

Z1 D40 FRONTIER BODY LIFT KIT INSTALLATION MANUAL



This Installation Manual is intended for the following models:

2005-2022

Nissan Frontier (D40)

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 D40 Frontier Body Lift Kit, consult with a Professional Mechanic, or contact Z1 Off-Road for more information.

PARTS INCLUDED:

Item	Quantity	Description
1	12	Spacer
2	2	Front Bed Riser
3	2	Rear Bed Riser
3	1	Radiator Hose
4	1	Power Steering Hose
5	8	M12 x 1.25 Hex Bolt, 170mm
6	4	M10 x 1.25 Flanged Hex Head Screw
7	8	M12 Washer
8	2	Front Bumper Relocation Bracket
Optional		
9	1	Tailgate Finisher

TOOLS REQUIRED:

- Hydraulic Jack
- (4) 2-Ton (or greater) Jack Stands
- Ratchet
- Ratchet Extension(s)
- Assorted Metric Sockets
- Assorted Metric Wrenches
- Torque Wrench

SAFETY REQUIREMENTS:

- Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- Always use properly rated jack stands when working under your vehicle.
- 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 D40 Frontier Lift Kit and verify that ALL necessary hardware is present.

The (2) two included M12 x 1.25 Hex Bolts, 220mm will not be used, as they are for the D41 Frontier Lift Kit.

PROCEDURE:

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
2. Loosen lug nuts on all (4) four wheels.
3. Locate proper jacking points on the vehicle's chassis (refer to the Owner's Manual). We supported our Frontier on the frame rails. Raise and support the vehicle using at least (4) four jack stands.
4. Remove all lug nuts and wheels from the vehicle.
5. Drain and collect the engine coolant. There is a Drain Plug on the passenger side of the Radiator. Use caution as the coolant may be hot if the vehicle was recently driven. Properly dispose of the coolant if you do not intend on reusing it.
6. Remove the Front Fender Liners. Use *Figure 1* below as a reference for fastener locations.

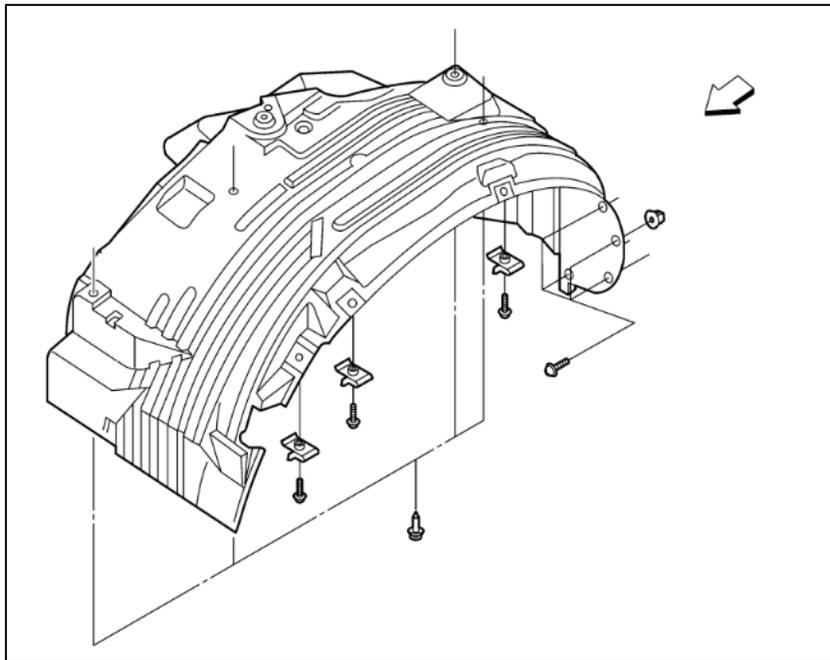


Figure 1

7. Remove the Front Bumper and OEM Crash Bar Assembly. Use *Figure 2* below to locate the mounting screws and tabs that hold these pieces on. Retain the hardware as it will be reused.

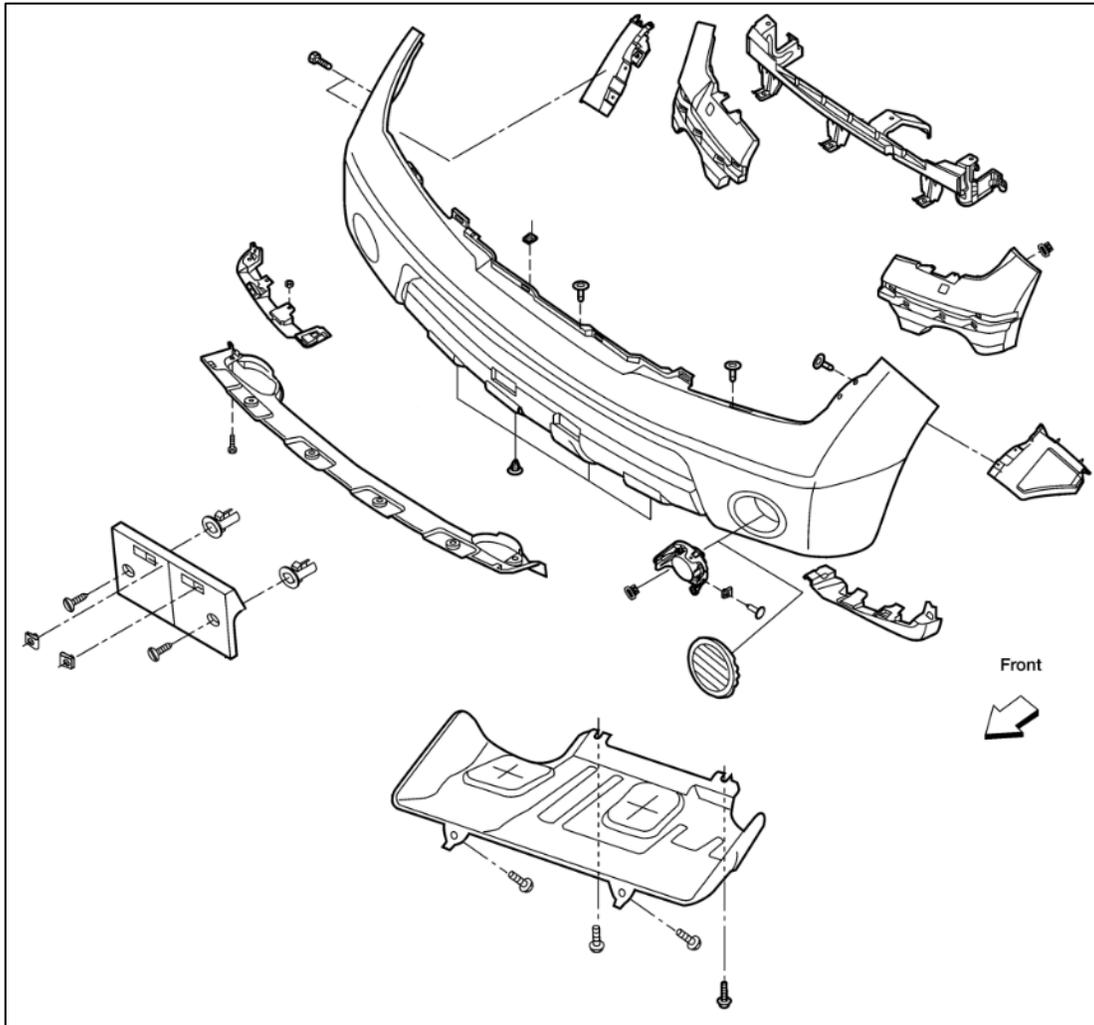


Figure 2

8. Remove the lower half of the Fan Shroud. *Figure 3.*

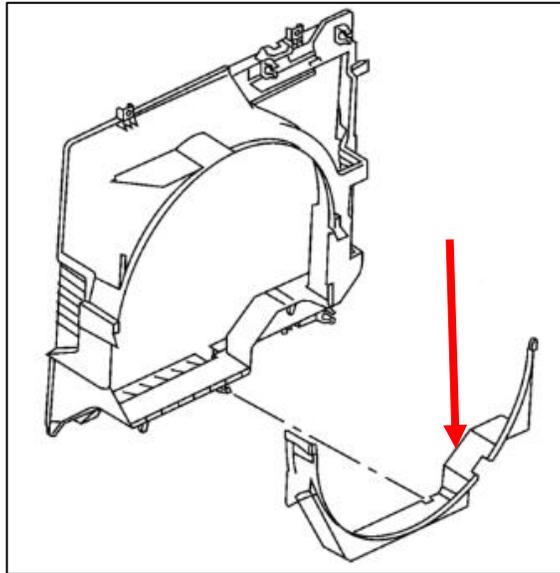


Figure 3

9. After coolant is drained, remove the OE Upper Radiator Hose, circled below in *Figure 4.* Retain the Hose Clamps as they will be reused.

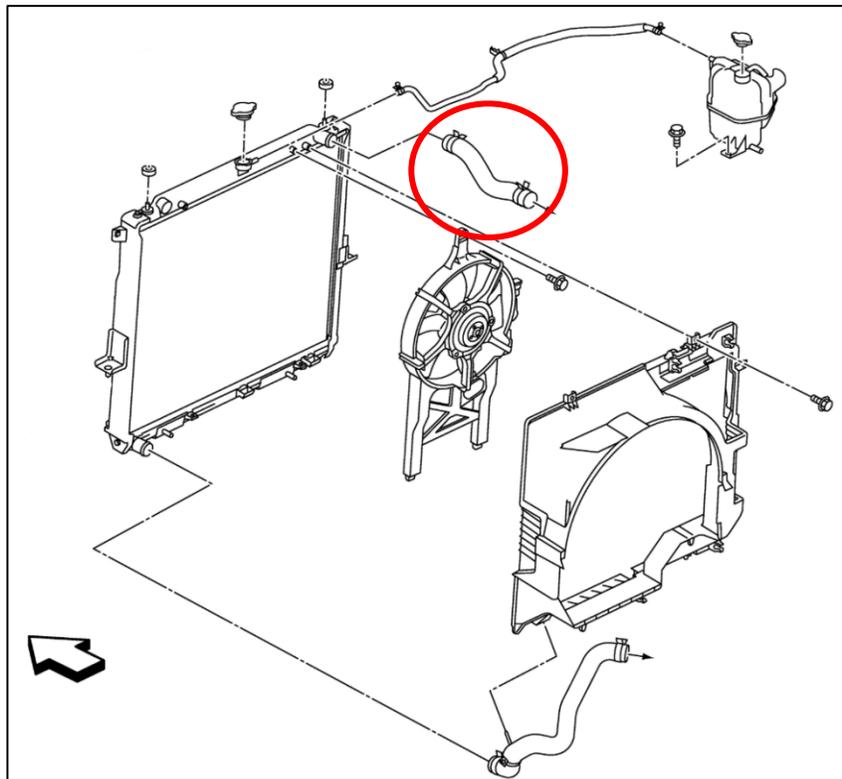


Figure 4

10. Remove the OE Power Steering Hose from the Power Steering Reservoir. Prepare a bottle or can to catch fluid upon removal of the hose. Retain the Hose Clamps as they will be reused. *Figure 5.*

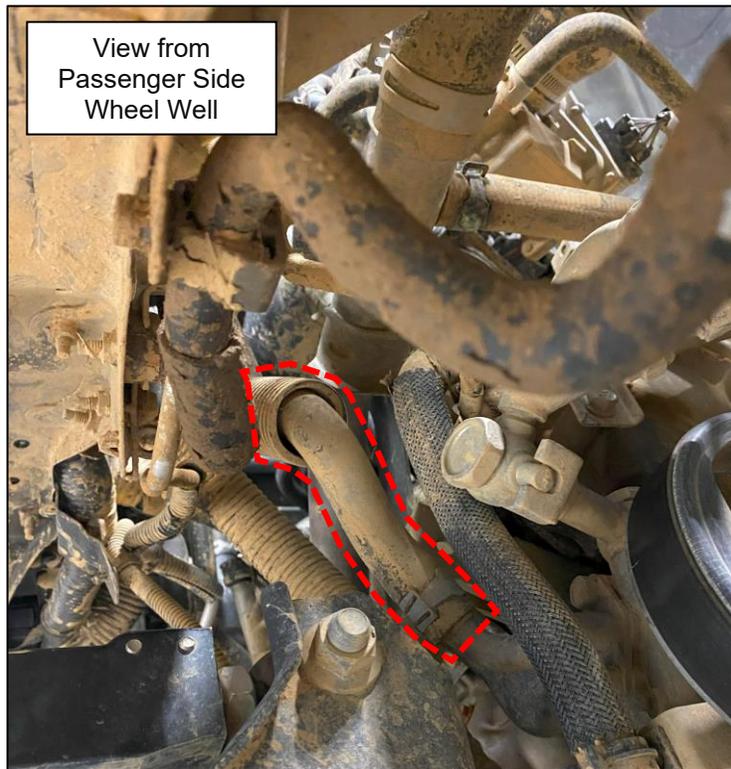
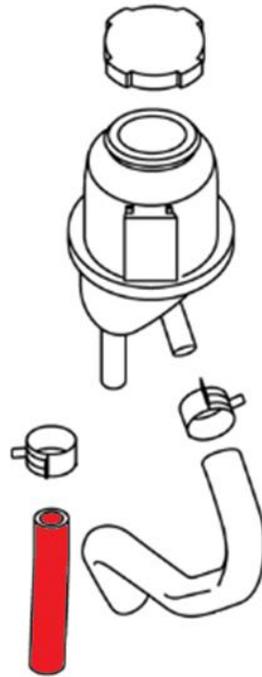


Figure 5

11. Remove the OE Running Boards or any Rock Sliders if equipped. Use *Figure 6* for a fastener location reference.

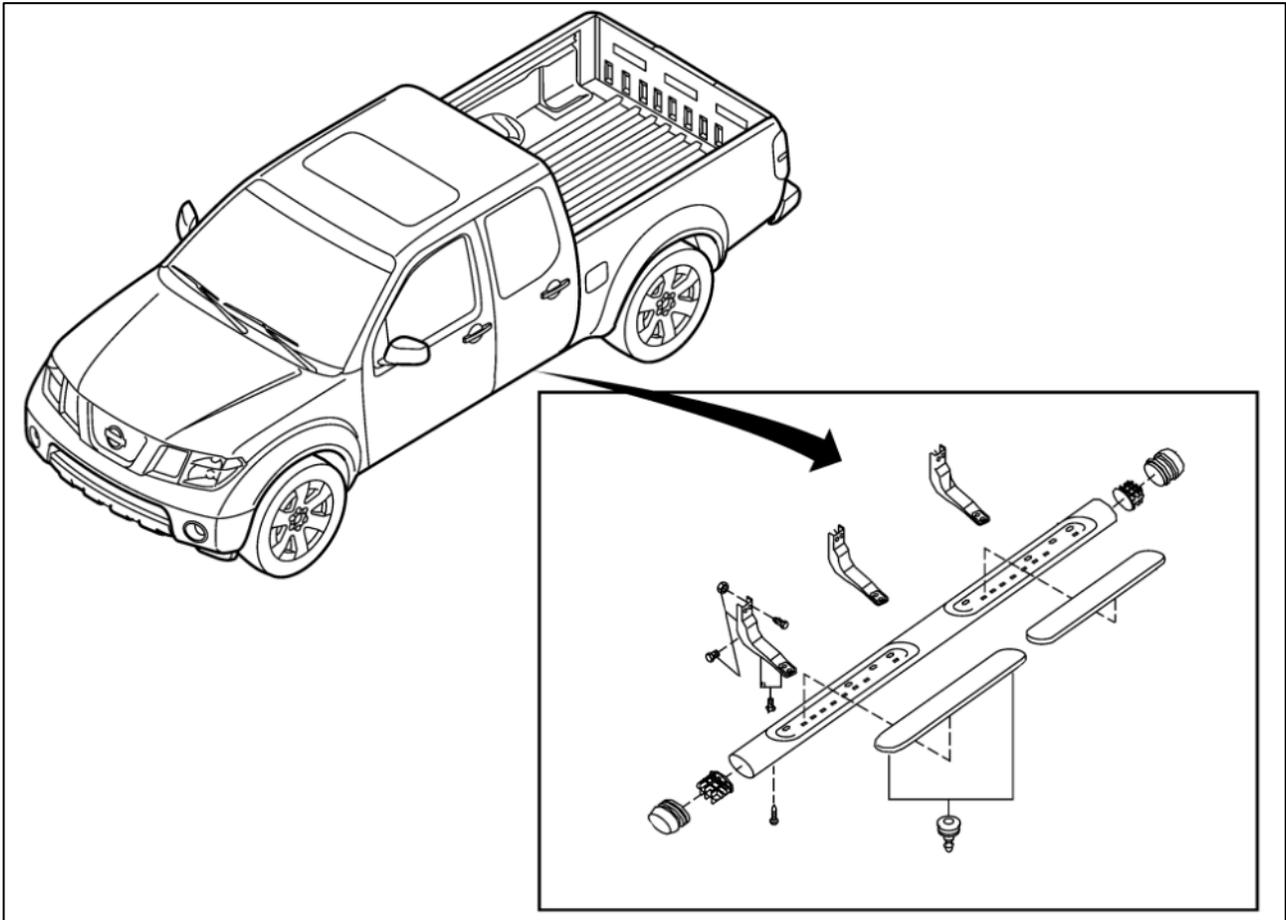


Figure 6

12. Remove the OE Fender Mud Guards from the vehicle. *Figure 7*.

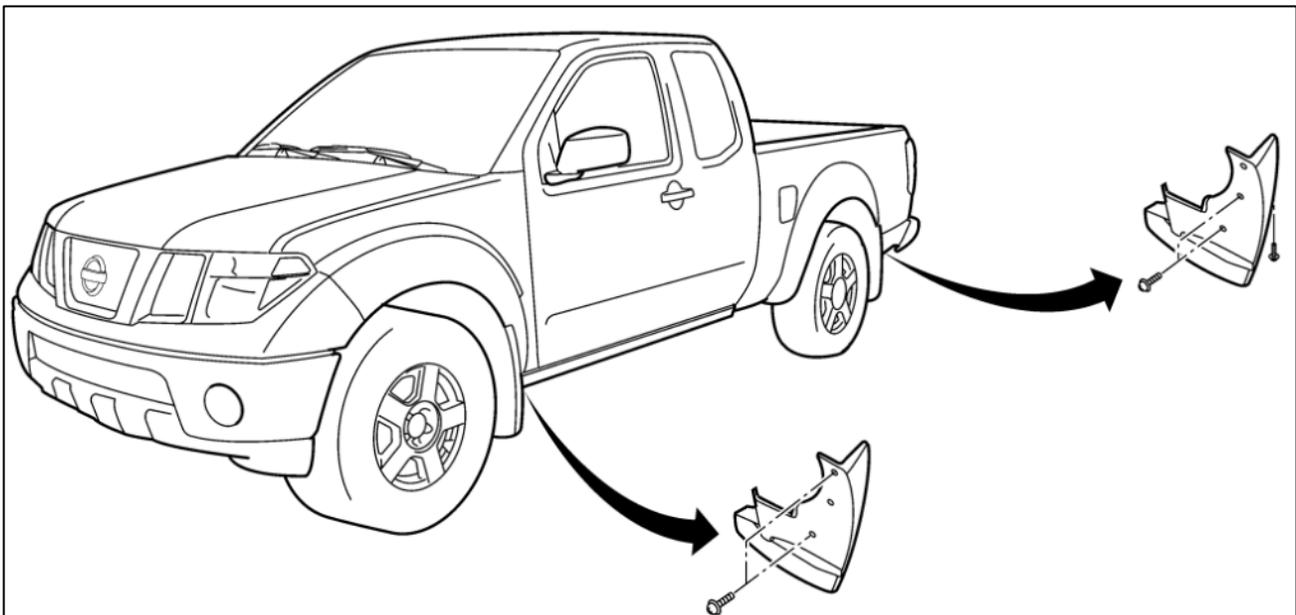


Figure 7

13. Disconnect the Wiring Harness from the Passenger Side Wheel Well. It is secured by multiple bolts and clips, circled below in *Figure 8*. Unclip the connectors from the Frame Rail as well.



Figure 8

14. Disconnect the ABS Sensor and the Wiring Harness in the Passenger and Driver Side Wheel Well. *Figure 9.*

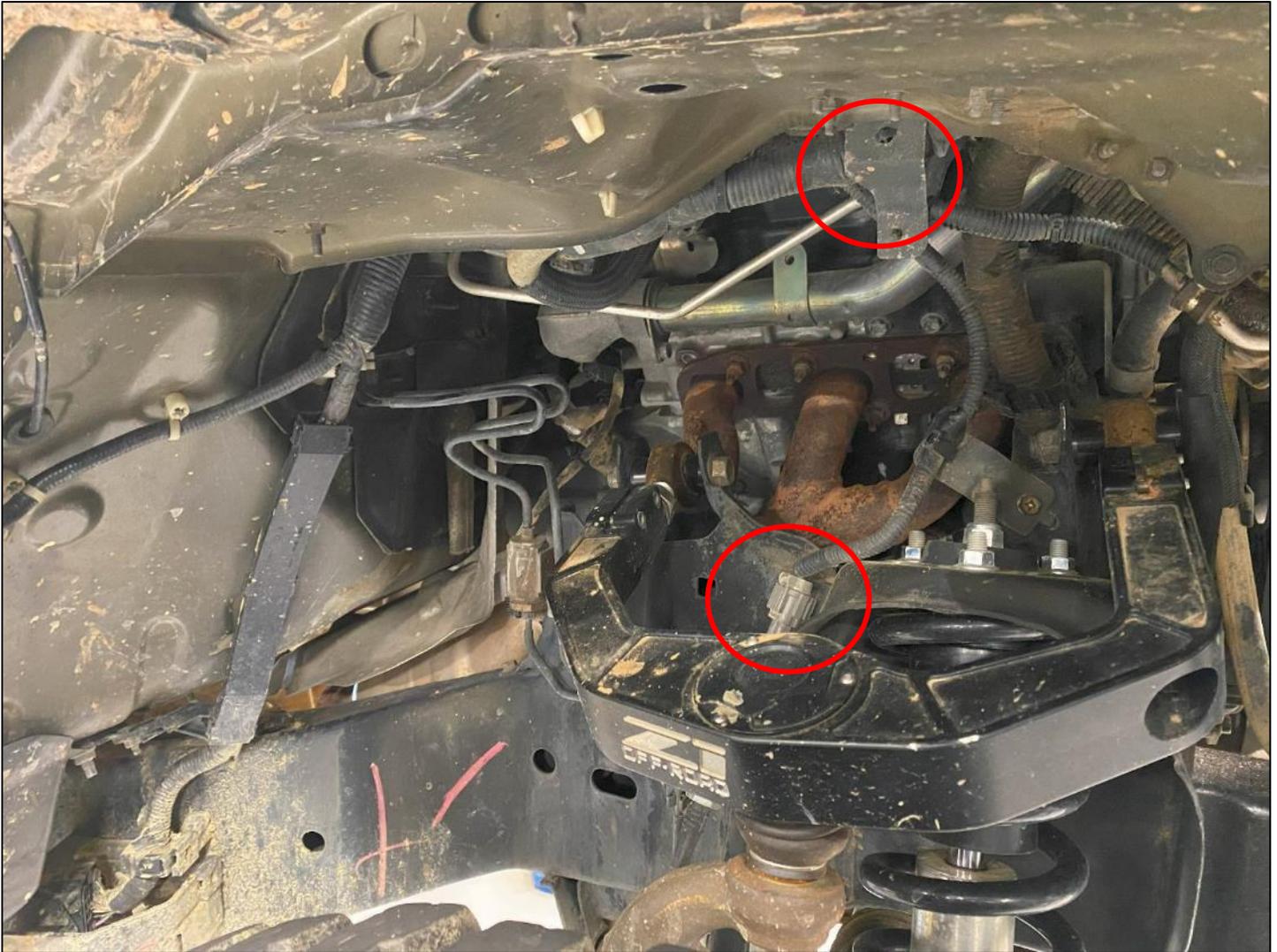


Figure 9

15. Disconnect the Fuel Line Bracket in the Driver Side Wheel Well, it is held on by (3) three bolts. *Figure 10.*



Figure 10

16. Mark the Steering Shaft using a Paint Pen, then disconnect the Steering Shaft. This will ensure proper alignment upon reinstallation and prevent binding when the Body is lifted.

17. Disconnect the Fuel Filler neck at the body, it is held on by (1) one bolt. Push the grommet around the Fuel Fill inwards after the bolt has been removed. *Figure 11.*



Figure 11

18. Check for any Wiring Harnesses connected to both the Truck Bed and the Frame and disconnect them.
There are multiple in the bed of the Truck but depending on modifications you may have more or less wiring harnesses.
19. Crack loose the (12) twelve OE Frame to Body Bolts, (8) eight for the cab and (4) four for the bed. *Figure 12.*

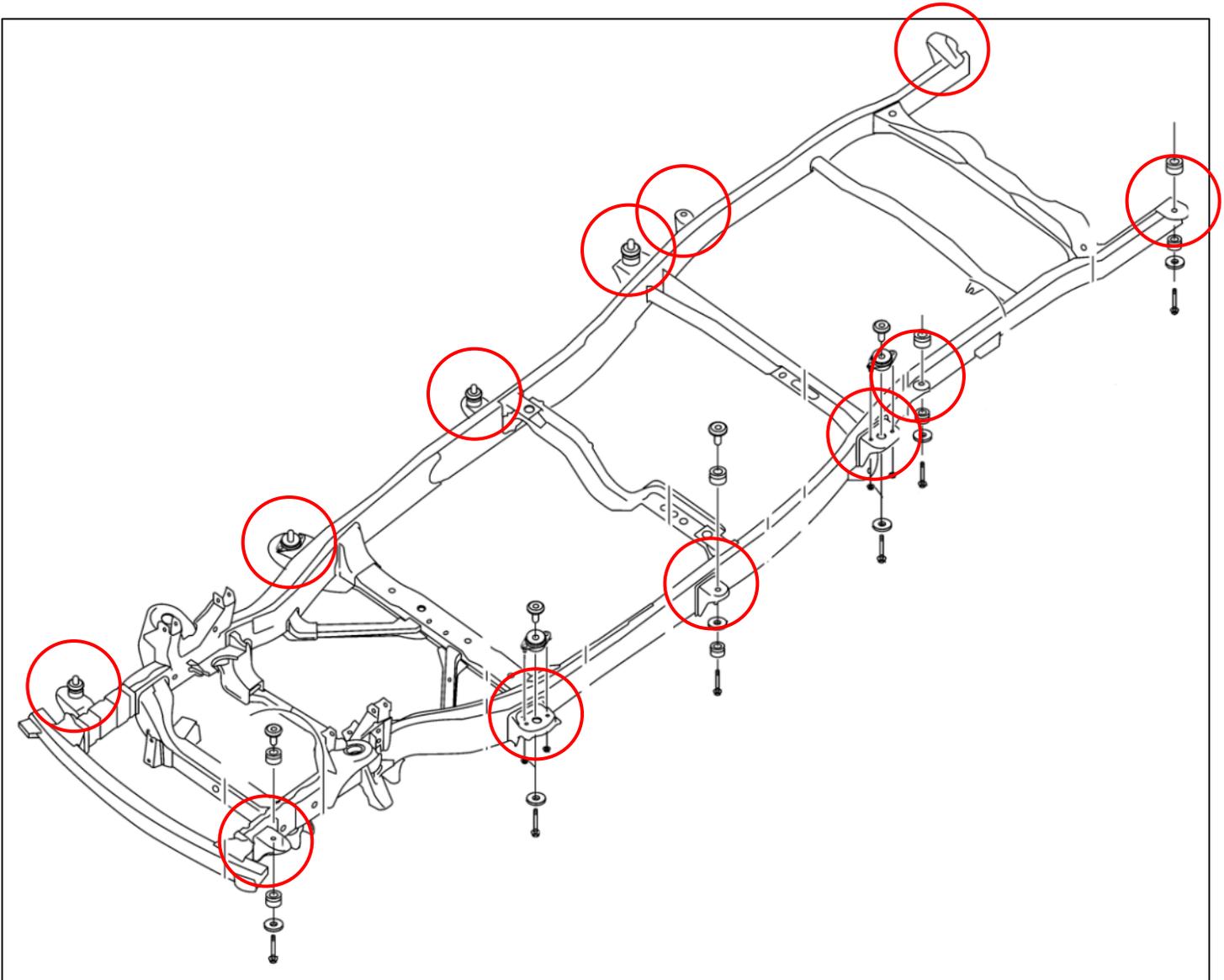


Figure 12

20. Support the Frame of the vehicle on Jack Stands. We supported ours under the Front Subframe and towards the rear of the Frame. *Figure 13.*

NOTE: The Figure below shows an Xterra, but the idea is still the same.



Figure 13

21. Remove the (8) eight Frame to Cab Bolts loosened in *Step 19*. Some of these bolts will have bushings with them. It is important to keep track of where the bushings go as they will need to be reinstalled.
22. Lift the Cab of the Truck up slowly on the pinch welds. This can be done in multiple ways. Using a lift is ideal and can lift the entire Cab up at once. But if you only have access to a hydraulic jack, you will have to lift one side of the Cab at a time. Lift slowly and check for anything that may be caught as the Cab is raised.

23. Once the Cab is lifted roughly ~2", check for fitment of the Z1 Spacers. These will sit **ON TOP** of the bushings on the frame. Lift the cab as necessary until the Spacers fit in the bushings. *Figure 14.*



Figure 14

24. Locate (8) eight M12 x 1.25 Hex Head Bolts, 170mm and (8) eight M12 Washers. Place a Washer on each Bolt and insert the bolt through the Frame and Spacer and thread in by hand. Make sure to reuse any lower bushings or washers that came off with the OE Bolts. The order should be **BOLT → WASHER → OE BUSHING → FRAME → BODY MOUNT**. It is recommended to use Anti-Seize on these bolts.
25. Slowly lower the Truck Cab back onto the frame. Once positioned, torque all (8) eight bolts to **65 ft-lbs**.
26. Remove the (4) four bolts that secure the Truck Bed to the Frame.
27. Using a lift or hydraulic jack, slowly lift and support the Truck Bed. We ended up raising the entire truck, and supporting the Truck Bed with Pole Jacks, before lowering the Truck back down and leaving the Bed Suspended. There are multiple ways to do this. Watch for any Wiring Harnesses or parts that get caught when lifting. Remove and disconnect as necessary.
28. Check for clearance and insert (4) four Lift Spacers **ON TOP** of the frame bushings and frame.

29. Locate (2) two Front Bed Risers and (2) two Rear Bed Risers. They will not have a bolt and will be sandwiched between the Frame and the Truck Bed. The Front Bed Riser will be taller and have the smaller tab on top, while the Rear Bed Riser will be shorter and have the larger tab on top. Install them in the positions as shown, making sure to line up the tabs with the holes in the Truck Bed. *Figure 15.*

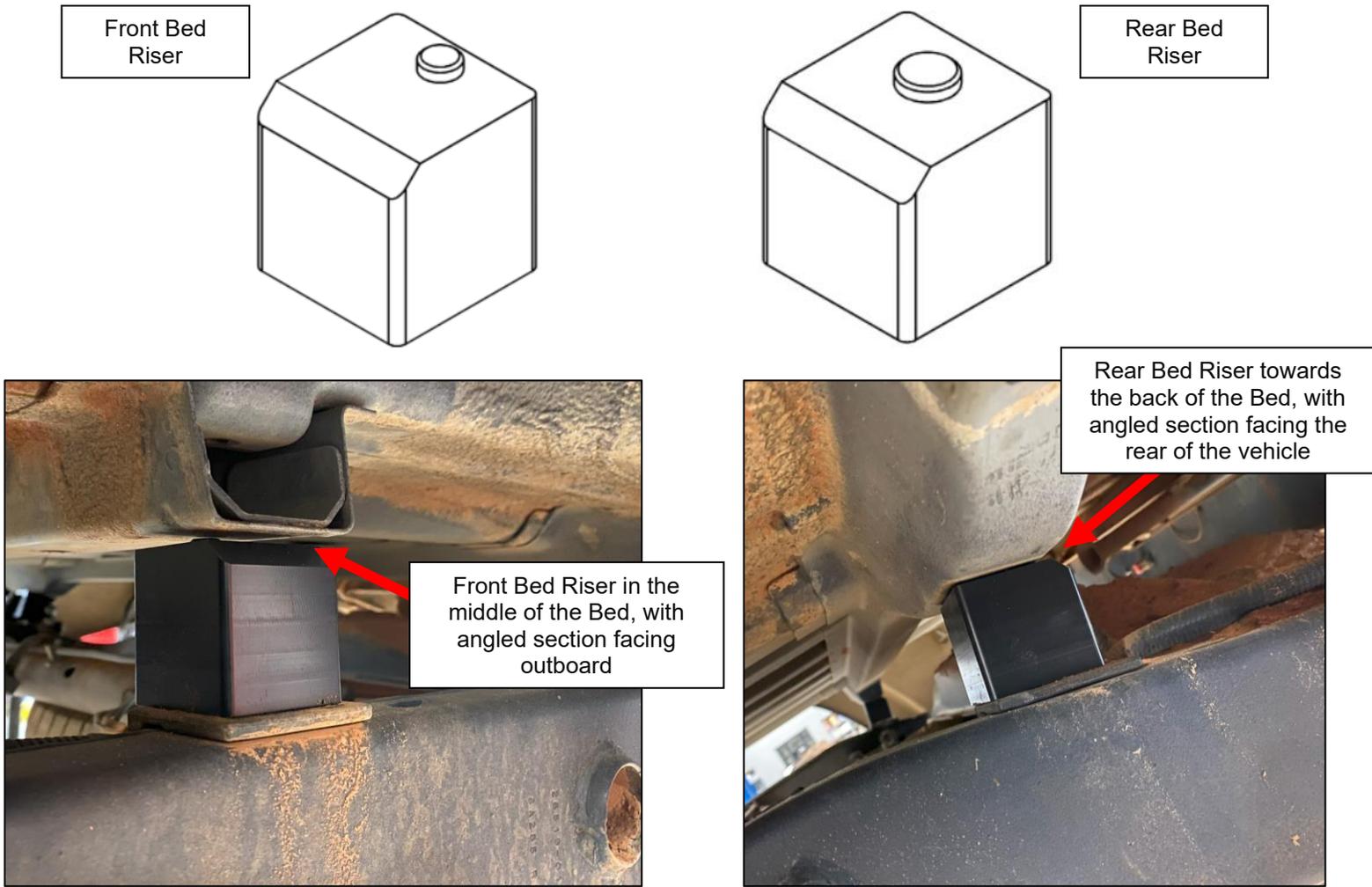


Figure 15

30. Locate (4) four M10 x 1.25 Flanged Hex Head Screws and loosely thread them through the Frame and Spacers and into the Truck Bed. It is recommended to use thread locker on these bolts.

31. Slowly lower the Truck Bed back onto the Frame. Make sure the Front and Rear Bed Risers stay properly seated and aligned.

32. Torque the (4) four M10 Screws to **16 ft-lbs.**

33. Locate the (2) Front Bumper Relocation Brackets, (4) four M12 x 1.5 Bolts, and the OEM Crash Support Hardware. Position the Brackets onto the front mounting points and use the OEM Bolts to secure the Mounting Bracket. Torque the OE bolts to **62 ft-lbs**. *Figure 16.*

NOTE: The M12 x 1.5 Bolts will be used to secure the Crash Bar to the Brackets and are shown below just to show where they will go in *Step 36.*

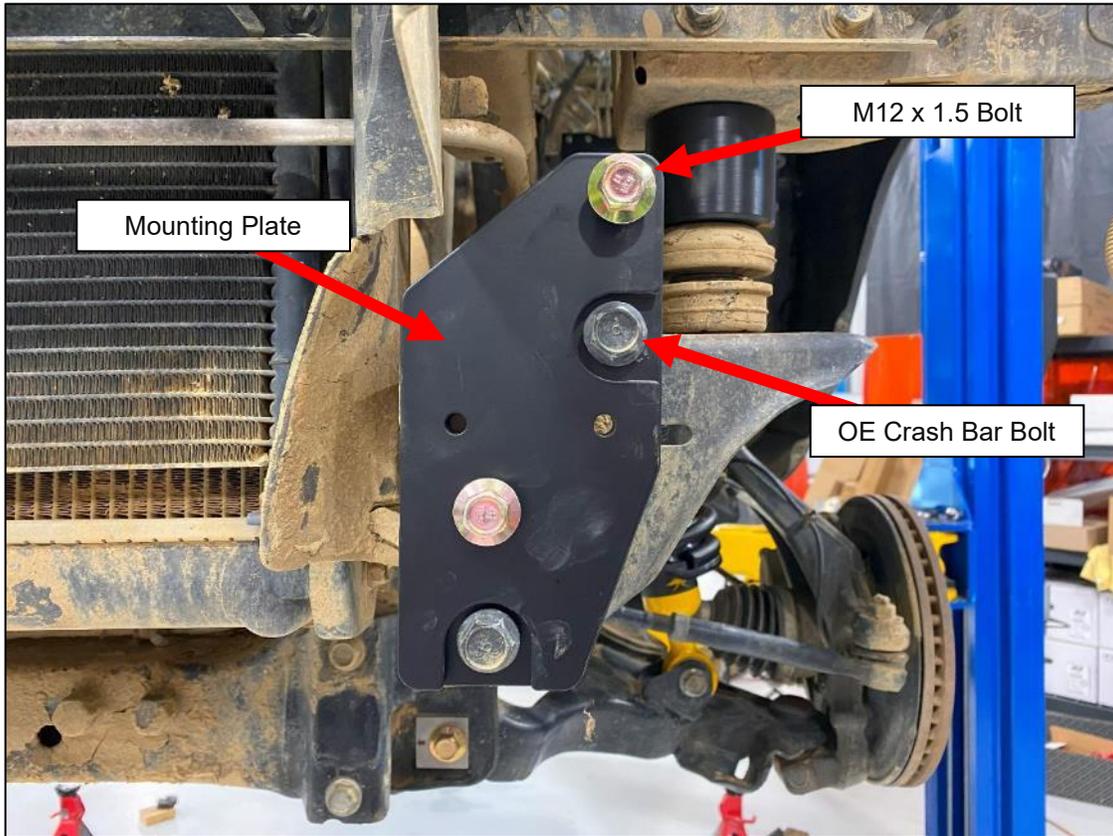


Figure 16

34. Mount the OE Crash Bar to the Brackets using (4) four M12 x 1.5 Bolts. Torque to **69 ft-lbs.** *Figure 17.*



Figure 17

35. Locate the new Radiator Hose. Using the OE Hose Clamps, install it onto the Radiator and Coolant Crossover pipe where the OE Hose was removed in *Step 9.* *Figure 18.*

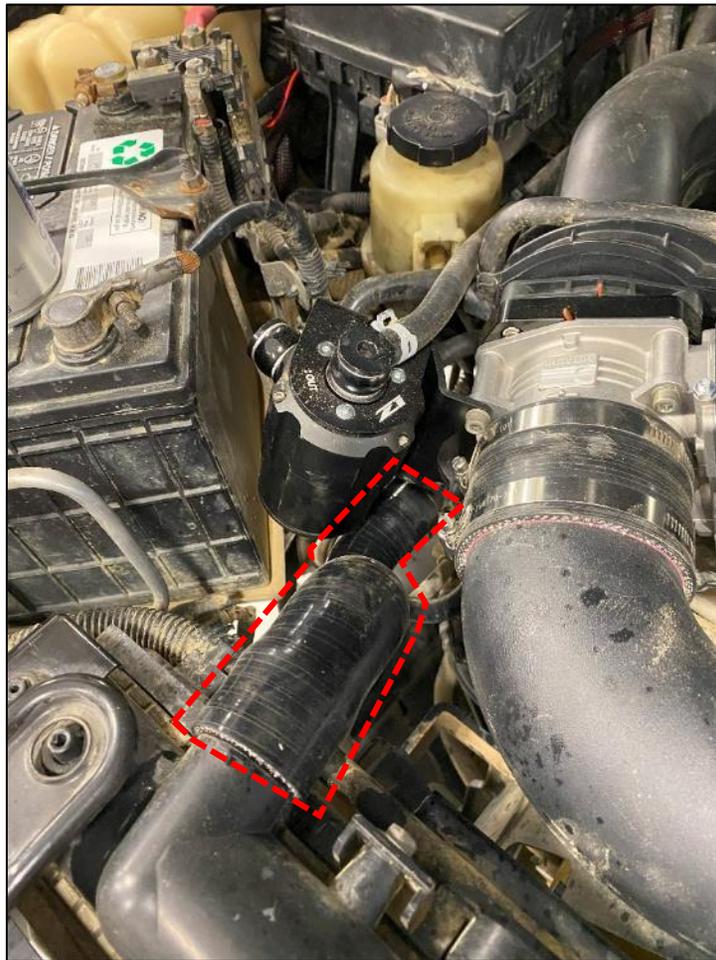


Figure 18

36. Locate the new Power Steering Hose. Using the OE Hose Clamps, install it onto the Power Steering Reservoir where the OE Hose was removed in *Step 10*. *Figure 19*.

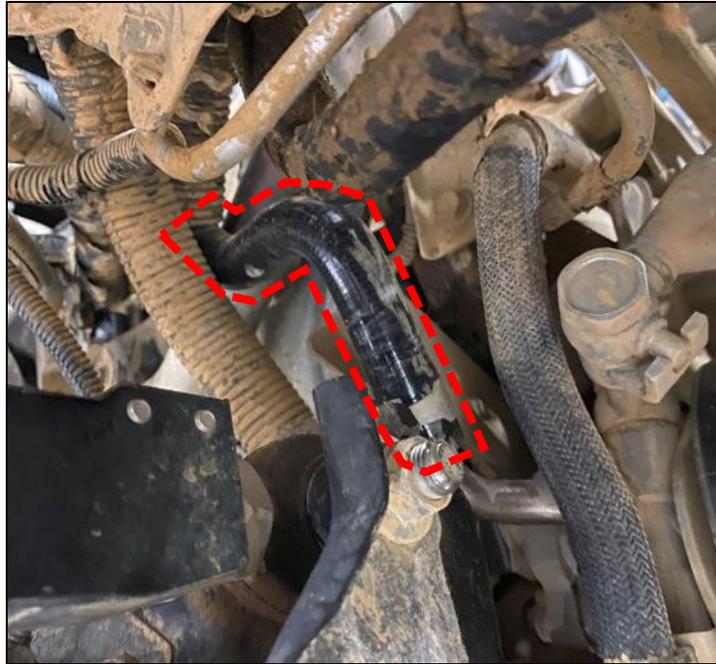


Figure 19

37. Reconnect the ABS Lines to the OE Brackets. If they are stretched too much, remove the bracket from the knuckle and loosely secure the lines with Zip ties.

38. Disconnect the clips of the Wiring Harness in the Passenger Side Wheel Well and flip the wiring harness over the Body to Frame mounting point as shown below. The Wiring Harness can be secured with zip ties or the OEM Clips. Using a hammer, flatten any of the unused tabs of the bracket. *Figure 20.*

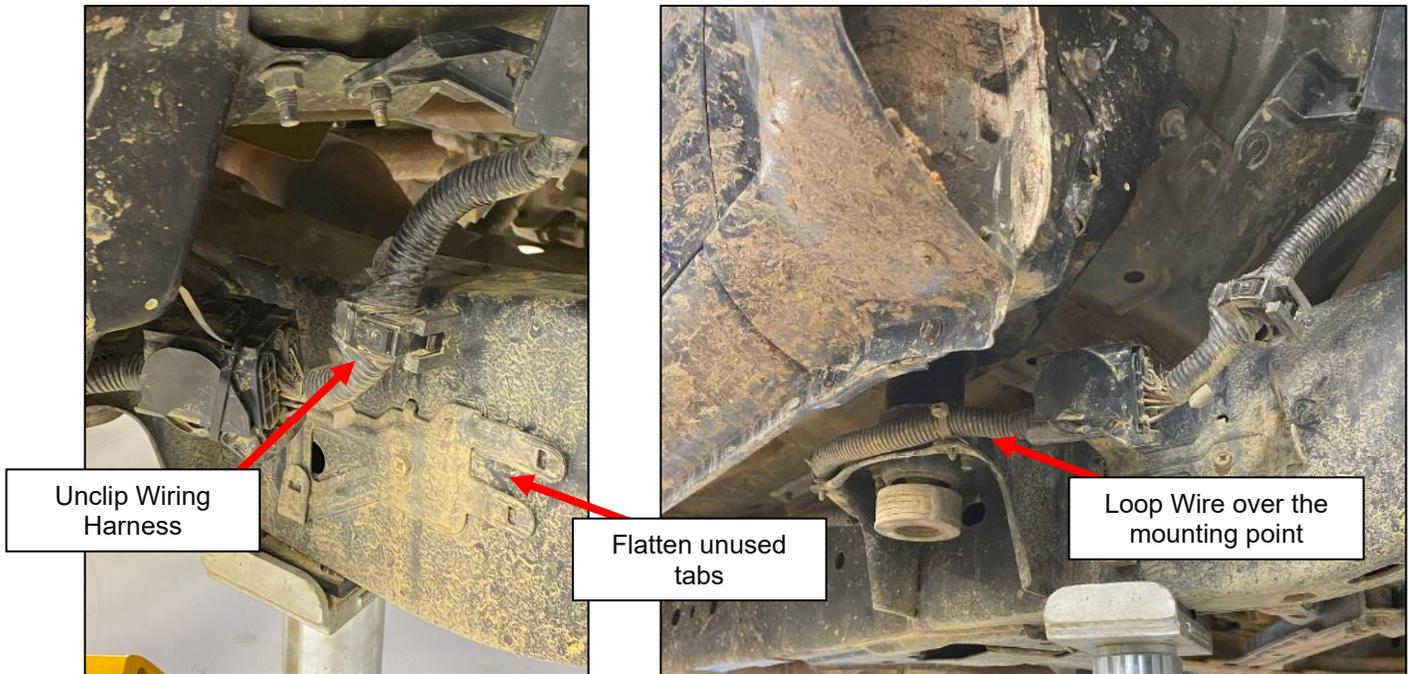


Figure 20

39. Reinstall the Brake Line Bracket in the Driver Side Wheel Well.

40. Reconnect the Steering Shaft. The Shaft can be extended by pulling on the section connected to the firewall. Line up the marks you made in *Step 16* and tighten the bolt to **20-33 ft-lbs.**

41. Reinstall the Front Bumper, use *Figure 2* in *Step 7* for fastener locations.

42. Reinstall all other parts (Fender Liners, Mud Guards, Running Boards, Fuel Filler Neck etc.).

43. Reinstall any connectors that were disconnected if they have enough slack to reconnect. Some connectors will not be able to be reconnected and can be zip tied out of the way.

44. Reinstall wheels and lug nuts.

45. Safely lower vehicle from jack stands.

46. Clean the mounting surface for the Tailgate Finisher. *Figure 21.*

NOTE: The Figures below are shown on a D41 Frontier, the process is still the same.



Figure 21

47. Locate the Tailgate Finisher and peel the Double-Sided Tape on the Back. *Figure 22.*

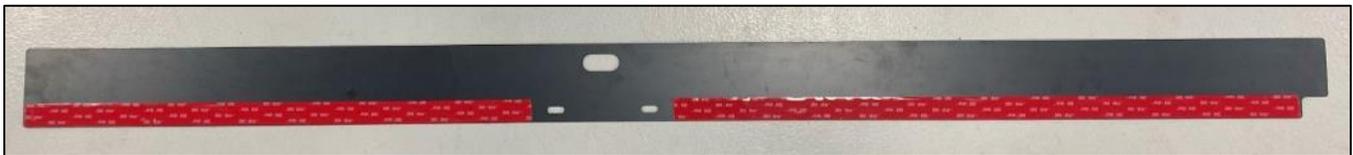


Figure 22

48. Position the Tailgate Finisher onto the Truck Bed and line the notch of the Tailgate Finisher up with the notch of the Truck Bed. When positioned, push the Tailgate Finisher against the Truck Bed to secure it into the position. *Figure 23.*



Figure 23

49. Locate the (2) two Button Head Screws and install them into the Tailgate Finisher and rear of the truck.
Figure 24.



Figure 24

50. Refill and bleed the Coolant System according to the Factory Service Manual (FSM).
51. Refill and bleed the Power Steering System according to the Factory Service Manual (FSM). If you notice your Steering is a bit notchy, the Steering Shaft may need to be slightly loosened while bleeding the system. Reconnect the Steering Shaft after bleeding and torque to **20-33 ft-lbs.**

END

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