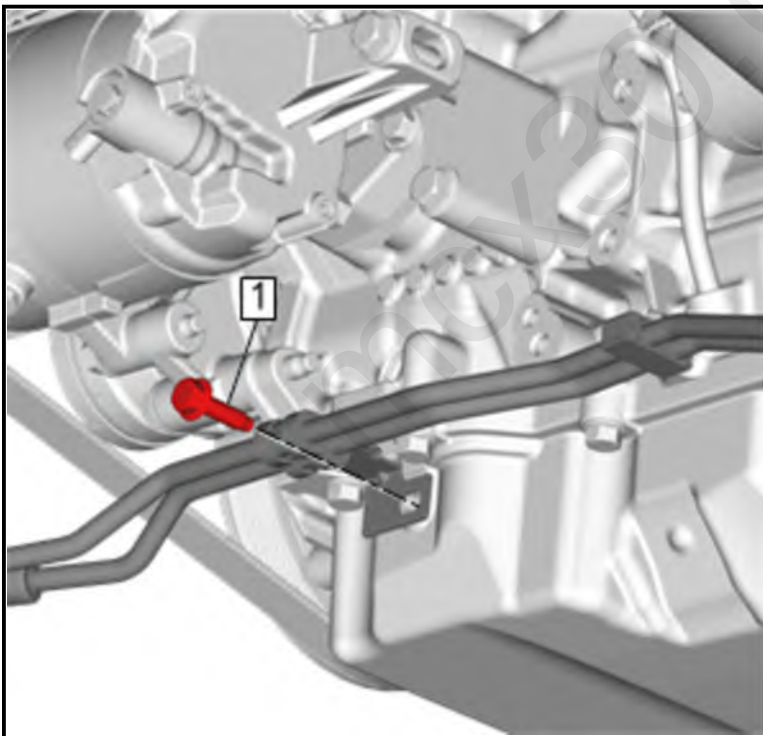


3. Install the transmission fluid cooler inlet and outlet pipe (2) in the transmission.

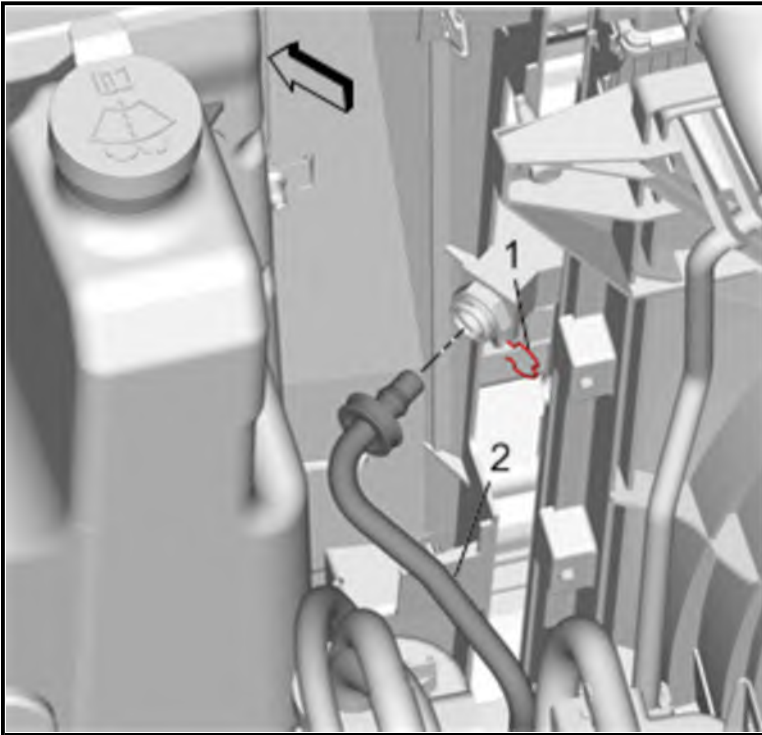


CAUTION: Refer to [Fastener Caution](#) .

4. Install the transmission fluid cooler pipe bolt (1) in the transmission and tighten to 22 N.m (16 lb ft).
5. Install the transmission fluid cooler pipe clip bolt (1) in the engine oil pan and tighten to 22 N.m (16 lb ft).

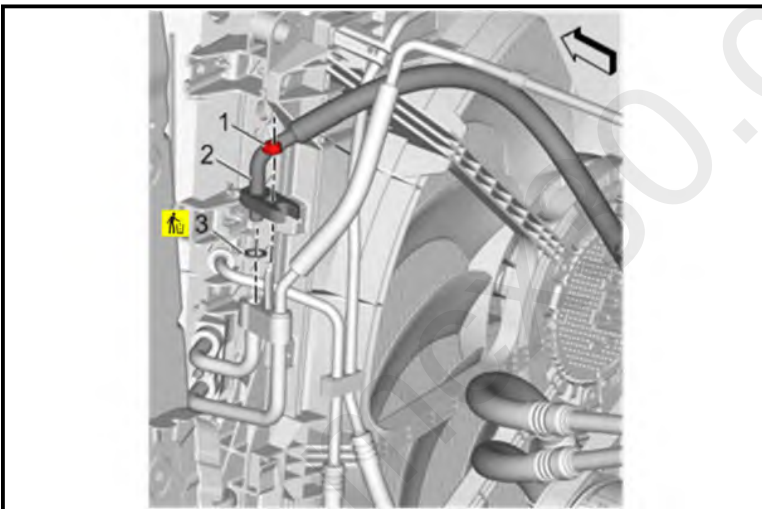


6. Route any wiring harnesses previously moved to their original routing as necessary.
7. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Air Conditioning Condenser - Install - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)

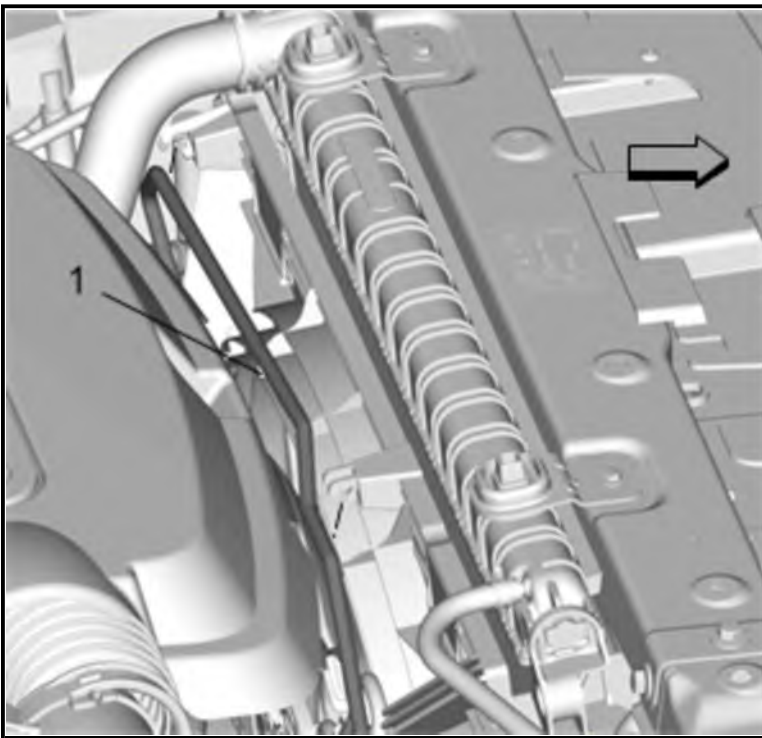


8. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Air Conditioning Condenser - Install

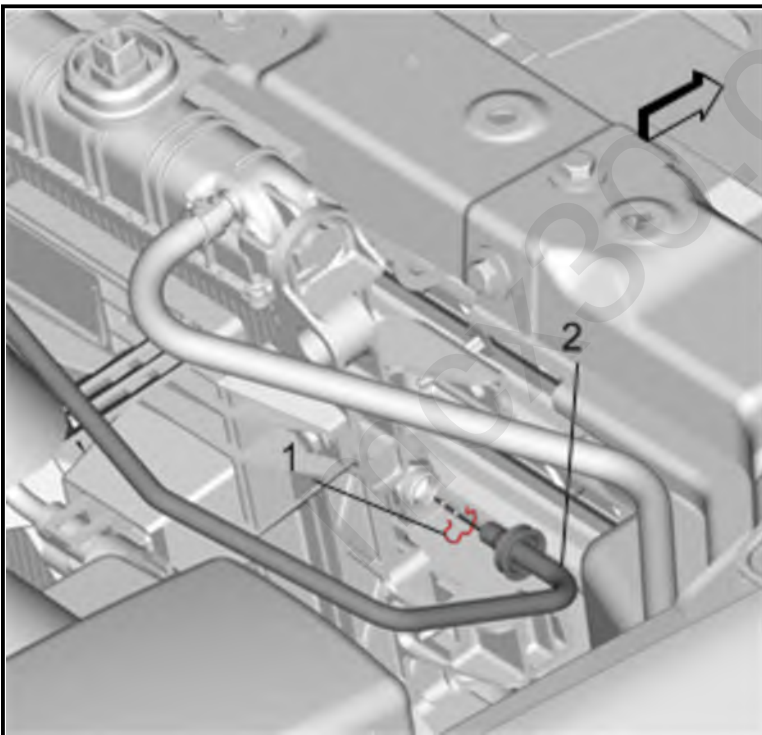
9. Air Conditioning Compressor Hose (2) @ Air Conditioning Condenser - Install - [Air Conditioning Compressor Hose Replacement \(LGZ\)](#).



10. Clip the transmission fluid cooler inlet and outlet pipe to the engine coolant fan shroud. (1)



11. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Air Conditioning Condenser - Install - Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection



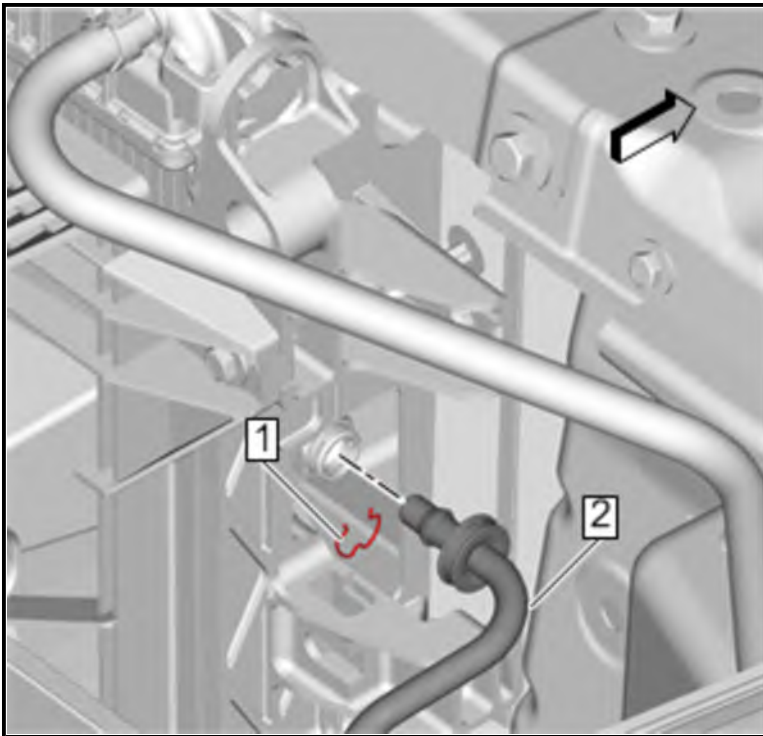
12. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Air Conditioning Condenser - Install
 13. Route any wiring harnesses previously moved to their original routing as necessary.
 14. Fill the transmission to the proper level with NEW transmission fluid. Transmission Fluid Level and Condition Check
 15. Inspect for transmission fluid leaks.

TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (LCV)

Removal Procedure

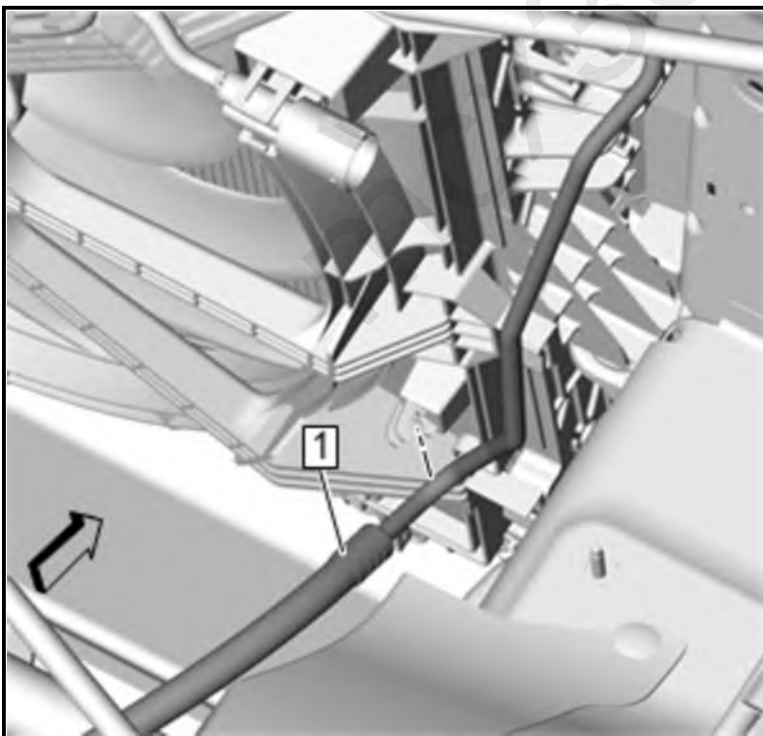
1. Reposition any wiring harnesses out of the way of the transmission fluid cooler inlet and outlet pipe as necessary.

2. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Air Conditioning Condenser - Remove - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)

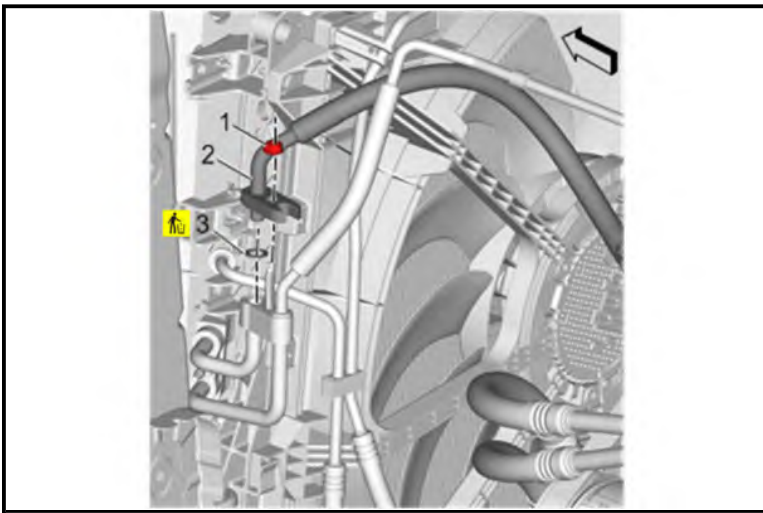


NOTE: Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

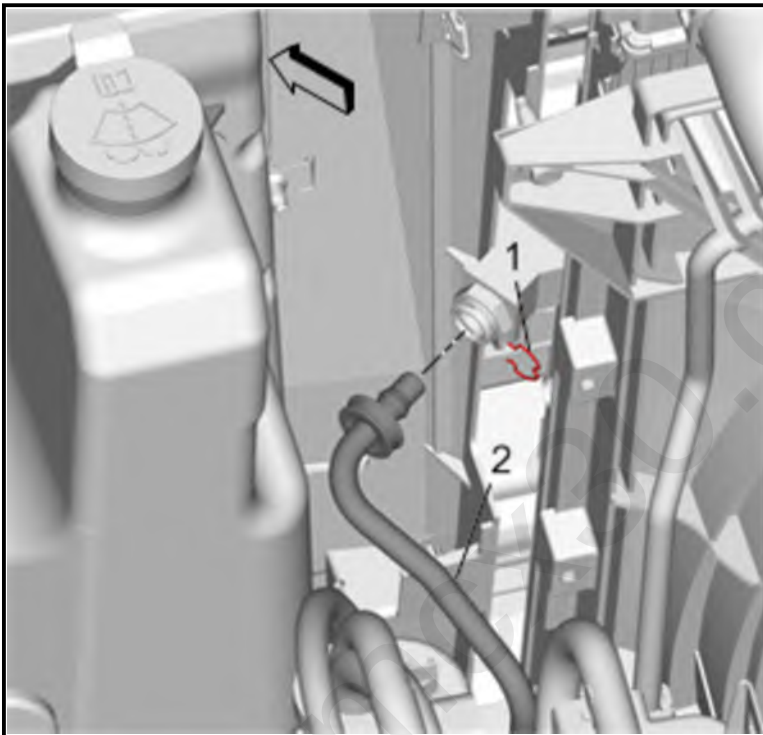
3. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Air Conditioning Condenser - Remove
4. Unclip the transmission fluid cooler inlet and outlet pipe from the engine coolant fan shroud. (1)



5. Air Conditioning Compressor Hose (2) @ Air Conditioning Condenser - Separate - [Air Conditioning Compressor Hose Replacement \(LCV\)](#)

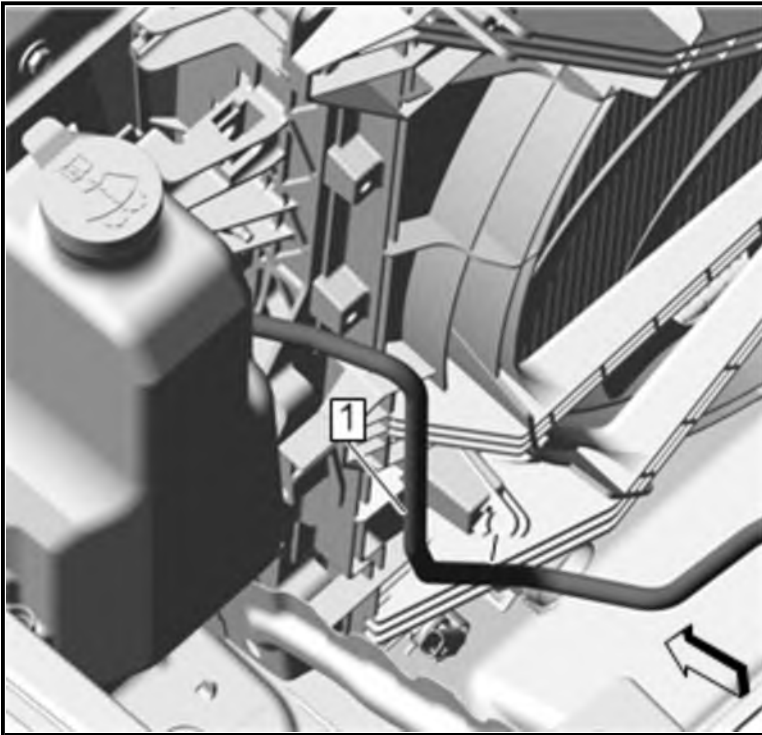


6. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Air Conditioning Condenser - Remove - Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection

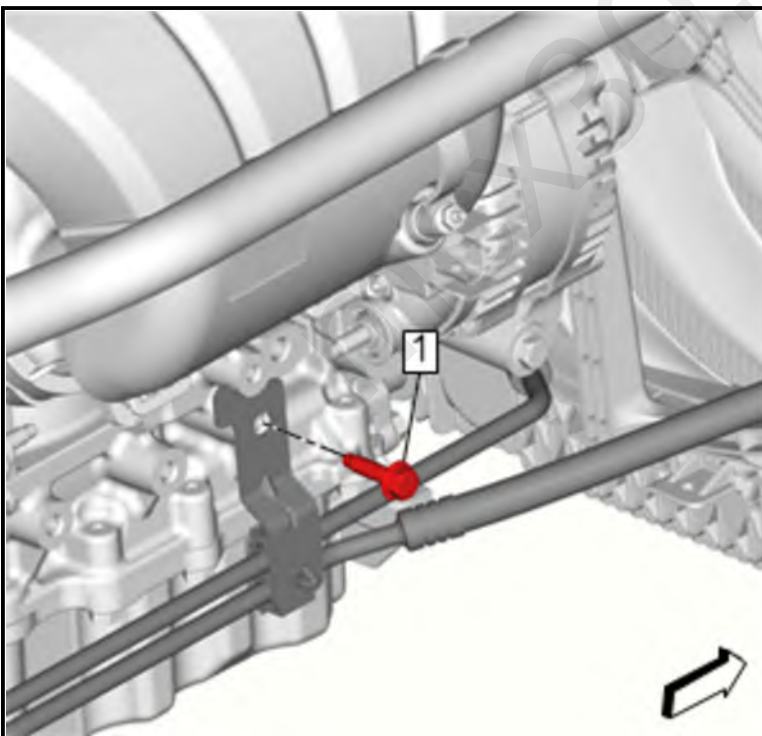


NOTE: Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

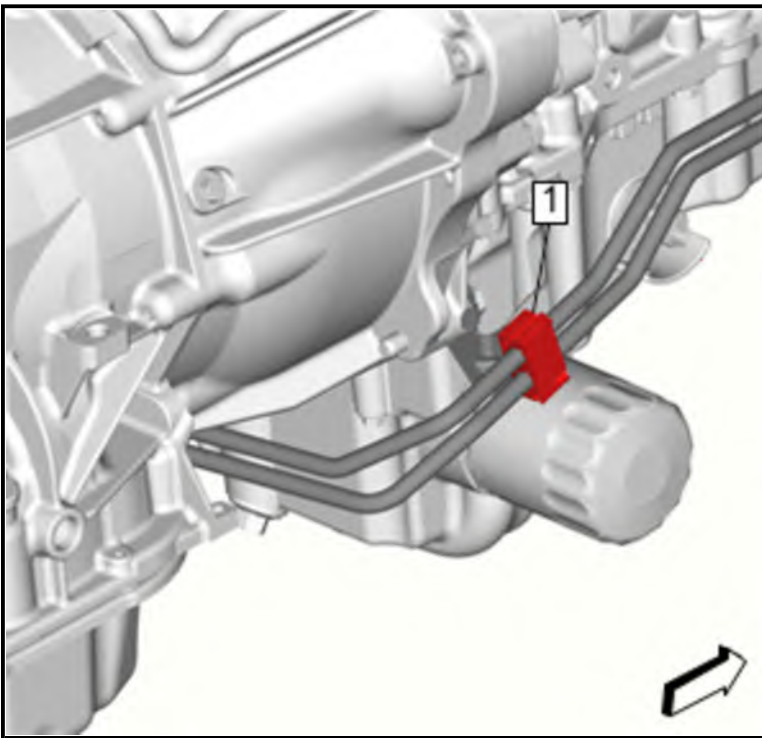
7. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Air Conditioning Condenser - Remove
8. Unclip the transmission fluid cooler inlet and outlet pipe from the engine coolant fan shroud. (1)



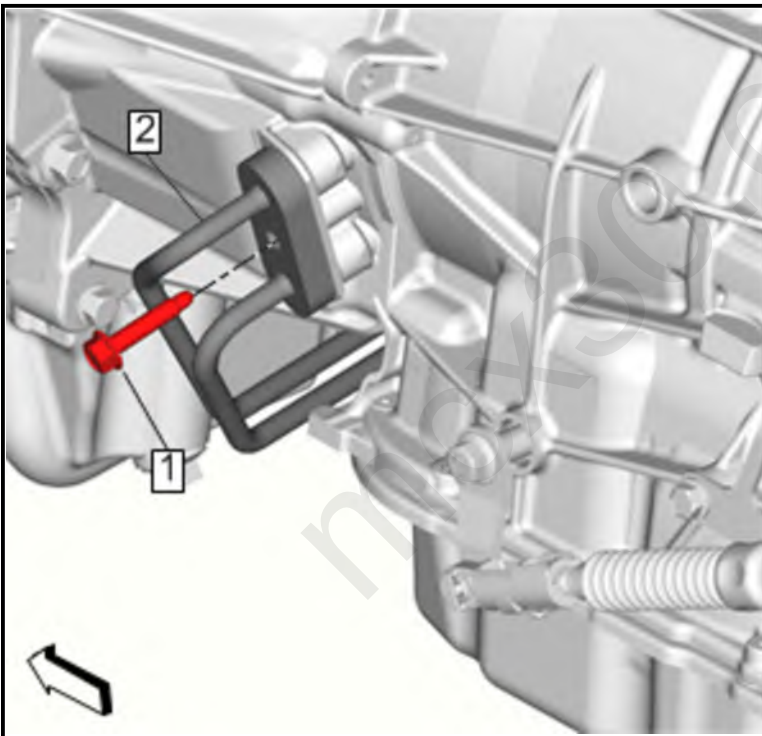
9. Raise and support the vehicle. [Lifting and Jacking the Vehicle](#)
10. [Underbody Splash Shield Replacement \(without ZR2\)](#) , or [Underbody Splash Shield Replacement \(Bison\)](#) - Remove
11. Reposition any wiring harnesses out of the way of the transmission fluid cooler inlet and outlet pipe as necessary.
12. Remove the transmission fluid cooler pipe clip bolt (1) from the engine oil pan.



13. Open the plastic transmission fluid cooler pipe clip (1).



14. Remove the transmission fluid cooler pipe bolt (1) from the transmission.

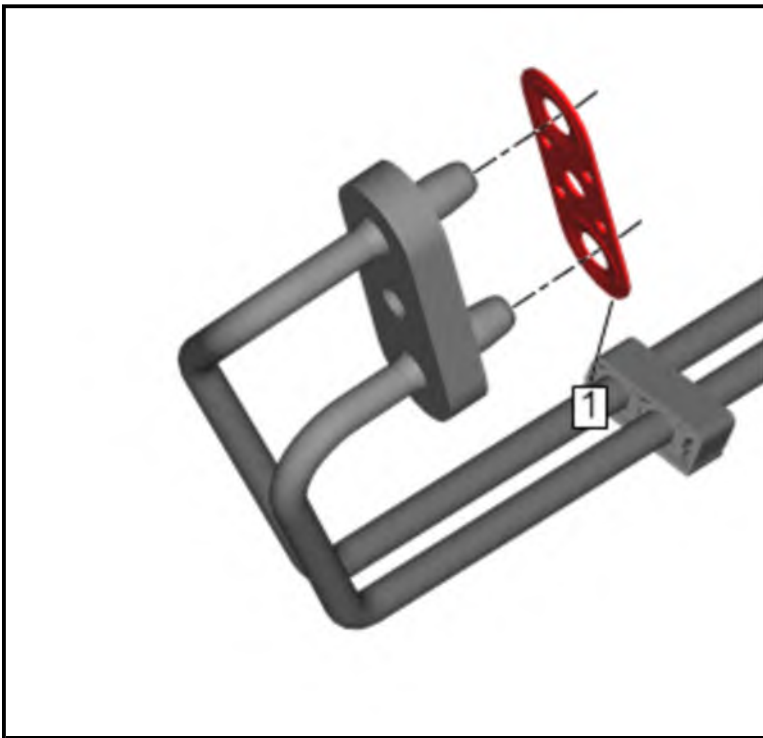


NOTE:

Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

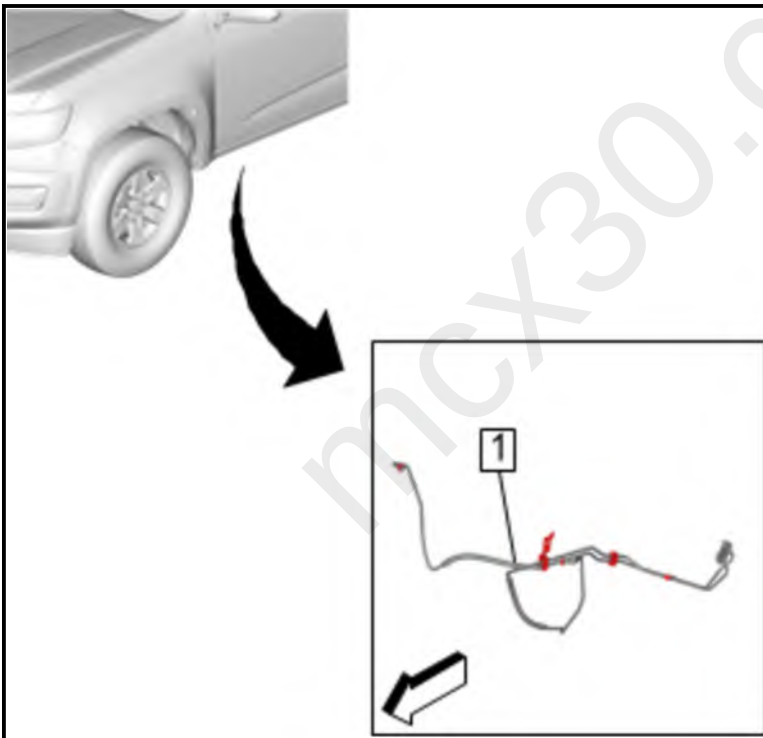
15. Remove the transmission fluid cooler inlet and outlet pipe (2) from the transmission.

16. Remove the transmission fluid cooler inlet and outlet pipe seal (1).



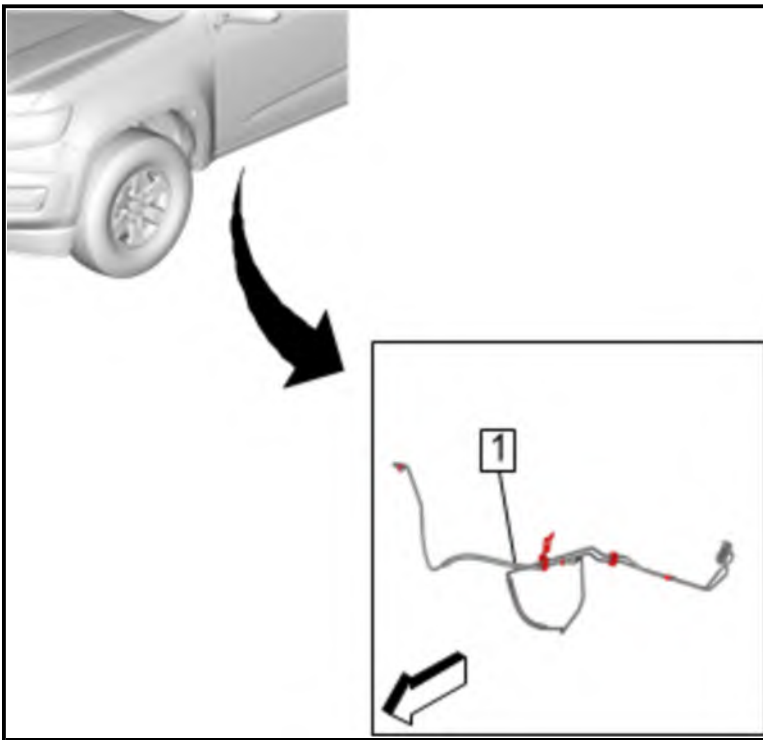
DISCARD the seal.

17. Remove the transmission fluid cooler inlet and outlet pipe (1) from the vehicle.

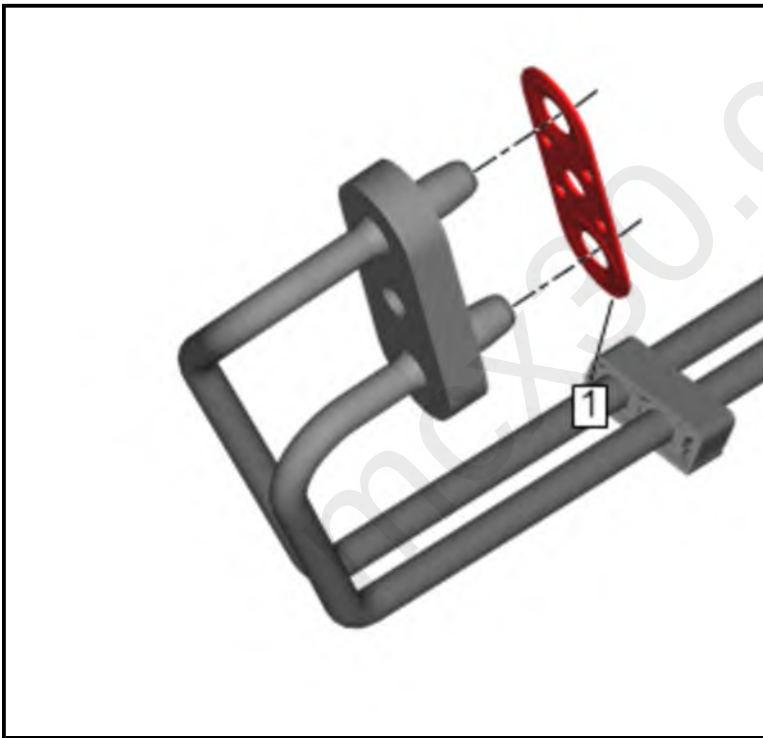


Installation Procedure

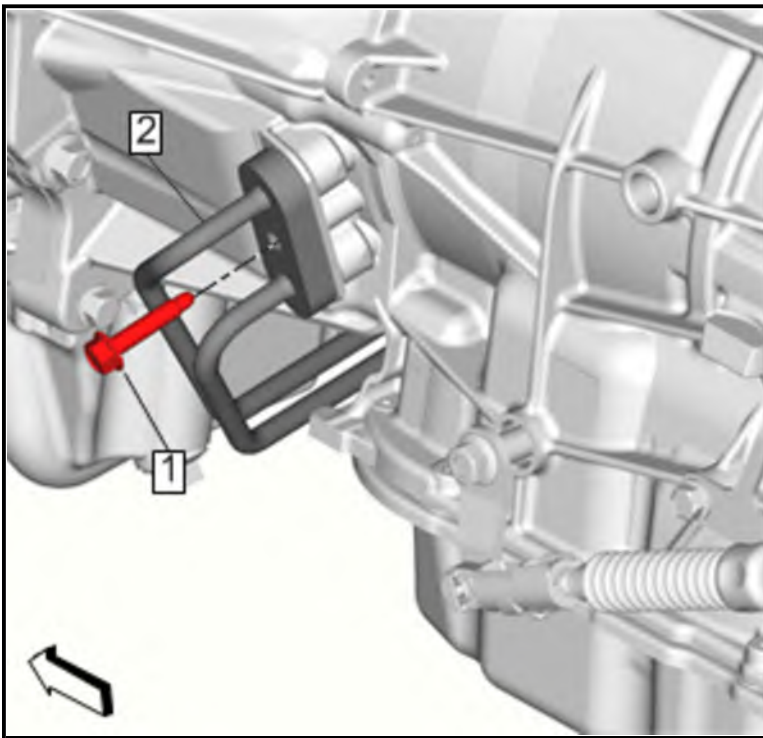
1. Position the transmission fluid cooler inlet and outlet pipe (1) on the vehicle.



2. Install a NEW transmission fluid cooler inlet and outlet pipe seal (1).

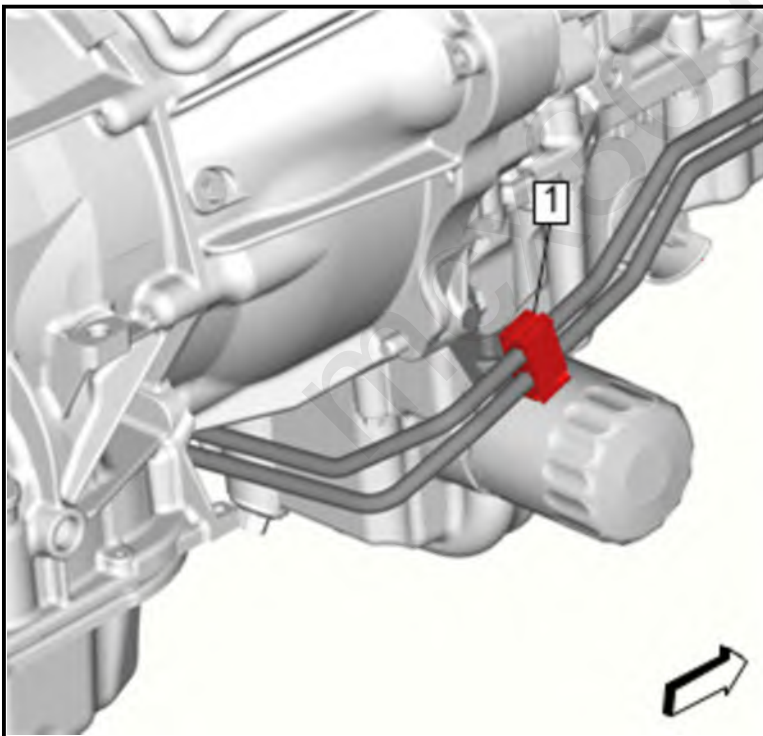


3. Install the transmission fluid cooler inlet and outlet pipe (2) in the transmission.

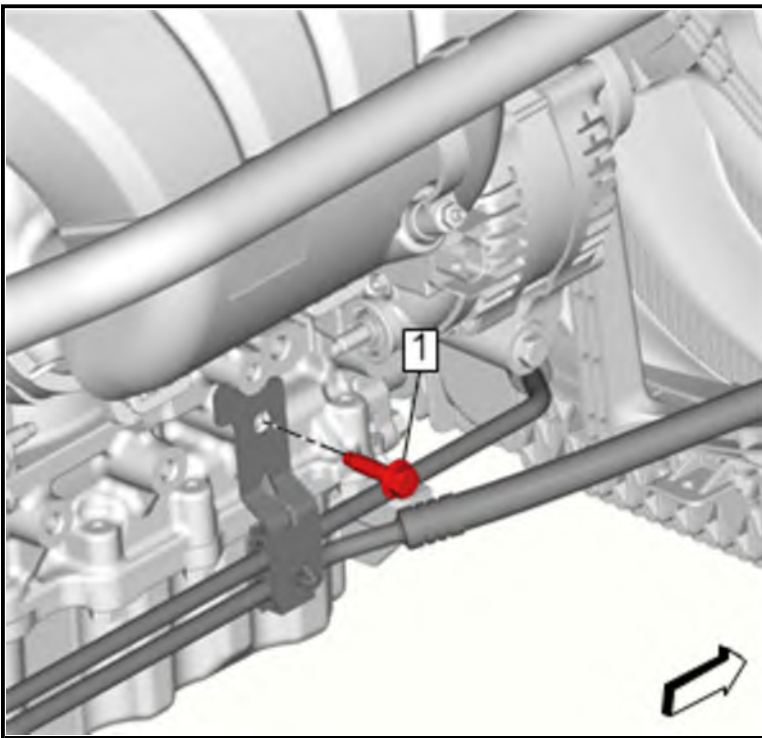


CAUTION: Refer to [Fastener Caution](#) .

4. Install the transmission fluid cooler pipe bolt (1) in the transmission and tighten to 22 N.m (16 lb ft).
5. Close the plastic transmission fluid cooler pipe clip (1).



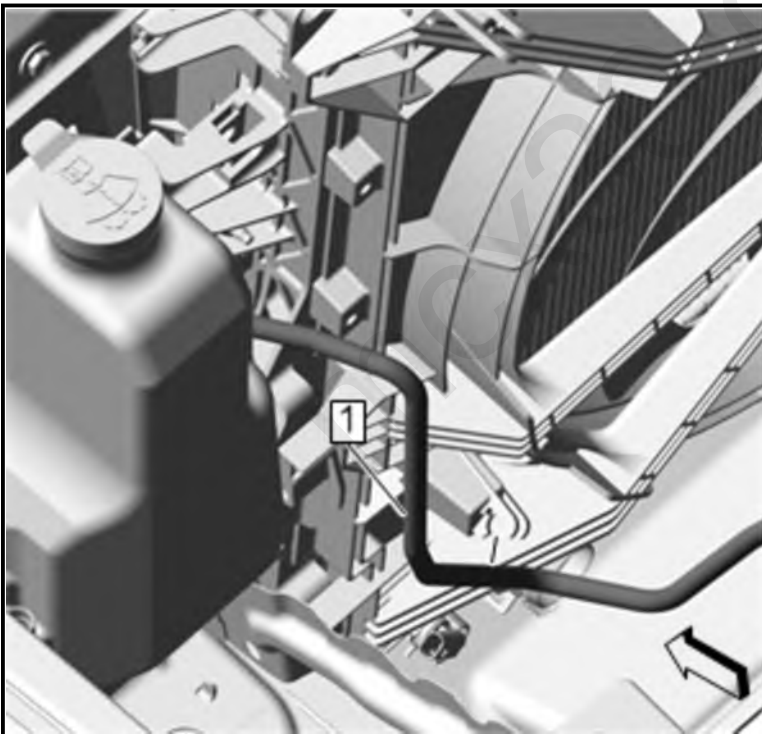
6. Install the transmission fluid cooler pipe clip bolt (1) in the engine oil pan and tighten to 58 N.m (43 lb ft).



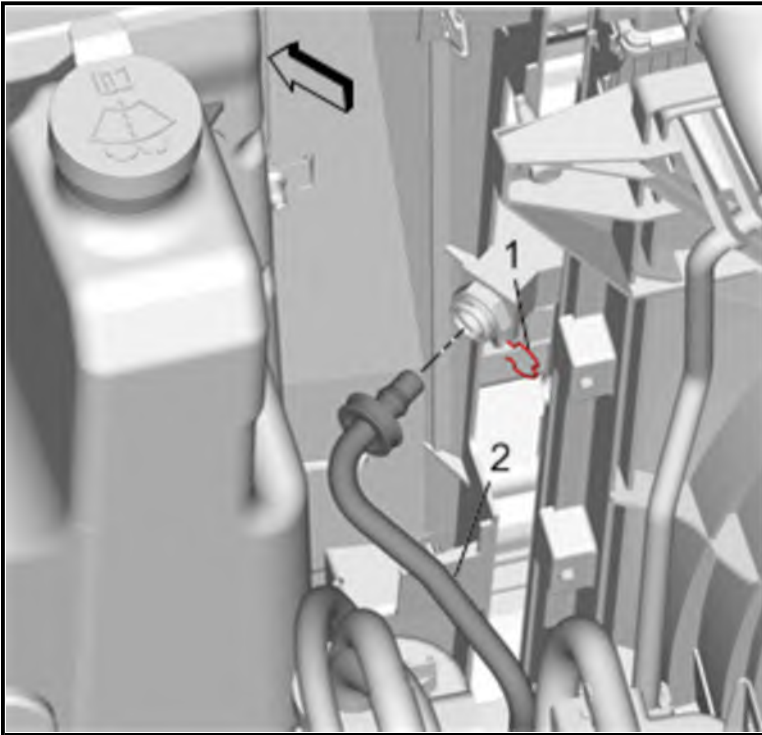
7. Route any wiring harnesses previously moved to their original routing as necessary.

8. Underbody Splash Shield Replacement (without ZR2) , or Underbody Splash Shield Replacement (Bison) - Install

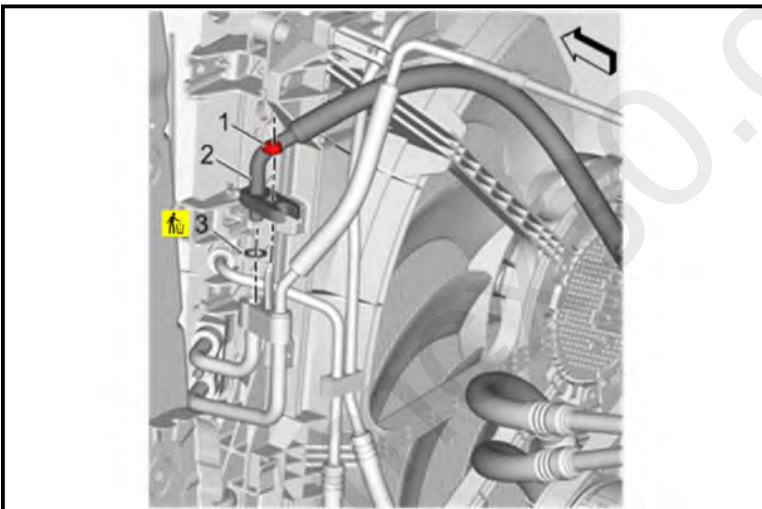
9. Clip the transmission fluid cooler inlet and outlet pipe to the engine coolant fan shroud. (1)



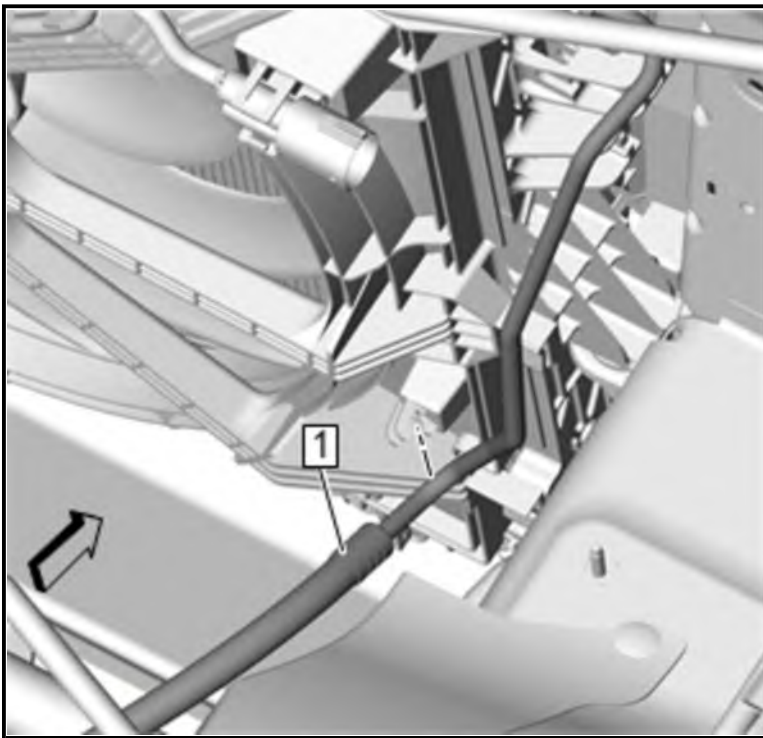
10. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Air Conditioning Condenser - Install - Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection



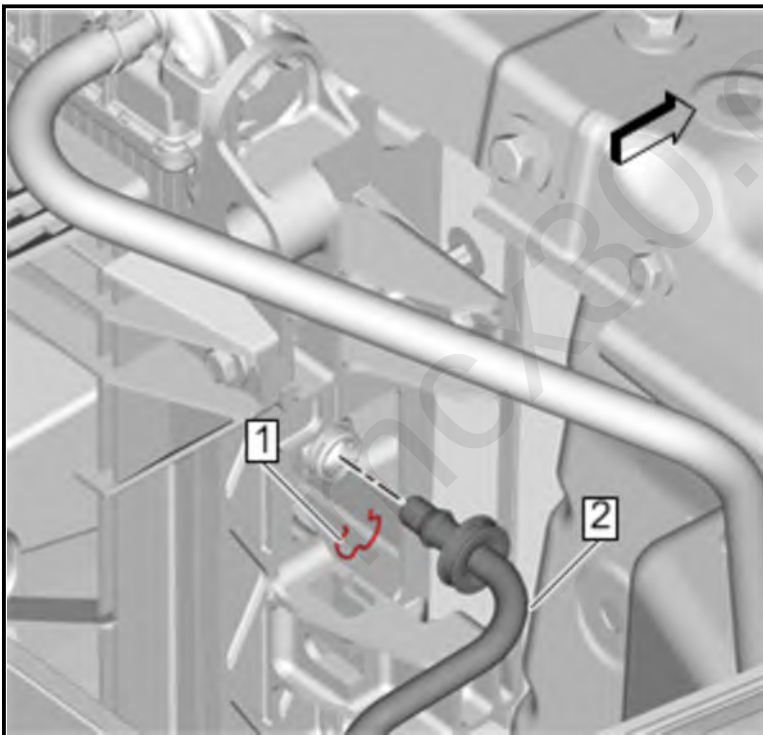
11. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Air Conditioning Condenser - Install
12. Air Conditioning Compressor Hose (2) @ Air Conditioning Condenser - Install - [Air Conditioning Compressor Hose Replacement \(LCV\)](#)



13. Clip the transmission fluid cooler inlet and outlet pipe to the engine coolant fan shroud. (1)



14. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Air Conditioning Condenser - Install - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)



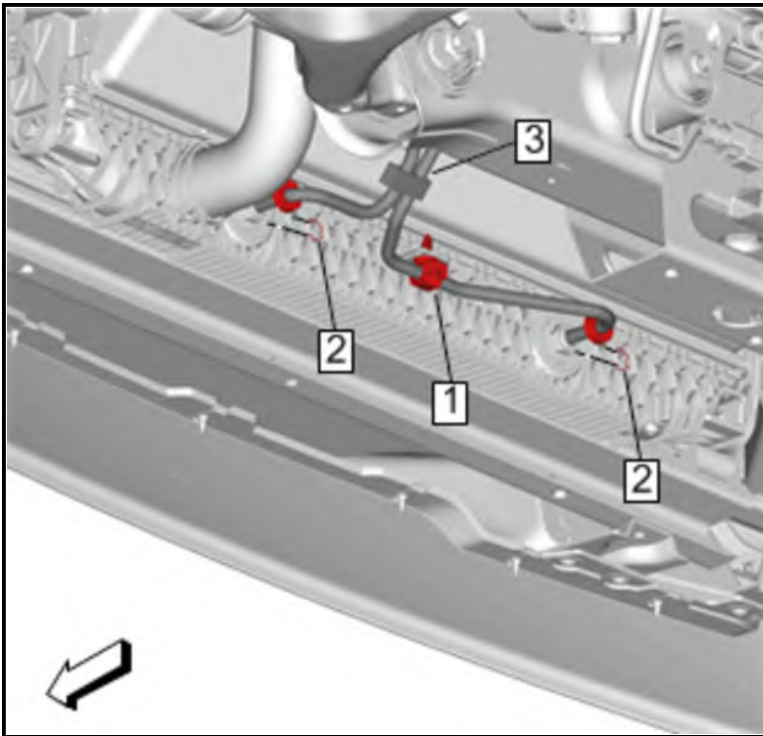
15. Transmission Fluid Cooler Inlet and Outlet Pipe (2) @ Air Conditioning Condenser - Install
 16. Route any wiring harnesses previously moved to their original routing as necessary.
 17. Fill the transmission to the proper level with NEW transmission fluid. [Transmission Fluid Level and Condition Check](#)
 18. Inspect for transmission fluid leaks.

TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (LWN)

Removal Procedure

1. Raise and support the vehicle. [Lifting and Jacking the Vehicle](#)
2. Underbody Splash Shield - Remove - [Underbody Splash Shield Replacement \(without ZR2\)](#) , or [Underbody Splash Shield Replacement \(with ZR2\)](#) , or [Underbody Splash Shield Replacement \(Bison\)](#).

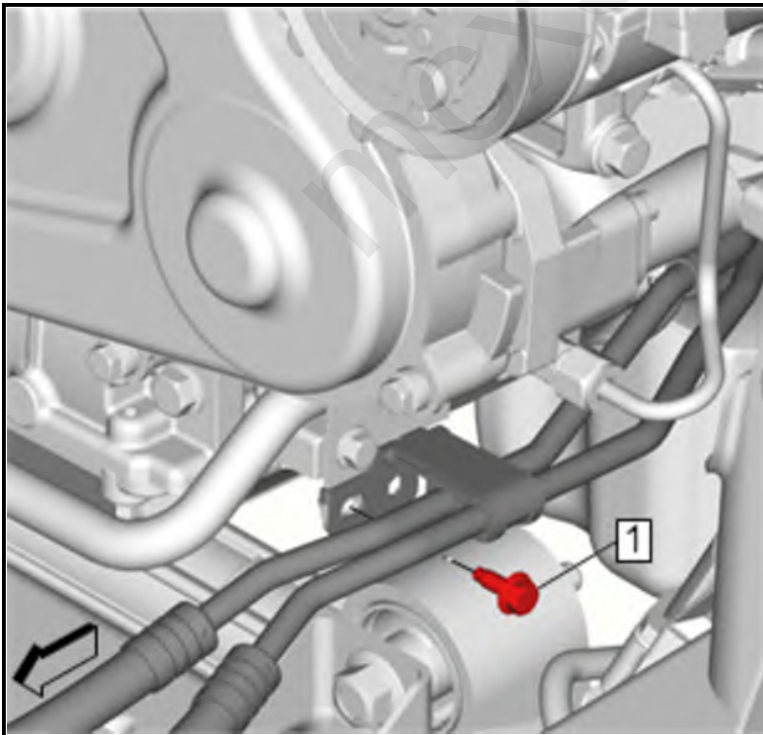
3. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (2) @ Radiator - Remove [2x] - **Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection**



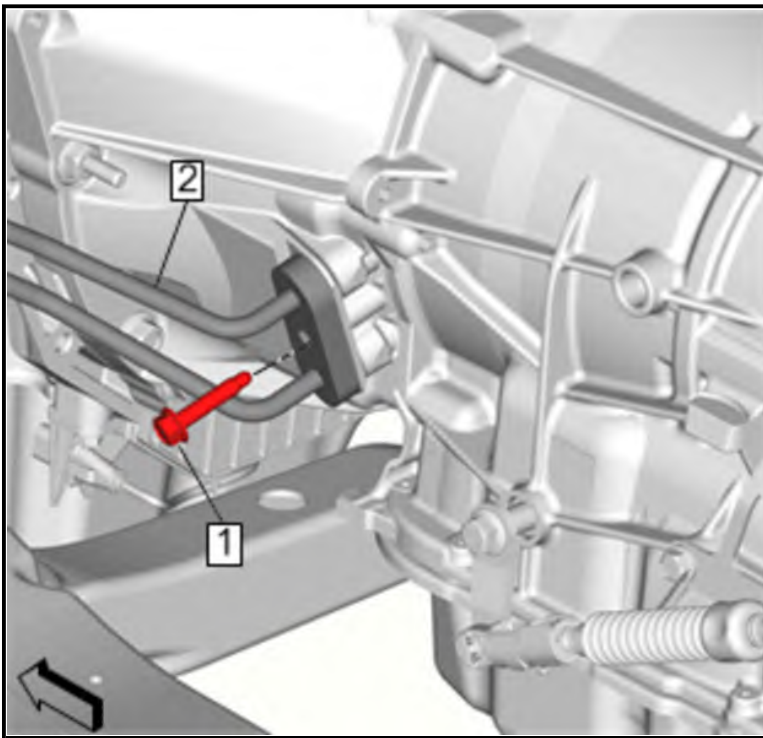
Open the plastic transmission fluid cooler pipe clip (1).

NOTE: Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

4. Transmission Fluid Cooler Inlet and Outlet Pipe (3) @ Radiator - Remove [2x]
5. Remove the transmission fluid cooler pipe clip bolt (1) from the bracket.

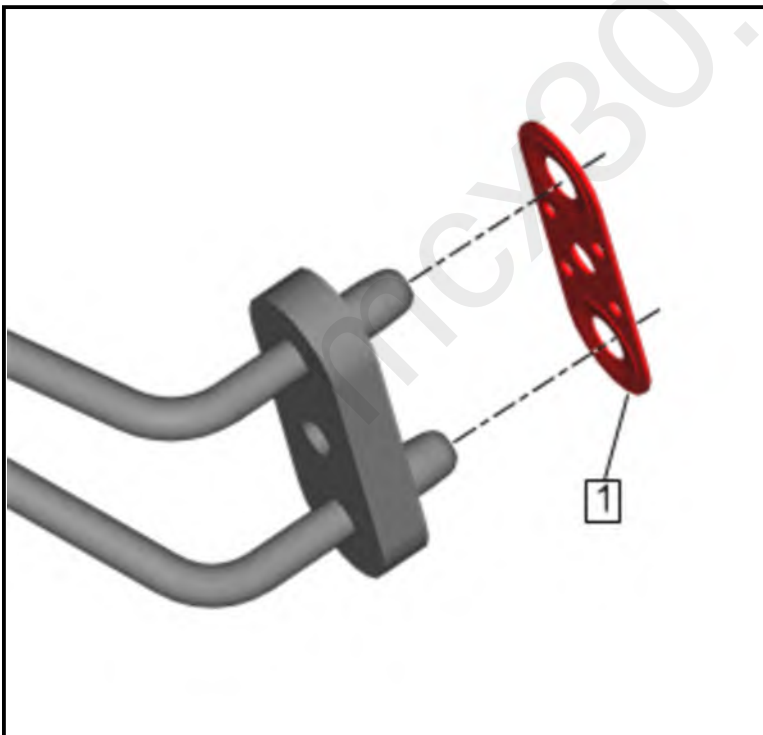


6. Remove the transmission fluid cooler pipe bolt (1).



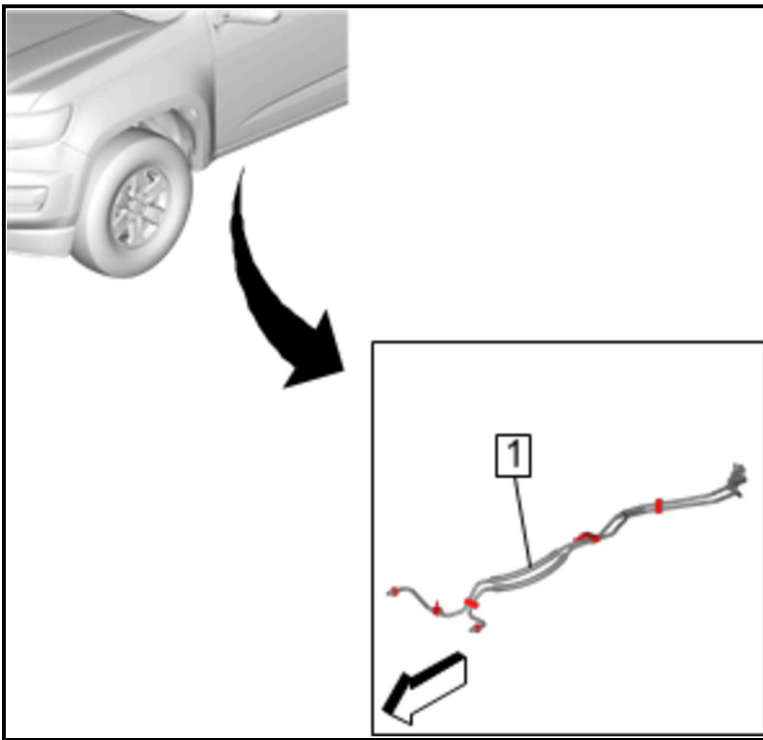
NOTE: Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

7. Remove the transmission fluid cooler inlet and outlet pipe (2) from the transmission.
8. Remove the transmission fluid cooler inlet and outlet pipe seal (1).



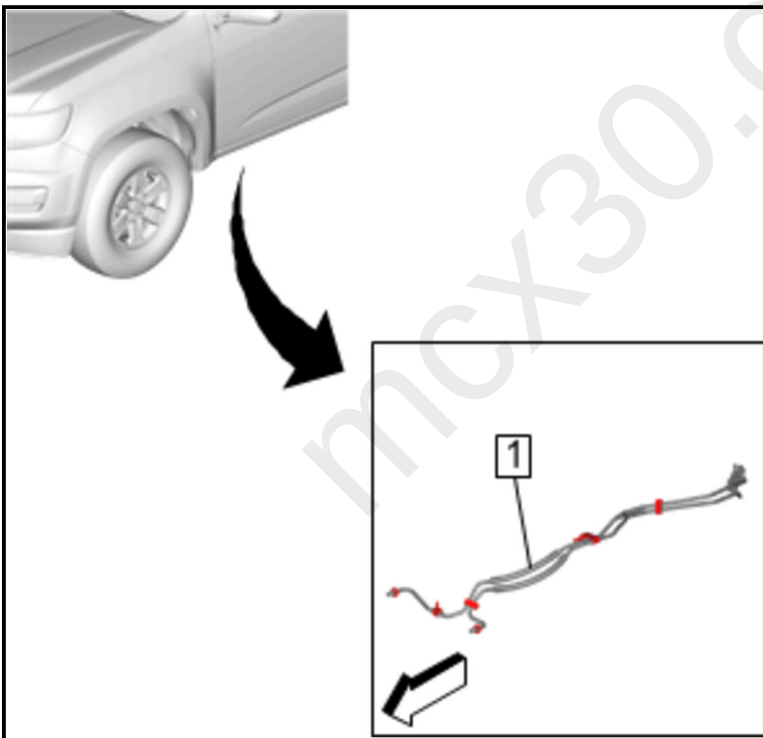
DISCARD the seal.

9. Remove the transmission fluid cooler inlet and outlet pipe (1) from the vehicle.

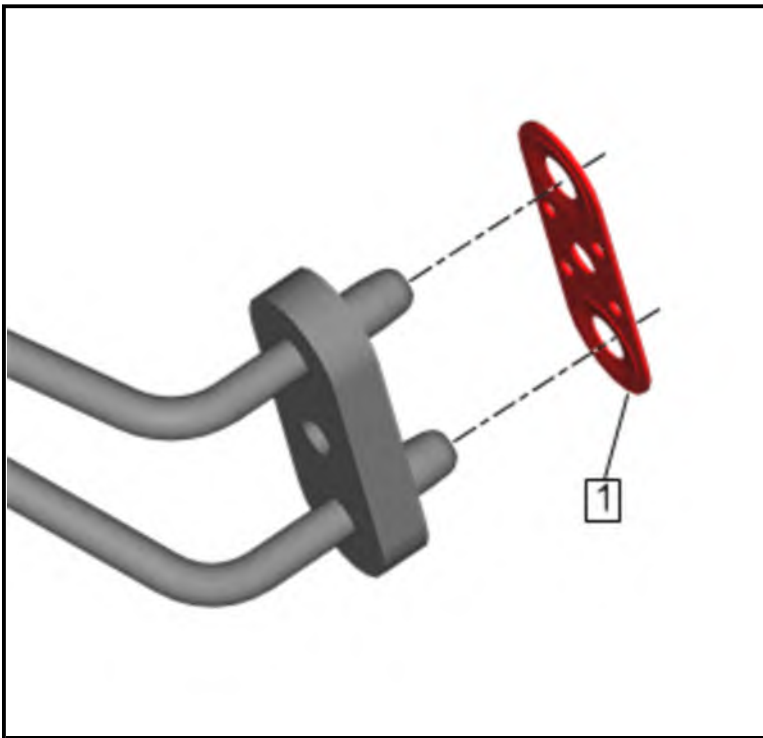


Installation Procedure

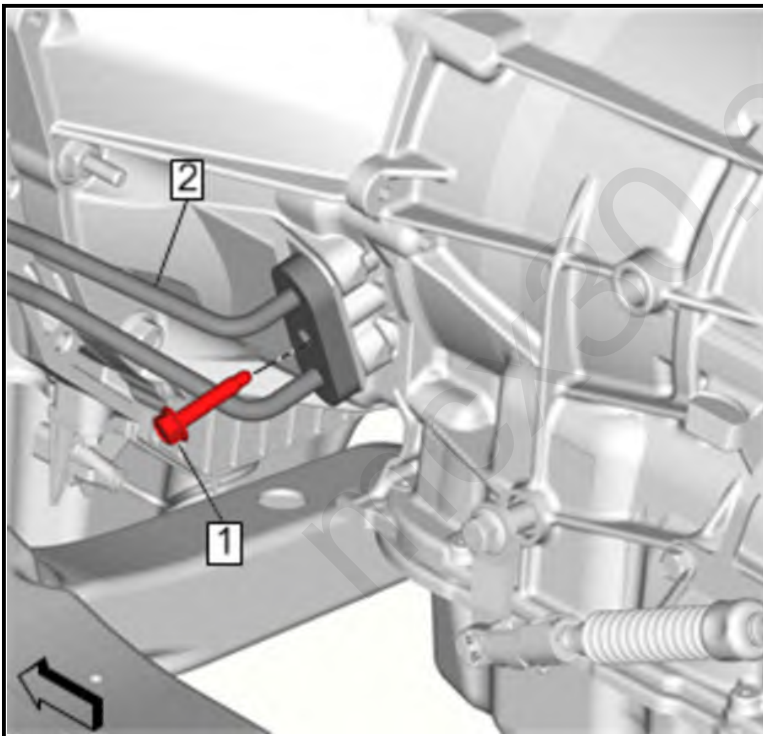
1. Position the transmission fluid cooler inlet and outlet pipe (1) on the vehicle.



2. Install a NEW transmission fluid cooler inlet and outlet pipe seal (1).

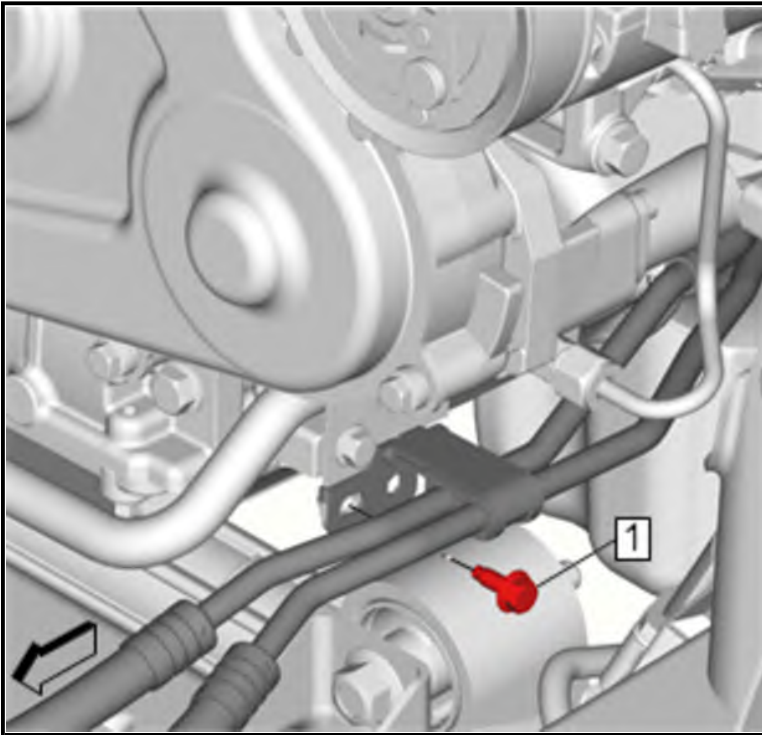


3. Install the transmission fluid cooler inlet and outlet pipe (2) in the transmission.

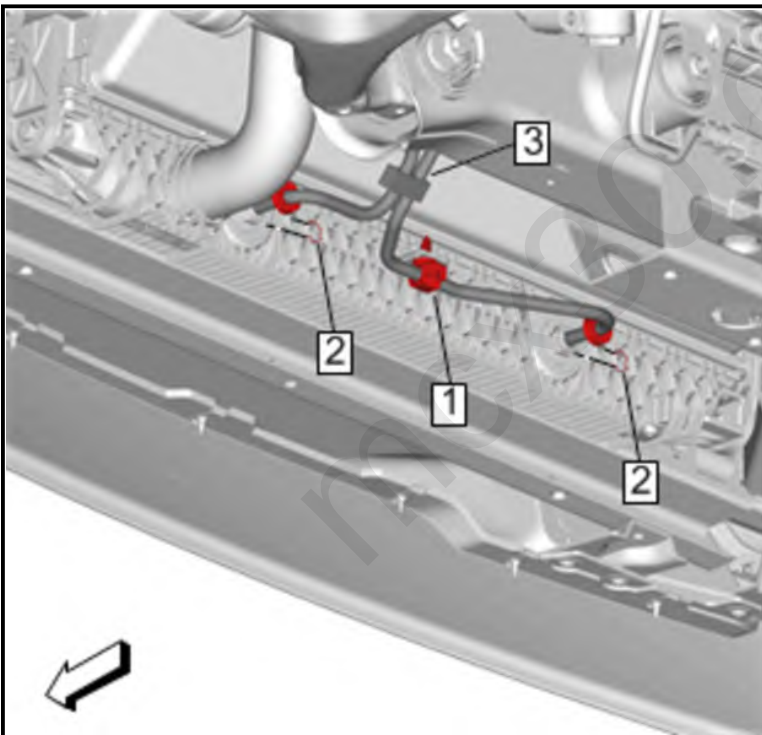


CAUTION: Refer to [Fastener Caution](#) .

4. Install the transmission fluid cooler pipe bolt (1) and tighten to 22 N.m (16 lb ft).
5. Install the transmission fluid cooler pipe clip bolt (1) in the bracket and tighten to 11 N.m (97 lb in).



6. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (2) @ Radiator - Install [2x] - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)



7. Transmission Fluid Cooler Inlet and Outlet Pipe (3) @ Radiator - Install [2x]
 8. Close the plastic transmission fluid cooler pipe clip (1).
 9. Underbody Splash Shield - Install - [Underbody Splash Shield Replacement \(without ZR2\)](#) , or [Underbody Splash Shield Replacement \(with ZR2\)](#) , or [Underbody Splash Shield Replacement \(Bison\)](#).
 10. Fill the transmission to the proper level with NEW transmission fluid. [Transmission Fluid Level and Condition Check](#)
 11. Inspect for transmission fluid leaks.

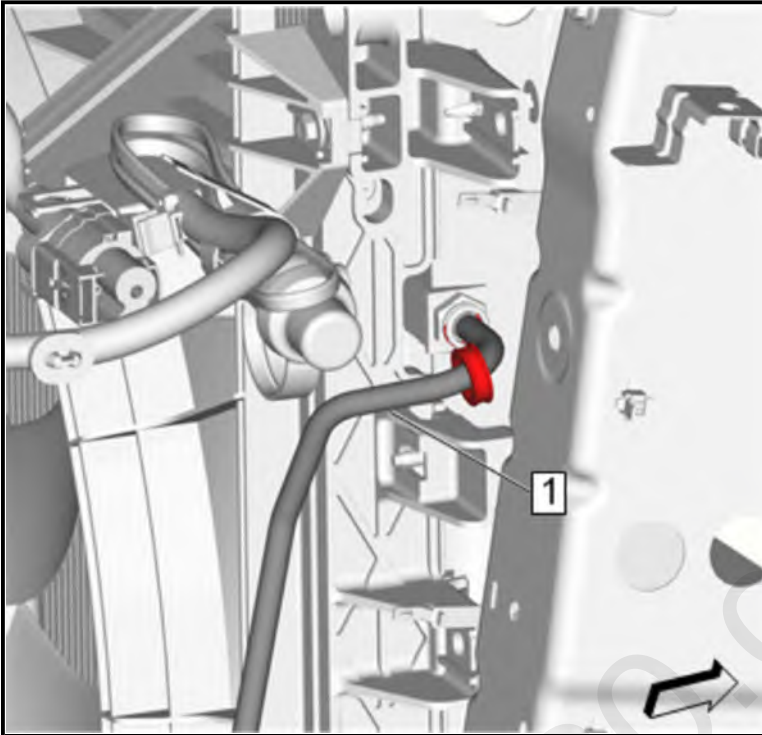
TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (LGZ WITH M5T AND 4WD)

Removal Procedure

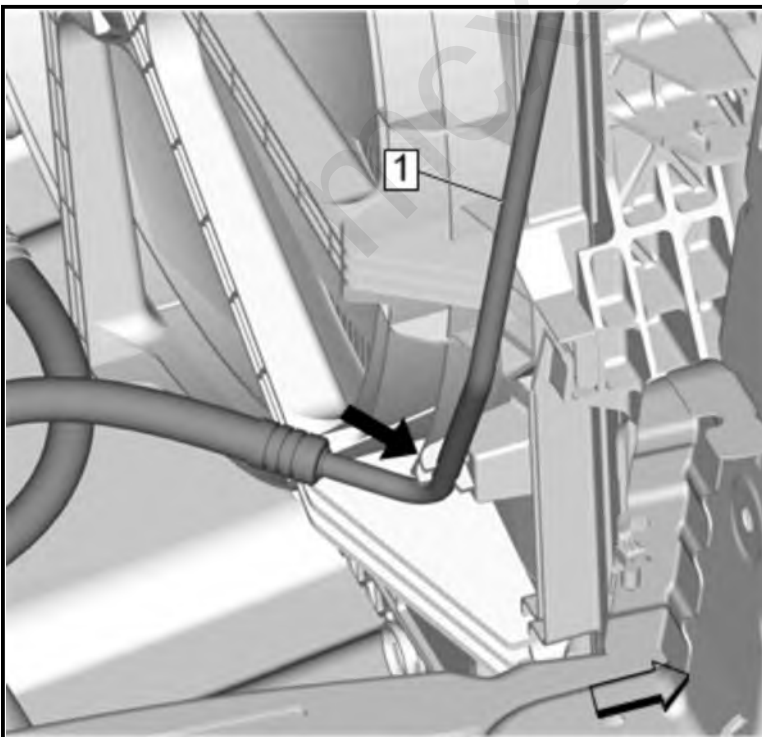
1. Reposition any wiring harnesses out of the way of the transmission fluid cooler inlet and outlet pipe as necessary.

NOTE: Cap the fittings and plug the holes when removing the transmission fluid cooler pipes.

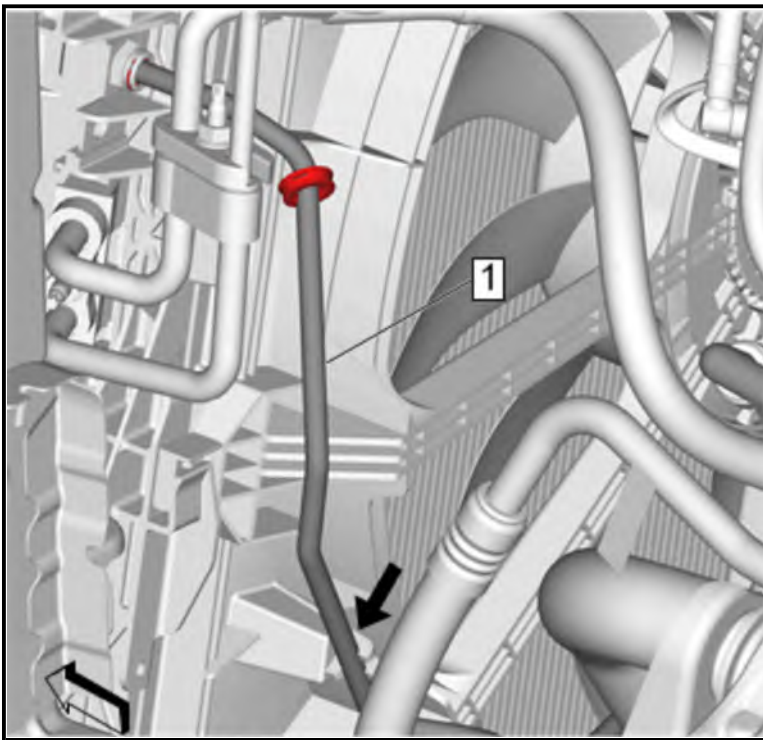
2. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Air Conditioning Condenser - Remove - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)



3. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Engine Coolant Fan Shroud - Remove

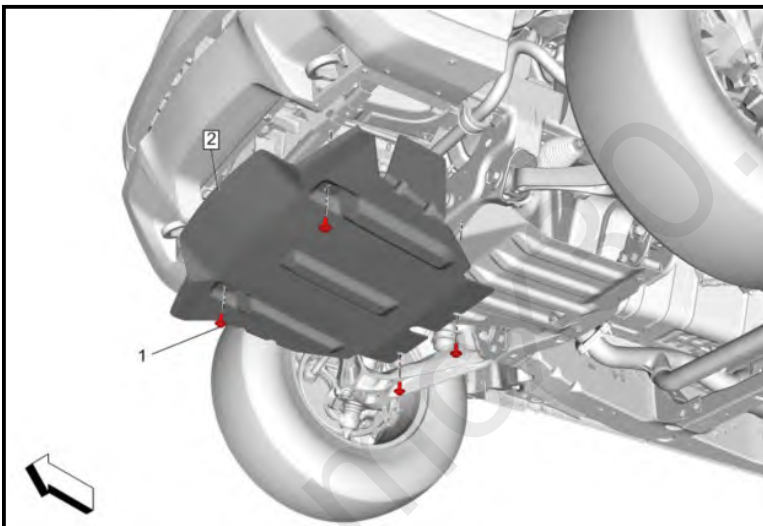


4. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Air Conditioning Condenser - Remove - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)



5. Transmission Fluid Cooler Inlet and Outlet Pipe @ Engine Coolant Fan Shroud - Remove

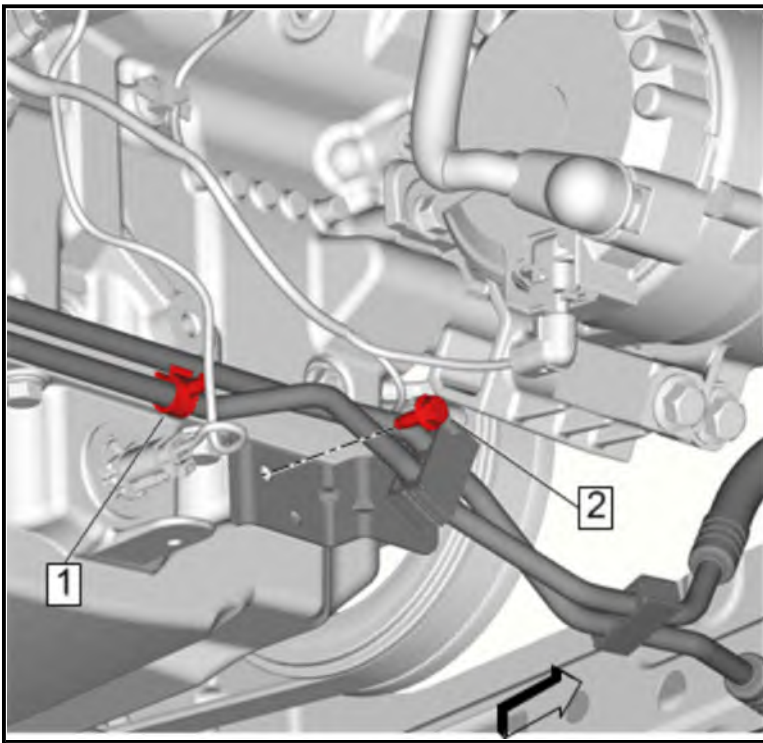
6. Raise and support the vehicle. [Lifting and Jacking the Vehicle](#)



7. Underbody Splash Shield (2) - Remove - [Underbody Splash Shield Replacement \(without ZR2\)](#) , or [Underbody Splash Shield Replacement \(with ZR2\)](#) , or [Underbody Splash Shield Replacement \(Bison\)](#).

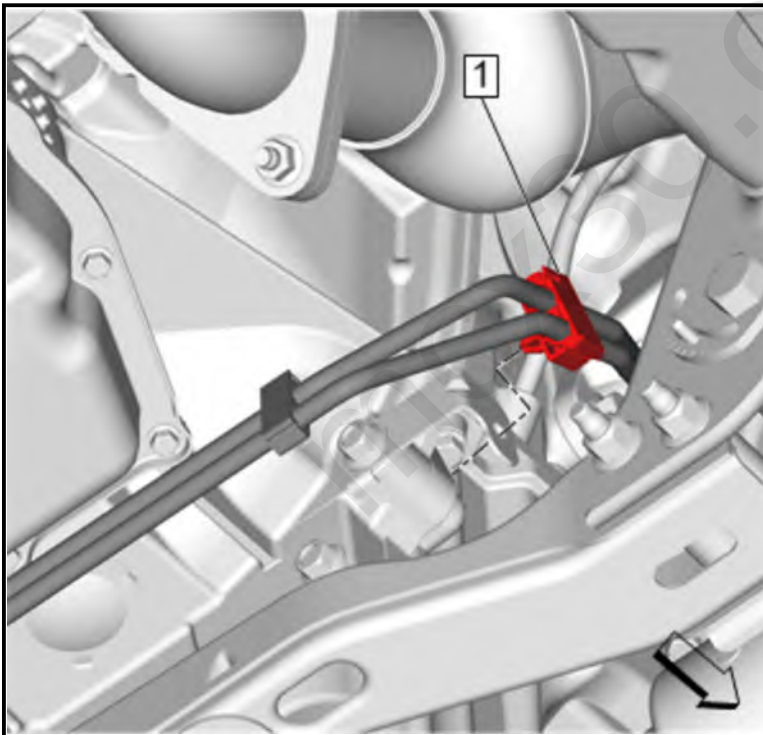
8. Steering Gear Skid Shield - Remove - [Steering Gear Skid Shield Replacement \(without ZR2\)](#) , or [Steering Gear Skid Shield Replacement \(with ZR2\)](#) , or [Steering Gear Skid Shield Replacement \(Bison\)](#).

9. Wiring Harness Retainer (1) - Remove

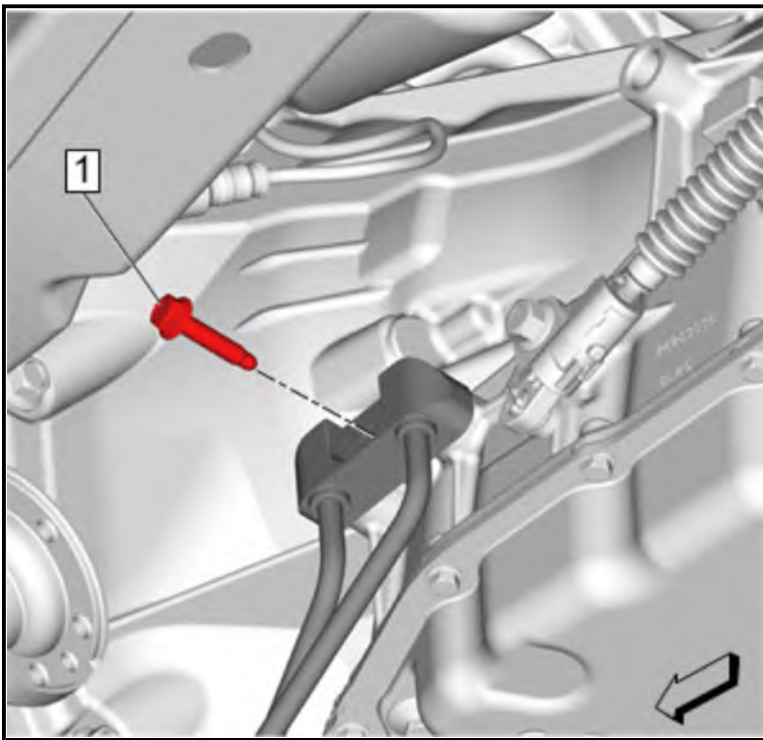


10. Transmission Fluid Cooler Pipe Clip Bolt (2) - Remove

11. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Transmission Fluid Cooler Pipe Clip Bracket - Remove

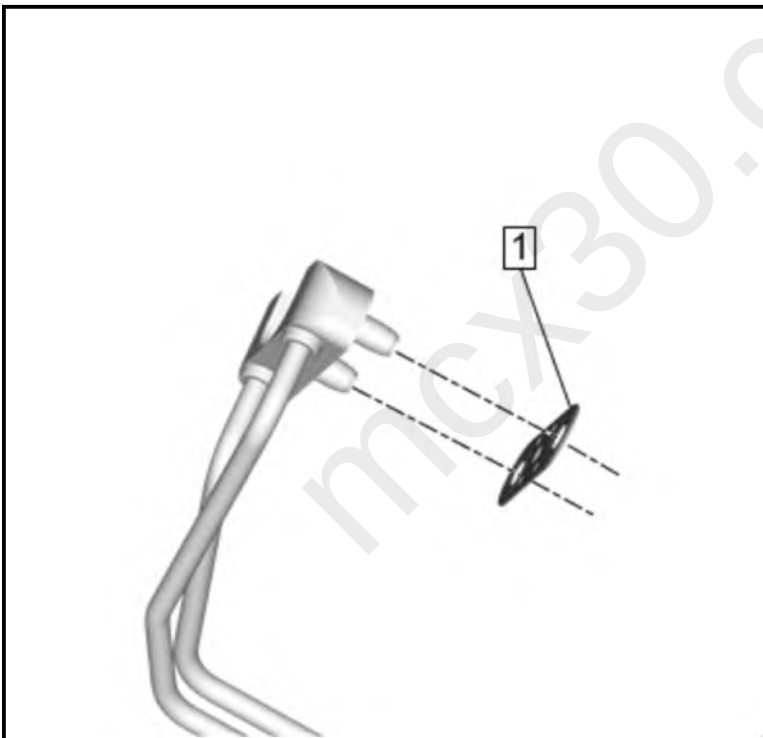


12. Transmission Fluid Cooler Pipe Bolt (1) - Remove



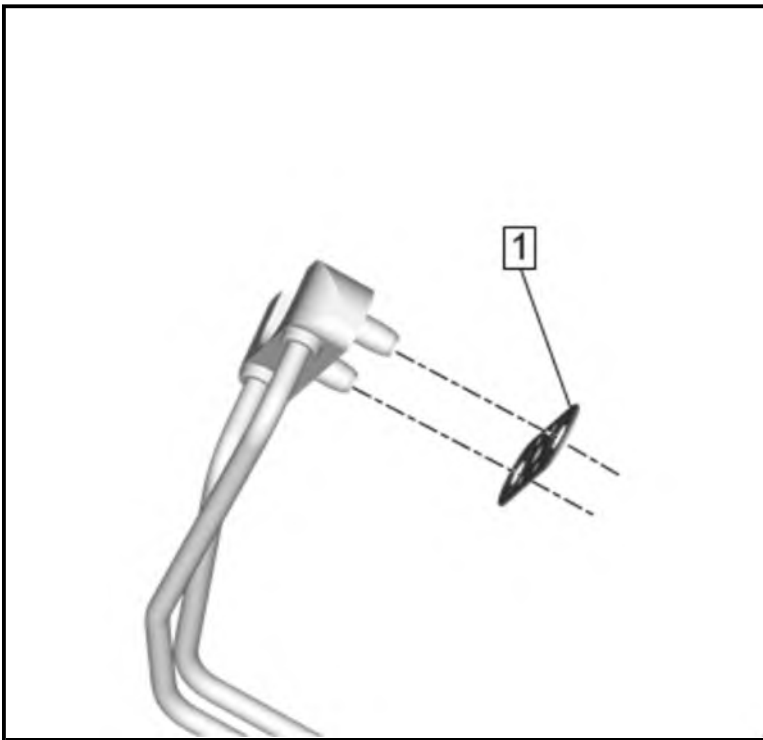
13. Remove the transmission fluid cooler inlet and outlet pipe from the vehicle.

14. Transmission Fluid Cooler Pipe Fitting Seal (1) - Remove and DISCARD

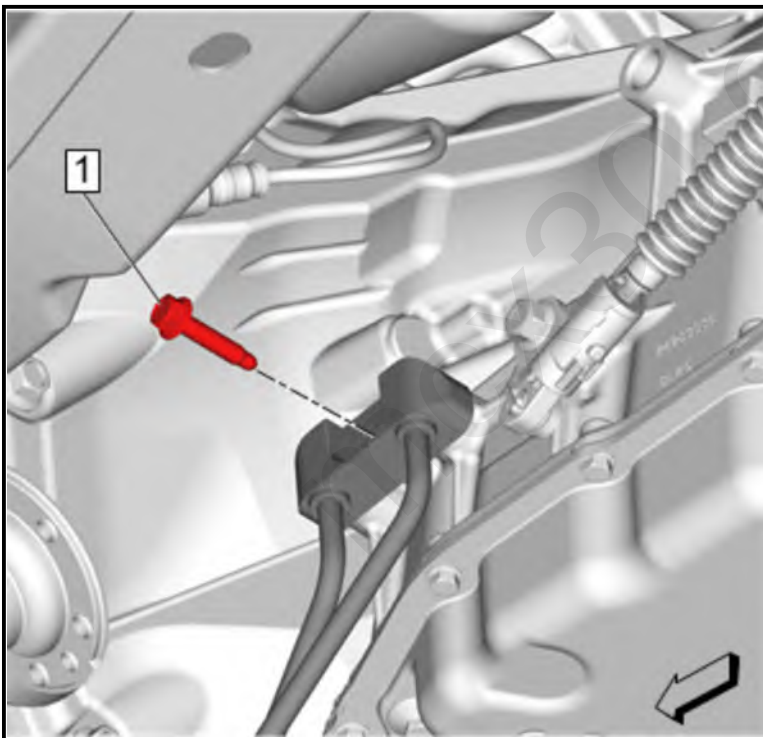


Installation Procedure

1. Transmission Fluid Cooler Pipe Fitting Seal (1) - Install NEW

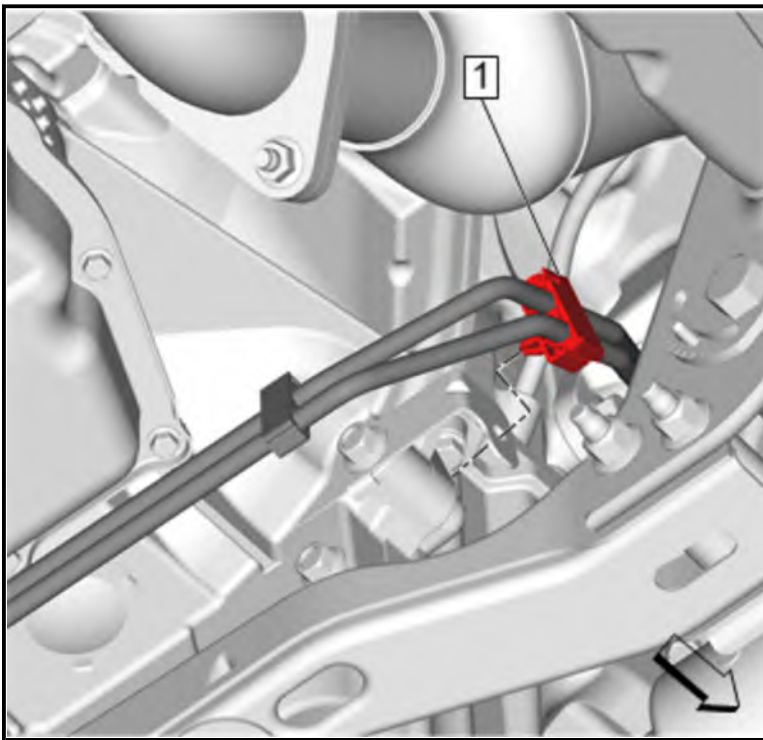


2. Position the transmission fluid cooler inlet and outlet pipe on the vehicle.
3. Transmission Fluid Cooler Pipe Bolt (1) - Install and tighten 22 N.m (16 lb ft)

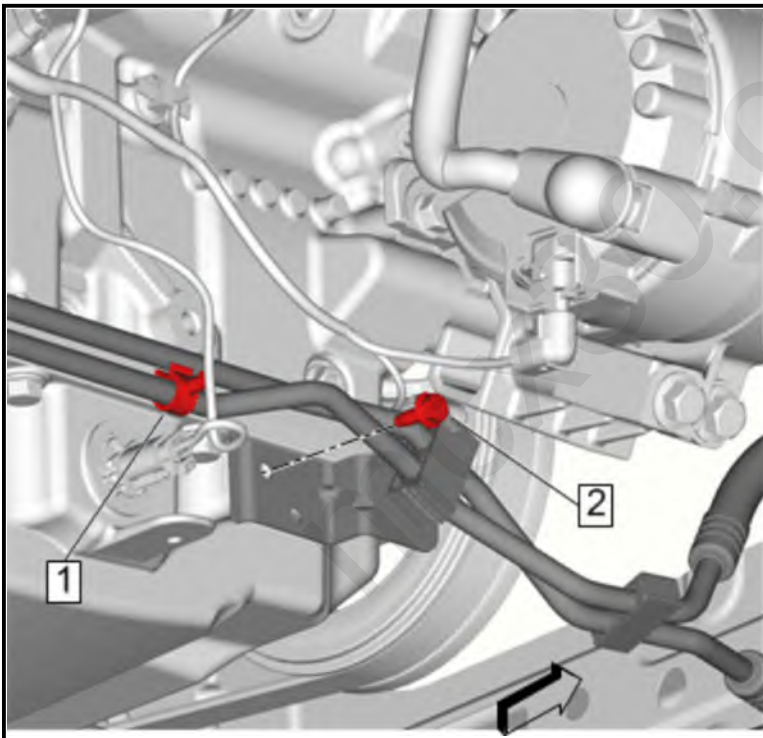


CAUTION: Refer to [Fastener Caution](#) .

4. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Transmission Fluid Cooler Pipe Clip Bracket - Install



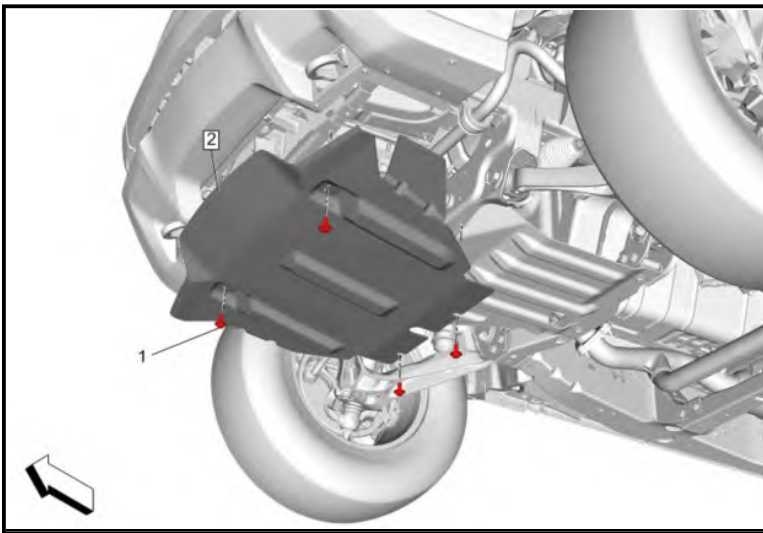
5. Wiring Harness Retainer (1) - Install



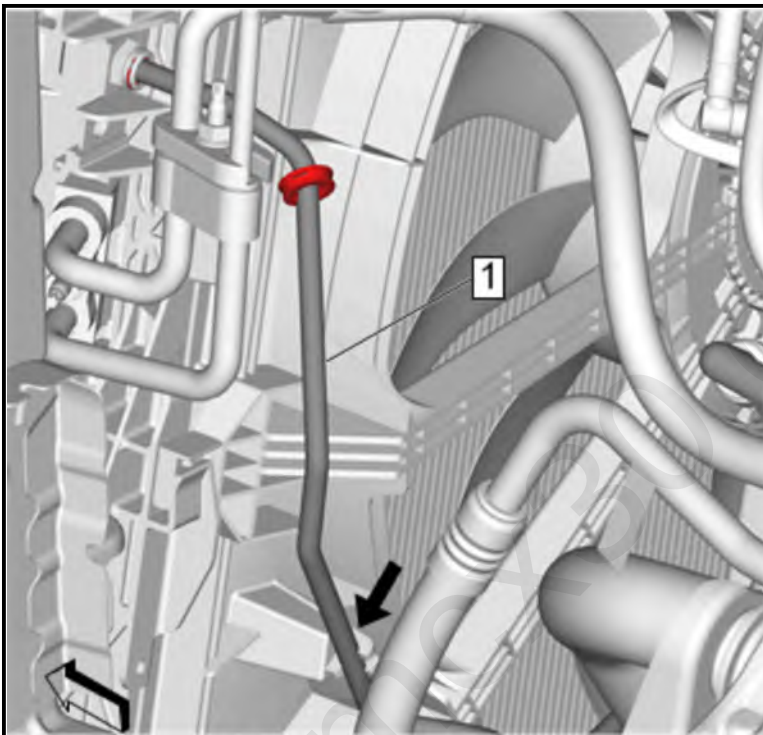
6. Transmission Fluid Cooler Pipe Clip Bolt (2) - Install and tighten 9 N.m (80 lb in)

7. Steering Gear Skid Shield - Install [Steering Gear Skid Shield Replacement \(without ZR2\)](#) , or [Steering Gear Skid Shield Replacement \(with ZR2\)](#) , or [Steering Gear Skid Shield Replacement \(Bison\)](#)

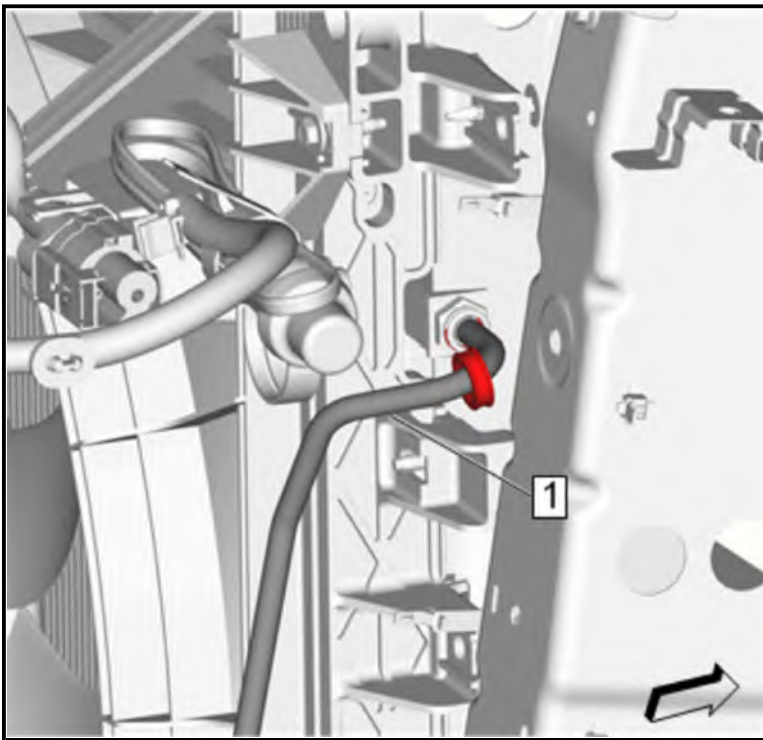
8. Underbody Splash Shield (2) - Install - [Underbody Splash Shield Replacement \(without ZR2\)](#) , or [Underbody Splash Shield Replacement \(with ZR2\)](#) , or [Underbody Splash Shield Replacement \(Bison\)](#)



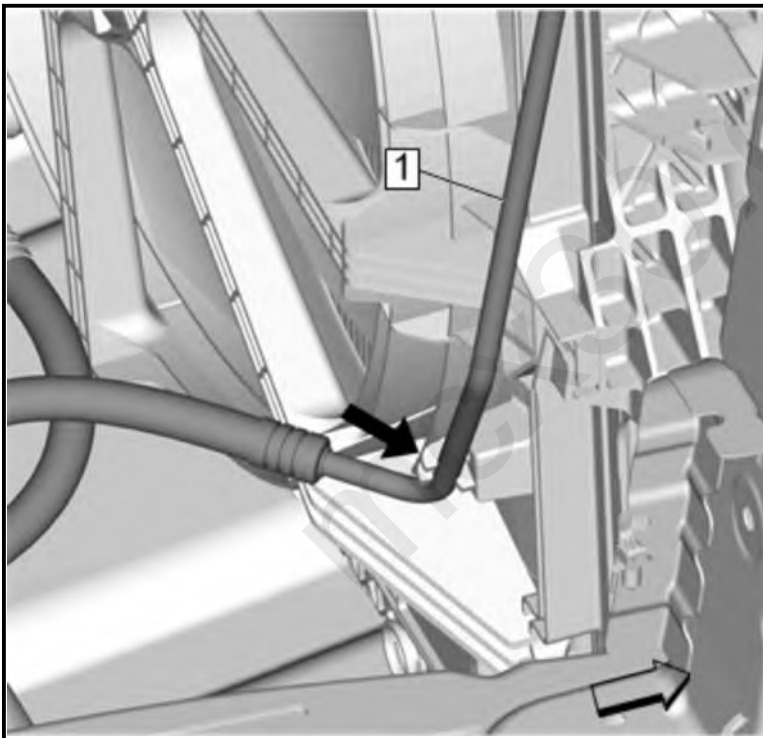
9. Remove the supports and lower the vehicle.



10. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Air Conditioning Condenser - Install - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)
11. Transmission Fluid Cooler Inlet and Outlet Pipe @ Engine Coolant Fan Shroud - Install
12. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Air Conditioning Condenser - Install - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)



13. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Engine Coolant Fan Shroud - Install



14. Position wire harness to its proper position.

15. Fill the transmission to the proper level with NEW transmission fluid. [Transmission Fluid Level and Condition Check](#)

16. Inspect for transmission fluid leaks.

TRANSMISSION FLUID COOLER INLET AND OUTLET PIPE REPLACEMENT (LGZ WITH M5T AND 2WD)

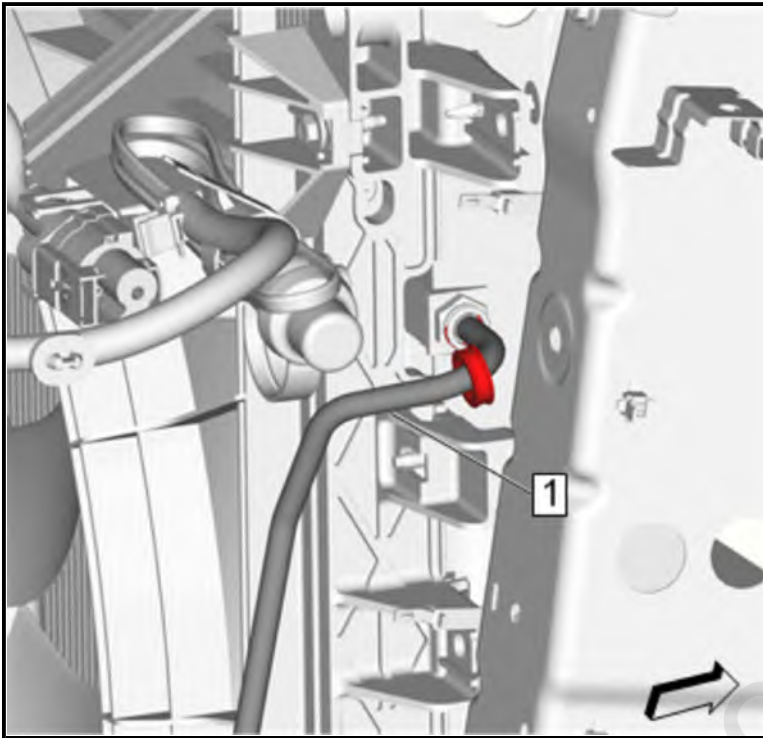
Removal Procedure

1. Reposition any wiring harnesses out of the way of the transmission fluid cooler inlet and outlet pipe as necessary.

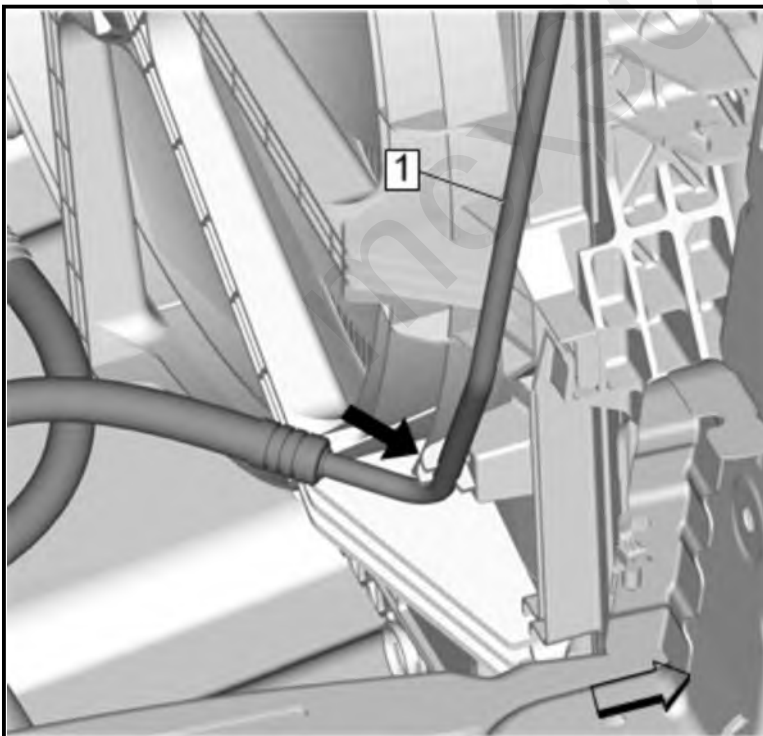
NOTE:

Cover or plug all open transmission fluid cooler pipe connection points to help avoid any accidental contamination.

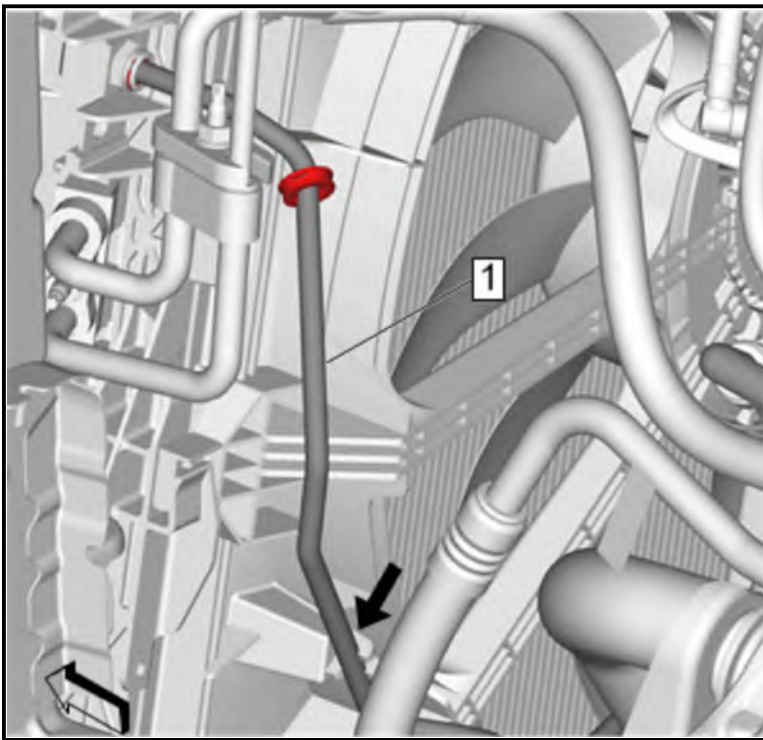
2. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Air Conditioning Condenser - Remove - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)



3. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Engine Coolant Fan Shroud - Remove

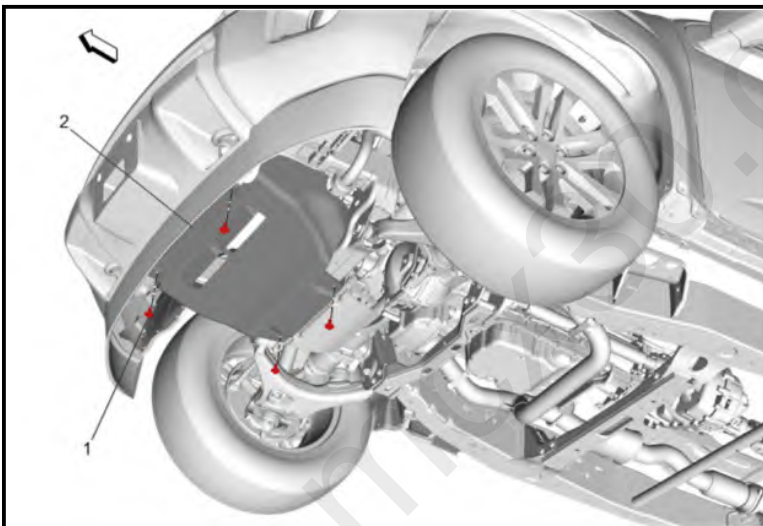


4. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Air Conditioning Condenser - Remove - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)

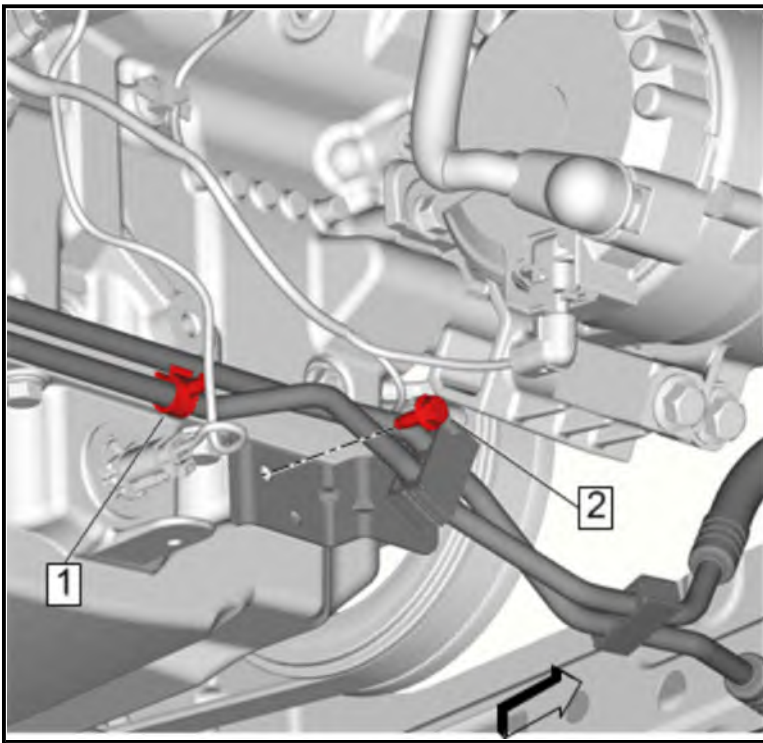


5. Transmission Fluid Cooler Inlet and Outlet Pipe @ Engine Coolant Fan Shroud - Remove

6. Raise and support the vehicle. [Lifting and Jacking the Vehicle](#)



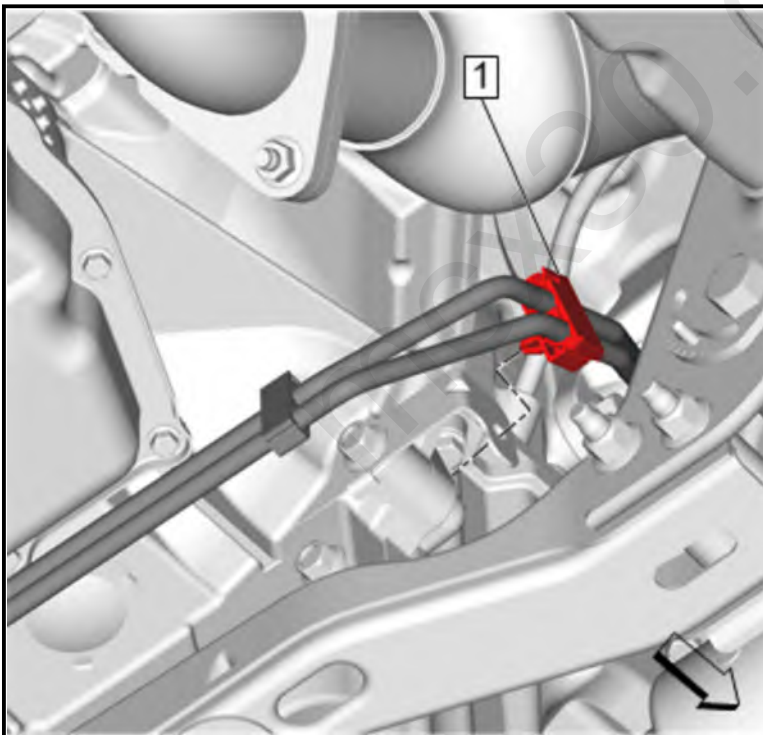
7. Underbody Splash Shield (2) - Remove - [Underbody Splash Shield Replacement \(without ZR2\)](#) , or [Underbody Splash Shield Replacement \(with ZR2\)](#) , or [Underbody Splash Shield Replacement \(Bison\)](#).



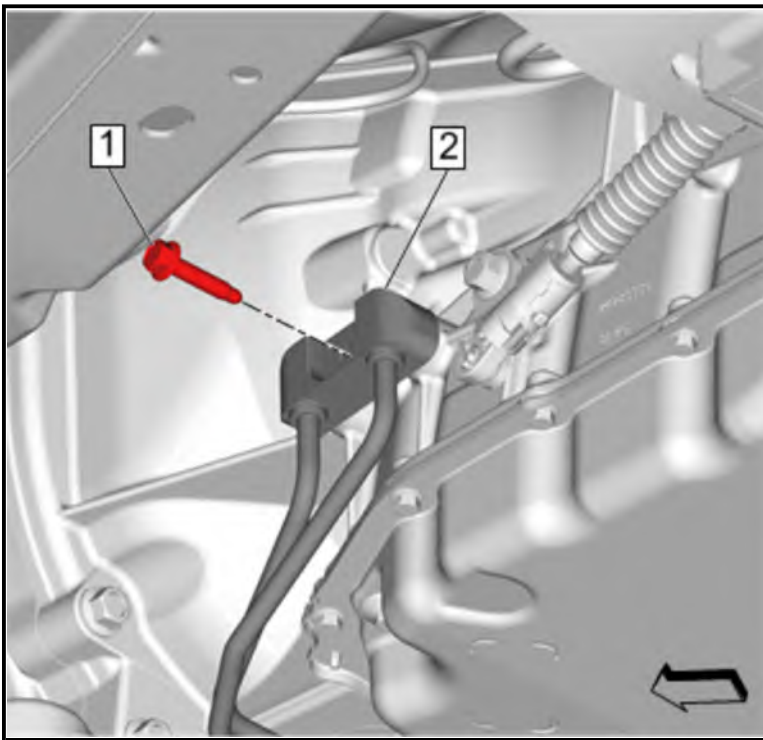
8. Wiring Harness Retainer (1) - Remove

9. Transmission Fluid Cooler Pipe Clip Bolt (2) - Remove

10. Transmission Fluid Cooler Inlet and Outlet Pipe Clip (1) @ Transmission Fluid Cooler Pipe Clip Bracket - Remove

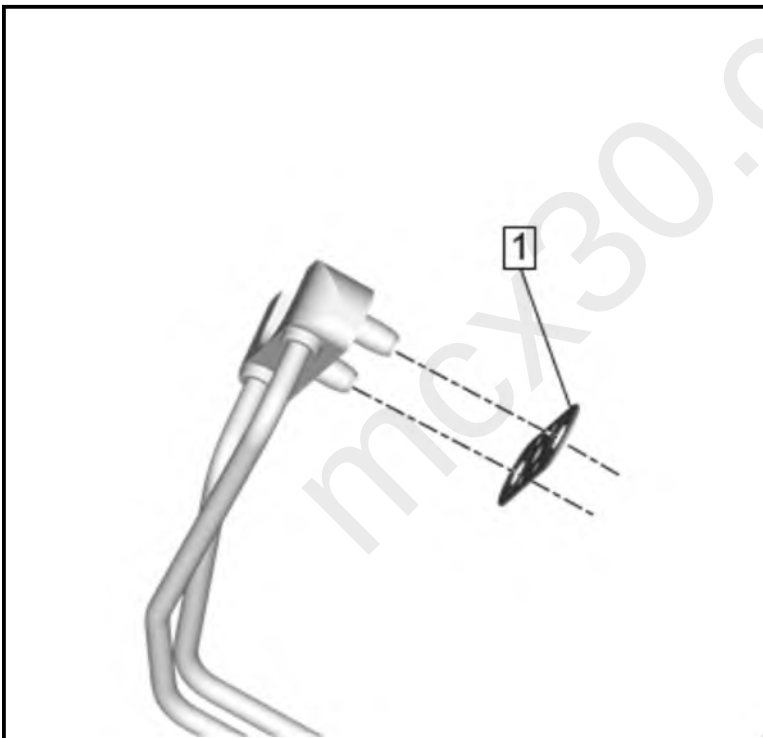


11. Transmission Fluid Cooler Pipe Bolt (1) - Remove



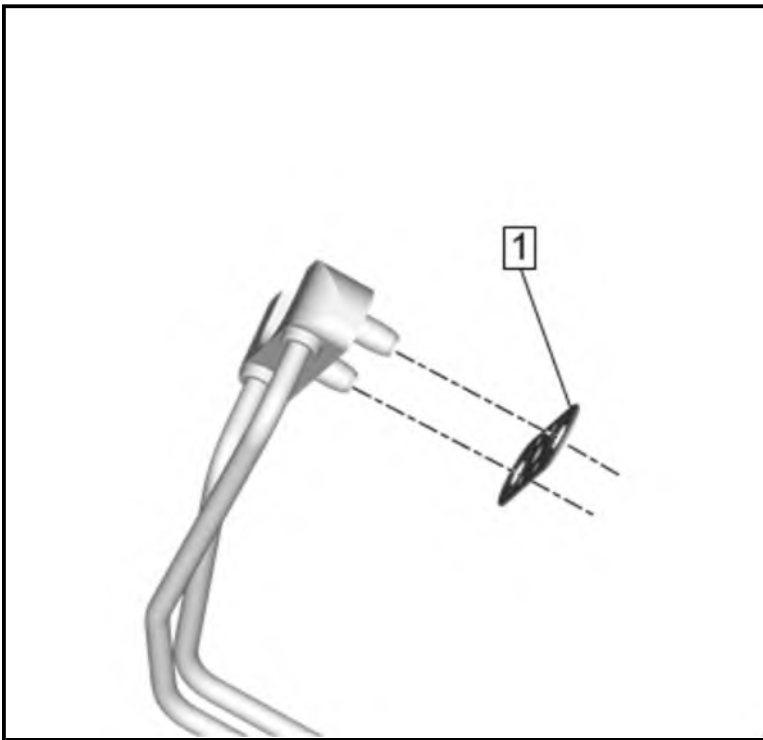
12. Remove the transmission fluid cooler inlet and outlet pipe (1) from the vehicle.

13. Transmission Fluid Cooler Pipe Fitting Seal (1) - Remove and DISCARD

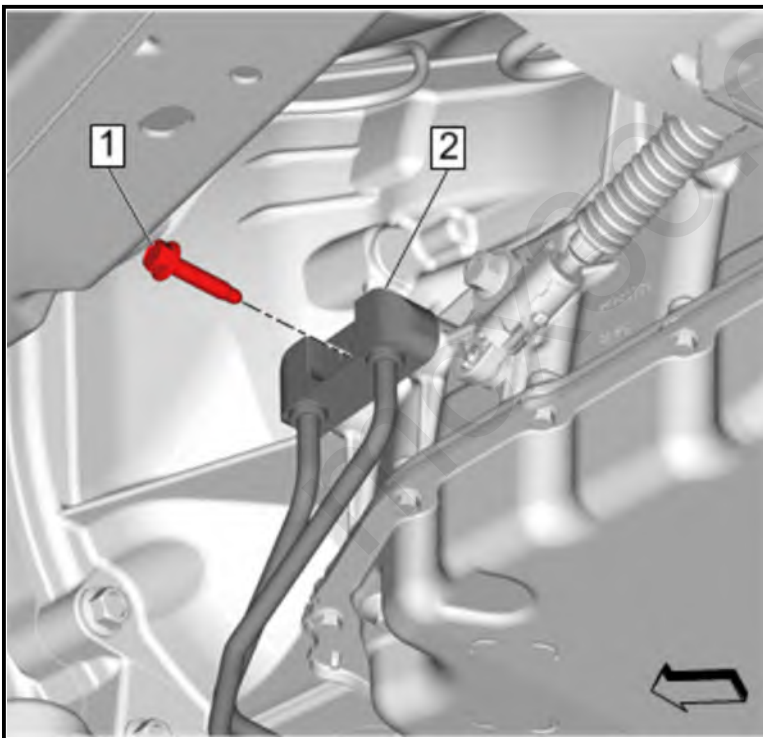


Installation Procedure

1. Transmission Fluid Cooler Pipe Fitting Seal (1) - Install NEW

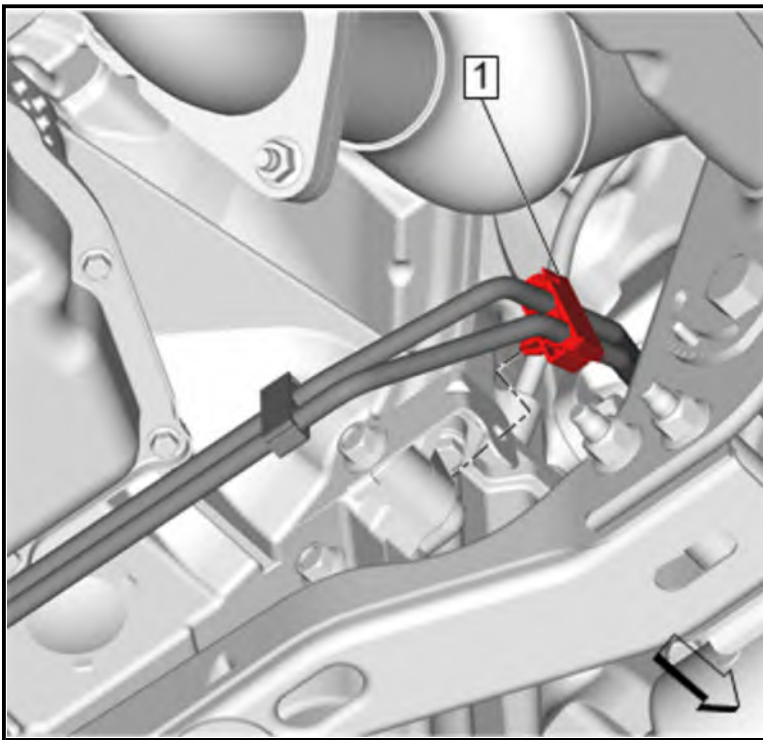


2. Position the transmission fluid cooler inlet and outlet (1) pipe on the vehicle.
3. Transmission Fluid Cooler Pipe Bolt (1) - Install and tighten 22 N.m (16 lb ft)

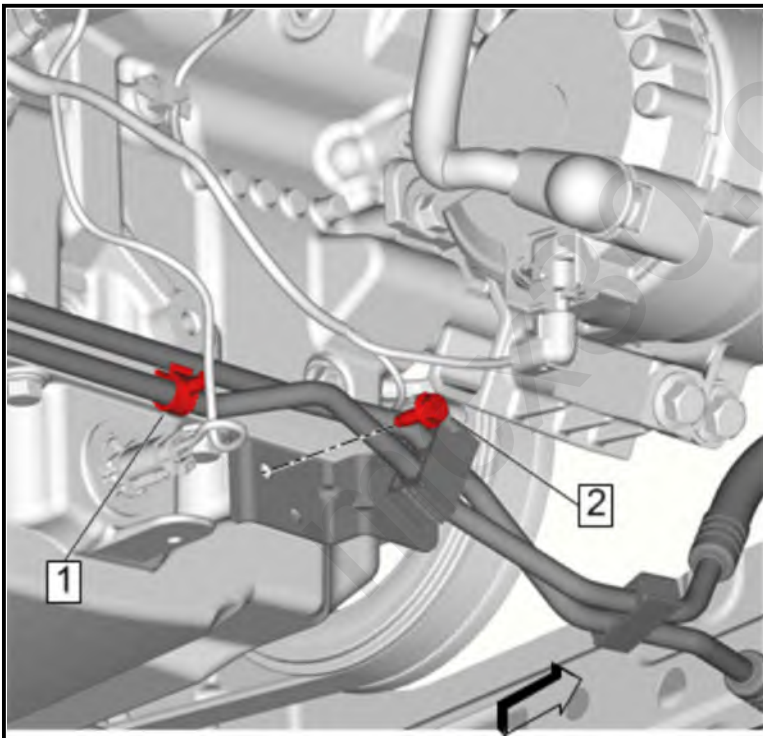


CAUTION: Refer to [Fastener Caution](#) .

4. Transmission Fluid Cooler Inlet and Outlet Pipe Clip @ Transmission Fluid Cooler Pipe Clip Bracket - Install

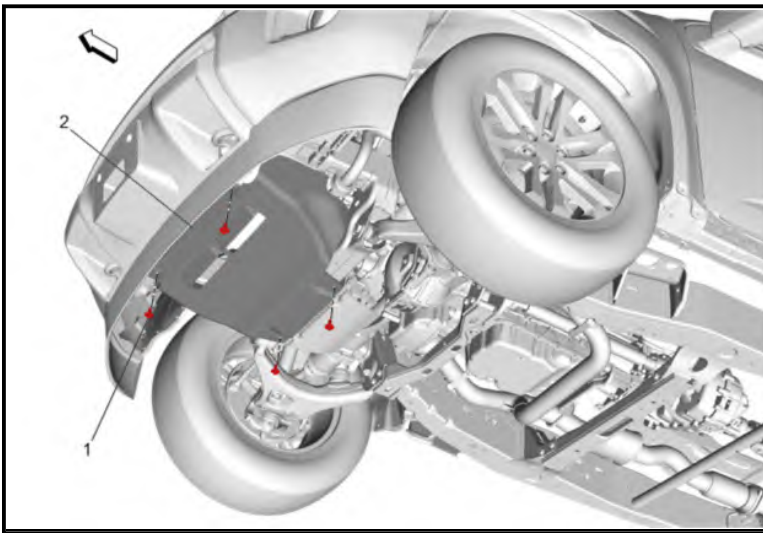


5. Wiring Harness Retainer (1) - Install

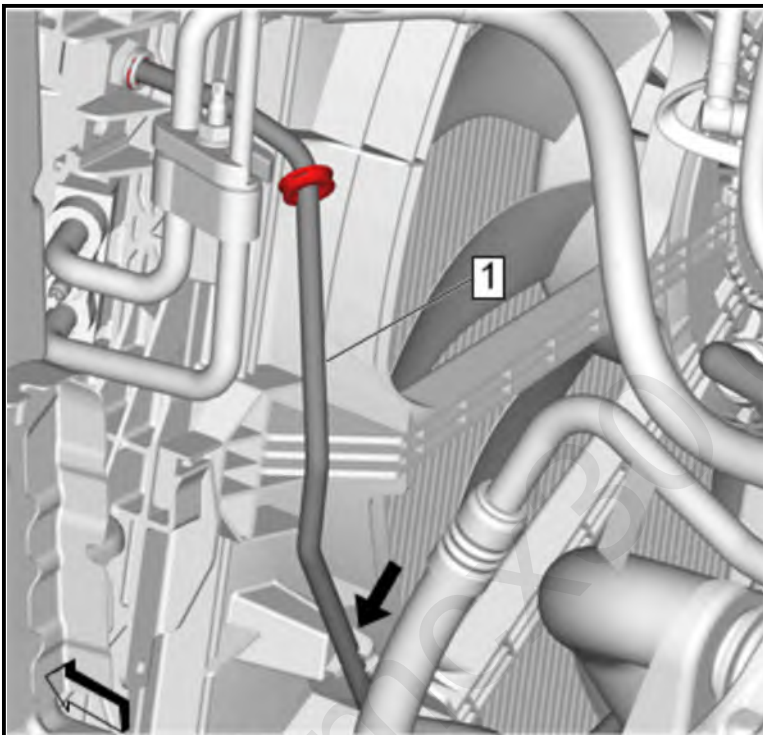


6. Transmission Fluid Cooler Pipe Clip Bolt (2) - Install and tighten 9 N.m (80 lb in)

7. Underbody Splash Shield (2) - Install - [Underbody Splash Shield Replacement \(without ZR2\)](#) , or [Underbody Splash Shield Replacement \(with ZR2\)](#) , or [Underbody Splash Shield Replacement \(Bison\)](#)



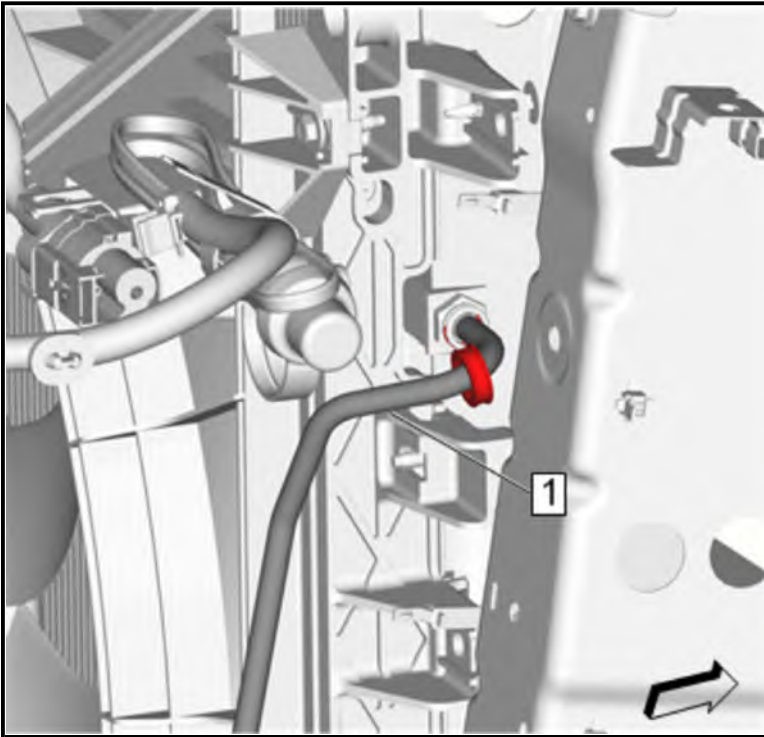
8. Remove the supports and lower the vehicle.



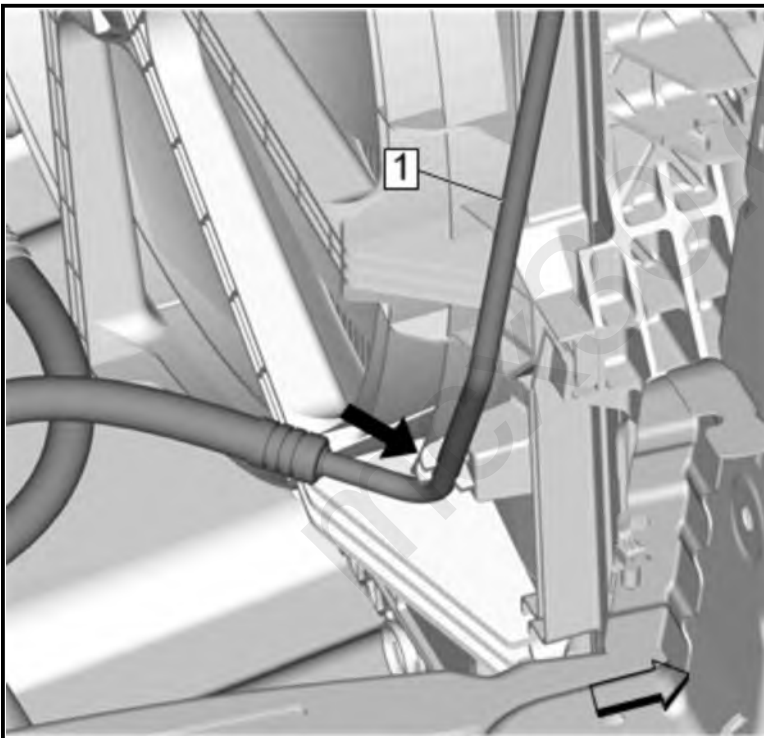
9. Transmission Fluid Cooler Inlet and Outlet Pipe @ Engine Coolant Fan Shroud - Install

10. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Air Conditioning Condenser - Install - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)

11. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Air Conditioning Condenser - Install - [Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection](#)



12. Transmission Fluid Cooler Inlet and Outlet Pipe (1) @ Engine Coolant Fan Shroud - Install



13. Position the wire harness to its proper position.

14. Fill the transmission to the proper level with NEW transmission fluid. [Transmission Fluid Level and Condition Check](#)

15. Inspect for transmission fluid leaks.

SPECIAL TOOLS AND EQUIPMENT

SPECIAL TOOLS

Illustration	Tool Number/Description
	DT-45096 J-45096 Transmission Cooler Flusher

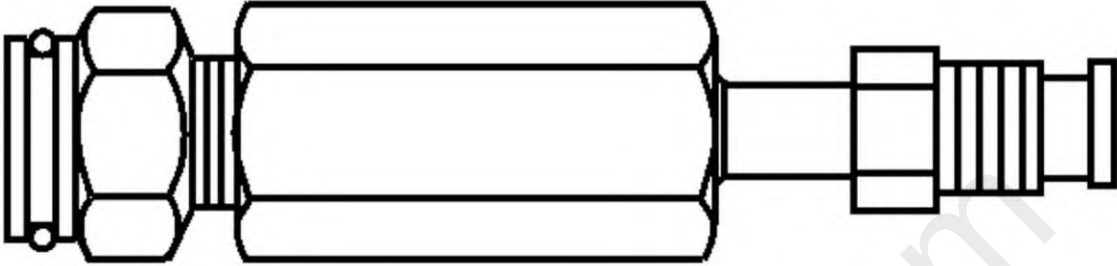
Illustration	Tool Number/Description
	DT-45096-23 J-35944 - 200/200 - A Cooler Flushing Adapter

Illustration	Tool Number/Description
 The image shows two blue metal adapters. Each adapter has a hexagonal base with a threaded hole in the center. A long, smooth cylindrical tube extends from the base. At the end of each tube is a flared, multi-ported fitting. The two adapters are positioned diagonally, one above the other.	DT-45096 - 30 J-45096 - 30 Cooler Line Flush Adapters