

Part # Axl-3-318

CorkSport
MAZDA PERFORMANCE

CorkSport Adjustable Rear Camber Kit
2007-2013 Mazdaspeed 3, 2004-2013 Mazda 3



1

1



This Package should contain:

- 1. Two(2) Camber Arms
- 2. Eight(8) Machined Spacers

2

CorkSport Adjustable Rear Camber Kit

2007-2013 Mazdaspeed 3, 2004-2013 Mazda 3



Thank you for purchasing the CorkSport Rear Adjustable Camber Arms. By replacing your OEM camber arms with the CorkSport Adjustable Camber Arms, you will be able to dial in your suspension with +/- 5 degrees of adjustability. Our unique design includes spherical bearings that will replace the soft rubber OEM bushings, tying your suspension together and giving you more control and added road feel. We hope you enjoy your new CorkSport Adjustable Camber Arms. Please let us know your feedback at **Mazda 3 - <http://www.corksport.com/corksport-rear-adjustable-camber-arms.html>**

Pre-Installation Notes:



Make sure your vehicle is completely cooled down prior to starting installation. If you are going to work on your car within an hour or two of having driven it, use a fan to cool off the car.



These instructions were written for reference only and the use of a factory service manual is recommended. Please read these instructions thoroughly prior to starting installation



How our instructions work: To best cover all of our customers experience levels, we have included an overview checklist for the more technically advanced users along with step-by-step instructions for customers that require additional detail.



These installation instructions were written using a 2010 Mazdaspeed 3. Other year and models will be similar.

Materials and Time:



General Info.
Part #: Axl-3-318
Time Est: 1 hours
Wrench Rating: 2/5



Tooling List
17mm Socket
17mm Wrench
24mm Wrench
26mm Wrench
3/8" Drive Ratchet
Torque Wrench



Parts List
Two (2) CorkSport Rear Adjustable Camber Arms

Checklist

This is an overview of each step in the build. You can use this as a reference and a checklist as you button up the work on your car

1. Removing the Factory Camber Arms

- a) Use a floor jack and jackstands to gain access to the underside of the vehicle.

 Always refer to the floor jack and jack stand manufacturers instructions as well as the factory owners manual for your vehicle to determine jacking points and support points. Alternately, use an automotive lift to gain access to the underside of the vehicle. Redundant support mechanisms are recommended.

- b) Remove the rear wheels from the vehicle to gain easier access to the camber arm mounts.

- c) Start by locating the old camber arm under one side of the vehicle, forward of the strut mount
[Figure 1a](#) shows the camber arm from under the vehicle.

- d) Locate the upper and lower bolts that attach the camber arm in place and remove with a 17mm end wench (upper) and socket (lower). [Figure 1b](#) shows the lower bolt inside the wheel well and [Figure 1c](#) shows the upper bolt seen from under the car.

 The Upper 17mm bolt on the passenger side of the car is very difficult to get too. The Gas tank filler neck gets in the way. You may have to remove shielding to make removing the bolt easier.

- e) Remove the OEM camber arm from vehicle

- f) Repeat steps 1c-1e on other side of the vehicle

2. Install the CorkSport Adjustable Camber Arms

- a) Insert spacers into CorkSport camber arm before replacing onto the vehicle (four spacers per camber arm.) [Figure 2a](#) shows the two pieces that go on either end and [Figure 2b](#) show the unit assembled.

 The adjustment side of the camber arm should point towards the outside of the vehicle (shown in [Figure 2c](#))

- b) Adjust the length of the camber arm to match the OEM length.

 Only adjust the Lower side of the camber arm. The upper side need to be threaded in as far to the arm as possible. (shown in [Figure 2c](#)).

- c) Install the CorkSport Rear Adjustable Camber Arm.

 Remember to replace the brake cable mounting bracket before re-inserting the bolt back into position under the wheel well side of assembly (shown in [Figure 2d](#)).

- d) Replace bolts that were removed in step 1d. Tighten them to 57-75ft.lbs (shown in [Figure 2e](#) and [Figure 2f](#)).

- e) Perform steps 2a- 2d again for the other side of the vehicle

- f) Some models will have a bracket that will prevent the removal of the upper passenger side bolt. This bracket can be bent with a small pry bar. Make sure not to crush the lines or electrical connections behind the bracket. Where to pry is shown in [Figure 2g](#).

- g) Replace the rear wheels.

3. Adjusting the rear Camber Arms

- a) Turn the center 26mm or 1" hex bolt that is located at the outer hub (shown in [Figure 3a](#)) One direction adds camber and one subtracts camber. There is a +/- 5 degrees of adjustment. [Figure 3a](#) shows maximum negative camber and [Figure 3b](#) shows maximum positive camber (When the top of the wheel is further out than the bottom).
- b) Once the camber is set where you want it you can tighten down all the bolts on the camber arm. Don't forget the 24mm nuts located at the upper end of the camber arm.



Double check all locking nuts and tighten them. If they are left loose, wear can occur.



This completes the installation of your CorkSport Adjustable Camber Arms. **CorkSport recommends a wheel/tire alignment check once installation is complete. Failure to do so could result in premature tire wear.** Check out our [knowledgebase](#) for additional install information , tips, and helpful video's

Detailed Instructions

These instructions were written using a 2010 Mazdaspeed 3. Other model and year vehicles will be similar.

1. Removing the Factory Camber Arms

- a) **Use a floor jack and jackstands to gain access to the underside of the vehicle.** Always make sure vehicle is properly supported before crawling or standing under vehicle.

Always refer to the floor jack and jack stand manufacturers instructions as well as the factory owners manual for your vehicle to determine jacking points and support points. Alternately, use an automotive lift to gain access to the underside of the vehicle. Redundant support mechanisms are recommended.

- b) **Remove the rear wheels from the vehicle** to gain easier access to the camber arm mounts.

- c) **Start by locating the old camber arm under one side the vehicle forward of the strut mount.** [Figure 1a](#) shows the camber arm from under the vehicle.

- d) **Locate the upper and lower bolts that attach the camber arm in place and remove with a 17mm end wrench (upper) and socket (lower).** [Figure 1b](#) shows the lower bolt inside the wheel well and [Figure 1c](#) shows the upper bolt seen from under the car.

The Upper 17mm bolt on the passenger side of the car is very difficult to get too. The Gas tank filler neck gets in the way. You may have to remove shielding to make removing the bolt easier.

Please note that the lower bolt also holds the emergency brake line bracket.

- e) **Remove OEM camber arm from vehicle**. Once the bolts are out the arm will come out. This will require a little force because the arm is pinched between metal.

- f) **Repeat steps 1c-1e on the other side of the vehicle.**

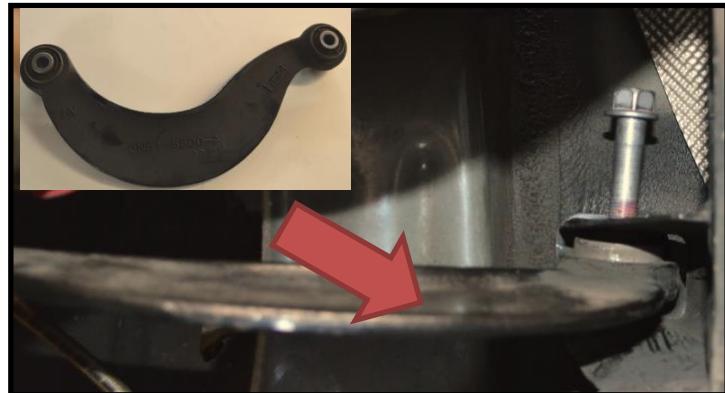


Figure 1a

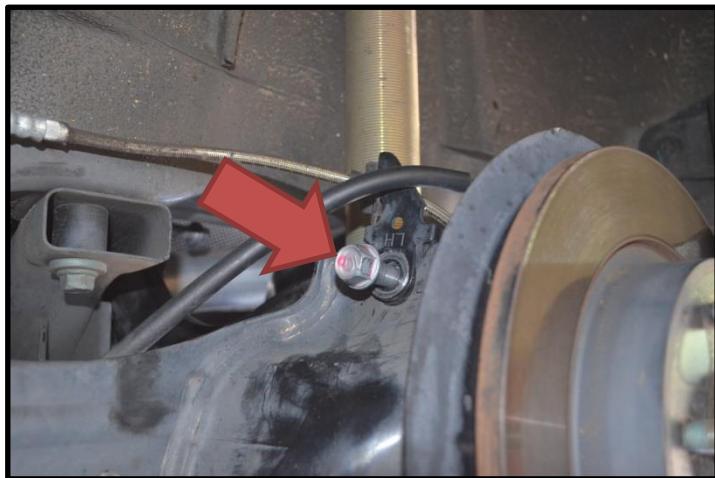


Figure 1b

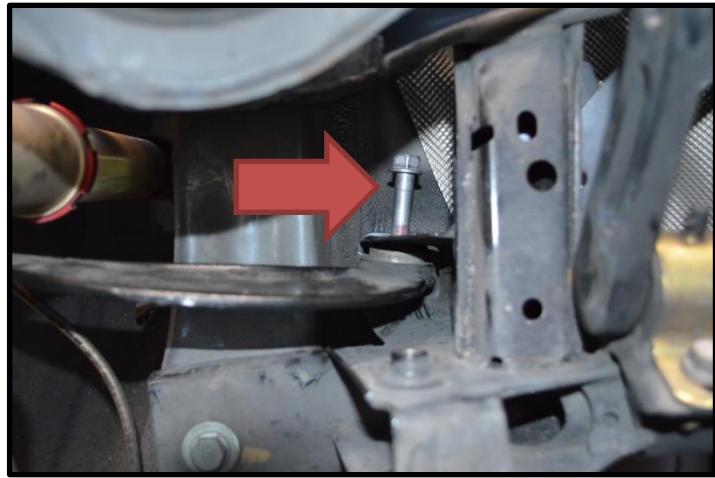


Figure 1c

Checklist

2. Install the CorkSport Adjustable Camber Arms

- a) Insert the provided spacers into CorkSport camber arm before replacing it on the vehicle (four spacers per camber arm.) **Figure 2a** shows the two pieces that go on either end and **Figure 2b** show the unit assembled.

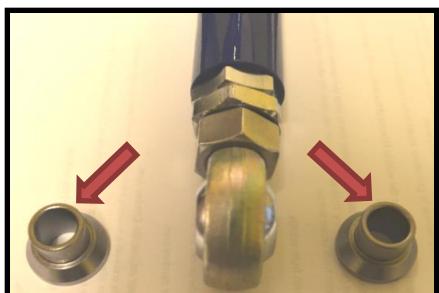


Figure 2a.



Figure 2b.

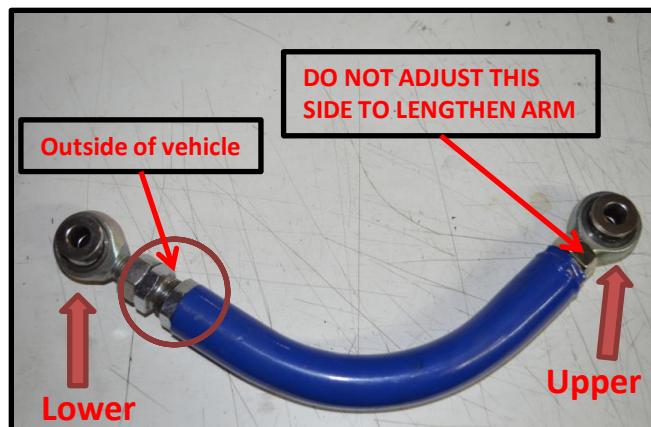


Figure 2c.

The adjustment side of the camber arm should point towards the outside (Lower) of the vehicle (circled in **Figure 2c**).

- b) Adjust the length of the camber arm. We set the length before it is sent out.

Only adjust the Lower side of the camber arm. The upper side has been set and red loctited. (shown in **Figure 2c**).



Figure 2d.

- c) Install the CorkSport Rear Adjustable Camber Arm.

The easiest way is to slide the upper end in first and then the outer side at the hub last. Make sure that the spacers don't fall off when putting the adjuster in.

Remember to replace the brake cable mounting bracket before re-inserting the bolt back into position under the wheel well side of assembly (shown in **Figure 2d**).

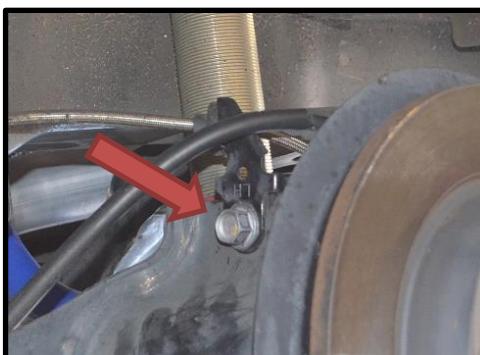


Figure 2e

- d) Replace bolts that were removed in step 1d. Tighten them to 57-75ft.lbs (shown in **Figure 2f** and **Figure 2g**).



Figure 2f

Detailed Instructions

2. Install the CorkSport Adjustable Camber Arms Continued...

- e) Perform steps 2a-2d on the other side of the vehicle
- f) Some models will have a bracket that will prevent the removal of the upper passenger side bolt. This bracket can be bent with a small pry bar. Make sure not to crush the lines or electrical connections behind the bracket. Where to pry is shown in Figure 2g.

- g) Replace the rear wheels.

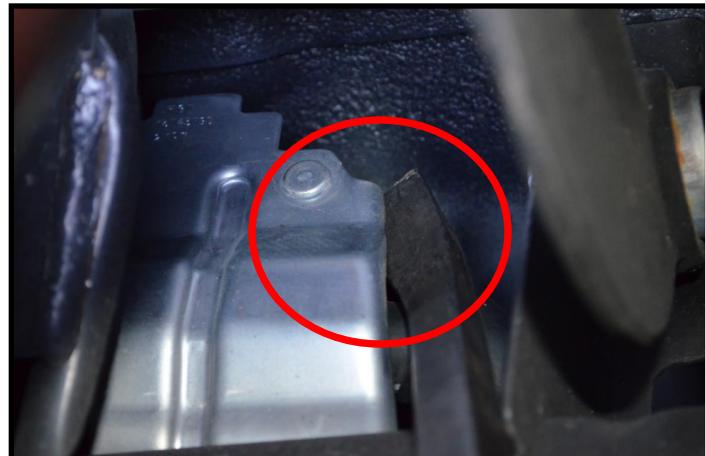


Figure 2g

3. Adjusting the Rear Camber Arms



The CorkSport Camber Arms come to you fully tightened and set at the OEM length.

Adjusting: Do not remove the spherical bearing from the vehicle to adjust length.

Loosen the 24mm and 29mm Jam nuts on the outboard side. Then rotate the Adjustment Collar (26mm) to the desired length. Verify that the alignment of the spherical bearing is correct.

Tighten the 29mm Jam nut against the black camber arm tube. Tighten the 24mm Jam nut against the Adjustment Collar. This completes the adjustment.



Detailed Instructions

3. CorkSport Camber Arm Adjustment continued...



Both the inboard and outboard rod ends have maximum lengths they can be safely extend to. Please review the maximum lengths below, extension past these lengths will void the warranty and may result in camber arm failure.

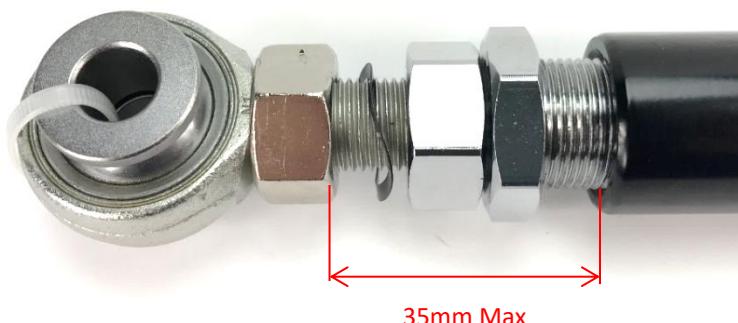
Inboard Rod End Maximum Extension:

The inboard rod end comes pre-assembled at 10mm extension. Extension can be lengthened to 13mm maximum if needed.



Outboard Rod End Maximum Extension:

The outboard rod end comes pre-assembled to match the OEM camber arm. Extension can be lengthened to 35mm maximum if needed.



Outboard Rod End Minimum Extension:

If you are unable to achieve the negative camber desired with the outboard rod end at minimum length then you shorten the inboard rod end as needed.



3. Adjusting the Rear Camber Arms Continued...



A simple low cost digital camber gauge (shown in **Figure 3c**) can be built with the use of this how to.
<http://www.tomhoppe.com/index.php/2009/02/camera-digital-camber-gauge/>



Figure 3c



Double check all locking nuts and tighten them. If they are left loose, wear can occur.



This completes the installation of your CorkSport Adjustable Camber Arms. **CorkSport recommends a wheel/tire alignment check once installation is complete. Failure to do so could result in premature tire wear.** Check out our [knowledgebase](#) for additional install information , tips, and helpful video's

What's Next:

[CorkSport Underbody 4-Brace Set for Mazdaspeed 3 and Mazda 3](#)



Dollar for dollar, the (Axl-3-027-10) brace set was the best suspension modification done to my car to date..."
-David W.

Reduce undesirable chassis flex and increase control during hard cornering and acceleration with the CorkSport Mazdaspeed 3 and Mazda 3 underbody 4-bar brace set. An often overlooked performance enhancement, especially on vehicles with lots of modifications, reinforcing the chassis with an underbrace set will reduce twisting of the chassis by linking the frame to the sub-frame thus locking the front sub-frame in place.

[CorkSport Mazda 6 Lowering Spring Set](#)

Give your car the performance appearance and edge you have been looking for with the CorkSport Lowering Springs for the Mazda 6. Our lowering springs have been vigorously tested to ensure optimal characteristics. Our springs will lower your ride a total of 1.5" in the front and 1.6" in the rear over the stock springs providing you with improved handling, performance appearance and excellent ride quality.



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