

Z1 OFF-ROAD '22+ NISSAN FRONTIER COLD AIR INTAKE INSTALLATION MANUAL



This Installation Manual is intended for the following models:

2022+

(D41) Nissan Frontier 3.8L

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 Off-Road Frontier Intake, consult with a Professional Mechanic or contact Z1 Off-Road for more information.

PARTS INCLUDED:

Item	Quantity	Description
1	1	Intake Tube
2	1	Airbox
3	2	Airbox Grommets
4	1	Filter
5	1	Filter Grommet
6	1	Fender Grommet
7	1	Fender Grommet – Velocity Stack
8	1	Throttle Body Coupler
9	2	HD Hoseclamp
10	1	PCV Hose
11	1	MAF Gasket
12	1	MAF Flange
13	2	M4 x 14mm Screws
Auto Idle Start/Stop (ISS) Supplement Kit (Optional)		
15	1	Relocation Bracket, Relay box
16	1	Insulation Foam

TOOLS REQUIRED:

- Ratchet w/ Extension(s)
- 10mm Socket/Wrench
- Flat-head Screwdriver
- Pliers

SAFETY REQUIREMENTS:

- Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- Remove jewelry.
- Always keep limbs and parts away from moving drivetrain parts.
- Always turn the ignition to the OFF position and disconnect/secure all **NEGATIVE** battery terminals.
- Only operate drivetrain in safe space and well-ventilated areas.

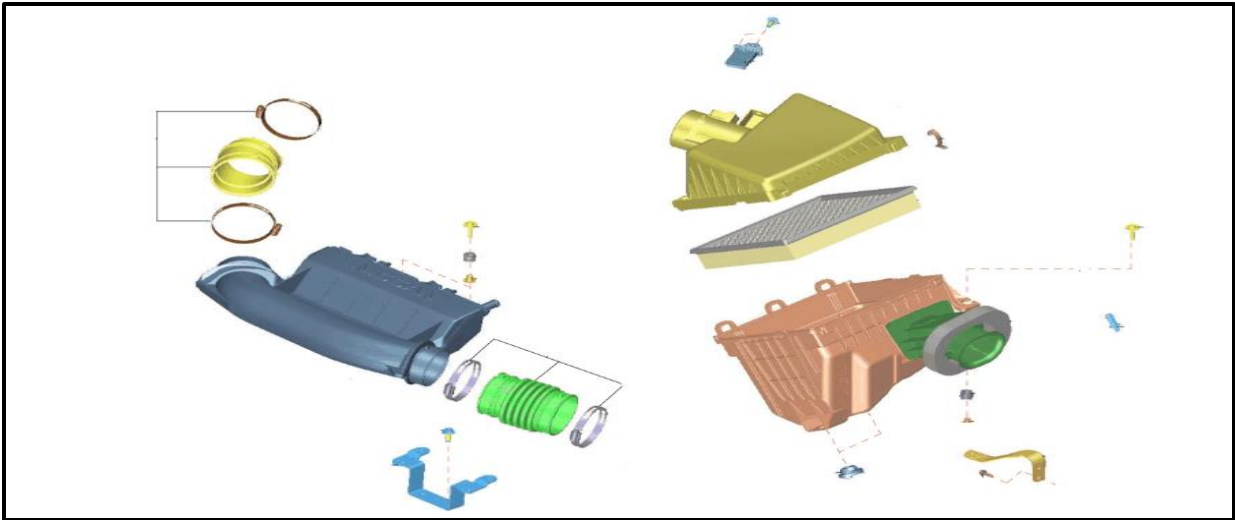
BEFORE YOU BEGIN:

Remove contents from the Z1 Off-Road Frontier Intake Kit 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. Unlatch and raise vehicle's hood and apply hood prop. If equipped with hood struts, check for holdability.

Use the diagram below as reference for the following steps:



3. Disconnect MAF electrical connector on OEM airbox.
4. Remove clamp and disconnect OEM PCV hose from OEM intake tube resonance chamber.
5. Remove the other end of PCV hose from the valve cover.
6. Remove (1) mounting screw securing airbox to chassis at back right corner of airbox.
7. Remove (2) mounting screws securing resonance chamber to top front of engine.
8. Loosen hose clamp at throttle body.
9. Carefully pull up and away to remove the airbox and intake tube assembly.

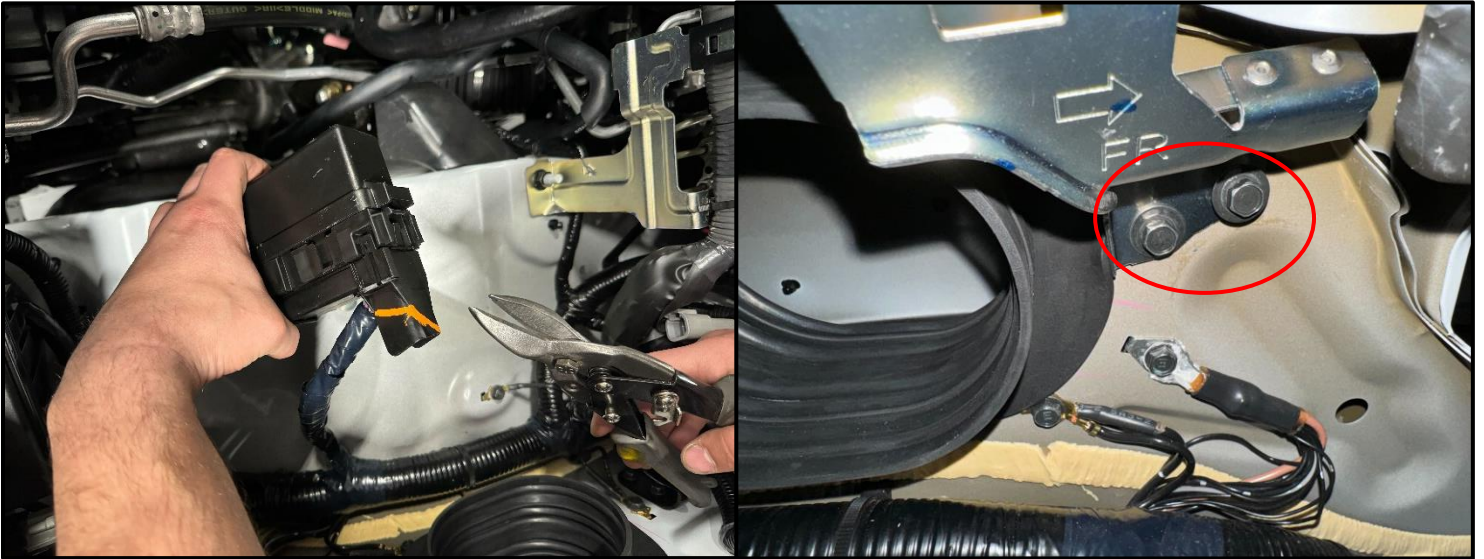
Note: The airbox has two rubber grommets in the bottom that sit on two studs on the inner fender. Some silicone spray will help release these grommets when removing the airbox. Leave studs in place.

10. Locate Z1 fender grommet and fender grommet velocity stack.
11. Install fender grommet into opening in driver side fender so that the end with a longer lip is facing the engine bay (as shown).
12. Remove/pull back front of driver fender liner. Install fender grommet velocity stack onto lip of fender grommet inside wheel arch (as shown). Reinstall fender liner.

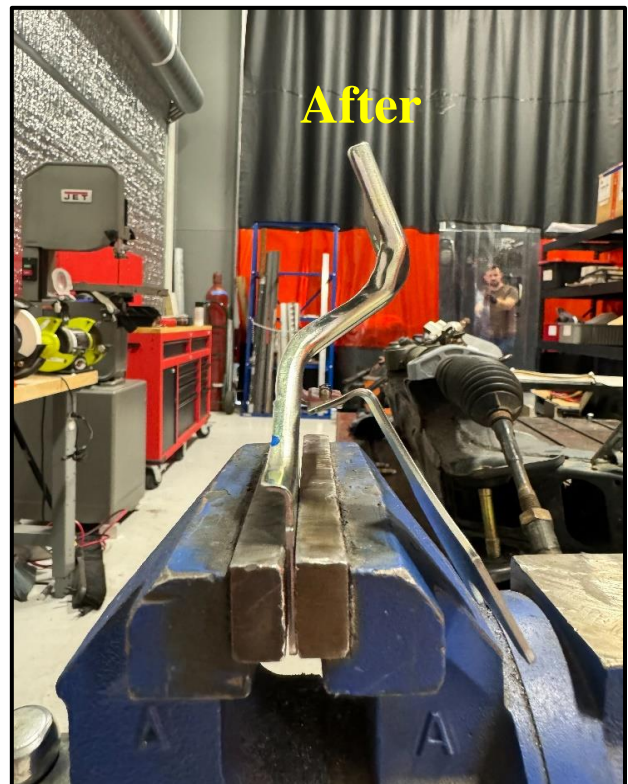
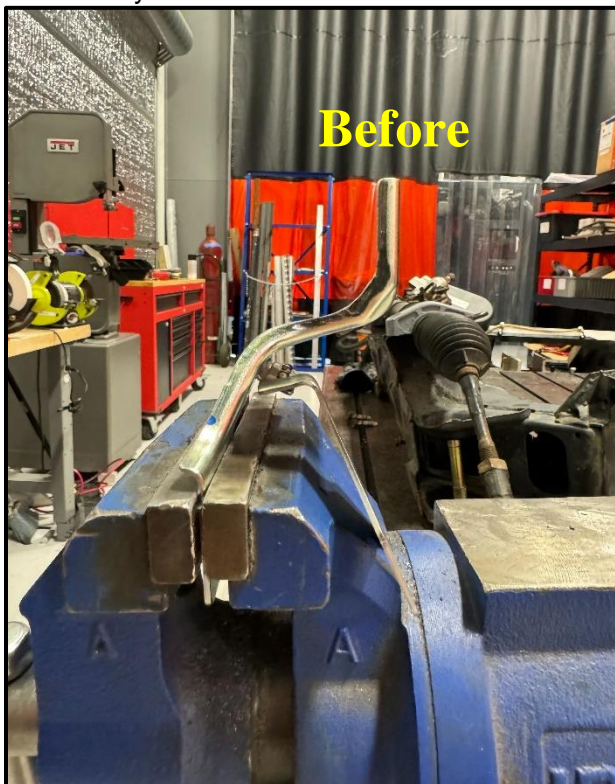


Note: Proceed to **Step 20** if your vehicle is **NOT** equipped with factory **IDLE Start/Stop (ISS)** feature.

13. For vehicles equipped with **Auto Idle Start/Stop (ISS)** feature, remove the relay box mounted above the fender intake inlet.
14. Trim the plastic as indicated in the photo below using sheet metal pliers, Dremel or an alternative cutting tool. Be aware of relay box wiring harness while trimming and cutting.

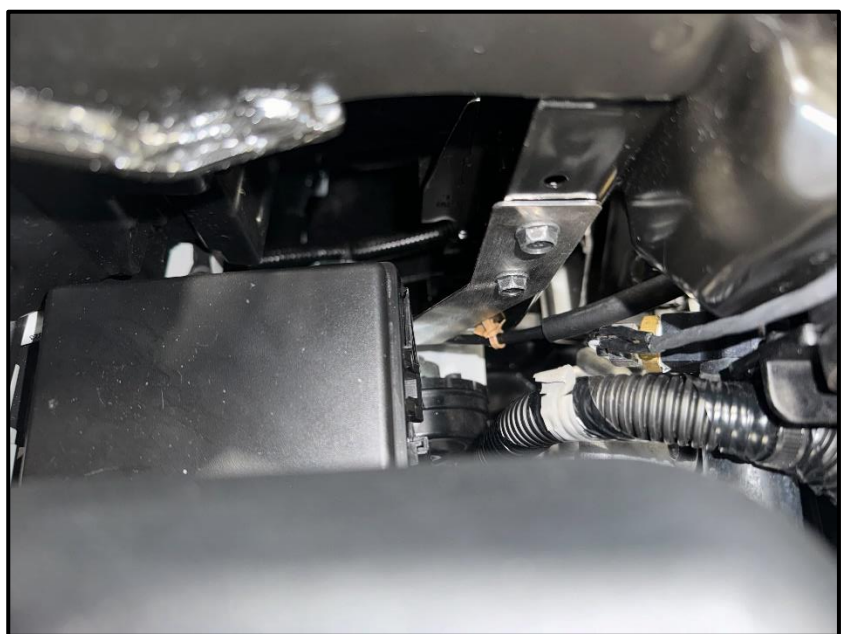


15. Locate the provided insulation tape, peel application tape, and apply to the bottom of the relay box.
16. Remove ISS fender mounting bracket by removing the (2) bolts. (see above photo)
17. Using a vise or work bench, bend the bracket upwards as indicated below. This bend provides clearance for the relay box once installed with the intake box.



18. Reinstall relay box bracket using the (2) previously removed OEM bolts.

- 19. Remove the (2) mounting bolts securing the front relay box behind the left-hand headlight.
- 20. With the provided Z1 relocation bracket, reinstall the relay box using the (2) previously removed bolts.



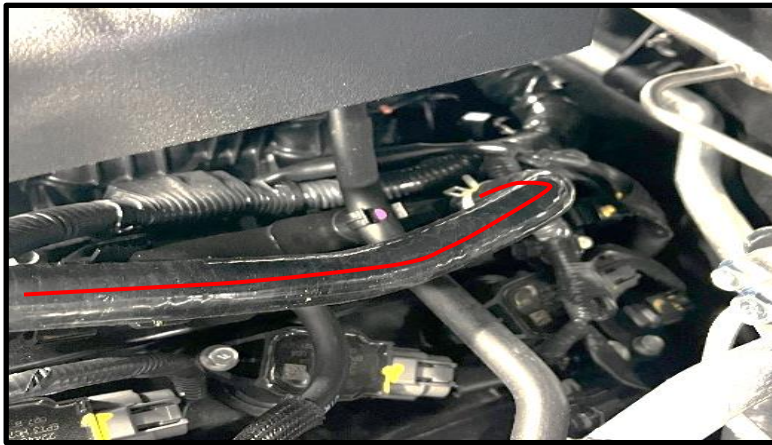
- 21. Locate Z1 airbox, large airbox grommet, and (2) small airbox grommets.
- 22. Install large filter grommet into large opening inside of airbox (as shown).
- 23. Install (2) small airbox grommets into holes on bottom of airbox (as shown).
- 24. Install airbox assembly into vehicle. Make sure the fender grommet sits around the inlet port on the airbox, and the bottom airbox grommets sit on the studs in the chassis.



- 25. Locate the new Z1 PCV hose.



26. Using the OEM hose clamp, attach Z1 PCV hose end with longer bend to valve cover (as shown).

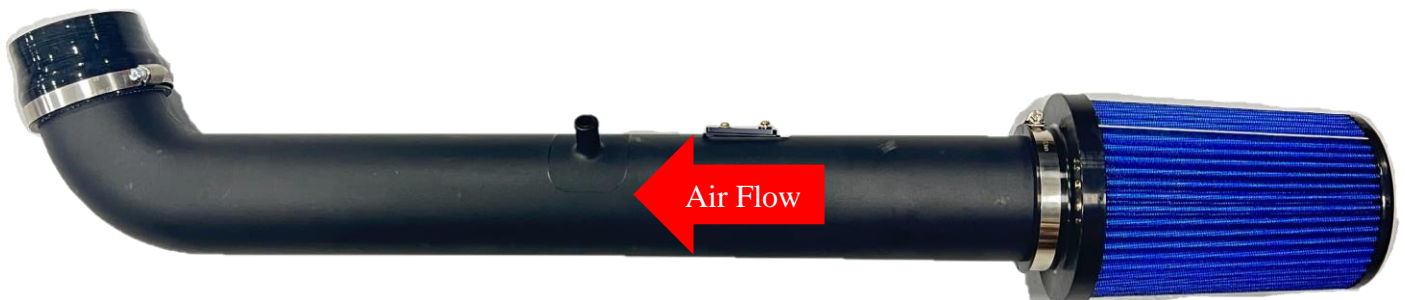


27. Locate Z1 intake tube, filter, (2) HD hoseclamps, throttle body coupler, MAF gasket, MAF flange, and (2) M4 x 14mm screws.

28. Remove (2) screws and transfer MAF sensor from OEM air intake tube to new Z1 air intake tube. Be sure to use the new provided M4 x 14mm screws, as well as the provided MAF gasket and flange (as shown).



Note: Ensure arrow is pointing in the direction of airflow. Screws used in pictures are samples and may differ from production.



29. Attach filter to straight end of air intake tube (as shown). Tighten hose clamp.



30. With (1) HD hose clamp, attach larger side of throttle body coupler to other end of air intake tube (as shown). Tighten hose clamp.

31. Install filter and intake tube assembly into the airbox making sure the filter is seated on the filter grommet in the airbox.

32. With (1) HD hose clamp, install throttle body coupler onto throttle body. Do not tighten clamp yet.

33. Using OEM hose clamp, attach PCV hose to Z1 air intake tube.

34. Reconnect MAF sensor connector that was removed in step # 3.

35. Tighten hose clamp at throttle body.

36. Inspect vehicle for loose tools/items.

37. Start vehicle. While at idle, check for leaks or faulty operation of Z1 air intake system.

38. Locate the C.A.R.B. exemption sticker. The sticker must be readily visible under the hood in order for an emissions inspector to easily see it when the vehicle is required to be tested for emissions. It is **NOT** recommended to affix the label to any equipment that is easily removable from the vehicle.

39. Select a suitable location (strut tower, underside of hood, radiator shroud or core support, etc.). Clean the area to remove all debris and dust. Apply the sticker to vehicle.

40. Account/remove tools from engine bay.

41. Lower hood of vehicle.

42. Perform a final test drive of vehicle.



END

Additional Technical Support:
Contact Z1 Off-Road at info@z1offroad.com
Or call 678-839-8019 between 9am and 6pm ET