

Spohn Performance, Inc.

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Part #737-Q – Pro-Tour Front Coil Over Kit with QA1 Struts 1982-1992 GM F-Body

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INSTRUCTIONS

1. Raise vehicle and support with stands. Remove both front wheels/tires.
2. Follow your service manual guidelines for removal of the stock front coil springs. (Working with springs is dangerous and should only be performed by an experienced mechanic).
3. With the stock front coil springs removed, support the a-arm with a jack.
4. Disconnect the top of the strut from the upper strut mount. Lower the a-arm until you are able to let the top of the strut swing out of the wheel well.
5. Remove the strut mount retainers. **Before doing this**, draw a line around your upper strut mounts. This will allow you to position your new upper strut mounts correctly when we re-install them later.
6. Remove the factory spindles from the car and clearance them as explained at the end of these instructions. Re-install the spindles and mount the QA1 strut with the coil over sleeve installed. Screw on the jam ring first and then screw on the spring seat ring. **Note:** There is a Left and a Right strut (part numbers on box end in L and R). When installed correctly the adjustments knobs will point towards the front of the car.
7. Place a thrust washer on the base of the spring adjuster seat, then place a Torrington thrust bearing on top of the washer, and finally place a thrust washer on top of the bearing (washer, bearing, washer).
8. Slide the coil over spring over the strut and down on to the washers/bearings on the seat of the spring adjuster.
9. Place the ¼" plate on to the underside of the strut tower. You will note that one edge of the plate has a small "V" cut in to it, the "V" faces the engine bay.

10. Place the strut mount retainer underneath the ¼" plate.
11. Position your new upper strut mount, then install the supplied bolts, washers, and nuts (bolt, flat washer, plate, strut mount, flat washer, nut). You want to install the bolts from the underside of the strut tower, through the plate and strut mount and install the nuts on the top of the strut mounts.
12. Re-align your upper strut mounts to the line you drew around them earlier and then tighten the three nuts.
13. Place a thrust washer, Torrington thrust bearing, and then another thrust washer on top of the spring (washer, bearing, washer). Hold in place with a piece of scotch tape wrapped around the spring.
14. Swing your strut back inside the wheel well. While guiding the top of the strut shaft and the spring, jack up the a-arm until the strut shaft is through the strut mount and re-install the top strut mounting nut. Tighten the nut. Make sure the spring, washers, and bearing are properly positioned and seated around the coil over mounting hat on the underside of the strut mount.
15. Once both sides have been installed, re-install the wheels and lower the car to the ground. With the car in neutral, roll the car front and back several times to properly seat the springs.
16. Using the supplied spanner wrenches, adjust the spring seat until you have achieved the desired ride height. Whenever an adjustment has been made, roll the car as above to seat the springs properly. Once you have the setting you desire, tighten the spring seat adjuster's set screw with an allen wrench and then tighten the locking jam ring. You will note that adjustments can be made with the suspension loaded, however, if you jack the car up until the tire is off the ground and then do your adjustments, it is much easier, and can normally be turned by hand.
17. Take your car for a front end alignment.

Spindle Modification Instructions

In order to install the QA1 adjustable front struts for the 1982-1992 GM F-Body Camaro and Firebird some grinding or machining of the factory spindles is required to gain clearance with the QA1 strut. We have found that the easiest method to do this is with a hard wheel grinder. It is not a major project, in fact with the factory spindles removed from the car it's a job that will only take a few minutes to complete.

The first thing we want to point out is that there are two different types of factory spindles for the 1982-1992 F-Body Camaro and Firebird. There is what we call a "light" spindle and a "heavy" spindle. We're not sure of the exact year range for each type spindle, but we're guessing that the 1989-1992 cars have the heavier spindle, although some earlier years may as well. The heavier spindles have some more meat to them and will require an additional area that needs to be ground. Let's get started.

No matter which type of spindle you have, you will need to grind for clearance of the bottom black adjuster housing on the QA1 strut. If you hold the QA1 strut on the stock spindle you will notice that the bottom mounting bolt hole will not line up with the bottom mounting hole in the spindle because the black adjuster housing on the bottom of the QA1 strut is contacting the spindle. Holding the strut in place, mark the area of the spindle where you need to grind it down for clearance as shown below.

If you have the heavy spindles you will also notice that the top mounting hole in the QA1 strut doesn't quite line up with the top mounting hole in the spindle, just enough that you can't get a bolt through. If you have the heavy spindles you will also need to slightly grind the top radius area of the factory spindle as shown below.

No matter which type of spindles you have, the small amount of clearance grinding that is required will not effect the strength or integrity of the spindles. You are only removing a small amount of material. The spindle modifications required for 1LE front brakes remove much more material from the spindle and people have been doing that for decades without any issues.

Step-By-Step Pictures

Step 1: Mark Where We Need To Grind (Heavy Spindles Shown)



Step 2: After Grinding The Spindle (Heavy Spindles Shown)



Clearance Required For Bottom Adjuster Housing (All Spindles)



Clearance Required On Top of Heavy Spindles For Bolt Alignment



Finished: We Have Now Gained The Clearance Needed To Mount The Strut

