

CorkSport Mazdaspeed 6 Front Sway Bar

2006 - 2007 Mazdaspeed 6



Thank you for purchasing the CorkSport Mazdaspeed 6 Front Sway Bar. By adding a front sway bar to your existing suspension set-up, you will be able to improve handling while minimizing body roll. The CorkSport Front Sway Bar will reduce the understeer commonly experienced with the AWD, front heavy Mazdaspeed 6 and has been engineered to match the stiffness of our rear sway bar to promote neutral handling. We hope you enjoy your new CorkSport Front Sway Bar. Please let us know your feedback at <http://www.corksport.com/corksport-2006-2007-mazdaspeed-6-front-sway-bar.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 2006 Mazdaspeed 6. Other year Mazdaspeed 6 models will be similar.

Materials and Time:



General Info.

Part #: Ate-3-080
Time Est: 3-4 hours
Wrench Rating: 3/5



Tooling List

10mm Socket
14mm Socket
17mm Socket
19mm Socket
Floor Jack
Jack Stands
Swivel Head Socket
½" Drive Ratchet
½" 12" Extension
3/8" Drive Ratchet
3/8" 12" Extension
Philips Screw Driver
Flat Head Screw Driver



Parts List

One (1) CorkSport front Sway Bar
Two (2) Bushings
Two (2) Sway Bar brackets



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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 front sway bar

- a) **Jack up and support the vehicle on jack stands**
 -  Refer to the owners manual for jack points and jack stand positions.
- b) **Remove battery bracket and battery** by removing the two 10mm bolts (circled in **Figure 1a**).
- c) **Remove TMIC cover** by removing the two 10mm bolts from the front of the cover.
- d) **Remove the three 17mm power steering rack bolts** (shown in **Figure 1b** and **Figure 1c**).
- e) **Remove the tie bar** by removing the four 17mm lower tie bar nuts (shown in **Figure 1d**).
- f) **Remove the seven 10mm bolts from the skid tray** (bolt locations shown in **Figure 1e**).
- g) **Remove both front wheels from the vehicle .**
- h) **Remove the three driver side fenderwell cover push pins** (shown in **Figure 1f**).
- i) **Remove three passenger side fenderwell covers push pins.** One is located behind a panel (see **red arrow** in **Figure 1g**).
- j) **Remove front sub-frame bolt covers,** drivers and passenger side by removing the four Phillips head screws on both sides (shown in **Figure 1h**).
- k) **Support the engine with a jack and remove the 17mm motor mount bolt** (shown in **Figure 1i**).
 -  Only jack on solid surfaces. Do not jack on the oil pan!
- l) **Remove lower strut mount 17mm bolts** on the driver and passenger side (shown in **Figure 1j**)
- m) **Remove the 14mm sway bar end link bolts** on the drivers and passengers side (shown in **Figure 1k**).
- n) **Support the front of the sub-frame with a jack and remove the two 19mm front sub-frame nuts** then slowly lower the sub-frame.
- o) **Support the rear of the sub-frame with a jack and remove the four 17mm bolts** from the sub-frame brackets (**red circles** in **Figure 1l**) then remove the 19mm bolt (**green circle** in **Figure 1l**) and slowly lower sub-frame down.
- p) **Remove four 14mm sway bar bolts and remove the sway bar from the car.**

Checklist

2. Installing the CorkSport front sway bar

- a) **Grease the bushings before installing them.** If you are using a grease gun you can grease the bushing after installation through the grease fitting circled in [Figure 2a](#).
- b) **Install the new sway bar bushings and brackets on the new CorkSport Sway Bar.** Grease the bushings if you have not done so yet.
 -  Make sure that the bolts are in the center of the slotted holes in the new brackets before tightening
- c) **Install the bar back into the sub-frame** and reuse the factory 14mm bolts and tighten the brackets down (shown in [Figure 2a](#)).
- d) **Jack the rear of the sub-frame up** making sure that the sub-frame bolts are lining up with the holes in the sub-frame (refer to [Figure 1f](#)). Install the sub-frame brackets with the 19mm nut on the sub-frame bolt only but do not tighten them down all the way.
- e) **Jack up the front of the sub-frame** and line up the front sub-frame bolts then reinstall the 19mm nuts and tighten (refer to [Figure 2b](#)).
- f) **Install the sway bar endlinks** on the sway bar and install the two 14mm nuts (refer to [Figure 2c](#)).
- g) **Install the two 17mm bolts** on both the driver and passenger side rear sub-frame brackets and tighten them. Then tighten the 19mm sub-frame nut (refer to [Figure 1l](#)).
- h) **Reinstall the 17mm bolts** into the lower strut mount and repeat for the other side (refer to [Figure 1j](#)).
- i) **Reinstall the 17mm motor mount bolt** (refer to [Figure 1i](#)).
- j) **Reinstall the 3 push pins back in the fender well covers**, repeat for the other side side (refer to [Figure 1f](#)).
- k) **Install the front sub-frame bolt covers** (refer to [Figure 1h](#)).
- l) **Install the skid tray** by replacing the (7) 10mm bolts (refer to [Figure 1e](#)).
- m) **Install the lower tie bar** (refer to [Figure 1d](#)).
- n) **Replace the three steering rack bolts** (refer to [Figure 1b](#) and [Figure 1c](#)).
- o) **Install battery and replace battery hold down and cables.**
- p) **Replace the TMIC cover** (refer to [Figure 2d](#))
- j) **Reinstall the wheels and tighten lug nuts to factory spec.** 65.0-87.0 ft.lbs for Mazdaspeed6.

 **This completes the installation of your CorkSport Front Sway Bar. Take a test drive and make sure nothing rattles. If it does make sure all hardware is tight and all bushings have been greased.**

Detailed Instructions

 These installation instructions were written using a 2006 Mazdaspeed 6. Other year Mazdaspeed 6 models will be similar.

1. Removing the front sway bar

- a) Jack up and support the front of the vehicle on jack stands. Refer to the owners manual for jack points and jack stand positions.
- b) Remove the battery hold down bracket by removing the two 10mm bolts (circled in [Figure 1a](#)), then loosen and remove the positive and negative cables and finally remove the battery.
- c) Remove the two 10mm bolts from the intercooler cover and remove the cover. (Shown in [Figure 2d](#)) Pull up on the front of the top mount intercooler cover. The cover should remove easily once the bolts are removed.
- d) Remove the three 17mm power steering rack bolts. The best way to get to them is from the top with a long extension and swivel socket. There are two on the drivers side just below where the battery was located (shown in [Figure 1b](#)) then one on the passenger side just below the alternator (shown in [Figure 1c](#)).

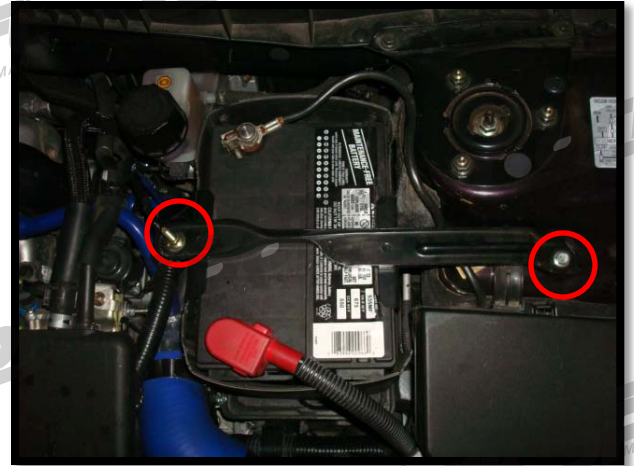


Figure 1a

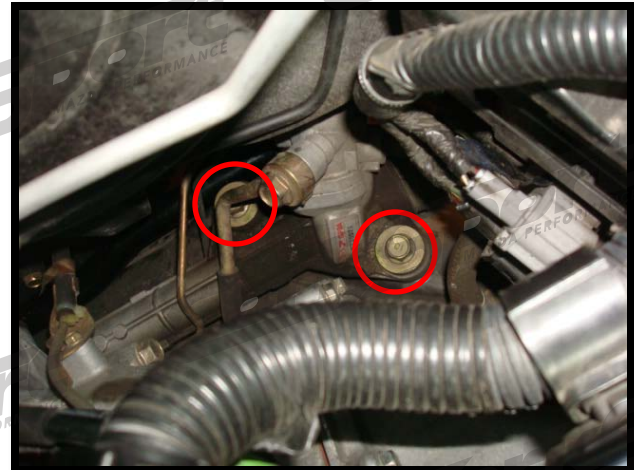


Figure 1b



Figure 1c

- e) Remove the lower tie bar by removing the four 17mm nuts that are located just behind the downpipe underneath the car (shown in [Figure 1d](#)).

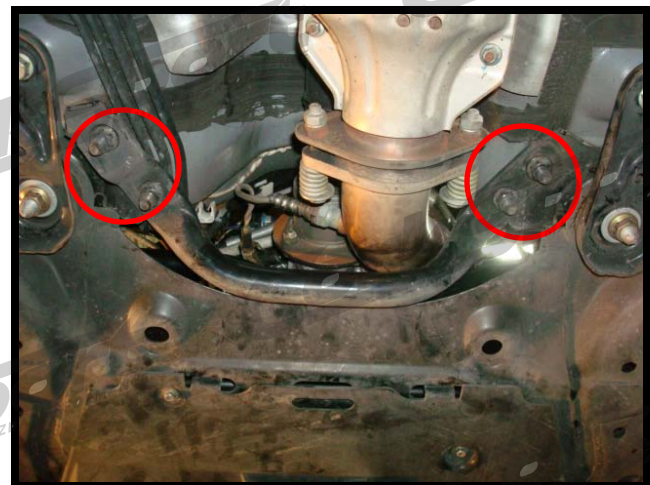


Figure 1d

1. Removing the front sway bar (continued)...

- f) Remove the seven 10mm bolts from the skid tray (bolt locations shown in **Figure 1e**).
- g) Remove the front wheels from the car.
- h) Remove the three lower driver side fenderwell push pins connected to the sub-frame (shown in **Figure 1f**).
- i) Remove the three lower passenger side fenderwell push pins. One of the pins is located behind a cover (see **red arrow** in **Figure 1g**)



Figure 1e

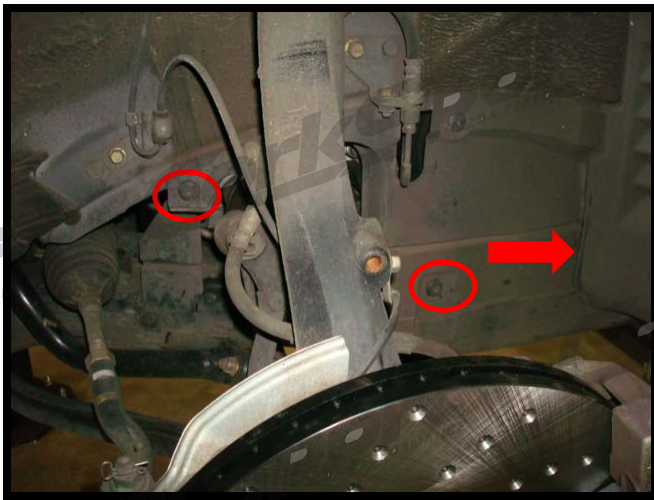


Figure 1g

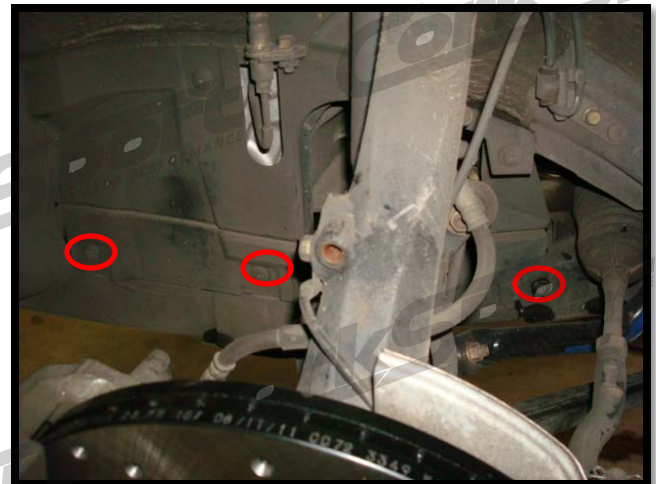


Figure 1f

- j) Remove the four Phillips head screws from the front sub-frame covers (shown in **Figure 1h**) and repeat for other side.

- k) Support the engine with a jack and remove the 17mm bolt (shown in **Figure 1i**) then lower the engine back down. The engine will be supported by the other mounts in the car.

! Only jack on solid surfaces. Do not jack on the oil pan!



Figure 1h



Figure 1i

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1. Removing the front sway bar (continued)...

- l) Remove the 17mm bolt from the lower strut mount. There is a bolt on both the driver and passenger side (shown in **Figure 1j**)
- m) Remove the 14mm sway bar end link bolts on both the drivers and passenger side (shown in **Figure 1k**).
- n) Support the front of the sub-frame with a jack and remove the two 19mm front sub-frame bolts then slowly lower the sub-frame back down. On nut shown in **Figure 2b**.
- o) Support the rear of the sub-frame with a jack then remove the four 17mm bolts from the sub-frame bracket (2 shown with red circles in **Figure 1l**). Then remove the two 19mm bolt (One shown with green circle **Figure 1l**) and slowly lower the sub-frame down. Remove similar bolts and nuts on other side of car.


 Your sub-frame should now be low enough to access the sway bar bracket bolts (shown in **Figure 1m**).



Figure 1j



Figure 1k

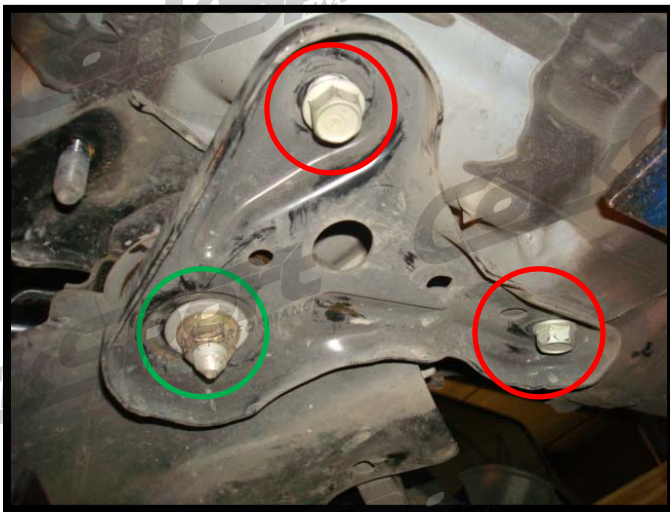


Figure 1l



Figure 1m

- p) Remove the four 14mm sway bar bolts from the brackets and remove the bar from the car. Two bolts are shown with red arrows in **Figure 1m**. There are two more bolts on the opposite side of the car.

2. Installing the CorkSport Front Sway Bar

- a) Grease the bushings before installing them. If you are using a grease gun, you can grease the bushing after installation through the grease fitting (circled in Figure 2a).
- b) Install the supplied bushings and brackets on the CorkSport Sway Bar.
- c) Install the CorkSport bar in the car reusing the factory 14mm bolts. (Tighten to **32-45 ft.lbs**) Center the brackets in the slots and tighten the bolts (shown in Figure 2a).
- d) Jack the rear of the sub-frame up making sure that you are lining up the sub-frame bolt holes with the studs and that you are not pinching any lines. Install the sub-frame bracket with just the 19mm nut (refer to Figure 1l). For now do not tighten it all the way down.
- e) Jack up the front of the sub-frame and install the two 19mm nuts (Tighten to **88-115 ft.lbs**) (refer to Figure 2b).
- f) Install the sway bar endlinks on the sway bar and install the two 14mm nuts (Tighten to **32-45 ft.lbs**) (refer to Figure 2c).
- g) Install the two 17mm bolts on the rear sub-frame bracket and tighten them along with the 19mm sub-frame nut (Tighten 17mm to **69-97 ft.lbs** and 19mm to **88-115 ft.lbs**) (refer to Figure 1l). Repeat for the other side.
- h) Reinstall the 17mm bolts back in the lower strut mounts (Tighten to **69-93 ft.lbs**) (refer to Figure 1j).
- i) Reinstall the motor mount bolt (refer to Figure 1i). You may need to move the engine with your jack to align the bolt holes (Tighten to **69-86 ft.lbs**)
- j) Install the three push pins back in the fender wells on both the driver and passenger side (refer to Figure 1f).



Figure 2a



Figure 2b



Figure 2c

2. Installing the CorkSport Front Sway Bar (continued)...

- k) Install the front sub-frame bolt covers replacing the four phillips head screws (refer to [Figure 1h](#)).
- l) Install the skid tray replacing the (7) 10mm bolts (refer to [Figure 1e](#)).
- m) Reinstall the lower tie bar and replace the four 17mm nuts (Tighten to **47-66 ft.lbs**) (refer to [Figure 1d](#)).
- n) Install the three steering rack bolts (Tighten to **47-66 ft.lbs**) (refer to [Figure 1b](#) and [Figure 1c](#)).
- o) Install the battery and replace the battery hold down bracket with the two 10mm bolts.
- p) Replace the Top Mount Intercooler cover with the two 10mm bolts. (refer to [Figure 2d](#))
- q) Reinstall the wheels and tighten lug nuts to factory spec. 65.0-87.0 ft.lbs for Mazdaspeed6.
- r) Lower vehicle back down off the jack stands.



Figure 2d

! This completes the installation of your CorkSport Front Sway Bar. Take a test drive and make sure nothing rattles. If it does make sure all hardware is tight and all bushings have been greased.

3. Periodic Maintenance of your CorkSport Sway Bar

- a) Periodically you will need to inspect the bar and grease the Sway Bar.
- b) Every 5000-10000 miles check the bar for grease. If the bushings appear to be drying out apply grease as needed.
- c) If squeaking of the bar is noticed, the bar will need to be greased.

What's Next:

[CorkSport Front Strut Bar for Mazdaspeed 6](#)



The one piece CorkSport front strut bar helps increase the stiffness of the Mazdaspeed 6 chassis by tying load points together. The reduction in chassis flex during hard cornering results in improved handling and steering response.

CorkSport strut bars are a great value. The quality is comparable to those from Mazdaspeed and Cusco but around 1/2 the cost. This strut bar is built from T6061 aluminum and polished to a high luster. Each bar is TIG welded for strength in construction and very light.