

Z1 350Z / G35 MONOBALL COMPRESSION ROD BUSHINGS INSTALLATION MANUAL



This Installation Manual is intended for the following models:

2003-2008	Nissan 350Z
2003-2007	Infiniti G35 Coupe
2003-2006	Infiniti G35 Sedan

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 350Z / G35 Monoball Compression Rod Bushings, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

PARTS INCLUDED:

Item	Quantity	Description
1	2	Z1 Assembled Monoball Bushing
2	4	Z1 Monoball Boot
3	4	Small Round Wire Snap Ring
4	4	Large Round Wire Snap Ring
5	2	Smalley Spiral Retaining Ring
6	1	Z1 Monoball Install Tool

TOOLS REQUIRED:

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Ratchet
- Ratchet Extension(s)
- Assorted Metric Wrenches/sockets
- Torque Wrench
- Ball Joint Separator
- Hammer (BFH)
- Pick / Deburrer
- Silicone Spray

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.

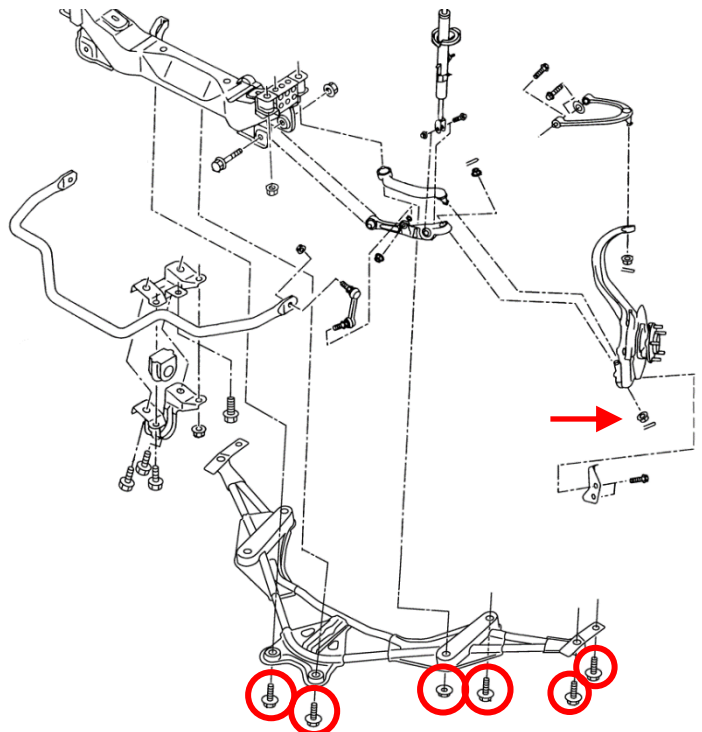
BEFORE YOU BEGIN:

Remove contents from the Z1 Motorsports 350Z / G35 Monoball Compression Rod Bushings and verify that ALL necessary hardware is present.

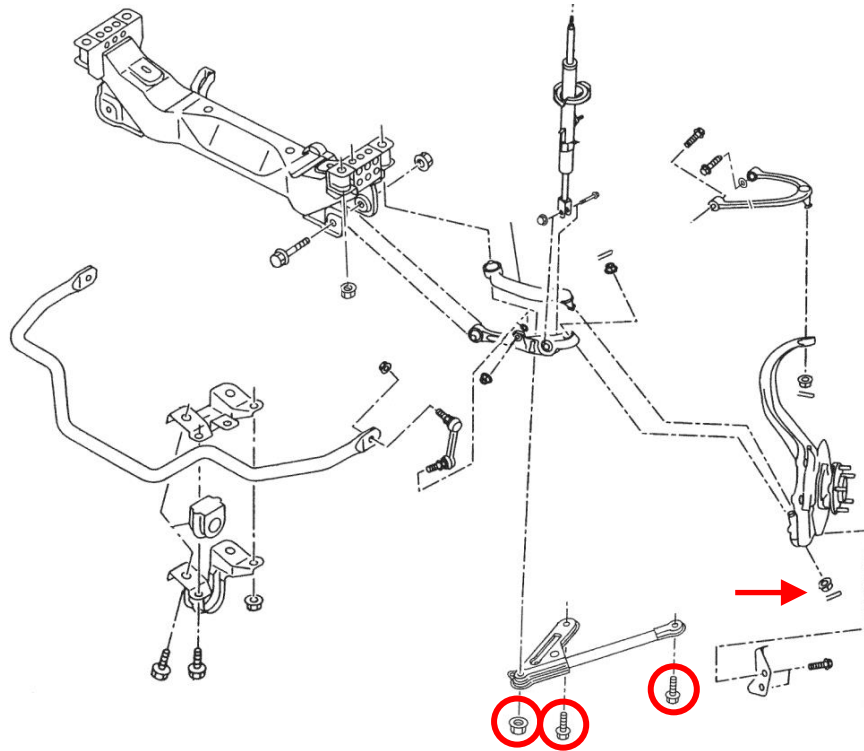
It is recommended to put the monoball bushings in the freezer for a few hours prior to installation.

PROCEDURE:

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
2. Release tension to lug nuts at front wheels. DO NOT remove lug nuts.
3. Locate proper jacking points on vehicle's chassis (refer to vehicle's Owner Manual). Raise and support vehicle using jack & jack stands.
4. Remove front wheels and lug nuts
5. **For 350Z and G35 Coupe owners:** Remove the nuts and bolts securing the front cross member/bar to the vehicle (circled at right). Set front cross member/bar aside.



5. **For G35 Sedan owners:** Remove the nut and bolts securing the (2) compression rod stays (circled below). Set compression rod stays aside.



6. Remove the cotter pins and nuts on the compression rod ball joints where it connects to the steering knuckles/uprights (circled below and shown above with arrow).



7. Using a ball joint separator tool, separate the compression rod ball joints from the steering knuckles/uprights.
8. At this point ideally the compression rod arms can easily be removed from the studs at the chassis. If the arms do not come off easily, it is recommended to spray some rust penetrating fluid around the stud and lightly tap the arm on the outside of the rear bushing. In some extreme cases, it may help to use a pry bar between the arm and another solid surface to pry it loose.

9. Press the rear bushings out of the OEM compression rod arms (as shown below). You will likely need a combination of sockets and press tools that fit within the compression rod arm bore.



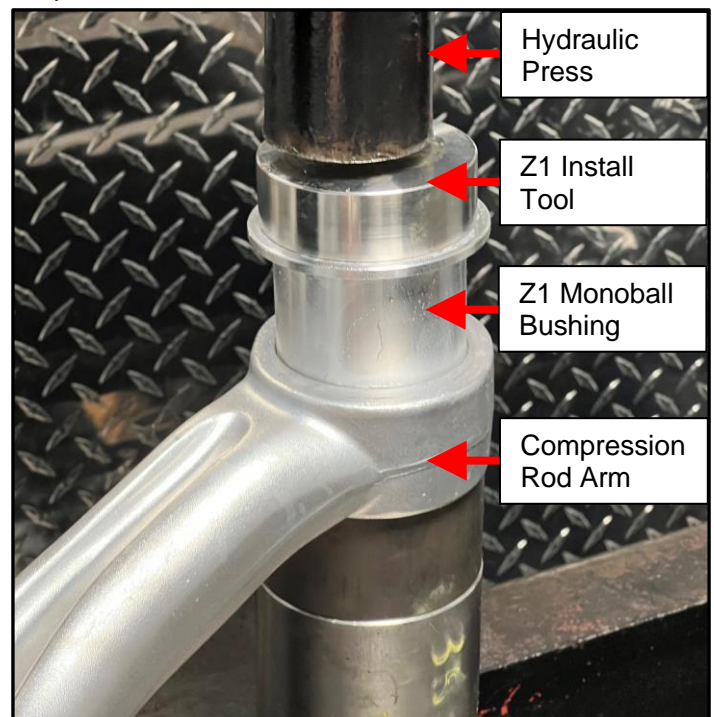
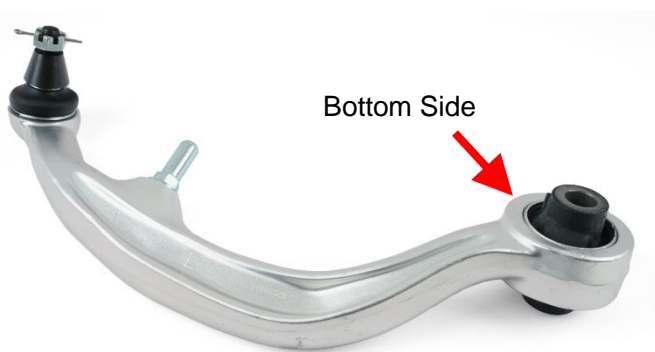
Note: If you have an appropriately sized receiving press tool, that is recommended on the bottom side. If not, you can use two metal plates to straddle the compression rod arm (as shown above).

10. Clean/lightly sand bores of the compression rod arms to remove any and all dirt/debris.

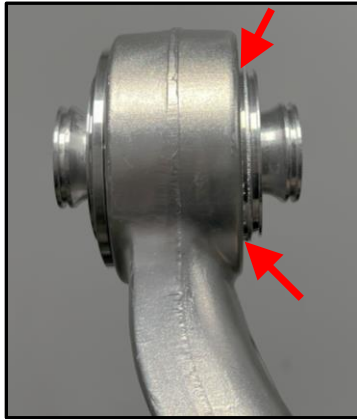
11. Locate new Z1 Monoball Compression Rod Bushings and install tool.

Note: It is recommended to put the monoball bushings in the freezer for a few hours prior to installation.

12. Using the install tool, press the Z1 monoball bushings into the arms from the bottom side of the arm (as shown below). The monoball lip with the (3) Z1 logos should be on the bottom side of the arm (as shown). The bottom side of the arm is the one with the ball joint point out.



13. Check the grooves on the top side of the monoballs for any burrs. Use a pick to remove any burrs in the grooves.
14. Locate the (2) Smalley spiral retaining rings. Install a spiral retaining ring in the lowest groove on the top side of the monoball bushings (as shown below). It is recommended to get one end started and slide you finger between the spiral layers and around the bushing, pressing the ring into the groove.



15. Locate the monoball bushing dust boots and round wire snap rings.
16. There are 2 options for installing the boots and snap rings. It is **HIGHLY** recommended to use silicone spray regardless of which option you choose.
 - a. Install the small snap ring around the boot first, then press the boot onto the monoball bushings (as shown below). Then slide the large ring over the small one and into the lower groove.



- b. Install the boots around the monoball bushings first, then open and slide the snap rings on (as shown below). If the small top ring gets stuck, it may help to massage it up and down slightly.



17. Starting on one side of the vehicle, position the assembled compression rod arm in place on vehicle, with the ball joint in the knuckle/upright and monoball bushing on the stud coming off the chassis.
18. Press up on the monoball bushing to fully seat it on the stud coming off the chassis. Secure with the OEM nut removed in step # 5.
19. Secure the ball joint with the OEM nut and cotter pin removed in step # 6. Inspect cotter pin, if damaged replace with a new one.
20. Repeat steps # 16-18 on opposite side of vehicle.
21. **For 350Z and G35 Coupe owners:** Torque the large nuts on monoball bushings to 114ft-lbs. Torque the ball joint nuts to 62ft-lbs. Torque the bolts for front cross member/bar (removed in step # 5) to 46ft-lbs.
20. **For G35 Sedan owners:** Torque the large nuts on monoball bushings to 87ft-lbs. Torque the ball joint nuts to 62ft-lbs. Torque the bolts for compression rod arm stays (removed in step # 5) to 48ft-lbs.
21. Reattach front wheels and lug nuts.
22. Properly lower vehicle from jack stands.
23. Torque lug nuts to 80ft-lbs.
24. Perform a final test drive of vehicle.

END

Additional Technical Support:

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