

# Z1 350Z / G35 FRONT UPPER CONTROL ARM (FUCA) SET INSTALLATION MANUAL



This Installation Manual is intended for the following models:	
2003-2008	Nissan 350Z
2003-2006	Infiniti G35 Sedan
2003-2007	Infiniti G35 Coupe

## 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 Front Upper Control Arm Set, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

## **Parts Included:**

Item	Quantity	Description
1	1	FUCA Arm – Driver w/ Pre-assembled Ball Joint
2	1	FUCA Arm – Passenger w/ Pre-Assembled Ball Joint
3	2	Locking Nut, M12-1.75
4	2	Flat Washer, M12
5	1	Red Thread Locker
<b>Note:</b> Track Version FUCA will provide the following:		
6	2	Pre-assembled Solid Heim Joint Assembly
<b>Note:</b> Street Version FUCA will provide the following:		
7	2	Pre-assembled Urethane Bushing Assembly

## **TOOLS REQUIRED:**

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Wheel Chock
- Needle Nose Pliers
- Ratchet
- 10mm Socket/Wrench
- 14mm Socket/Wrench
- Crescent Wrench
- Lanyard Strap
- Soft-blow Hammer
- Pry Bar or Ball Joint Separator Fork

## **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 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 Front Upper Control Arm Set Kit and verify that ALL necessary hardware is present.

## **PROCEDURE:**

1. Assure the car's ignition is in the OFF position and the NEGATIVE (-) battery terminal is disconnected.
2. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
3. Release tension to lug nuts at front wheels. DO NOT remove lug nuts.
4. Raise and support vehicle using jack & jack stands. Locate proper jacking points on vehicle's chassis (refer to Owner's Manual).
5. Remove front wheel and lug nuts.

6. 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 axles (Figure 1).
7. Wrap lanyard strap around steering knuckle and strut assembly. Lanyard will prevent brake line from becoming stretched/damaged during installation process.
8. Remove nut and cotter pin securing OEM FUCA to steering knuckle (Figure 2).
9. Separate OEM FUCA ball joint from steering knuckle.

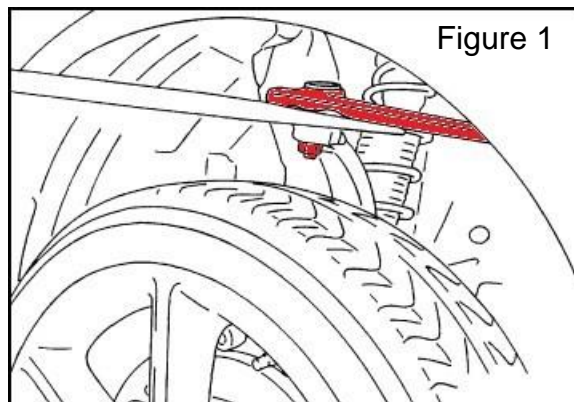


Figure 1

Note: Ball joint may be seized in steering knuckle. Use a ball joint separator fork or pry bar with a soft blow hammer to separate. See figure 1 for proper placement of separator fork or pry bar.

10. Remove (2) bolts that attach OEM FUCA to chassis (Figure 3).

Note: Strut assembly may need to be compressed and/or loosened from chassis in order for bolts to be remove. See factory service manual in reference to the removal of strut assembly.

11. Remove OEM FUCA from vehicle.

FOR STREET VERSION CONTINUE TO STEP 12. FOR TRACK VERSION CONTINUE TO STEP 13.

12. Locate Z1 FUCA. Thread (2) pre-assembled urethane bushing assemblies into Z1 FUCA ends. Skip to step 14.

Note: Z1 Street Version FUCAs come equipped with serviceable grease fittings. It is recommended that you add grease after installations and every 5,000 miles to assure long product life. Z1 recommends use of Energy Suspension Formula 5 Prelube or other synthetic water-resistant marine-grade grease.

13. Locate Z1 FUCA. Thread (2) pre-assembled solid heim joint assemblies into Z1 FUCA. Remove zip ties that secure conical spacers to heim joint.

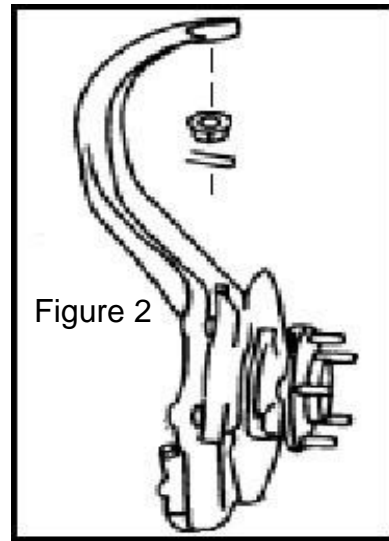


Figure 2

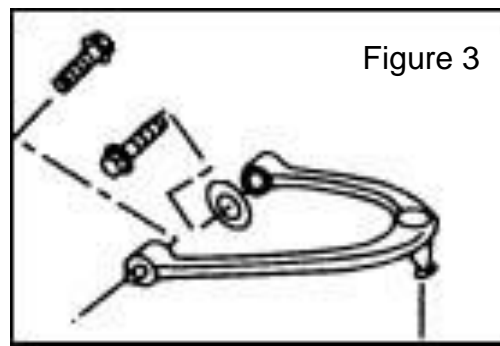


Figure 3

14. Measure and set Z1 FUCA to OEM FUCA specification.

Note 1: Assure exposed threads of each mount do not exceed 15mm.

Note 2: Assure chassis-side mounts are threaded equal in length. Failure to do so may result in catastrophic damage to FUCA and/or vehicle.

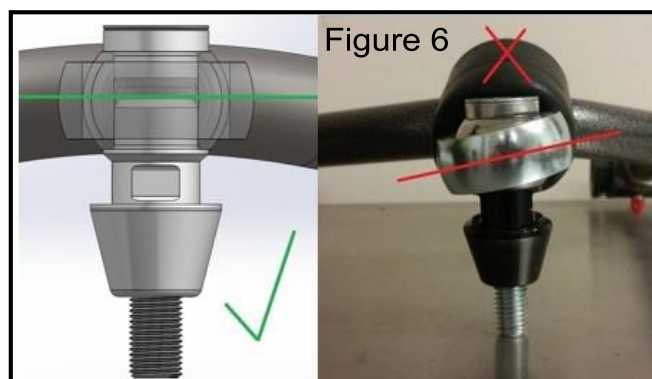
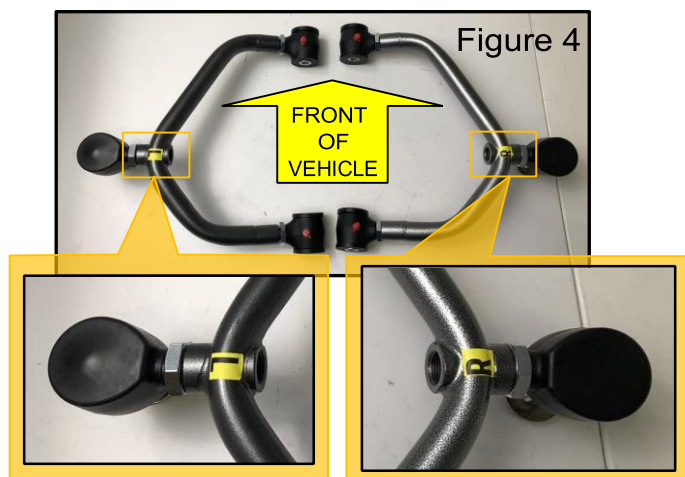
Note 3: If equipped with street version bushings, assure serviceable grease fittings face downwards.

15. Once Z1 FUCA length is set, loosen jam nut and apply thread locker to exposed threads nearest to control arm. Thread jam nut and tighten against control arm. Repeat for all jam nuts.
16. Position Z1 FUCA into chassis.

### **IMPORTANT INSTALLATION NOTE:**

It is important that the FUCA is installed both on the correct side of the vehicle, as well as in the correct orientation. Critical damage to the suspension arm can occur if installed incorrectly. Z1 FUCAs should orient the ball joint angled DOWN. Please refer to FIGURE 5.

Refer to FIGURE 4. The "L" & "R" stickers should face UP on the corresponding side of the vehicle.



17. Install (2) bolts which attach the Z1 FUCA to chassis. Torque to 42ft-lbs.

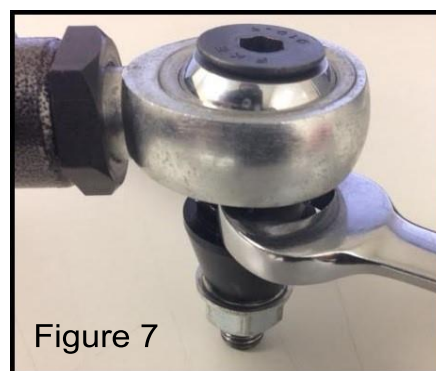
Note: Re-install strut assembly if removed during step 10.

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

Note: Assure ball joint is parallel with FUCA body (Figure 6).

19. Install M12 washer and M12-1.75 locking nut that attaches Z1 FUCA ball joint to steering knuckle. Torque to 43ft-lbs (Figure 2).

Note: Place 17mm wrench onto slot of Z1 FUCA ball joint to prevent ball joint from slipping during torque operation (Figure 7).



20. Remove lanyard strap.
21. Install front wheel and lug nuts.
22. Repeat steps 5-21 on opposite side of vehicle.
23. Lower vehicle from jack stands.
24. Torque lug nuts to 80ft-lbs.
25. Perform alignment check and adjust front upper control arms accordingly.
26. Adjustment on the Z1 FUCA's must be done when removed from the steering knuckle or vehicle for full adjustment. Removing the ball joint from the steering knuckle will allow you to rotate the outer ball joint on the arms for camber adjustment, remember to retighten the jam nut and follow ALL the notes in step # 14.

27. If you want more adjustment then the outer ball joint supplies you will need to remove the nuts and bolts securing the FUCA to the chassis. Then, remove the FUCA and adjust the inboard mounts. Remember to retighten the jam nuts and follow ALL the notes in step # 14.
28. 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