



**Detroit Speed, Inc.**  
**Tubular Upper Control Arms**  
 1970-81 Camaro/Firebird  
 P/N: 030102

Thank you for purchasing the Detroit Speed tubular upper control arms. We have taken great pride in designing, developing, machining, and fabricating this product. The Detroit Speed upper control arm kit is a bolt on enhancement for 1970-81 F-Body Camaro/Firebird/Trans Am. Suspension geometry is improved over stock by increasing camber gain and improving roll camber. They also increase caster for improved ride and handling.



Part Description	Quantity
Upper Control Arm Assembly	2
#2 Caster Adjusters	4
1/2"-13 Nylock Nut	4
1/2" AN Flat Washer	4
1/2"-20 Castle Nut (Installed on the ball joint)	2
Cotter Pin (Installed on the ball joint)	2
M14 Washers (Installed on the ball joint)	8
Instructions	1

Fastener Torque Specifications	
Application	Torque (ft-lbs)
Upper Control Arm to Frame	50
Upper Ball Joint to Spindle	60

**NOTE:** The upper ball joint is shipped without grease. It must be lubed before use with quality chassis grease.

1. Chock rear wheels, loosen the front lug nuts, jack up the front of the vehicle, and support the vehicle with jack stands on the subframe. Remove the front wheels.
2. Support the lower control arm with a jack and remove the 1/2" nut from the upper control arm ball joint. Use a ball joint removal tool to separate the ball joint from the spindle. **NOTE: Please use extreme caution during this step to insure the lower control arm does not slip off the jack which could cause the coil spring to dislodge causing serious injury.**
3. Remove the two 1/2" nuts from the upper control arm cross shaft at the subframe, and remove the control arm from the vehicle.
4. Install the new upper control arm using the factory 1/2" bolts and the supplied 1/2" AN flat washers and 1/2-13" Nylock Nuts. Torque bolts to 50 ft-lbs dry.
5. Install the new ball joint shaft in the spindle and install the supplied 1/2" - 20 castle nut. **NOTE:** The control arms are shipped with four M14 flat washers, 1/2"-20 castle nut & cotter pin per ball joint for packaging. Remove all hardware from the ball joint before you install the ball joint into the spindle.
6. The use of one or more of the provided M14 washers may be required between the spindle and the castle nut to provide proper alignment of the cotter pin hole. Torque the nut to 60 ft-lbs dry, and then tighten the nut to the nearest slot. Install the supplied cotter pin through the castle nut and ball joint. Make sure to bend the cotter pin after sliding it through the ball joint to insure it does not slide out of ball joint.
7. Remove the jack from the lower control arm and reinstall the front wheels. Lower the vehicle back onto the ground, and torque the lug nuts to the wheel manufacturer's specifications.
8. A front wheel alignment must be performed after installation. We suggest using the alignment specifications shown in Table 1 below. Specifications are listed as nominal setting with an acceptable range in parentheses.

Alignment Specifications	
Camber	- 0.3° (- 0.2° to - 0.7°)
Caster	+ 3.5° (+3.0° to +4.5°)
Toe	- 1/16" Toe-in (-1/32" to - 3/32")

**Table 1 - Suggested Alignment Specifications**

### **Additional Alignment Notes:**

Additional caster adjusters are supplied at no charge for caster adjustment if needed. Installing the caster adjuster with the attachment hole forward in the control arm will position the entire control arm rearward in car and create additional positive caster. The same adjusters can be rotated 180 degrees for the opposite effect on caster. Finally, the second set of caster adjusters you have received (labeled "2") can be used for maximum caster or can be flipped for minimum caster.

Camber should be adjusted by using shims provided by the alignment shop and placed between the frame attachment and cross shaft if needed.

Depending upon car build variation and front brake line routing in your car, the right front brake hard line may need to be adjusted. The bracket that holds the hard line to the subframe may need to be relocated outboard to allow room for additional caster. The hard line has enough movement to facilitate this. This should be addressed, if needed, for brake line integrity.

If you have any questions before or during the installation of this product please contact Detroit Speed at [tech@detroitsspeed.com](mailto:tech@detroitsspeed.com) or 704.662.3272

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