

# 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

## **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:**

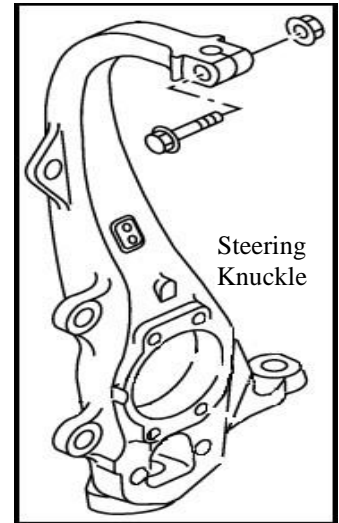
Remove contents from the Z1 Motorsports Forged Front Upper Control Arms and verify that ALL necessary hardware is present.

## **PROCEDURE:**

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
2. Unlatch and raise the vehicle's hood. Apply hood prop.
3. If present, replace top bolt attaching power steering reservoir bracket to chassis with the supplied M6-1.0 x 25mm bolt with washer (circled at right).
4. Release tension to lug nuts at front wheels. DO NOT Remove lug nuts!



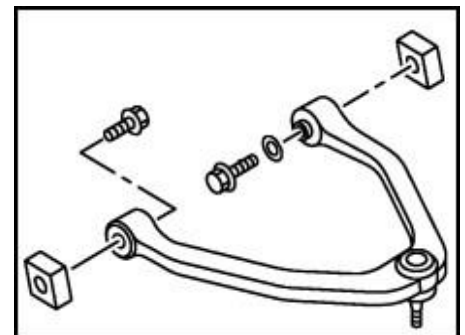
5. Locate proper jacking points on vehicle's chassis (refer to vehicle's Owner Manual). Raise and support vehicle using jack & jack stands.
6. Remove front wheel and lug nuts.
7. Locate the OEM front upper control arms (FUCA). They are located at the front left & right ends of the vehicle, between the chassis and front axle.
8. Wrap lanyard strap around steering knuckle and strut assembly. Lanyard will prevent brake line from becoming stretched/damaged during installation process.
9. Remove nut and bolt securing OEM FUCA to steering knuckle (see image at right).
10. Separate OEM FUCA ball joint from steering knuckle.



Note: Ball Joint may be seized in steering knuckle. Use pry bar or a soft blow hammer to separate.

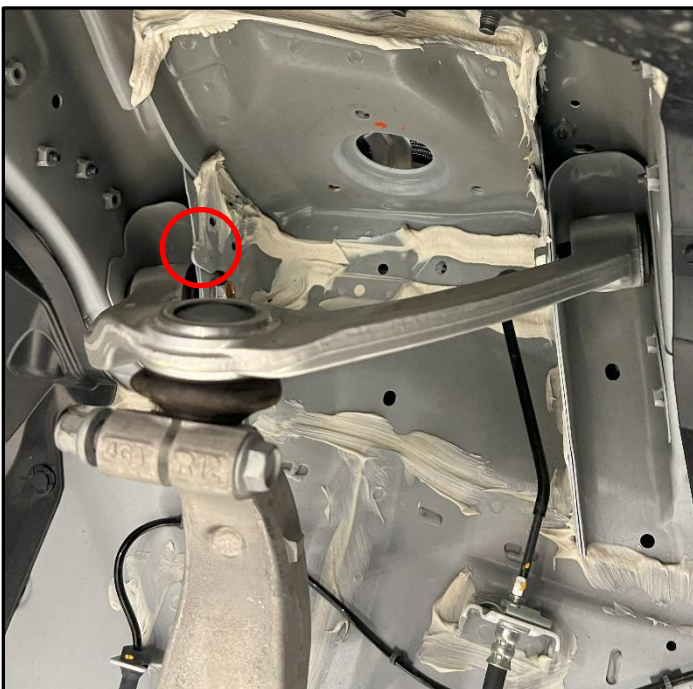
11. Remove (2) bolts that attach OEM FUCA to Chassis (see image at right).

Note: If you cannot remove the control arm bolts because they contact the suspension coil, you must remove the (3) nuts securing the strut in the engine bay, then push the knuckle down and pull the strut assembly outward.



12. Remove OEM FUCA from 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.



FOR STREET VERSION CONTINUE TO STEP 14.  
FOR TRACK VERSION CONTINUE TO STEP 15.

14. Locate Z1 FUCA and control arm ends. Thread (2) pre-assembled urethane bushing assemblies fully into Z1 FUCA ends. Continue to step 15.

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 use of Energy Suspension Formula 5 Prelube or other synthetic water-resistant marine-grade grease.

15. Locate Z1 FUCA and control arm ends. Thread (2) pre-assembled solid heim joint assemblies fully into Z1 FUCA. Remove zip ties that secure conical spacers to 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 (with grease fitting pointed down) when fully threaded in, rotate the double adjuster, not the end, until they are straight (as shown below).



17. Measure and set 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 1: 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.

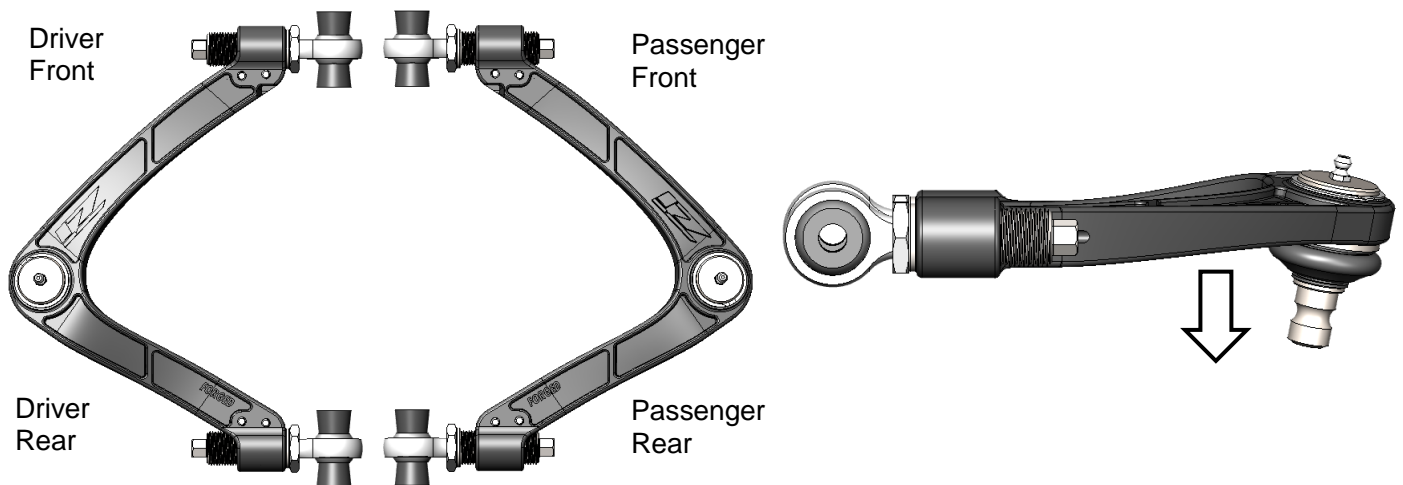


Note 2: If using the street ends, ensure chassis-side mounts are threaded equally in length. Failure to do so may result in catastrophic damage to FUCA and/or vehicle.

18. Using a 5mm Allen/Hex key, tighten the (2) 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 person know and be careful when loosening the fasteners to perform the alignment.

20. Position Z1 FUCA into chassis. For race ends, make sure to include the (2) conical spacers on each side of the arms, with the smaller side of the spacer on the race end heim joints.



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.

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

Note: For street ends: final tightening of bolts should be done either on the ground or with the suspension loaded from a jack.

22. Position Z1 FUCA ball joint into mounting hole of steering knuckle.

Note: Ensure the body of ball joint is parallel with mating surface of steering knuckle.

23. Install the bolt and nut that attaches Z1 FUCA ball joint to steering knuckle. Torque to 41ft-lbs.

24. Remove lanyard strap that is holding the knuckle/upright in place.

25. Install front wheel and lug nuts.

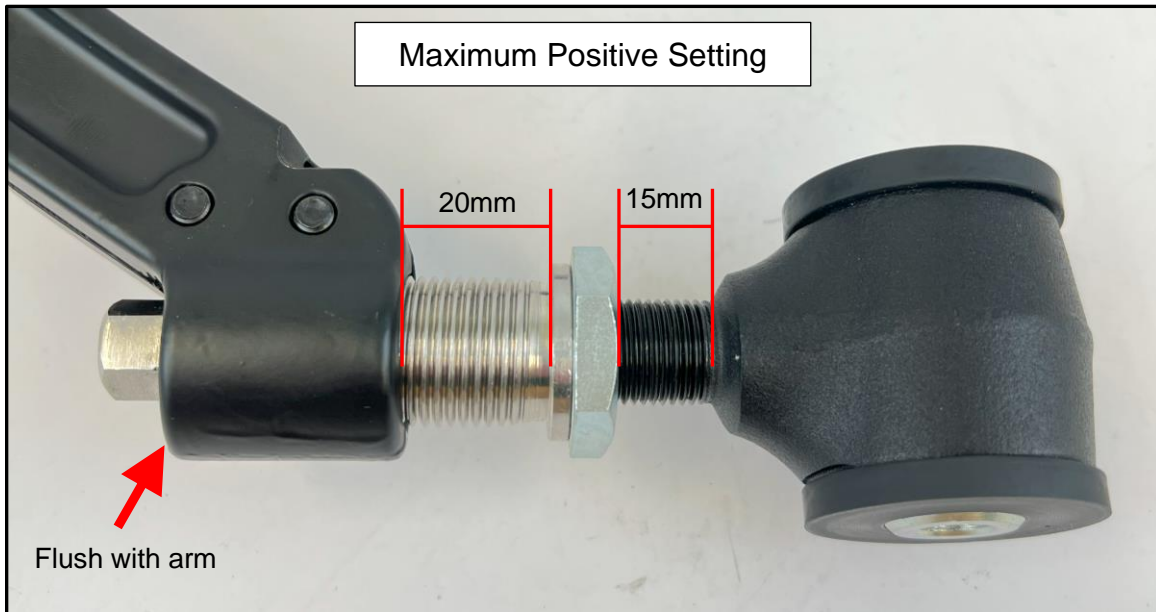
26. Repeat steps 8-25 for the opposite side of vehicle.

27. Lower vehicle from jack stands.

28. Torque lug nuts to 80ft-lbs.

29. Perform an alignment check & adjust 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**.



Note: For race ends ONLY: You can fine tune caster by having one end threaded slightly further in or out than the other.

30. Due to the double adjusters, camber adjustment on the Z1 Forged FUCA's can be done without removing them from the steering knuckle or vehicle. Loosen the jam nuts on the ends and the (2) 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.
31. 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) socket head pinch bolts on each side of the arm.
32. Repeat steps # 29-31 until you reach your desired alignment specs.
33. Perform a final test drive of the vehicle.

**END**

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