

CorkSport Adjustable Front Swaybar

2016+ ND MX-5



Thank you for purchasing the CorkSport Adjustable Front Swaybar. Track tested and racer approved, the CorkSport Front Swaybar is a great compliment to the daily driver and track rat. Get your body roll under control with the CorkSport 3-Way Adjustable Front Swaybar.

Please let us know what you think about this box by leaving a review here: <http://corksport.com/mazda-mx5-2016-front-swaybar.html>

Pre-Installation Notes:



Make sure your vehicle is on a level surface and supported by jack stands (not a hydraulic jack) prior to starting installation. Refer to service manual for lifting and jack stand locations.



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



These installation instructions were written using a 2016 ND MX-5 Club Edition. Other models will be similar.



Initial Setup Recommendations: Setup the FSB in the softest setting to become familiar with the new driving characteristics of the vehicle. Stiffer settings without an upgraded RSB may cause extreme understeer.

Materials and Time:



General Info.

Part #: NDM-3-080-10
Time Est: 3 hours
Wrench Rating: 3/5



Tooling List

14mm Wrench
8mm Socket
10mm Socket
12mm Socket
17mm Socket
19mm Socket
½" Extensions
Breaker Bar



Parts List

One (1) Adjustable Front Swaybar
Two (2) Billet Swaybar Brackets
Two (2) 1.125" Polyurethane Bushings
Two (2) 1.125" Clamp Collars
One (1) Bushing Lubricant

5mm Allen Wrench
3mm Allen Wrench
Flat Head Screwdriver
Silicone or White Lithium Grease Spray

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Order of Operations & Table of Contents



Disassembly

Section 1: OEM FSB Removal

Pg. 2-7



Assembly

Section 2: CorkSport FSB Installation

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Setup:

Section 3: CorkSport FSB Settings

Pg. 10

Detailed Instructions

1. OEM FSB Removal

a) Remove the lower inner fender.

1. Jack up and support the front of the vehicle .
2. Remove the front wheels with a 21mm socket.
3. Use a flathead screwdriver to remove the eight push clips circled in red in Figure 1a.
4. Use an 8mm to remove the four 8mm screw circled in blue in Figure 1a.
5. Remove the lower inner fender.
6. Complete for both Sides.

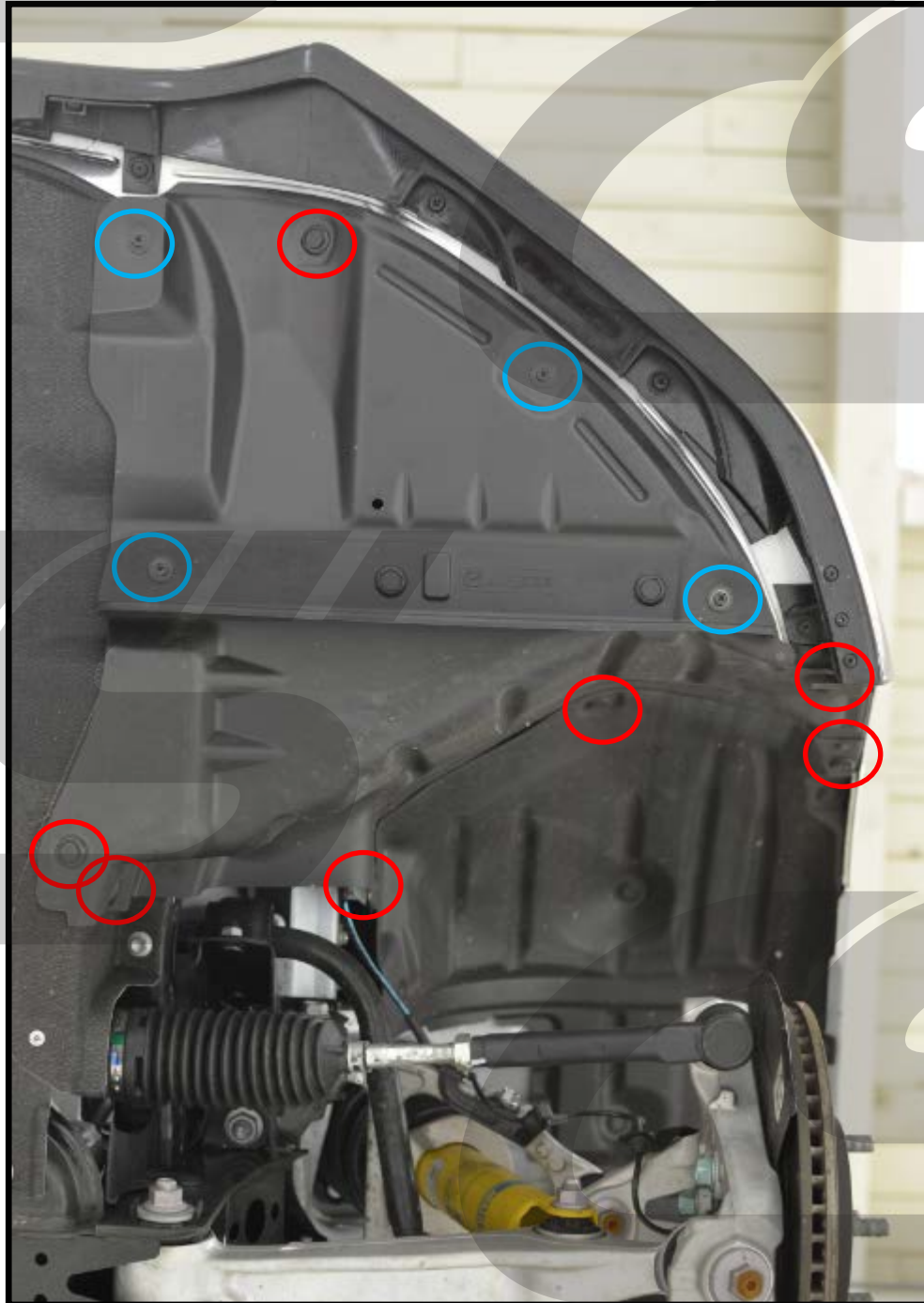


Figure 1a

Detailed Instructions

1. OEM FSB Removal (continued)

b) Remove the engine undertray.

1. Use a 10mm to remove the eight 10mm bolts shown with green circles and arrows in Figure 1b.
2. Use an 8mm to remove the two 8mm screws circled in blue in Figure 1b.
3. Use a flathead screwdriver to remove the two push clips circled in red in Figure 1b.
4. Remove the engine undertray.

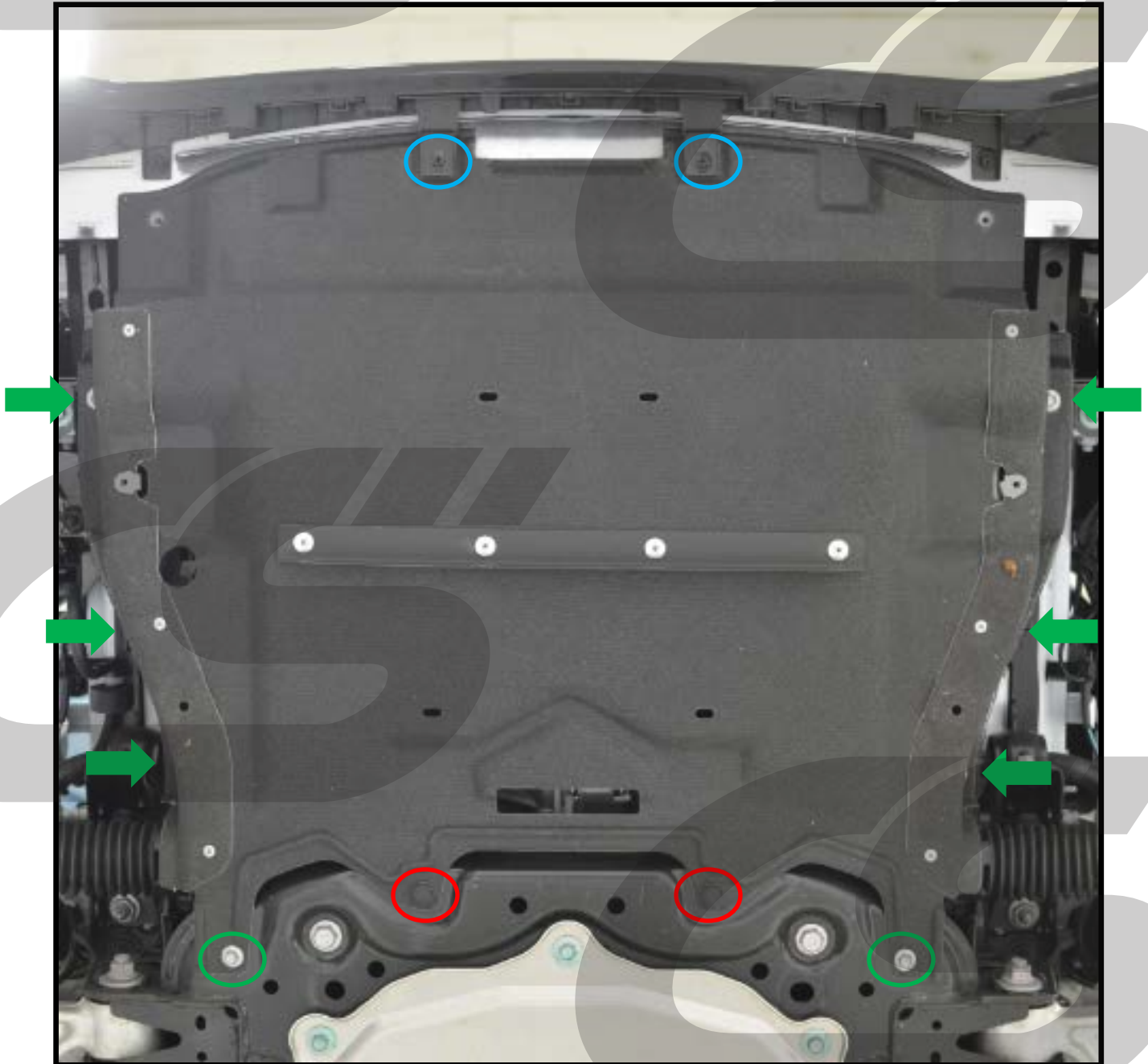


Figure 1b

Detailed Instructions

1. OEM FSB Removal (continued)

c) Remove the engine air deflectors.

1. Use a 10mm to remove the two 10mm bolts shown with the green circles Figure 1c.
2. Remove both sides.

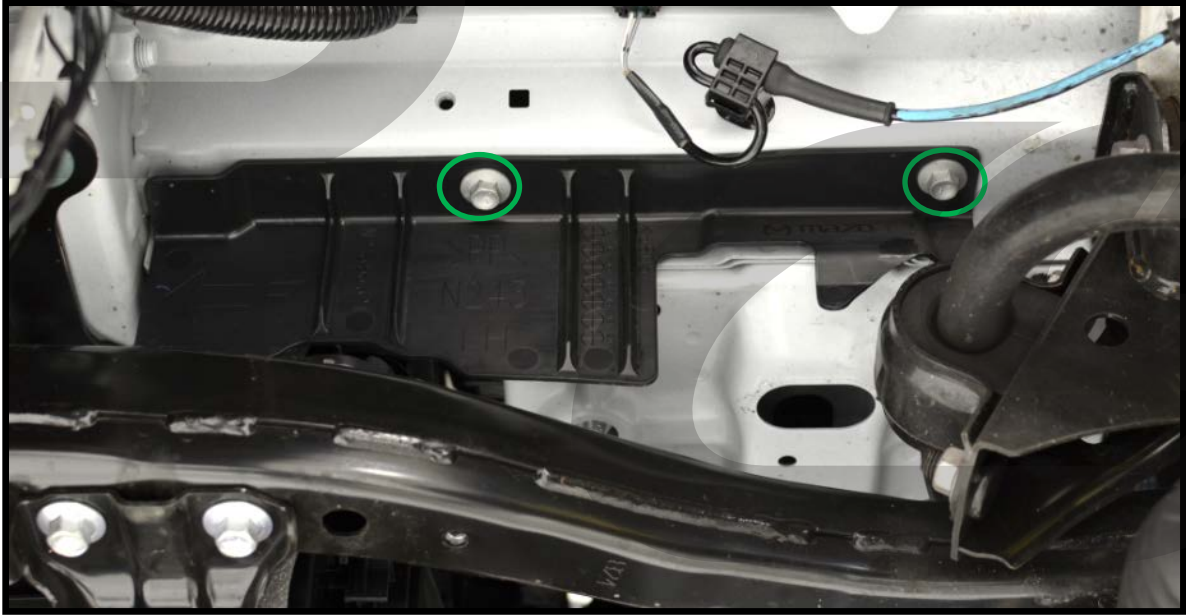


Figure 1c

d) Disconnect the FSB endlinks.

1. Use a 14mm wrench and 5mm allen wrench to disconnect the endlink from the FSB. Shown with the red circle in Figure 1d.
2. Disconnect both sides.

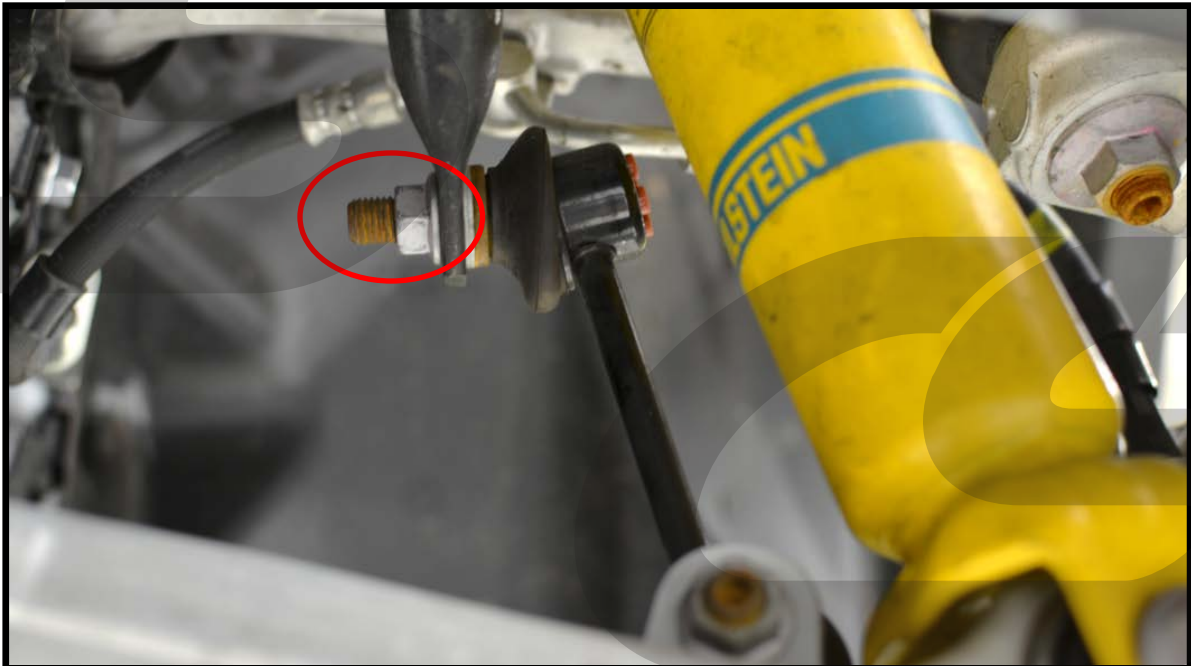


Figure 1d

Detailed Instructions

1. OEM FSB Removal (continued)

- e) **Disconnect the brakeline brackets.**
 - 1. Remove the 12mm bolt holding the brakeline. **Red circle in Figure 1e.**
 - 2. Complete for both sides.

- f) **Remove subframe hardware.**
 - 1. Remove the eight 12mm bolts **circled in blue in Figure 1f & 1g.**
 - 2. Remove the eight 17mm bolts **circled in red in Figure 1g.**
 - 3. Remove the loose brackets in **Figure 1g.**



Figure 1e



Figure 1f



Figure 1g

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Detailed Instructions

1. OEM FSB Removal (continued)

- g) Loosen the 19mm nut shown in **Figure 1h** until the bottom of the nut reaches the bottom of the threads.
- h) Loosen the two 19mm bolts shown in **Figure 1j** until only 3-4 threads are left holding the bolt. Complete for both sides.



Verify that the nut and two bolts have proper thread engagement before moving to the next step. These will be the only thing holding the sub-frame and powertrain.

- i) Lower the sub-frame. Remove the remaining three 19mm nuts supporting the sub-frame. There is one on the passenger side and two on the driver side, shown in **Figure 1i**.



Figure 1h

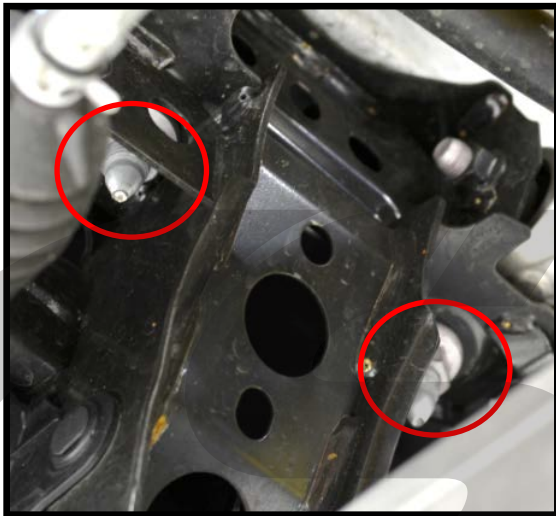
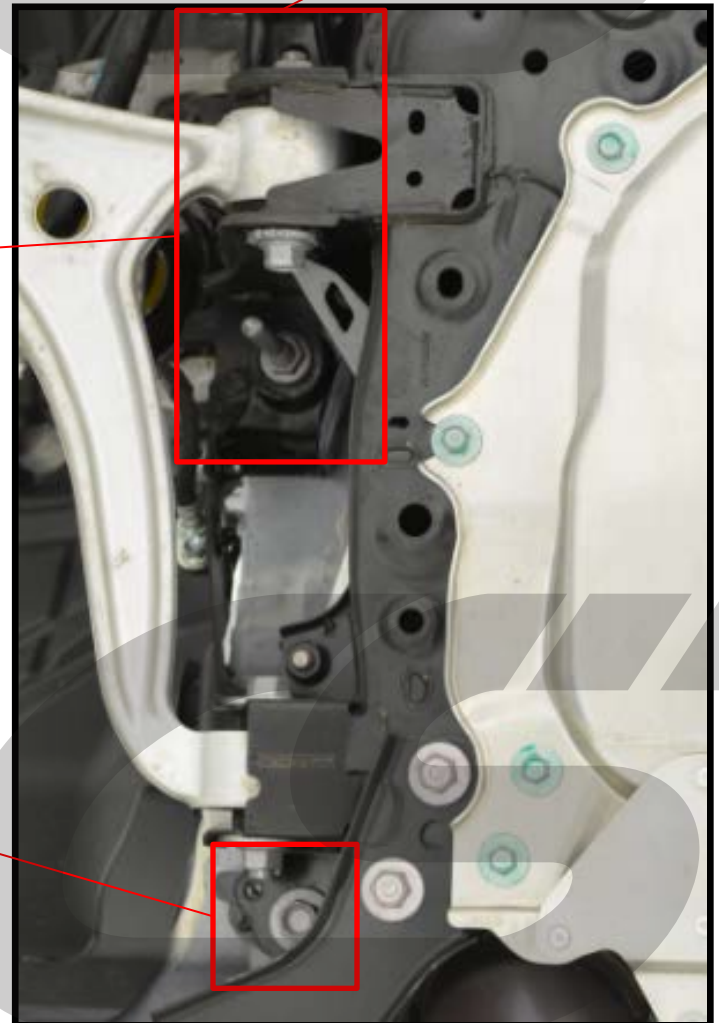


Figure 1i



Figure 1j



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Detailed Instructions

1. OEM FSB Removal (continued)

- j) **Remove swaybar brackets from vehicle.**
1. Remove the two 14mm nuts **circled in red in Figure 1k.**
 2. Remove the swaybar bracket.
 3. Complete for both sides

- k) **Remove the FSB from the vehicle.**
1. Remove the FSB from the left hand side of the vehicle.

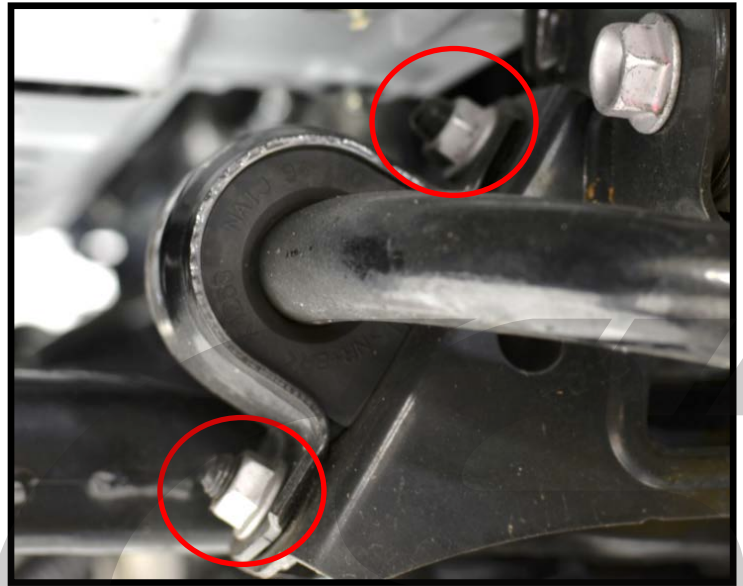


Figure 1k



Removal and installation of the front swaybar can be difficult. We have created a short installation video highlighting the process to remove the OEM FSB and install the CorkSport FSB. Check out the link below:

<https://youtu.be/6JT-jhDWPdg>

Detailed Instructions

2. CorkSport FSB Installation

- a) The CorkSport FSB should be sitting as shown in **Figure 2a**.
- b) Lubricate the inside of the bushing with the provided lubricant. Install the bushing as shown in **Figure 2b**.
- c) Lightly lubricate the outside of the bushing for bracket installation. Use silicone or white lithium grease spray. **Shown in Figure 2c**.
- d) Mount the bracket onto the bushing as shown in **Figure 2c**.
- e) Fully install the bracket as shown in **Figure 2d**.
- f) Torque the 14mm nuts to **25-36 ft-lbf**.



Figure 2a



Figure 2b



Figure 2c (representation only)



Figure 2d

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Detailed Instructions

2. CorkSport FSB Installation (continued)



In order to begin threading the three 19mm nuts, you may need to use a hydraulic jack to raise the sub-frame.

g) Relocate the sub-frame

1. Install and tighten the three 19mm nuts located at the control arms. **Torque to 86-101 ft-lbf.**
2. Tighten the two 19mm bolts at the rear of the subframe. **Torque to 91-104 ft-lbf.**
3. Install and tighten the four green 12mm bolts located on each side of the radiator. **Torque to 28-38 ft-lbf.**
4. Install the two rear braces that connect the subframe to the chassis.
 - a) Install and tighten the eight 17mm bolts and four green 12mm bolts.
 1. 17mm – **Torque to 62-76 ft-lbf**
 2. 12mm – **Torque to 28-38 ft-lbf**
5. Tighten the 19mm nut on the extended stud. **Torque to 86-101 ft-lbf.** If you do not have an extra deep socket you may use the following method. Use the box-end wrench on the short stud to gauge the amount of force needed to reach 100 ft-lbf. Apply that same force to the extended stud nut.
6. Install the air deflectors with the 10mm bolts. **Torque to 8-12 ft-lbf.**
7. Install the endlinks to the FSB in the desired position. **Torque to 31-44 ft-lbf.**
8. Install and tighten the 12mm bolts for the brake line brackets. **Torque to 28-38 ft-lbf.**

h) Center the FSB and install clamp collars.

1. Verify that the bar ends and installed endlinks have sufficient clearance to the dampers.
2. Install the clamp collar on the outer surface of the bushing as seen in Figure 2e.
3. With the front suspension in full droop, orientate the collar as **shown in Figure 2e**. Verify that the point with the **red arrow** is barely contacting the sub-frame.
4. Tighten the collar bolts with a 3mm allen wrench.
5. Complete for both sides.



Figure 2e

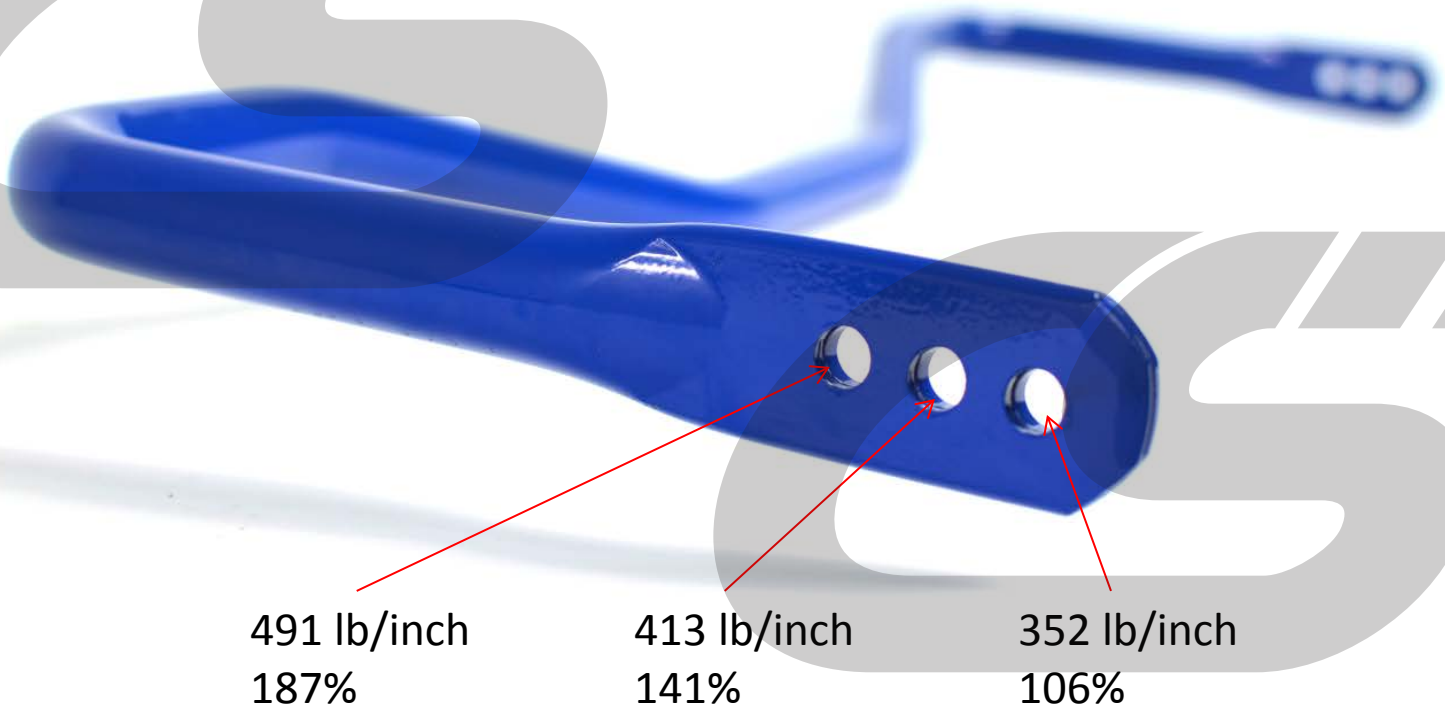
h) Install the engine undertray and inner fenders.

1. Install the engine undertray.
 1. 10mm – **Torque to 8-12 ft-lbf**
 2. 8mm – Torque to snug
2. Install the lower inner fenders.
 1. 8mm – Torque to snug

Detailed Instructions

3. CorkSport FSB Settings

a) The diagram below shows the FSB spring rate percent increase over OEM.



Initial Setup Recommendations: Setup the FSB in the softest setting to become familiar with the new driving characteristics of the vehicle. Stiffer settings without an upgraded RSB may cause extreme understeer.



This completes the installation of your CorkSport Adjustable Front Swaybar for 2016+ MX-5. Enjoy the new control and let us know what you think online at CorkSport.com