

CorkSport Lowering Springs

2016+ ND MX-5



Thank you for purchasing the CorkSport Lowering Springs. Track tested and racer approved, the CorkSport Sport Springs are a perfect match for your daily driven MX-5. The CorkSport Sport Springs give the MX-5 an aggressive look without sacrificing functionality or ride quality.

Please let us know what you think about this box by leaving a review here:

<http://corksport.com/mazda-mx5-2016-lowering-spring-set.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 Launch Edition. Other models will be similar.



Club Models: The CorkSport Springs are designed to work with OEM Standard and Club models.

Materials and Time:



General Info.

Part #: NDM-3-288-10

Time Est: 3 hours

Wrench Rating: 3/5



Tooling List

14mm Wrench
17mm Wrench
10mm Socket
12mm Socket
14mm Socket
17mm Socket ½" Drive
5mm Allen Wrench



Parts List

Two (2) Front Springs
Two (2) Rear Springs

3/8" Drive Ratchet
1/2" Drive Ratchet
Flat Head Screwdriver
Spring Compressor
Razor Knife
Jack Stands

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Order of Operations & Table of Contents



It is recommended to complete the front or back first before starting the other end of the vehicle to eliminate the chance of mixing front and rear suspension components.

Front Springs:



Disassembly

Section 1: Front Strut Removal
Section 2: Front Strut Preparation

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Pg. 4



Assembly

Section 3: Front Strut Assembly
Section 4: Front Strut Installation

Pg. 5
Pg. 6-7

Rear Springs:



Disassembly

Section 5: Trunk Interior Disassembly
Section 6: Rear Strut Removal
Section 7: Rear Strut Preparation

Pg. 8
Pg. 9
Pg. 10



Assembly

Section 8: Rear Strut Assembly
Section 9: Rear Strut Installation

Pg. 11
Pg. 12

Spring Identification



Detailed Instructions

1. Front Strut Removal

- a) Remove the 14mm nut holding front sway bar endlink, then remove endlink from lower control arm. **Red circle in Figure 1a.**
- b) Remove the 17mm nut and bolt holding the strut bottom. **Blue circle in Figure 1a.**
- c) Remove the two 12mm bolts holding the brake line and ABS sensor wire. **Red circles in Figure 1b.**
- d) Remove the two 17mm bolts holding the upper control arm. **Blue circles in Figure 1b.**
 - a) Leave one bolt in (unthreaded) to hold the arm in place.

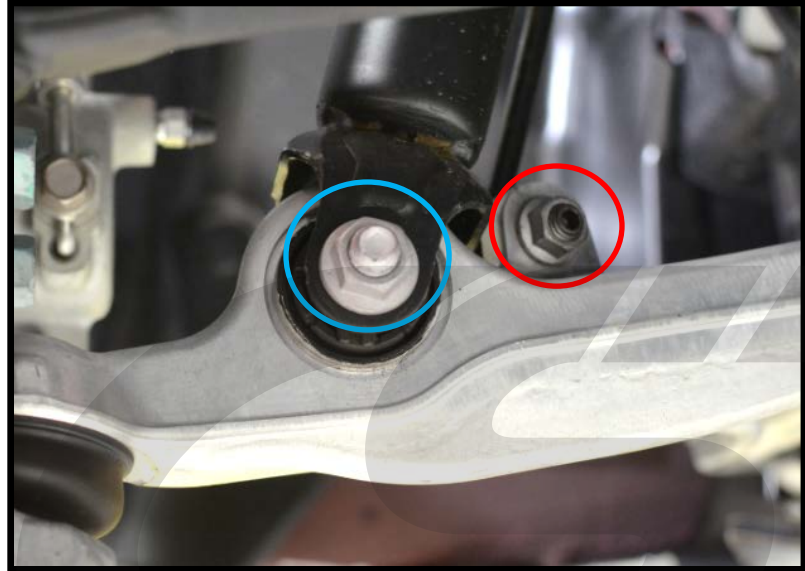


Figure 1a

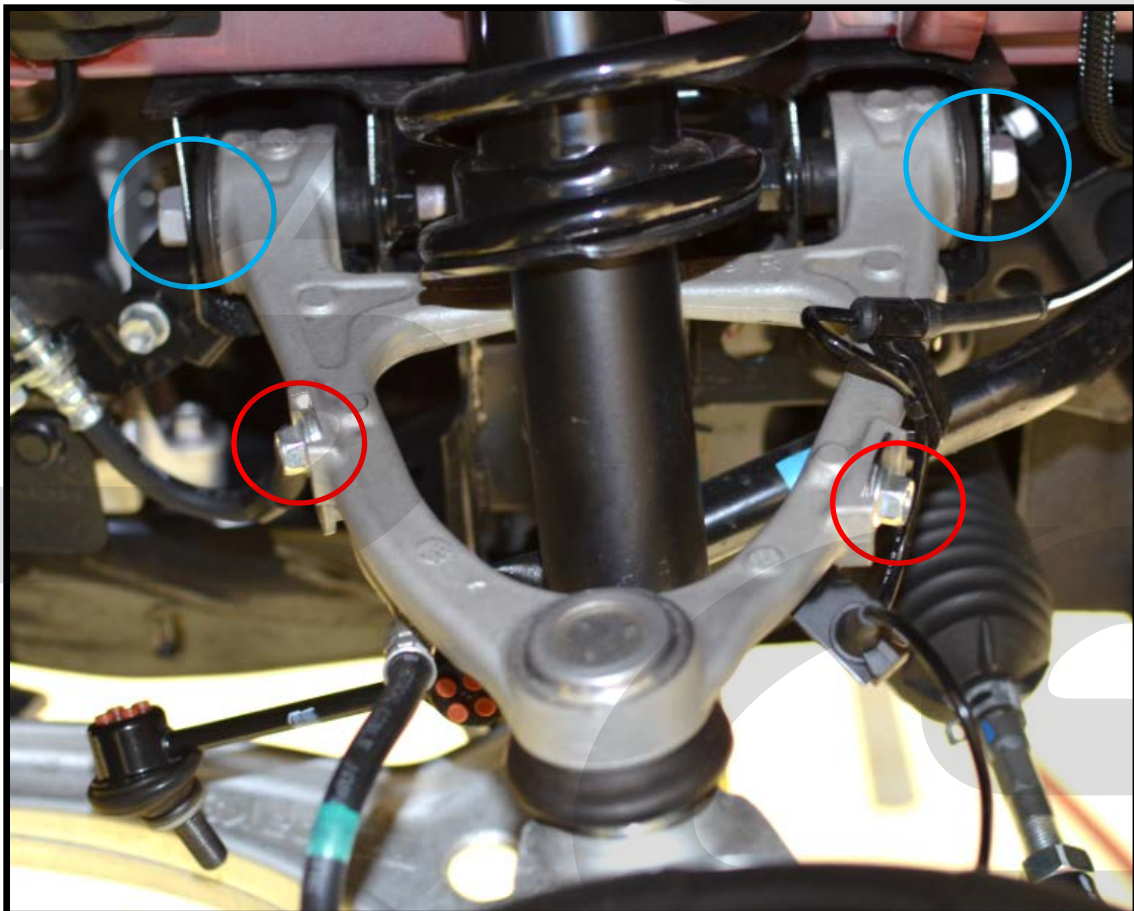


Figure 1b

Detailed Instructions

1. Front Strut Removal (continued)

- e) Remove the three 14mm nuts holding the strut top hat. **Blue circles in Figure 1c.**
- f) While holding the upper control arm ball joint (**red circle in Figure 1d**), remove the 17mm bolt retaining the upper control arm.
- g) Push the whole suspension down until the top of the strut clears the inside of the strut tower.
- h) Rotate the top of the strut outward until it clears the edge of the fender, then remove the strut from the suspension.
- i) Relocate the upper control arm and reinstall the bolt to hold it in place.

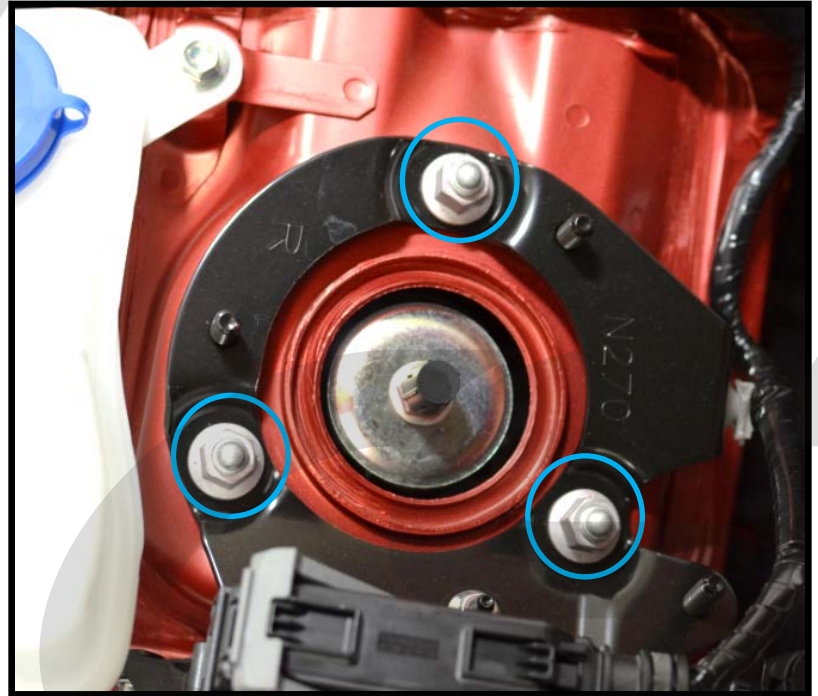


Figure 1c

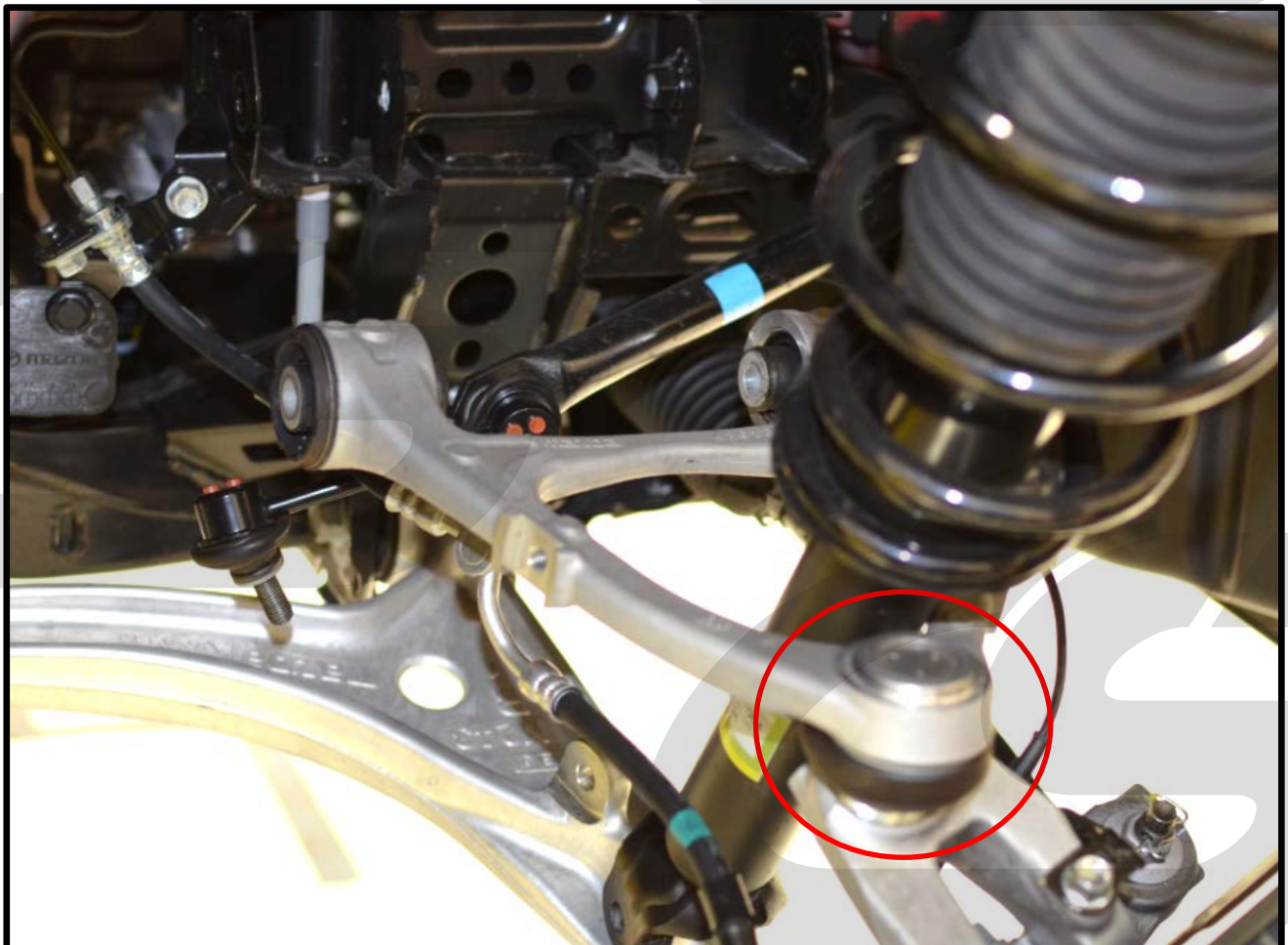


Figure 1d

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Detailed Instructions

2. Front Strut Preparation



The use of a spring compressor is recommend to compress the spring before removing the strut top. Failure to do so will result in the strut top shooting off the spring in a potentially dangerous manner. Please refer to the spring compressor instructions for proper use.

- a) **Note the orientation of the strut top compared to the strut bottom for reassembly.**
- b) **Remove the 14mm nut holding the strut top hat. Use the 5mm allen wrench to keep the shaft from rotating. Red circle in Figure 2a.**
- c) **Layout the strut top components to verify that nothing is missing. Shown in Figure 2b.** (Boot not shown).
- d) **Using a razor knife, cut the bump stop at the red line shown in Figure 2c.**



Figure 2a



Figure 2b

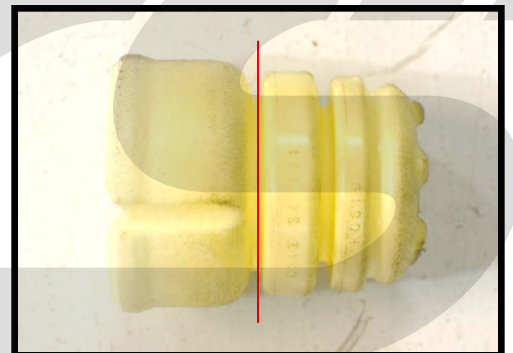


Figure 2c

Detailed Instructions

3. Front Strut Assembly



Front strut shown. Rear strut assembly is similar.

- a) Press the cut bump stop back into the metal cup it was originally in.
- b) **Figure 3a:** Install the CorkSport front spring on the strut. Verify that the spring end is against the spring stop.
- c) **Figure 3b:** Install the boot over the shaft and on the spring top.
- d) **Figure 3c:** Install the metal cup with cut bump stop on the shaft.
- e) **Figure 3d:** Install the lower rubber bushing and metal collar. Verify that the raised lip on the bushing is upward.
- f) **Figure 3e:** Install the strut top hat. Verify that the studs align with the indents in the boot.
- g) **Figure 3f:** Install the 14mm nut while using the 5mm allen wrench to hold the shaft from rotating.
Torque to 23-34 ft-lbf



Figure 3a



Figure 3b



Figure 3c



Figure 3d



Figure 3e



Figure 3f

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4. Front Strut Installation

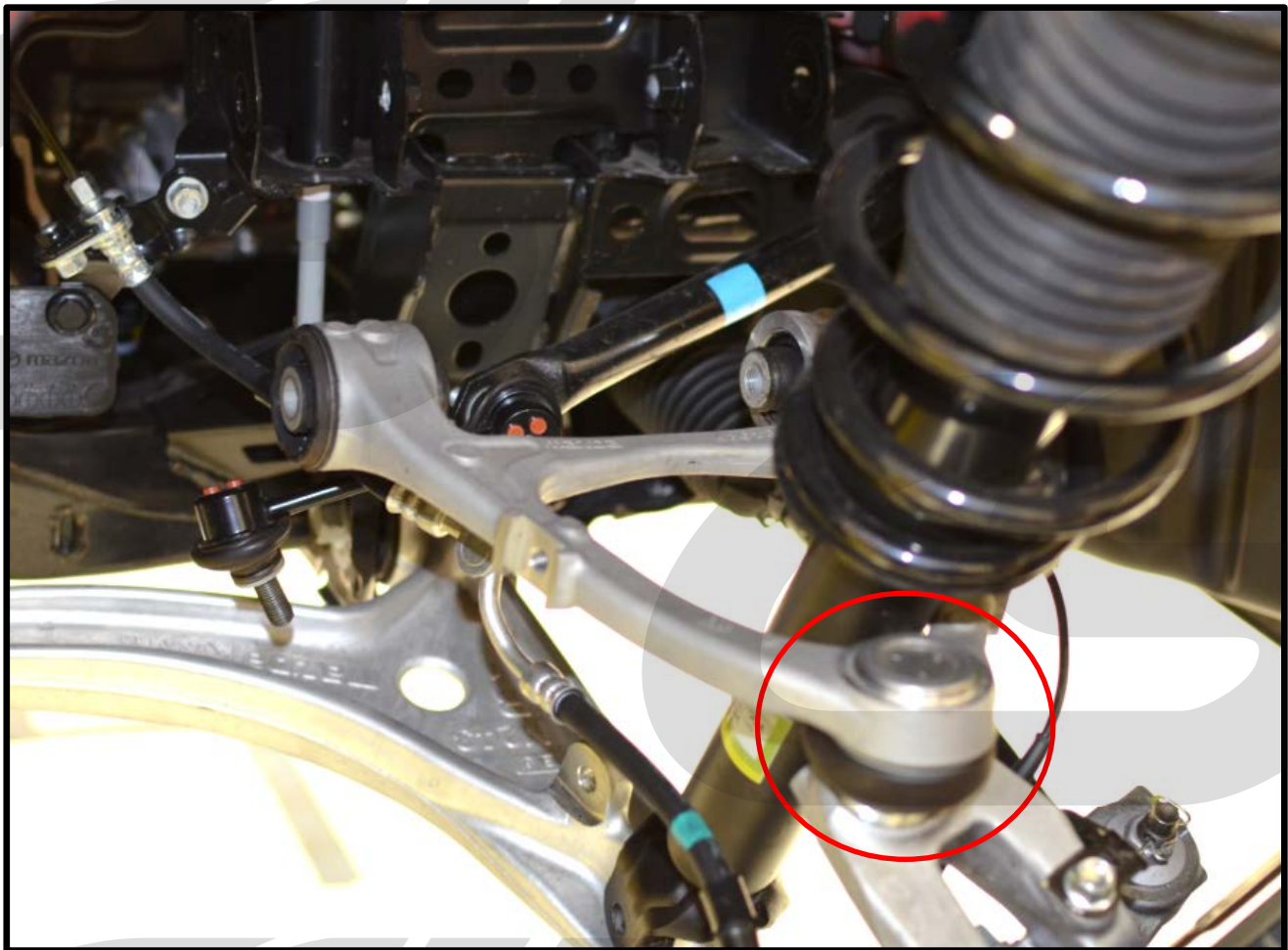


Figure 4a

- a) While holding the upper control arm ball joint (red circle in Figure 4a), remove the 17mm bolt retaining the upper control arm.
- b) Push the whole suspension down until the strut can be inserted into the suspension and clears the fender edge.
- c) Rotate the top of the strut inward into the strut tower, then align the holes with the studs.
- d) Relocate the upper control arm and reinstall the bolt to hold it in place.
- e) Install the three 14mm nuts holding the strut top hat. Blue circles in Figure 4b.
Torque to 35-45 ft-lbf



Figure 4b

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4. Front Strut Installation (continued)

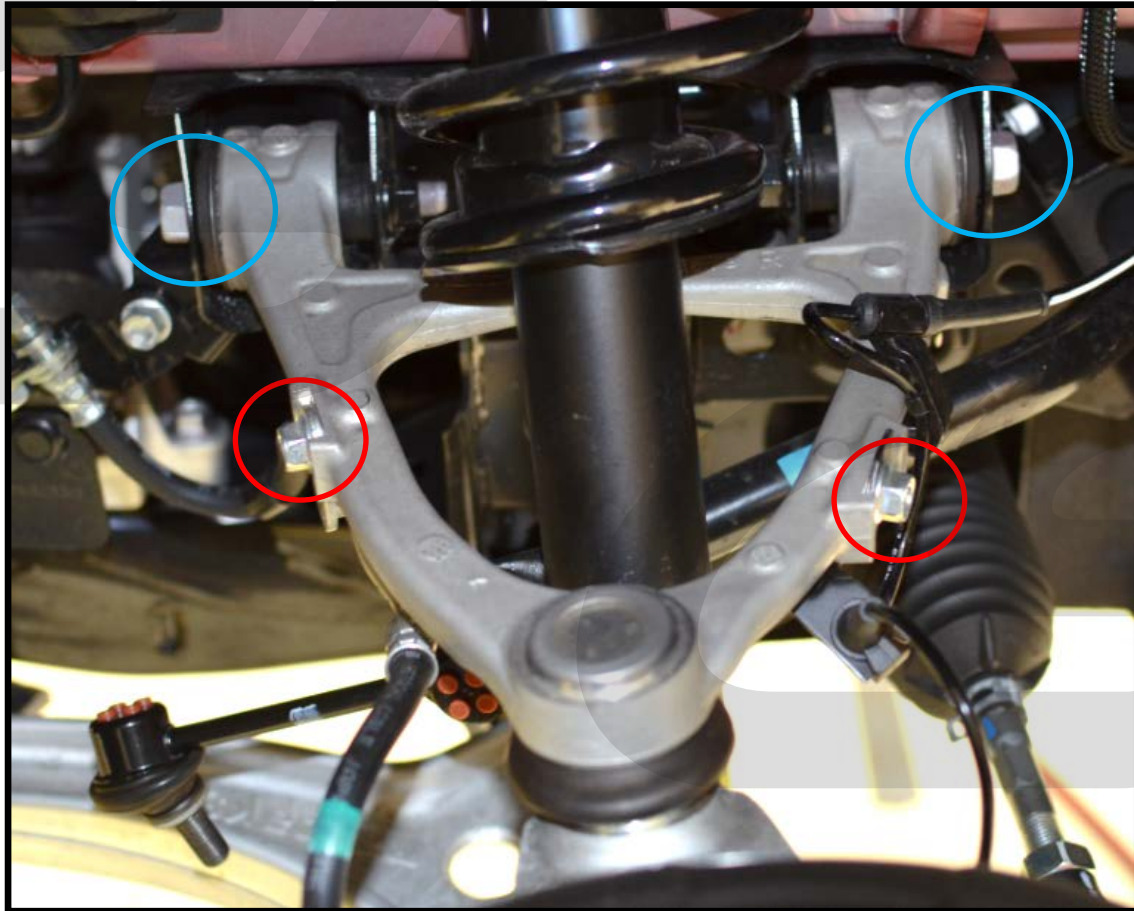


Figure 4c

- f) Install the two 17mm bolts holding the upper control arm. Blue circles in Figure 4c. Torque to 62-72 ft-lbf
- g) Install the two 12mm bolts holding the brake line and ABS sensor wire. Red circles in Figure 4c. Torque to 10-12 ft-lbf
- h) Install the 17mm nut and bolt holding the strut bottom. Blue circle in Figure 4d. Torque to 57-76 ft-lbf
- i) Install the endlink into the lower control arm, then install the 14mm nut. Red circle in Figure 4d. Torque to 31-38 ft-lbf
- j) Repeat for other side.

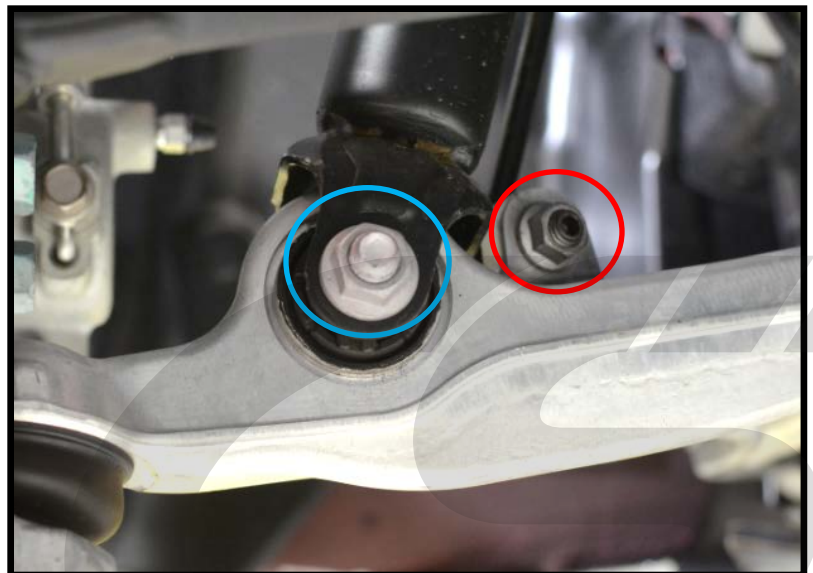


Figure 4d

Detailed Instructions

5. Trunk Interior Disassembly

- a) Remove the interior trunk pieces using a flat head screwdriver. Push pins shown in Figure 5a with red arrows and circles.
- First, remove the rear plastic panel.
 - Second, remove the front cloth panel
 - Third, remove the side panels
 - Fourth, remove the bottom panel.

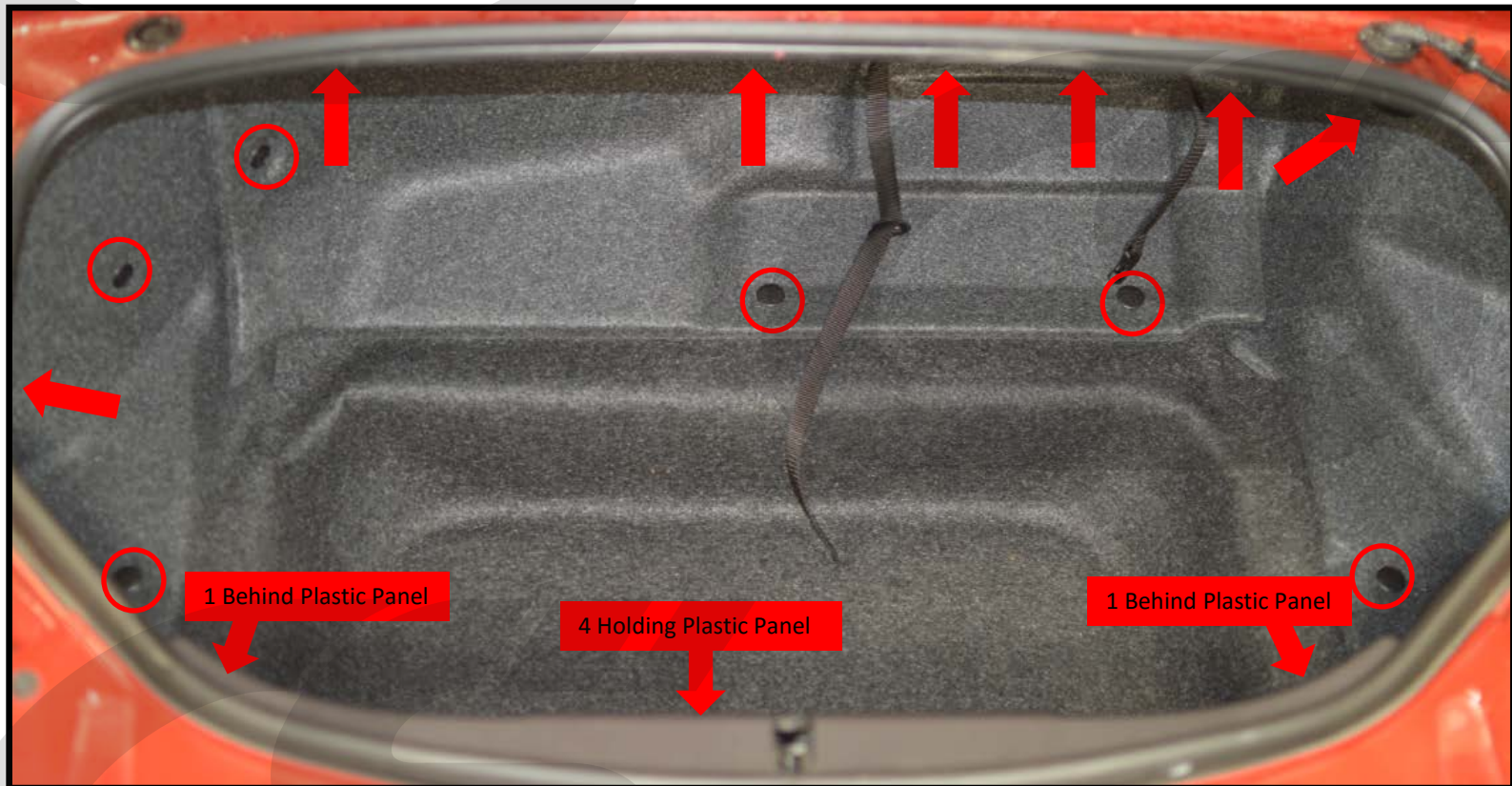


Figure 5a

- b) Remove the five 10mm bolts holding the fuel filler shield. Shown in Figure 5b with red arrows and circles.

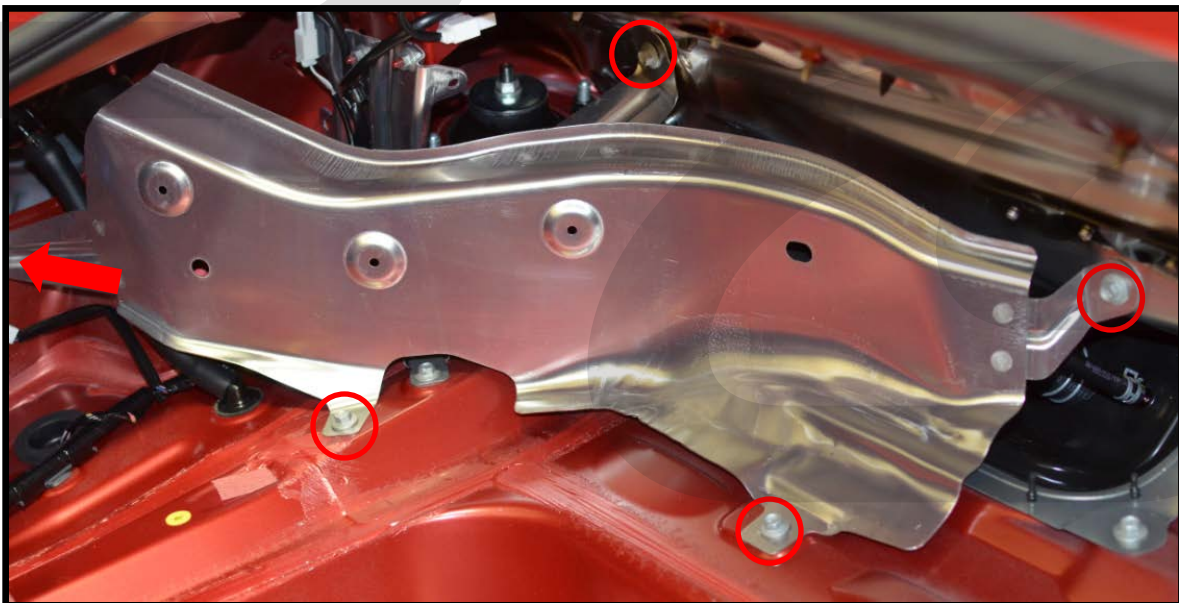


Figure 5b

Detailed Instructions

6. Rear Strut Removal

- a) Remove the two 14mm nuts holding the strut top hat. Red circles in Figure 6a.
- b) Remove the 17mm bolt holding the strut bottom. Red circle in Figure 6b.
- c) Remove the 14mm nut on the rear swaybar endlink then remove the endlink from the RSB. Blue circle in Figure 6c.

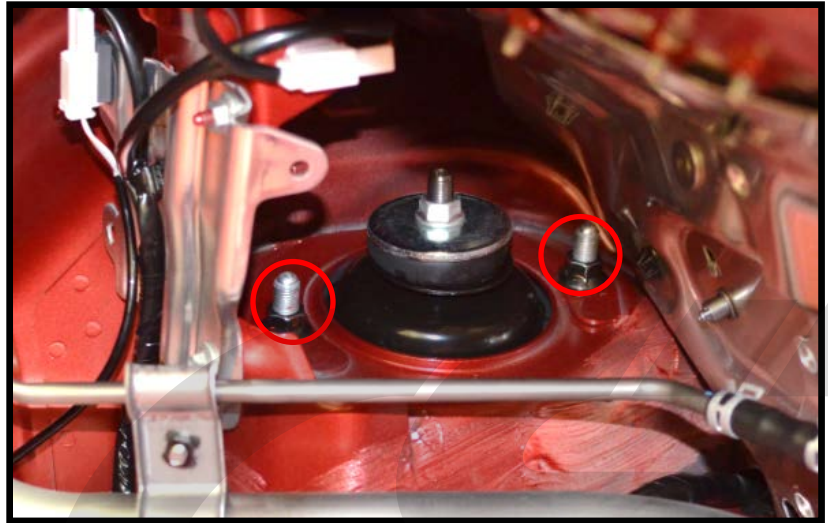


Figure 6a

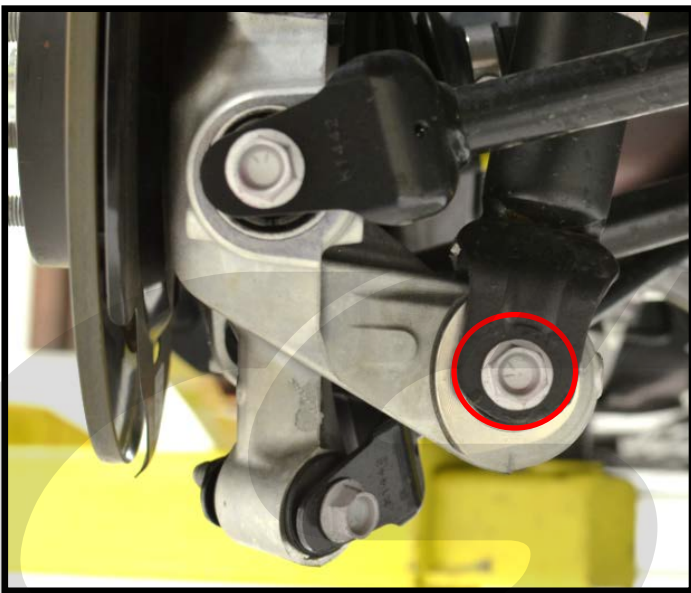


Figure 6b

- d) Push down on the rear hub while holding the strut. Pull the strut bottom off the hub and lower the strut down through the suspension arms. Red arrowing Figure 6c.
- e) Pull the loose strut up and out. Shown in Figure 6d.
- f) Repeat for the other side.

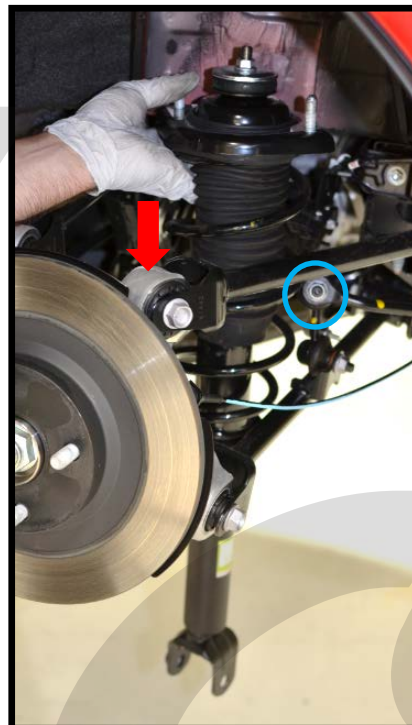


Figure 6c

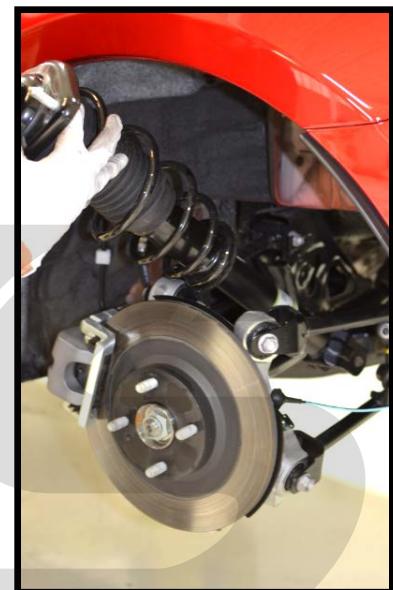


Figure 6d

Detailed Instructions

7. Rear Strut Preparation



The use of a spring compressor is recommend to compress the spring before removing the strut top. Failure to do so will result in the strut top shooting off the spring in a potentially dangerous manner. Please refer to the spring compressor instructions for proper use.

- a) **Note the orientation of the strut top compared to the strut bottom for reassembly.**
- b) **Remove the 14mm nut holding the strut top hat. Use the 5mm allen wrench to keep the shaft from rotating. Red circle in Figure 7a.**
- c) **Layout the strut top components to verify that nothing is missing. Shown in Figure 7b.** (Boot not shown).
- d) **Using a razor knife, cut the bump stop at the red line shown in Figure 7c.**



Figure 7a



Figure 7b

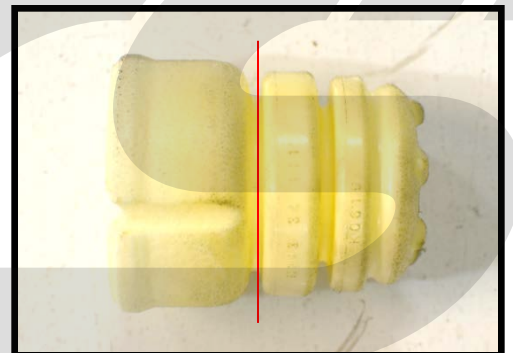


Figure 7c

Detailed Instructions

8. Rear Strut Assembly



Front strut shown. Rear strut assembly is similar.

- a) Press the cut bump stop back into the metal cup it was originally in.
- b) **Figure 8a:** Install the CorkSport rear spring on the strut. Verify that the spring end is against the spring stop.
- c) **Figure 8b:** Install the boot over the shaft and on the spring top.
- d) **Figure 8c:** Install the metal cup with cut bump stop on the shaft.
- e) **Figure 8d:** Install the lower rubber bushing and metal collar. Verify that the raised lip on the bushing is upward.
- f) **Figure 8e:** Install the strut top hat. Verify that the studs align with the intends in the boot.
- g) **Figure 8f:** Install the 14mm nut while using the 5mm allen wrench to hold the shaft from rotating.
Torque to 23-34 ft-lbf



Figure 8a



Figure 8b



Figure 8c



Figure 8d



Figure 8e



Figure 8f

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Part # NDM-3-288

Detailed Instructions

9. Rear Strut Installation



Figure 9a

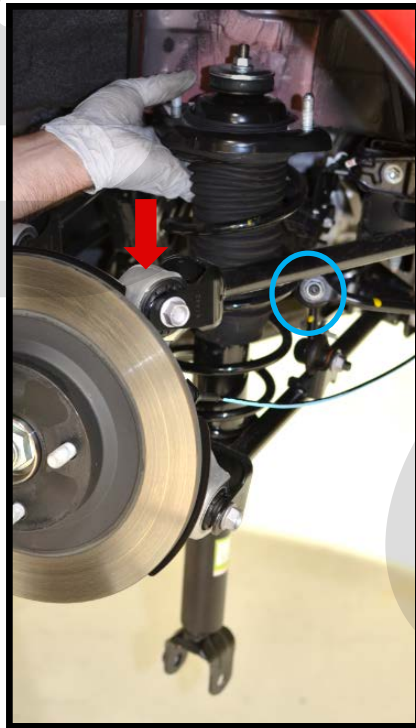


Figure 9b

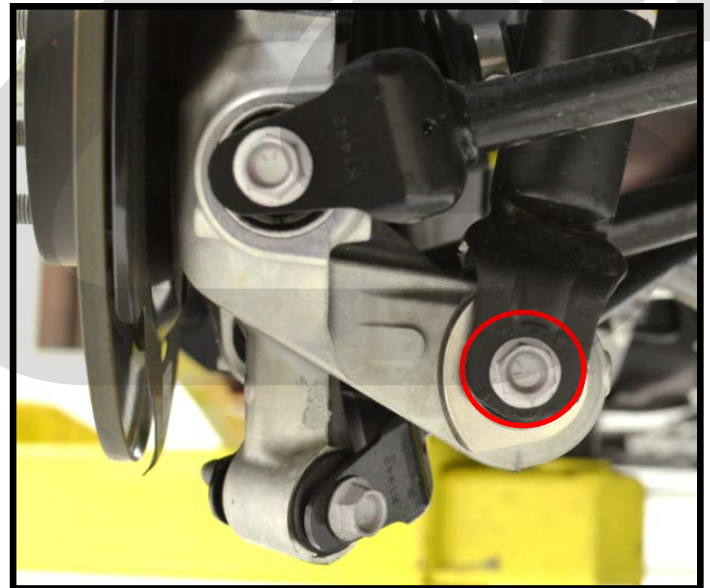


Figure 9c

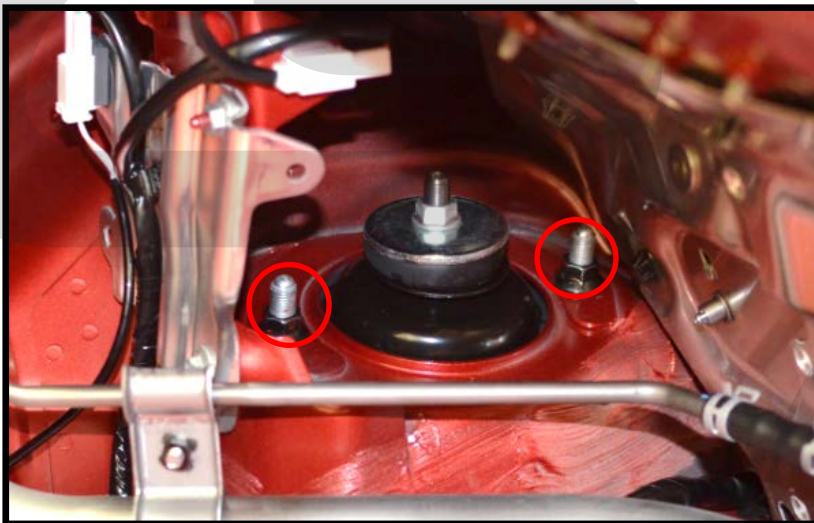


Figure 9d

- a) Place the loose strut into the suspension as shown in **Figure 9a & 9b**.

- b) Push down on the rear hub while holding the strut. Locate the top studs in their appropriate hole in the chassis and place the strut bottom on the like as shown in **Figure 9c**.

- c) Install the 17mm bolt into the strut bottom as shown in **Figure 9c**. Torque to **57-76 ft-lbf**.

- d) Install the RSB endlink and 14mm nut shown with the **Blue circle** in **Figure 9b**. Torque to **31-38 ft-lbf**

- e) Install the two 14mm shown **Figure 9d**. Torque to **34-46 ft-lbf**.

- f) Repeat for the other side.