**INSTALLATION INSTRUCTIONS**

**P/N: C2770**

**MAGNUM SERIES COIL-OVER SHOCK**

The Competition Engineering Magnum Series Coil-Over Shock is designed for use in vehicles with modified rear suspensions, i.e., ladder bars or 4-link. Proper installation requires the use of a 12" long x 2.5" I.D. spring of the rate required by your application. Coil-Over Springs are available from Competition Engineering in the following spring rates:

| Part No. | Spring Rate(lbs/in.) | Total Weight on Rear Wheels |
|---|---|---|
| C2550 | 85 | Under 1050 lbs. |
| C2555 | 100 | 1050 – 1150 lbs. |
| C2560 | 125 | 1150 – 1250 lbs. |
| C2565 | 150 | 1250 – 1450 lbs. |
| C2570 | 200 | 1450 – 1800 lbs. |

Installed ride height is 13-3/4" to 14-1/4". It is recommended that the shock be installed at the specified height to protect the piston and valve assembly from possibly topping or bottoming out.

**PARTS LIST**

1) Aluminum Coil-Over Shock
4) Snap Rings
1) Spring Cap
2) 1" wide Shock Bearings
1) Spring Shim
1) Spring Seat

**INSTALLATION**

1. Clamp the lower mounting loop in a large vise. (Use of soft vise jaws is recommended to protect the aluminum housing from scratches etc.)

2. Screw the aluminum spring seat and jam nut down to the last thread, NO FURTHER. Now is a good time to lubricate the threads of the shock body with an anti-seize lubricant.

3. Pull the piston rod all the way out. Check the jam nut under the upper bearing housing making sure it is secure.

4. Place the Spring Shim on the Spring Seat and slide the spring over the shock body. Slip the spring cap in place, making sure that it is set in the spring squarely. The spring rate selected for your application will determine how difficult they will be to install.

*For Technical Assistance, call Competition Engineering's Tech Line at (203) 458-0542, 8:30am-5:00pm Eastern Time*

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5. Adjust the spring seat up until the spring is compressed 1 inch shorter than the free height of the spring, i.e. 12-inch spring would be compressed to 11 inches. This preloads the springs prior to mounting on the vehicle. (Make sure that the spring cap is aligned properly under the upper bearing mount)

6. Bearing Installation
   a. Test fit the bearings in both ends of the shock. Bearings may start easier on one side than the other.
   b. Clean the outer bearing race with solvent and apply thread-locking compound to the outer bearing race and the bore surface of the bearing mount.
   c. Assemble by inserting the bearing in a twisting motion. Install the snap rings on both sides of the bearing. (In some cases it may be necessary to press the bearings into the mount.)

7. Bolt the assembly into the car.

8. Place the car on the ground and check the shock ride height measurements. Shock ride height is the distance from the center of the top-mounting loop to the center of the bottom-mounting loop. Make sure that the measurement is taken with the car weighted (at least close) as it would be race ready. Compare this measurement to the recommended ride height. If you have selected the proper spring rate, you should be able to adjust the spring seat up or down approximately 1/2" to get into the recommended ride height. If you cannot achieve the shock ride height recommended, a softer or stiffer spring may be required.

9. At this point if the car sits higher or lower than desired, unbolt the adjustable shock mount brackets and move the car up or down to get the car ride height you are looking to achieve.

Valving Adjustment
Competition Engineering Magnum Series Coil-Over Shocks have 18 damping settings. There are 6 clicks per revolution of the knob. The knob will rotate 3 times. Do not adjust past the 18$^{th}$ click.

Base settings to start testing with are 4-7 clicks for bracket racing and 6-10 clicks for Pro Tree racing. THESE ARE BASELINE SETTINGS FROM FULL SOFT (All the way counter clockwise).

NOTE: DO NOT FORCE THE ADJUSTER KNOB. DO NOT USE PLIERS OR ANY OTHER TOOLS ON THE ADJUSTER KNOB. DO NOT EXCEED 18 CLICKS UNDER ANY CIRCUMSTANCES. THIS COULD DAMAGE THE IDLER PIN AND CAUSE THE SHOCK NOT TO ADJUST. THIS WILL VOID ALL WARRANTIES.