Specialty Products FAQ

Part Numbers 94210/94215

Mustang Upper Control Arms

Q1: Why do I need to change the arms on my early Ford?

A1: The main reason is that you are likely NOT running the bias ply tires that your factory geometry and alignment specs were developed for. Radial tires really need about 3° of caster on early Fords to provide proper steering feel and stability. With the factory alignment settings there is minimal return to center, and high-speed stability can be a little "drifty" on radial tires. In addition, the original camber curve contributes to poor handling. SPC's arms provide approximately 3° of fixed additional caster, and easily adjustable camber. The arms also incorporate Shelby Drop geometry for an improved camber curve and improved vehicle handling. By installing our arms, and using the recommended alignment settings, you will be amazed at the improvement in the drivability and handling of your car!!

Q2: What is "Shelby Drop" geometry?

A2: Also called the Shelby Mod, it originally involved re-drilling the upper control arm mounting holes 1" lower in the chassis. This corrected the camber curve on early Ford cars, which is far less than ideal in factory form. More specifically, body roll causes the suspension to compress on one side and extend on the other. The factory geometry is such that the camber goes more positive as the suspension is compressed, and more negative as it is extended. For better handling, the opposite is desired. Shelby discovered that lowering the pivot point of the upper control arm would produce a negative camber change as the suspension is compressed. This keeps the tire more vertical, improving the contact patch, and hence the handling of the vehicle. Our arms have this geometry change built in, with no drilling.

Q3: My car has been re-drilled for 'Shelby Drop' (also called 'Shelby Mod') and I like that change. Should I install these arms in the OE holes or the "Drop" holes?

A3: Install the arms in the OE (Upper) holes if more than one set is present. Installed this way, these arms will provide the desired Shelby Drop geometry change, but not the 1/2" of ride height drop that occurs when using the OE arm. Do NOT install the arm in the "Shelby Drop" holes as it may cause interference between the arm and the inner fender, and will result in camber curve and roll center changes that may negatively affect handling.

Q4: Should I use factory alignment settings for my Early Ford?

A4: It depends on what type of tires you are using and how you plan to drive your car. If you are running stock size bias-ply, then the factory alignment settings

may actually work well for you. If you have changed to radial tires, then you likely need different alignment settings to achieve good drivability, tire wear, and modern handling characteristics.

For general driving on radial tires, SPC recommends setting camber at 0 to -0.5 degrees, and caster to about +3 degrees. This will result in good handling and steering feel at highway speeds, as well as even tire wear. Toe should be set to 0.2 to 0.3 degrees of total Toe-In. Steering return to center with radial tires will be greatly improved by the additional caster over the factory spec!

For performance driving on radial tires, camber can be set more negative, and caster increased to allow greater grip from the front suspension during cornering. Running -1.0 to -2.0 degrees of camber and up to 4 degrees of caster will greatly increase the grip of the front end during high-g cornering. Toe should be set to 0.3 to 0.4 degrees of total Toe-In for good tire wear.

Q5: Can an upper ball joint negative camber wedge kit be used with these upper control arms?

A5: Aftermarket ball joint wedge kits are designed for use when altering the stock upper control arm mounting location. (Shelby Drop) The wedge corrects the angle of the upper ball joint to keep it from being over-angled. It also restores a bit of ride height that is lost when the arm mounting points are lowered.

SPC Mustang upper control arms have already incorporated 1 inch 'Shelby Drop' geometry for improved camber without causing any ride height change, and without the need to re-drill the cross shaft mounting holes. The arms also reposition the ball joint at the proper angle so no additional wedges are needed. It is not necessary nor recommended that a ball joint wedge kit be used with SPC Control Arms.

Q6: SPC instructions state I can use a stock replacement ball joint with this arm but the mounting bolts seem too short. What should I do?

A6: Some aftermarket ball joint manufacturers have started supplying shorter bolts with their stock replacement ball joints. If you need to replace the ball joint on your SPC adjustable control arm, we recommend;

1. That you buy an SPC replacement ball joint (it will have the correct hardware)
2. That if you choose to by another brand ball joint, you make sure the replacement ball joint hardware you use includes

mounting bolts are at least 30mm (1.25”) long measured from under the head to the tip and are at least SAE Grade 8 or Metric Grade 10.9. (The bolt threads must pass through the locking nut completely.)

3. You reuse the hardware that originally came with your SPC control arm if it is in good shape.