

# ADJUSTABLE REAR COIL-OVER SHOCK WITH MOUNTING KIT P/N: C2765

This kit is designed to be used in vehicles with fabricated rear frames using rear ends with 3" axle tubes. It allows the ride height to be adjusted 5-1/2" up or down in 1/2" increments, the spring preload to be adjusted and utilizes Competition Engineering 3-Way adjustable Shock Absorbers.

## Warning: Not for street use.

<u>Part No.</u>	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	1450-1800lbs

4) Spring Mounts

4) 1/2"-20 x 2-1/2" Bolts

4) 1/2"-20 Locknuts

4) 1/2" Washers

2) Axle Brackets

2) Spring Caps

2) Lower Shock Brackets, Right

## PARTS LIST

- 2) 3-Way Adjustable Shock Absorbers
- 2) Lower Shock Brackets, Left
- 4) Upper Mounting Tabs
- 4) 3/8"-16 x 1-1/2" Bolts
- 4) 3/8"-16 Locknuts
- 8) 3/8" Washers
- 2) Coil-Over Sleeves
- 2) Spring Seats

If your chassis has upper mounts installed, they may be used to locate the lower mounts as long as there is sufficient clearance for the entire assembly.

# INSTALLATION

- 1. Securely place the car on jack stands. Make sure that it is level from front-to-back and side-to-side.
- 2. Place the rear housing in its proper position and at the correct ride height.
- 3. **Before installation for the first time**, upon removal of the shock from its packaging, it is important to "purge" the shock of any air that may be trapped inside during shipment. Skipping this step can make the shock feel as if it is not functioning properly. To purge the shock, simply hold it so that it points up and down and completely cycle it 12-15 times.
- 4. Mount the shocks to the lower shock brackets with the 1/2"-20 hardware supplied. Bolt these assemblies to the weld-on axle brackets using the supplied 3/8"-16 hardware.
- 5. Position these assemblies along the axle tube as far apart as clearance will allow. Square the axle bracket with the axle tube and tack weld in place.

For Technical Assistance, Call Moroso's Tech Line at (203) 458-0542, 458-0546 8:30am – 5:00pm Eastern Time

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- 6. Bolt the upper mounting tabs to the top of the shocks with the wings on the tabs facing out.
- 7. Line up the upper mount tube with the tabs installed in Step #5, checking that the shocks are still vertical. Make sure that the mount tube is square and level, and then tack weld into place.
- 8. Tack weld the mounting tabs to the upper mounting tube.
- 9. Check all dimensions and finish weld.
- 10. Un-bolt the shock from the upper mounting tabs and follow the procedure below to adjust the shocks

#### ADJUSTMENT PROCEDURE:

- To begin making adjustment changes once the shock has been purged, you must compress the shock COMPLETELY. On the inside of the shock, at the bottom of the adjuster is a small pawl. This pawl must make contact with the bottom of the shock body or it will not turn, and in doing so not change the settings of the shock. Keep in mind that you must have the shock pointed straight up while making adjustments to avoid aerating it.
- 2. With the shock still compressed and in the upright position, begin turning the shaft in the CLOCKWISE direction. This is where you will notice a series of clicks.

Pay attention to these clicks and you will notice that one is more pronounced than the others. This is the key to properly setting the shock adjustment. This louder, more pronounced click is the beginning of the settings and should be considered the "R" or regular setting. The following series of softer clicks will be the "F" or firm setting, and finally the "XF" or extra firm setting. When turning the shaft to make adjustments, remember that you can only go clockwise. If you feel like you have missed the setting you were looking for do not worry, just keep turning the shaft until you hear the loudest click and you will be back to the default setting and can begin making shock adjustments.

#### As an example:

If you wanted to find the XF setting, you would go through all the steps mentioned and while listening for the clicks, you would hear a loud click and then two softer clicks.

This would be similar for the F setting, the loudest click and then one soft click.

Something else to keep in mind when making adjustments:

Trying to gauge the setting of the shock by compressing it in your hands and feeling the difference in compression is not advised. Though you can compress the shock, you will not be able to simulate the weight of a vehicle or the speed at which it can cycle the shock. If you continually try to check adjustment by hand, it can cause the shock to aerate and feel inconsistent.

The only true way to verify adjustment of the settings is to record the vehicle at the track or to test the piece on a shock dynamometer.

#### ADJUSTMENT CHART – SHOCK RATIO

SETTINGS	FRONT SHOCKS	REAR SHOCKS
R	60/40	50/50
F	80/20	40/60
XF	90/10	30/70

- 11. Once the desired adjustments have been set, install the Coil-over Sleeve, Spring Seat w/Set Screw, Spring and Spring Cap. Fasten in place using the supplied 1/2" bolts. Tighten the 1/2" bolts to 65-ft/lbs. and the 3/8" bolts to 40-ft/lbs.
- 12. Remove the jack stands and lower the vehicle to the ground.
- 13. The ride height can be adjusted by raising the chassis and supporting it with jack stands. With the rear axle housing supported by a floor jack, raise or lower the axle mounting brackets the desired amount.

