

## CorkSport Front Sway Bar

2010-2013 Mazdaspeed 3 and 2010-2013 Mazda 3 (Including SkyActiv)



**Thank you for purchasing the CorkSport Mazdaspeed 3 Front Sway Bar.** Our sway bar will help remove the vehicles tendency to overpower the front tires under hard cornering and minimize traction robbing body lean. The CorkSport Mazdaspeed 3 Front Sway Bar allows you to fine tune the handling. We hope you enjoy your new part! Please let us know your feedback by submitting a review at:

<http://corksport.com/corksport-mazda-3-mazdaspeed-3-front-swaybar-en.html>

### Pre-Installation Notes:



**Make sure your vehicle is on a level surface** prior to starting installation.



**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 a table of contents/order of operations along with step-by-step instructions.



**These installation instructions were written using a 2009 Mazdaspeed 3.** Other year Mazdaspeed 3 and Mazda 3 models will be similar.

### Materials and Time:



#### General Info.

**Part #:** AXL-3-080  
**Time Est:** 2.5 hour  
**Wrench Rating:** 3/5



#### Tooling List

3/8 or 1/2" Ratchet  
12mm Socket or Box Wrench  
14mm Socket or Box Wrench  
17mm Socket Wrench  
21mm Socket Wrench  
5mm Allen Wrench  
3mm Allen Wrench  
Torque Wrench  
Jack and Jack Stands



#### Parts List

One (1) CorkSport Front Sway Bar  
Two (2) Polyurethane Bushings  
Two (2) CorkSport Heavy Duty Sway Bar Brackets  
One (1) Bushing Grease  
Four (4) M14 Nuts  
Two (2) Clamp Collars



Part # AXL-3-080



## Order of Operations & Table of Contents



### **Support Car on Jackstands**

Section 1: Jack Vehicle Up

Pg. 2



### **Disassembly and Removal**

Section 2: Remove the Factory Front Sway Bar

Pg. 2-5



### **Installation and Assembly**

Section 3: Install the CorkSport Rear Sway Bar

Pg. 6-9

## Detailed Instructions

### 1. Support Car on Floor Jack/Jackstands or Lift

- 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 manufactures 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.

### 2. Remove the Factory Front Sway Bar

- a) Remove the two (2) 14mm nuts holding the front end links to the factory swaybar. **Figure 2a** shows how to hold the end link with a 5mm Allen and loosen with a 14mm end wrench.



Figure 2a

- b) Remove the rear motor mount bolt using a 17mm end wrench. **Figure 2b** shows the bolt location on the CorkSport Rear motor mount. The factory rear motor mount does not have a nut on the other end.



Figure 2b

## 2. Remove the Factory Front Sway Bar Continued...

- c) Remove the four (6) support brace bolts (three shown by the green circles in Figure 2c) using a ratcheting wrench and 14mm socket.
- d) Remove the two (2) 21mm bolts (one shown by the red circle in Figure 2c) using a ratcheting wrench and 21mm socket and remove the two small chassis braces from the vehicle.

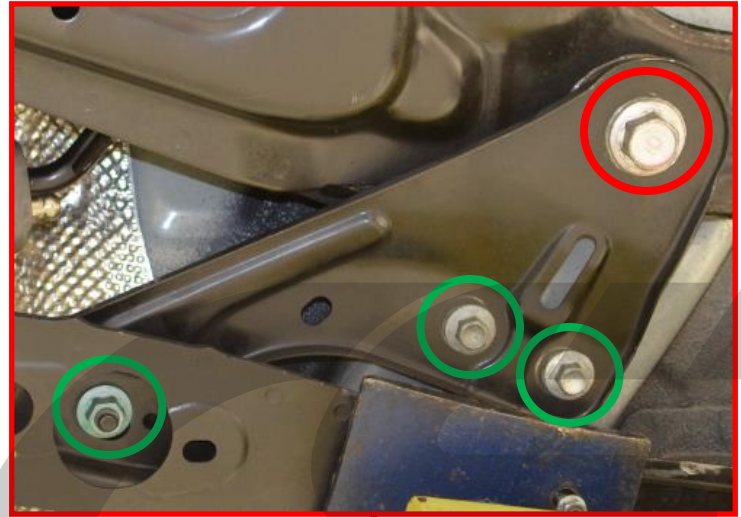
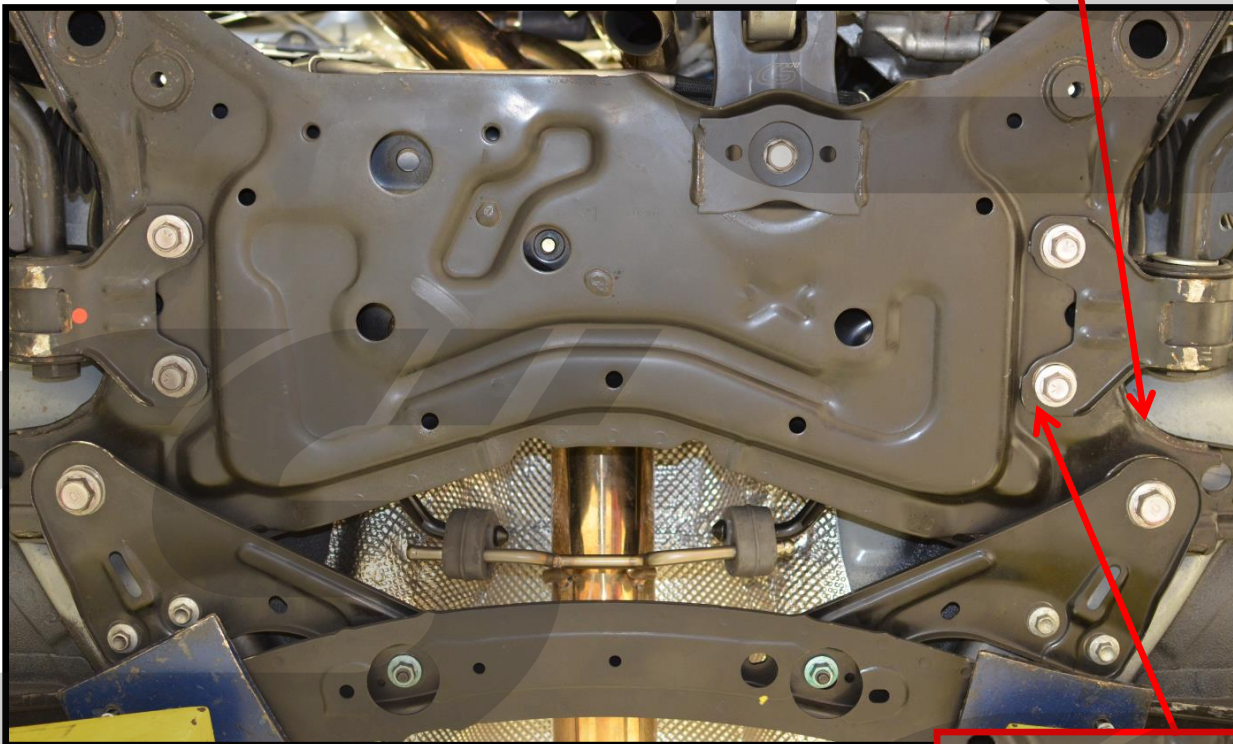


Figure 2c



- e) Remove the four (4) 17mm Bolts holding down the swaybar brackets. These also hold the back of the control arm. Figure 2d shows a close up of the driver's side bolts. Brackets can be seen in Figure 2

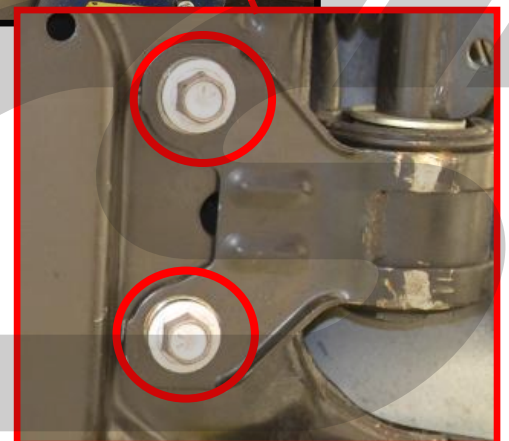


Figure 2d

## 2. Remove the Factory Front Sway Bar Continued...

- f) Remove the two (2) 17mm bolts (one shown by the red circle in Figure 2e) using a ratcheting wrench, 12" extension and 17mm socket. At this point, the sub frame should drop down.



The subframe is still supported by the struts and power steering, so you do not have to worry about the subframe dropping more than a couple of inches (which is needed to remove the sway bar).

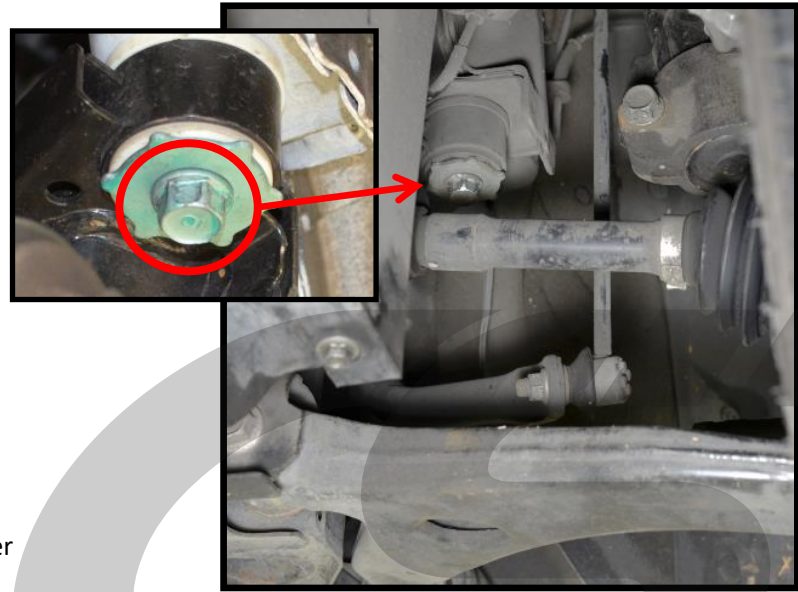


Figure 2e

- g) Remove the two downpipe bushings from the sub frame. The sub frame will now be free to move around. Figure 2f shows the bushings disconnected. Bushings shown with red arrows.

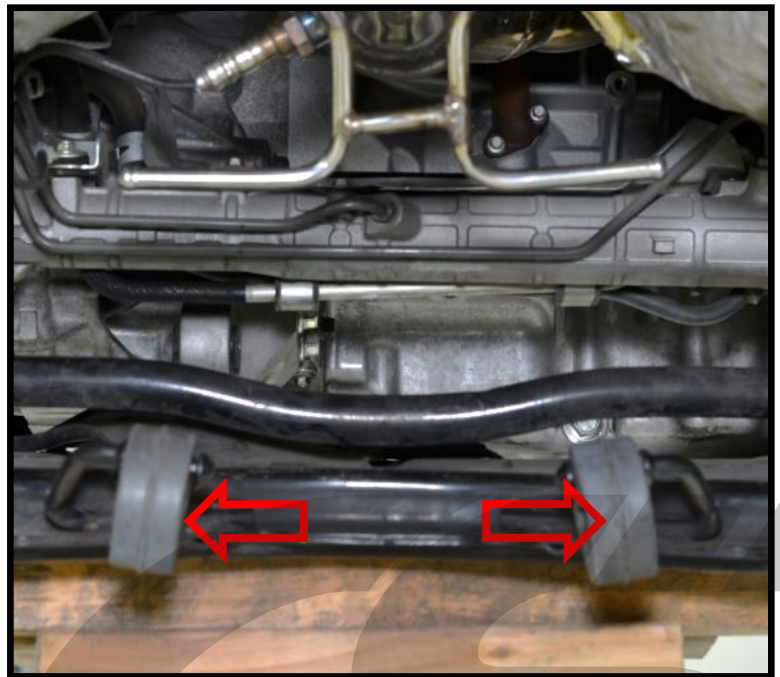


Figure 2f

## 2. Remove the Factory Front Sway Bar Continued...

- h) Lower the subframe and remove the swaybar from the rear of the subframe. Figure 2g shows the swabar as viewed from the rear of the car.

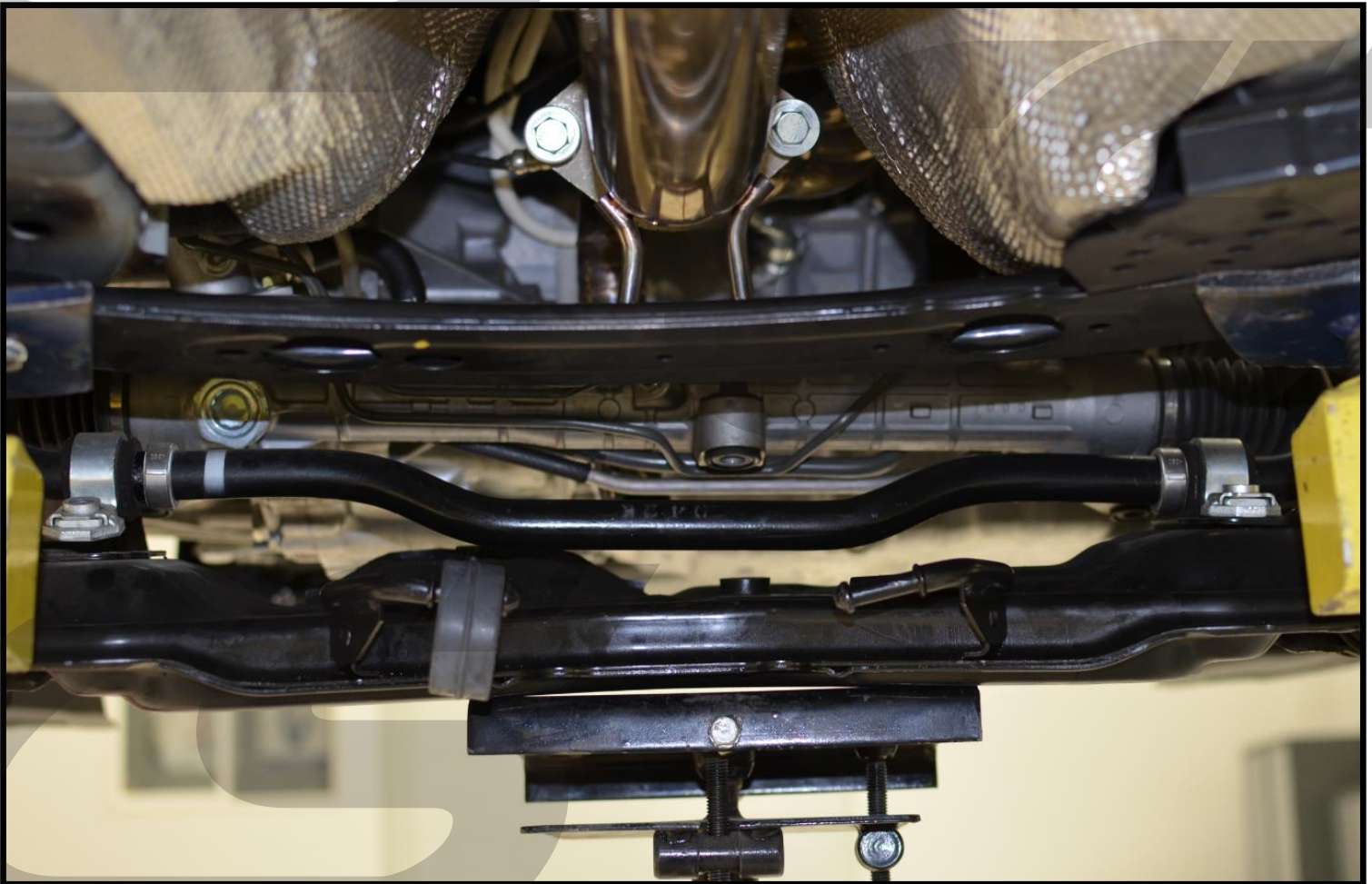


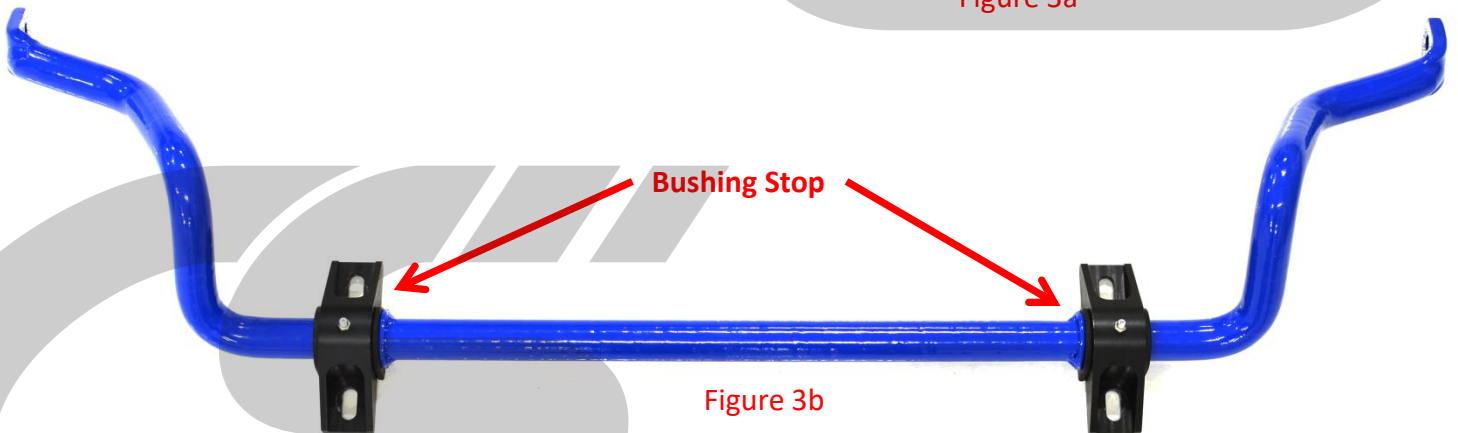
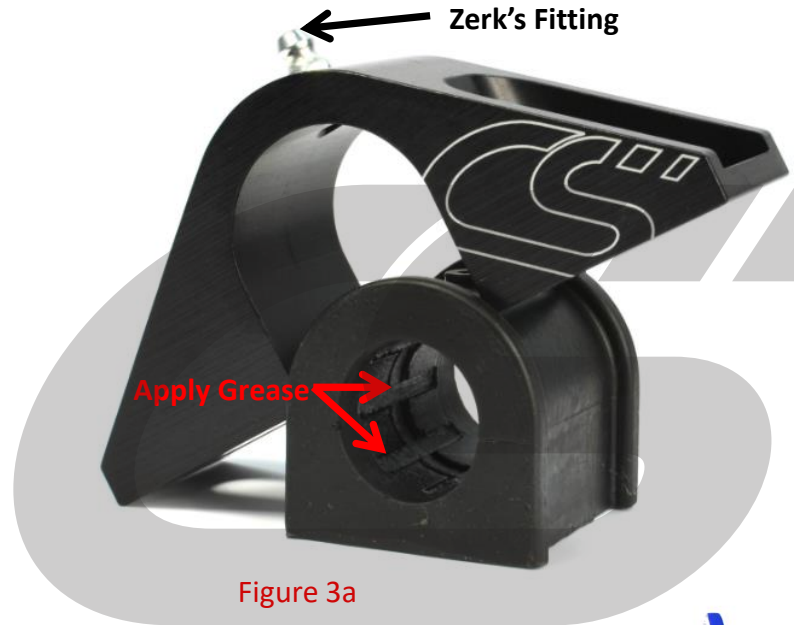
Figure 2g



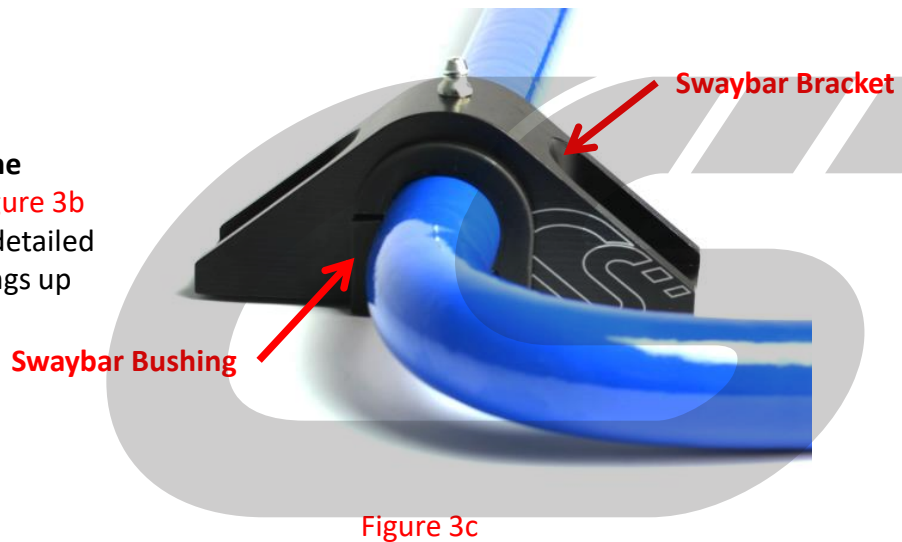
This step can be tricky. Take your time. The subframe will move around slightly if you need to push it forward to increase clearance for the sway bar to come out. Remember how you got the bar out, as you will want to repeat that process in reverse to install the new sway bar.

### 3. Install the CorkSport Front Sway Bar

- a) Apply grease around the inside of the bushings. Make sure to fill the ribs shown in **Figure 3a**.



- b) Assemble the sway bar brackets on the CorkSport Rear Sway bar. Refer to **Figure 3b** for final assembly and **Figure 3c** for a detailed picture. Make sure to press the Bushings up against the welded bushing stop.





### 3. Install the CorkSport Front Sway Bar Continued...

- c) **Carefully install the CorkSport Front Sway Bar** in the same manner as removal of the stock bar. Once the bar is in the approximate location.
  
- d) **Reinstall the bolts factory bolt for the swaybar brackets onto the new CorkSport front sway bar.** **Figure 3d** shows the bolts installed up through the provided nuts. Hand thread all bolts down first and then torque the bolts to 89-120 ft lbs using a 17mm socket.

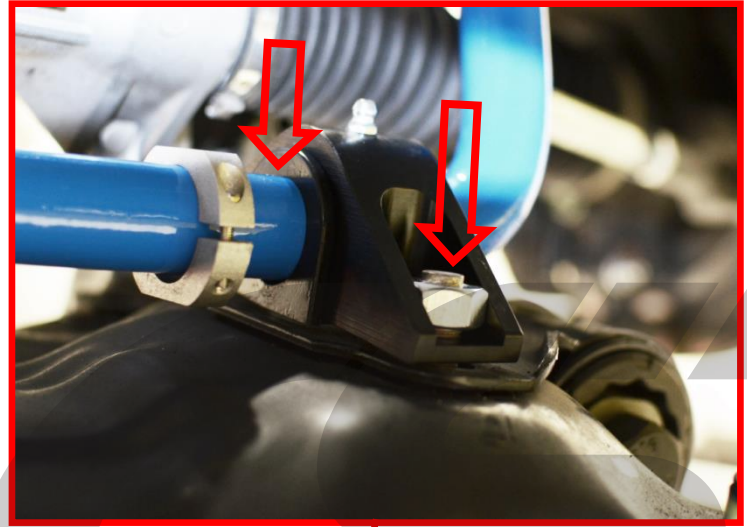


Figure 3d

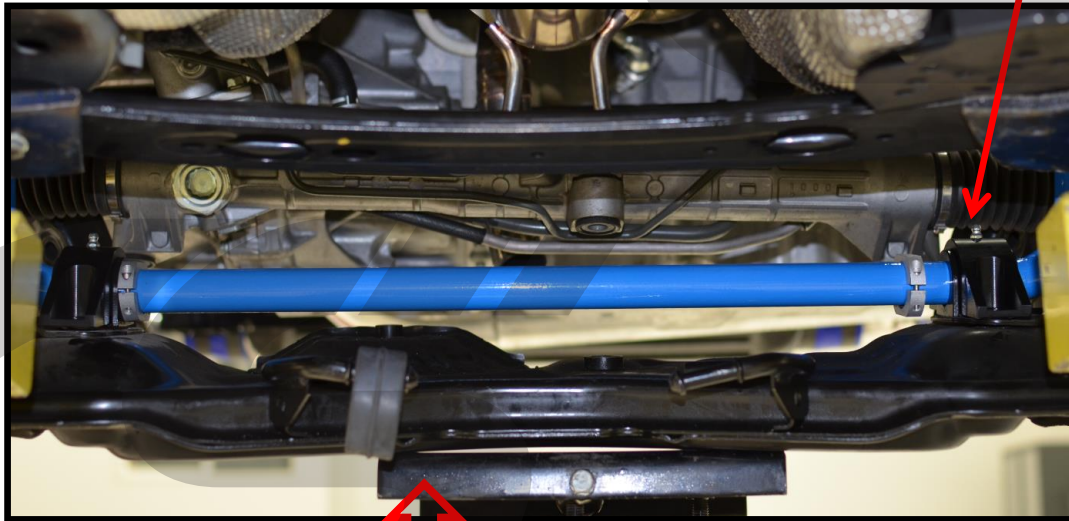


Figure 3e

- e) **Center the swaybar** then tighten the clamp collars next to the bushing with a 3mm allen wrench.
  
- f) **Place a floor jack or transmission jack under the subframe** and jack it up until you are able to lineup the sub frame
  
- g) **Install the two downpipe bushings from the sub frame.** **Figure 3e** shows the bushings disconnected from the downpipe.

### 3. Install the CorkSport Front Sway Bar Continued...

g) Line up the bolts shown with **red circles** in **Figure 3e** and **Figure 3f**. Hand thread in the bolts. Do not tighten until all four main bolts are installing.

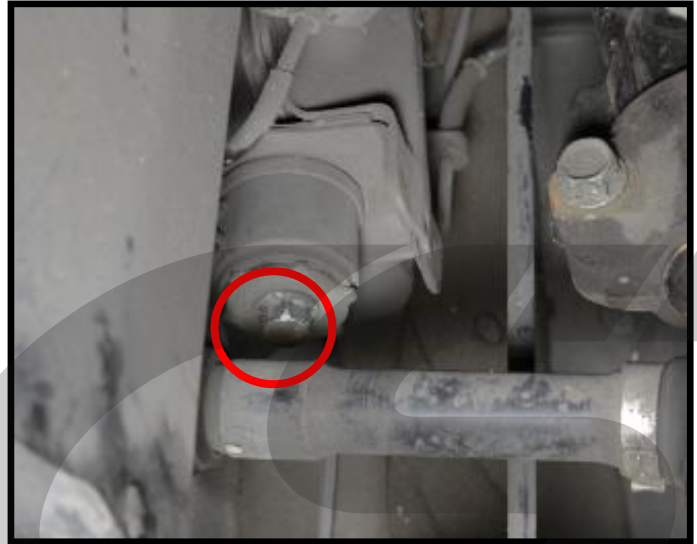


Figure 3e

h) Install the two (2) 17mm bolts that hold the front of the subframe. **Figure 3e** shows the front passenger bolt **circled in red**. Hand tighten the bolts.

i) Install the two (2) 21mm bolts (shown by the **red circle** in **Figure 3f**) and brackets that were taken off. Again, hand tighten them.

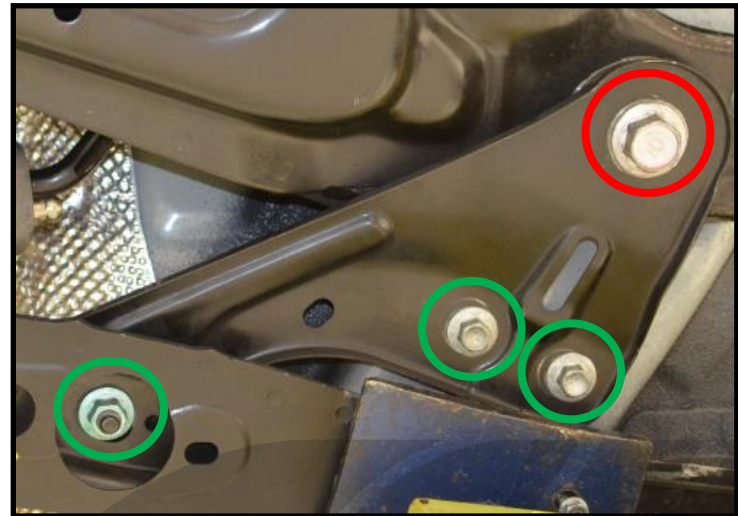


Figure 3f

j) Install the four (4) support brace bolts (shown by the **green circles** in **Figure 3f**). Again Hand tighten

k) First, Torque the 17mm bolts to 65-85ft.lbs. Next the 21mm bolts to 99-129ft.lbs. Finally the 12mm bolts to 17-22ft.lbs. Shown in **Figure 3e** and **Figure 3f**.

### 3. Install the CorkSport Front Sway Bar Continued...

- l) Finally reinstall the endlink nuts and torque them to 32-44ft.lbs. Shown in **Figure 3g** by the red circle.



Figure 3g

- m) Reinstall the Motor mount bolt and torque it to 54-66ft.lbs. Shown by the red circle in **Figure 3h**.

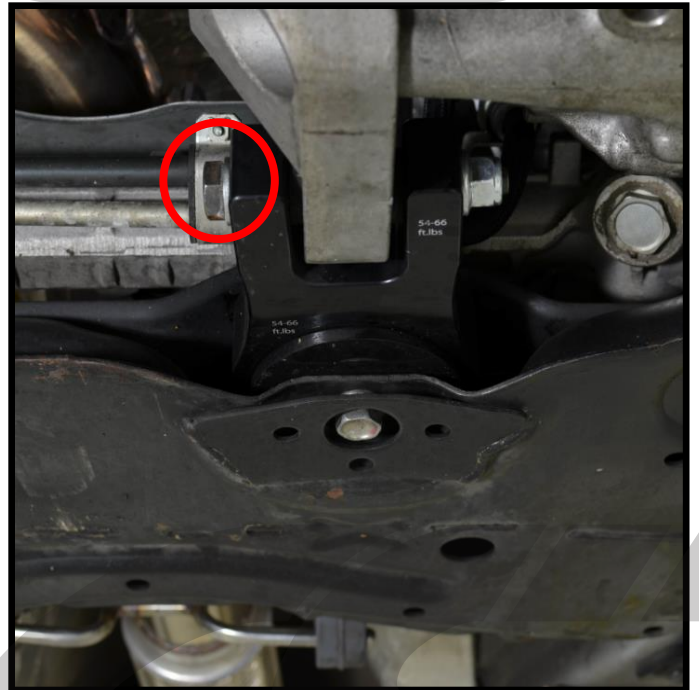


Figure 3h

- n) Lower the vehicle so that the weight is back on all four wheels.



**This completes the installation of your Front Sway Bar. Take the car for a short but aggressive drive to make sure there is no noise coming from the sway bar. If you hear any noise, loosen all four (4) bushing bolts and retighten. This will ensure that the bar has no preload on it.**

## What's Next:

### [CORKSPORT Mazdaspeed3 Rear Swaybar](#)

Remove the tendency to overpower the front tires under hard cornering and minimize traction robbing body lean with the CorkSport Mazdaspeed 3 Rear Adjustable Sway Bar. Compressing inside suspension, the CorkSport Mazdaspeed 3 Rear Sway Bar effectively increases the spring rate on side of the suspension which is compressed most and its adjustability allows you to fine tune the handling.



### [CORKSPORT Mazdaspeed MZR Bypass Valve](#)

Add performance and style while protecting your turbo with the Patent Pending CorkSport Mazdaspeed MZR Bypass Valve. Using an innovative patent pending design utilizing a wave spring, we were able to reduce the spring height of the OEM Bypass Valve by 50%. This size reduction provides the same amount of force, while accelerating the speed of the valve. By increasing speed the Bypass Valve effectively increases the life of your turbo by preventing premature wear since the BPV can safely move at speeds 33% faster than stock or other valves.



### [CorkSport Aluminum Oil Catch Can](#)

Enhance the reliability of your engine and improve performance and fuel economy with the CorkSport Oil Catch Can. By adding an oil catch can, you will increase the longevity of your engine by helping keep unclean crankcase vapors and oil out of the engines intake. Made of billet aluminum for strength, the CorkSport Oil Catch Can includes everything you need for a complete install. Don't let your Mazda get contaminated by sediment, crankcase vapors, or unclean oil. With the CorkSport Oil Catch Can you will remove unwanted debris that would normally contaminate the intake tract. This allows for cleaner air entering the engine, lower detonation rates and increases longevity.

