



# S&W Race Cars and Components, Inc.

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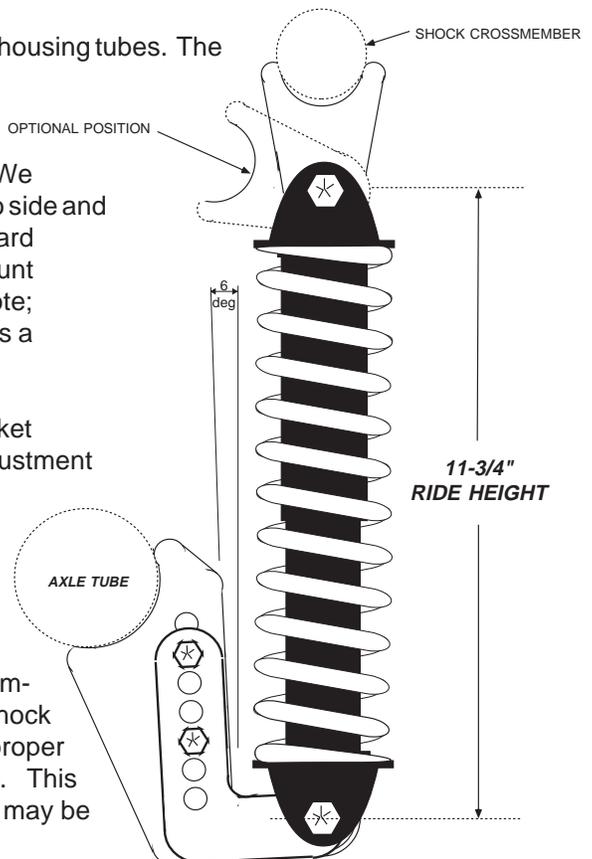
**CAUTION!!!** - The most important requirement for a successful installation of this, or any, S&W chassis component is that you take your time and use good common sense. Check & recheck all measurements before cutting or welding. If you have any questions, before or during the installation - STOP - and call our tech line at 610-948-7303 and we will gladly explain in more detail any step in the installation.

## Please read complete instructions thoroughly before beginning! Installation Instructions for 40-223 Shock & Spring Kit

Step 1. Raise the car off the ground and be sure it is properly supported by at least four jackstands. At this time it is important to level the car both front to rear and side to side. Front to rear can be checked by placing a level on the rocker panel and side to side can be done by placing the level on a front crossmember and a horizontal floor pan at the rear of the car. Next locate the rear axle housing at the desired ride height in relation to the body and support it with two additional jackstands. This is to place the tire and wheel in its desired location, and make sure there will be adequate clearance between the tire and the wheel tub and between frame and axle tube when finished. Do not confuse the axle ride height you are determining here with the shock absorber installed height you will be required to set in a later step. They are two entirely different measurements!

Step 2. Tack weld the lower shock mount housing brackets to your rear housing tubes. The brackets should be placed on the rear of the axle tubes, just inboard of the frame rails. Be sure to leave clearance between the spring and the frame rail and make sure no part of the rear tire can come in contact with the shock and spring assembly during a run. Don't forget tire-flex!! We recommend that you mount the shocks in a vertical position, both side to side and front to rear. Mount the bracket so the bottom is rotated 6 degrees toward the rear of the car to insure proper clearance between the spring mount and the shock mount when completed. See illustration at right. Note; housing brackets are designed for a 3" axle tube, if your axle housing is a different diameter some trimming of the bracket may be required.

Step 3. Bolt the "L" shaped shock mount brackets to the housing bracket you installed in step 2. Locate the brackets so that you have some adjustment up or down. Always keep at least 1 empty hole between the two mounting bolts for strength and stability. Next, mount the shock to these brackets, dust cover up. Do not install the spring at this time!! Install the two upper mounting tabs to the top of the shock. Rotate the shock into a vertical position and set the distance between the shock mounting bolts at 11-3/4". This is the desired shock installed height. Locate the upper mounting tabs against your existing chassis crossmember and tack weld. Remember to maintain the required 11-3/4" shock installed height measurement. If your crossmember is not in the proper location to meet the upper tabs a new one will have to be installed. This crossmember is available through S & W under part #40-2201 or one may be fabricated from 1-5/8" x .134" wall tubing.



Step 4. After you have tack welded all brackets in place, double check to make sure the shocks are vertical front to rear and side to side and that you still have your proper installed height measurement. When you are satisfied that all this is correct, finish welding all brackets. *Remove shocks before welding to avoid damaging the rubber shock bushings!*

Step 5. Assemble spring and spring mounts over the shock and bolt in place.

Step 6. Lower car to the ground and recheck the shock installed height dimension with the drivers weight in the car. The selected spring rate should be adequate to maintain the desired 11-3/4" shock installed height. Slightly higher is acceptable. Remember this is a final installed height measurement and should be taken with all weight in the car! If your final shock installed height is less than the desired measurement, please contact the S & W tech line (215-948-7303) about a spring exchange. Do this before operating the car. Used springs are not returnable!! Final vehicle ride height adjustments can be made by raising or lowering the "L" shaped shock mount brackets on the housing bracket.  
*Remember ; Always leave at least one empty hole between the mounting bolts!*

That completes the installation of your Pro/Series 2000 shock and spring kit. Careful installation and patience during assembly will directly result in a higher quality finished product that will deliver years of trouble-free operation.

**Parts list: Please make sure you have all parts before beginning installation!**

Part Number	Quantity	Description
40-2223	2	Left side shock bracket
40-2222	2	Right side shock bracket
40-2221	2	Housing bracket
65-315	4	3/8" x 1-1/4" bolt
65-339	4	1/2" x 2-3/4" bolt
65-133	4	3/8" Nylock nut
65-136	4	1/2" Nylock nut
60-352	4	Upper mounting tabs
40-223-3	2	Shock
40-223-4	4	Spring mounts
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