JAMES BARONE RACING

2004 - 2013 MAZDA 3 & MAZDASPEED 3 COILOVER INSTALLATION INSTRUCTIONS

Tooling:

- ✓ Jack, jack stands or lift and jack pole
- ✓ Ratchet wrench
- ✓ 6" extension
- ✓ 5mm allen wrench
- ✓ 12mm, 14mm, 17mm, 19mm 22mm sockets
- ✓ 14mm and 17mm wrenches
- ✓ Hammer (larger the better)
- ✓ Large nosed chisel

Included:

- ✓ 2 Front coilovers with camber plates
- ✓ 6 Flat washers
- ✓ 2 Rear shocks with upper mounts
- ✓ 2 Rear springs
- ✓ 2 Adjustable rear spring perches
- ✓ 2 Front adjuster keys
- ✓ 2 12" rear remote adjuster keys
- ✓ 2 Spanner wrenches

**Please be sure to read and understand the instructions thoroughly before beginning. Professional installation is strongly recommended.

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FRONT

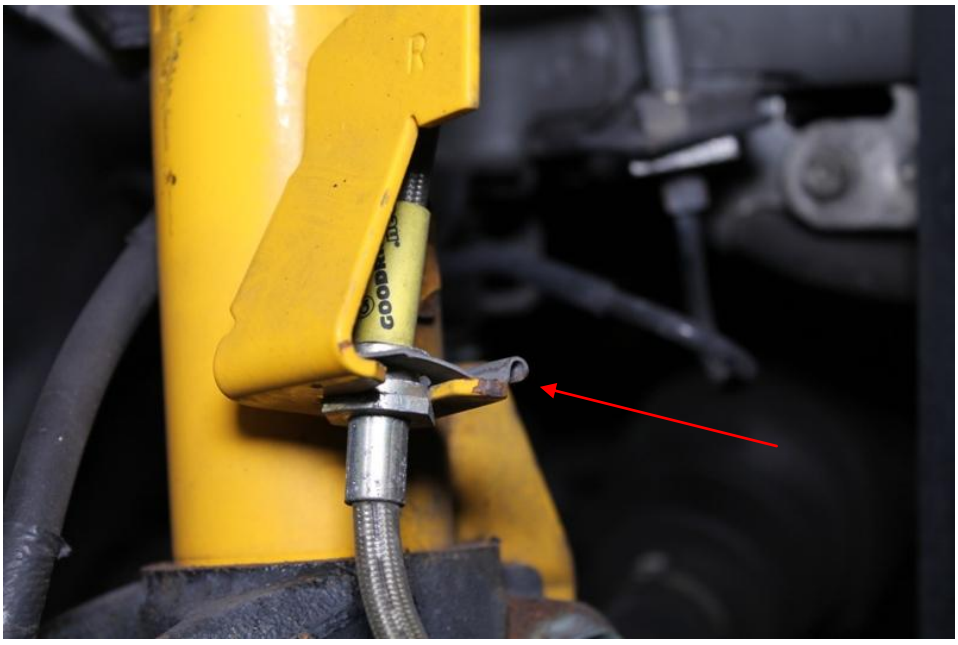
- **Begin by parking on a smooth level surface with the emergency brake engaged. Jack up the front of the vehicle and position jack stands underneath both sides.**

Refer to your vehicle's owner's manual for proper jack placement and supporting procedures.
Never get under a vehicle without the proper support in place.

1. Remove both front wheels and using a 14mm closed ended wrench and a 5mm allen wrench, remove **both** end links.

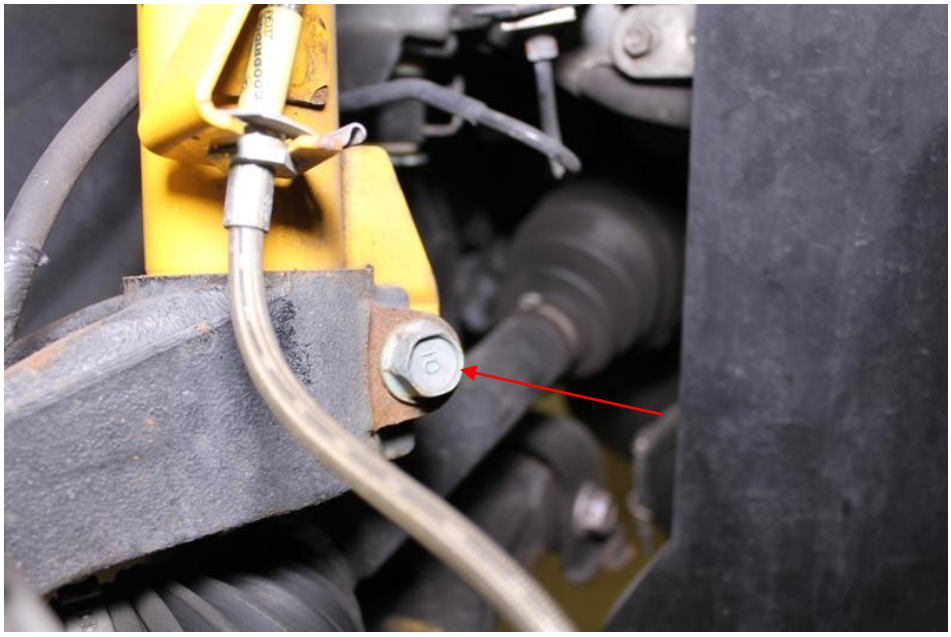


2. Using a pair of pliers remove the front brake line clip.

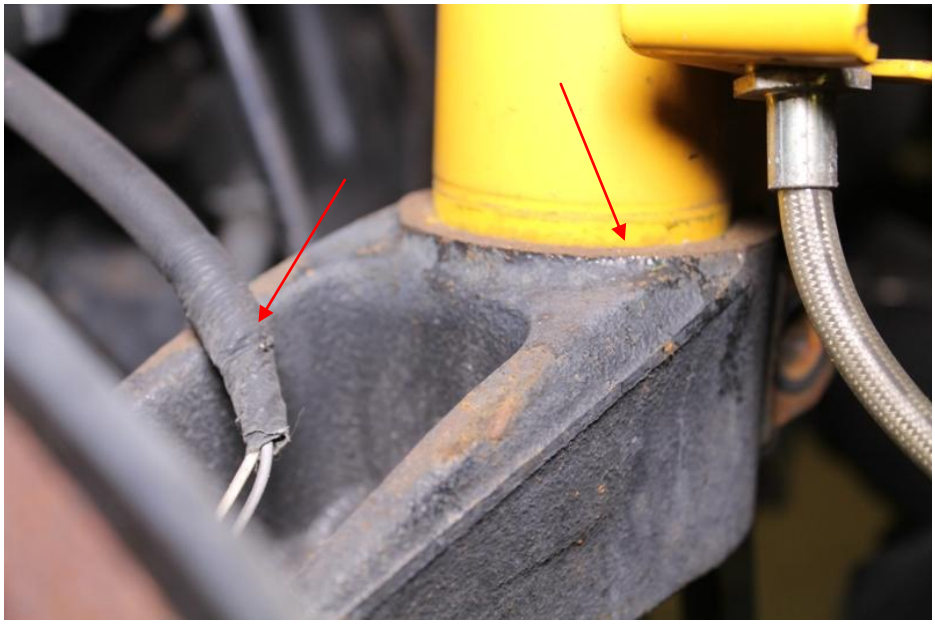


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3. Use a 17mm socket to remove the nut securing the strut in the spindle

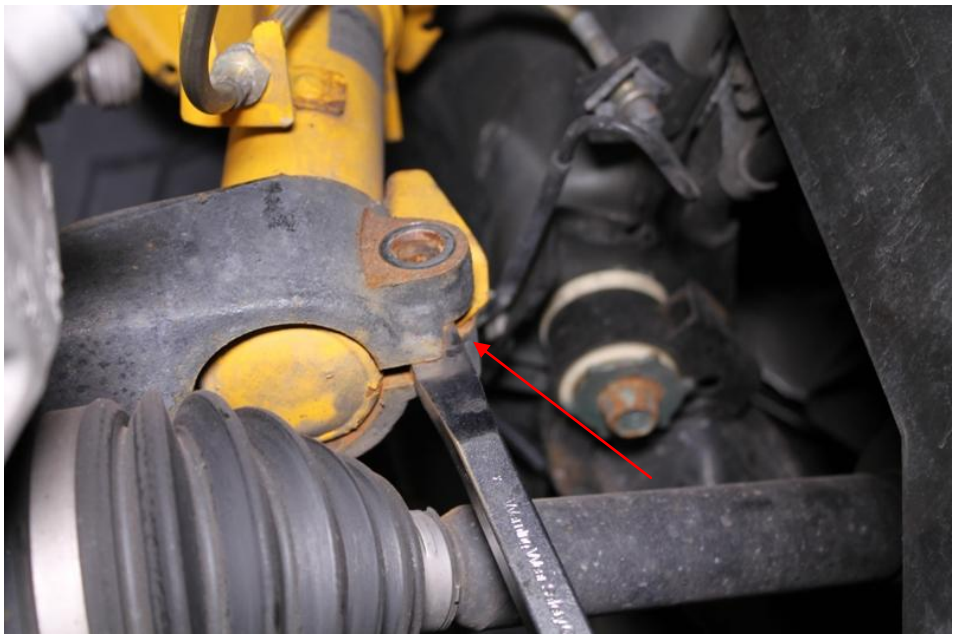


4. Remove the ABS sensor connector then spray some penetrating oil on top of the spindle where the strut is inserted.



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5. Drive a chisel in between the ears of the spindle to open and release the strut from the spindle.

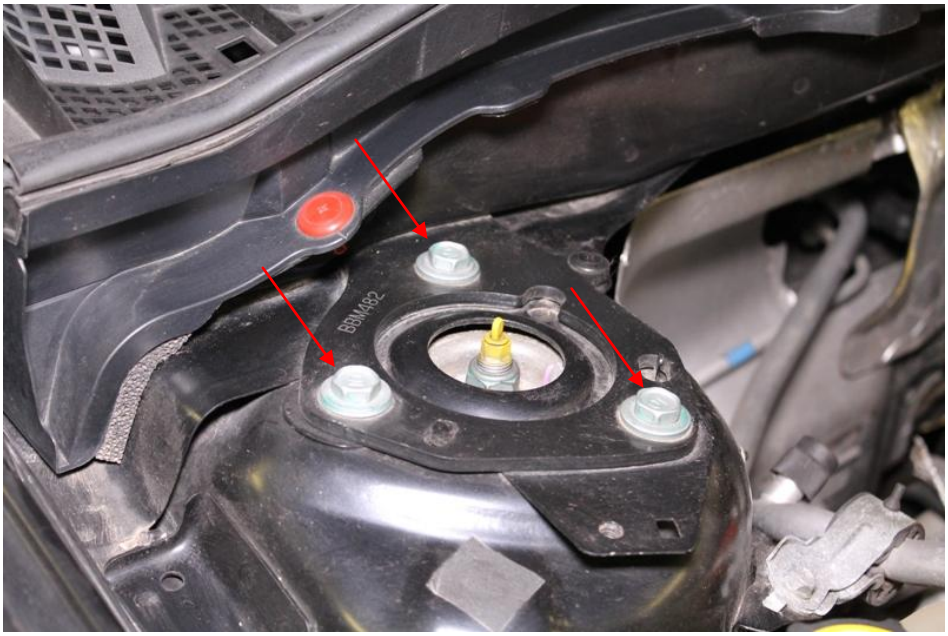


6. Use a hammer to knock the spindle down and remove the lower portion of the strut from the spindle.



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7. Remove the 3 upper strut mounting nuts using a 14mm socket and remove the strut & spring assembly from the vehicle.

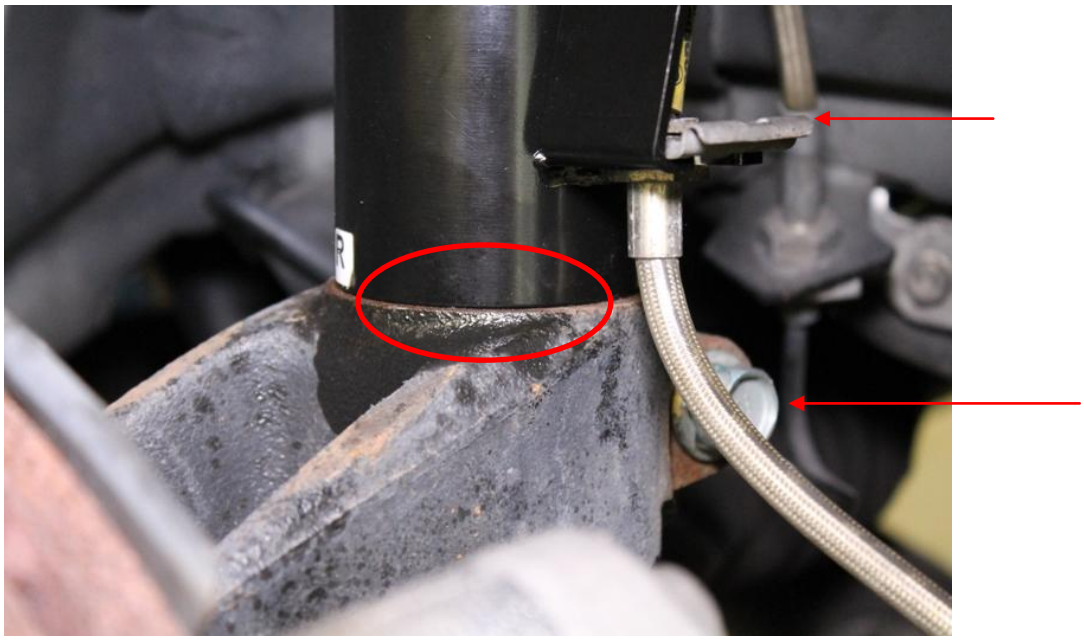


8. Install your new JBR coilover (Labeled with a R or L) for the side you're working on into the vehicle and secure with the 3 washers and 3 nuts. Tighten to 30-35 ft/lbs using a 13mm socket.
   - To gain full camber adjustment capability, you will first need to use a 3 1/8" holes saw to remove the area circled. Go slow to get a clean cut. File smooth and paint.

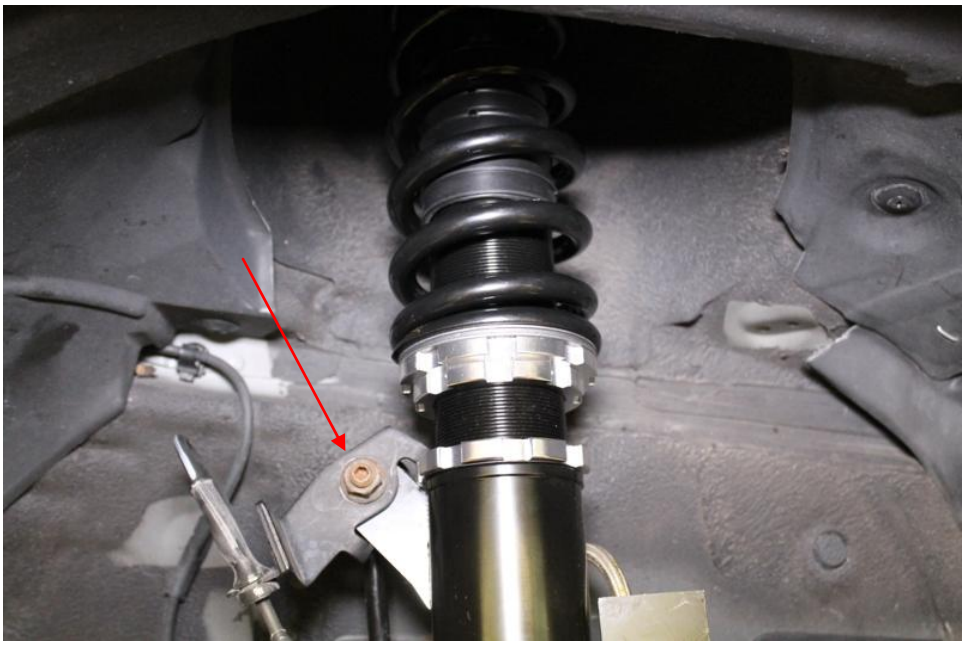


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9. Spray WD-40 in to the spindle and insert the lower portion of the JBR coilover, properly indexing the tab between the ears, then into the spindle. Use a jack or jack pole to raise the spindle until it's seated. Secure with the bolt removed in step 3 and tighten to 40-45ft/lbs. Re-install the brake line and clip as shown and tap in place with a hammer



10. Repeat all previous steps for the opposite side vehicle. Once both sides are complete, re-install both endlinks and tighten to 25 ft/lbs using a 14mm wrench and 5mm allen wrench.



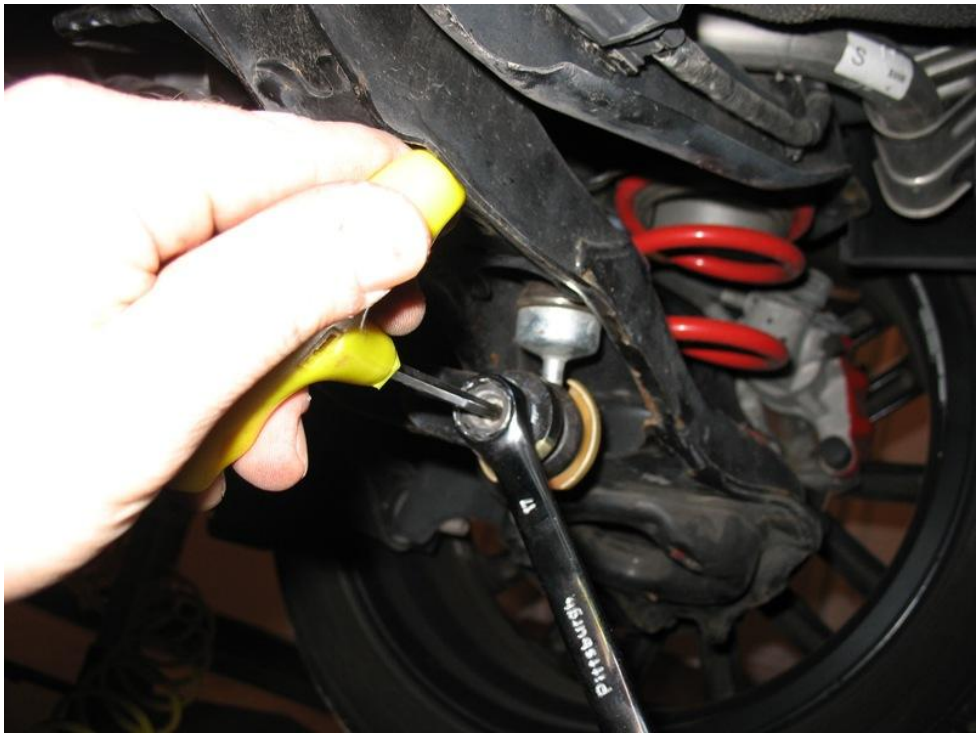
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REAR

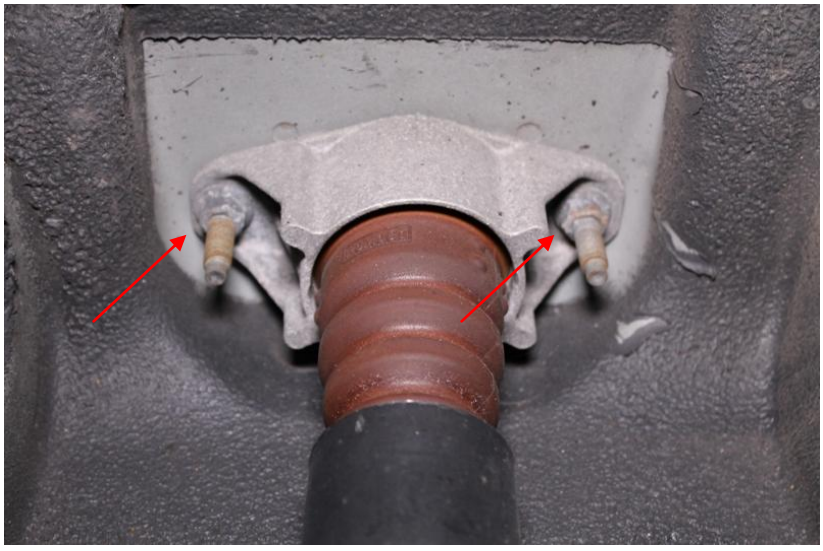
- **Begin by parking on a smooth level surface with the emergency brake engaged. Jack up the rear of the vehicle and position jack stands underneath both sides.**

Refer to your vehicle's owner's manual for proper jack placement and supporting procedures.
Never get under a vehicle without the proper support in place.

1. Remove both rear wheels and both rear endlinks using a 17mm wrench and 5mm allen wrench.



2. Use a 21mm socket and remove both nuts securing the upper shock mount.

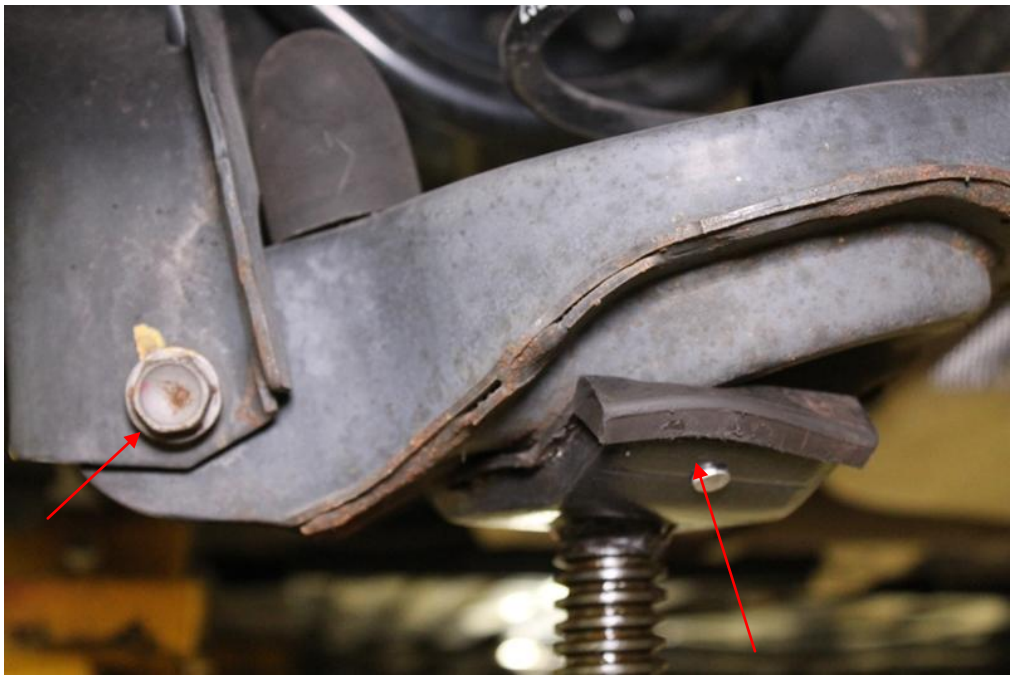


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3. Using a 17mm socket, remove the lower bolt securing the shock.



4. Support the rear lower control arm with a jack. Use a 17mm socket to remove the bolt securing the control arm to the spindle. Lower the jack slowly and remove the OEM spring.



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5. Install the rear spring perch as shown into the lower control arm. Thread the bolt and thick washer in from the bottom side and tighten to 70 ft/lbs.

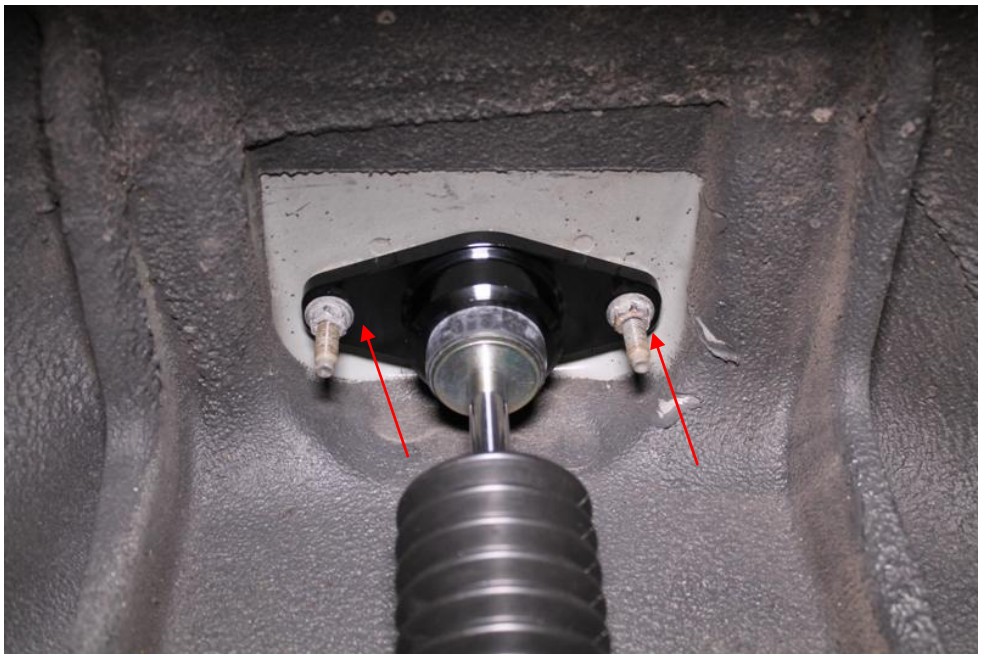


6. Transfer the rubber spring from the OEM spring over to your new JBR rear spring.

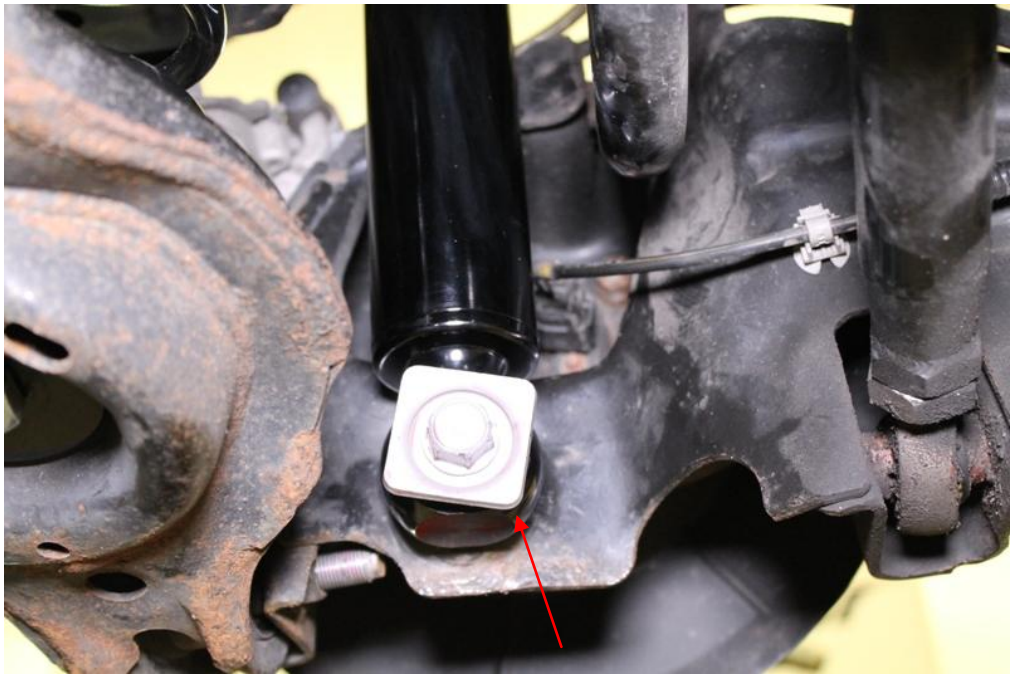


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7. Re-install the spring into the vehicle, raise the lower control arm using a jack and reconnect the lower control arm to the spindle. Tighten the 17mm bolt to 45-50 ft/lbs.
8. Install the rear shock using the two 12mm bolts removed in step 2 and tighten to 15-20 ft/lbs.



9. Using a jack, raise the lower control arm enough to put some pressure on the rear spring and to keep the rear spring seated if it's a bit loose. Adjust the rear shock until the lower bolt lines up. Tighten the lower shock bolt to 45-50 ft/lbs.



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10. Now that the shock is secured both top and bottom, tighten the locking collar with the spanner wrench.



11. Remove the panels of the rear hatch or trunk area to gain access to the tops of the shocks. Insert the 12” rear adjustment keys in tops of the shock shaft and route to a place that’s accessible and convenient for you to adjust the dampers.



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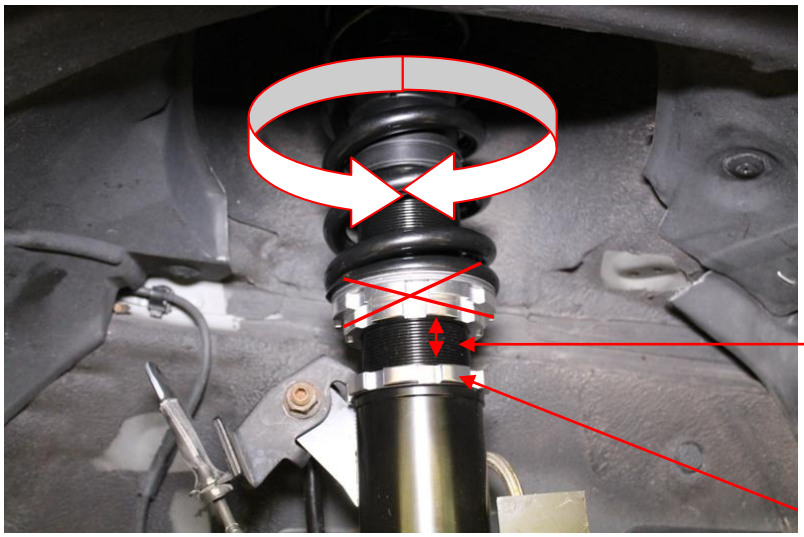
Adjusting your new JBR coilovers.

**Leave the camber set at 0 until ride height is complete.

Front Ride height:

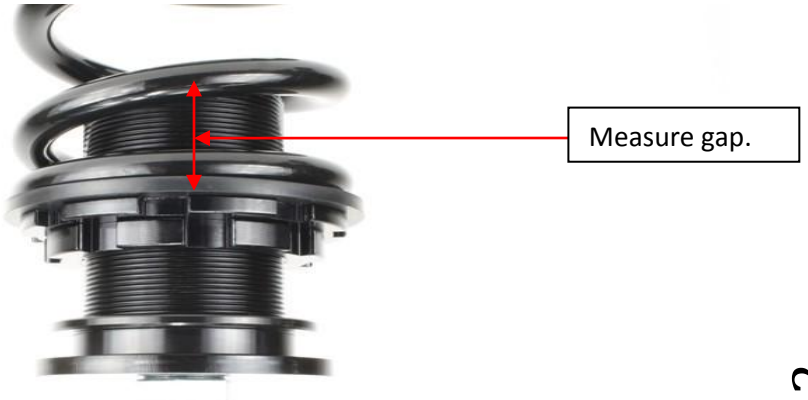
Loosen the lower locking collar and rotate the upper spring potion by hand to raise or lower the vehicle. Take measurements between the locking collars and set to the same on both sides. Once set, tighten the lowest locking collar with the spanner wrench.

NEVER LOOSEN OR ADJUST THE UPPER LOCKING COLLARS SECURING THE SPRING.



Rear ride height:

Using a spanner wrench, adjust the upper locking collar of the rear spring perch to raise or lower the vehicle. Measure from the top of the threaded portion of the spring perch to the top of the upper locking collar and match on both sides. Tighten the lower locking collar against the upper locking collar using two spanner wrenches. If the vehicle is lowered to the lowest ride height possible, it may be necessary to use a hammer and a flat head screw driver to access, adjust and tighten the collars.



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Adjusting the Dampers:

You should have received all for corners with the damper settings turned all the way counter clockwise (Full Soft). Turn the knob clockwise until it clicks ONCE. This is position #1. From there you have 32 more settings. Once you have turned the knob and reached the very end. Turn it back until it clicks ONCE. This is position #32.

Suggested starting points:

Front – 12

Rear – 18



Front Camber:

Front camber is adjusted by loosening the 4, 5mm socket head bolts and moving the assembly in our out. Moving the assembly in, increases negative camber. Moving the assembly out, increases positive camber.

**It is recommend to set initial ride height first. Then, put a few hundred miles on the vehicle to allow everything to settle in before setting final ride height, performing a full alignment and corner balancing.

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