

Z1 HEAT EXCHANGER AUXILIARY EXPANSION TANK INSTALLATION MANUAL



This Installation Manual is intended for the following models:

2016+	Infiniti Q50 (VR30)
2017+	Infiniti Q60 (VR30)

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 Heat Exchanger Auxiliary Expansion Tank, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

PARTS INCLUDED:

Item	Quantity	Description
1	1	Heat Exchanger Auxiliary Expansion Tank
2	1	-10AN ORB to 3/4" Hose Barb (installed in tank)
3	1	-10AN ORB to 3/4" Hose Barb Swivel 90 (installed in tank)
4	1	3/4" Barbed Hose Union - 135 degree (installed in tank)
5	1	3/4" Barbed Hose Union - 45 degree (installed in tank)
6	1	Bleed Screw (installed in tank)
7	1	Feed hose
8	1	Return hose
9	1	M6 Set Screw
10	2	M6 Locknut
11	1	M6 Rivet Nut
12	1	Rivet Nut Installation Tool
13	1	M6 Hex Head Bolt
14	4	Hose Clamp
15	4	Reusable Zip Tie – 8"

TOOLS REQUIRED:

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Ratchet
- Ratchet Extension(s)
- 10mm Socket/Wrench
- 15mm Socket/Wrench
- Torque Wrench
- Channel Lock Pliers
- Flat-Head Screwdriver
- Vacuum Bleeder
- Z1 Elite Diagnostic Scan Tool

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 Heat Exchanger Auxiliary Expansion Tank and verify that ALL necessary hardware is present.

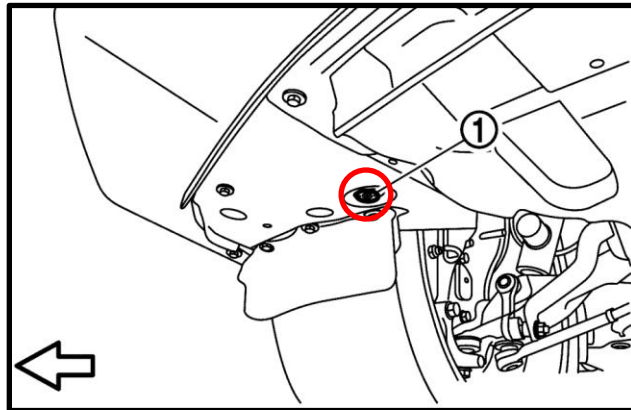
PROCEDURE:

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
2. Loosen passenger wheel lug nuts.

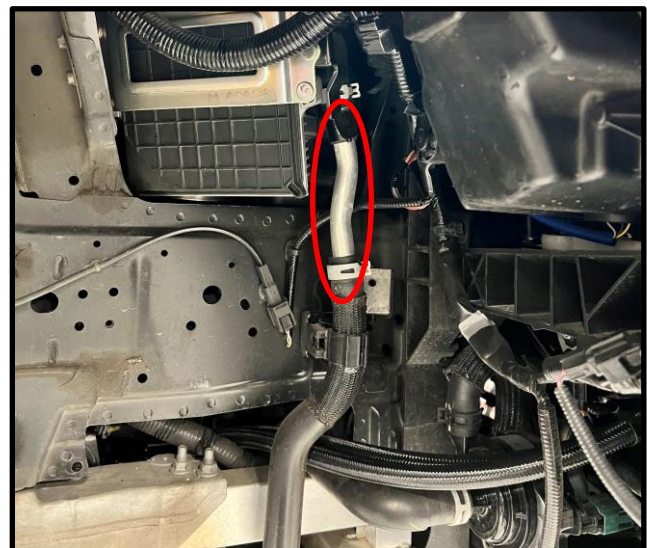
3. Locate proper jacking points on vehicle's chassis (refer to vehicle's Owner Manual). Raise and support vehicle using jack & jack stands.
4. Remove the passenger wheel lug nuts and wheel.
5. Remove front passenger fender liner.



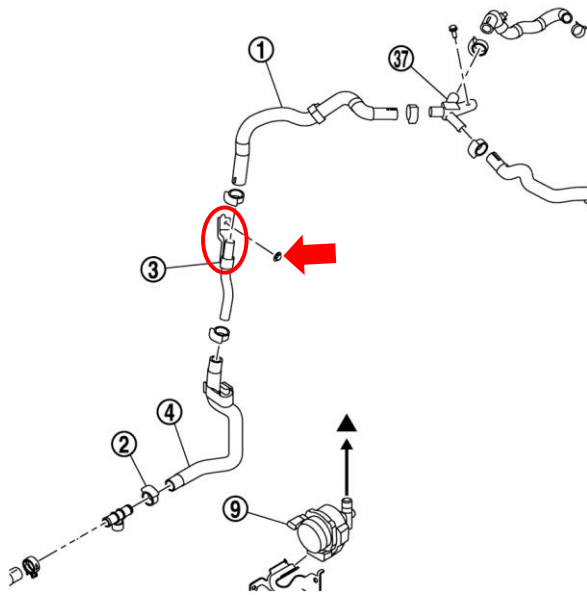
6. To prevent excessive coolant from spilling, you can either drain the charge air coolant, or use (2) pinch clamps to squeeze shut the heat exchanger outlet hose.
 - a. If you choose to drain the coolant, remove the drain plug just in front of the passenger front wheel well (circled below). Replace plug once coolant has drained.



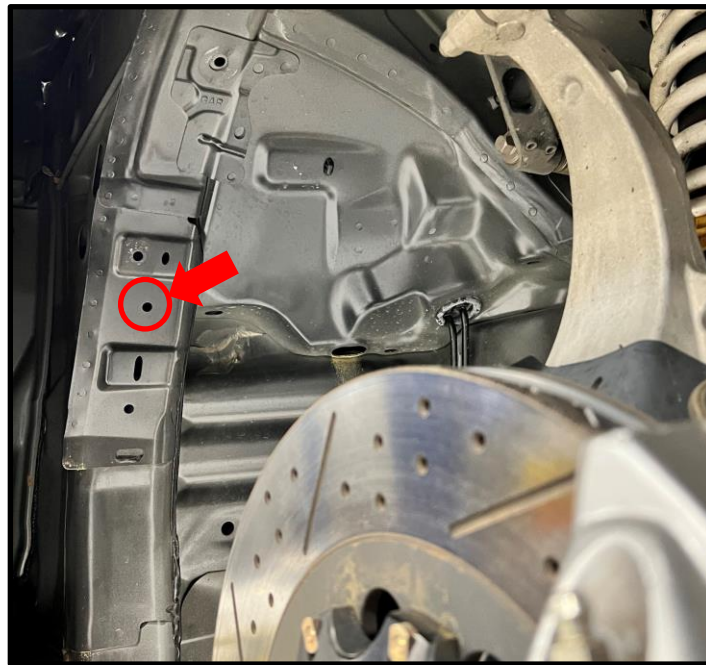
- b. If you choose to use pinch clamps, pinch both hoses connected to the hard pipe circled below.



7. Once the coolant has been drained or hoses clamped, remove the hoses from the hard pipe circled in the picture on the previous page. Retain OEM hose clamps.
8. The pipe has a bracket secured to a mounting stud on the ECU mount (circled in diagram below). Remove the nut, bracket, and hard pipe. You can access the nut through the engine bay, just to the left of the passenger side airbox.

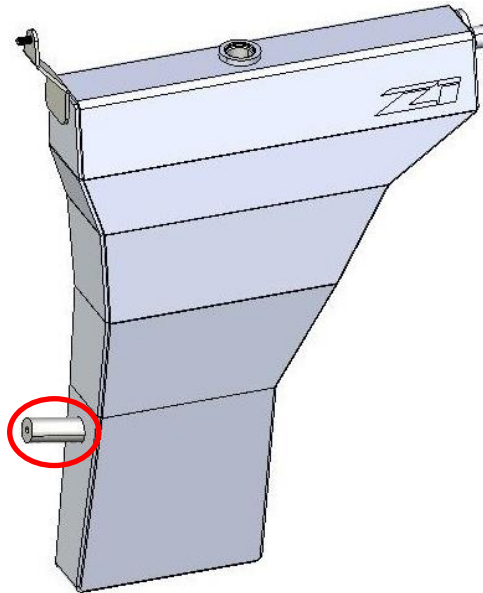


9. Using a 10mm (25/64") drill bit, drill out the hole circled below in the wheel well.



10. Locate the rivet nut installation tool, M6 rivet nut, and M6 bolt.
11. Using the rivet nut installation tool, install the M6 rivet nut into the hole drilled out in the step # 9.
12. Locate Z1 Heat Exchanger Auxiliary Expansion Tank, M6 set screw, and (2) M6 locknuts.

13. Install set screw into bottom mounting boss on backside of expansion tank (circled at below).



14. Locate (1) 1m hose and (1) hose clamp. This will be the feed hose. You will cut the hose to length at a later stage.

15. Attach feed hose to barb fitting on top of the expansion tank. Secure with a supplied hose clamp.

16. Open the passenger front door. In the door frame there are multiple round black stickers covering access holes to the fender area (as shown below). Remove the top and bottom sticker.

17. Slide the expansion tank assembly into passenger side fender. Line up the stud and set screw on the backside of the expansion tank with the holes in door frame. Secure with (2) supplied locknuts (as shown).

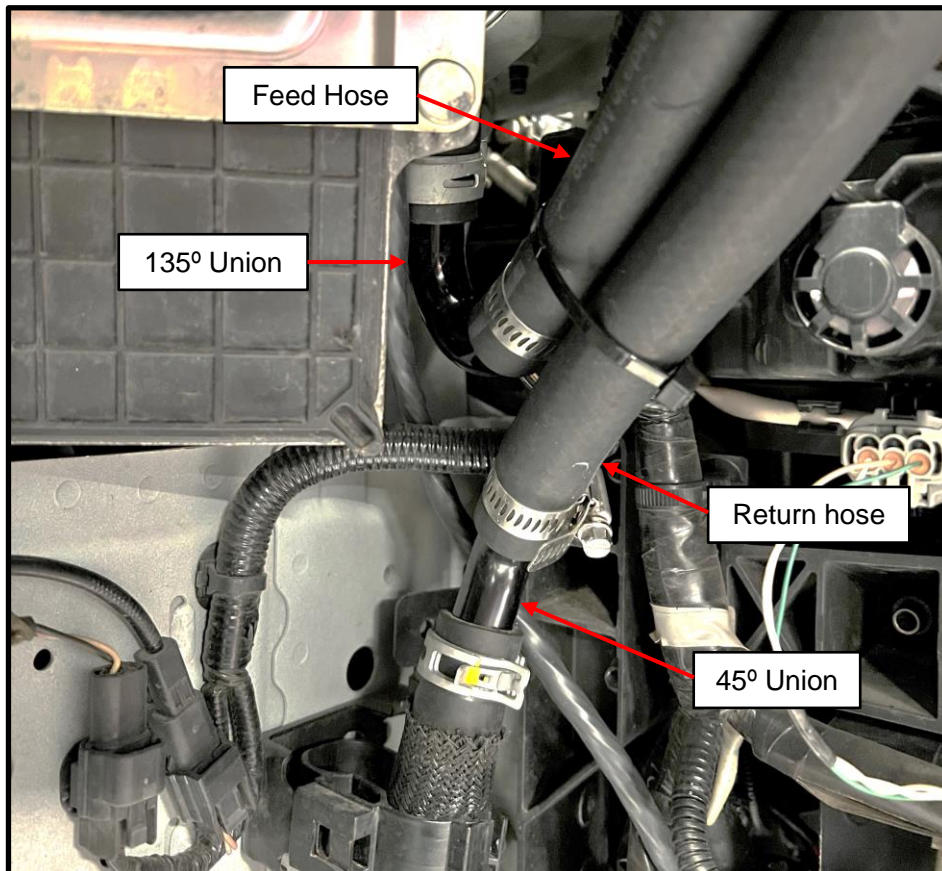


18. Install the supplied M6 hex head bolt in the rivet nut in the wheel well (as shown).



Note: The image shown above was taken with both the feed and return hose attached. The return hose will be attached in the next steps.

Use the following image as reference for steps # 19-23:



19. Locate (1) 1m hose, 135° barbed union, 45° barbed union, and (3) hose clamps. Attach one end of new hose (return) to the barb fitting on the front of the expansion tank. Secure with (1) supplied hose clamp.

20. Install 45° barbed union into hose that was connected to the bottom of the hard pipe that was removed in step # 7. Secure with OEM hose clamp.

21. Install 135° barbed union into hose that was connected to the top of the hard pipe that was removed in step # 7. Secure with OEM hose clamp.

22. Route the return hose, (one connected to front of expansion tank) as shown in the image to the right, to the open end of the 45° barbed union. Cut to length. Secure with (1) supplied hose clamp.

23. Route feed hose (one connected to top of expansion tank) to the open end of the 135° barbed union. Cut to length. Secure with (1) supplied hose clamp.

24. Secure the two lines together and out of the way with the supplied zip ties (as shown).

25. Ensure all hoses and clamps are securing attached.

26. It is now time to refill and bleed the system. Open the charge air cooling system reservoir tank cap (2). Using a vacuum bleeder, suck out as much air as possible.

27. Refill the reservoir to the MAX level line. Infiniti recommends pouring no more than 3 liters a minute to allow air to escape the system.

28. Using the Z1 Elite Diagnostic Scan Tool, activate the water pump(s).

29. When coolant level in reservoir drops, fill back up to MAX line.

30. When coolant level stops dropping, turn off water pump(s).

Note: The expansion tank also has a bleed screw located next to the return inlet. If you feel the system is not fully bled after following steps 25-30, open the bleed screw on the tank while the pump(s) are running. It may take a long time to bleed every last bit of air as it comes out as foam at this location.

31. Once the system is bled, reinstall reservoir tank cap.

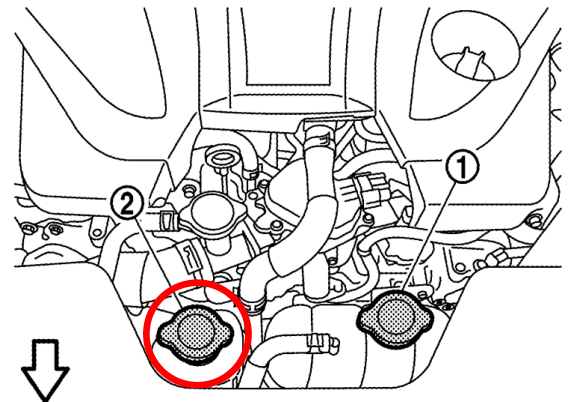
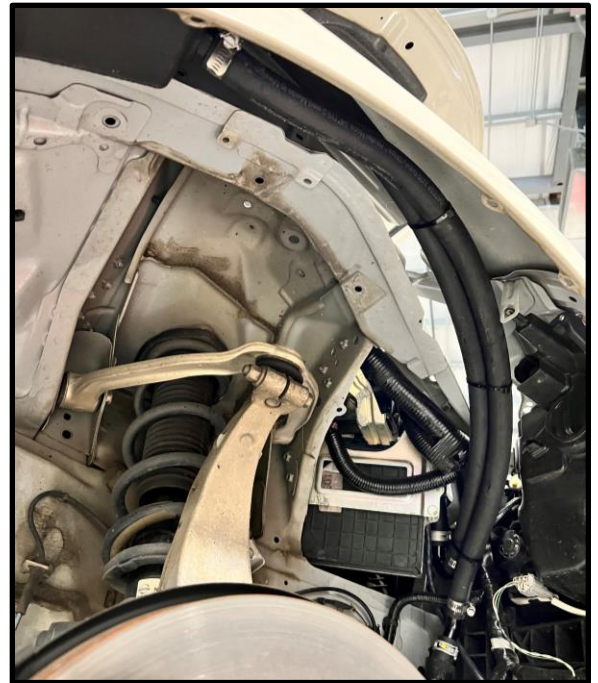
32. Reinstall front passenger fender liner.

33. Reinstall front passenger wheel and lug nuts.

34. Check vehicle for loose tools / items.

35. Properly lower vehicle from jack stands.

36. Perform a final test drive of vehicle.



END

Additional Technical Support:

Contact Z1 Motorsports at info@z1motorsports.com
Or call 770-838-7777 between 9am and 6pm ET