

# Z1 350Z / G35 FRONT UPPER CONTROL ARM 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 x 1.75
4	2	Flat Washer, M12
5	1	Red Thread Locker
Track Version FUCA will provide the following:		
6	2	Pre-assembled Solid Heim Joint Assembly
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
- Anti-Seize

## **SAFETY REQUIREMENTS:**

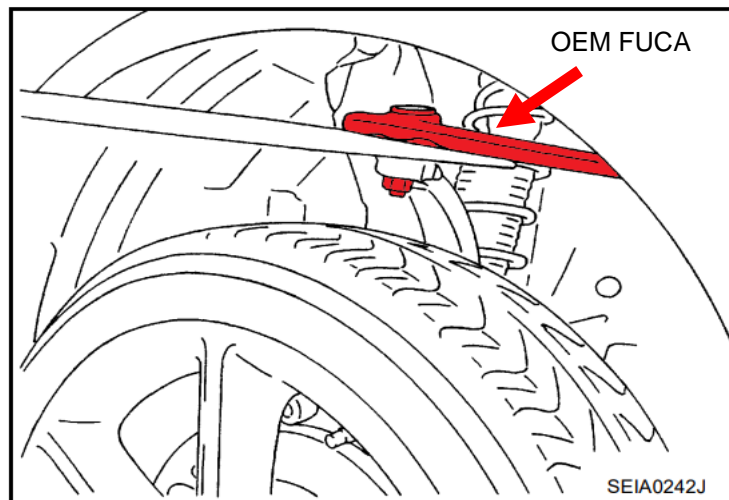
- Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- Always use properly rated jack stands when working under your vehicle.
- Always keep limbs and parts away from moving drivetrain parts.
- Only operate drivetrain 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.

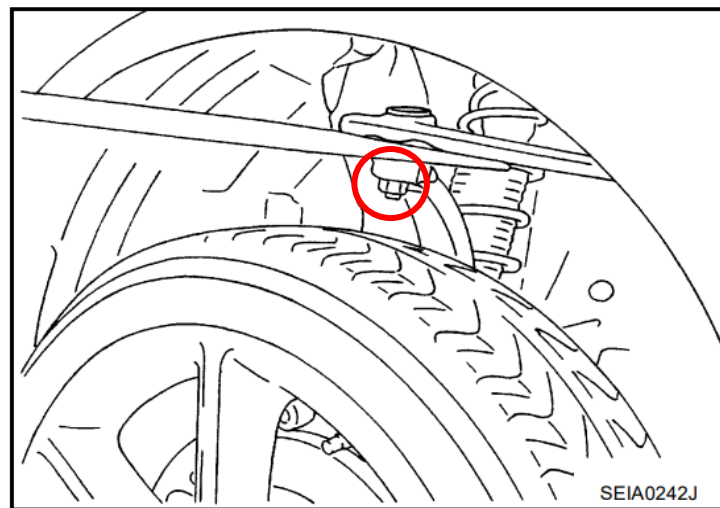
## **PROCEDURE:**

1. 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. Raise and support vehicle using jack & jack stands. Locate proper jacking points on vehicle's chassis (refer to Owner's Manual).
4. Remove the front wheels and lug nuts.
5. Starting on either side of the vehicle, 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.*



*Figure 1*

6. Wrap a lanyard strap around the Steering Knuckle and Strut Assembly. The Lanyard will prevent the Brake Line from becoming stretched/damaged during the installation process.
7. Remove the Nut and Cotter Pin securing the OEM FUCA to the Steering Knuckle. *Figure 2.*



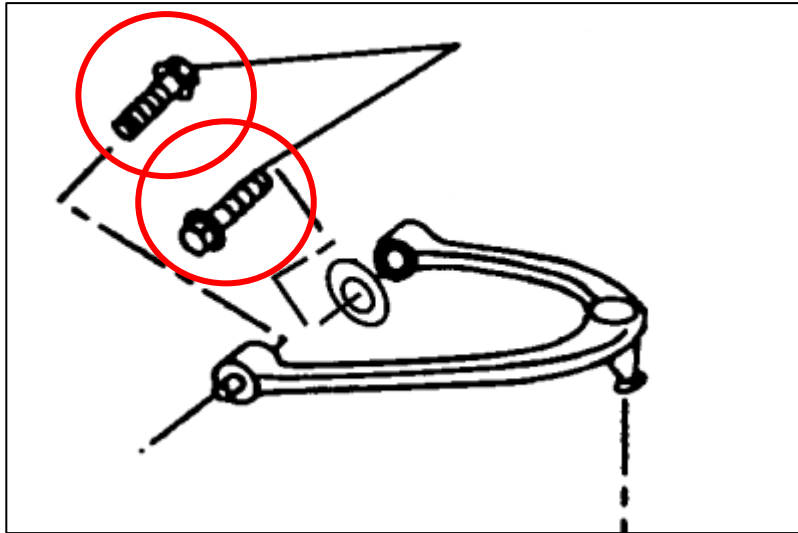
*Figure 2*

8. Separate the OEM FUCA Ball Joint from the Steering Knuckle.

**NOTE:** The Ball Joint may be seized in the Steering Knuckle. Use a Ball Joint Separator Fork or pry bar with a soft blow hammer to separate. See *Figure 1* above for proper placement of the separator fork or pry bar.

9. Remove the (2) two bolts that attach the OEM FUCA to the chassis. Retain this hardware. *Figure 3*.

**NOTE:** The Strut assembly may need to be compressed and/or loosened from the chassis in order for the bolts to be removed. See the Factory Service Manual (FSM) for a reference of Strut Assembly removal.



*Figure 3*

10. Remove the OEM FUCA from the vehicle.

**FOR STREET VERSION FUCAs, CONTINUE TO STEP 11. FOR TRACK VERSION FUCAs CONTINUE TO STEP 12.**

11. Locate a Z1 FUCA and (2) two pre-assembled Urethane Bushing Assemblies. Apply Anti-Seize to the threads of the Bushing Assemblies. Thread the (2) two pre-assembled Urethane Bushing Assemblies into the Z1 FUCA ends. Skip to *Step 13*.

**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 assure long product life. Z1 recommends use of Energy Suspension Formula 5 Prelube or another synthetic water-resistant marine-grade grease.

Application of Anti-Seize to the threads is to prevent long term Corrosion which can cause difficulty when adjusting the Arms.

12. Locate a Z1 FUCA and (2) two pre-assembled Solid Heim Joint assemblies. Apply Anti-seize to the threads of the Heim Joint assemblies. Thread the (2) two pre-assembled Solid Heim Joint Assemblies into the Z1 FUCA. Remove the zip ties that secure the Conical Spacers to the Heim Joint.

**NOTE:** Application of Anti-Seize to the threads is prevent long term Corrosion which can cause difficulty when adjusting the Arms.

13. Using the OEM Control Arm as a reference, adjust the Z1 threaded inserts and control arm ends until they are the same length from the mounting point to the ball joint as the OEM FUCA. Both ends must be the same length. Split adjustment as pictured below in *Figure 4*. The final adjustment will be achieved on the alignment rack. If the OEM Control Arm is not available, 15mm on the adjuster and 5mm on the ends is a good starting point.

**NOTE:** Make sure the exposed threads of each mount **DO NOT** exceed **15mm**. The Figure below is from a Forged FUCA, but the process is still the same.

Ensure that the chassis-side mounts are threaded equal in length. Failure to do so may result in damage to FUCA and/or vehicle.



*Figure 4*

14. Once the Z1 FUCA length is set, apply thread locker to the exposed threads nearest to Control Arm. Thread the Jam Nut and tighten against control arm. Repeat for all Jam Nuts.

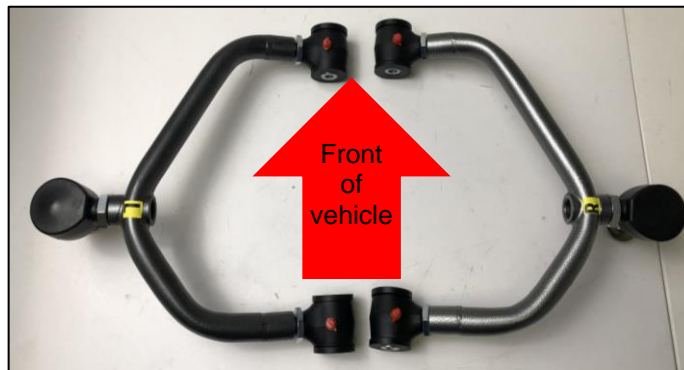
15. Position the Z1 FUCA into chassis.

**NOTE:** If equipped with the Street Version Bushings, adjust the Serviceable Grease Fittings to face downwards. This will allow for easier service.

**IMPORTANT INSTALLATION NOTE:**

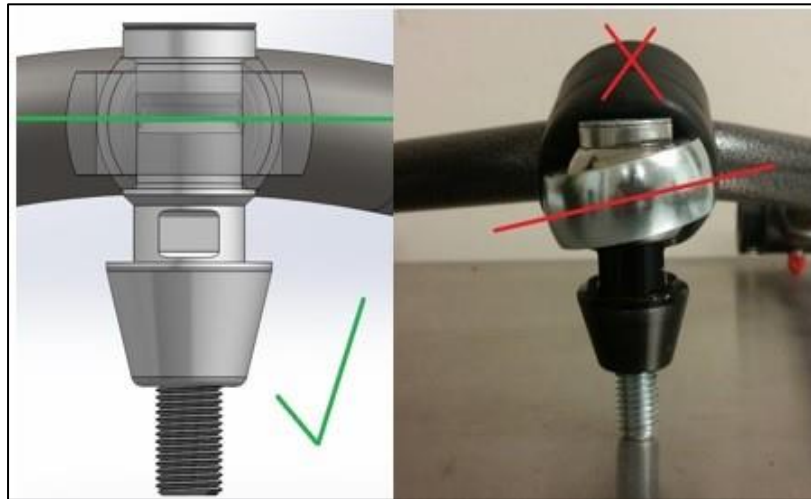
It is important that the FUCA is installed both on the correct side of the vehicle, as well as in the correct orientation. Critical damage to the suspension arm can occur if installed incorrectly. Z1 FUCAs should orient the ball joint angled DOWN. Please refer to *Figure 4*.

The “L” & “R” stickers should face UP on the corresponding side of the vehicle. *Figure 5*.



*Figure 5*

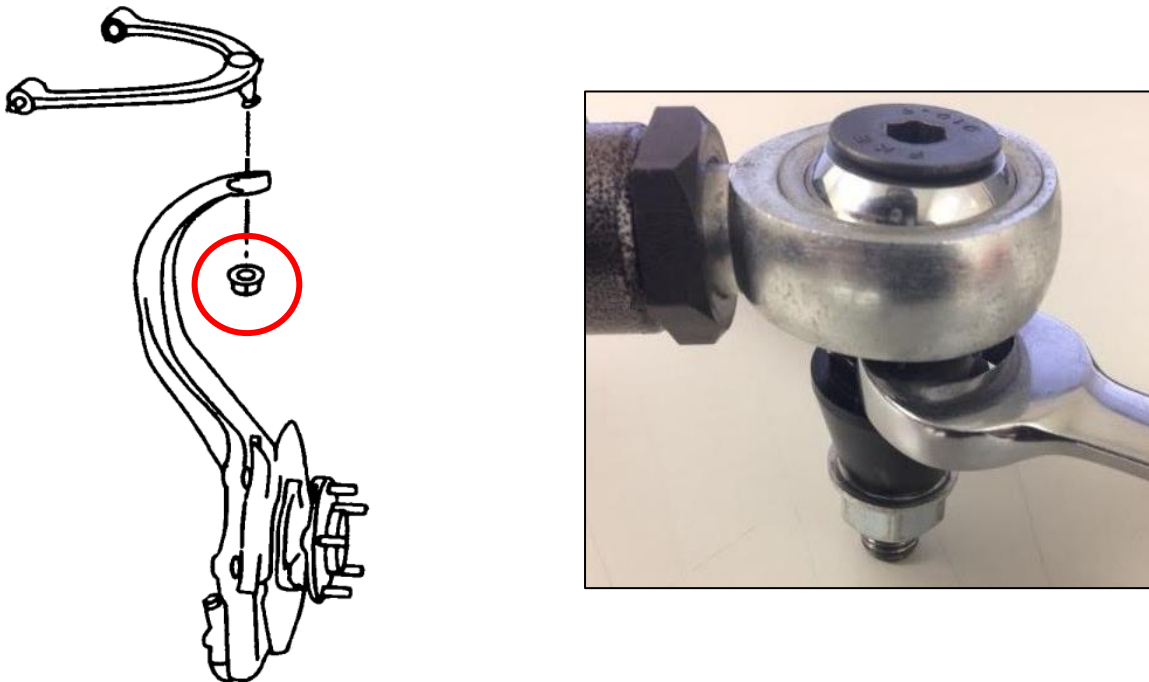
16. Reinstall the (2) two OEM Control Arm bolts removed in *Step 9*. Torque to **48-55 ft-lbs.**
17. Reinstall the Strut assembly if it was removed in *Step 9*.
18. Position the Z1 FUCA Ball Joint into the Mounting Hole of the Steering Knuckle. Make sure that the Ball Joint is parallel to the FUCA Body. *Figure 6.*



*Figure 6*

19. Locate a M12 washer and a M12 x 1.75 Locking Nut. Install the Nut with Washer to the Z1 FUCA Ball Joint to secure it to the Steering Knuckle. Torque to **40-46 ft-lbs.** *Figure 7.*

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



*Figure 7*

20. Remove Lanyard Strap installed in *Step 6*.
21. Reinstall the front wheel and lug nuts.
22. Repeat *Steps 5-21* on the opposite side of the vehicle.
23. Lower vehicle from jack stands.
24. Torque lug nuts to **80 ft-lbs**.
25. Perform an alignment check and adjust the Front Upper Control Arms accordingly.

**NOTE:** Full Adjustment on the Z1 FUCAs must be done when removed from the Steering Knuckle or vehicle. Minor adjustments can be done with the FUCA still in the vehicle. Remember to retighten the jam nut and follow **ALL** the notes in *Steps 13-15*.

26. 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