CorkSport Performance

AXL-3-306 Coilovers

Installation Instructions for the CorkSport Performance Coilovers for the 2007-2013 Mazdaspeed 3 & 2004-2013 Mazda 3

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INTRODUCTION

In this installation guide we have provided step by step instructions to remove the OEM springs & dampers and install the CorkSport Performance Coilovers

Advisory:

- Working under the vehicle requires a safe and sturdy location for the vehicle to sit on jackstands.
- Coilover suspension will add NVH (noise, vibration, and harshness) and ride rougher than the OEM suspension. Slight added suspension noise is normal.
- Installation is identical regardless of if your kit has CorkSport or Swift Springs.

* Turning the adjustment knob for the front and rear dumpers requires little force. Forcing to turn the knob further once softest or firmest setting is reached will damage the damper and may cause the adjustment knob to free spin.

- Black OEM strut tower braces must be removed if planning to install an aftermarket strut tower brace with the CS coilovers

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TOOLS:

- Hydraulic Jack (1)
- Jack Stand (2)
- 3⁄8" Drive Ratchet (1)
- 1⁄2" Drive Breaker Bar (1)
- 1⁄2" Torque Wrench (1)
- 1⁄2" Impact Gun (if available) (1)
- 3/8" Drive Electric Impact Gun (1)
- 10mm Socket - Deep (1)
- 12mm Socket - Deep (1)
- 14mm Socket - Deep (1)
- 17mm Socket - Deep (1)
- 21mm Socket - Deep (1)
- 5mm Allen Key Socket (1)
- 6mm Allen Key Socket (1)
- Wrench, 14mm (1)
- Wrench, 17mm (1)
- Wrench, 19mm (1)
- Small Needle Nose Pliers (1)
- Flathead Screwdriver (1)
- WD-40 Lubricant Spray (1)
- Shop Towels/Rags (1)
- Small Sledge Hammer (1)
- Safety Glasses (1)
- Gloves (1)
- Drill (Optional) (1)
- 3 1/8" Bi-Metal Hole Saw (Optional) (1)
- File (Optional) (1)
- Spray Paint or Paint Pen (Optional) (1)

PARTS:

- AXL-3-306 Front Left Coilover (1)
- AXL-3-306 Front Right Coilover (1)
- AXL-3-306 Rear Damper (2)
- AXL-3-306 Rear Spring (2)
- AXL-3-306 Adjustable Upper Spring Perch (2)
- AXL-3-306 Lower Spring Perch (2)
- CorkSport Spanner Wrench Kit (1)

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Step 1 — Getting Started

- First and foremost; **THANK YOU** for becoming a part of the CorkSport Family. We hope to bring you the highest level of Parts, Customer Service, & Support

How To Use These Instructions

- The instruction format will relate colored marking in the image to the color dot in the text to the right of the image

These instructions were written using early prototype coilovers and as a result have some minor appearance differences. Installation is identical unless noted

CorkSport Coilovers are set to approximately lowering spring height before shipping. Height and other adjustments are covered later in these instructions.

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Step 2 — Lifting the Car & Removing the Front Wheel

⚠ Ensure the vehicle is parked on a level surface before proceeding.

- Start by lifting up the front of the car using the hydraulic jack and jack stands.

  ⚠ Be sure to reference your owners manual for jack points and the jack manufacturer's instructions for proper practices.

- Remove the front wheels from the vehicle using the 1/2" drive breaker bar or impact gun and 21mm socket.

ⓘ A different socket may be required if you have aftermarket or locking lug nuts.

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Step 3 — Front Suspension Component Identification

- This image serves as a location reference for components referenced in the following steps.
- Front swaybar endlink.
- Front brake line.
- ABS wiring.

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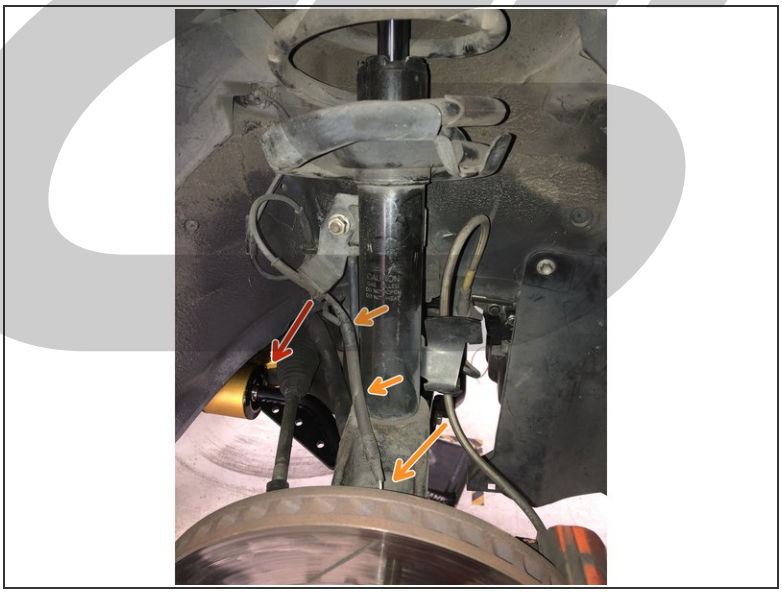
Step 4 — Front Suspension Disassembly Part 1



- Locate the ABS wiring.
- Pull the ABS wiring free from the mounting bracket by pulling the rubber grommet in the direction shown.
- Trace the ABS wiring to where the sensor is attached to the knuckle near the back of the brake rotor.
- Unplug the electrical connector for the ABS wiring.
- Move the ABS wiring out of the way.

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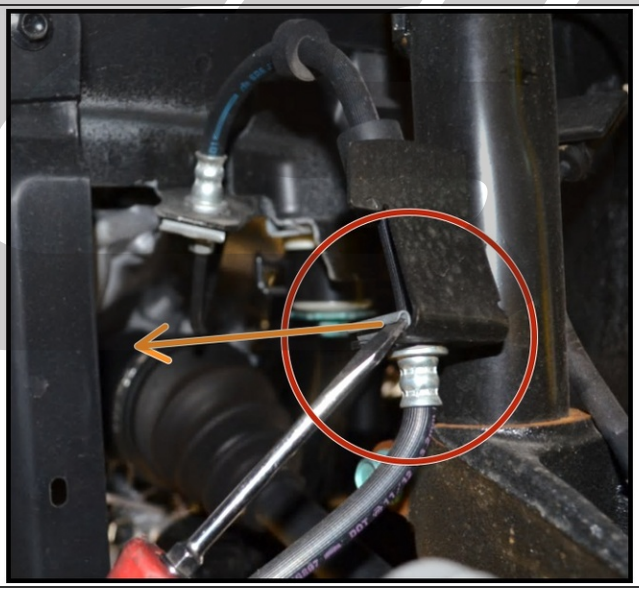
Step 5 — Front Suspension Disassembly Part 2



- Locate the front brake line.
- Using needle nose pliers or flathead screwdriver, remove the silver brake line retainer clip.
- Then free the front brake line from the mounting bracket.
- NOTE: The vehicle shown in some of these images had aftermarket brake lines. These lines must just be pushed free from the bracket in the direction shown

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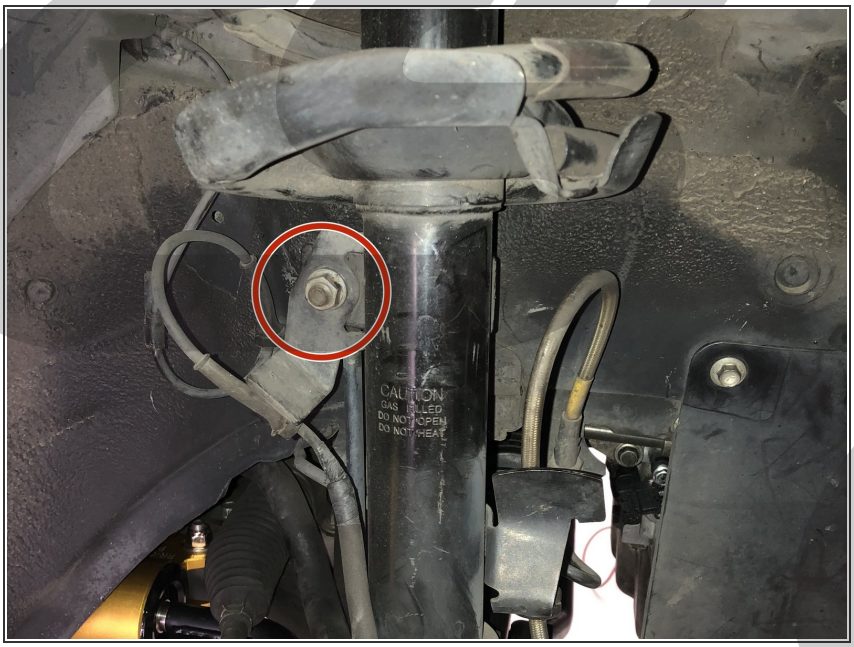
Step 6 — Front Suspension Disassembly Part 3



- Locate the front sway bar end link.
- Using a 14mm socket and ratchet, remove the front swaybar end link nut

If the nut is spinning without loosening, use a 5mm Allen key in the center to keep it secure and a 14mm wrench to loosen.

- Push the front swaybar endlink out of the mounting point on the strut and out of the way.

The bracket for the ABS wiring will not be used with the coilovers

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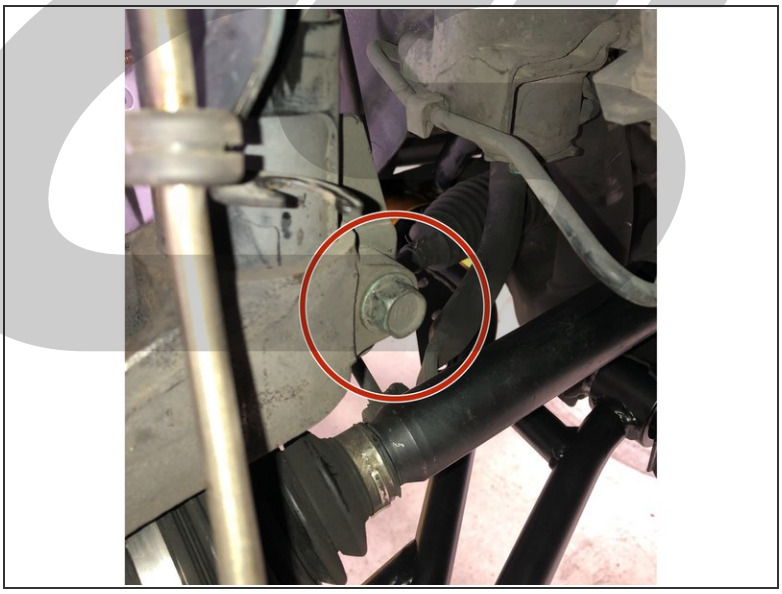
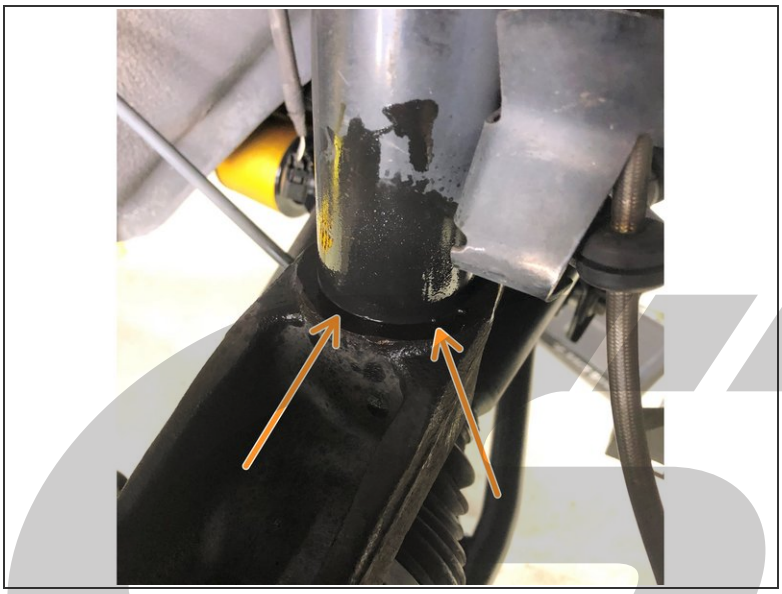
Step 7 — Front Suspension Disassembly Part 4





- Locate the strut pinch bolt near the bottom of the front strut.
- Using a 17mm socket and ratchet, remove the strut pinch bolt.
- Using WD-40 or a penetrating fluid, lubricate where the strut meets the knuckle.

  ⓘ Letting the WD-40 sit for a few minutes can help the knuckle release the strut.
- While the penetrating fluid sits, repeat Steps 2-7 on the opposite side of the vehicle

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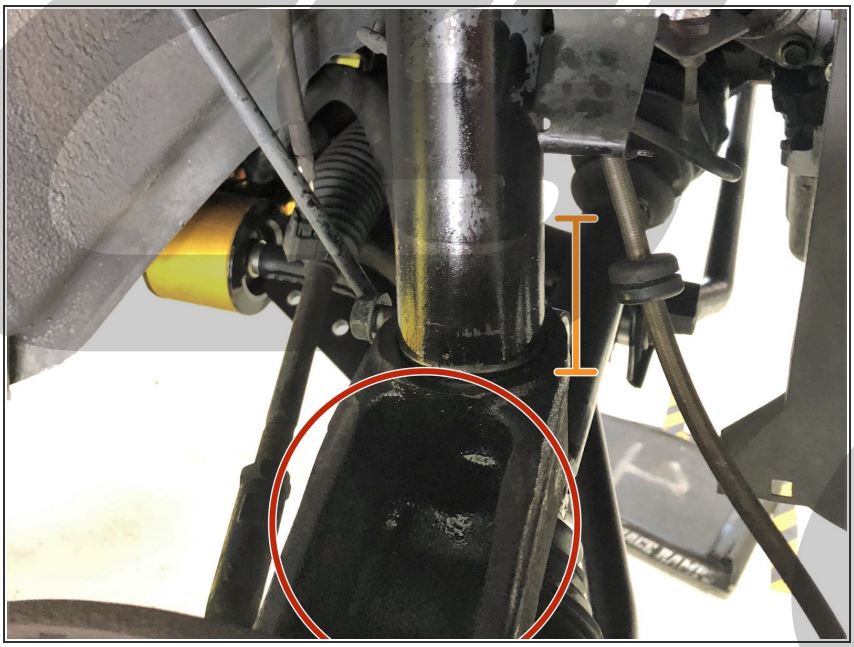
Step 8 — Front Suspension Disassembly Part 5



- Return to the passenger's side of the vehicle.
- Using a small sledge hammer, hit the knuckle in the location shown.
- The knuckle will need to travel downwards 2-3 inches to free the front strut. The image shows the strut nearly free.
- When the strut is free from the knuckle, the knuckle will likely rotate out of the way.

To help with strut removal from the knuckle, you can also insert a washer, coin, or similar into the gap in the backside of the knuckle. Tightening a bolt against the washer/coin will spread the knuckle slightly for easier strut removal. Ensure the washer/coin does not sit on the alignment tab for the strut as this will lock the strut in position

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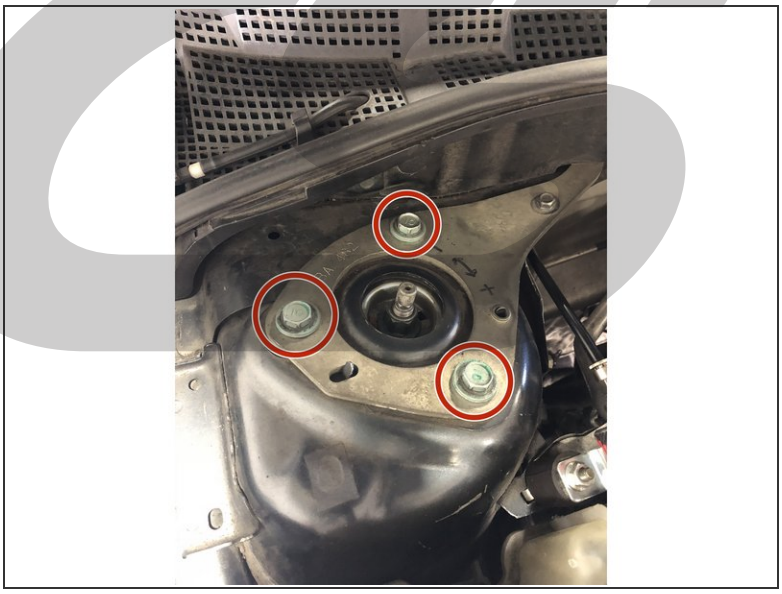
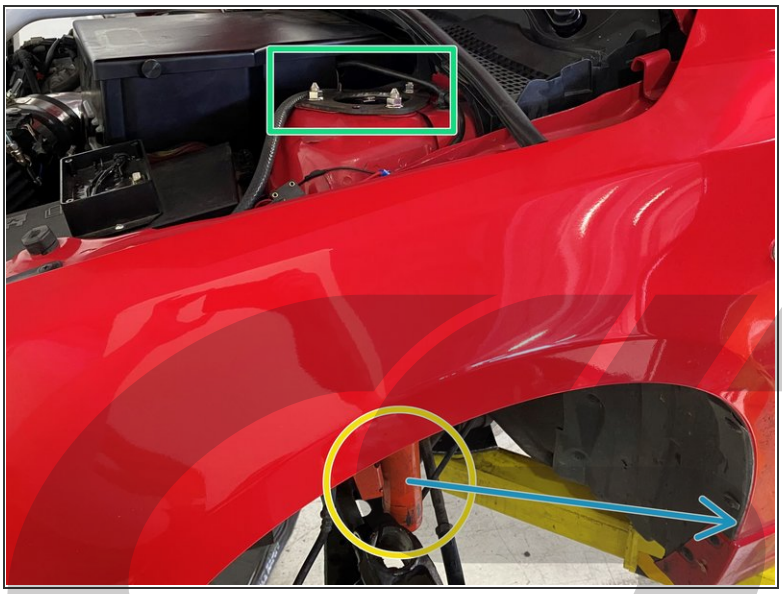
Step 9 — Front Suspension Disassembly Part 6





- Open the hood of your vehicle.
- Locate the three bolts holding the front strut to your vehicle. They will be near the back corner of the engine bay.
- Loosen these three bolts with a 14mm socket and ratchet.
- Hold the bottom of the strut with one hand so it does not fall during the next step.
- Completely remove the bolts with the other hand.
- Remove the front strut from the vehicle
- Repeat Steps 8 & 9 on the opposite side of the vehicle

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Step 10 — Optional: Front Strut Tower Cutting

ⓘ In order to adjust camber without removing the strut assembly from the vehicle, the strut tower must be cut. This modification does not affect the strength of the shock towers and has been tested and proven to function without issue. If you do not want to cut your strut towers, please skip to the next step.

- Using a 3 1/8" bi-metal hole saw, drill out the centers of the shock towers.
  ⓘ Use the factory strut tower bracing as a guide for location. Take your time as you do this step to ensure a clean cut.

ⓘ The first image shows an OEM strut tower and the second shows a cut strut tower

- Clean up any burrs or sharp edges using a file and/or sandpaper. It is also recommended to remove the black OEM strut tower bracing to clean up any metal shavings stuck underneath.
- Clean the surface of any debris and use a degreaser to ensure proper paint adhesion
- Mask off the surrounding areas to prevent overspray
- Paint the exposed bare metal to protect the metal from rusting

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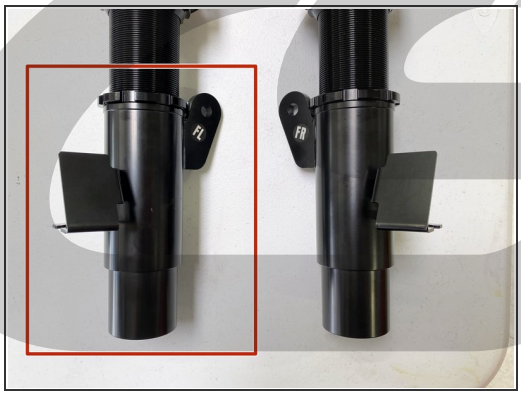
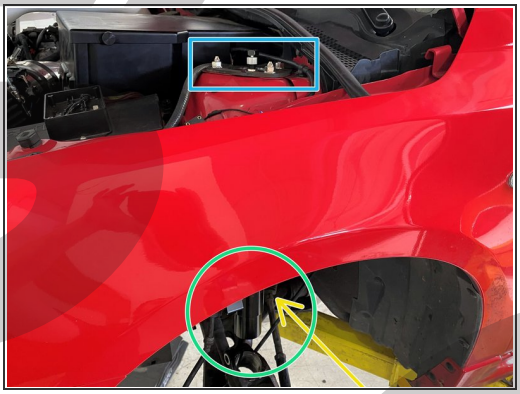
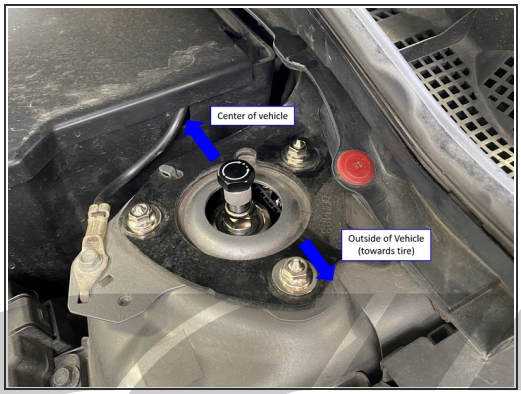
Step 11 — CorkSport Front Coilover Install Part 1







- Locate the front left-hand side coilover. It will appear as shown. The coilovers may be labeled "FL" for front left and/or "FR" for front right.
  - Front left "FL" is for the driver's side, FR is for the passenger side.
- Remove the three 14mm nuts that came loosely installed on the camber plate
- Lift the assembled front LH coilover into position .

Look in the fender to align the three top coilover mounting studs to the three holes in the shock tower.

- Hold the bottom of the strut with one hand.
- Lightly push the strut through the three holes in the strut tower and secure with the supplied nuts removed earlier.
  - The studs will only fit one way with the camber plate positioned as shown, with the adjustment slots perpendicular to the vehicle.

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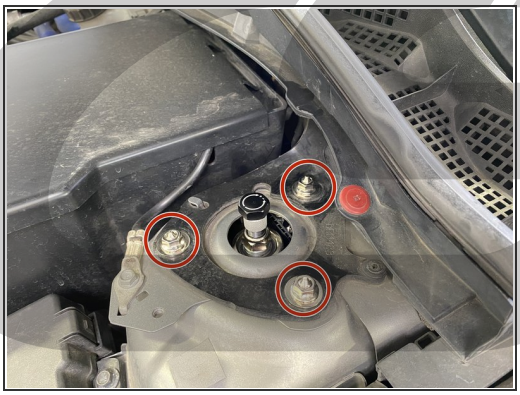
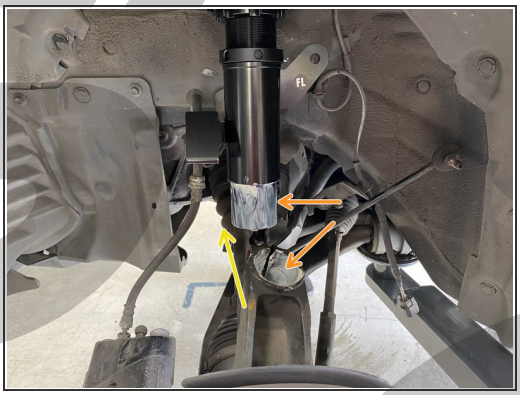
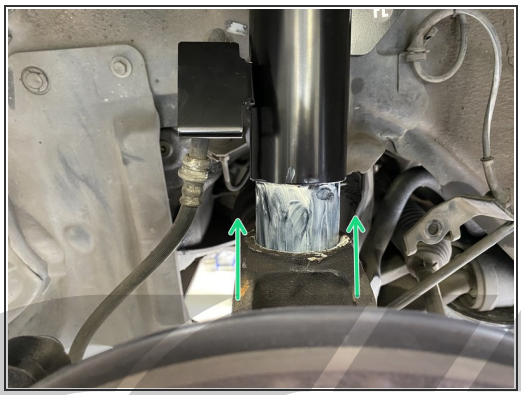
Step 12 — CorkSport Front Coilover Install Part 2

- Loosely tighten the three supplied 14mm nuts that were just removed from the camber plate.
- Tighten the three upper coilover nuts to **35-40ft-lbs**. using a 14mm socket.
- Using some white lithium grease or similar, lubricate the bottom of the coilover body & the inside of the knuckle.
- Rotate the knuckle until the bottom of the coilover aligns with the hole in the knuckle.
- Lift the knuckle upwards and insert the bottom of the coilover into the knuckle.

Step 13 — CorkSport Front Coilover Install Part 3

- Using a hydraulic jack, lift the knuckle upwards from the lower control arm as shown.

⚠ Ensure you are lifting from the control arm and not from the brake rotor or brake dust shield.

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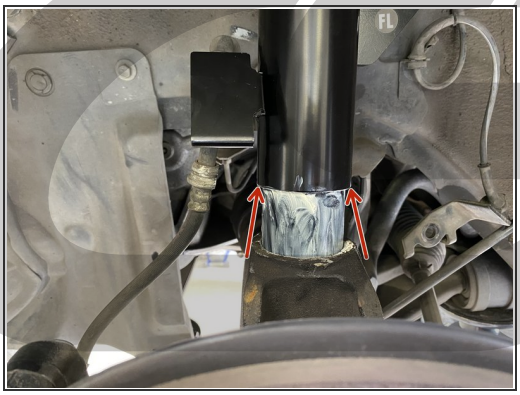
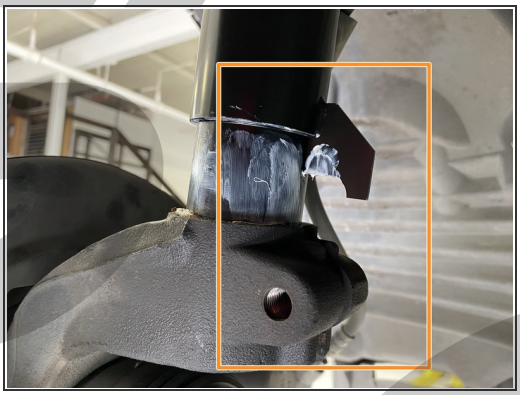
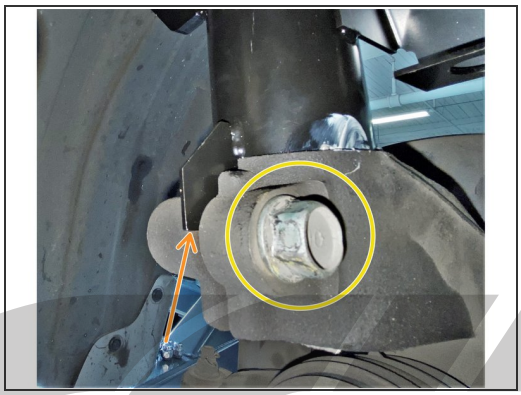
Step 14 — CorkSport Front Coilover Install Part 4



- Lift the suspension upwards until the knuckle contacts the wider portion of the coilover and stops as shown. Lift the jack a small amount more to compress the suspension slightly to ensure proper tightening.
  - You may need to rotate the coilover to fit the alignment tab in between the two sides of the knuckle. Alignment tab shown in the second & third images.
- Once the hub stop is reached, install the 17mm strut pinch bolt that was removed in Step 7.
- Tighten the strut pinch bolt to **48-54ft-lbs.**
- Lower the hydraulic jack once tightening is complete.

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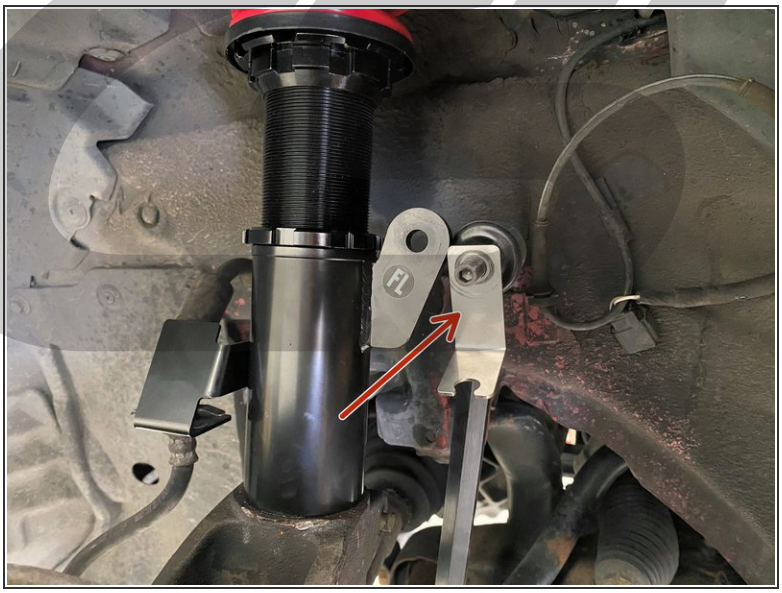
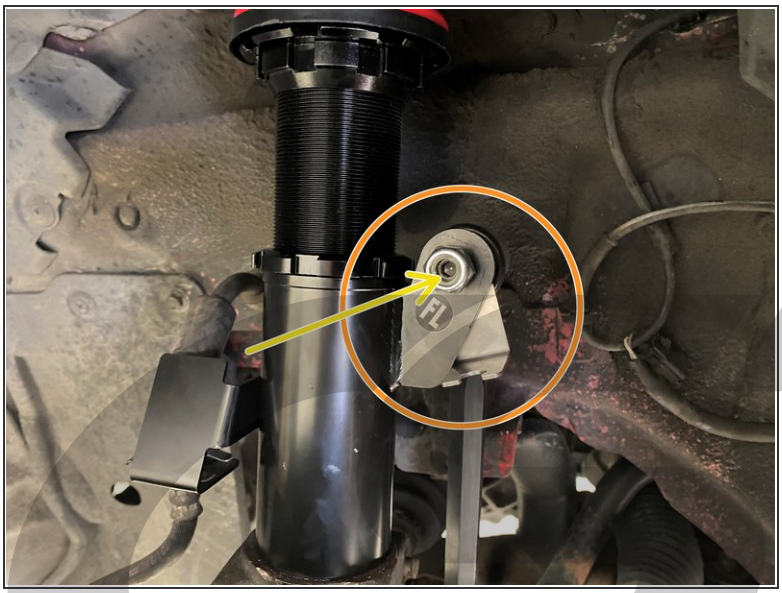
Step 15 — CorkSport Front Coilover Install Part 5





- Install the front sway bar end link through the supplied ABS wiring bracket as shown.
- Install the swaybar endlink into the coilover, sandwiching the ABS wiring bracket between the endlink and coilover
- Secure the front sway bar end link by installing the nut removed in Step 6 and tightening to **32-44 ft-lbs** with a 14mm socket and ratchet.

ⓘ Ensure the ABS wiring bracket ends up positioned as shown for best clearance to wheel & tire

ⓘ If the nut is spinning without tightening, use a 5mm Allen key in the center to keep it secure and a 14mm wrench to tighten.

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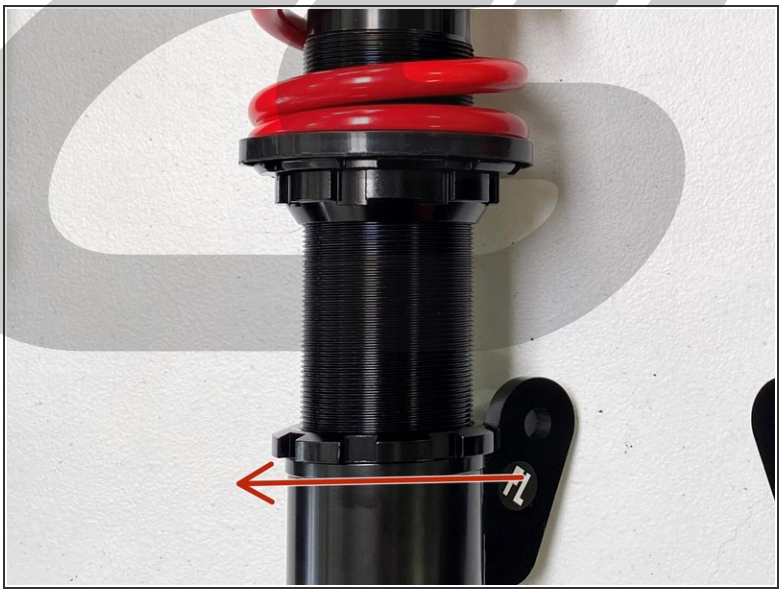
Step 16 — Verify Locking Collar Tightness



ⓘ The CorkSport Coilovers are set to an approximate lowering spring ride height during packaging. If you would like to adjust your coilovers to a different ride height, you do not need to snug up your height locking ring yet. Height adjustments are covered starting on Step 36.

- Using your small spanner wrench, turn the height locking ring clockwise to verify it is tight.
  - ⓘ The locking rings only need a solid snug up. Over torqueing them will make it very difficult to adjust your height later
- Hold your large spanner wrench on the spring perch in a clockwise direction
- Simultaneously, turn your small spanner wrench on the locking ring in a counter-clockwise direction as shown
  - This will lock your spring perch into position

ⓘ Both of these rings are tightened before shipping, however, we want you to verify tightness to make sure nothing moved around during shipping

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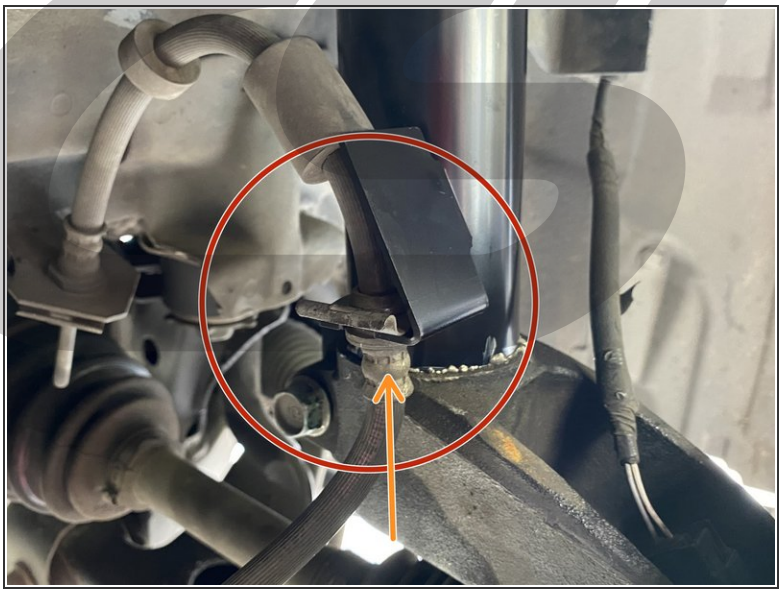
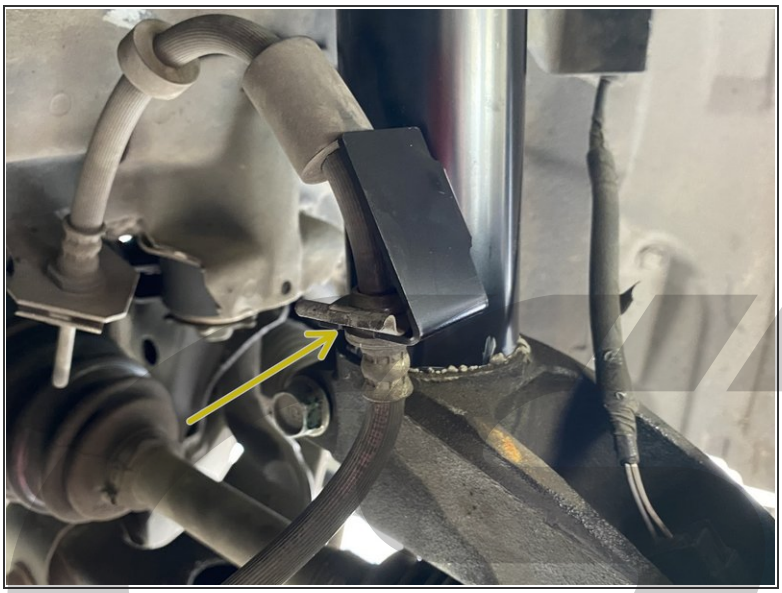
Step 17 — Front Suspension Reassembly Part 1





- Insert the brake line into the new mounting bracket on the coilover.
- Push upward on the line slightly to ensure it is fully seated, then secure the brake line with the retaining clip.
- Ensure the retaining clip is in the orientation shown.

ⓘ You may need to tap the retainer clip gently with a hammer in order to get it fully installed.

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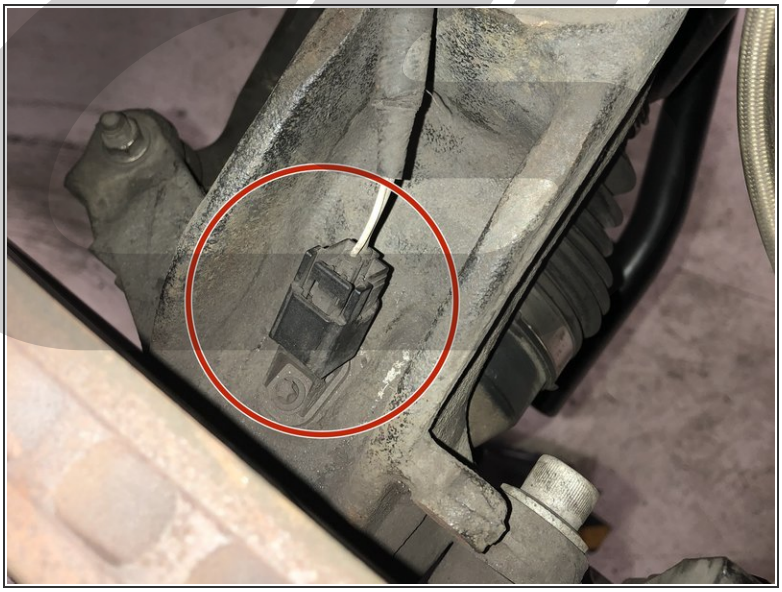
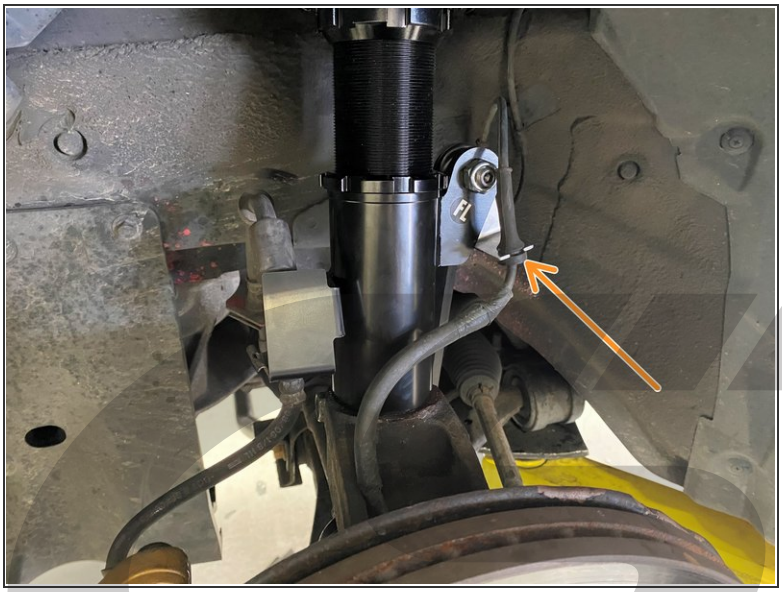
Step 18 — Front Suspension Reassembly Part 2





- Reinstall the ABS sensor connector onto the sensor installed in the knuckle near the brake rotor. It should click into place.
- Secure the ABS wiring in the new supplied mounting bracket. Push the rubber portion of the wiring onto the bracket until the wiring is snug.

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Step 19 — Front Suspension Wrap Up

- Repeat Steps 10-18 for the other side of the vehicle.
- Reinstall both front wheels. Using a 21mm socket on each of the 5 lug nuts.

⚠ Verify your wheel and tire setup clears the coilovers and the ABS wiring. Certain wheel setups will need a small spacer for clearance

- Lower the front of the car down off the jack stands.
- Torque the lug nuts in a star pattern to **75-85ft-lbs.**

ⓘ **Front coilover adjustments will be covered starting on Step 36**

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Step 20 — Lifting the Car & Removing the Rear Wheel

- Lift up the rear of the car using a hydraulic jack and jack stands.

⚠ Be sure to reference your owners manual for jack points and the jack manufacturer's instructions for proper practices.

- Remove the rear wheels from the vehicle using the 1/2" drive breaker bar or impact gun and 21mm socket.

ⓘ A different socket may be required if you have aftermarket or locking lug nuts.

ⓘ **Both sides of the rear suspension are worked on simultaneously unless noted.**

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Step 21 — Rear Suspension Disassembly Part 1

- Locate the rear swaybar endlinks on the control arms, just inside the spring mounts.
- Using a 14mm socket and ratchet, remove an endlink nut from each side of the suspension
  - If the nut is spinning without loosening, use a 5mm Allen key in the center to keep it secure and a 14mm wrench to loosen.
- Swing your rear swaybar downwards to free the endlinks from the control arms.
  - If you have an OEM swaybar or your swaybar does not easily rotate, you will need to remove the swaybar completely. Do this by removing the four 14mm bolts circled and feeding the swaybar out around the other suspension components

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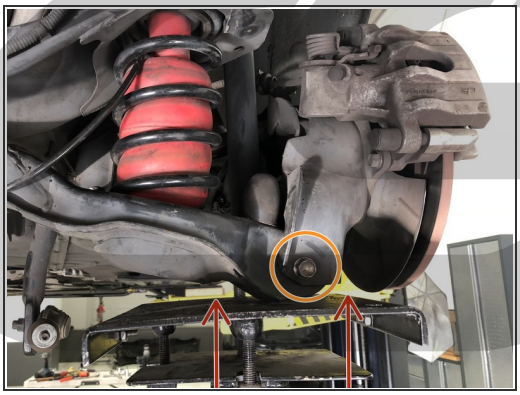
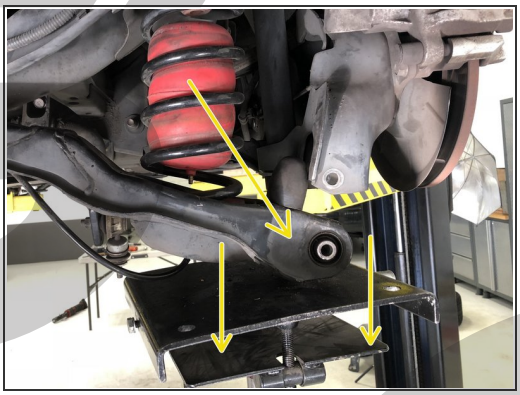
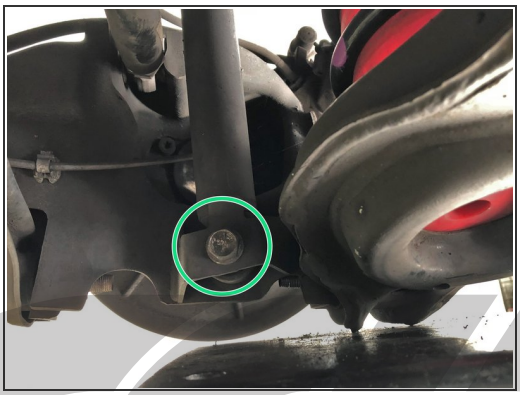
Step 22 — Rear Suspension Disassembly Part 2

The vehicle used for installation images had rear airbag assist. The red portion on the inside of the springs will not be present with OEM or regular lowering springs. Install is identical.

- Using a hydraulic jack, lift the passenger side rear control arm slightly to slightly compress the spring
- Remove the 17mm bolt that secures the lower control arm to the knuckle using a 17mm socket and ratchet.
- Slowly lower the hydraulic jack and remove the rear spring from the vehicle. Ensure the OEM upper and lower rubber perches are removed with the spring
- Remove the 17mm bolt that secures the rear shock to the knuckle using a 17mm socket and ratchet.

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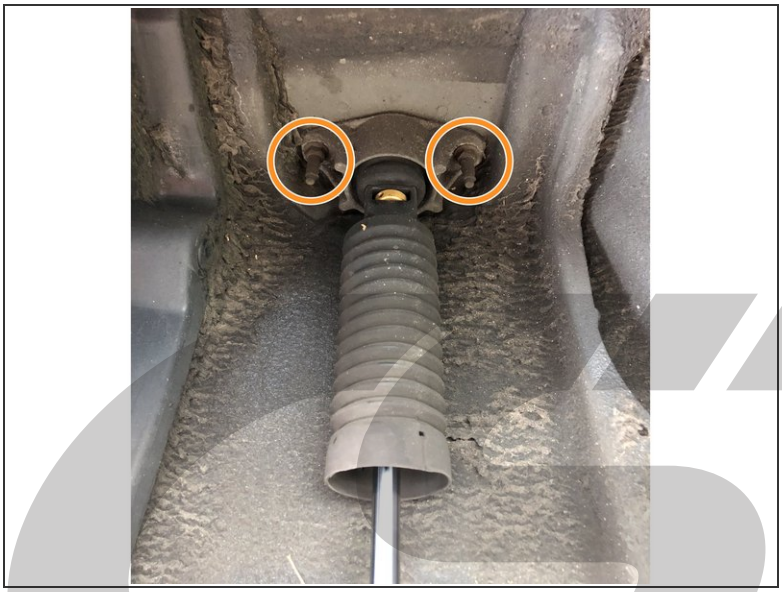
Step 23 — Rear Suspension Disassembly Part 3



- Trace the passenger side shock upwards to locate the upper shock mount.
- Remove the two upper shock mounting nuts using a 12mm socket and ratchet.

⚠ Hold the shock while removing the mounting bolts to prevent it from falling.

- Remove the shock from the vehicle.
- Repeat Steps 22-23 for the other side of the vehicle

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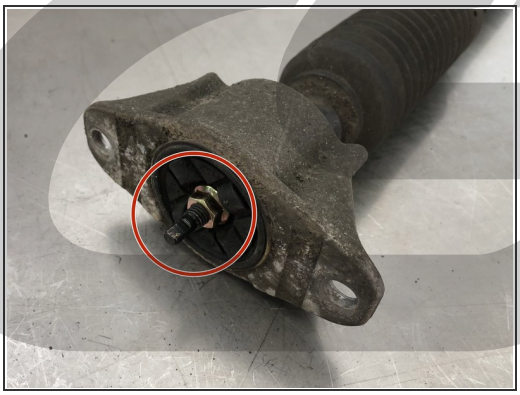
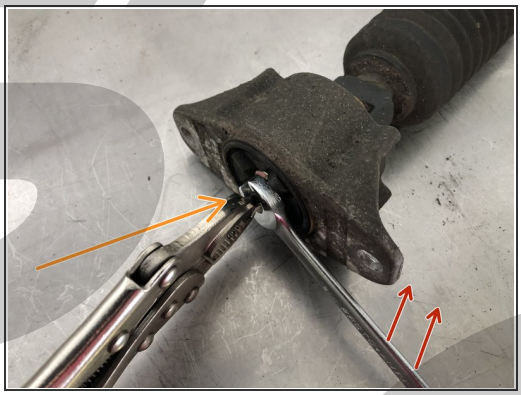
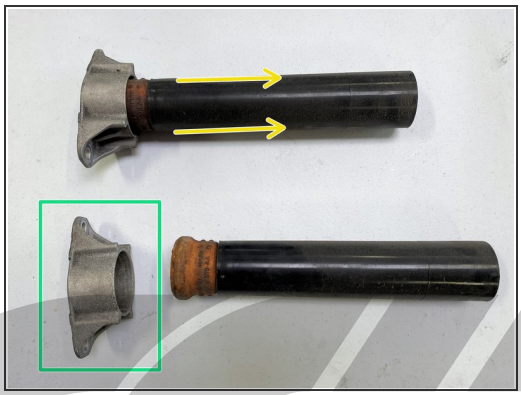
Step 24 — Rear Coilover Shock Install Prep Part 1

⚠ The shock shaft can be easily broken if an impact is used to remove the top nut. We do not recommend using an impact for top hat nut removal.

- Remove the OEM rear shock top hat using a 12mm wrench to remove the top hat retaining nut. Then remove the top hat assembly
  - Typically, the strut will rotate when trying to remove this nut. We recommend holding the top of the strut with locking pliers as shown to prevent rotation during nut removal.
- Remove the OEM bump stop and plastic dust boot assembly from the top hat. It simply pulls free from the OEM rear shock top hat with some force.
- The OEM top hat will be left as shown and will be swapped onto the CS coilover shock

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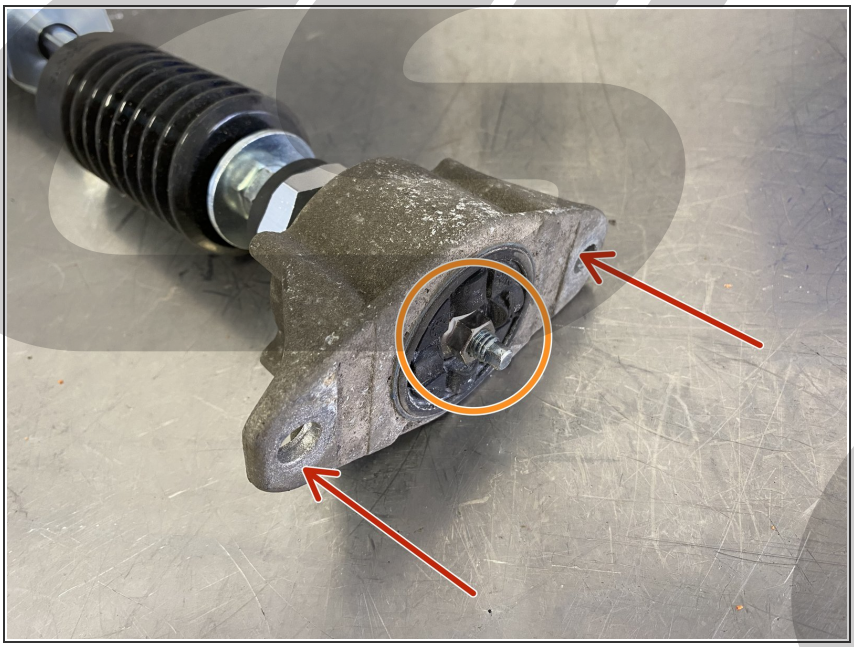
Step 25 — Rear Coilover Shock Install Prep Part 2



- Remove the supplied 12mm nut that was loosely installed on top of the CS rear coilover shock
- Install the OEM top hat onto the CS rear coilover shock
- Using the same method with the locking pliers as before, tighten the OEM top hat to the CS coilover shock. Tighten to ~**15-20ft-lbs.** with a 12mm wrench.

⚠ Again, do not use an impact to tighten the shock top nut, the top of the shock can be easily broken

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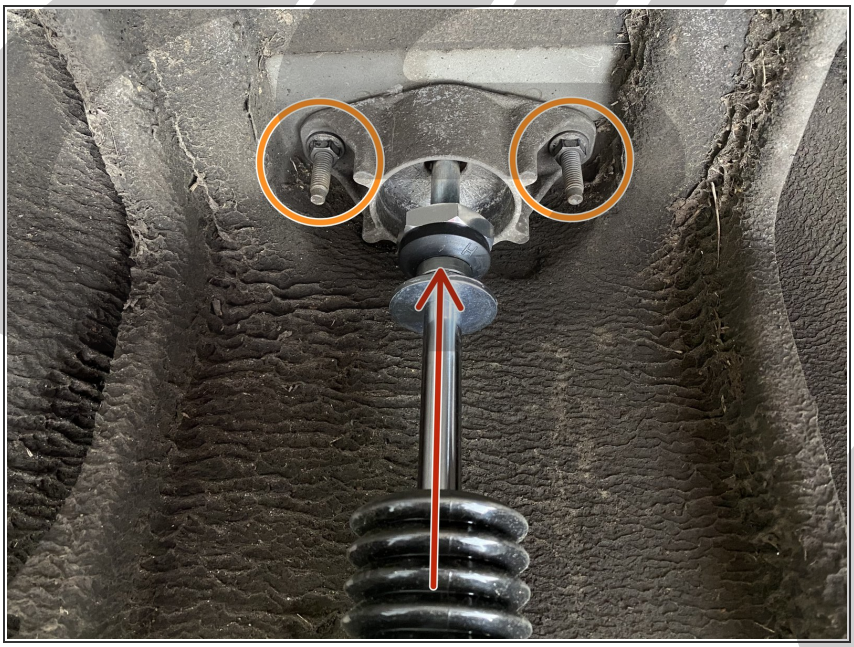
Step 26 — CorkSport Rear Coilover Shock Installation Part 1



- Insert the CorkSport rear coilover shock into position on the rear left side, aligning the shock top hat with the studs on the vehicle
- Secure the shock with the two 12mm nuts removed earlier. Tighten to **17-22ft-lbs** using a 12mm socket and ratchet.

ⓘ Lower shock mount tightening in the next step is split into two sections depending if you have a GEN1 or GEN2 Mazdaspeed 3/Mazda 3

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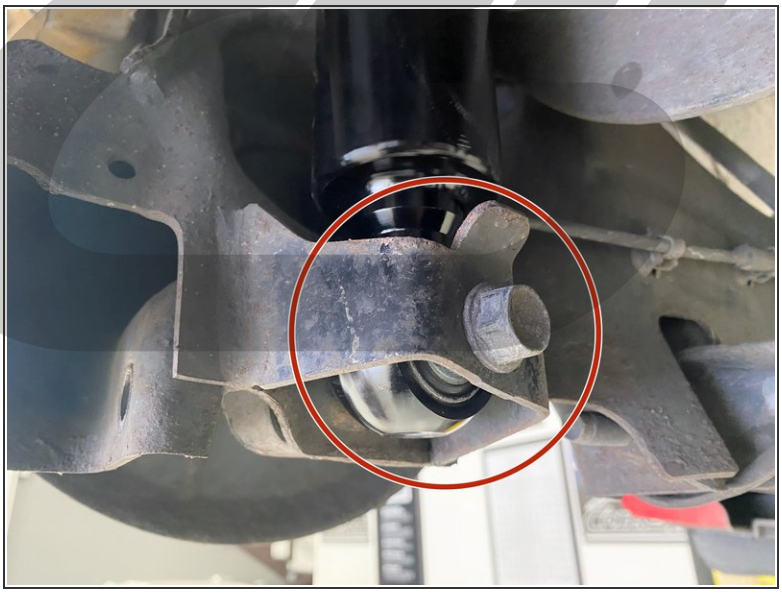
Step 27 — CorkSport Rear Coilover Shock Installation Part 2



- GEN1 (2004-2009) Owners:
  - Re-use the OEM lower shock mounting bolt removed in Step 22 to secure the bottom of the shock to the spindle. Torque to **55-65ft-lbs** using a 17mm socket and ratchet
- GEN2 (2010-2013) Owners:
  - Use the supplied 19mm bolt and washer to secure the bottom of the shock to the spindle. Torque to **55-65ft-lbs** using a 19mm socket and ratchet.

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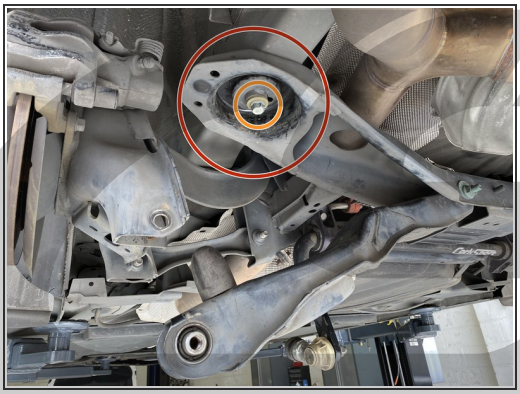
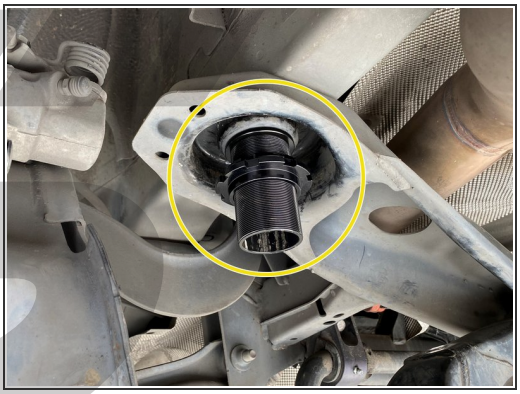
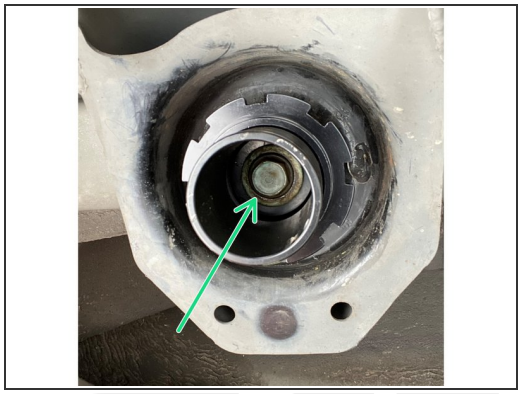
Step 28 — Right Side Rear Coilover Shock Install

- **Repeat Steps 24-28 on the other CS coilover shock & on the other side of the vehicle.**

Step 29 — Rear Coilover Spring Perch Install Part 1







- Locate the rear subframe mounting point that is positioned inside the upper spring perch
- Remove the subframe mounting bolt using a 17mm socket and ratchet
  - ⓘ Only remove the bolt from one side at a time to ensure your subframe stays in position
- Install the CorkSport Adjustable Upper Spring Perch onto this subframe mounting location as shown using the OEM bolt
- Tighten the subframe mounting bolt to **65-75ft-lbs.**

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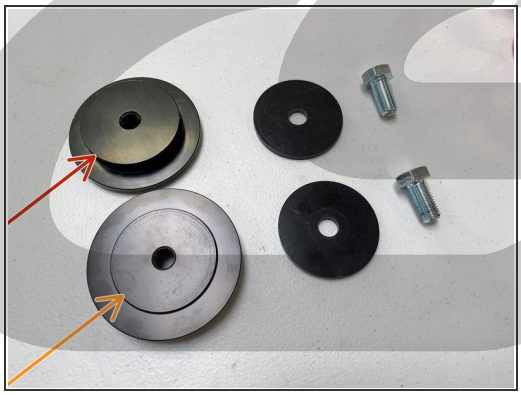
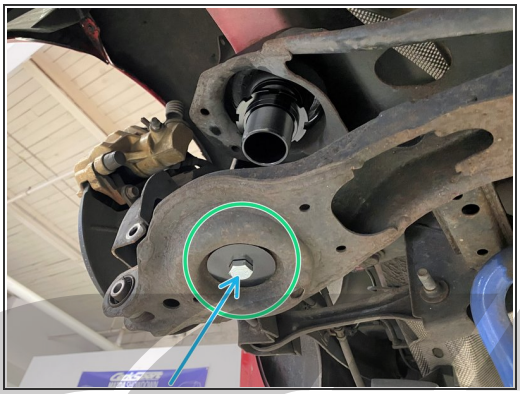
Step 30 — Rear Coilover Spring Perch Install Part 2





- Locate the CorkSport Lower Spring Perches in your kit. Remove the bolt from the bottom and separate the parts. Take note of the different ends shown in the first image:
  - Spring perch side
  - Control arm side
- Place one of the perches in the lower control arm so that the control arm side fits within the hole in the control arm as shown
- Secure the spring perch to the control arm using the supplied large washer and hardware
- Tighten the bolt to **20-30ft-lbs.** using a 19mm socket and ratchet

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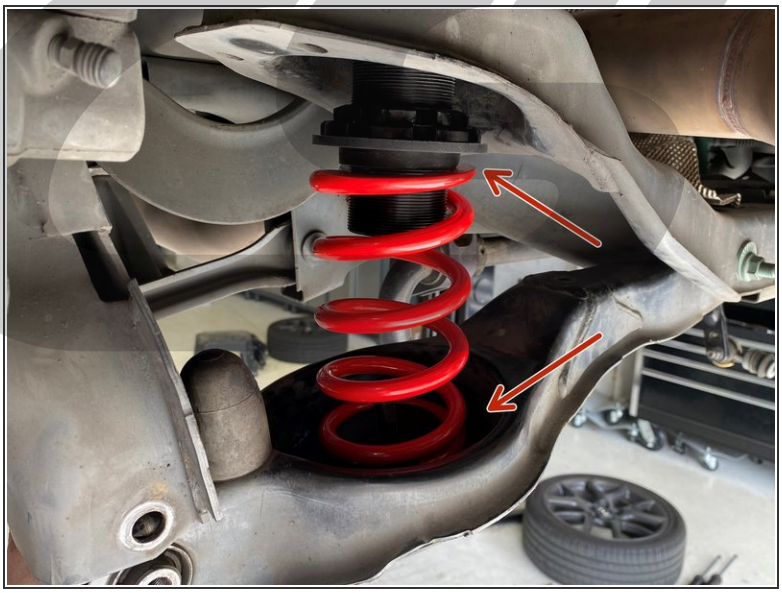
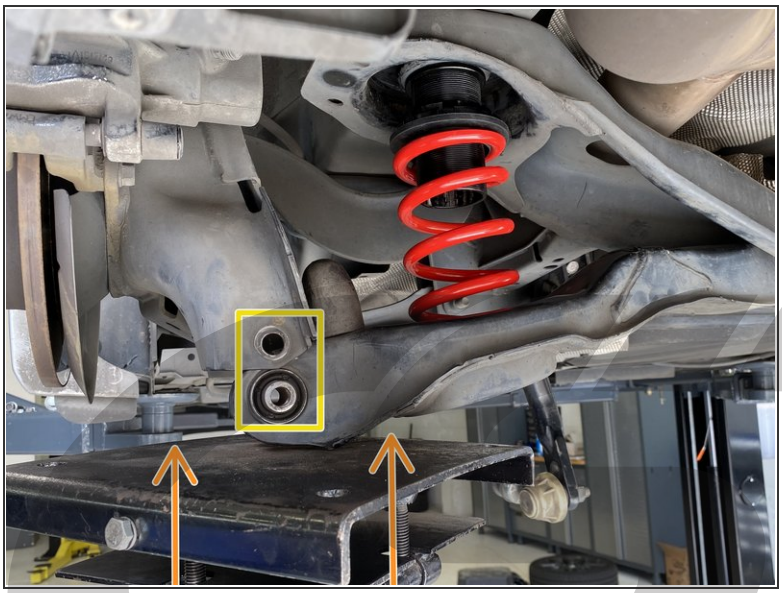
Step 31 — Rear Coilover Spring Install Part 1





- Place the supplied coilover spring onto the CS perches as shown

  ⓘ Note, the rubber pad shown in the images was used for R&D testing only. They are not used for the kits

- Place the hydraulic jack underneath the end of the control arm like in Step 22.
- Raise the hydraulic jack until the hole in the control arm lines up with the mounting hole in the knuckle

ⓘ As you raise the jack, ensure the spring is aligned with both upper and lower spring perches as it can be difficult to realign them later

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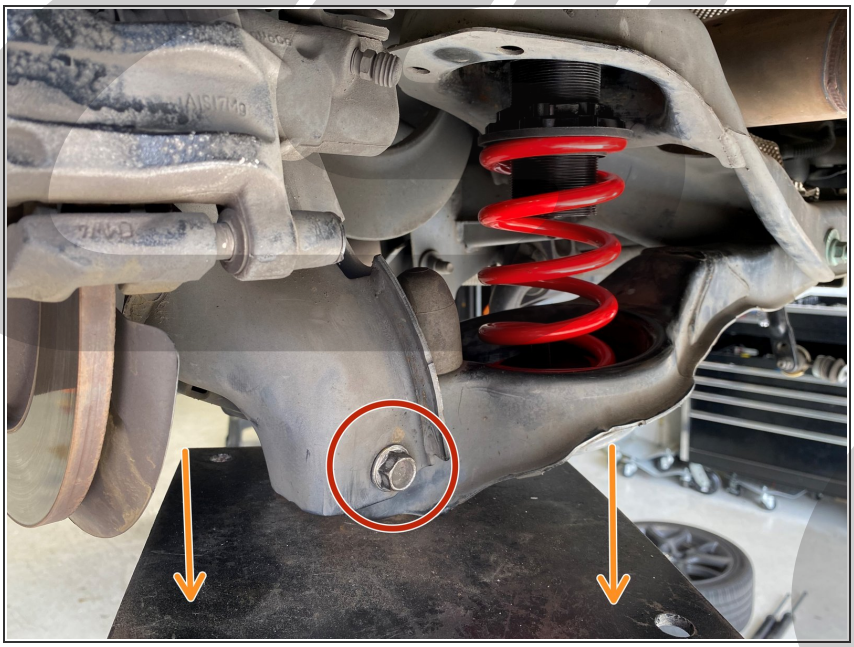
Step 32 — Rear Coilover Spring Install Part 2



- Install the lower control arm mounting bolt removed earlier. Tighten to **57-75 ft-lbs** using a 17mm socket and ratchet.
- Once tight, lower the hydraulic jack.
- Repeat Steps 29-32 for the other side of the vehicle.

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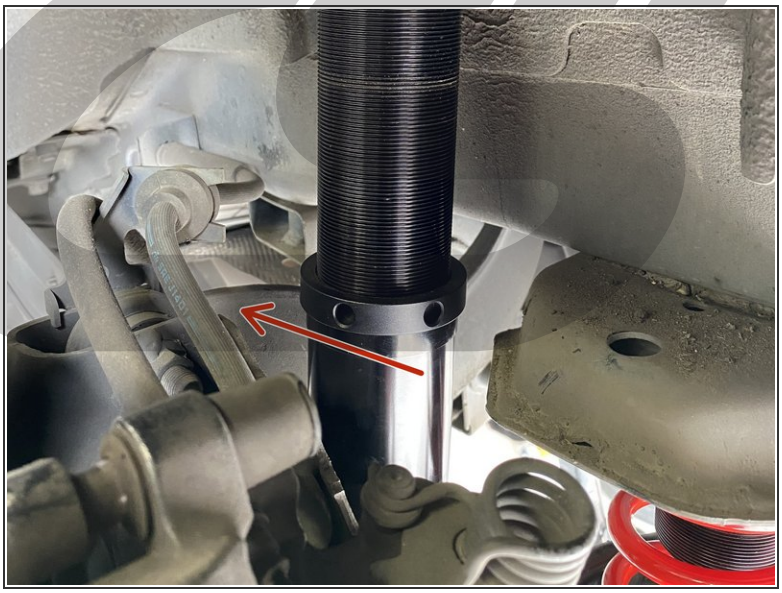
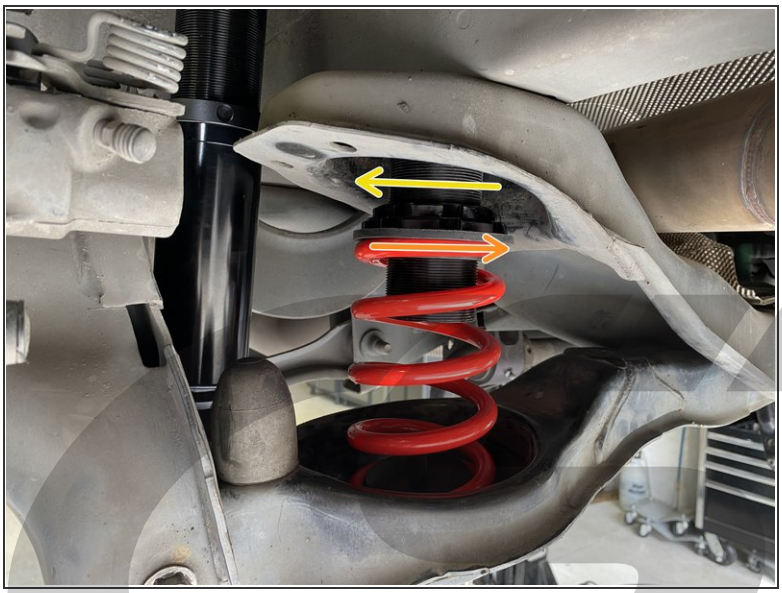
Step 33 — Verify Locking Collar Tightness





ⓘ The CorkSport Coilovers are set to an approximate lowering spring ride height during packaging. If you would like to adjust your coilovers to a different ride height, you do not need to snug up your locking rings yet. Height adjustments are covered starting on Step 36.

- Using your small spanner wrench, turn the shock length locking ring clockwise to verify it is tight.
  - ⓘ The locking rings only need a solid snug up. Over torqueing them will make it very difficult to adjust your height later
- Hold you large spanner wrench on the spring perch in a counter-clockwise direction
- Simultaneously, turn your small spanner wrench on the locking ring in a clockwise direction as shown
  - This will lock your spring perch into position

ⓘ Both of these rings are tightened before shipping, however, we want you to verify tightness to make sure nothing moved around during shipping

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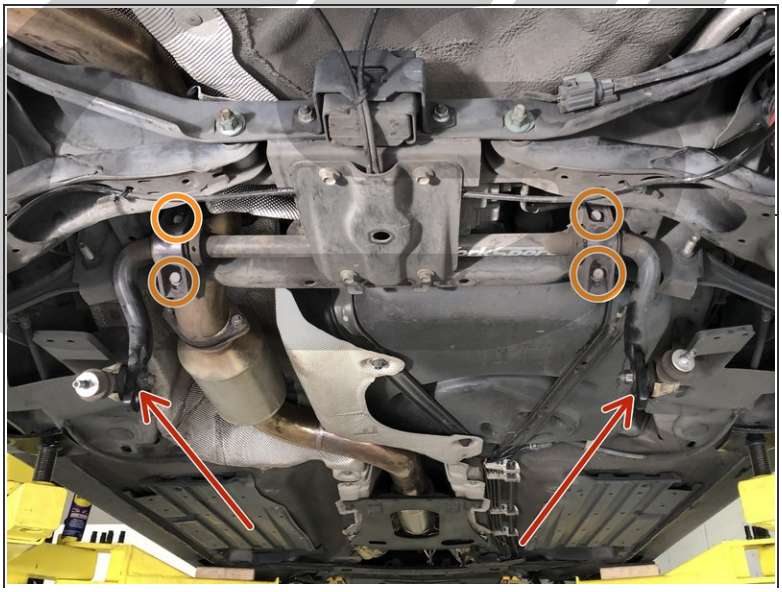
Step 34 — Rear Suspension Reassembly



- Swing your rear swaybar upwards and realign the endlinks into the control arms.
  - If you had to remove your swaybar, reinstall it at the bolting locations circled. Tighten the 14mm bolts to **32-40ft-lbs.**
- Reinstall the endklink nuts using a 14mm socket and ratchet. Tighten to **32-45ft-lbs.**

ⓘ If the nuts are spinning without tightening, use a 5mm Allen key in the center to keep it secure and a 14mm wrench to tighten.

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Step 35 — Rear Suspension Wrap Up

- Reinstall both rear wheels. Using a 21mm socket on each of the 5 lug nuts.
- Lower the rear of the car down off the jack stands.
- Torque the lug nuts in a star pattern to **75-85ft-lbs.**

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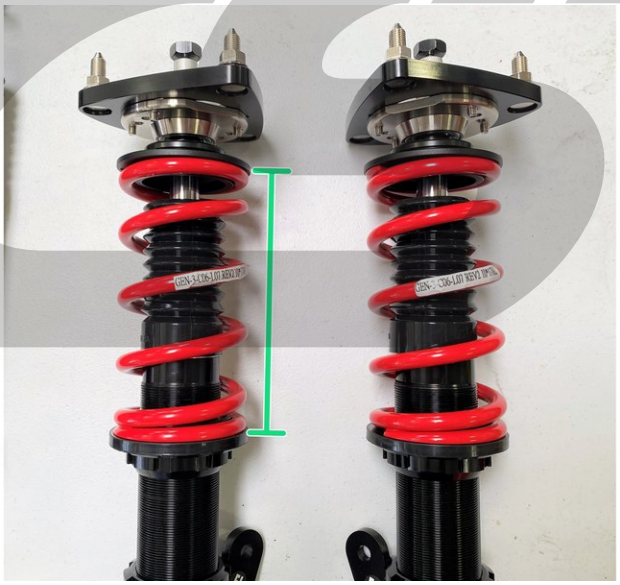
Step 36 — Front Coilover Ride Height Adjustment Notes



ⓘ The CorkSport Coilovers are set to an approximate lowering spring ride height during packaging. If you would like to adjust your coilovers to a different ride height, carefully follow the following steps.

ⓘ It will typically take 50+ miles of driving before the coilover settle to their final ride height.

- The spring perches are set to ~10mm of spring pre-load during packaging. This typically will never need to be adjusted, unless swapping springs or doing extremely fine tuning for track handling.
  - ⓘ As a result, we recommend leaving the front spring perches alone for the majority of customers.

⚠ It is the customer's responsibility to make sure no damage will occur to their vehicle when driving at extremely low ride heights.

ⓘ We recommend a suspension alignment after any ride height changes.

⚠ There is a obvious gap in the threads of the coilover. This gap in the threads is the mark for **maximum ride height**. The lower mounting body of the coilover MUST cover this mark to ensure safe operation

- Gap in the coilover threads shown in the second image.

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Step 37 — Front Coilover Ride Height Adjustment Part 1

- Jack up the front of your vehicle and remove the front wheels as shown early in these instructions
- Measure the distance between the lower spring seat and the bottom of the ride height locking ring as shown
  - ⓘ This comes from CorkSport set to ~105mm as shown
- Locate the ride height locking ring as shown.
- Using the small spanner wrench in your kit, loosen the ride height locking ring by rotating it counter-clockwise. Spin it up a few turns to give you room for adjustments.
- Turning the coilover clockwise will decrease ride height.
- Turning the coilover counter-clockwise will increase ride height

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Step 38 — Front Coilover Ride Height Adjustment Part 2

- Once you think you are happy with your adjustment, bring the ride height locking ring back flush to the lower coilover body
- Re-measure the distance between the spring seat and the bottom of the ride height locking ring.

  ⓘ The ride height adjustment in the front is approximately 1 to 1. So 10mm shorter in this distance will be approximately 10mm lower ride height.
- Once happy with height change, secure the ride height locking ring to the lower coilover body by turning the locking ring clockwise. It just needs to be hand tight plus a slight turn with the spanner wrench.

  ⓘ Over-tightening the locking collar will make it much more difficult to adjust the coilovers later.
- Repeat Steps 37 and 38 on the other front coilover before reinstalling the wheels and checking your ride height.
- Repeat as necessary until desired ride height is achieved.

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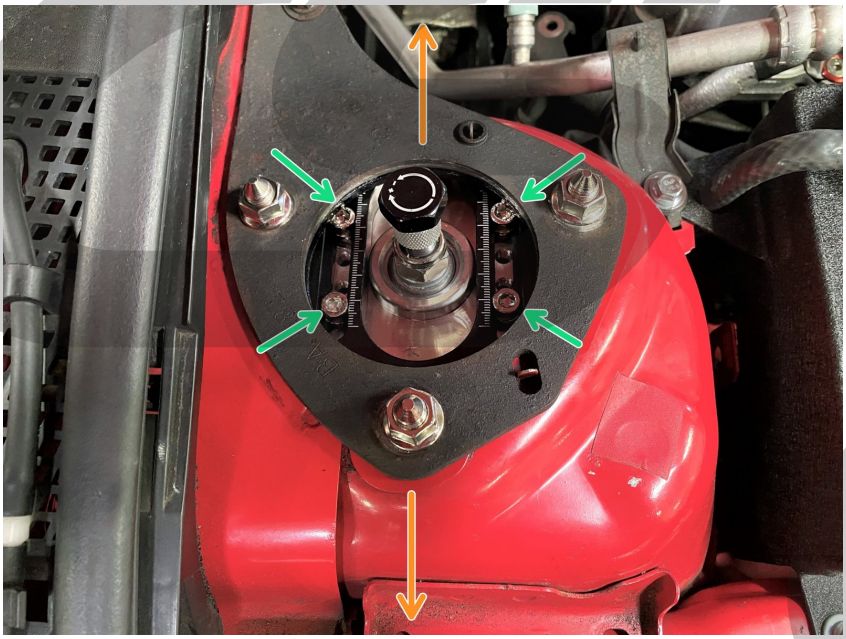
Step 39 — Front Coilover Camber Adjustment



For easier camber adjustment, we recommend jacking up the front of your vehicle.

- Locate the four Allen head bolts at the top of your coilovers.
- Loosen with a 5mm Allen wrench/socket. **Do not fully remove these bolts**
- Push the top of your tire inwards for more negative camber and pull it outwards for more positive camber.

The camber plate bolts may need to be repositioned to different holes for maximum adjustment. **Only move one bolt at a time.**

At maximum adjustment, a ball end Allen wrench and/or additional trimming to the shock tower may be needed for proper bolt access.

- Once happy with camber adjustment, tighten the four Allen head bolts to **12-15ft-lbs.**

We recommend a suspension alignment after any camber change.

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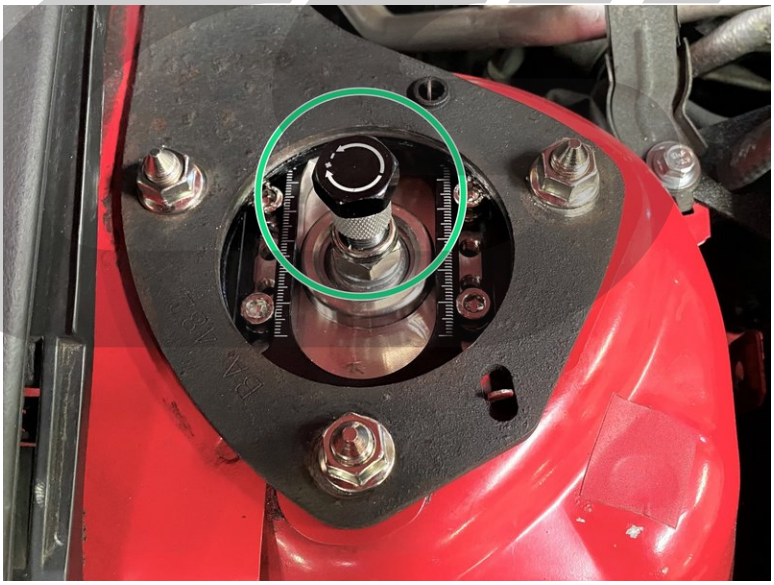
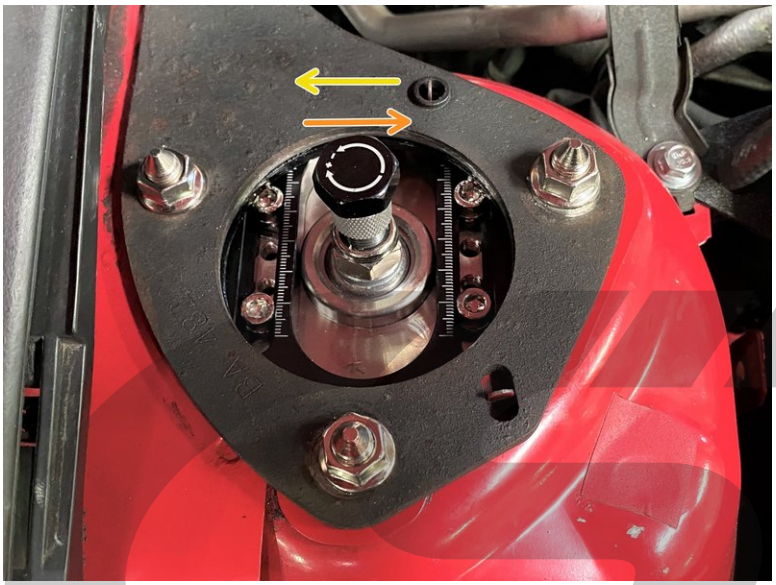
Step 40 — Front Coilover Damping Adjustment





- Locate the damping adjustment knob at the top of your front coilovers. This can be turned to fine tune your ride quality & handling.

ⓘ CorkSport coilovers come shipped 8 clicks from full soft. We recommend driving first and adjusting from there

- Turn the knob clockwise for a stiffer more sporty ride
- Turn the knob counter-clockwise for a softer more comfortable ride

⚠ Do not force the knob to turn past its softest or firmest setting. Doing so may damage the internal valving and cause the adjustment needle to get stuck. The result will be a free spinning adjustment knob.

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Step 41 — Rear Coilover Ride Height Adjustment Notes

The CorkSport Coilovers are set to an approximate lowering spring ride height during packaging. If you would like to adjust your coilovers to a different ride height, carefully follow the following steps.

It will typically take 50+ miles of driving before the coilover settle to their final ride height.

With the shocks separate from the spring, the shock length must be adjusted whenever ride height is changed to ensure correct ~10-15mm spring preload. Failure to do so may result in noises, poor ride, and/or damage.

It is the customer's responsibility to make sure no damage will occur to their vehicle when driving at extremely low ride heights.

- We recommend a suspension alignment after any ride height changes.

There is a obvious gap in the threads of the coilover. This gap in the threads is the mark for **maximum length** of the shock. The lower mounting body of the shock MUST cover this mark to ensure safe operation

- Gap in the threads shown in the second image.

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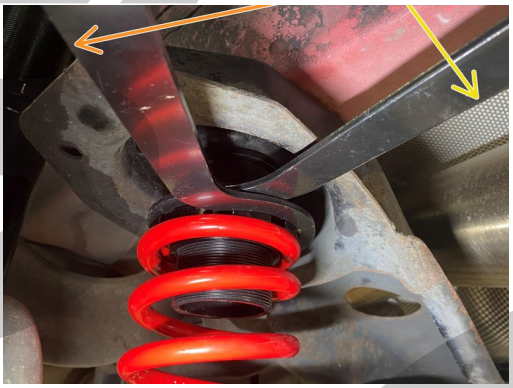
Step 42 — Rear Coilover Ride Height Adjustment Part 1



- Jack up the rear of your vehicle and remove the rear wheels as shown in Step 20 of these instructions
- Measure the distance between the spring seat and the bottom of the height adjuster as shown. This comes from CorkSport set to ~50mm (the vehicle shown had already been adjusted lower)
- Using the spanner wrenches in your kit, loosen the ride height locking ring from the spring perch.
  - Hold the spring perch in a clockwise direction with the larger spanner wrench.
  - Turn the locking ring in a counter-clockwise direction with the smaller spanner wrench.
- Locate the shock length locking ring.
- Loosen the shock length locking ring using the smaller spanner wrench that comes in your kit. Turn the spanner wrench counter-clockwise to loosen the ring. Spin it up a few turns to allow for adjustment.

ⓘ Optionally, you can remove the mounting bolt from the lower control arm as shown in Step 22. It is easiest to adjust ride height when the control arm bolt is removed as this takes the tension off the spring

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Step 43 — Rear Coilover Ride Height Adjustment Part 2

- Turning the spring seat counter-clockwise will decrease ride height.
- Turning the spring seat clockwise will increase ride height
- Once you think you are happy with your adjustment, bring the ride height locking ring back flush to the spring seat.
- Re-measure the distance between the spring seat and the bottom of the height adjuster as shown
  - The ride height adjustment in the rear is approximately 1 to 1.4. So 10mm shorter in this distance will be approximately 14mm lower ride height.
- Once happy with height change, secure the ride height locking ring to the spring seat. Hold the spring seat in a counter-clockwise direction and tighten the locking ring against it in a clockwise direction. It just needs to be hand tight plus a slight turn with the spanner wrench.
  - Over-tightening the locking collar will make it much more difficult to adjust the coilovers later.

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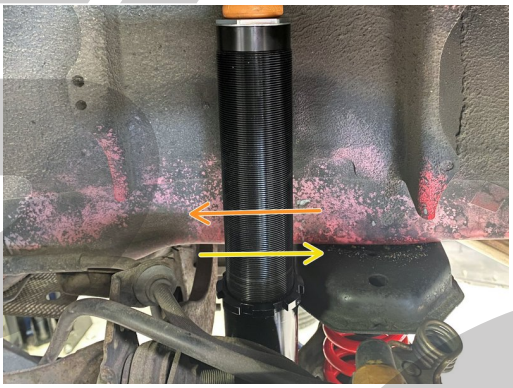
Step 44 — Rear Coilover Ride Height Adjustment Part 3



- Repeat Steps 42 and 43 on the other rear spring seat before continuing.
- If removed, reconnect the lower control arm to the knuckle. This is shown in Steps 31-32.
- With the suspension hanging (no jack holding anything up), measure the length of the spring as shown. For proper spring pre-load, spring length should measure ~140mm (5.5").
- To correct spring pre-load, you will need to adjust shock length.
  - If your measurement was larger than 140mm, you will need to shorten the shock by turning it clockwise.
  - If your measurement was smaller than 140mm, you will need to lengthen the shock by turning it counter-clockwise.
- Adjust the shock length as needed until the spring measures ~140mm (5.5"). If near max ride height on the height adjuster, be aware of the max shock length mark shown in Step 41. Additional spring pre-load is OK if required per max shock length.
- Once happy with spring length, secure the shock length locking ring. It just needs to be hand tight plus a slight turn clockwise with the spanner wrench.

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Step 45 — Rear Coilover Ride Height Adjustment Part 4

- Repeat Step 44 on the other rear coilover shock before reinstalling the wheels and checking your ride height.
- Repeat the ride height adjustment procedure shown in Steps 41-44 as necessary until desired ride height is achieved.

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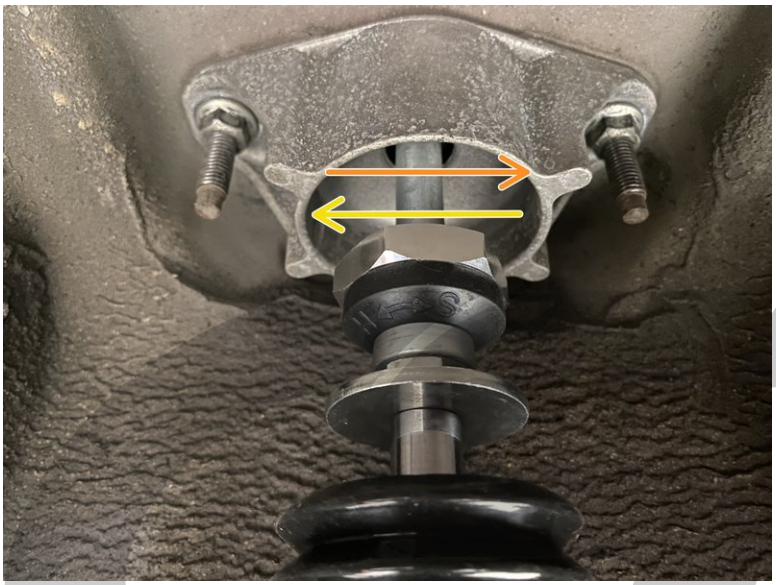
Step 46 — Rear Coilover Damping Adjustment



CorkSport coilovers come shipped 8 clicks from full soft. We recommend driving first and adjusting from there

- Locate the damping adjuster near the top of your rear coilover shock. It looks like a large hex nut. You will likely need to jack up your vehicle to access this adjustment. This can be turned to fine tune your ride quality & handling.
- Turn the knob counter-clockwise for a softer more comfortable ride (in the "S" direction)
- Turn the knob clockwise for a stiffer more sporty ride (in the "H" direction)

Do not force the knob to turn past its softest or firmest setting. Doing so may damage the internal valving and cause the adjustment needle to get stuck. The result will be a free spinning adjustment knob.

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Step 47 — Installation Complete

- This completes your installation of the CorkSport Performance Coilovers!
  - Listen for any loud noises upon first drive. If any are present, inspect the suspension.
  - Added NVH (noise, vibration, & harshness) including suspension noise at low speeds and rougher ride is normal.
- Contact us with any questions or concerns at sales@corksport.com or (360) 260-2675.
- Please leave a review here: https://corksport.com
- Share your experience using #CorkSport on Instagram, Facebook, and Twitter.

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