

CorkSport Mazda 6 Lowering Springs

2014+ Mazda 6



Thank you for purchasing the CorkSport Mazda 6 Lowering Springs. Our lowering springs have been vigorously tested to ensure optimal characteristics. Our springs will lower your ride a total of 1.75" in the front and 1.75" in the rear over the stock springs providing you with improved handling, performance appearance and excellent ride quality. Please let us know your feedback by submitting a review at: <http://www.corksport.com/corksport-mazda-6-lowering-spring-set.html>

Pre-Installation Notes:



You will be removing the front suspension of your vehicle. If you are not comfortable with this or do not have the proper tools, please do not proceed.



Thoroughly read the precautions and instructions that come with your Floor Jack and Jack Stands as well as your vehicle's owners manual for appropriate jacking methods and jacking/support points. Always double up support on a vehicle – Jack Stands and Floor Jack etc.



When under your car, you should always wear mechanics gloves or other form of hand protection as well as ANSI Approved Safety Glasses



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 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

Materials and Time:



General Info.

Part #: Ati-3-288
Time Est: 2 hours
Wrench Rating: 3/5



Tooling List

Lift or Floor Jack & Jackstands	Box Cutter (razor blade knife)
Transmission Jack or Floor Jack	Black Sharpie
3/8" or 1/2" Drive	Penetrating Fluid
Ratchet or impact gun	Hammer, Mallet (2lb or Similar)
Needle Nose Pliers	Torque Wrench
14mm Deep Socket	Spring Compressor (rent or buy)
17mm Deep Socket	6mm Allen Wrench
19mm Deep Socket	Flat Head Screwdriver
21mm Deep Socket	Prybar
24mm Deep Socket	Lithium Grease
	14mm Wrench
	17mm Wrench
	21mm Wrench



Parts List

Two (2) CS Front Lowering Springs
Two (2) CS Rear Lowering Springs

Need Help With Your Installation?

Call (360) 260-CORK



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. Support Car on Floor Jack/Jackstands or Lift

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

2. Install the Front CorkSport Lowering Springs


- a) Remove the front driver's wheel from the vehicle.
- b) Remove the two ABS sensor attachments (shown in [Figure 2b](#) and [Figure 2c](#)).
- c) Free the brake line shim from the brake line mount (shown by the [red arrow](#) in [Figure 2d](#).)
- d) Remove the sway bar end link from the strut body, using a 14mm socket. (Shown circled in [Figure 2e](#))
- e) Remove the two (2) 21mm lower strut bolts (shown with [red circles](#) in [Figure 2d](#)).
- f) Remove the three (3) 14mm strut bolts holding the strut to the strut tower (shown in [Figure 2g](#))
 Be sure to only use a ratcheting wrench or end wrench, or you could shear off the bolt head. Also, be sure to brace the strut as the last bolt is removed or it will fall.
- g) Remove the strut assembly from the vehicle
- h) Using the spring clamps, compress the spring (evenly on both sides) until it is no longer tight against the upper mount as shown in [Figure 2h](#).
- i) Remove the one (1) 17mm nut shown with [red circle](#) in [Figure 2i](#) holding the upper strut mount to the strut.
- j) Remove the upper strut mount .
- k) Set the new Corksport Front Lowering Spring on the strut. The bottom is shown in [Figure 2j](#).
- l) Make sure the bottom of the spring is seated fully in its perch ([Figure 2k](#)).
- l) Reinstall the 17mm upper strut bolt (as shown in [Figure 2l](#)) and tighten to 41-47ft-lbs.
- n) Remove the spring clamp (now ready to reinstall).
- o) Reinstall the strut and hand tighten the three (3) 14mm strut mount bolts ([Figure 2g](#)). Using a torque wrench and 14mm socket, tighten bolts to 37-43ft-lbs.
- p) Line up the strut and knuckle. using a floor jack, raise the knuckle up into the strut body lining up the two holes. Push the 21mm bolts into the holes. [Figure 2d](#).
-  The bolts will not install unless the strut is properly inserted into the knuckle
- q) By hand, thread the 24mm nuts onto the 21mm bolts, then tighten them to 164-180ft-lbs [Figure 2d](#).

2. Install the Front CorkSport Lowering Springs

- r) Re-secure the brake line using the shim as shown in **Figure 2d**.
- s) Attach the end link and reinstall the 14mm nut (shown in **Figure 2e**). Tighten to 34-40 ft lbs.
- t) Reinstall the wheel and lug nuts. Tighten lug nuts to factory specs (vary based upon wheels)
- u) Repeat steps 2a-2u for the passenger's side lowering spring

3. Install the Rear CorkSport Lowering Springs

- a) Remove the driver's side rear wheel from the vehicle.
- b) Place a jack under the rear control arm and jack up the control arm slightly. Shown with **Red Arrow** in **Figure 3a**.
- c) Remove the sway bar end link from the control arm with a 14mm wrench. (**Green Circle** in **Figure 3a**)
- d) Remove the 17mm bolt that holds the spindle to the control arm (**Red circle** in **Figure 3a**).
- e) Slowly lower the jack and remove the spring.
- f) Transfer the upper rubber spring perch to the new spring. Shown with **green arrow** in **Figure 3b**.
- g) Place the new spring up into the vehicle, then seat the bottom of the spring into the lower control arm perch.
- h) Place your jack back under the control arm again, and slowly raise the control arm compressing the spring.
- i) Line up the bolt holes at the end of the arm and the spindle. Insert the 17mm bolt and tighten to 64-77ft lbs.
- j) Re-connect the sway bar end link. (**Green Circle** in **Figure 3a**)
- k) **OPTIONAL** – Cut the rear bumpstop shorter. It is **NOT** necessary to remove the strut from the vehicle. Pull the upper strut cover and bumpstop out of the upper aluminum bracket. Cut a portion of the bumpstop off (Shown in **Figure 3d**). Re-install the bumpstop and strut cover.
- l) Repeat steps 3a-k for the driver's side lowering spring.
- m) Remove the vehicle from jackstands (or lift) and take the vehicle for a short drive. If you hear or feel any clunking, inspect all hardware and ensure everything is tight and properly installed.

 This completes the installation of your lowering springs. Your vehicle will settle slightly over the next few days to achieve the final ride height. **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.

Need Help With Your Installation?

Call (360) 260-CORK

Detailed Instructions

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

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



Always refer to the floor jack and jackstand 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.

2. Install the Front CorkSport Lowering Springs

a) Remove the front driver's wheel from the vehicle using an impact wrench or 1/2" drive ratcheting wrench (or breaker bar) and 21mm socket (or other if using locking lug nuts). Your front wheel wells should now look like **Figure 2a** to the right.



Figure 2a

b) Remove the two ABS sensor attachments (shown in **Figure 2b** and **Figure 2c**) using a pair of needle nose pliers carefully squeeze the tabs in the direction of the red arrows and pull off strut body.

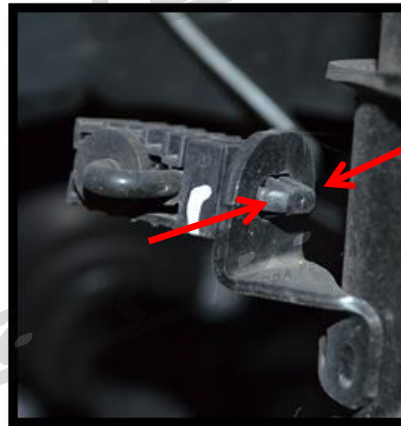


Figure 2b

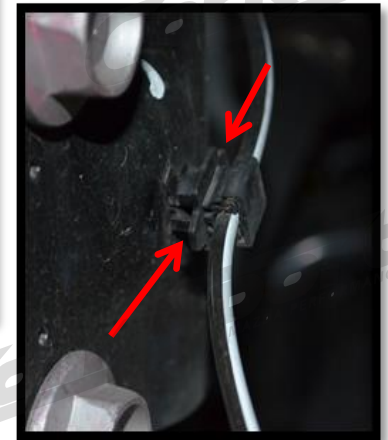


Figure 2c

c) Free the brake line using pliers to remove the shim from the brake line mount (shown by the red arrow in **Figure 2d**.)

d) Remove the sway bar end link from the strut body, using a 14mm socket. (Shown circled in **Figure 2e**)

e) Remove the two (2) 24mm lower strut bolts using a 21mm wrench to hold the bolt and 24mm socket to remove the nut (shown with red circles in **Figure 2d**.)



Figure 2e

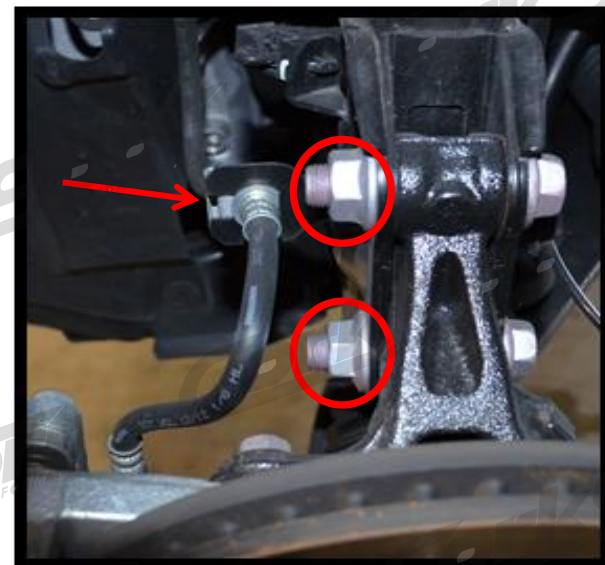


Figure 2d

2. Install the Front CorkSport Lowering Springs (continued)

- f) Remove the three (3) 14mm strut bolts holding the strut to the strut tower (shown in Figure 2g)

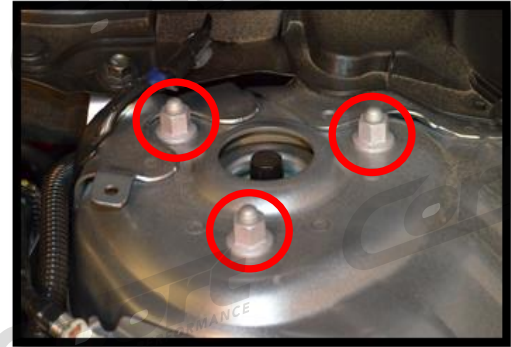


Figure 2g



Be sure to only use a ratcheting wrench or end wrench, or you could shear off the bolt head. Also, be sure to brace the strut as the last bolt is removed or it will fall.

- g) Remove the strut assembly from the vehicle
- h) Using the spring clamps, compress the spring (evenly on both sides) until it is no longer tight against the upper mount as shown in Figure 2h.



Figure 2h

- i) Remove the one (1) 17mm nut (shown in the red circle in Figure 2i) holding the upper strut mount to the strut (if the stud spins, you will need to use a 6mm Allen wrench to hold the stud in place)



Figure 2i

- j) Remove the upper strut mount, and set it aside. Leave the boot and bump stop on the strut, and remove the factory spring from the strut. (shown in Figure 2j).

- k) Set the new Corksport Front Lowering Spring on the strut. The bottom is shown in Figure 2j. Insert the upper mount and transfer the spring compressor to the new spring. (shown in Figure 2l).

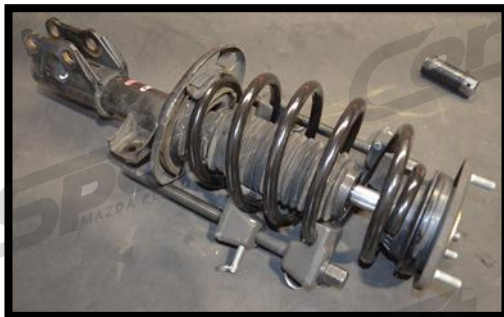


Figure 2l



Figure 2j

- l) Make sure the bottom of the spring is seated fully in its perch (Figure 2k). Tighten the spring compressor.

- m) Reinstall the 17mm upper strut bolt (as shown in Figure 2l) and tighten to 41-47ft-lbs.

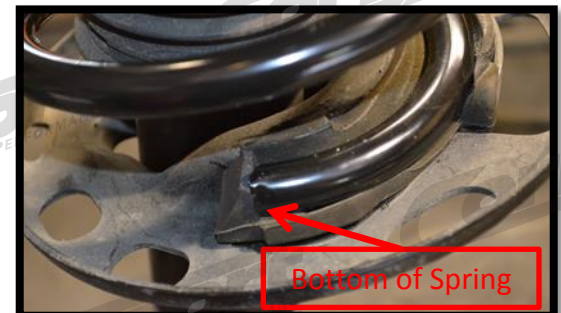



Figure 2k

2. Install the Front CorkSport Lowering Springs (continued)

- n) Remove the spring clamp (now ready to reinstall).
- o) Reinstall the strut and hand tighten the three (3) 14mm strut mount bolts (Figure 2g). Using a torque wrench and 14mm socket, tighten bolts to 37-43ft-lbs.
- p) Line up the strut and knuckle. using a floor jack, raise the knuckle up into the strut body lining up the two holes. Push the 21mm bolts into the holes. Figure 2d.
 -  The bolts will not install unless the strut is properly inserted into the knuckle
- q) By hand, thread the 24mm nuts onto the 21mm bolts, then tighten them to 164-180ft-lbs Figure 2d.
- r) Re-secure the brake line using the shim as shown in Figure 2d.
- s) Attach the end link and reinstall the 14mm nut (shown in Figure 2e). Tighten to 34-40 ft lbs.
- t) Reinstall the wheel and lug nuts. Tighten lug nuts to factory specs (vary based upon wheels)
- u) Repeat steps 2a-2u for the passenger's side lowering spring

3. Install the Rear CorkSport Lowering Springs

- a) Remove the driver's side rear wheel from the vehicle using the same method as you did for the front wheels.
- b) Place a jack under the rear control arm and jack up the control arm slightly. Shown with Red Arrow in Figure 3a.
- c) Remove the sway bar end link from the control arm with a 14mm wrench. (Green Circle in Figure 3a)
- d) Remove the 17mm bolt that holds the spindle to the control arm (Red circle in Figure 3a) using a 17mm socket and ratcheting wrench.

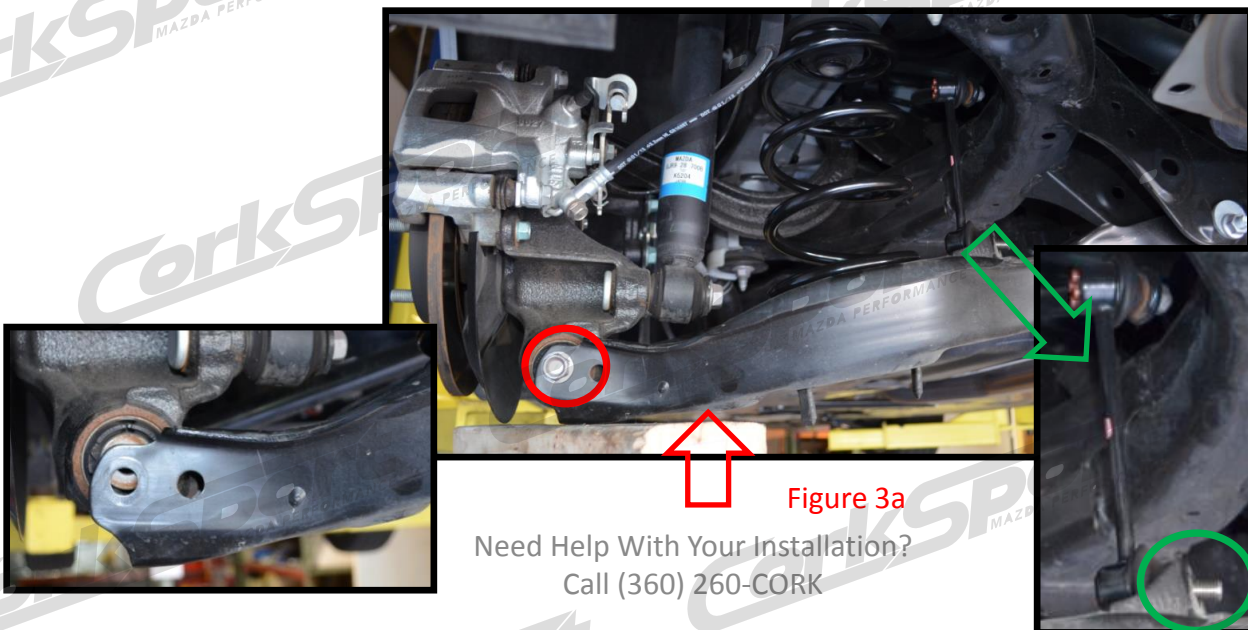


Figure 3a

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

3. Install the Rear CorkSport Lowering Springs Continued...

- e) Slowly lower the jack and remove the spring.
- f) Transfer the upper rubber spring perch to the new spring. Shown with green arrow in Figure 3b.
- g) Place the new spring up into the vehicle, then seat the bottom of the spring into the lower control arm perch. Make sure it is seated correctly in the control arm as shown in Figure 3b with red arrow.

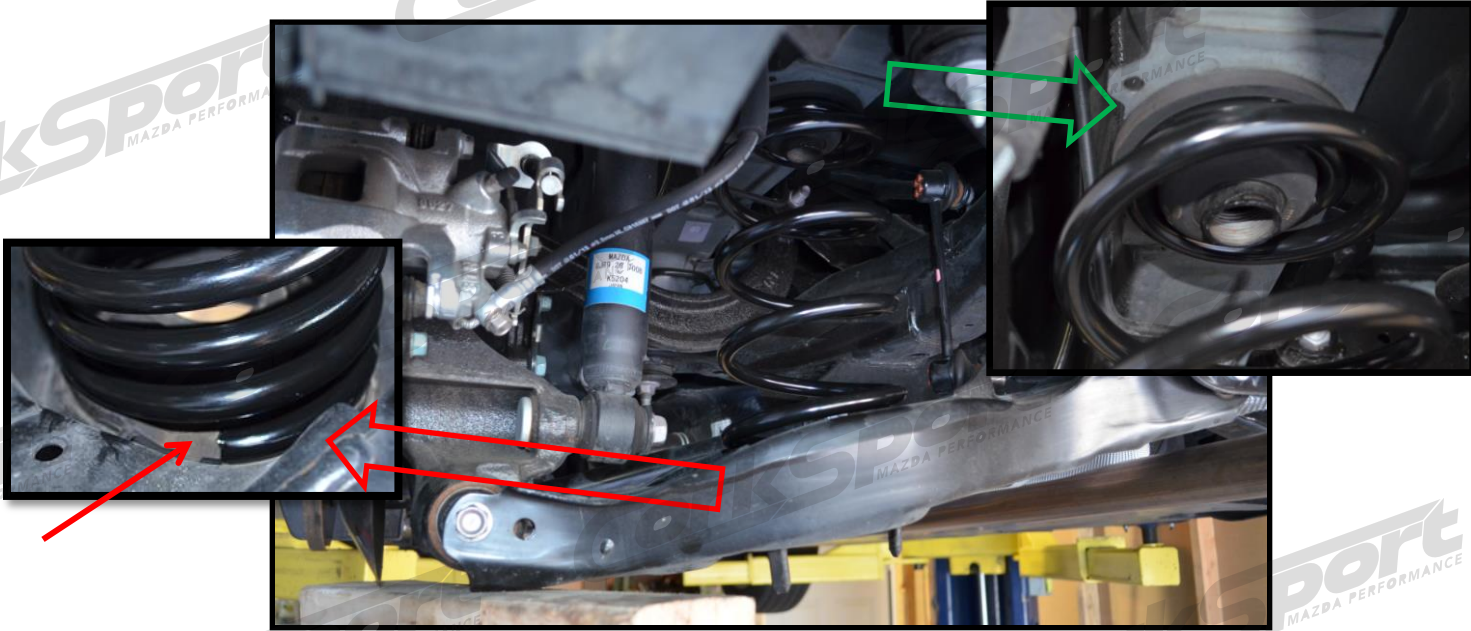


Figure 3b

- h) Place your jack back under the control arm again, and slowly raise the control arm compressing the spring. Watch for the spring top to line up into the upper rubber mount hole. Figure 3b shows the rubber mount aligned correctly.

- i) Line up the bolt holes at the end of the arm and the spindle. Shown with Red Circles in Figure 3c. Insert the 17mm bolt and tighten to 64-77ft lbs.

- j) Re-connect the sway bar end link. (Green Circle in Figure 3a)

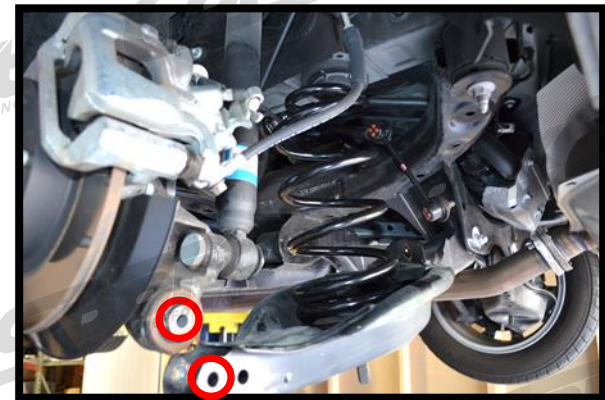


Figure 3c



Some customers have noticed the vehicle hitting the rear bumpstops when loaded with passengers and/or with a full trunk and backseat. If you frequently load-up you car, you may want to consider cutting the bumpstops shorter. Steps for cutting the bumpstops shorter are demonstrated in the following steps.

- k) **OPTIONAL – Cutting the rear bumpstop shorter. It is NOT necessary to remove the strut from the vehicle.** Lay a rag over the brake rotor and caliper to help prevent scratching your arms when the bumpstop pops out. Pull the upper strut cover and bumpstop out of the upper aluminum bracket (shown in Figure 3d).

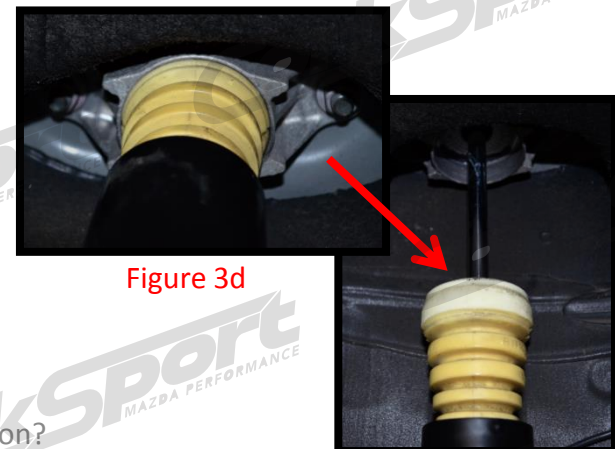


Figure 3d

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

3. Install the Rear CorkSport Lowering Springs Continued...

- l) Using a Sharpie, mark a cut line approximately $\frac{3}{4}$ " from the top of the bumpstop. Do not cut below the Sharpie line shown in **Figure 3e** because the bumpstop diameter will then be too small and will not stay up in the aluminum bracket.
- m) **Cutting the bumpstop shorter.** The bumpstop and upper strut cover should be able to rotate easily around the shaft. Hold the box cutter (razor blade knife) firmly in your hand pushing it into the bumpstop; rotate the bumpstop to begin cutting (shown in **Figure 3f**). This method of cutting gives you very consistent and flat cut surface. Cut the top piece in half to remove it from the strut, shown in **Figure 3g**.

Figure 3e

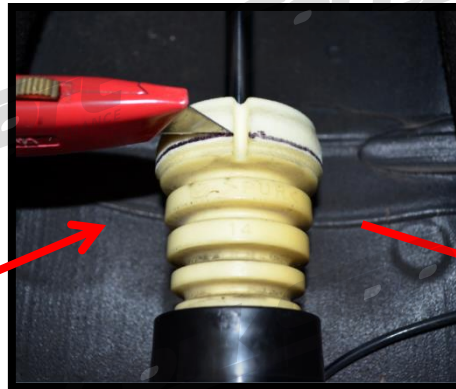
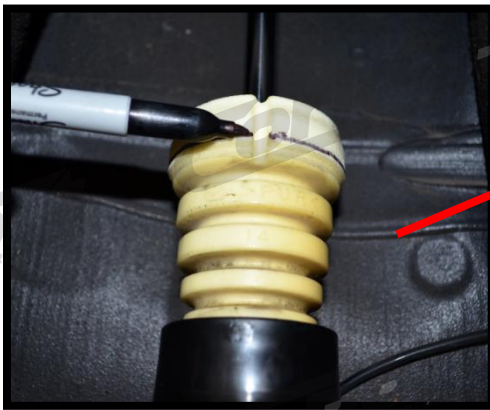
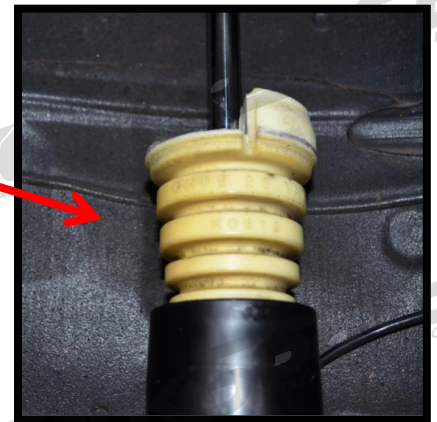


Figure 3f

Figure 3g



- n) **Fitting the cut bumpstop back into the aluminum strut bracket.** If the bumpstop is too tight to fit into the bracket due to the small lip left at the top, you can trim a small amount of the edge off. This should allow the bumpstop to fit snug and stay stuck in the bracket.
- o) Repeat steps 3a-n for the driver's side lowering spring.
- p) **Remove the vehicle from jackstands (or lift) and take the vehicle for a short drive.** If you hear or feel any clunking, inspect all hardware and ensure everything is tight and properly installed.



This completes the installation of your lowering springs. Your vehicle will settle slightly over the next few days to achieve the final ride height. **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.