

# Z1 OFF-ROAD FRONTIER / XTERRA / PATHFINDER COLD AIR INTAKE INSTALLATION MANUAL



This Installation Manual is intended for the following models:	
2005-2012	Nissan Pathfinder 4.0L
2005-2015	Nissan Xterra
2005-2021	D40 Nissan Frontier 4.0L/3.8L
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

## **TOOLS REQUIRED:**

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

## **SAFETY REQUIREMENTS:**

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

## **BEFORE YOU BEGIN:**

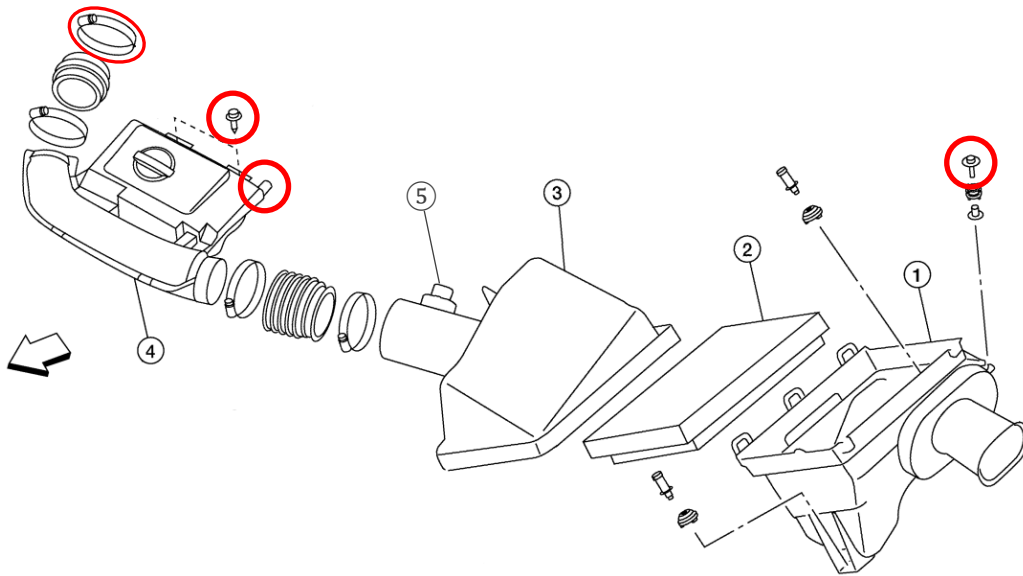
Remove contents from the Z1 Off-Road Frontier Intake Kit and verify that ALL necessary hardware is present.

The pictures shown in this manual are of a D41 (2022+) Frontier. Other models should follow the same procedure as the installation process is the same.

## **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. Apply hood prop.

Use the diagram below as reference for the following steps:



3. Disconnect MAF electrical connector (5) on OEM airbox.
4. Remove clamp and disconnect OEM PCV hose from OEM intake tube resonance chamber (circled above). Remove the other end of PCV hose from the valve cover.
5. Remove (1) mounting screw securing airbox to chassis at back right corner of airbox (circled above).
6. Remove (2) mounting screws securing resonance chamber to top front of engine (circle above).
7. Loosen hose clamp at throttle body (circled above).
8. 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 in the chassis. Some silicone spray will help release these grommets when removing the airbox. Leave studs in place.

9. Locate Z1 fender grommet and fender grommet velocity stack.
10. Install fender grommet into opening in driver side fender so that the end with a longer lip is facing the engine bay (as shown).



11. 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.



12. Locate Z1 airbox, large airbox grommet, and (2) small airbox grommets.

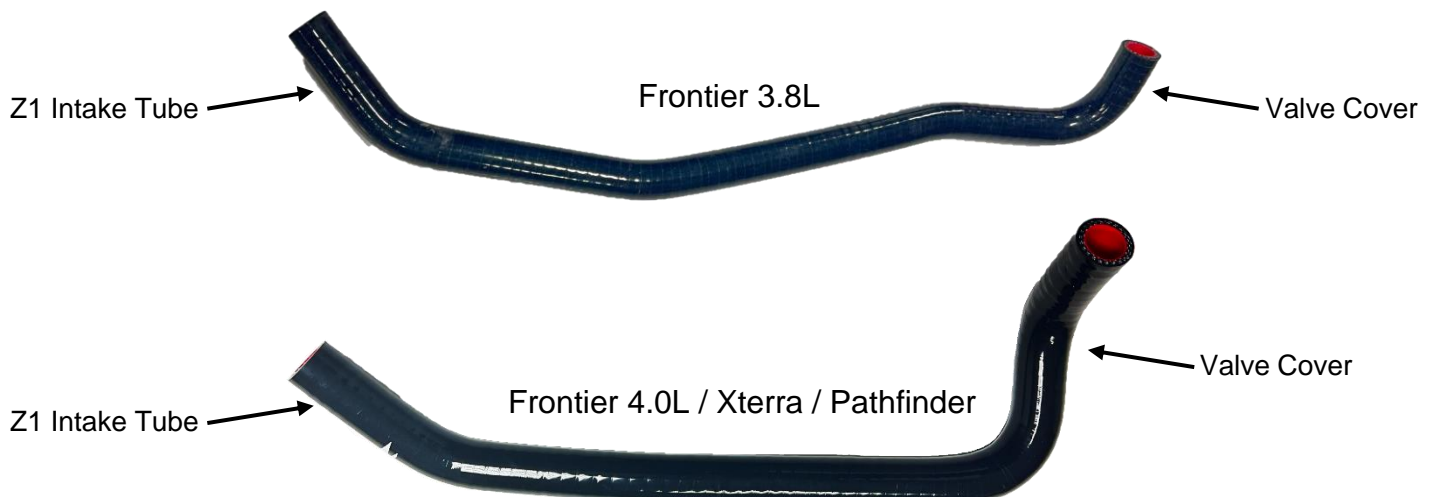
13. Install large filter grommet into large opening in side of airbox (as shown).

14. Install (2) small airbox grommets into holes on bottom of airbox (as shown).



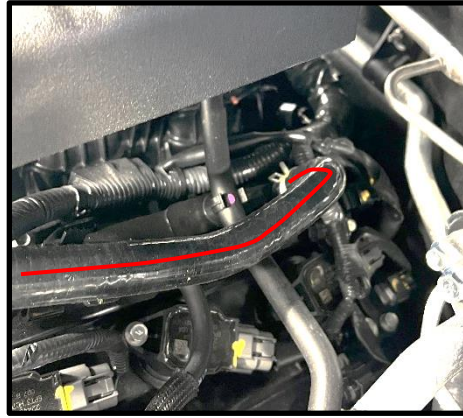
15. Install airbox assembly into vehicle. Make sure the fender grommet sits around the inlet port on the airbox, and the bottom airbox grommets sit on the studs in the chassis.

16. Locate new Z1 PCV hose.



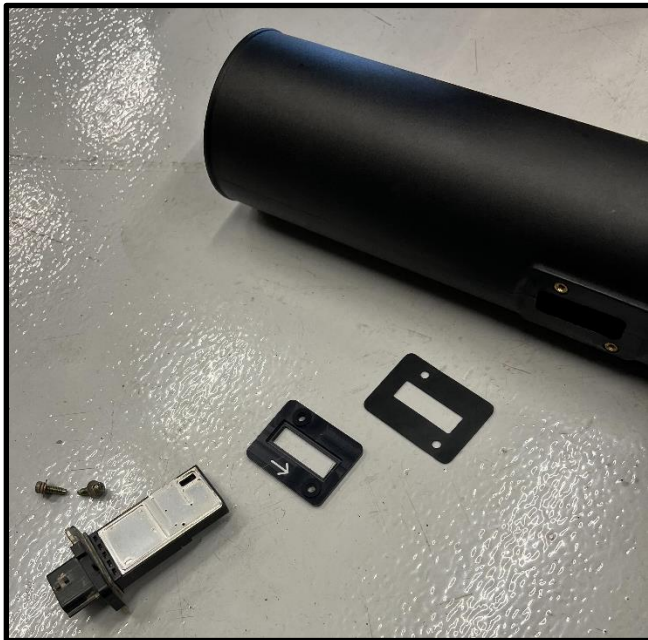


17. Using the OEM hose clamp, attach Z1 PCV hose end with longer bend to valve cover (as shown).



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

19. 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).



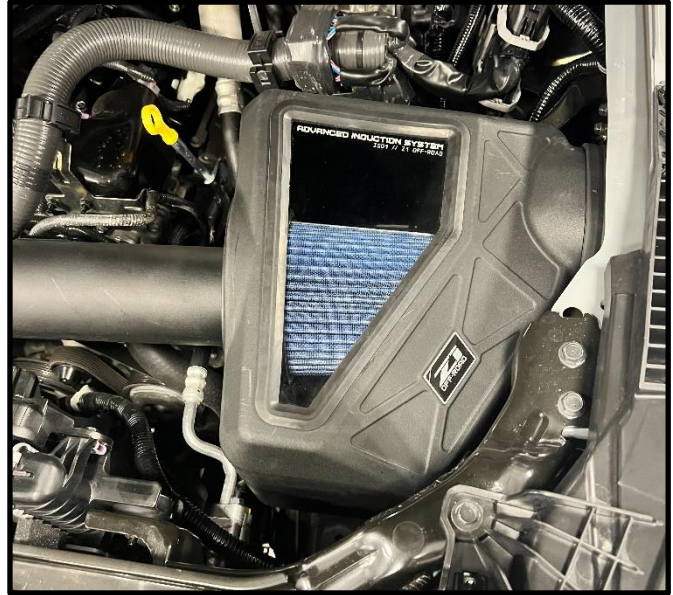
Note: Ensure arrow is pointing in the direction of airflow. Screws used in pictures are samples and may differ from production.

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

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



22. Install filter and intake tube assembly into the airbox making sure the filter is seated on the filter grommet in the airbox.
23. With (1) HD hoseclamp, install throttle body coupler onto throttle body. Do not tighten clamp yet.
24. Using OEM hose clamp, attach PCV hose to Z1 air intake tube.



25. Reconnect MAF sensor connector that was removed in step # 3.
26. Tighten hose clamp at throttle body.
27. Inspect vehicle for loose tools/items.
28. Start vehicle. While at idle, check for leaks or faulty operation of Z1 air intake system.
29. Lower hood of vehicle.
30. Perform a final test drive of vehicle.

**END**

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