

# Z1 370Z/G37 AUTOMATIC TRANSMISSION COOLER INSTALLATION MANUAL



This Installation Manual is intended for the following models:	
2009-2020	Nissan 370Z
2008-2013	Infiniti G37 (Coupe)
2009-2013	Infiniti G37 (Sedan)

## PROLOGUE:

Study these instructions completely before proceeding to assembly. The installer must have a thorough knowledge of automotive systems operation. If unfamiliar with any of the concepts outlined in this instruction, we recommend the installation be completed by a qualified professional.

## WARNING!

Extreme caution should be taken when performing maintenance or performance upgrades to your vehicle. Please observe and abide by any Warning or Caution labels placed on the various components and tools used when servicing your vehicle. If you have any questions regarding installation or the various components included with the Z1 Motorsports 370Z/G37 Automatic Transmission Cooler, consult with a Professional Mechanic, or contact Z1 Motorsports for more information.

## **PARTS INCLUDED:**

Item	Quantity	Description
1	1	Transmission Cooler Lines
2	1	Z1 Pro Cooler
3	2	M22 to 6AN Adapter
4	2	6AN Banjo Fitting
5	2	M14 x 1.5 Banjo Bolt
6	4	M14 Crush Washer
7	2	M6 x 1.0 Flanged Head Bolt, 20mm
8	1	Z1 Oil Cooler Hardware Kit
9	1	Oil Cooler Bracket
10	6	Zip Tie
11	2	M6 U-Nut

## **TOOLS REQUIRED:**

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Ratchet
- Ratchet Extension(s)
- Assorted Metric Wrenches
- Assorted Metric Sockets
- Torque Wrench
- Channel Lock Pliers
- AN Wrenches

## **SAFETY REQUIREMENTS:**

- Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- Always turn the ignition to the OFF position and disconnect the NEGATIVE battery terminal.
- Always use properly rated jack stands when working under your vehicle.
- Always keep limbs and parts away from moving drivetrain parts.
- Only operate drivetrain in safe space and well-ventilated areas.

## **BEFORE YOU BEGIN:**

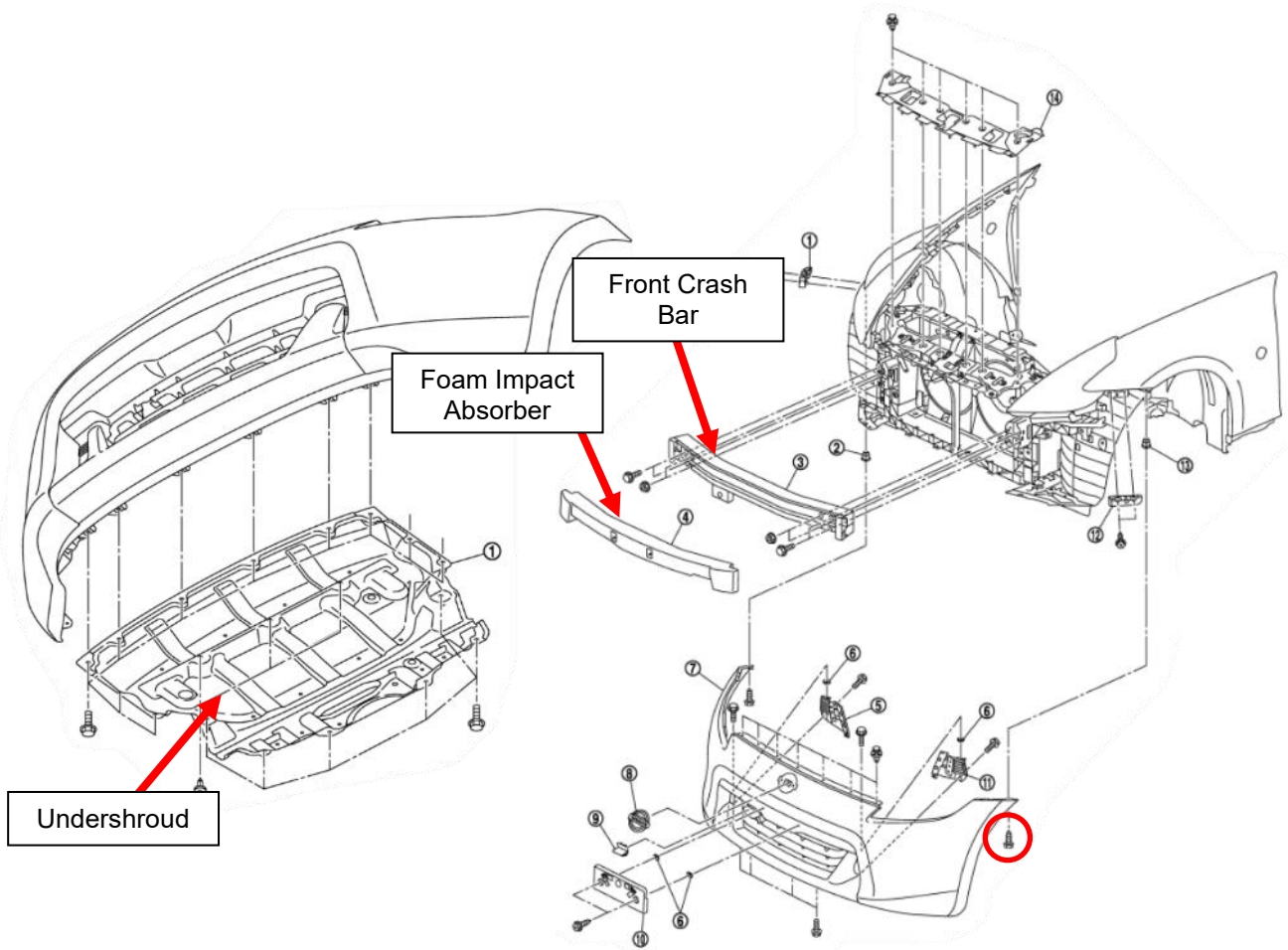
Remove contents from the Z1 Motorsports 370Z/G37 Automatic Transmission Cooler and verify that ALL necessary hardware is present.

## **PROCEDURE:**

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
2. Locate proper jacking points on vehicle's chassis (refer to vehicle's Owner Manual). Raise and support vehicle using jack & jack stands.

**NOTE:** Refer to your Factory Service Manual (FSM) and the Figures below to remove your Front Bumper.

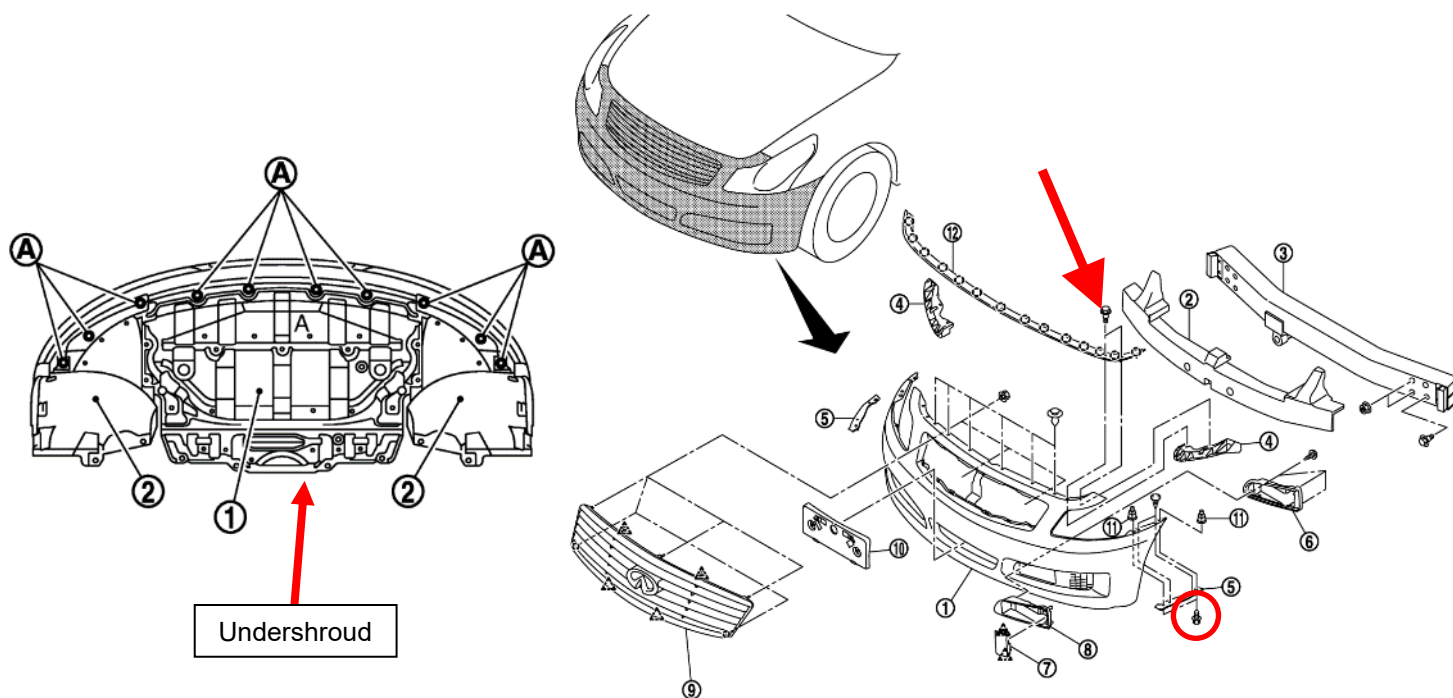
**370Z Owners:** Use *Figure 1* below as a reference for Steps 3-6. G37 Owners can skip to *Step 7*.



*Figure 1*

3. Remove the Lower Engine Splash Shield/Undershroud. The fasteners will be an assortment of 10mm screws and plastic panel clips. Use a flat head screwdriver or trim removal tool to gently pry the pop clips.
4. Remove the plastic clips and the front wheel/fender liners to reveal (1) one mounting screw at each side of the vehicle which mounts the Bumper Fascia to the vehicle (screw circled in *Figure XXX* above). Remove the mounting screw on each side.
5. Remove the (7) seven plastic pop clips securing the Upper Bumper Fascia to the vehicle at the Radiator Core Support.
6. With a light pull motion, carefully disengage the Bumper Fascia from the clips on the vehicle just below each headlight. Remove the Bumper Fascia and set aside.

**G37 Owners:** Use *Figure 2* below as a reference for *Steps 7-11*. 370Z Owners can skip to *Step 12*.



*Figure 2*

7. Remove the Lower Engine Splash Shield/Undershroud. The fasteners will be an assortment of 10mm screws and plastic panel clips. Use a flat head screwdriver or trim removal tool to gently pry the pop clips.
8. Remove plastic clips and the front wheel/fender liners to reveal (2) two mounting screws at each side of vehicle which mounts corner of the Bumper Fascia to the fender (screw circled in *Figure 2* above). Remove mounting screws on each side.
9. Lift up on the hood seals at the front corner of the engine bay to reveal (2) two mounting screws at each side of the vehicle that mounts the upper corner of the Bumper Fascia to the fender (screw shown with arrow above). Remove the mounting screws on each side.
10. Remove the (6) six plastic pop clips securing the Upper Bumper Fascia to the vehicle at the Radiator Core Support.
11. With a light pull motion, carefully disengage the Bumper Fascia from the clips on the vehicle just below each headlight. Remove the Bumper Fascia and set aside.

12. Remove the OE Transmission Cooler Lines. (1) One Banjo Bolt will secure each line to the Transmission. Multiple Brackets and Hose Clamps will also need to be disconnected to remove the Lines up to the Radiator. Cutting the lines can make it easier to remove if you don't intend on ever reusing them. *Figure 3.*

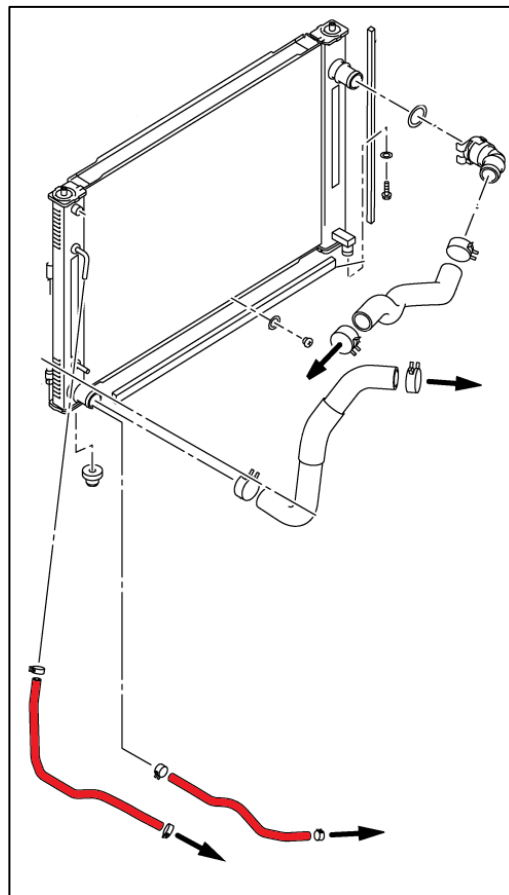
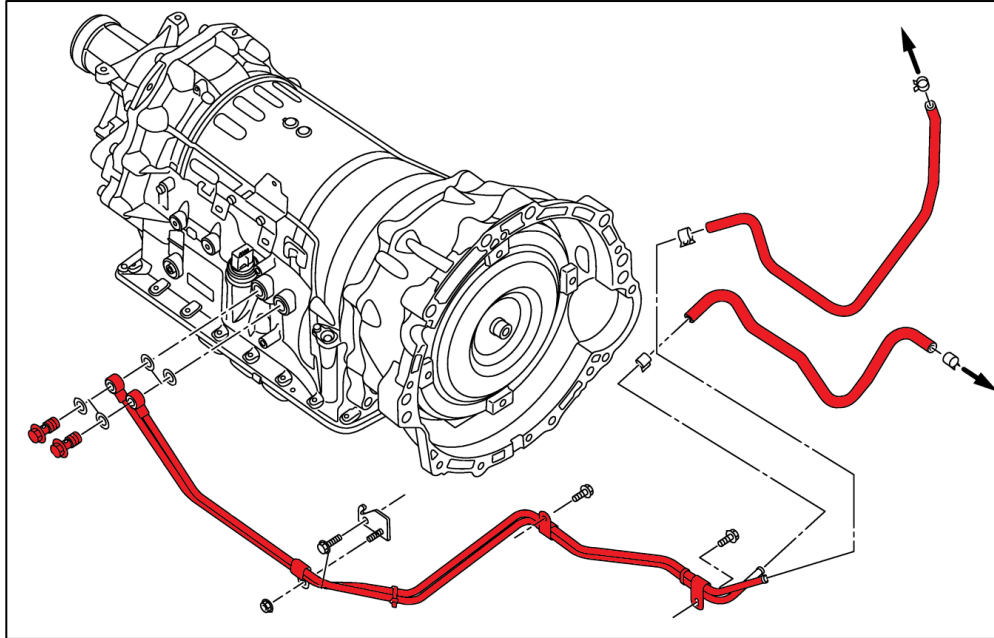


Figure 3

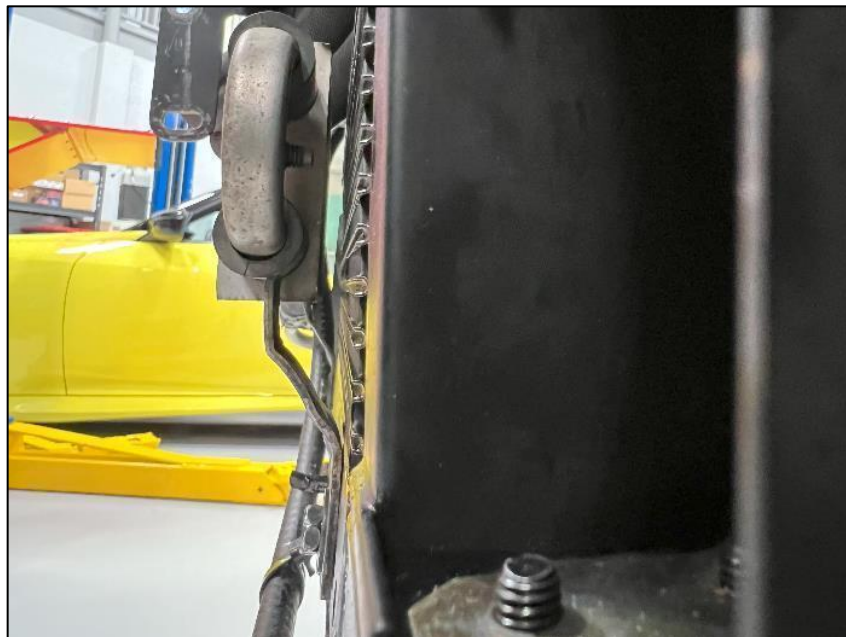
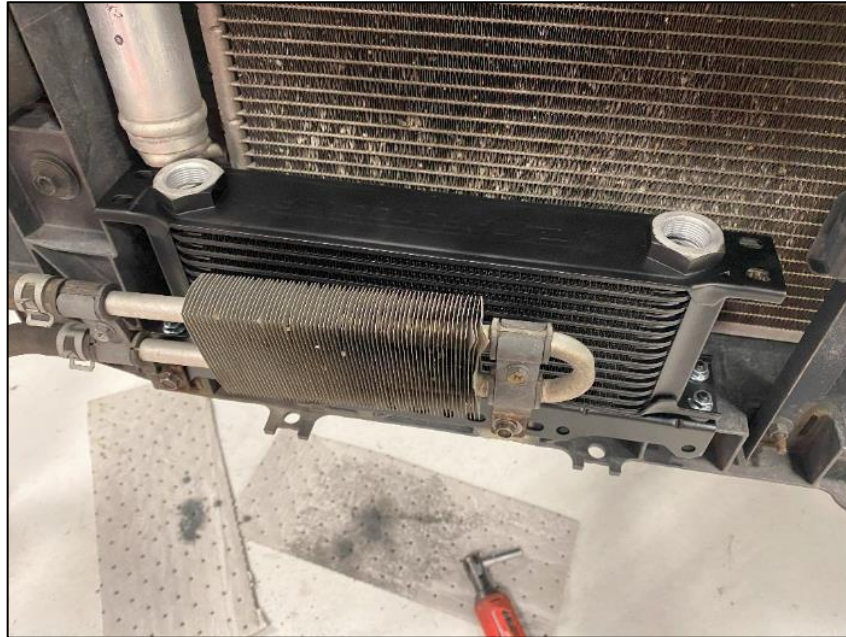
13. Locate the Z1 Pro Cooler, Oil Cooler Bracket and Oil Cooler Hardware Kit. Attach the Bracket to the bottom of the Pro Cooler with (4) four M6 Bolts in the Hardware Kit. *Figure 4.*



*Figure 4*

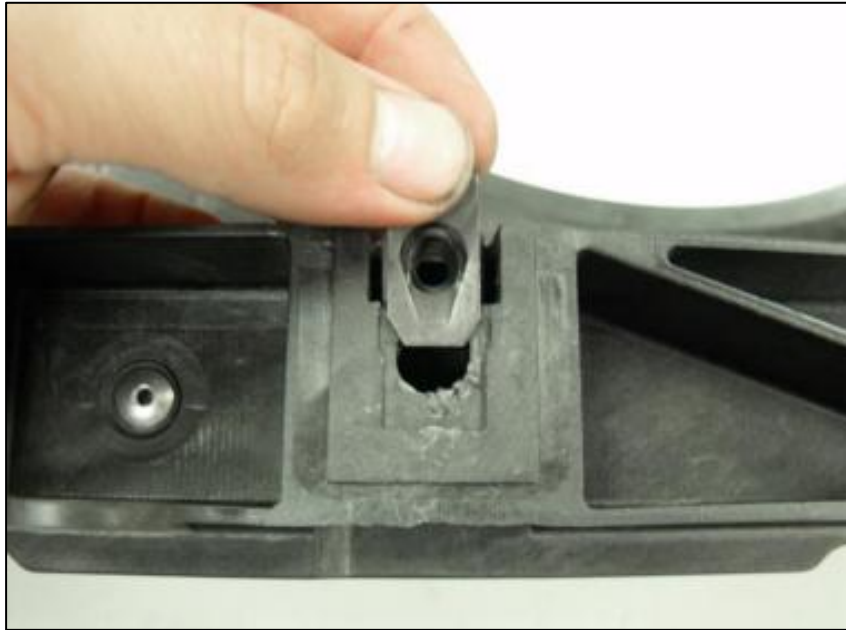
14. Prefill the Pro Cooler with Automatic Transmission Fluid.
15. Locate the (2) two M22 to 6AN Adapter Fittings. Install them into the ports of the Oil Cooler. Do not overtighten the Fittings as the O-Rings on the fittings can be damaged.

16. Determine where you want to mount the Transmission Cooler. This will vary depending on your vehicle's setup and other Coolers already installed:
- a. **If you have only a Z1 Oil Cooler:** Disconnect the (2) two Bolts securing the OE Power Steering Cooler to the Core Support. Slide the Bracket of the Transmission Cooler behind the Power Steering Cooler and re-secure them with the OE Hardware or the (2) two M6 x 1.0 Flanged Head Bolts. The Brackets for the Power Steering Cooler will need to be bent to create clearance for the Cooler.  
*Figure 5.*



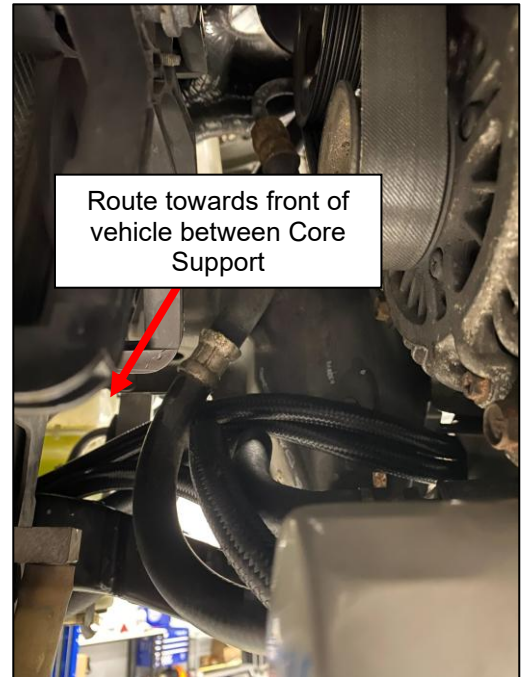
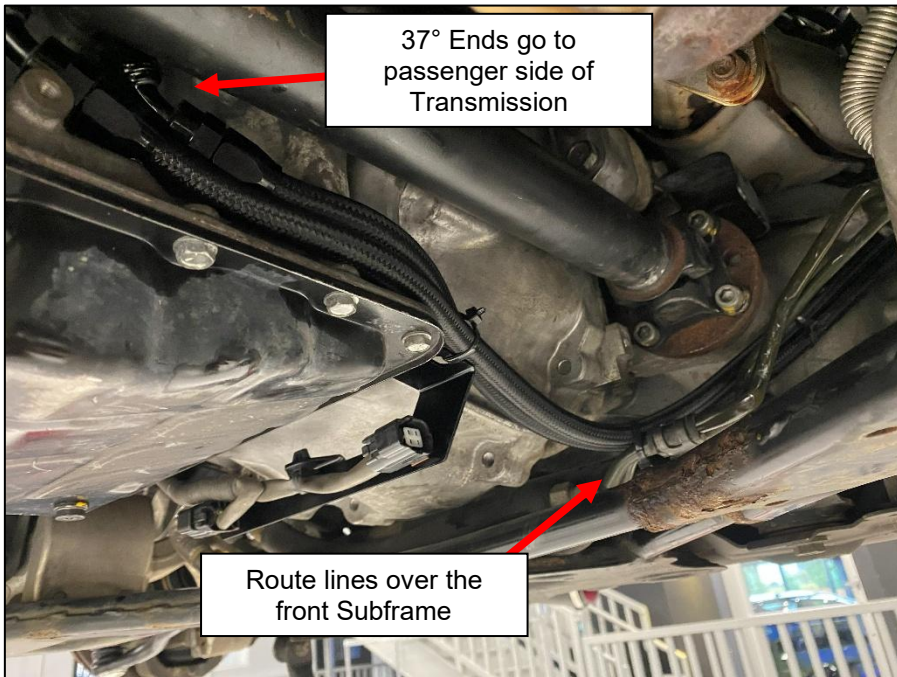
*Figure 5*

- b. **If you have no other Coolers:** Either sandwich the Transmission Cooler behind the Power Steering Cooler like *Step 15 a*, or install the (2) two M6 U-Nuts on the open holes of the Driver Side Core Support. Secure the Cooler to these U-Nuts with the (2) two M6 x 1.0 Flanged Head Bolts. *Figure 6*.



*Figure 6*

17. Locate the Z1 Oil Cooler Lines. The 45° Fittings of the Lines will connect to the Transmission Cooler. The 37° End of the Lines will connect to the Transmission. Route the Lines from the Passenger Side of the Transmission, over the Front Subframe, and towards the Front Crash Bar of the vehicle. Make sure the Lines are not rubbing on sharp edges or touching moving parts. *Figure 7.*



*Figure 7*

18. Locate the (2) two 6AN Banjo Fittings. Install (1) one Banjo Fitting into the 37° End of each Transmission Cooler Line.
19. Locate the (2) two M14 x 1.5 Banjo Bolts and (4) four M14 Crush Washers. Place (1) one Crush Washer onto each Banjo Bolt then install Banjo Bolts through the Banjo Fittings on the Transmission Cooler Lines. Place the Crush Washer on the other side of the Banjo Fitting and loosely install the Banjo Bolts/Lines to the Transmission. *Figure 8.*



*Figure 8*

20. Connect the 45° Ends of the Transmission Lines to the Transmission Cooler.
21. Adjust the Transmission Cooler Lines as necessary and tighten all fittings. Use the included Zip Ties to secure the lines together and out of the way of sharp edges/moving parts.

**END**

**Additional Technical Support:**  
Contact Z1 Motorsports at [info@z1motorsports.com](mailto:info@z1motorsports.com)  
Or call 770-838-7777 between 9am and 6pm ET