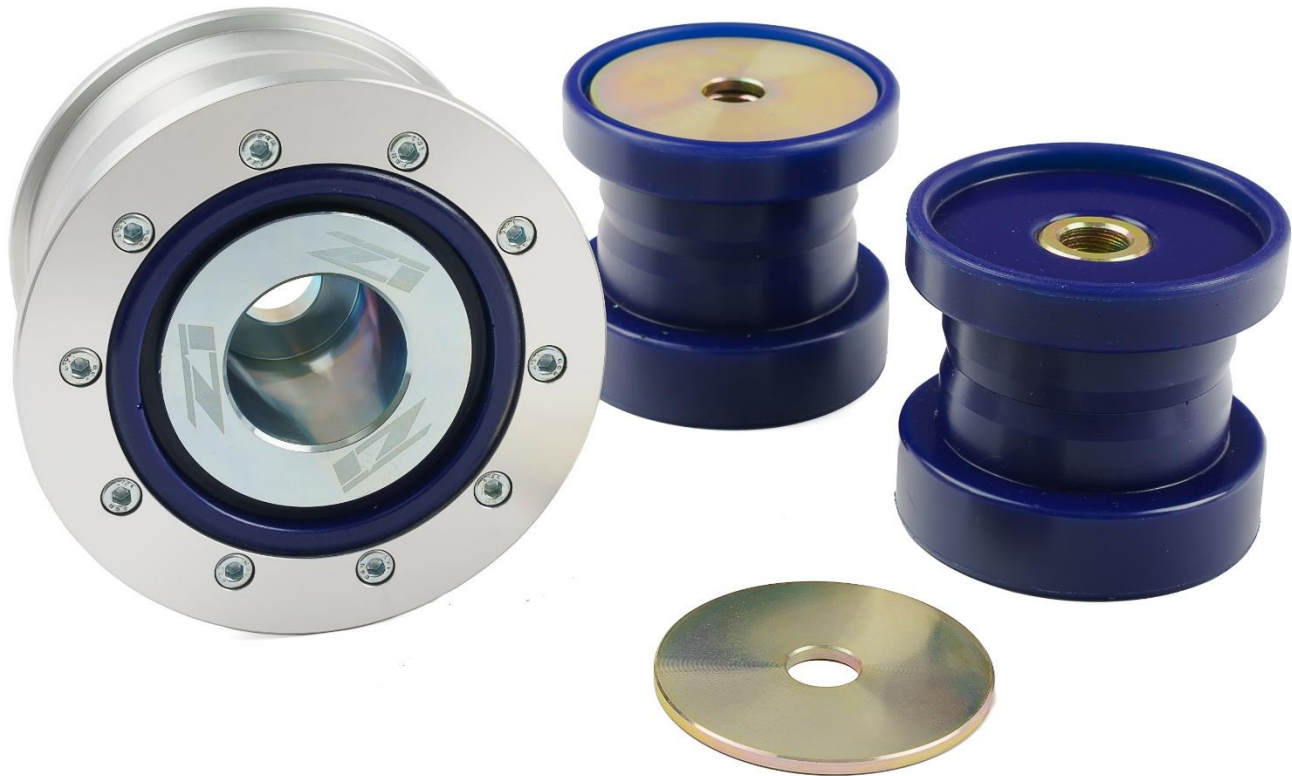


Q50 / Q60 URETHANE DIFFERENTIAL BUSHING INSTALLATION MANUAL



This Installation Manual is intended for the following models:

2014+	Infiniti Q50
2016+	Infiniti Q60

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 Q50 / Q60 Urethane Differential Bushing, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

PARTS INCLUDED:

Item	Quantity	Description
1	1	Rear Urethane Bushing
2	1	Rear Bushing Front Outer Sleeve
3	1	Rear Bushing Rear Outer Sleeve
4	3	Rear Bushing Shim
5	1	Rear Bushing Inner Sleeve
6	2	Front Upper Urethane Bushing
7	2	Front Lower Urethane Bushing
8	2	Front Bushing Sleeve
9	2	Front Bushing Washer
10	10	M4-0.7 x 60mm Socket Head Bolt

TOOLS REQUIRED:

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Ratchet
- Ratchet Extension(s)
- Assorted Metric Sockets/Wrenches
- Torque Wrench (ft-lbs & in-lbs)
- 34mm Deep Well Socket
- 19mm Deep Well Socket
- Large Hammer
- Large Pry Bar
- Saw (reciprocating/body)
- 3mm Allen Socket

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 Q50 / Q60 Urethane Differential Bushing and verify that ALL necessary hardware is present.

Z1 recommends freezing the large differential bushing sleeves before installation. This will allow the material to contract and ease the installation process.

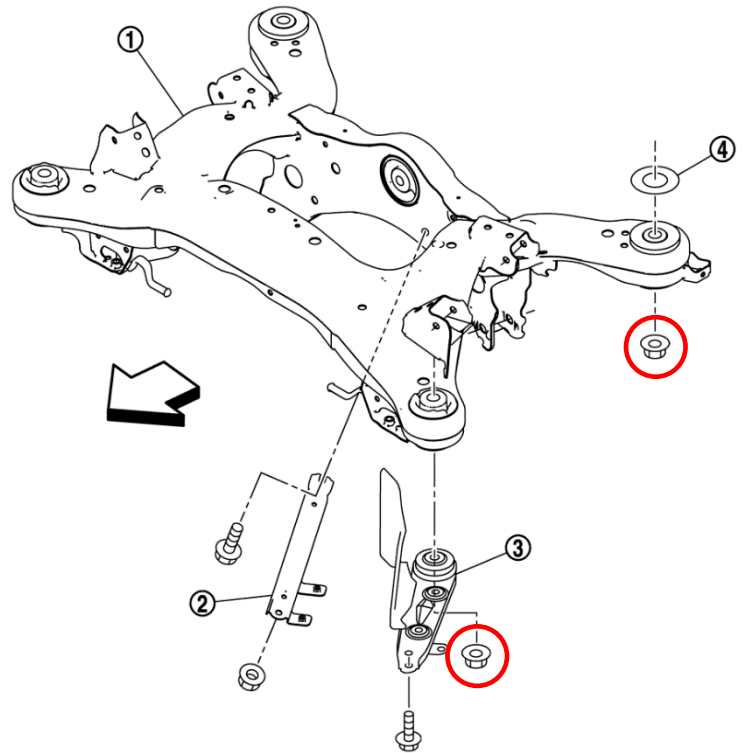
Installation Note/Warning:

The removal process of the factory OEM rear differential bushing on the Q50 or Q60 is very difficult. Professional removal/installation is highly recommended. It took our technicians with professional tools several hours more to remove this bushing than it typically takes on other Nissan/Infiniti models. This guide will show you the best method we found in house, while using a 2-post lift. However, with the right tools and enough patience it is possible to do at home. Depending on the tools available to you some additional liberties may need to be taken.

PROCEDURE:

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.

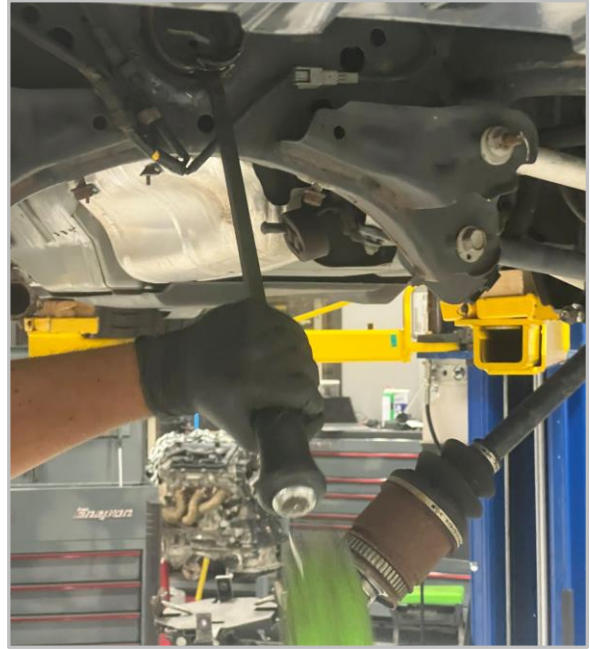
2. Locate proper jacking points on vehicle's chassis (refer to vehicle's Owner Manual). Raise and support vehicle using jack & jack stands.
3. Please refer to the Infiniti Factory Service Manual (FSM) for differential assembly removal procedure. This will include removing the exhaust components under the rear of the car, the rear sway bar, driveshaft, and a few other misc. components.
4. Loosen the (4) nuts securing the subframe to the rear of the vehicle to lower it down in order to access the rear differential bushing.
 - a. Some plastic trim pieces and member stays (3) will need to be removed to access the (2) front nuts.
 - b. The (2) rear nuts will need to be loosened more than the front. The driver side nuts are circled in the diagram at right.



5. It is now time to remove the factory rear differential bushing. To start, we recommend using a body or reciprocating saw to cut the middle of the factory bushing out (as shown). Depending on the condition of your factory bushing, you may want to drill into the bushing first to try and remove as much hydraulic fluid as possible (as shown).



6. Then cut a couple slits into the outer sleeve on both the front and back side (shown below). We found it helped to use a large pry bar and hammer the slits up on both sides prior to hammering it out.

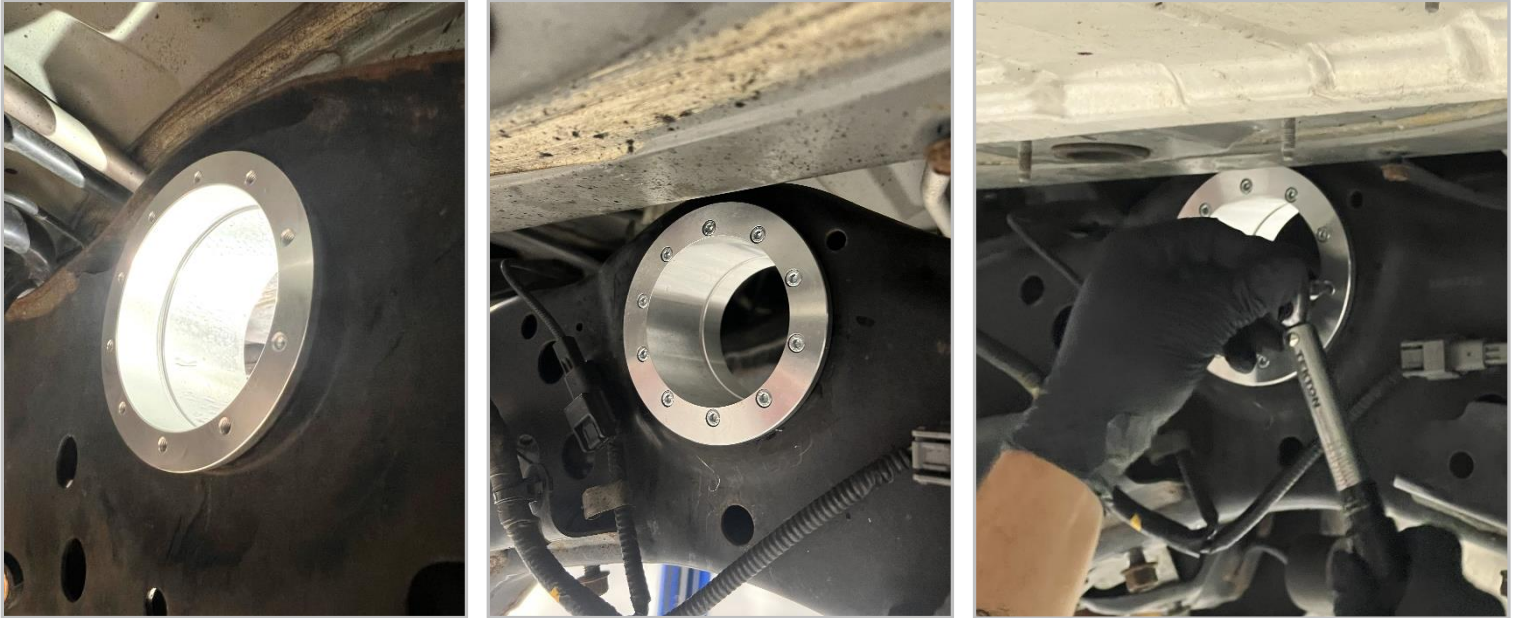


7. Using a large pry bar and hammer, hammer the outer bushing sleeve out towards the rear of the vehicle.
- a. Hammer the bushing out evenly to avoid wedging it inside the subframe.
 - b. In our testing we tried using the Z1 Differential Busing Removal Tool that works great on other models. But due to the design of the rear subframe, using the tool would result in the rear subframe collapsing/bending a tiny amount. While the subframe damage is barely noticeable and will not effect driveability or safety, we recommend not using that tool.
8. Clean the bushing area of the subframe. Remove any sharp edges that may be present.
9. Locate the rear bushing shims, (10) M4 x 60mm bolts, and remove the bushing Outer Sleeves from the refrigerator/freezer.
10. Install the rear outer sleeve, the larger of the two, from the rear using a block of wood and hammer to tap it in.

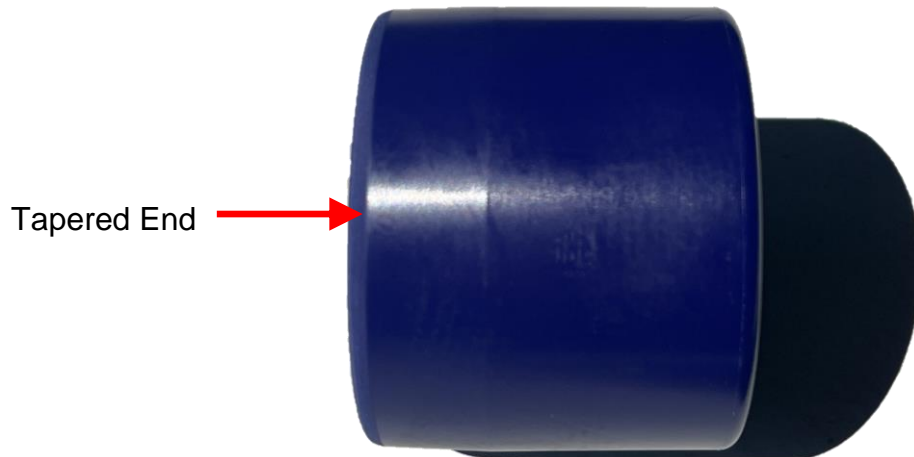


- a. Hammer the bushing in evenly. Turn the wood on its side to focus the force on one side if it's going in unevenly.

11. Install the front outer sleeve from the front. It is not a press fit and should go in by hand.
12. Once both the front and rear outer sleeves are installed, take note of the gap between them. If a gap is present, remove the front sleeve and install the provided shims to fill the gap (3 shims are provided and are 1mm thick each). Then reinstall the front outer sleeve to ensure the gap is filled.
13. Loosely thread in the (10) M4 x 60mm bolts into the outer sleeves. You may need to remove the front sleeve to clock the shims so the bolt goes through.
14. Once all the bolts are loosely threaded in, go back one by one and add a bit of provided loctite on each bolt. Tighten bolts in a star pattern evenly until they bottom out, torque to 40in-lbs.

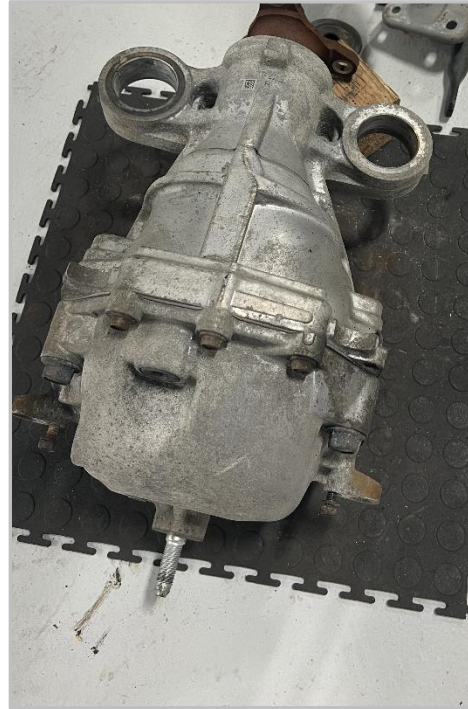


15. Locate the large rear urethane bushing. Install bushing into rear busing sleeve using a rubber mallet. The bushing is slightly tapered on one end to ease with installation, the tapered end should be facing forward.



16. Locate the rear bushing inner sleeve. Install the inner sleeve into the urethane bushing from the rear.

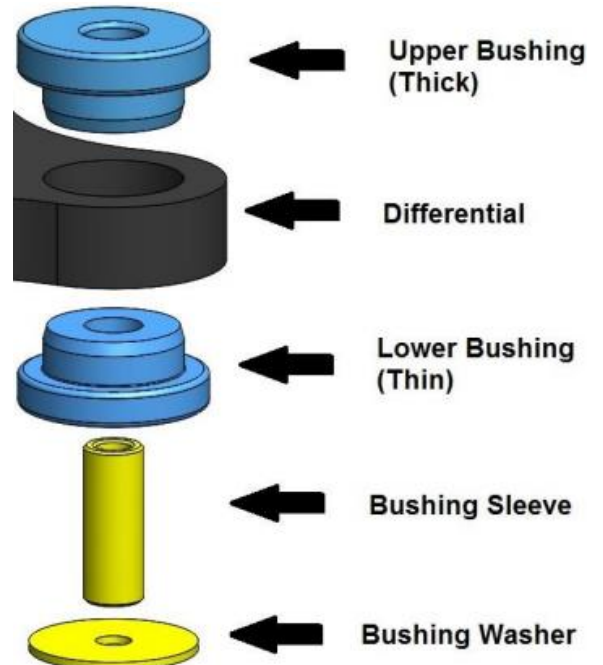
17. Carefully turn the differential assembly over by rotating front to back to avoid spilling fluid out the sides. Using a 34mm socket (or equivalent) and a hammer, tap the factory front differential bushings out of differential. Discard OE washers.



18. Clean the bushing area of the differential. Remove any sharp edges that may be present.
19. Press the upper and lower differential bushings into the differential (as shown in diagram at right).
20. Locate and press the bushing sleeve through the upper and lower bushings.
21. Please refer to the Infiniti FSM for the differential assembly installation procedure.

Note: Be sure to use the supplied Z1 Bushing Washers on the bottom (as shown).

22. Carefully lower vehicle.
23. Perform a final test drive of the vehicle.



Torque Specs:

Rear Single Differential Mounting Nut: 77ft-lbs
 Front Differential Mounting Bolts: 74ft-lbs
 Subframe Mounting Nuts: 89ft-lbs

END

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