

CorkSport Mazdaspeed 6 Lowering Springs

2006-2007 Mazdaspeed 6 and 2003-2008 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 1.5" in the front and 1.6" 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-mazdaspeed-6-mazda-6-lowering-springs.html>

Pre-Installation Notes:



You will be removing the 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 #: Ate-3-288
Time Est: 1-2 hours
Wrench Rating: 3/5



Tooling List

- Lift or Floor Jack and Stands
- Transmission Jack or Floor Jack
- 3/8 or 1/2 Drive Ratchet
- Pliers
- 12mm,14mm, 17mm Wrenches
- 12mm,14mm,17mm Long Sockets
- 21mm Lug Wrench
- Spring Compressor
- Flat Head Screwdriver
- Rubber Mallet or Hammer
- Penetrating Oil



Parts List

- (Qty.2) CorkSport Front Lowering Springs
- (Qty.2) CorkSport Rear Lowering Springs

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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 the Car on Floor Jack/Jackstands or Lift

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

2. Remove the factory front springs.

- a) Remove the front Driver's side wheel from the vehicle.
- b) Free the brake line from the strut (blue circle in Figure 2b).
- c) Remove the 14mm nut fastening the sway bar end link to the strut bracket (red circle in Figure 2b).
- d) Remove the 14mm bolt pinching the strut bracket onto the base of the strut (green circle in Figure 2b and Figure 2c).
- e) Remove the 17mm lower strut bolt and nut (shown in Figure 2c by the red arrow).
- f) Spray penetrating fluid on the suspension upright knuckle as shown in Figure 2d by the red circle.
- g) Free the lower section of the strut fork from the strut. Your suspension should now look like Figure 2e.
- h) Remove the three (3) 14mm nuts holding the strut to the strut tower (red circles in Figure 2f).
- i) Remove the strut assembly from the vehicle.
- j) Attach the spring compressor(s) to the spring and compress the spring.
- k) Remove the 17mm nut (red arrow in Figure 2h) holding the upper strut mount to the strut.
- l) Pull the upper strut mount and boot as one unit off of the spring.
- m) Remove the spring from the strut, and remove the spring compressor(s) from the spring.

3. Install the CorkSport front lowering springs.


- a) Transfer the spring compressor(s) to the new lowering spring, and compress the spring.
- b) Place the tapered end of the spring onto the strut.
- c) Rotate the spring counter clockwise on the strut so the end of the spring seats properly into its perch.
- d) Place the boot and upper strut mount assembly over the top of the spring and hold the strut assembly together by threading the 17mm nut on.
- e) Tighten the 17mm nut to 39-35ft lbs?? And release the spring compressor(s) (Circled in Figure 3a)
- f) Install the strut back into the car and start the three nuts back onto the studs. Tighten to 30 ft lbs.

3. Install the CorkSport front lowering springs.

- g) Generously lubricate the strut and lower fork with penetrating fluid. Push the bracket up onto the strut.
- h) Install the 14mm pinch bolt into the bracket, and torque to 45ft. Lbs.
- i) With a floor jack, lift the spindle upward to align the lower control arm with the strut bracket. Insert the long 17mm bolt along with the rubber damper through the strut bracket and lower control arm. Thread the nut onto the back side and tighten to 45ft. Lbs (Figure 3c)
- j) Re-secure the brake line using the 12mm bolt as shown with blue circle in Figure 2b.
- k) Attach the end link and reinstall the 14mm nut (red circle in Figure 2b). Tighten to 25 ft lbs.
- l) Reinstall the wheel and lug nuts. Tighten lug nuts to factory specs (vary based upon wheels)
- m) Repeat steps 2a-3m for the driver's side lowering spring.

4. Install the Rear CorkSport Lowering Springs


- a) Remove the drivers side rear wheel from the vehicle.
- b) Remove the bolt holding the rear sway bar onto the lower control arm (green circle in Figure 4a).
- c) Place a suitable jack under the lower control arm and remove the 17mm bolt that holds the spindle to the control arm. (see Figure 4b)
- d) Carefully lower the control arm with the jack, and remove the spring (as shown in Figure 4c).
- e) Transfer the upper spring perch rubber, from the old spring to the new lowering spring and put the new spring back into the vehicle (Figure 4d).
- f) Twist the spring within the lower control arm until it seats and stops turning (Figure 4d).
- g) Place the jack back under the control arm and jack up the control arm using the floor jack. Then, reinstall the 17mm bolt into the control arm and spindle (Figure 4b). Tighten to 50ft-lbs.
- h) Install the bolt holding the rear sway bar. Tighten to 25ft-lbs.
- i) Reinstall the wheel and lug nuts. Tighten lug nuts to factory specs (vary based upon wheels).
- j) Repeat steps 4a-4i for the passenger side lowering spring.

 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

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.

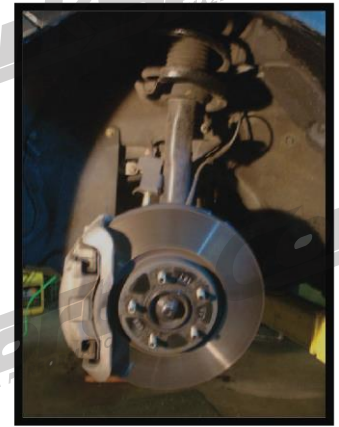


Figure 2a

2. Remove the Factory Front Springs

a) Remove the front driver's side 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.

b) Free the brake line from the strut by removing the 12mm bolt (blue circle in Figure 2b).

c) Remove the 14mm nut fastening the sway bar end link to the strut bracket (red circle in Figure 2b).

d) Remove the 14mm bolt pinching the strut bracket onto the base of the strut (green circle in Figure 2b and Figure 2c).

e) Remove the 17mm lower strut bolt and nut using a 17mm socket and ratcheting wrench (shown in Figure 2c by the red arrow).

f) Spray penetrating fluid on the suspension upright knuckle as shown in Figure 2d by the red circle.

g) Using the 2lb mallet (or similar) carefully, but forcefully, pound the strut bracket downward until it comes free from the strut fork on the bottom. Some cars can have a build up of rust. You will need to be patient as the knuckle will need to slide down roughly 2-3" before it releases from the strut. Your suspension should now look like Figure 2e.

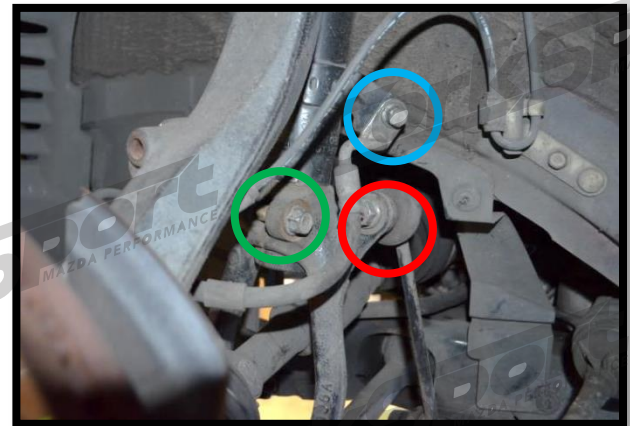


Figure 2b

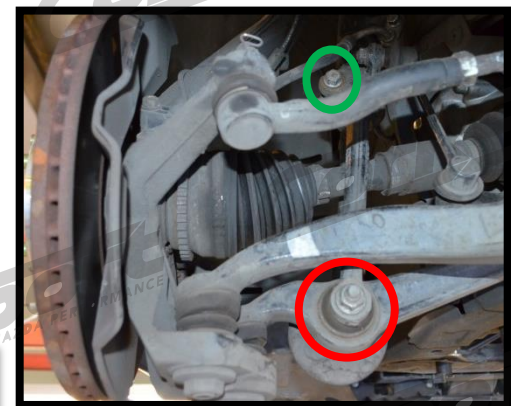


Figure 2c



Figure 2d



Figure 2e

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2. Remove the Factory Front Springs Continued...

- h) Remove the three (3) 14mm nuts holding the strut to the strut tower (red circles in Figure 2f).

 Be sure to brace the strut as the last bolt is removed or it will fall.

- i) Remove the strut assembly from the vehicle.
- j) Attach the spring compressor(s) to the spring and compress the spring (evenly on both sides) until the spring begins to move freely within the upper and lower spring perches (spring perches shown with red arrows in Figure 2g).

- k) Remove the 17mm nut (red arrow in Figure 2h) holding the upper strut mount to the strut. If the stud spins and will not loosen, you will need to use large pliers or a crescent wrench to hold the stud in place.

- l) Pull the upper strut mount and boot as one unit off of the spring. Try to keep the strut top, washer and perch together as one unit so that it can more easily be reassembled without confusion. If it comes apart in pieces, Figure 2i shows the order of the parts.



Figure 2f

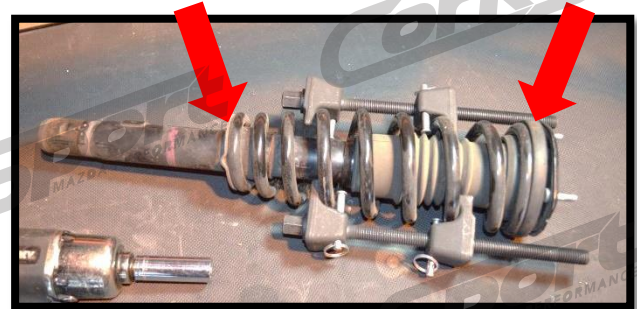


Figure 2g

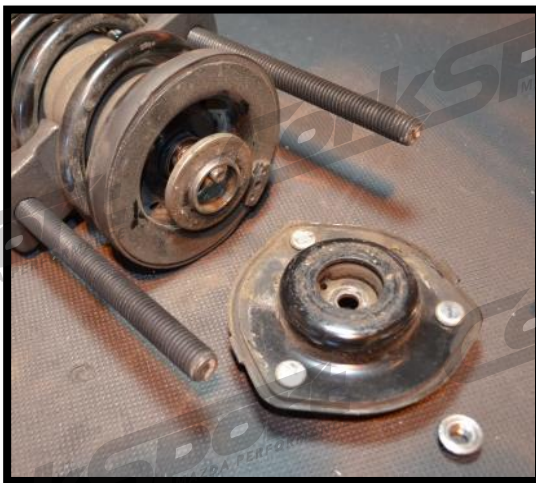


Figure 2i

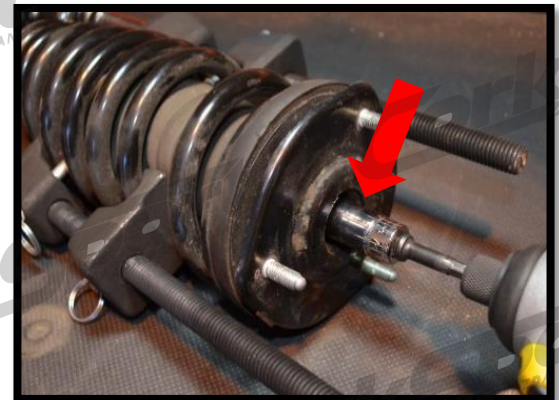


Figure 2h

- m) Remove the spring from the strut, and remove the spring compressor(s) from the spring.

3. Install the CorkSport Front Lowering Springs

- a) Transfer the spring compressor(s) to the new lowering spring, and compress the spring.
- b) Place the tapered end of the spring onto the strut. Shown after installing onto strut in **Figure 3a**.
- c) Rotate the spring counter clockwise on the strut so the end of the spring seats properly into its perch. Shown circled in **Figure 3b**.
- d) Place the boot and upper strut mount assembly over the top of the spring and hold the strut assembly together by threading the 17mm nut on. Shown in **Figure 3c**.



Figure 3a

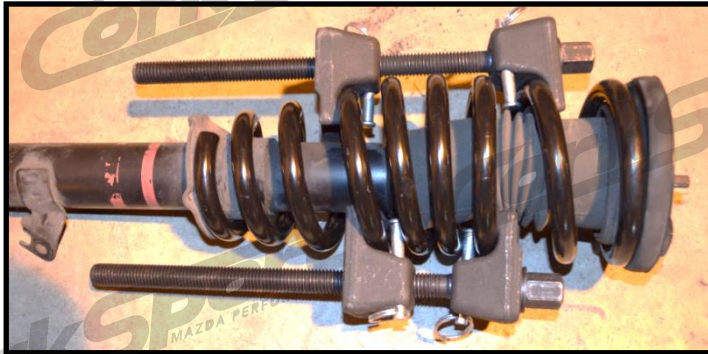


Figure 3c



Figure 3b

- e) Tighten the 17mm nut to 35-39ft-lbs and release the spring compressor (Circled in **Figure 3d**).
- f) Install the strut assembly back into the car. Start by placing the top of the strut into the strut tower. Line up the three threaded studs into their holes and hand tighten the three (3) 14mm strut mount nuts (**Figure 2f**). Use a torque wrench and 14mm socket to tighten bolts to 30 ft-lbs.



Figure 3d

- g) Generously lubricate the strut and knuckle with penetrating fluid, and push the bracket up onto the strut, as shown in **Figure 3e** to the right.
- h) Install the 14mm pinch bolt into the bracket, and torque to 45ft-Lbs (**Figure 3e**).

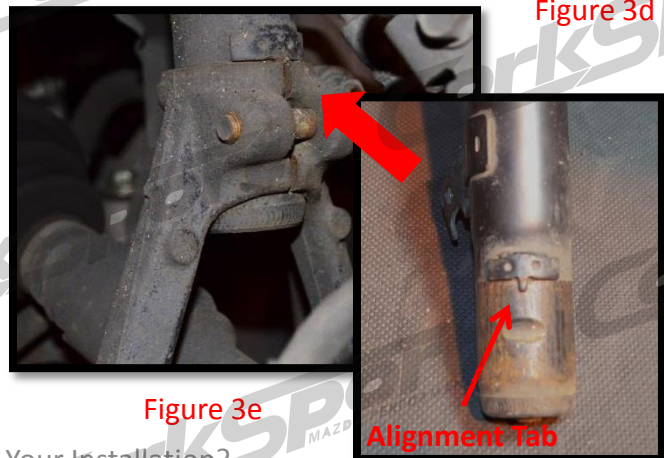


Figure 3e

Alignment Tab



The bolt will not install unless the strut is properly inserted into the strut bracket. Verify the alignment mark is seated in the lower strut mount.

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3. Install the CorkSport front lowering springs.

- i) With a floor jack, lift the control arm to align the lower control arm with the strut fork. Insert the long 17mm bolt along with the rubber damper through the strut fork and lower control arm. The bolt will not insert unless everything is aligned. Thread the nut onto the back side and tighten to 45ft-lbs (Red Circle in Figure 3f)
- j) Re-secure the brake line using the 12mm bolt as shown with blue circle in Figure 2b.
- k) Attach the end link and reinstall the 14mm nut (red circle in Figure 2b). Tighten to 25 ft lbs.
- l) Reinstall the wheel and lug nuts. Tighten lug nuts to factory specs (vary based upon wheels)
- m) Repeat steps 2a-3m for the driver's side lowering spring.



Figure 3f

4. Install the Rear CorkSport Lowering Springs

- a) Remove the drivers side rear wheel from the vehicle using the same method as you did for the front wheels.
- b) Remove the bolt holding the rear sway bar onto the lower control arm (green circle in Figure 4a), using a 14mm socket and ratcheting wrench.
- c) Place a suitable jack under the lower control arm and remove the 17mm bolt that holds the spindle to the control arm (see Figure 4b) using a 17mm socket and ratcheting wrench.
- d) Carefully lower the control arm with the jack, and remove the spring (as shown in Figure 4c).

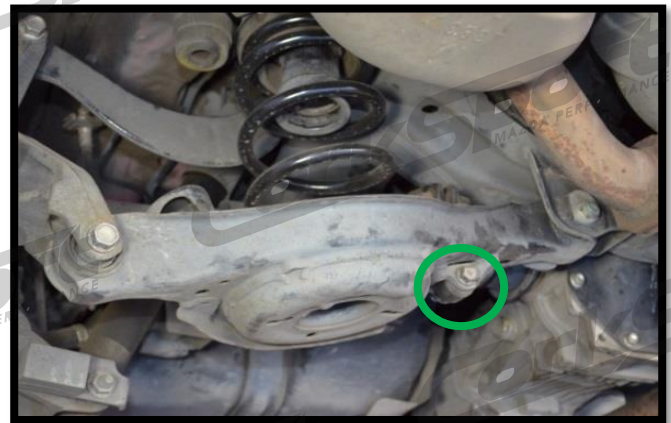


Figure 4a



Figure 4c



Figure 4b

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4. Install the Rear CorkSport Lowering Springs

- e) Transfer the upper spring perch rubber, from the old spring to the new lowering spring and put the new spring back into the vehicle (Figure 4d).
- f) Twist the spring within the lower control arm until it seats and stops turning (Figure 4d).
- g) Place the jack back under the control arm and jack up the control arm using the floor jack. Then, reinstall the 17mm bolt into the control arm and spindle (Figure 4b). Tighten to 50ft-lbs.
- h) Install the bolt holding the rear sway bar onto the lower control arm (green circle in Figure 4a), using a 14mm socket and ratcheting wrench. Tighten to 25ft-lbs.
- i) Reinstall the wheel and lug nuts. Tighten lug nuts to factory specs (vary based upon wheels).
- j) Repeat steps 4a-4i for the passenger side lowering spring.
- k) Remove the vehicle from jack stands 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.

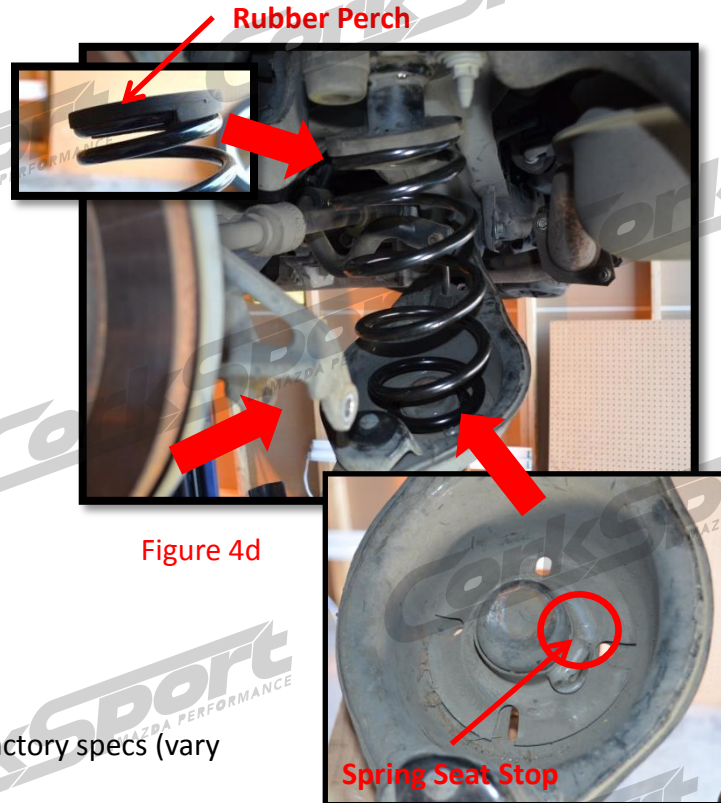


Figure 4d

! 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

What's Next:

[CORKSPORT 2006-2007 Mazdaspeed 6 Skid Tray](#)



Get solid protection against rocks and road debris and prevent damage to key components of your undercarriage with the **Mazdaspeed 6 Skid Tray**. Made from 0.090" precision machined aluminum, the CorkSport Skid Tray will provide maximum protection while adding minimal weight to the body of your vehicle. This one-piece precision bent skid plate is angled for a tight fit and structural rigidity and is CAD designed to mount further back on the sub frame with extra attachment points so it won't snag or hang up on objects under your vehicle.:

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