

CorkSport Mazda 2 Lowering Springs

2010+ Mazda 2



Thank you for purchasing the CorkSport Mazda 2 Lowering Springs. Our lowering springs have been vigorously tested to ensure optimal characteristics. Testing showed a lowered center of gravity of 1.5" Front and 2.0" 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-2-lowering-spring-set.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 2010 Mazda 2. Other year Mazda 2 models will be similar.

Materials and Time:



General Info.

Part #: Mz2-3-288
Time Est: 2 hours
Wrench Rating: 3/5



Tooling List

12mm Socket
14mm Socket
17mm Socket
17mm End Wrench
19mm Socket
3/8" Drive Ratchet
1/2" Drive Ratchet
Swivel Socket
12" Extension
Torque Wrench
Pliers
6mm Allen Wrench
Spring Compressor



Parts List

One (1) CorkSport Left Strut
One (1) CorkSport Right Strut
Two (2) CorkSport Rear Shocks

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. Remove the Factory Front Struts and Springs

Instruction Notes.

- a) 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.
- b) Remove the front and rear wheels from the vehicle using an impact wrench or 1/2" drive ratcheting wrench (or breaker bar) and 19mm socket (or other if using locking lug nuts).
- c) Start with the passenger side of the vehicle and remove the one (1) 14mm nut (shown circled in Figure 1a) holding the front end link to the factory sway bar using a 14 mm wrench.
- d) Free the brake line using a 12mm wrench to remove the bolt. Shown Circled in Red in Figure 1b)
- e) Remove the ABS sensor line from the strut. Shown with Green arrows in Figure 1b. This can be done by hand or with small pliers.
- f) Remove the Two (2) 17mm strut bolts using a 17mm socket and ratcheting wrench (shown in Figure 1b by the red arrow). There will be one upper and one lower bolt.
- g) Remove the Three (3) strut top nuts located in the engine bay on top of the strut towers and remove the strut assembly from the wheel well. Circled in Figure 1c.
- h) Repeat Steps 1c-1g for the other side of the car.

2. Installing the CorkSport Front Struts

- a) Using the spring compressors, compress the spring (evenly on both sides) until it is no longer tight against the upper mount as shown in Figure 2a on next page.
- b) Remove the one (1) 17mm nut (shown circled in Figure 2b 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)
- c) Pull the strut from the bottom of the assembly and replace it with the CorkSport strut.
 -  If you are going to replace the springs. This would be a good time to do it.
- d) Replace the strut top nut and tighten it to 40ft.lbs. Again if the shaft spins hold it this time with pliers.
- e) Make sure the Spring aligns to the stops on the strut, then remove the spring compressors.
- f) Place the strut assembly back in the car and tighten the top strut top nuts to 23-28ft.lbs. Reference Figure 1c.

Checklist

2. Installing the CorkSport Front Struts Continued...

- g) Replace the two 17mm bolts and nuts and tighten them to 48-54ft.lbs. Reference Reference **Figure 1b** with **red** arrows.
- h) Replace the ABS sensor wiring and Brake line 12mm bolt. Tighten the bolt to
- i) Replace the Endlink in the strut and tighten to 32-44ft.lbs
- j) Replace the front wheels and torque the lug nuts to 65-87ft.lbs.

3. Remove the Factory Rear Shocks

- a) Remove the one (1) 17mm bolt (shown circled in **Figure 3a**). This bolt is located at the bottom of the rear shock.
- b) Remove the two (2) 14mm nuts holding the top of the shock and remove it from the car. **Figure 3b** shows the two nuts.
- c) Remove the one (1) 17mm bolt (shown circled in **Figure 3a**).
- d) Remove the two (2) 14mm nuts holding the top of the shock and remove it from the car. **Figure 3b** shows the two nuts.

4. Install the CorkSport Rear Shocks

- a) Remove the one (1) 12mm nut (shown circled in **Figure 4a**). If the shaft spin while you are loosening the nut, hold the shaft at the top with pliers. Location shown with arrow.
- b) Place just the top section of the factory shock on the CorkSport Shock. **Figure 4b** shows how the bushings should look before putting the top section on. Tighten the 12mm nut to 25ft.lbs. **Figure 4c** shows the complete strut.
- c) Place the CorkSport Strut back into the factory location and tighten the 14mm nuts to 35ft.lbs. Refer to **Figure 3b**.
- d) Replace the 17mm bolt shown in **Figure 3a** and tighten to 35ft.lbs.
- e) Replace the Rear wheels and tighten them to 65-87ft.lbs.

5. Adjusting the CorkSport Front Struts and Rear Shocks

- a) The Rear Shock can be adjusted by moving the orange knob shown circled in **Figure 5a**.
- b) In the same manner the front struts can be adjusted from inside the engine bay at the top of the strut. Adjustment direction and location are shown in **Figure 5b**.


 This completes the installation of your CorkSport Struts and Shocks. Bring the car down off the jack stands and go for a drive. Make sure to listen for abnormal sounds and feelings. If anything is heard make sure to check for loose bolt or nuts **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

Detailed Instructions

 These instructions are made for

1. Remove the Factory Front Struts and Springs

a) 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.

b) Remove the front from the vehicle using an impact wrench or 1/2" drive ratcheting wrench (or breaker bar) and 19mm socket (or other if using locking lug nuts).

c) Start with the passenger side of the vehicle and remove the one (1) 14mm nut (shown circled in **Figure 1a**) holding the front end link to the factory sway bar using a 14 mm wrench.

d) Free the brake line using a 12mm wrench to remove the bolt. Shown Circled in **Red** in **Figure 1b**)

e) Remove the ABS sensor line from the strut. Shown with Green arrows in **Figure 1b**. This can be done by hand or with small pliers.

f) Remove the Two (2) 17mm strut bolts using a 17mm socket and ratcheting wrench (shown in **Figure 1b** by the **red arrow**). There will be one upper and one lower bolt.

g) Remove the Three (3) 14mm strut top nuts located in the engine bay on top of the strut towers and remove the strut assembly from the wheel well. Circled in **Figure 1c**. Remember to hold the strut while removing nuts. The strut can fall and damage the fender.

h) Repeat Steps 1c-1g for the other side of the car.

2. Installing the CorkSport Front Springs

a) Using the spring compressors, compress the spring (evenly on both sides) until it is no longer tight against the upper mount as shown in **Figure 2a** on next page.



Figure 1a

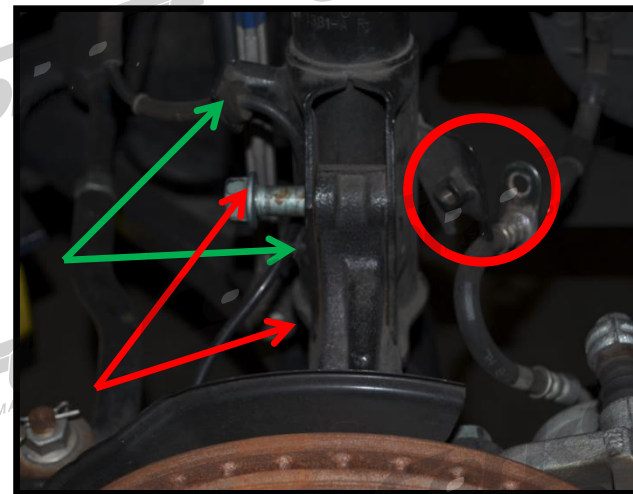


Figure 1b



Figure 1c

Detailed Instructions

2. Installing the CorkSport Front Springs Continued...

- b) Remove the one (1) 17mm nut (shown circled in **Figure 2b** 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 2b

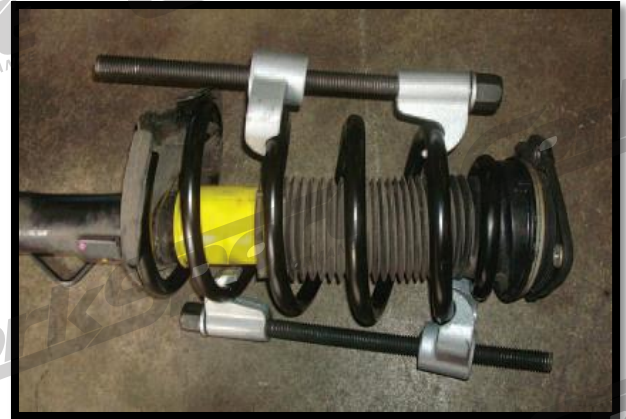


Figure 2a

- c) Replace the Factory Spring with the CS lowering spring
- d) Replace the strut top nut and tighten it to 40ft.lbs. Again if the shaft spins hold it this time with pliers.
- e) Make sure the spring aligns to the stops on the strut, then remove the spring compressors. **Figure 2c** shows where the spring should align to.
- f) Place the strut assembly back in the car and tighten the three (3) strut tower nuts to 23-28ft.lbs. Reference **Figure 1c**.



Figure 2c

- g) Replace the two 17mm bolts and nuts and tighten them to 48-54ft.lbs. Reference **Figure 1b** with red arrows.
- h) Replace the ABS sensor wiring and Brake line 12mm bolt. Tighten the bolt to 20ft.lbs Refer to **Figure 1b**.
- i) Replace the Endlink in the strut and tighten to 32-44ft.lbs Refer to **Figure 1a**
- j) Repeat Steps 2a-2i for the other side of the vehicle.
- k) Replace the front wheels and torque the lug nuts to 65-87ft.lbs.



Figure 3a

3. Remove the Factory Rear Springs

- Jack up the back of the car and remove the rear wheels from the vehicle using an impact wrench or 1/2" drive ratcheting wrench (or breaker bar) and 19mm socket (or other if using locking lug nuts).
- Remove the one (1) 17mm bolt (shown circled in **Figure 3a**). This bolt is located at the bottom of the rear shock.
- Place a jack under the rear of the spring perch and remove the one (1) 17mm bolt from the bottom of the second shock. The jacking location is shown in **Figure 3b** with red arrow.



Figure 3b



The suspension is held by the strut so taking the 17mm bolts out will allow the suspension to come down. Be careful when completing this step.

- Remove both springs by slowly lowering the jack and then pulling them out by hand. Watch for the rubber grommets at the top and bottom of the springs. They can easily be lost.

4. Install the CorkSport Rear Spring

- Place the CorkSport Rear springs in the perches reusing the rubber grommets from the factory springs.
- Slowly Jack the axle up until the shock bottom and hole in the rear of the perch align.
- Replace the 17mm bolt shown in **Figure 3a** and tighten to 35ft.lbs.
- Slowly jack up the other side of the axle until the shock bottom and the hole in the rear of the perch align. Replace the final 17mm bolt shown in **Figure 3a** and tighten to 35ft.lbs.
- Replace the Rear wheels removed in Step 1b and tighten them to 65-87ft.lbs.



This completes the installation of your CorkSport lowering springs. Bring the car down off the jack stands and go for a drive. Make sure to listen for abnormal sounds and feelings. If anything is heard make sure to check for loose bolt or nuts **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