

Z1 370Z / G37 / Z / Q50 / Q60 FORGED FRONT UPPER CONTROL ARMS (FUCA) INSTALLATION MANUAL



This Installation Manual is intended for the following models:

20009-2020	Nissan 370Z
2007-2008	Infiniti G35 Sedan
2008-2015	Infiniti G37
2014+	Infiniti Q50
2016+	Infiniti Q60
2023+	Nissan Z

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 Forged Front Upper Control Arms consult with a Professional Mechanic or contact Z1 Motorsports for more information.

PARTS INCLUDED:

Item	Quantity	Description
1	1	Thread Locker
2	1	FUCA Arm – Passenger with Heim Joint
3	1	FUCA Arm – Driver with Heim Joint
4	3	M6-1.0 x 25mm Bolt w/ washer
Track Version FUCA will provide the following:		
5	2	Pre-assembled Camber Arm with Solid Heim Joint Assembly
Street Version FUCA will provide the following:		
6	2	Pre-assembled Camber Arm with Urethane Bushing Assembly

TOOLS REQUIRED:

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Wheel Chock
- Ratchet
- 10mm Socket
- 14mm Wrench & Socket
- 13mm Deep Well Socket
- Crescent Wrench
- Lanyard Strap
- Soft-blow Hammer
- Pry Bar
- Torque Wrench
- 5mm Hex Key
- 17mm wrench
- Anti-Seize

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 Forged Front Upper Control Arms and verify that ALL necessary hardware is present.

PROCEDURE:

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
2. Raise and support the hood of the vehicle.
3. If present, replace the top bolt attaching the Power Steering Reservoir Bracket to the chassis with the supplied M6 x 1.0, 25mm bolt with Washer. Circled below in *Figure 1*.



Figure 1

4. Release tension to lug nuts at front wheels but **DO NOT** remove the lug nuts yet.
5. Locate proper jacking points on vehicle's chassis (refer to vehicle's Owner Manual). Raise and support vehicle using jack and jack stands.
6. Remove the front wheels and lug nuts.
7. Locate the OEM Front Upper Control Arms (FUCA). They are located at the front left and right ends of the vehicle, between the chassis and front axle.
8. Wrap a Lanyard Strap or similar tool around the Steering Knuckle and Strut Assembly. The Lanyard will prevent the Brake Line from becoming stretched/damaged during the installation process.

9. Remove the nut and bolt securing the OEM FUCA to the Steering Knuckle. *Figure 2.*

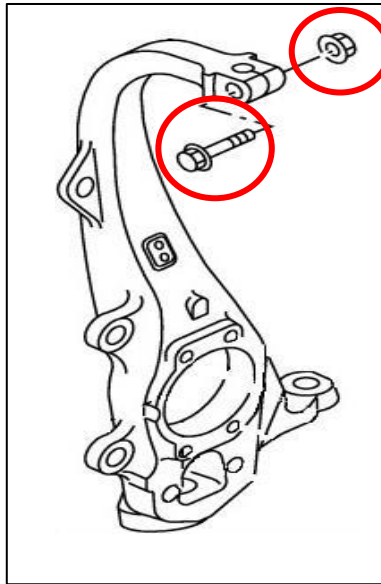


Figure 2

10. Separate OEM FUCA ball joint from steering knuckle.

NOTE: The Ball Joint may be seized in the Steering Knuckle. Use a Pry Bar, Soft Blow Hammer, or Ball Joint Separator to separate the Ball Joint from the Steering Knuckle.

11. Remove the (2) two bolts that attach the OEM FUCA to the Chassis. *Figure 3.*

NOTE: If you cannot remove the Control Arm bolts because they contact the Suspension Coil, you must remove the (3) three nuts securing the Strut in the engine bay, then push the Steering Knuckle down and pull the Strut assembly outward.

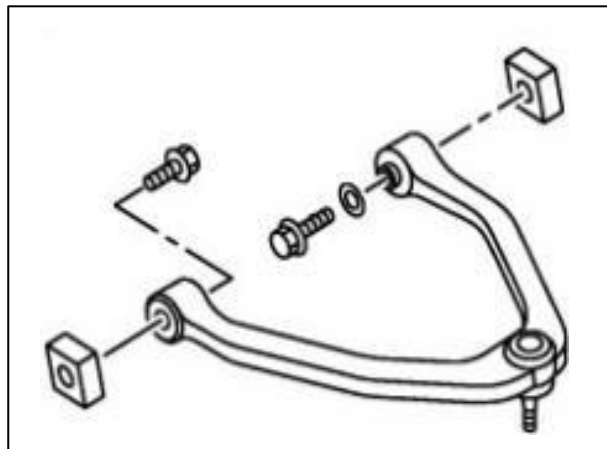


Figure 3

12. Remove the OEM FUCA from the vehicle.

13. On some models, both sides of the vehicle have a small metal ridge on the chassis near where the frontward end mounts, that will need to be cleared to prevent interference. They are circled in the images below. Using Pliers or Vise-grips, grab the ridge and bend it away toward the rear of the vehicle. *Figure 4.*

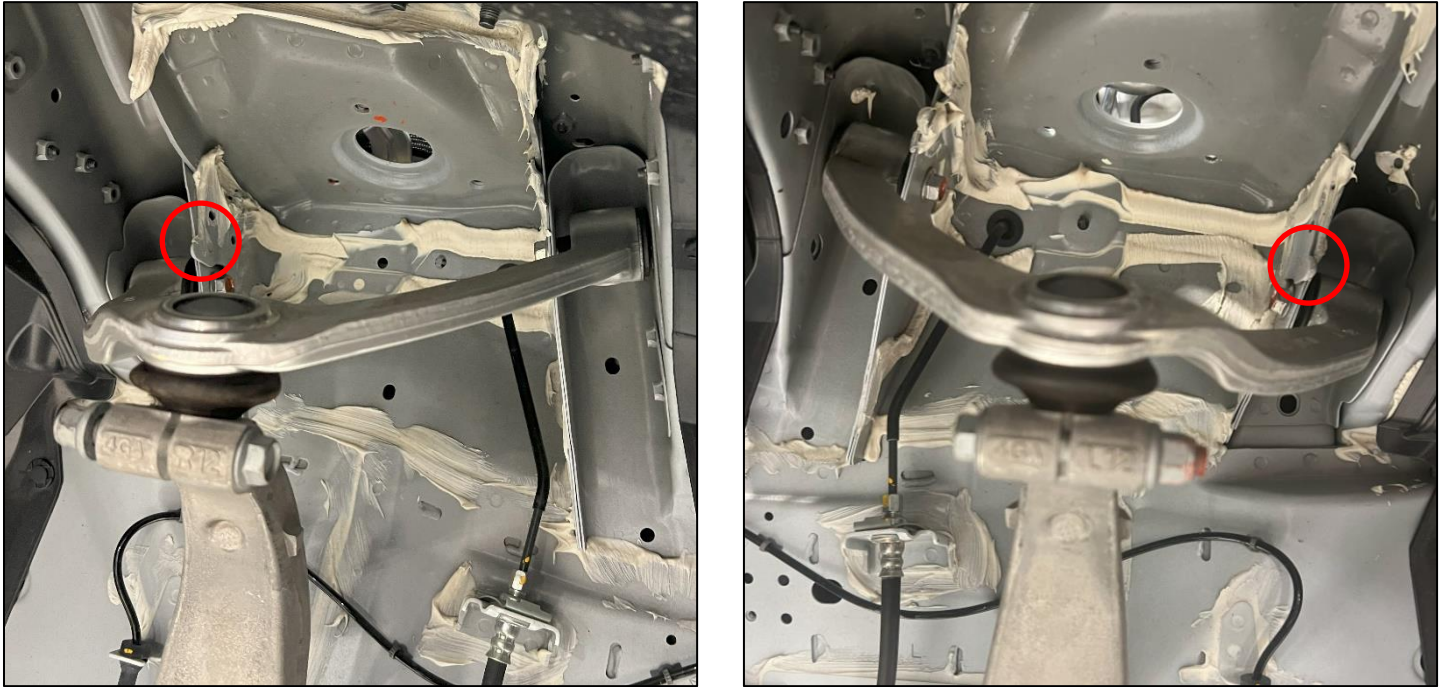


Figure 4

NOTE: For Street Version FUCAs, continue to *Step 14*. For Track Version FUCAs, skip to *Step 15*.

14. Locate the Z1 FUCA and Control Arm Ends. Apply Anti-Seize to the threads of the Control Arm Ends. Thread the (2) two pre-assembled Urethane Bushing Assemblies **fully** into the Z1 FUCA Ends.

NOTE: Z1 Street Version FUCAs come equipped with Serviceable Grease Fittings. It is recommended that you add grease after Installation and every 5,000 miles to ensure long product life.

Z1 recommends using Energy Suspension Formula 5 Prelube or another synthetic water-resistant marine-grade grease.

Use of Anti-Seize on the Threads is to prevent long term corrosion that can cause difficulty when adjusting the arms in the future.

15. Locate the Z1 FUCA and Control Arm Ends. Thread (2) two Pre-Assembled Solid Heim Joint Assemblies **FULLY** into the Z1 FUCA. Remove the Zip Ties that secure the Conical Spacers to the Heim Joint.

16. Make sure the ends are fully threaded into the Z1 arm with the Grease Fitting on the bottom (as shown below). If the ends are not straight when fully threaded in (with grease fitting pointed down), rotate the Double Adjuster, not the end, until they are straight (as shown below). *Figure 5.*

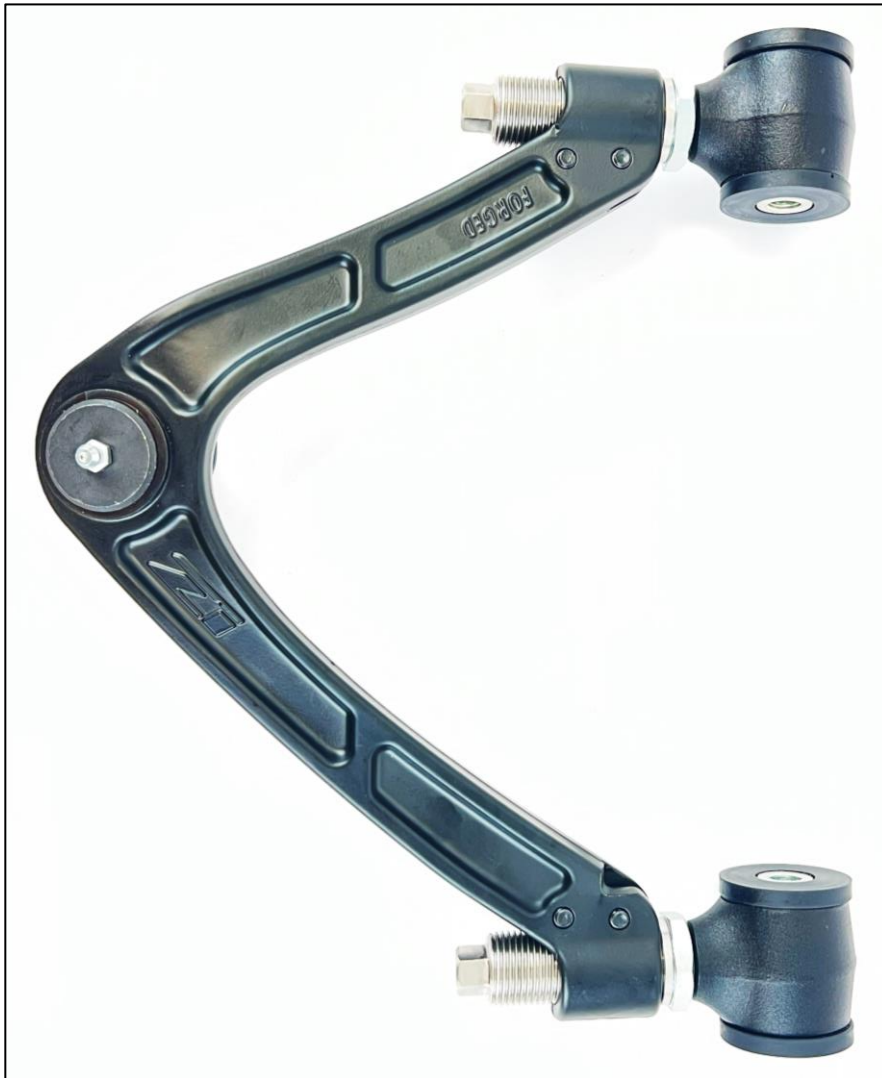


Figure 5

17. Measure and set the Z1 FUCA length to the same as OEM FUCA specification by turning the double adjuster with a 13mm socket while holding the end in place.

NOTE: Since the Double Adjusters have left hand threads on one side, turning the hex head on the adjuster while holding the end straight will unthread both the adjuster from the arm and the end from the adjuster.

NOTE: If using the Street Ends, ensure the Chassis-Side Mounts are threaded equally in length. Failure to do so may result in catastrophic damage to the FUCA and/or vehicle.

18. Using a 5mm Allen/Hex key, tighten the (2) two pinch bolts on each side of the arm to secure the Double Adjuster in place.
19. Once Z1 FUCA length is set, while holding the adjuster hex with a 13mm wrench, tighten the jam nuts against the Adjusters.

NOTE: Blue Thread Locker is supplied and should be applied to the Jam Nuts and pinch bolts after alignment adjustments have been made. If you are installing and performing an alignment at the same time this is not an issue. But if you are installing them in your garage then driving to an alignment shop, you may want to apply a little before driving and apply again after adjustments are made. Just let the Alignment Technician know and be careful when loosening the fasteners to perform the alignment.

20. Position the Z1 FUCA into the chassis. For Race Ends, make sure to include the (2) two Conical Spacers on each side of the arms, with the smaller side of the Spacer on the Race End Heim Joints. *Figure 6.*

NOTE: It is very important you use the correct FUCA for each side of the vehicle. Z1 FUCAs should orient the Ball Joint to the **REAR** of the arm.

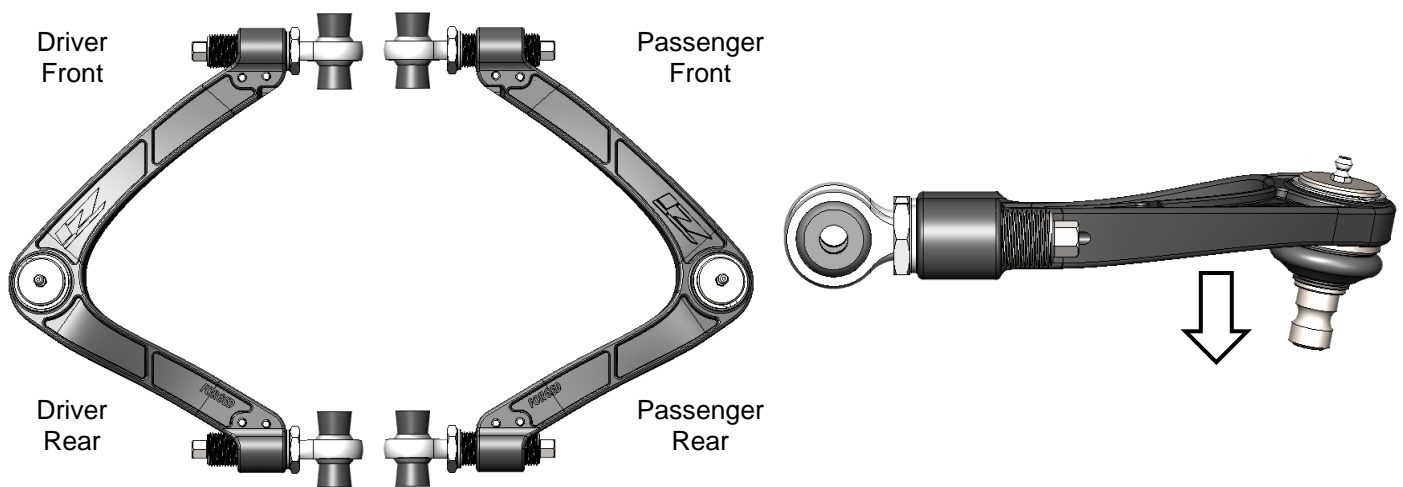


Figure 6

21. Install (2) two bolts which attach the Z1 FUCA to the Chassis. For **09-10 models** torque to **52 ft-lbs.** For **11+ models** torque to **40 ft-lbs.**

NOTE: For Street Ends, final tightening of the bolts should be done either on the ground or with the suspension loaded from a jack.

22. Position the Z1 FUCA Ball Joint into the mounting hole of the Steering Knuckle.

NOTE: Ensure the body of the Ball Joint is parallel with the mating surface of the Steering Knuckle.

23. Install the bolt and nut that attaches the Z1 FUCA Ball Joint to Steering Knuckle. Torque to **41 ft-lbs.**

24. With the Ball Joints installed, use red axle grease or equivalent, add grease into the grease fitting on the Ball Joint. We added between 5-8 pumps on each side until we noticed some grease came out of the boot or the boot starts to swell up. Depending on what pump you are using it may require more or less pumps. **DO NOT** overfill the boot to the point that it tears.

NOTE: Regrease the Ball Joints every 5000 miles. Failure to pre-grease the Ball Joints will result in premature wear.

25. Remove the Lanyard Strap that is holding the Knuckle/Upright in place.
26. Install the front wheel and lug nuts.
27. Repeat Steps 8-25 for the opposite side of vehicle.
28. Lower vehicle from jack stands.
29. Torque lug nuts to **80 ft-lbs.**
30. Perform an alignment check and adjust the Front Upper Control Arms accordingly.

NOTE: DO NOT thread the Double Adjuster past the point where the last thread is flush with the arm, as shown below. The maximum safe length of exposed threads on the ends is **15mm.** The maximum safe length of exposed threads on the double adjuster is **20mm.** *Figure 7.*

For Race Ends **ONLY:** You can fine tune Caster by having one end threaded slightly further in or out than the other.

OEM Alignment Specifications will most likely not be possible. The Z1 FUCAs add an additional 2° of Caster and will not allow the FUCAs to return to the Factory Recommended Caster.

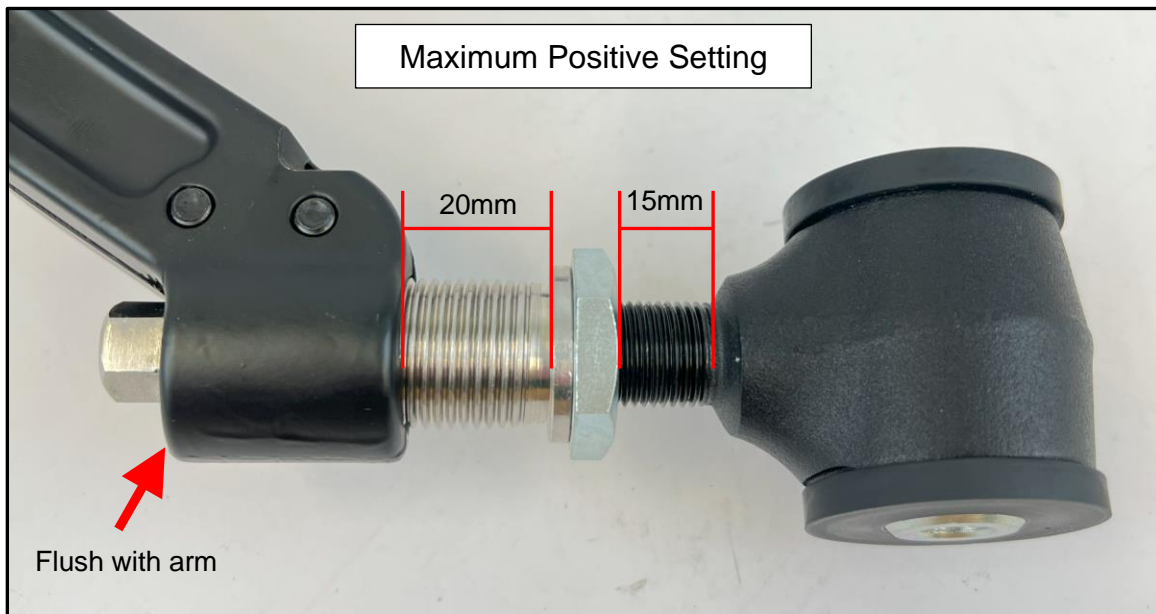


Figure 7

31. Due to the Double Adjusters, camber adjustment on the Z1 Forged FUCAs can be done without removing them from the Steering Knuckle or vehicle. Loosen the jam nuts on the ends and the (2) two 5mm socket head pinch bolts on each side of the arm, then with a 13mm socket, rotate the adjuster in or out to adjust Camber. Rotating the Double Adjuster will thread the ends into/out of the adjuster AND thread the adjuster into/out of the arm at the same time.
32. With a dab of thread locker, while holding the adjuster hex with a 13mm wrench, tighten the jam nuts against the adjuster and the (2) two Socket Head Pinch Bolts on each side of the arm.
33. Repeat Steps 29-31 until you reach your desired alignment specs.
34. 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