

Thank you for your purchase from our new line of GM parts. Please call us at (877) 4NO - ROLL if you have any questions regarding the service or installation of your Hotchkis products.

Notes:

The Hotchkis coilover system is intended to be installed on a vehicle equipped Hotchkis control arms. If you do not have Hotchkis lower control arms, you will need to purchase an 1108 lower a-arm kit separately.

Before You Start:

This installation will involve cutting, drilling and welding. It is imperative that this kit is installed by a professional installation facility. Once installed the vehicle ride height and wheel alignment will need to be adjusted.

Front Installation

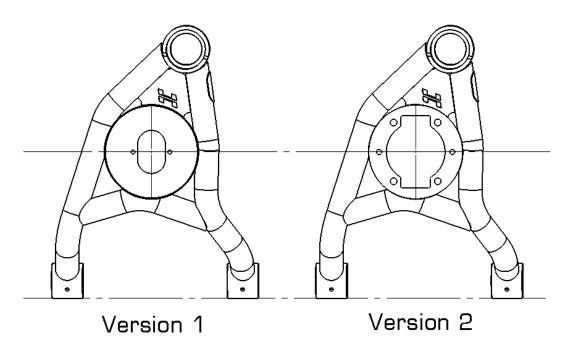
1. Raise Vehicle

Raise the vehicle a lift, floor jack, etc.



2. Remove Lower A-Arm

This instruction manual will proceed with the assumption that the customer has the original style Hotchkis lower A-arms Version 1 (P/N# 1108). If you have 1108 version 2 arms then you are good and only need to enlarge (2) holes. If you have already installed the 1108 version 2 Hotchkis a-arms with pre-cut coilover mount, then A-arm removal is not necessary. However, you will still need to remove the shock, spring, and shock mount adapter to install the coilovers.



Raise the front end and remove the wheels. Remove the front shocks.

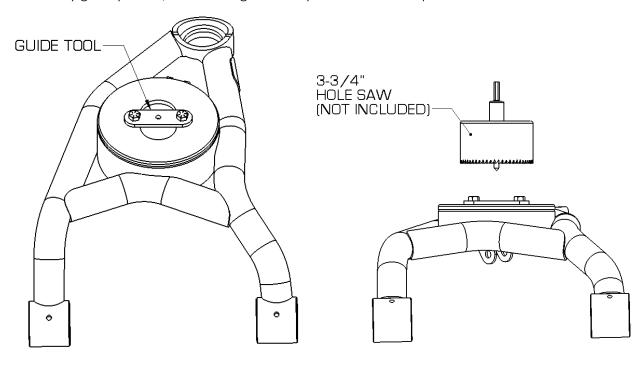
Remove the lower ball joint cotter pin and loosen (not remove) the castle nut with about an 1/8" of gap. Hit the spindle mount near the ball joint stud carrier with a hammer to break loose the ball joint stud from the spindle. Next, support the lower a-arm with a jack and remove the ball joint castle nut. Lower the jack slowly and relieve the tension in the front spring. Remove the front spring. Unbolt the inner pivot bolts on the A-arm and remove the a-arm from the vehicle.

3. Modify Lower A-arm for Coilover Mounting

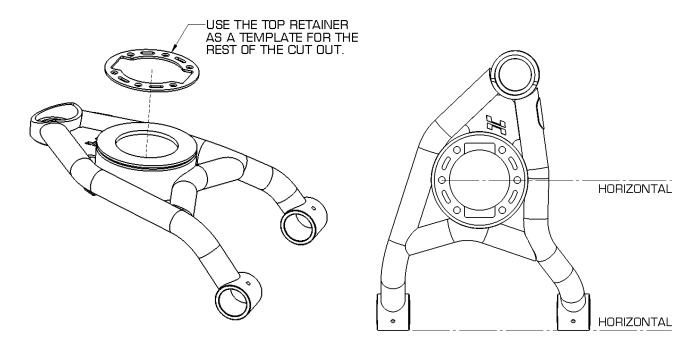
The coilover access hole is needed to allow the coilover assembly to pass through the lower arm and mount up. The benefit of this type of mounting allows for the user to easily remove the entire coilover assembly from the vehicle without undoing ball joints, etc. Simply unbolt the top and bottom mount and the coilover drops out of the car.

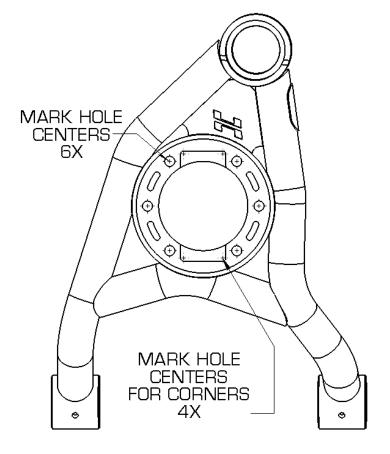
The first step is to cut the center circular hole with a 3-3/4" hole saw.

This kit includes a <u>hole saw guide tool</u> that mounts to the existing shock holes. This guide tool essentially gives you a 1/4" centering hole for your hole saw to spin about.



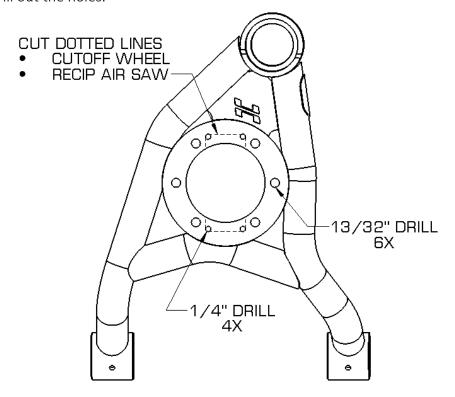
Use the upper retainer plate as a template for the remaining cut out shape. Mark the arm to cut out the square sections. Note the clocking orientation of the cut out shape.

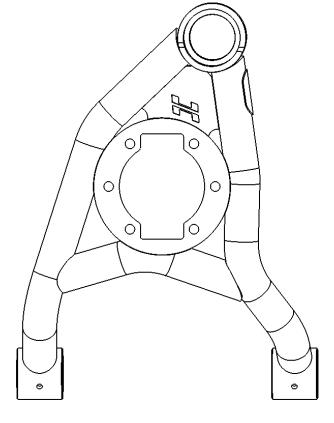




Use a 1/4" drill bit on the corners of the square cut outs.

Use the upper retainer plate again to mark the location of the (6) mounting holes. Use a 13/32" drill bit to drill out the holes.





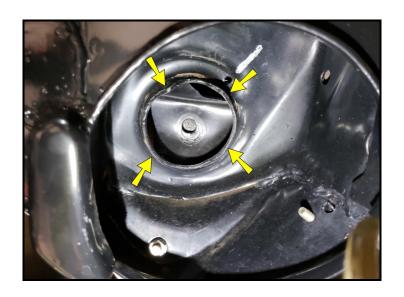
Use a cut off wheel or an air reciprocating saw for the straight cuts.

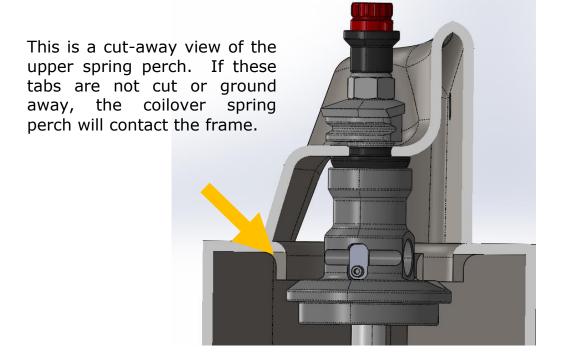
For customers with the version 2 arms, all you need to do is enlarge the (2) center mounting holes with a 13/32" drill bit.

Sand down any rough edges. Clean and paint the exposed edges with gloss black paint.

4. Clearance the Upper Spring Pocket

Located in the frame, inside the upper spring pocket, you will notice the centering tabs that normally keep the spring in place. These tabs will need to be cut or ground down to allow for clearance for the new coilover assembly. If you leave these tabs, there is a good chance of damaging the coilover top spring hat and the damper itself.





5. Drill out Upper Hole Mount

Next we will need to enlarge the upper shock hole to 3/4". Use a 3/4" drill bit and drill out this hole. Make sure to deburr any sharp edges.



6. Reinstall Lower A-arm

With the arms & frame modified, reinstall the lower a-arm in the same manner as removal. Don't worry about the coilover assembly yet. It will be installed after the lower arm is back in.

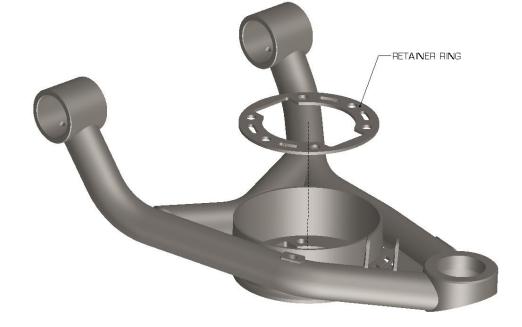
7. Install Lower Mount on Coilover

Before we install the coilover on the vehicle, we will install the lower mount onto the shock body. Use the 1/2" fasteners from the hardware pack 17132. When installing the bolt into the mount, it helps to place the washers up against the clevis first. Putting the washer on the bolt might not allow the bolt & washer combo to be installed due to the dropped down nature of the clevis.



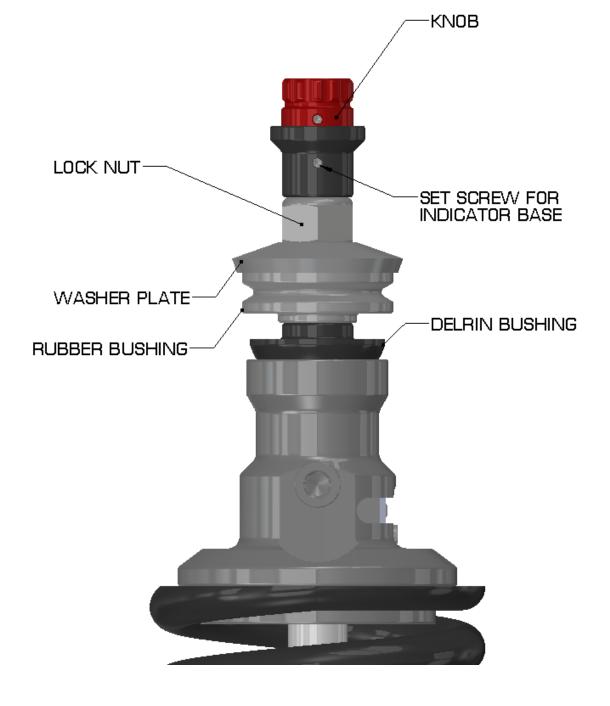
8. Install Coilover

First, place the retainer plate on the inside of the a-arm bucket.



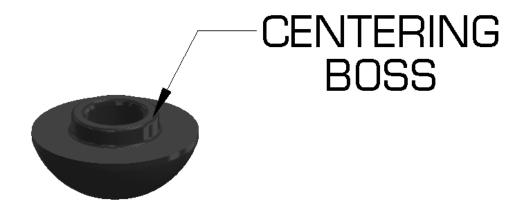
You will need to remove the knob adjuster and indicator base. For easy reinstallation, set the coilover to setting 1 before disassembly. This will allow you to reinstall knowing how to clock the indicator base. The red knob and hex rod should pop out by pulling up. Use a 1/16" allen wrench to loosen the indicator base set screw.

Undo the top shaft lock nut and remove the washer plate and rubber bushing. Leave the harder Delrin bushing on the shaft.



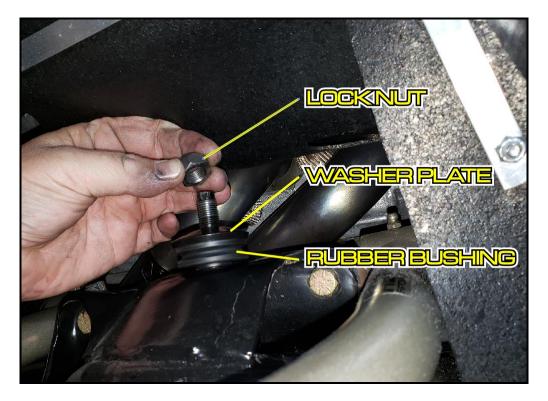
Insert the coilover thru the access hole in the lower a-arm. Guide the upper mount up to the 3/4" shock hole. You may need to adjust the suspension assembly up/down travel to allow this.

SPECIAL NOTE Make sure the Delrin bushing's centering boss is perfectly centered in the 3/4" upper hole. It is very easy to misalign the bushing when fastening the top nut





Install the rubber bushing, washer plate, and lock nut onto the shaft thread. Tighten lock nut until the rubber bushing begins to bulge. Do not over tighten.



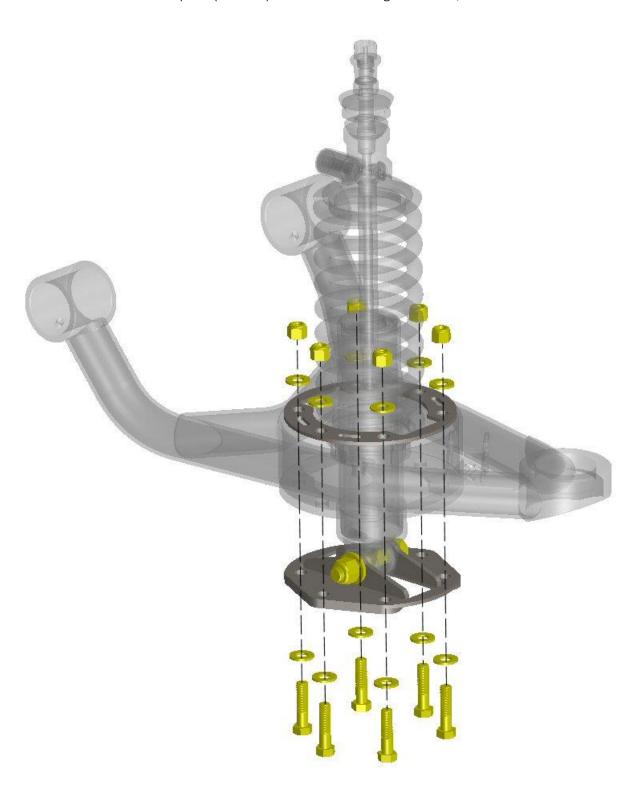
Below is the proper orientation of the upper bushing and dish washer, it has been specially modified to clearance the upper control arm tower on an F-Body subframe.

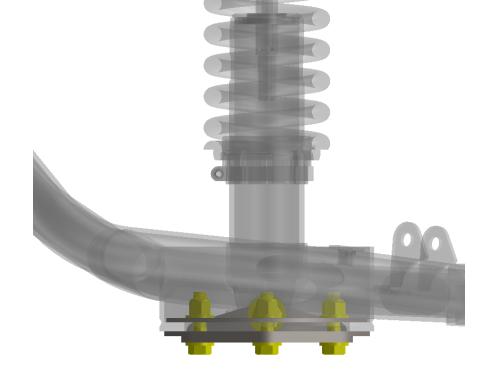


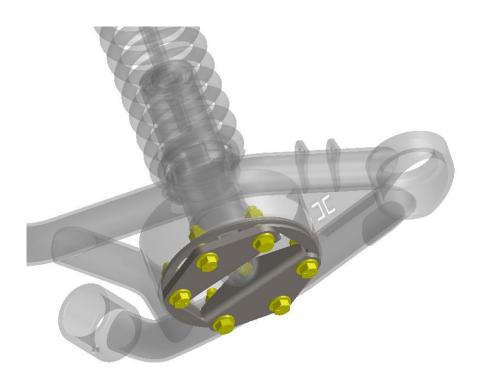
Reinstall the adjuster and indicator base. Clock the indicator base and knob so the setting is set to 1 since it was set to this during removal. If you want to change the clocking of the indicator, you can rotate and set it in 60° increments since it locks onto a hex. Once the indicator is clocked to your liking, recheck the red knob and make sure it is rotated all the way counter clockwise. Loosen the set screw on the red knob and rotate it until the pointer is aimed at "1". Tighten the set screw and your done.



Line up the retainer plate and the lower mount so the (6) mounting bolt holes match. Use the 3/8" fasteners from hardware pack (#17132). Assemble and tighten the 3/8" hardware as shown below.









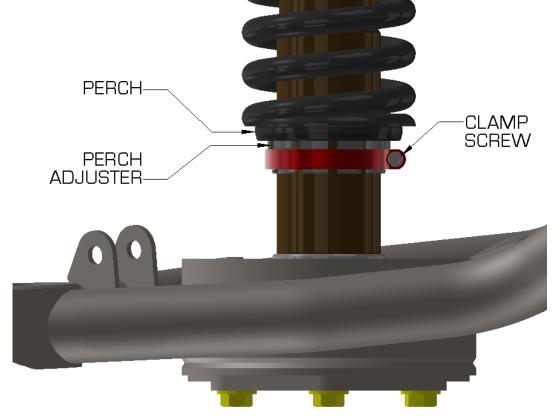
9. Adjust Ride Height

If desired, you can adjust the ride height of each coilover by using the provided spanner wrench.

Follow the procedure to adjust height:

- 1) Measure ride height from center of hub to fender. Determine what direction of height adjustment is needed. Follow a typical 2:1 ratio for height change. For every inch of coilover height change, equals to 2 times in wheel to fender height.
- 2) Raise the front end of the vehicle until the weight is off of the coilover.

3) Use an 5/32" Allen wrench on the clamp screw to release the perch adjuster.



- 4) If there is no preload on the spring you should be able to spin the perch adjuster by hand. If there is preload, you can use the provided spanner wrench to adjust the height.
- 5) Repeat steps 1 thru 4 in reverse. Roll the car back and forth to remove any scrub and remeasure the ride height.

Repeat this process until you have reached your desired ride height.

8. Adjust Ride Height

If desired, you can adjust the ride height of each coilover by using the provided spanner wrench.

Follow the procedure to adjust height:

- 1) Measure ride height from center of hub to fender. Determine what direction of height adjustment is needed. Follow a 0.875:1 ratio for height change. For every inch of coilover height change, equals to about 0.875" in wheel to fender height.
- 2) Raise the rear end of the vehicle until the weight is off of the coilover.
- 3) Use an 5/32" Allen wrench to unlock the body perch.
- 4) If there is no preload on the spring you should be able to spin the perch by hand. If there is preload, you can use the provided spanner wrench to adjust the height.
- 5) Repeat steps 1 thru 4 in reverse. Roll the car back and forth to remove any scrub and remeasure the ride height.

Repeat this process until you have reached your desired ride height.

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In order to be eligible for service under this warranty, the defective part(s) must be returned to Hotchkis Performance Inc. by the original purchaser together with the R.M.A number issued from Hotchkis Performance Inc. and a copy of the receipt showing purchase within past 3 years. Tag each item with the part number and the specific explanation of defect. We will inspect the part and determine: a) if it is eligible for repair or replacement; and, b) if so, whether to repair or replace it. All returns must be shipped **prepaid** to:

Hotchkis Performance Inc. RMA #_______118 Infield Court Mooresville, NC 28117

Hotchkis Performance Inc. will return all products covered under warranty to you by ground freight at Hotchkis Performance Inc.'s expense. Any expedited freight is the responsibility of the customer.

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