E4-WM5-Y703A00
MOUNTING INSTRUCTION

Upper Control Arms, part # 51-304683

IMPORTANT! READ THIS FIRST!

Installation of shock absorbers or other suspension components requires special tools and expert knowledge. Accordingly, installation of all BILSTEIN products must be performed by a professional automotive suspension technician.

When replacing other brands, BILSTEIN shock absorbers or other suspension components should always be installed as a set. All BILSTEIN products must only be used for the specific, intended application as indicated in the application guide. **Any use of any BILSTEIN product other than for its intended use may result in serious bodily injury or death.**

Always use a chassis hoist for the installation of BILSTEIN products and make certain that the raised vehicle is securely attached to the hoist and/or supported to prevent the vehicle from slipping, falling, or moving during the installation process.

If you install any BILSTEIN product without the necessary special tools, expertise, and chassis hoist, you may subject yourself to the risk of serious bodily injury or death.

BILSTEIN shock absorbers are gas-filled and are highly pressurized.

- Never place any BILSTEIN shock absorbers in a vise or use a clamp on any BILSTEIN shock absorber.
- Never apply heat near any BILSTEIN shock absorber.
- Never attempt to open or repair any BILSTEIN product, in order to prevent **serious bodily injury or death.**

Any attempt to misuse, misapply, modify, or tamper with any BILSTEIN suspension product voids any warranty and **may result in serious bodily injury or death.**

While installing any BILSTEIN product:

- Do not use impact tools for loosening or tightening fasteners, because this may destroy the screw threads.
- Self-locking fasteners must only be used **once**!
- Reuse original equipment components only if they are in good condition, otherwise replace them with new components.
- Never remove the slight film of oil on the shock absorber piston rod and seal.
- All mounting fasteners for shock absorbers and other suspension components must be securely tightened before tension is placed on the suspension system, unless otherwise specified in the manufacturer's service manual or in this instruction.

After installing any BILSTEIN product:

- The suspension caster and camber must be checked and/or adjusted to comply with the vehicle manufacturer's specifications.
- The (load dependent) brake compensator and the anti-lock brake system must be checked and/or reset to comply with the vehicle manufacturer's specifications.
- The headlight aim must be checked and adjusted. Or, if applicable, adaptive headlights must be checked and recalibrated to comply with the vehicle manufacturer's specifications.
- If applicable, any/all Advanced Driver Assistance Systems (ADAS) must be checked and recalibrated to comply with the vehicle manufacturer's specifications.

CAUTION for COILOVER TYPE SUSPENSIONS!!!
If disassembling a coilover type suspension, refer to the vehicle manufacturer's service manual for proper procedures. The coil spring is preloaded and must be compressed with a spring compressor to release load before the upper mount is disassembled. Failure to follow the vehicle manufacturer's procedures may cause serious injury or death, and may damage the vehicle.

IMPORTANT!!!
This BILSTEIN product may or may not be compatible with non-BILSTEIN aftermarket products and/or vehicle modifications. It is the responsibility of the professional automotive suspension technician performing the installation to identify any non-OEM components and/or modifications on the vehicle that may interact with the suspension system. These must be evaluated for any potential physical static or dynamic interference with and/or effect on the function of this BILSTEIN product.

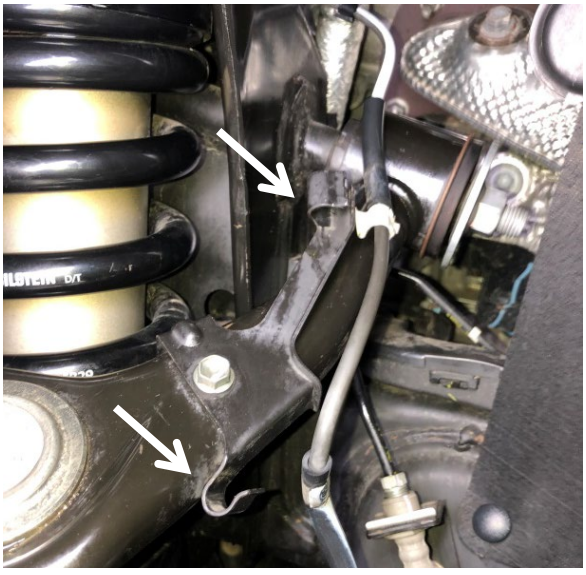
BILSTEIN Upper Control Arms are compatible with direct fit replacement shocks and coilovers only. Not compatible with lift spacers. May not be compatible with some aftermarket spindles. If using aftermarket spindles, installer must check clearance between control arm and spindle throughout full suspension travel. BILSTEIN is not responsible for any damages caused due to insufficient clearance with aftermarket spindles.

Bill of Materials – 51-304683		
Item #	**Description**	**Qty**
1	**B4-BB2-Z062A04; Toyota Tacoma '05+; FL; UCA**	**1**
2	**B4-BB2-Z062A05; Toyota Tacoma '05+; FR; UCA**	**1**
3	**B4-KT1-Z458A00, contents include:**	**1**
	Bushing	8
	Sleeve	4
	Grease Packet	2
4	**B4-KT1-Z459A00, contents include**	**1**
	Washer	8
5	**B4-KT1-Z439A00, contents include:**	**1**
	Zerk Fitting	4
	Brake Line Clamp	2
	Button Head Screw	2
	Nyloc Nut	2
6	**B4-KT1-Z440A00, contents include:**	**1**
	Castle Nut	2
	Cotter Pin	2

Removal of OE Upper Control Arms (always follow service manual specifications)

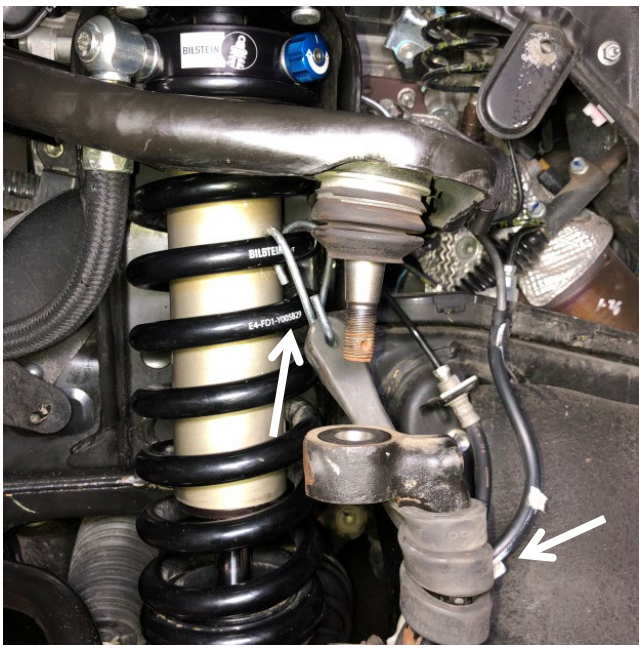
NOTE: All images are of the left (driver) side of the vehicle unless otherwise stated.

A. Secure vehicle on hoist.
B. Remove the front wheels.
C. Remove the ABS line from the ABS line bracket on the OE upper control arm.

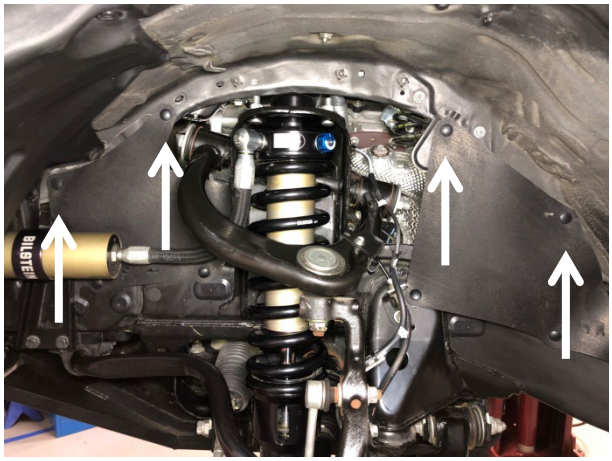


D. Remove cotter pin from upper ball joint castle nut. Using a 19mm wrench, loosen upper ball joint castle nut until flush with the end of the stud.

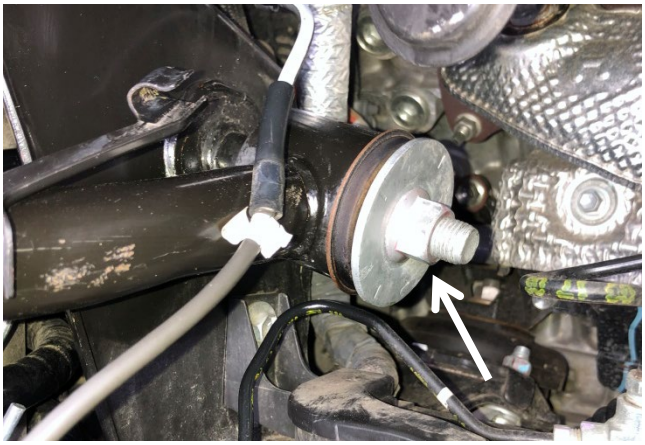
E. Using a ball joint puller, separate the spindle from the ball joint stem. Be careful to avoid tension on the brake line and ABS line.



F. Using a clip tool, remove the top clips that secure the inner fender liners to the inner fender. Fold fender liners down out of the way for access to the UCA bolt.

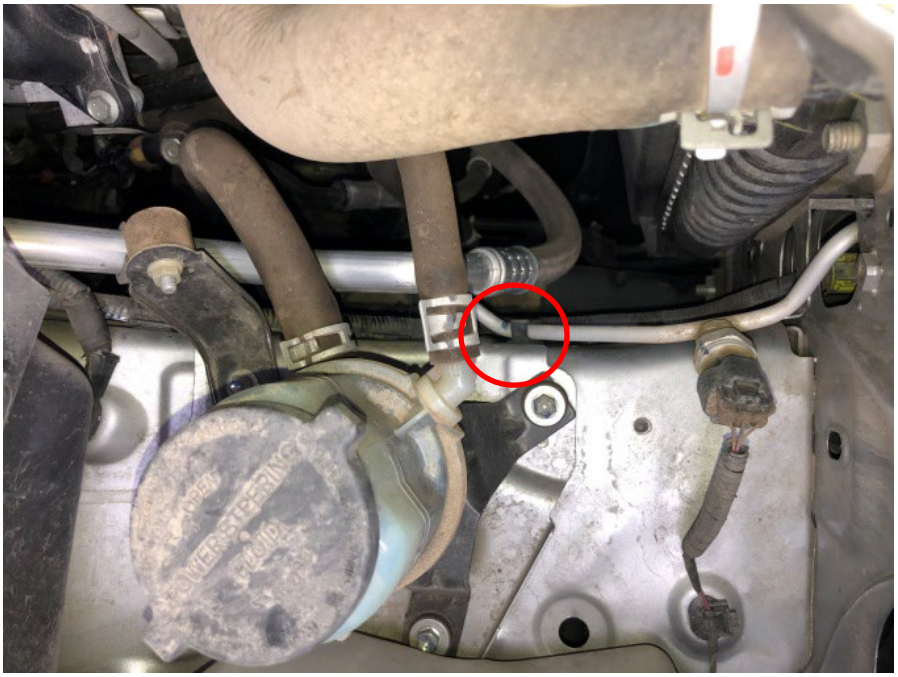


G. Using two 19mm wrenches, remove the nut and washer securing the UCA bolt.

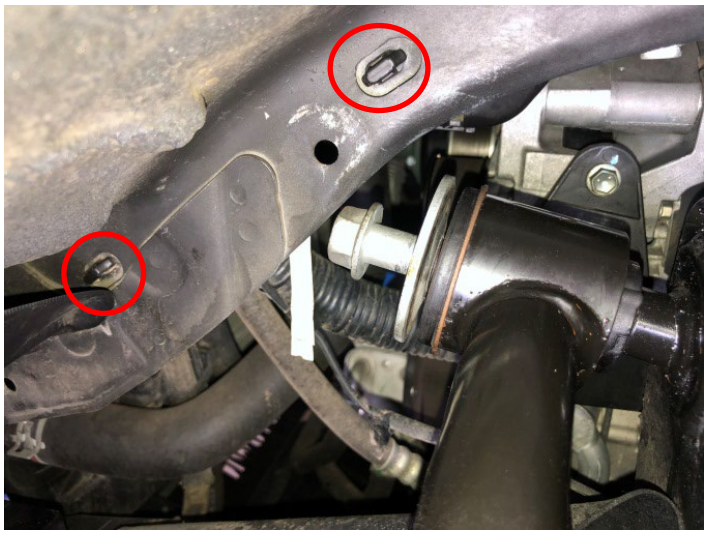


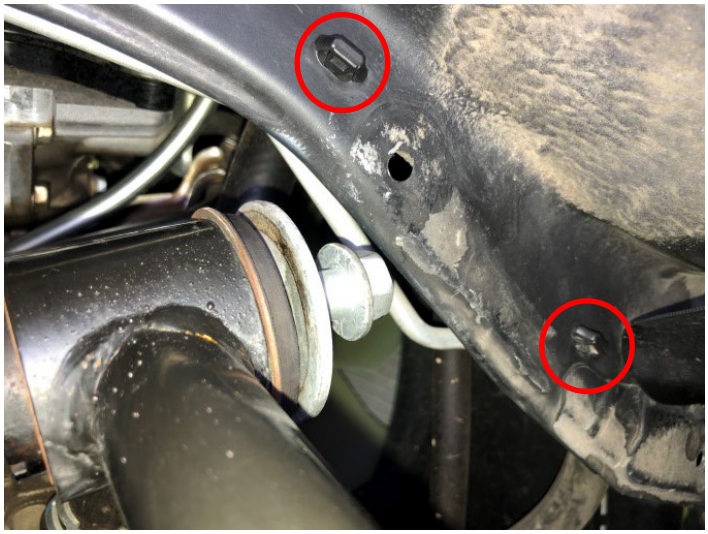
H. To allow removal of the driver side UCA bolt, locate the bolt securing the Main Wiring Harness to the Inner fender in the engine compartment below the battery. Using a 10mm wrench remove the bolt and secure the wiring harness out of the way.

I. To allow removal of the passenger side UCA bolt, remove the AC lines from the clips on the Inner fender in the engine compartment.



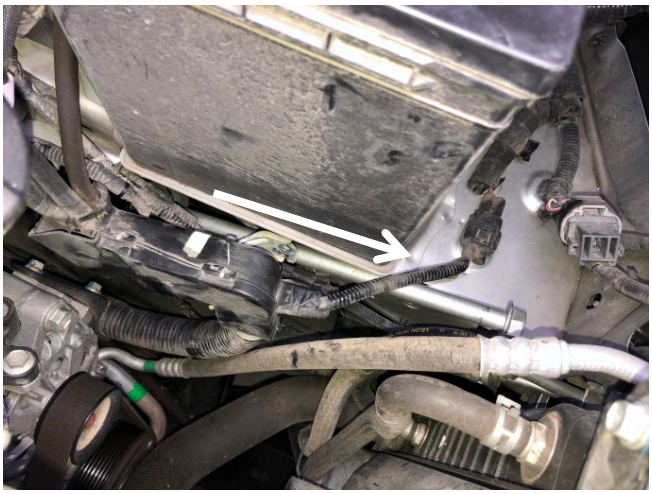
J. To allow removal of the UCA on both sides, remove the 2 clips that secure the smaller wiring harness to the inner fender.





K. When removing the UCA Bolt, it will contact the inner fender's sheet metal. In order to remove the bolt, you must carefully bend the inner fender's sheet metal using channel lock pliers to allow for clearance.


L. Carefully remove the UCA bolt. The UCA can now be removed. Save the UCA bolt and flanged nut as they will be reused later. The OE washers can be discarded.




Preparation of Bilstein Upper Control Arms

M. Thoroughly clean and dry the UCA and provided bushings.
N. Following the Bushing Assembly Instructions provided in the kit, use a shop press or vice to dry press the bushings into the UCAs.


O. Apply the supplied grease to the bushing inside diameter.


P. Press the steel sleeves into the bushings and apply more grease to outside faces of all bushings and sleeves.


Q. Install the 4 provided 90° zerk fittings into the threaded holes on the bottom of each bushing eye-ring ensuring they face outboard for easy access during service.
DO NOT OVER TORQUE ZERK FITTINGS. OVER TORQUING CAN RESULT IN DAMAGE TO FITTINGS.

Installation of Bilstein Upper Control Arms

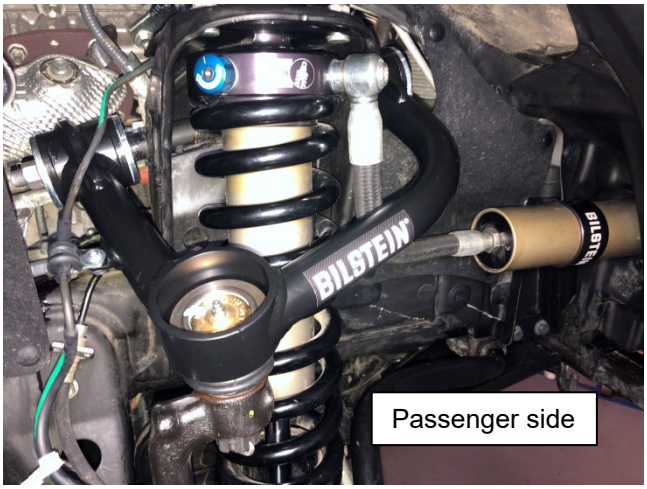
R. Using the four supplied washers and the OE UCA bolt and nut that were removed in step L, install the UCA onto the vehicle. Before fastening flange nut to UCA bolt, use a grease gun to apply Prothane Super Grease to the zerk fitting until grease squeezes out from the seams. Repeat for all four UCA bushings. (Make sure to do this step before fastening flange nuts to UCA bolts. Failure to grease bushing while UCA bolt is loose will cause damage to the bushing.) Wipe off the excess grease. Tighten the flanged nut by hand. Do not torque down at this point.

S. Install UCA ball joint on the spindle and secure using castle nut provided. Torque castle nut to 110 Nm (81 ft-lbs.). Continue to tighten the castle nut to the next available slot (no more than 60°). Never back off the slotted nut to achieve alignment with the hole in the stud. Install the cotter pin.

T. Using a grease gun, apply Prothane Super Grease to the zerk fittings of the ball joints (do not over grease the joint or the ball joint boot will be damaged). Fill with grease until the boot starts to expand and the bottom of the boot sleeve seats against the spindle, and then add a little more. Do not fill to the point where the boot starts to look like a balloon. Wipe clean any excess grease on UCA ball joint to prevent dirt build up.

U. Open the provided ABS line clamp and fit over the ABS line. The clamp should be wrapped around the upper hose segment coming from the spindle bracket, not the bare line to ensure a snug fit, as shown.
V. Mount the clamp to the Bilstein UCA mounting tab using the screws, washer and nuts provided.

W. Install wheels, lower to ride height, and torque to factory specification.
X. Using a 19mm socket and 19mm wrench, torque UCA bolt and flanged nut to 115 Nm (85 ft.-lbs.). (Torquing the UCA bolts while at **droop**, and **not** at **ride height**, may cause early wear to the bushings.)



Y. Check alignment and perform alignment if needed.

Maintenance

A. A break in period of 50 miles is required for bushings and ball joints to settle, which may result in some creaking noises through this period. After a 50-mile break in period, re-torque all bolts to their required torque.
B. To increase the life span of the bushings and ball joint, make sure to grease them through their grease zerk fittings over time (remember to loosen UCA bolts before greasing and do not over grease the ball joint, which could damage the ball joint boot);
   - Repeat steps A and B.
   - Make sure to clean the zerk fittings of any dirt and debris using compressed air or soap and water.
   - Loosen the UCA bolts and use a grease gun to apply Prothane Super Grease until significant resistance is felt or grease is squeezing out of the seams of the bushings (step R).
   - Repeat step T.
   - Make sure to wipe off any excess grease on UCA bushings and ball joint to prevent dirt build up.
   - Repeat steps W, X, and Y.
C. Make sure to inspect the bushings and ball joint periodically for any unusual wear or damage. If parts have excessive wear or damage, make sure to replace parts with a BILSTEIN replacement bushing kit.