



VQ OEM Rear Differential Bushing Removal Tool User Guide



PROLOGUE:

Study these instructions completely and thoroughly before proceeding to assemble. Installation can be completed using common tools and automotive procedures. 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 ANY 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 Rear Differential Bushing Removal Tool, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

Parts Included:

Item	Quantity	Description
1	1	Housing
2	1	Adaptor
3	1	Plate - Small
4	1	Plate - Large
5	1	1/2" x 9" ACME Rod
6	2	1/2" ACME Nut
7	2	1/2" Structural Washer
8	1	3/4" x 9" ACME Rod
9	2	3/4" ACME Nut
10	1	3/4" Structural Washer
11	1	1.5 oz. Assembly Lube

Note: Items #4, 5, 7, & 8 are consumable. Replacement kits are available.

Note: Items #5, 6, 7 & 8 do not come with protective coatings. Store contents in a dry, cool place to prevent oxidation.

Tools Required:

- 1/2" Drive Breaker Bar
- 7/8" Wrench
- 1 1/4" Socket (Deep)
- 7/8" Socket (Deep)

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 turn the ignition to the OFF position and disconnect the NEGATIVE battery terminal.
- 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 Rear Differential Bushing Removal Tool and verify that ALL necessary hardware is present.

Procedure:

1. Assure the car's engine is turned off and place transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply Parking Brake.

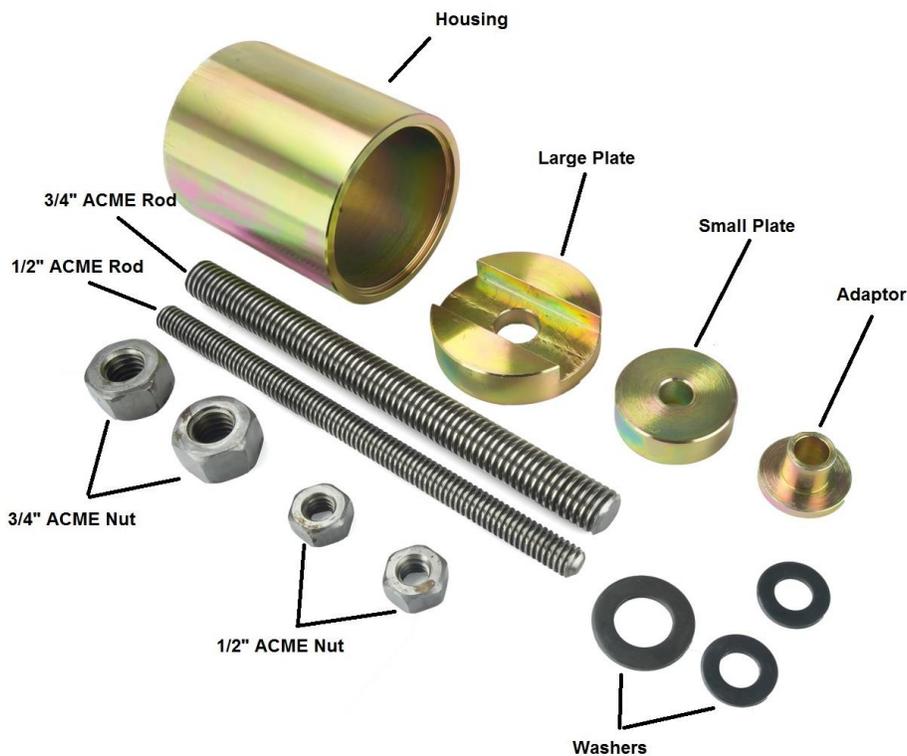
2. Raise and support Vehicle. Locate proper jacking points on Vehicle's Chassis (Refer to Vehicle's Owner's Manual).
3. Remove Differential from Vehicle. Please refer to Nissan Factory Service Manual (FSM) for removal procedure.

Sub-frame Assembly without Differential is as shown:



4. Locate Z1 Rear Differential Bushing Removal Tool.

Note: Coat 1.5" at each end of ACME Rod with Assembly Lube.



5. **Remove Inner Sleeve of Bushing:** Insert Adaptor at top of Housing. Align machined pocket of Housing against lip at front-side of Sub-frame. Insert 1/2" ACME Rod through Adaptor, Housing, and Bushing. Slide **Small Plate** over ACME Rod at backside of Sub-frame. Lock Assembly into place with 1/2" ACME Nut & Washers at each end (as shown). Tighten ACME Nuts against each other until Inner Sleeve separates from Bushing.

Note: Rear Bushing is hydraulic-filled, and will leak oil once broken.

Note: Assure that ACME threads are exposed at least 1/4" past Nut at each end.

Note: Do **NOT** use an Impact Gun!



6. **Remove Outer Sleeve of Bushing:** Align machined pocket of Housing against lip at front-side of Sub-frame. Insert 3/4" ACME Rod through Washer, Housing, and Bushing. Slide **Large Plate** over ACME Rod at backside of Sub-frame. Lock Assembly into place with 3/4" ACME Nut at each end. Tighten ACME Nuts against each other until Outer Sleeve separates from Sub-frame.

Note: Assure that ACME threads are exposed at least 1/4" past Nut at each end.

Note: Assure that Nut is seated inside machined groove of Large Plate.

Note: Do **NOT** use an Impact Gun!

Image of Sub-frame with Bushing removed is as shown:



- 7. Clean Sub-frame. Remove sharp edges that may be present.**
- 8. Install New Differential Bushing.**
- 9. Please refer to Nissan Factory Service Manual (FSM) for Differential Assembly installation procedure.**
- 10. Carefully lower Vehicle.**
- 11. Perform a final test drive of the Vehicle.**

End

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