

# **CCK341 INSTALLATION INSTRUCTIONS**

Rear Coilover Conversion Kit - Third and Fourth Generation Firebird and Camaro

### **Required Modifications:**

(These modifications are required to correct the geometry of the rear suspension after it has been lowered)

- Control Arm Relocation Brackets (CAB002)
- Adjustable Panhard Rod (MPHR002, MPHR003, PHR002, PHR003, PHR010)

#### **Highly Recommended Modifications:**

(Depending on year of vehicle, <u>you may be required to use tubular lower</u> <u>control arms</u> in order to have enough clearance for the lower coil over mount. This modification will also increase the rigidity of the lower control arms, allowing more power to be transferred to the pavement, instead of being lost flexing the suspension links)

 Rear Lower Control Arms (TCA001, TCA002, TCA004, XCA001, LCA344, MTCA001, MTCA002, MTCA003)

### Assembling Coil-over and setting initial height:

- Ensure that you put the included thrust washers and thrust bearing on the lower spring seat before putting the spring on the shock body as shown.
- It is recommended that you apply antiseize compound to the threads on the shock body before installation of the spring.
  After you have set the ride height of the vehicle, you can remove the additional antiseize with a rag in order to prevent dirt and debris from sticking to the body of the shock.
- It is recommended that you first set the lower spring perch 1/3rd of the way from the top of the threaded portion.
- Depending on year, trim and options, your vehicle may sit higher or lower for a given spring rate, it is better to have to have your vehicle too high on the first attempt, than it is to lower your vehicle too far and cause damage to the suspension, wheels/tires or fenders.

#### **Tools required:**

#### **Installation Instructions:**

- Raise the vehicle and secure <u>all 4 corners with jack stands</u>. Remove some tension on the rear end by lowering it onto <u>2 additional jack stands or by using a hydraulic jack</u>.
- 2. Inside the vehicle, remove the carpet and padding covering the rear shock mount in the vehicle. Using a 15mm socket as in **IMAGE 1**, remove the stock shock upper nut. Remove the rubber insulator and washer.







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- 3. Under the vehicle, use a 9/16" socket and wrench, to remove the sway bar end links from the chassis as in **IMAGE** 2.
- 4. With the end links removed and upper shock mount unbolted, use the jack, slowly remove tension on the rear end until the springs are able to be removed. Support rear end with jack stands.
- 5. Using a 21mm socket, remove the lower shock nut as shown in **IMAGE 3**. Remove the stock shock absorber.
- 6. Using the lower mount as a guide, mark the two upper mounting holes on the rear end's shock ear.
- 7. Use a pilot drill bit to create a starter hole. Double check with the lower mounting plate that the holes are centered.
- 8. Using either a 3/8" or 7/16" drill bit, drill out the hole to the final size as in **IMAGE 4**. The holes must be large enough to fit a 3/8" diameter bolt.
- 9. Install the lower mount onto the shock ear using two 3/8" nuts, bolts and washers. For the ½" stud, use the large ½" USS washers, use the provided Square Aluminum Spacers to offset the Control Arm Relocation Brackets (CAB005). Torque the lower shock mount ½" stud to 90ftlbs and the 3/8" bolts to 40ftlbs.
- 10. Assemble the coil-over and mount the upper coil-over mount to the upper frame mount using the  $\frac{1}{2}$ " bolt, use an AN washer under the head of the bolt and under the nut. Torque to 90 ftlbs
- 11. Guide the upper coil-over mount into the shock tower and mount the coil-over to the lower shock mount using the ½" bolt, making sure to us an AN washer under the head of the bolt and under the nut. Torque to 90 ftlbs.
- 12. Using the jack, raise the rear end slowly guiding the upper coil over mount stud into the factory shock hole.
- 13. Inside the car using the final large ½" washer and nut, torque the upper coil over mount to 105ftlbs.









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### Adjusting the Ride Height:

- 1. Before lowering vehicle, ensure that the spring height adjusters on the shock body are tighten with the provided wrenches.
- 2. Lower the vehicle to the ground slowly. Ensuring the that rear end has clearance in all directions.

(NOTE: Use an adjustable Panhard rod to center the rear axle left to right. Lowering the rear of the car without adjusting the Panhard rod will offset the rear end left toward the driver's side of the car.)

- 3. Once the vehicle is on the ground supported by the coilovers, settle the springs by bouncing the vehicle.
- 4. Measure and record the ride height as the car sits on both sides from a common point on the fender and estimate the height that you would like to achieve. Find the difference between these two heights.
- 5. Re-lift the car and adjust the spring that difference in the desired direction; downward to lower the car, upward to raise it.
- 6. Re-lower the car and check the height, repeat until you are satisfied with your vehicle's height.



