

INSTALLATION INSTRUCTIONS



CORKSPORT Adjustable Front Upper Control Arms

2006-2007 Mazdaspeed 6, 2003-2008 Mazda 6

PART #: ATE-3-303-10

Need Help With Your Installation? Call (360)260-CORK



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deliver - every time.*

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CORKSPORT Adjustable Front Upper Control Arms

2006-2007 Mazdaspeed 6, 2003-2008 Mazda 6

PRODUCT DESCRIPTION:

The CorkSport Adjustable Front Upper Control Arms for Mazdaspeed 6 provide improved handling and easier wheel fitment through front camber adjustability. Adjustment ranges from approximately +0.5° to -4.0° when at CorkSport lowering spring height. This enables you to dial in your handling for the track, correct your added camber from lowering, or even just dial in more camber for that new wheel and tire setup!

Please let us know your feedback of the by submitting a review at: <https://corksport.com/2006-2007-mazdaspeed-6-and-2003-2008-mazda-6-front-camber-arms.html>

PRE-INSTALLATION NOTES:



Verify that the car is on a level surface before proceeding. Use appropriate load rated jack stands to support the vehicle.



These instructions were written for reference only and the use of a factory service manual is recommended.



How our instructions work: To best cover all of our customers experience levels, we have included a table of contents/order of operations along with step-by-step instructions.



These instructions were written using a 2007 Mazdaspeed 6. Earlier Mazdaspeed 6 and Mazda 6 will be similar.



An alignment will be required after installing the CorkSport Front Camber Arms.

MATERIALS & TIME:

GENERAL INFO:



Time Est:
3hr



Difficulty:
3/5



CEL:
No



Warranty:
2-Year

TOOLING LIST:

- 3/8" Drive Ratchet
- 1/2" Drive Breaker Bar
- 1/2" Drive Torque Wrench
- 14mm Socket
- 17mm Socket
- 21mm Socket
- 5mm Allen Socket
- 14mm Wrench
- 17mm Wrench
- Hydraulic Jack
- Jack Stands
- Small Sledgehammer
- Needle Nose Pliers

PARTS LIST:

- One (1) CorkSport Left Side Adjustable Front Upper Control Arm
- One (1) CorkSport Right Side Adjustable Front Upper Control Arm

ORDER OF OPERATIONS & TABLE OF CONTENTS:

- ▶ OEM FRONT CONTROL ARM REMOVAL**
Section 1: OEM Front Upper Control Arm Removal Pg. 4-5

- ▶ CORKSPORT FRONT CONTROL ARM INSTALLATION**
Section 2: CorkSport Adjustable Front Upper Control Arm Installation Pg. 6-8

- ▶ CORKSPORT CONTROL ARM ADJUSTMENT**
Section 3: Camber Adjustment on the CorkSport Adjustable Control Arm Pg. 8

CORKSPORT CONTROL ARM IDENTIFICATION:


DRIVER SIDE (LEFT) CONTROL ARM

PASSENGER SIDE (RIGHT) CONTROL ARM




DETAILED INSTRUCTIONS:

1. OEM Front Upper Control Arm Removal

 Verify that the car is on a level surface before proceeding. Use appropriate load rated hydraulic jack and jack stands to support the vehicle.

- a) Engage the parking brake and raise the front of the vehicle with a hydraulic floor jack, then support with jack stands.

 Please refer to the owners manual for proper jack stand location.

- b) Remove the driver-side wheel with a 21mm socket and impact wrench/breaker bar. Other sockets may be needed depending on your lug nuts.

- c) Remove the control arm ball joint nut with needle nose pliers (for the cotter pin) and a 17mm socket and ratchet. Nut shown circled in red in Figure 1b.

- d) Once the ball joint nut is removed separate the ball joint from the steering knuckle. Strike the knuckle firmly with a large hammer to separate the two. Shown in Figure 1c. When done correctly, the ball joint will pop free from the knuckle as shown in Figure 1d. Penetrating fluid can help the ball joint release if it seems stuck.



Figure 1a



Figure 1b

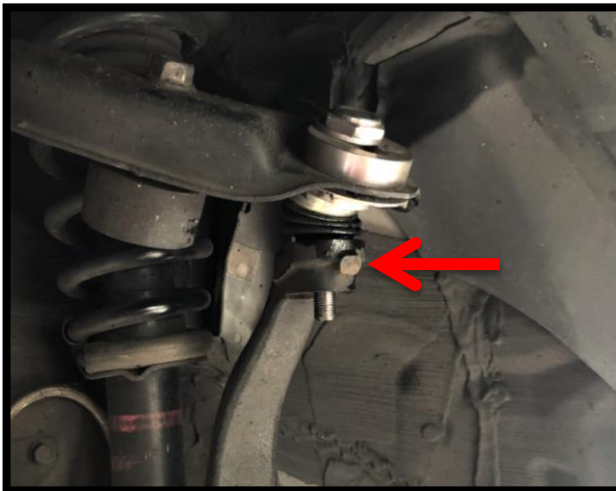


Figure 1c

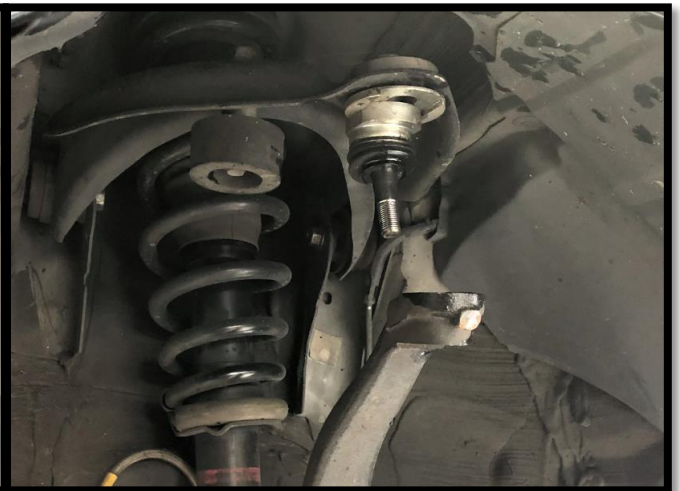


Figure 1d

DETAILED INSTRUCTIONS:

1. OEM Front Upper Control Arm Removal (cont.)

- e) Loosen the two 14mm bolts that hold the control arm to the chassis. Use a wrench or ratcheting wrench to ensure clearance to your front strut. Bolts circled in red in **Figure 1e**.

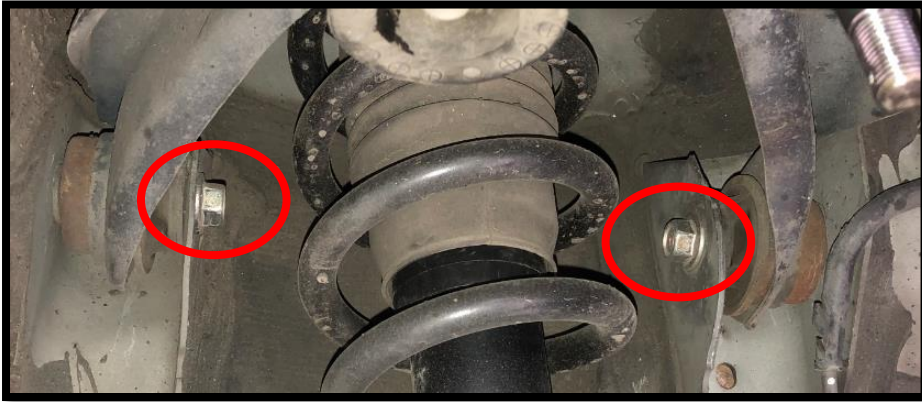


Figure 1e

- f) Attempt to remove the bolts from their mounting locations. Typically, one bolt will be clear while the other will run into the spring and will not be able to be removed. This is shown in **Figure 1f**.
- g) If you cannot remove one of the bolts, use your jack to lift the suspension and compress the spring just enough to remove the stubborn bolt. Jacking point shown in **Figure 1g**. The bolt can then be removed.
- h) Once both 14mm bolts are removed, the OEM front upper control arm can be removed.

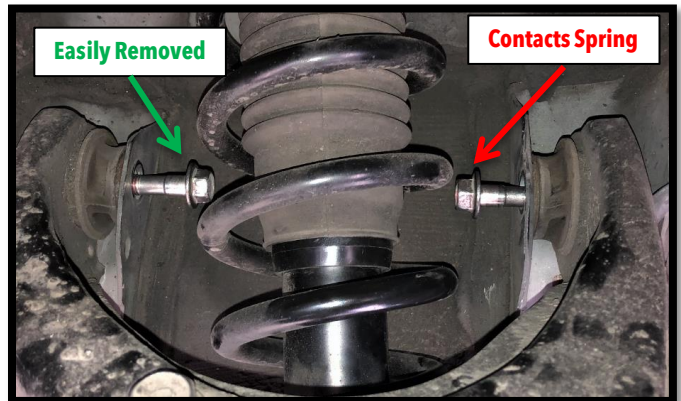


Figure 1f



Figure 1g



Some suspension setups will not allow for the 14mm bolts to be removed without removing the strut entirely. See our MS6 lowering spring instructions for details on removing the strut.

DETAILED INSTRUCTIONS:

2. CorkSport Adjustable Front Upper Control Arm Installation

- a) Cut the zip ties that retain the spacers inside the CorkSport control arms. Ensure the spacers stay in position during installation.
- b) Position the CorkSport Control Arm into the mounts on the chassis. Reference page 3 to ensure you install the correct CS control arm onto the driver's side. Secure by hand threading in the two OEM 14mm bolts removed earlier. The same method of jacking up the suspension to compress the spring to allow for bolt installation will likely need to be performed.
- c) Tighten the two 14mm bolts to 45ft-lbs. Shown completed in **Figure 2a**.

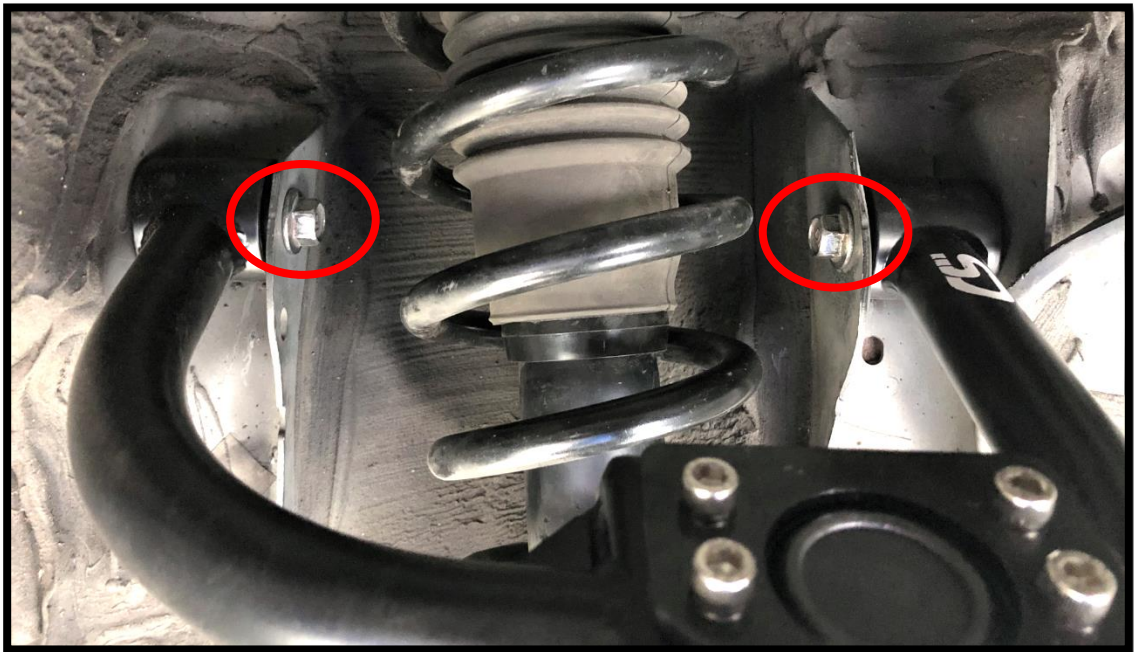


Figure 2a

- d) Insert the new ball joint through the hole in the top of the knuckle. You may need to lift up the knuckle and/or lower the control arm to do so. This is shown in **Figure 2b** on the next page.

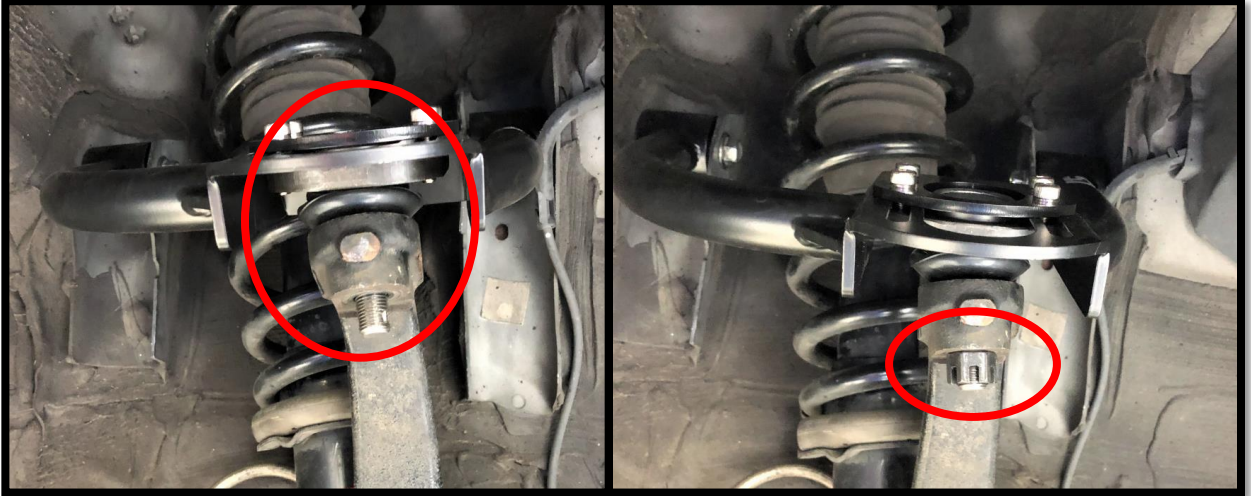
DETAILED INSTRUCTIONS:**2. CorkSport Adjustable Front Upper Control Arm Installation (cont.)**

Figure 2b

Figure 2c

- e) Secure the ball joint into the knuckle with the supplied castle nut. Tighten to **35ft-lbs**. Shown completed in **Figure 2c**.

! Do not overtighten the castle nut as damage to the ball joint can occur. A slight amount of extra turn to get the hole in the ball joint stud to align with the gaps in the castle nut is OK.

- f) Using the supplied cotter pin, lock the castle nut into position. Insert the cotter pin through the hole in the ball joint stud, then bend the cotter pin backwards over itself to keep it in position inside the ball joint stud. Shown completed in **Figure 2d**.



Figure 2d

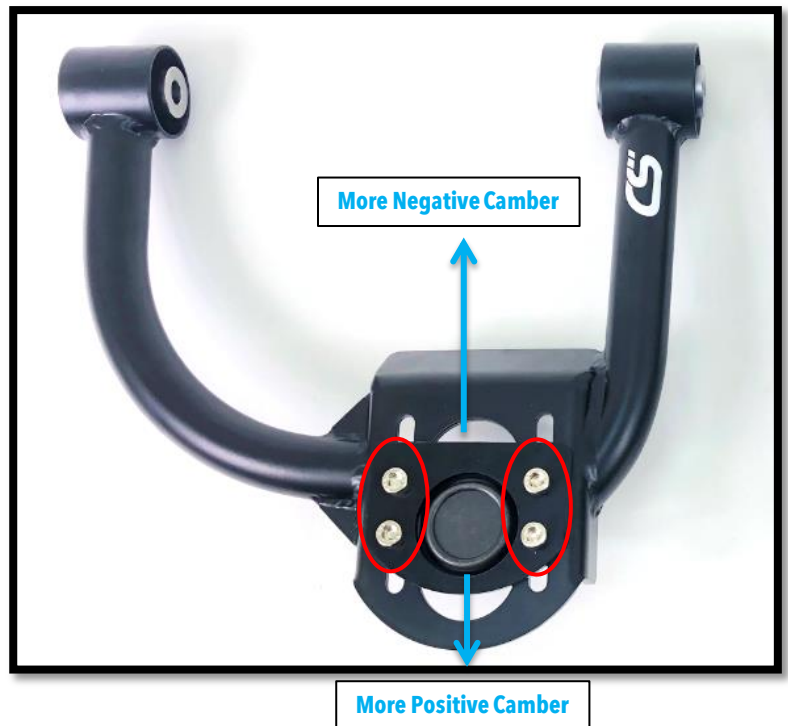
DETAILED INSTRUCTIONS:

2. CorkSport Adjustable Front Upper Control Arm Installation (cont.)

- g) Repeat steps 1a-2f for the passenger side of the vehicle.
- h) Adjust camber as needed following the steps in section 3, then reinstall your wheels, lower the car, and torque your lug nuts to factory spec (varies depending on wheels & style of lug nut). Readjust camber as needed.

3. Camber Adjustment on the CorkSport Adjustable Control Arm

- a) Camber can be adjusted positive or negative by loosening the four socket head screws with a 5mm Allen wrench/socket. These screws are **circled in red** in **Figure 3a**.
- b) Push the knuckle and ball joint in towards the vehicle for more negative camber and pull it outward for more positive camber. The **blue arrows** and notes in **Figure 3a** also explain the camber adjustments. At CorkSport lowering spring height (1.5" lower than OEM) max camber settings were +0.5° and -4.0°.
- c) Once satisfied with camber, tighten the four 5mm Allen head bolts to **10-12ft-lbs**.

Figure 3a

Due to the design of the Mazdaspeed 6 front suspension, adjustments to camber will also change the toe measurement. To prevent excess tire wear, an alignment must be performed after any major camber change.



This completes the installation of your CorkSport Adjustable Front Upper Control Arms. Enjoy the extra adjustability and improved handling feel!

WHAT'S NEXT?

CorkSport Lowering Springs

Give your Mazdaspeed6 the performance appearance and edge you have been looking for with the CorkSport Lowering Springs for the Mazdaspeed6. By reducing ride height approximately 1.5" in the front and 1.6" in the rear, adding the CorkSport Lowering Springs to your Mazdaspeed 6 will result in a quicker turning response, crisper road feel, a more aggressive appearance, and a firmer spring rate, all while maintaining excellent ride quality.



CorkSport Mazdaspeed CST4 Turbocharger

Experience a boost in performance with our drop-in Mazdaspeed turbocharger. It easily bolts in and replaces your undersized OEM turbo with NO mechanical modifications. The CorkSport turbo supports a range of 250-450 horsepower in your Mazdaspeed. If your Mazdaspeed 3 or Mazdaspeed 6 turbo is worn out or is smoking, you need our turbo. Add the power without the hassle today!

CorkSport Mazdaspeed Camshafts

The CorkSport Mazdaspeed Performance Camshafts are developed with the latest design, manufacturing, and casting technologies and ground to CNC precision for the best performance for your Mazdaspeed. Near factory idling cams for the daily driver and even the aggressive track driver bringing improvement in throttle response and torque to your Mazdaspeed.

